Recirculated Draft

Program Environmental Impact Report On the Proposed Airport Master Plan

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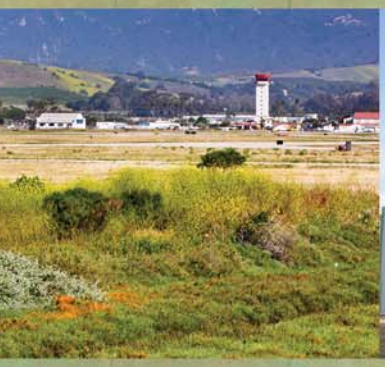

Santa Barbara Airport

July 2016

SANTA BARBARA AIRPORT

Recirculated Draft

PROGRAM ENVIRONMENTAL IMPACT REPORT
On the Proposed Airport Master Plan

for

SANTA BARBARA MUNICIPAL AIRPORT
Santa Barbara, California

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Prepared for:

City of Santa Barbara

July 2016

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Santa Barbara, California

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On the Proposed Airport Master Plan

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EXECUTIVE SUMMARY

ES1.0 INTRODUCTION

The purpose of this Program Environmental Impact Report (EIR) is to provide a programmatic assessment of the Santa Barbara Airport's (Airport's) Master Plan (Master Plan) under the *California Environmental Quality Act* (CEQA) (Public Resources Code, §§21000-21177), the State CEQA Guidelines (California Code of Regulations, Title 14, Division 6, Chapter 3, §§15000-15387), and the City of Santa Barbara (City) CEQA Guidelines. The proposed Master Plan provides a programmatic framework that will guide site-specific future Airport actions, but does not authorize, fund, or carry out any project or activity (including ground-disturbing actions). As a result, the proposed Master Plan will not cause any direct impacts. There may be implications, or longer term indirect or cumulative environmental consequences, however, from managing the Airport under this programmatic framework. The City's adoption of the Master Plan would constitute a 'project' under CEQA. The City of Santa Barbara is the Lead Agency for the proposed plan under CEQA and is responsible for preparation and certification of the Airport Master Plan Program EIR.

Future development at the Airport under the proposed Master Plan will also be subject to the *National Environmental Policy Act (NEPA) of 1969*, CEQA, various Federal and State special purpose laws, and Federal Aviation Administration (FAA) oversight and approval. Before any ground-disturbing actions take place, they must be authorized in subsequent site-specific environmental analyses. In addition, compliance with existing local laws, regulations, and policies will be required of all future development proposals.

In 2010, the City certified a Final EIR for *Plan Santa Barbara* (SCH#2009011031), the City's proposed General Plan update (General Plan) to guide growth through the year 2030. The Final General Plan EIR addressed several scenarios of growth for the City, and included moderate growth at the Airport in all scenarios. These Airport growth projections were based on the 2003 *Aviation Facilities Plan's* aviation demand forecast, which included scenarios for one to four percent annual growth rate of annual enplaned passengers and two percent per year growth in general aviation (GA) aircraft operations. This current Program EIR on the Airport's Master Plan tiers off of the City's 2010 Final General Plan EIR, where appropriate. The City's certified Final General Plan EIR is hereby incorporated by reference and is available for viewing at the City's Planning Division and at the following web address: www.SantaBarbaraCA.gov/gov/plan.asp.

The Master Plan relies on FAA-approved forecasts (approval date: November 13, 2012) of aviation activity that fall within the City's General Plan assumptions and the previous *Aviation Facilities Plan* for the Airport and provides development scenarios for the short term (2017), intermediate term (2022) and long term (2032). If these growth assumptions are not fully realized, the phasing of recommended improvements would be adjusted to meet actual demand at the Airport.

ES2.0 PROJECT DESCRIPTION

The City's Airport Department has identified the following specific goals for the Master Plan:

- Relocation of general aviation facilities and new general aviation improvements.
- Airfield safety improvements.
- Consolidation of automobile parking associated with the Terminal.
- Terminal expansion.

The draft Master Plan is available for review at http://SBA.airportstudy.com or http://FlySBA.com.

Development projects at the Airport would be focused in one of three areas: airfield safety improvements; landside redevelopment north of Runway 7-25; or improvements around the Terminal. No new development is proposed in the Airport Master Plan for the Airport Industrial Area specific planning area located north of Hollister Avenue.

Recommended airfield safety improvements include the extension of Taxiway H to the Runway 7 threshold and the construction of two new taxiway connectors to provide a full-length parallel taxiway on the north side of Runway 7-25. The existing glideslope antenna would be relocated to allow for the taxiway extension. The purpose of these improvements is to increase taxiway circulation safety and efficiency of the Airport. By providing a full-length parallel taxiway north of Runway 7-25, aircraft utilizing the north general aviation ramps would no longer have to cross the active primary runway to get to the Runway 7 threshold.

Other airport safety improvements include addressing taxiway geometry at safety "hot spots;" improving taxiway shoulders; removing an unnecessary displaced threshold on Runway 15L; acquiring avigation easements over areas of runway protection zones not located on actual airport property; and upgrading a section of the existing perimeter security fence along South Fairview Avenue. Taxiway B in the vicinity of the Terminal is proposed to be realigned to provide an acceptable separation from Runway 15L-33R.

The proposed north landside development is actually a redevelopment of the area. In order to provide for future expansion of the Terminal, general aviation facilities are planned to be consolidated on the north side of the airfield. This would provide distinct and separate functional areas for the primary aviation uses on the Airport. Existing historic hangars located on the north side of the Airport would be both retained and, where necessary, relocated out of the floodway.

Future Terminal expansion is planned as well as additional pavement for the Terminal and overflow apron to accommodate future activity levels at the Airport. The Master Plan expects that by the long term enplanement milestone, two additional gates and three passenger loading bridges would be required to fully meet the Airport's needs. The expansion of the Terminal would require the relocation of general aviation facilities south of the Terminal to the north side of the airfield as previously mentioned. Additional Terminal parking would be provided by constructing/expanding two surface parking lots. The Terminal's loop road would be extended to access the new surface parking lots and the expanded Terminal facility.

ES3.0 REQUIRED DISCRETIONARY ACTIONS AND OTHER AGENCY APPROVALS

The City of Santa Barbara will be required to formally adopt the proposed Airport Master Plan. Based on a preliminary Local Coastal Program (LCP) policy conformance analysis completed as part of this Program EIR, the City will also consider the initiation of an LCP amendment, a City of Santa Barbara General Plan amendment, and a rezone for the portion of a future Taxiway H Airfield Safety Project that would occur within the Goleta Slough Ecological Reserve (GSER).

Future projects recommended in the Master Plan would require discretionary approvals at the time that they are ready for implementation. For example, the extension of Taxiway H Airfield Safety Project and the relocation of the glideslope antenna, which are related projects proposed to be located within the City's G-S-R/A-A-O (Goleta Slough Reserve/Airport Approach and Operations) zone, would require the approval of a Coastal Development Permit (CDP) as well as an LCP amendment/rezone and General Plan Amendment. An amendment to the Cooperative Agreement between the City of Santa Barbara and the California Department of Fish and Wildlife (CDFW) for management of the GSER would also be necessary. All actions would be subject to future review by the City under CEQA; this programmatic EIR will be used to help determine the appropriate subsequent CEQA review.

Other City approvals or resource agency permits may also be required. For example, actions affecting potential historic properties would require review by the Historic Landmarks Commission, while building and landscape plans would require review by the Architectural Board of Review. Actions within Special Flood Hazard Areas, including the floodways present at the Airport, could require a City flood development permit or variance per Chapter 22.24, Floodplain

Management of the City *Municipal Code*. Changes in the amount or location of impervious surfaces at the Airport would need to be incorporated into the Airport's storm water pollution prevention plan (SWPPP) and associated Section 401 *Clean Water Act* permit and may require review and approval by the Regional Water Quality Control Board; the City's Storm Water Management Program (SWMP) would also need to be updated to incorporate the changes.

Projects within Goleta Slough, which is part of the California Coastal Commission's (CCC) Original Jurisdiction, would require CCC approval. If structures or fill is placed in wetlands or other jurisdictional waters of the United States (U.S.), a Section 404 permit under the *Clean Water Act* would also be necessary from the U.S. Army Corps of Engineers (USACE).

An updated Airport Layout Plan has been submitted to the FAA for review and was approved in May 2015. NEPA review will be completed on a project-by-project basis as part of the Airport Improvement Program grant review process. FAA's statutory mission is to ensure the safe and efficient use of navigable airspace in the U.S. Thus, FAA must ensure that future airport projects do not derogate the safety of aircraft and airport operations at the Airport. Moreover, it is the policy of FAA under Title 49 United States Code (USC) §47101(a)(6) that airport development projects provide for the protection and enhancement of natural resources and the quality of the environment of the U.S.

ES4.0 PROJECT ALTERNATIVES

Initially, the project planners developed two airfield safety improvement alternatives, three terminal area improvement alternatives, and four north landside redevelopment alternatives (refer to Chapter Five of the Master Plan). After several iterations based on Planning Advisory Committee (PAC), Airport Commission Master Plan subcommittee, and Airport staff input, these initial alternatives were refined. The recommended development concept plan, as evaluated in this EIR, was chosen based on FAA design and safety guidance and criteria as well as environmental considerations and includes modified versions of the airfield and terminal area alternatives, and a revised north landside redevelopment alternative. The proposed project also includes the retention of historic structures that were originally recommended for demolition.

Alternatives retained for evaluation in this EIR include the No Project alternative and an Environmentally Superior alternative that would address biological concerns of the proposed Taxiway H extension. **Table ES-1** is a comparison of the environmental effects of these two alternatives when compared to the proposed project. Under the No Project and Environmentally Superior alternatives, some of the safety goals of the proposed Master Plan, such as the elimination of existing taxiway safety issues, would not be met.

TABLE ES-1
Summary of Alternatives Analysis Comparison
Santa Barbara Airport

Resource Category	No Project Alternative (Degree of impact when compared to Proposed Project)	Environmentally Superior Alternative (Degree of impact when compared to Proposed Project)
Air Quality/ Greenhouse Gas Emissions		
Impact AQ-1: Long term (Operation) Impact	Same	Same
Impact AQ-2: Short term (Demolition or Construction) Impact	Less	Less
Impact AQ-3: Cumulative Impact/*Clean Air Plan* Consistency	Same	Same
Impact AQ-4: Global Climate Change/Climate Plan Consistency	Same	Same
Biological Resources		
Impact BIO-1: Loss of jurisdictional wetlands and indirect impact to Goleta Slough	Less	Less
Impact BIO-2: Impacts to protected birds	Less	Less
Impact BIO-3 Indirect impacts to adjacent creeks	Less	Less
Impact BIO-4: Cumulative impact to Goleta Slough	Less	Less
Cultural Resources		
Impact CR-1: Long-term relocation of Bldgs. 248 & 249 out of floodway	**Greater - Historic structures would remain in the floodway.**	Same
Impact CR-2: Impacts to Buildings 317, 309, and 267 (eligible for listing as City of Santa Barbara Structures of Merit)	Same	Same
Impact CR-3: Future projects could be located within a moderate sensitivity zone for cultural resources	Less	Same
Geology and Soils/Hazards and Hazardous Materials		
Impact G/HAZ-1: Risks due to seismic activity	Less	Same
Impact G/HAZ-2: Risks due to soil conditions	Less	Same
Impact G/HAZ-3: Risk due to routine handling and transport or accidents involving hazardous materials	Less	Same
Impact G/HAZ-4: Risks involving exposure to soil or groundwater contamination.	Less	Same
Hydrology and Water Quality		
Impact HYD-1: Potential drainage and water quality impact	Less	Less
Impact HYD-2: Potential flooding hazards	**Greater - Existing structures would remain in the floodway**.	Less
Impact HYD-3: Substantial unmitigated risk of tsunami inundation	Same	Same

TABLE ES-1 (continued)
Summary of Alternatives Analysis Comparison
Santa Barbara Airport

Resource Category	No Project Alternative (Degree of impact when compared to Proposed Project)	Environmentally Superior Alternative (Degree of impact when compared to Proposed Project)
Land Use and Planning		
Impact LU-1: Impact to established communities	Same	Same
Impact LU-2: Compatibility with applicable General Plan policies and other City plans	Less	Less
Impact LU-3: Compatibility with SP-6 Plan and SP-6 overlay zone	Same	Same
Impact LU-4: Compatibility with Airport's LCP	Less	Less
Impact LU-5: Consistency with the City of Goleta's General Plan/Zoning (avigation easements)	Same	Same
Impact LU-6: Consistency with the City's General Plan, G-S-R zone, GSER (Taxiway H Airfield Safety Project)	Less	Less
Public Utilities (Solid Waste Disposal)		
Impact SW-1: Long term (operational) impact	Unknown	Same
Impact SW-2: Short term (Demolition and/or Construction) Impact	Less	Less
Impact SW-3: Cumulative impact	Unknown	Same
Transportation/Traffic		
Impact T-1: Project-specific impacts to traffic and circulation in the short term	Same	Same
Impact T-2: Cumulative project impacts to traffic and circulation in the intermediate term (Kellogg Ave/Hollister Ave)	Less	Same
Impact T-3: Cumulative project impacts to traffic and circulation in the long term (Kellogg Ave/Hollister Ave; South Fairview Ave/US 101 NB ramps)	Less[1]	Same[1]

[1] Significant traffic impacts would still occur as some intersections within the study area are forecast to operate below an acceptable level of service with or without trips generated by the project.

Alternative locations for the Airport would require a comprehensive study that is beyond the scope of this EIR. Section 15126.6 (f)(3) of the CEQA Guidelines states, "An EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative." Therefore, alternative locations have not been evaluated further in this EIR.

ES5.0 SUMMARY OF IMPACTS AND MITIGATION

The environmental impacts of the proposed project were first analyzed in an Initial Study, which was included in the Draft EIR as Appendix A. The Initial Study concluded that many impact categories would not be significantly impacted by the proposed project or had already been comprehensively discussed and mitigated through the City's Final General Plan EIR. However, potentially significant impacts could occur as a result of the proposed project in the following areas:

- Air Quality/Greenhouse Gas Emissions (Construction only)
- Biological Resources
- Cultural Resources
- Geology and Soils/Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Public Utilities (Solid Waste Disposal) (Cumulative)
- Transportation/Traffic (Cumulative)

These impacts have been addressed in this EIR and have been categorized according to the City's system of classifying impact significance levels:

- Class I, Significant Environmental Impact: A significant impact to the environment that remains significant even after mitigation measures are applied;

- Class II, Less than Significant Impact with Mitigation: A potentially significant impact that can be avoided or reduced to an insignificant level with mitigation;

- Class III, Less than Significant Impact; and

- Class IV, Beneficial Impact.

Tables ES-2 and **ES-3** list the proposed project's impact analysis according to the above impact classification system. Chapter Seven of this EIR contains a Mitigation Monitoring and Reporting Plan for all recommended mitigation that are within the jurisdiction of the City of Santa Barbara to implement. CEQA Guidelines Section 15126.2(b) requires that significant environmental effects that cannot be avoided be specifically identified. These "Class I" impacts are those that cannot be mitigated below a level of significance with the project as proposed and are thus "unavoidable" unless the project is redesigned to ameliorate the impact.

The Master Plan's intermediate and long term (years 2022 and 2032) cumulative traffic impacts fall into this category because local and regional traffic improvements discussed in Section 4.8.7 of this EIR are not within the control of the City of Santa Barbara to carry out. Due to the proposed relocation of certain general aviation uses to the north side of the Airport, an estimated 12 project-related trips are expected to go through the South Fairview Avenue/US 101 northbound (NB) ramp in the PM peak-hour; 14 - 15 project-related PM peak-hour trips are expected

to go through the Kellogg Avenue/Hollister Avenue intersection. These intersections are forecast to operate at a V/C ratio of 0.77 or greater; the City of Santa Barbara considers any trips through an intersection operating at a volume to capacity (V/C) ratio of 0.77 or greater to be a cumulative impact. In addition, in the long term, 15 trips through the Kellogg Avenue/Hollister Avenue intersection also meets the City of Goleta's cumulative significance threshold of 15 additional trips at intersections experiencing levels of service (LOS) D.

The additional trips cannot be avoided unless the proposed relocation of general aviation use does not occur. However, the consolidation of all general aviation uses to the north side of the Airport is one of the primary aspects of the proposed plan and has significant future safety and efficiency ramifications for the Airport. While local and regional traffic improvements, including the construction of a new US 101 overcrossing at La Patera Road, would improve the LOS at these intersections to LOS A or B, these mitigation measures cannot be implemented by the Airport or the City of Santa Barbara. The Airport will contribute its fair-share allocation to the cost of such improvements (based on the City of Goleta traffic impact mitigation fees), if and when such improvements go forward.

TABLE ES-2
Impact (Class I and II) and Mitigation Summary for Proposed Project
Santa Barbara Airport

CLASS I: SIGNIFICANT ENVIRONMENTAL IMPACTS (after mitigation)	
Impact	**Mitigation Measures**
Impact T-2: Cumulative project impacts could occur to traffic and circulation in the intermediate term (Kellogg Ave/Hollister Ave).	T/mm-1: The Airport will contribute its "fair share" cost allocation of traffic mitigation fees for the future construction of planned Goleta General Plan traffic improvement projects or a multi-modal transit center, based on adopted mitigation fee programs, at the time that such improvement projects go forward. T/mm-2: The City will pursue the implementation of transportation demand management (TDM) measures within new north side lease agreements, consistent with City policy, as north side redevelopment opportunities become available.
Impact T-3: Cumulative project impacts could occur to traffic and circulation in the long term (Kellogg Ave/Hollister Ave; South Fairview Ave/US 101 NB ramps).	See T/mm-1 and T/mm-2 above.

TABLE ES-2 (continued)
Impact (Class I and II) and Mitigation Summary for Proposed Project
Santa Barbara Airport

CLASS II: LESS THAN SIGNIFICANT IMPACTS WITH MITIGATION	
Impact	**Mitigation Measures**
Impact AQ-2: Construction and/or building removal occurring under the proposed Master Plan could exceed 25 tons of any pollutant (except CO) within a 12-month period. (Short term impact)	AQ/mm-1: As a condition of approval, all construction and/or building removal projects occurring under the proposed Master Plan shall be required to estimate said project's combined emissions from all construction equipment to ensure that the project would not exceed 25 tons of any pollutant except carbon monoxide (CO) within a 12-month period. Standard equipment exhaust mitigation measures recommended by the County Air Pollution Control District (APCD) for such projects shall be implemented, as appropriate.
Impact BIO-1: The proposed Taxiway H Airfield Safety Project could include a loss of jurisdictional wetlands and indirect construction impacts to Goleta Slough and sensitive flora and/or fauna. (Project-specific impact)	BIO/mm-1: Programmatic Wetland Restoration Plan (PWRP). The PWRP is intended to provide a framework for future project-specific Habitat Mitigation and Monitoring Plans (HMMPs) to provide compensatory mitigation for indirect and direct impacts to jurisdictional wetland habitat and established wetland and riparian setback/buffers. The PWRP shall be consistent with all Airport operation and management policies, the Wildlife Hazard Management Plan, the *California Coastal Act* and Airport LCP, the *Goleta Slough Area Sea Level Rise and Management Plan* (Slough Management Plan), the *California Fish and Game Code* (CFGC), the *Clean Water Act* (CWA), and other plans and polices that regulate wetland habitat. Under direction of the PWRP, the Taxiway H Airfield Safety Project will be required to submit for regulatory agency (USACE, California Department of Fish and Wildlife [CDFW], California Coastal Commission [CCC], and City, as appropriate) approval of a HMMP for impacts to jurisdictional areas. Components of the PWRP shall include, at minimum, the following requirements and information: 1. Mitigation for wetland habitat and and/or wetland and/or riparian buffers shall be a minimum of 2:1 (restoration to impact) ratio. Agencies may require a higher ratio depending on the habitat value and function that is proposed to be impacted. Upland habitat shall be replaced at a 1:1 ratio in a form and location acceptable to the Goleta Slough Management Committee. 2. Wetland mitigation should occur on Santa Barbara Airport property (on-site) in lands historically part of the Goleta Slough wetland complex and on lands currently mapped as disturbed or dominated by non-native species which would be reasonably expected to establish sustainable wetland habitat. 3. The Airport shall comply with the conditions and recommendation of existing guiding documents as well as those under development (i.e., Wildlife Hazard Assessment for the Airport, LCP amendments, and the Slough Management Plan).

TABLE ES-2 (continued)
Impact (Class I and II) and Mitigation Summary for Proposed Project
Santa Barbara Airport

CLASS II: LESS THAN SIGNIFICANT IMPACTS WITH MITIGATION (continued)	
Impact	**Mitigation Measures**
Impact BIO-1 (continued)	BIO mm-1 (continued): 4. Restoration strategies shall be proposed that balance the criteria identified in Nos. 2 and 3 above, as well as agency requirements for wetland restoration. Mitigation Areas 1 through 4 (see below) and potential restoration strategies shall be considered in preparation of any project-specific HMMPs. **Table 4G** and **Exhibit 4D** identify four potential mitigation areas where areas within or adjacent to the Slough could be restored to create replacement wetlands. Areas 1 and 2 are located southwest of Tecolotito Creek within the existing G-S-R zone; Areas 3 and 4 are located southwest of the intersection of the Airport's existing runway system within the existing A-F (Airfield Facilities) zone. As part of the mitigation effort, if selected, Mitigation Areas 3 and/or 4 would first be rezoned to G-S-R. Combined, the mitigation areas would provide an opportunity for almost 30 acres of new wetland. The mitigation area(s) shall be selected in consultation with USACE, Regional Water Quality Control Board (RWQCB), and CDFW, as appropriate. The areas would first be re-contoured, and then planted with a variety of short wetland vegetation. The desired plant composition shall be consistent with the Slough Management Plan and compliant with Airport safety regulations (for example saltgrass or meadow barley as key components). 5. As necessary due to sea level rise or other changes in future conditions within the Slough, adaptive restoration measures consistent with the recommendations of the Slough Management Plan shall be implemented. 6. The genetic origin of all native wetland and riparian propagules shall be from the Goleta Slough. Wetland plants shall be, at a minimum, facultative (FAC) species (i.e., equally likely to occur in wetlands [estimated probability 34 – 66 percent] or non-wetlands) per the USACE definition. 7. Restoration shall be phased to ensure that all restoration plantings are in place with sufficient irrigation prior to final inspection. Irrigation shall be reduced or eliminated after Year 2 depending on environmental conditions (i.e., drought may prolong irrigation). The wetland restoration shall be without supplemental irrigation for at least two years prior to final approvals. This could result in a maintenance and monitoring period greater than five (5) years. 8. Prior to commencement of development activities, the Airport shall file a performance bond with the City to complete restoration and maintain plantings for a five (5) year period.

TABLE ES-2 (continued)
Impact (Class I and II) and Mitigation Summary for Proposed Project
Santa Barbara Airport

CLASS II: LESS THAN SIGNIFICANT IMPACTS WITH MITIGATION (continued)	
Impact	**Mitigation Measures**
Impact BIO-1 (continued)	BIO mm-1 (continued): 9. The extent of development shall be restricted to those areas displayed on site grading plans to avoid additional impacts to wetland habitat and wetland and/or riparian buffers. Development boundaries shall be delineated (i.e., using wooden stake with highly visible environmentally-friendly paint) in the field prior to any ground-breaking activities. 10. PWRP Timing and Approvals. The Airport shall submit the PWRP to the CCC for review and approval. The PWRP shall also be submitted to the USACE, CDFW, and RWQCB for their review; however, approvals are not required from these agencies. Future project-specific HMMPs will be reviewed and required as part of regulatory permitting (404/401, streambed alteration, etc.). For example, any activity that will divert or obstruct the natural flow, or change the bed, channel, or bank (and associated riparian resources, including salt marsh wetlands) of a river or stream may require a Lake and Streambed Alteration (LSA) agreement with the CDFW pursuant to Section 1602 of the CGFC. BIO/mm-2: During construction of the Taxiway H project, all applicable policies of the LCP shall be required, including but not limited to the following: • A buffer strip of a minimum of 100 feet in width shall be maintained in a natural condition along the periphery of all wetland communities. Where development of an airfield safety project renders maintenance of the buffer infeasible, the City shall provide the maximum amount of buffer area feasible and all impacts to wetland habitat shall be mitigated to the maximum extent feasible such that no net loss of wetland habitat occurs (Policy C-4). • Wetland areas temporarily affected by construction activities shall be restored to pre-construction conditions (Policy C-11). • The project shall incorporate BMPs or a combination of BMPs best suited to reduce pollutant loading to the maximum extent feasible (Policy C-12). • Special-status plant and wildlife protection measures shall be implemented (Policy C-15). • All construction, habitat mitigation and restoration plans, and special-status plant and wildlife mitigation and protection measures, shall be reviewed and approved by the regulatory agency/agencies having jurisdiction over the identified resource (Policy C-16).

TABLE ES-2 (continued)
Impact (Class I and II) and Mitigation Summary for Proposed Project
Santa Barbara Airport

CLASS II: LESS THAN SIGNIFICANT IMPACTS WITH MITIGATION (continued)	
Impact	**Mitigation Measures**
Impact BIO-2: Potentially significant impacts to the Belding's savannah sparrow would occur as a result of the Taxiway H Airfield Safety Project if this protected species is present during construction. In addition, indirect impacts might occur to nesting birds along Carneros Creek. (Project-specific impact)	BIO/mm-3: No construction shall occur during the avian breeding season (February 1-September 1) unless a survey from qualified biologist with experience in conducting breeding bird surveys finds that no bird breeding habitat exists within 300 feet of the disturbance area (500 feet for raptors) or can state with certainty that such habitat does not contain nesting birds. Project personnel, including contractors working on the site, shall be instructed on the sensitivity of the area. Reductions in nest buffer distance may be approved by the City's Community Development Department depending on the avian species involved, ambient levels of human activity, screening vegetation, or other factors. BIO/mm-4: Taxiway H Airfield Safety Project and its habitat restoration project sites shall be monitored by a qualified biologist for Belding's savannah sparrow. Prior to site preparation and construction activities, the Airport shall have a qualified biologist survey all breeding/nesting habitat within the project site every seven days for eight consecutive weeks. Documentation of findings, including negative findings, shall be submitted to the CDFW. Site preparation and construction activities will only begin if no breeding/nesting birds are observed and concurrence has been received from CDFW. If breeding activities or an active nest is located in a work area, site preparation and construction activities shall not begin in that area until the nest becomes inactive, the young have fledged, the young are no longer being fed by the parents, the young have left the area, and the young will no longer be impacted by the project. Once site preparation and construction activities have commenced, the project site shall be monitored for Belding's savannah sparrow on a weekly basis. Documentation of findings, including negative findings, shall be submitted to CDFW until construction is complete. Site preparation or construction activities shall be suspended immediately in a given area if the qualified biologist determines that breeding or nesting activity is occurring in that area. Site preparation and construction activities shall not resume until the monitor determines that the breeding and nesting activities described above have stopped. Noise levels will be monitored by a qualified biologist to determine if construction activities are disruptive to Belding's savannah sparrow in or adjacent to the project site. If a significant disruption to foraging behavior is observed, construction activities in the area of disturbance will be stopped immediately until the qualified biologist develops recommendations to reduce or eliminate the disturbances and receives concurrence from CDFW

TABLE ES-2 (continued)
Impact (Class I and II) and Mitigation Summary for Proposed Project
Santa Barbara Airport

CLASS II: LESS THAN SIGNIFICANT IMPACTS WITH MITIGATION (continued)	
Impact	**Mitigation Measures**
Impact BIO-4: The proposed Taxiway H Airfield Safety Project could include a loss of jurisdictional wetlands and indirect construction impacts to Goleta Slough and sensitive flora and/or fauna. (Cumulative impact)	See BIO/mm-1 and 2 above.
Impact CR-1: The Master Plan proposes to pursue a management plan for the General Western Aero hangars that would mothball and stabilize the buildings in their existing location until such time as they can be relocated out of the floodway. (Project-specific impact)	CR/mm-1: The following mitigation program shall be implemented to reduce potential impacts to the General Western hangars (Buildings 248 and 249): 1. Mothball and stabilize following National Park Service (NPS) Preservation Brief 31; 2. Prepare management plan, which includes: - Nominate for National Register of Historic Properties (NRHP); - Seek approval to move hangars out of floodway to a location on the Airport that would preserve the integrity of the historic property; - Consult with interested parties to propose future uses and explore research/grant funding options; - Based on proposed uses, determine treatment plan to restore, preserve, or rehabilitate per Secretary of Interior standards. 3. Show relocation areas on "Development Concept Map" of proposed Master Plan.
Impact CR-3: Proposed Master Plan projects located within a moderate sensitivity zone of the MARA could have project-specific or cumulative impacts on cultural resources protected by Federal, State or City laws and guidelines. (Project-specific impact)	CR/mm-2: All future projects under consideration within the Master Plan shall be evaluated based on the screening process set forth in the City's Master Archaeological Resources Assessment (MARA). If a proposed project is located within a mapped sensitivity zone, a determination shall be made regarding whether or not all proposed earth disturbance would be confined to areas of previous disturbance. The proposed project shall then follow the appropriate mitigation and reporting requirements provided in the MARA. Native American consultation shall occur as each individual project is proposed and shall include, but not be limited to, the list of contacts provided by the Native American Heritage Commission in response to the environmental scoping process for this EIR. CR/mm-3: The City's Standard Condition of Approval regarding "Unanticipated Archaeological Resources Contractor Notification" shall be implemented as necessary.
Impact G/HAZ-1: Future Master Plan development could be adversely affected by seismic activity. (Project-specific impact)	G/HAZ/mm-1: The construction of load-bearing structures shall be subject to the recommendations of a site- and project-specific geotechnical investigation and/or engineering report. This mitigation is not necessary for minor development projects such as the installation of replacement fencing or aboveground storage tanks.

TABLE ES-2 (continued)
Impact (Class I and II) and Mitigation Summary for Proposed Project
Santa Barbara Airport

CLASS II: LESS THAN SIGNIFICANT IMPACTS WITH MITIGATION (continued)	
Impact	**Mitigation Measures**
Impact G/HAZ-2: Future Master Plan development could be adversely affected by adverse soil conditions. (Project-specific impact)	See G/HAZ/mm-1 above.
Impact G/HAZ-4: There is the potential for the exposure of project occupants or construction workers to hazardous materials at the Airport. (Project-specific impact)	G/HAZ/mm-2: A Construction Contingency Plan shall be developed that addresses methods to control potential migration of any contamination discovered during construction as well as safety practices for on-site construction personnel and the general public. Details of the plan shall include, but not be limited to: • Soils monitoring for identification of contaminated soil during and after construction for all eroded and/or graded soils; • Measures to be taken to protect workers and the public (such as fencing or hazard flagging, covering contaminated soil with plastic, etc.) and to prevent migration of contaminants to the surrounding environment; • Notification procedures including, but not limited to, Santa Barbara County Environmental Health Services. These Contingency Plans may be incorporated into the Construction Phase Erosion Control and Polluted Runoff Control Plans required per LCP Policy C-14 for projects requiring a CDP (see Section 4.5.2), if appropriate. G/HAZ/mm-3: If contamination is discovered, a project-specific remediation plan shall be prepared and implemented that reduces all contaminant concentrations to acceptable levels.
Impact LU-4: Recommended projects within the proposed Master Plan, such as the proposed Taxiway H Airfield Safety Project, could result in inconsistencies with LCP policies related to Goleta Slough. (Project-specific impact)	LU/mm-1: A detailed project-specific impact analysis and mitigation program for the Taxiway H Airfield Safety Project, and associated analysis of the project's consistency with the G-S-R zone and the policies of the Airport's LCP and *California Coastal Act*, shall be conducted during the CDP and LCP amendment review process. The analysis shall specifically address project alternatives, mitigation, and/or additional LCP policy requirements necessary to ensure that any permitted impacts to wetland and sensitive habitat and associated buffers will be adequately minimized and mitigated to ensure long term protection of Goleta Slough habitats and open space. LU/mm-2: A consistency review of the Taxiway H Airfield Safety Project with the Slough Management Plan shall be conducted during the project-specific CDP and/or LCP amendment review process, as applicable. Project-specific mitigation measures shall be identified and incorporated into the City's CDP, and/or LCP policies shall be identified and incorporated into Airport LCP, where determined necessary and feasible, to ensure project consistency with the Slough Management Plan. Required mitigation shall also be evaluated for consistency with the Slough Management Plan restoration goals.

TABLE ES-2 (continued)
Impact (Class I and II) and Mitigation Summary for Proposed Project
Santa Barbara Airport

CLASS II: LESS THAN SIGNIFICANT IMPACTS WITH MITIGATION (continued)	
Impact	**Mitigation Measures**
Impact LU-4 (continued)	LU/mm-3: The City of Santa Barbara and the CDFW shall amend the Cooperative Agreement dated August 25, 1987 (as revised) for the maintenance and management of the Goleta Slough to adjust the boundaries of the GSER to exclude the Taxiway H Airfield Safety Project site and to include a site of similar habitat value at an area ratio of 1:1 (i.e., if Taxiway H and associated actions removes 11 acres from the GSER, 11 acres would be added to the GSER from available Airport property adjacent to the Slough). This mutually-accepted exchange shall be in addition to required biological mitigation. The Cooperative Agreement amendment shall be presented to the California Fish and Game Commission.
Impact LU-6: Recommended projects within the proposed Master Plan, such as the proposed Taxiway H Airfield Safety Project, could result in inconsistencies with LCP policies related to the City's General Plan designation and G-S-R zone for the GSER. (Project-specific impact)	See LU/mm-1, 2, and 3 above.
Impact SW-2: Some proposed building demolition or construction under the proposed Master Plan could result in significant impacts to regional solid waste disposal. (Short term impact)	SW/mm-1: As a condition of approval, projects recommended by the proposed Master Plan must feasibly reduce, reuse, and recycle demolition and construction waste consistent with State and City diversion goals.

TABLE ES-3
Impact (Class III and IV) Summary for Proposed Project
Santa Barbara Airport

CLASS III: LESS THAN SIGNIFICANT IMPACTS (no additional mitigation necessary)
Impact AQ-1: Long term (Operation) impact on air quality
Impact AQ-3: Cumulative Impact/*Clean Air Plan* consistency
Impact AQ-4: Global Climate Change/Climate Plan consistency
Impact BIO-3: Indirect impacts to adjacent creeks
Impact CR-2: Impacts to Buildings 317, 309, and 267 (eligible for listing as City Structures of Merit)
Impact G/HAZ-2: Risks due to erosion
Impact G/HAZ-3: Risk due to routine handling and transport or accidents involving hazardous materials
Impact HYD-1: Potential drainage and water quality impact
Impact HYD-2a: Potential flooding hazards due to new facilities within a regulatory floodway
Impact HYD-3: Substantial unmitigated risk of tsunami inundation
Impact LU-1: Impact to established communities
Impact LU-2: Compatibility with applicable General Plan policies and other City plans
Impact LU-3: Compatibility with SP-6 Plan and SP-6 overlay zone
Impact LU-5: Consistency with the City of Goleta's General Plan/Zoning (avigation easements)
Impact SW-1: Long term (operational) impact to solid waste disposal
Impact SW-3: Cumulative impact to solid waste disposal
Impact T-1: Short term (2017) impacts to traffic and circulation
CLASS IV: BENEFICIAL IMPACTS
Impact HYD-2b: Potential flooding hazards due to the removal of buildings out of a regulatory floodplain.

The proposed Master Plan recommends that certain development or redevelopment projects be carried forth at the Airport over the next 20 years to increase the Airport's safety and efficiency. Construction of new buildings and paved surfaces would entail the commitment of energy and non-renewable natural resources, such as fossil fuels, sand and gravel, asphalt, metals and other minerals, and water, which could then no longer be utilized for other purposes. This commitment and consumption of building materials and energy is associated with any development in the region and would not be unique to the proposed project. Future projects would also result in the ongoing irreversible commitment of energy, water, and land. For example, additional vehicle travel would utilize energy sources, while solid waste generation would utilize limited landfill capacity. The adoption of the Master Plan itself does not approve any projects or allow any ground-disturbing activity. Therefore, adoption of the Master Plan would not cause unavoidable adverse impacts or an irreversible or irretrievable commitment of resources.

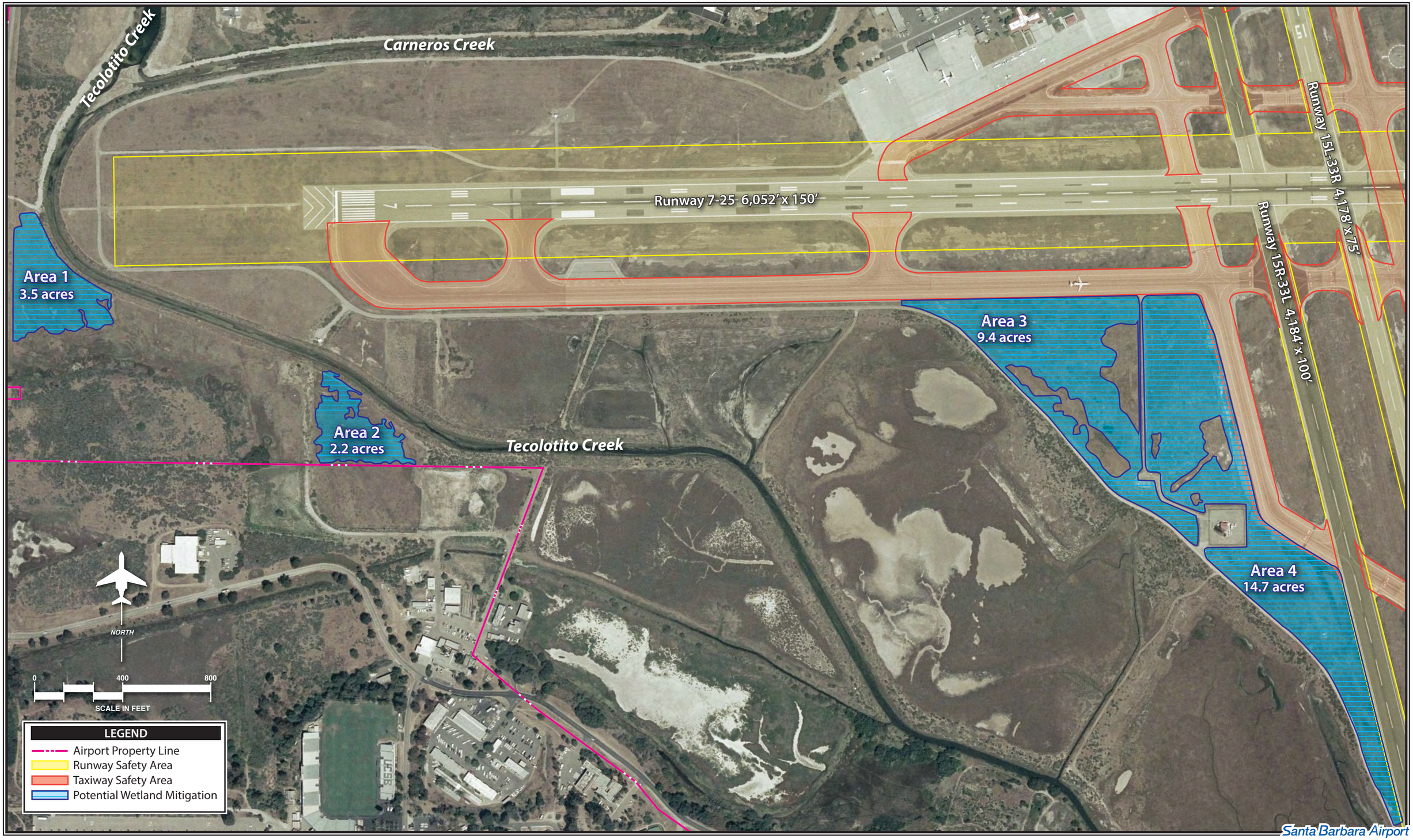
Since the proposed Master Plan recommends redevelopment of the Airport for safety and efficiency reasons, rather than capacity-increasing projects that would stimulate additional airport operations, the project would not foster economic or population growth and is not considered growth-inducing. The previous Airport growth projections in the 2003 *Aviation Facilities Plan* were similar or slightly more than is presently assumed in the proposed Master Plan.

TABLE 4G
Potential Onsite Wetland Mitigation Areas
Santa Barbara Airport

Area 1 (3.5 acres)
Mitigation Area 1 (3.5 acres) is located along the western portion of the Airport between Tecolotito Creek and Los Carneros Road (**Exhibit 4D**) within Subarea R of the CDFW Management Plan Area (City of Santa Barbara 1997). A slightly elevated shrub covered area forms the southern boundary. This "mound" is oval shaped and approximately half of it (as viewed from above) is positioned on Airport property. The other half is part of the Ecological Preserve on CDFW property also known as Western Goleta Slough. The nearest GSEMP Subarea Basin is 0.18 mile southeast of non-tidal basin R-2 (City of Santa Barbara 1997). Mitigation Area 1 currently contains a field of non-native annual grasslands comprised primarily of Italian rye grass and annual brome grass. Native vegetation abuts the southern extent of the area including pickleweed and alkali heath, both plant species considered hydrophytic (USACE 2014). Historically, Mitigation Area 1 was believed to provide upland habitat within the Goleta Slough with a small area of palustrine located in the southwestern area (GSMC 1997). A greater coverage of palustrine habitat was located north of the area, historically, but is now dominated by invasive grasses and forbs (Harding grass and black mustard) and native shrub, coyote brush, on the elevated area near Los Carneros Road. Mitigation Area 1 is separated from Tecolotito Creek by an Airport road that follows the creek south and then as it bends west towards Los Carneros Road at the end of runway. Based on current conditions (vegetation) and historical wetland habitats, Mitigation Area 1 is ideal for creation of wetlands (the area north of the Airport road – not delineated – also could be considered for restoration). The area is separated from the airfield by Tecolotito Creek, which could limit travel of coyotes to and from the site and taxiways and runways where they pose safety concerns. Two restoration strategies are available: grass-dominated wetlands (i.e., saltgrass, meadow barley, facultative [FAC] species) and emergent vegetation (herbaceous or emergent wetland). Grass-dominated wetlands would only meet 1- or 2-criteria wetland habitat.
Area 2 (2.2 acres)
Mitigation Area 2 (2.2 acres) is located in the southwest portion of the Airport property along its southern boundary which it shares with the Ecological Reserve on CDFW property (**Exhibit 4D**). Mitigation Area 2 is also within the Subarea R of the CDFW Management Plan Area (City of Santa Barbara 1997) and is approximately 0.25 mile southeast of Mitigation Area 1. Mitigation Area 2 is also within GSEMP's Study Area Basin R-2 designated as "Non-Tidal Basins that Impound Water." The slightly elevated shrub covered area is about 150 feet from the western boundary of the area separated by an Airport road that is no longer in use (historically part of the military installation). A channelized Tecolotito forms the northern boundary of the area. Mitigation Area 2 is over 400 feet from a taxiway safety area and even further from a runway and its safety area. Mitigation Area 2 currently contains a field of non-native annual grasslands dominated by Italian rye grasses. Small patches of natural vegetation are found within the area including pickleweed, meadow barley, and alkali heath, all hydrophytic plants (USACE 2014). Historically, Mitigation Area 2 was believed to be palustrine-upland hybrid within the Goleta Slough (City of Santa Barbara 1997). Based on current conditions (vegetation) and historical wetland habitats, Mitigation Area 2 is ideal for creation of wetlands (the area north of the Airport road – not delineated – also should be considered for restoration). The area is separated from the airfield by Tecolotito Creek, which could limit travel of coyotes to and from the site and taxiways and runways where they pose safety concerns. Two restoration strategies are available: grass-dominated wetlands (i.e., saltgrass, meadow barley, FAC species) and emergent vegetation (herbaceous or emergent wetland). Grass-dominated wetlands would only meet 1- or 2-criteria wetland habitat. The restoration of this area will not include grading to lower the entire site to become tidal wetland habitat.

Areas 3 and 4 (9.4 and 14.7 acres)
Mitigation Areas 3 (9.4 acres) and 4 (14.9 acres) are located directly south of taxiway safety area in the central to south-central portion of the Airport property south of Hollister Avenue. The taxiway and runway safety area are adjacent to Mitigation Area 4 to the east. An Airport road connecting a weather station separate Mitigation Area 3 (to the west) from 4 (to the east) (**Exhibit 4D**). Neither mitigation areas are within a Subarea of the CDFW Management Plan or Study Area Basin per the GSEMP (City of Santa Barbara 1997). Mitigation Area 4 currently contains a field of primarily non-native annual brome grasses with large patches of meadow barley and small patches of pickle weed and salt grass, all hydrophytic plants (USACE 2014). Historically, Mitigation Areas 3 and 4 were believed to be estuarine habitat of the Goleta Slough (City of Santa Barbara 1997). Based on current conditions (vegetation) and historical wetland habitats, Mitigation Areas 3 and 4 are ideal for creation of wetland habitat. There are no existing barriers between these two sites and the airfield. Two restoration strategies are available: grass-dominated wetlands (i.e., saltgrass, meadow barley, FAC species) and emergent vegetation (herbaceous or emergent wetland). Grass-dominated wetlands would only meet 1- or 2-criteria wetland habitat. The restoration of Area 4 will not include grading to lower the entire site to become tidal wetland habitat.

Source: Dudek 2015. Technical Memorandum to Judi Krauss, Coffman Associates, January 23.



Source: Dudek 2014

Exhibit 4D
POTENTIAL ONSITE WETLAND MITIGATION AREAS

ES6.0 PUBLIC AND AGENCY REVIEW OF THE DRAFT AND RECIRCULATED DRAFT PROGRAM ENVIRONMENTAL IMPACT REPORTS

During the 45-day public review period on the Draft Program EIR, from August 31, 2015 through October 16, 2015, the City of Santa Barbara received two written comment letters. Requests were then made by several additional agencies or organizations for a two-week extension of the public review period, which was granted. A total of 11 written comment letters were received by October 30, 2015. In addition, four oral comments were received – one at an Airport Commission meeting, held on September 16, 2015, and three at a City Planning Commission hearing, held on October 1, 2015.

Text and exhibit edits have been made in this Recirculated Draft EIR in response to the comments received on the Draft EIR. These text (and exhibit) edits have been primarily to:

- provide clarification (text and exhibits);
- update information that has become available since the publication of the Draft EIR;
- provide additional analysis and mitigation for impacts to Biological Resources;
- address recent court cases regarding the treatment of sea level rise under CEQA;
- provide additional analysis and mitigation for impacts to Land Use and Planning;
- update the analysis and mitigation of Transportation/Traffic using the City of Goleta's TRAFFIX traffic impact analysis software and Santa Barbara County Association of Governments' (SBCAG) *Congestion Management Plan* conventions; and
- incorporate all revisions into summary sections of the EIR.

The following Recirculated Draft EIR contains only those chapters and sections of the Draft EIR that have been revised. Exhibits in each of the sections of this Recirculated Draft EIR have also been included. The exhibits that have been revised are marked as such.

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Chapter One

Chapter One
INTRODUCTORY INFORMATION

1.1 INTRODUCTION

The Santa Barbara Airport (Airport) is a City of Santa Barbara-owned and operated facility located in the South Coast region of Santa Barbara County (County) adjacent to the City of Goleta and the University of California, Santa Barbara (UCSB) (**Exhibit 1A**). The approximate 948-acre Airport property is situated roughly eight miles west of downtown Santa Barbara. The Airport is generally bounded by South Los Carneros Road on the west, Hollister Avenue and the Southern Pacific Railroad on the north, South Fairview Avenue on the east, and the UCSB main campus on the south. Regional access to the Terminal occurs from United States (U.S.) Highway 101 (U.S. 101) via Clarence Ward Memorial Boulevard (State Route [SR] 217). The Airport can also be accessed from U.S. 101 via South Fairview Avenue or South Los Carneros Road to Hollister Avenue, which crosses Airport property on its the north side.

The purpose of this Program Environmental Impact Report (EIR) is to provide a programmatic assessment of the Airport's proposed Airport Master Plan (Master Plan) under the *California Environmental Quality Act* (CEQA) (Public Resources Code, §§21000-21177), the State CEQA Guidelines (California Code of Regulations, Title 14, Division 6, Chapter 3, §§15000-15387), and the City of Santa Barbara (City) CEQA Guidelines. The proposed Master Plan provides a programmatic framework that will guide site-specific future Airport actions, but does not authorize, fund, or carry out any project or activity (including ground-disturbing actions). As a result, the proposed Master Plan will not cause any direct impacts. There may be implications, or longer term indirect or cumulative environmental consequences, however, from managing the Airport under this programmatic framework. The City's adoption of the Airport Master Plan would constitute a 'project' under CEQA. The City of Santa Barbara is the Lead Agency for the

proposed plan under CEQA and is responsible for preparation and certification of the Airport Master Plan Program EIR. The draft Master Plan is available for review at www.FlySBA.com or SBA.airportstudy.com.

Future development at the Airport under the proposed Master Plan will also be subject to the *National Environmental Policy Act of 1969* (NEPA), CEQA, various Federal and State special purpose laws, and Federal Aviation Administration (FAA) oversight and approval. Before any ground-disturbing actions take place, they must be authorized in subsequent site-specific environmental analyses. In addition, compliance with existing local laws, regulations, and policies will be required of all future development proposals.

1.2 RELATIONSHIP TO CITY OF SANTA BARBARA GENERAL PLAN

In 2010, the City certified a Final EIR for *Plan Santa Barbara* (SCH#2009011031), the City's proposed General Plan update (General Plan) to guide growth through the year 2030. The Final General Plan EIR addressed several scenarios of growth for the City, and included moderate growth at the Airport in all scenarios. These Airport growth projections were based on the 2003 *Aviation Facilities Plan's* aviation demand forecast which included scenarios for one to four percent annual growth rate of annual enplaned passengers and two percent per year growth in general aviation (GA) aircraft operations.

This current Program EIR on the Airport's Master Plan tiers off of the City's 2010 Final General Plan EIR, where appropriate. The City's certified Final General Plan EIR is hereby incorporated by reference and is available for viewing at the City's Planning Division and at the following web address: www.SantaBarbaraCA.gov/gov/plan.asp.

This Master Plan Program EIR is intended to allow the planning for future development projects at the Airport, as shown on the Master Plan's recommended development concept plan and proposed Capital Financial Plan, and to streamline each project's individual environmental analysis by incorporating the analysis and recommended mitigation measures from this Program EIR, as appropriate. The State CEQA Guidelines, §15168, states that a Program EIR is "an EIR which may be prepared on a series of actions that can be characterized as one large project and are related either:

(1) Geographically,
(2) As logical parts in the chain of contemplated actions,
(3) In connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program, or
(4) As individual activities carried out under the same authorizing statutory of regulatory authority and having generally similar environmental effects which can be mitigated in similar ways."

Exhibit 1A
AIRPORT LOCATION
AND VICINITY MAP

An airport master plan typically requires some baseline assumptions that are used throughout the analysis. The baseline assumptions identified for the Airport's proposed Master Plan include:

- The Airport will continue to operate as a publicly owned primary commercial service airport through the planning period.
- The Airport will continue to support scheduled commercial airline activities.
- The Airport will continue to serve general aviation and corporate business aviation based tenants and transient operations.
- The aviation industry on the national level will grow as forecast by the FAA in its annual Aerospace Forecasts.
- The socioeconomic characteristics of the region will grow as forecast by local and regional agencies.
- A Federal program will be in place through the planning period to assist in funding future capital development needs.

1.3 INITIAL STUDY FINDINGS AND ENVIRONMENTAL SCOPING

An Initial Study was completed on the Airport's proposed Master Plan in June 2014. Based on the findings of this study, an EIR was deemed the appropriate action under CEQA and a Notice of Preparation (NOP) was published in the *Santa Barbara News Press* on June 19, 2014, and distributed through the State Clearinghouse on June 26, 2014. The official review period for the Initial Study began on June 26, 2014, and ended on July 25, 2014. The Initial Study concluded that Potentially Significant Impacts could occur as a result of the proposed project in the following areas:

- Air Quality/Greenhouse Gas Emissions (Construction only)
- Biological Resources
- Cultural Resources
- Geology and Soils/Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Public Utilities (Solid Waste Disposal) (Cumulative)
- Transportation/Traffic

The project's Initial Study was included in the Draft EIR as Appendix A.

An Environmental Scoping hearing was conducted on July 24, 2014, at a properly noticed City Planning Commission meeting. Three members of the public provided comment at the hearing, but also submitted their comments in writing. As a result of the hearing and the NOP, the City

received a total of eight comment letters or emails. Agencies or organizations that submitted comment letters included: City of Goleta; Santa Barbara County Council of Governments (SBCAG); Native American Heritage Commission (NAHC); Goleta Slough Management Committee (GSMC); Santa Barbara Audubon Society; and California Department of Fish and Wildlife (CDFW).

The following items were requested to be included in the EIR:

- Impacts on land uses, characteristics, and policies of the City of Goleta due to its proximity to the Airport;

- Inclusion of information necessary for SBCAG (as the airport land use commission) to make a determination regarding the proposed Airport Master Plan's consistency with the Airport Land Use Compatibility Plan;

- A full traffic analysis evaluating any traffic impacts to surrounding streets and roads as well as SR 217 and U.S. 101;

- Provisions for the identification and evaluation of accidentally discovered archaeological resources, pursuant to CEQA §15064.5(f) and other applicable regulations, and coordination, as necessary, with the NAHC;

- In-depth analysis of impacts to resources of the Goleta Slough, including impacts of the proposed Taxiway H extension, perimeter fence improvements, an increase in impervious surfaces, and the alteration or degradation of existing drainage patterns;

- Mitigation measures that include improvement of habitat values of the Goleta Slough;

- Discussion of cumulative impacts from area plans, policies and projects;

- Discussion of consistency with Local Coastal Program (LCP) plans, policies, and zoning;

- Discussion of increased flooding due to sea level rise and an evaluation of an Airport relocation strategy.

Two pilots also submitted comments regarding safety issues at the Airport. One stated his support of the Taxiway H extension due to safety concerns; the other recommended the use of engineered materials arresting systems (EMAS) at the end of the runways.

All of the issues brought up in the EIR scoping comments are being addressed at some level in the proposed Master Plan itself or in this Program EIR. However, it is not feasible to undertake hydrological, hydrochemical, or biological modeling or quantitative analysis of impacts to habitat values of the Slough at this time. Although the proposed Master Plan provides a "conceptual" development plan for future airport projects over a 20-year timeframe, it does not include any type of design.

Construction impacts, such as grading and noise, drainage, and operational impacts of individual projects must be addressed at a project-specific level at the time that an individual project is proposed. Detailed analysis of any cumulative impacts to Slough resources must also be conducted at that time. These future projects will be subject to evaluation under both Federal and State environmental regulations (i.e., NEPA and CEQA, respectively) prior to the approval of Federal and/or State funding as well as before the issuance of local, City, or coastal development permits.

This EIR does include programmatic mitigation measures to be applied to future individual projects, as warranted.

1.4 PUBLIC AND AGENCY REVIEW OF THE DRAFT AND RECIRCULATED DRAFT PROGRAM ENVIRONMENTAL IMPACT REPORTS

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Chapter Two

Chapter Two
PROJECT DESCRIPTION

2.1 PROJECT OBJECTIVES

The primary objective of the Santa Barbara Airport (Airport) Master Plan (Master Plan) is to provide the City of Santa Barbara (City) with guidance for future development which will satisfy aviation demand at the Airport while protecting the environment. Accomplishing this objective requires an evaluation of the existing airport so as to make a determination of what actions should be taken to maintain an adequate, safe, and reliable airport facility. The completed Master Plan will detail a program for future capital needs to aid in planning, scheduling, and budgeting.

The City's Airport Department has identified specific goals to be considered in the Master Plan that include:

- Relocation of general aviation facilities and new general aviation improvements.
- Airfield safety improvements.
- Consolidation of automobile parking associated with the Terminal.
- Terminal expansion.

The Master Plan relies on Federal Aviation Administration (FAA)-approved forecasts (approval date: November 13, 2012) of aviation activity at the Airport and provides development scenarios for the short term (2017), intermediate term (2022) and long term (2032). If these growth assumptions are not fully realized, the phasing of recommended improvements would be adjusted to meet actual demand at the Airport. In addition, these development scenarios are not only reflective of the level of activity forecast to occur at the Airport, but are dependent on Federal and State funding cycles and the availability of grant money for aviation projects. Refer to Chapter Two of the Master Plan for a detailed discussion of the Master Plan's forecast methodology and conclusions and to Chapter Six for the Master Plan's proposed Capital Improvement Program (CIP).

2.1.1 Forecast Aviation Activity

Forecast aviation demand for the Airport for three development scenarios identified in the Master Plan are provided in **Exhibit 2A** and are the basis for the cumulative analysis of certain environmental impact categories within this Environmental Impact Report (EIR) such as air emissions and traffic projections. The Master Plan assumes that total operations at the Airport would increase at an average annual rate of 0.6 percent through the forecast period, while enplanements would increase by 2.8 percent annually. The growth in enplanements would occur primarily through increased load factors and average seat capacity on presently occurring flights. Air carrier operational growth is anticipated to be minimal.

Average annual growth in based aircraft and general aviation operations are anticipated to grow at a rate of 1.6 percent and 0.7 percent, respectively. The fleet mix of based aircraft at the Airport is expected to follow a nationwide fleet mix shift from smaller single- and multi-engine piston aircraft towards more business class, turbine-powered aircraft. Business jets based at the Airport are expected to grow 4.5 percent annually.

Air taxi operations are expected to follow national growth trends of 1.7 percent average annual growth, while military activity at the Airport is expected to be only a small factor (approximately one percent of total operations in 2032).

As previously stated in Section 1.2, the City's General Plan considers "moderate growth" at the Airport that was based on the 2003 *Aviation Facilities Plan's* aviation demand forecast which included scenarios for one to four percent annual growth rate of annual enplaned passengers and two percent per year growth in general aviation (GA) aircraft operations. The above forecasted growth projections fall within the City's General Plan assumptions for the Airport.

2.2 PROJECT DESCRIPTION

The proposed Master Plan provides guidance for the Airport's overall development for the next 20 years, i.e., 2012 to 2032. This development is discussed by subarea within the Airport in Section 2.2.2. No actual development projects are proposed at this time. Any future

AVIATION DEMAND FORECAST SUMMARY

	2011	2017	2022	2032
ENPLANEMENTS & AIR CARGO				
Annual Enplanements	365,769	440,000	503,400	657,000
Air Cargo (tons)	2,058	2,600	2,800	3,400
ANNUAL OPERATIONS				
Itinerant				
Air Carrier	21,442	22,200	22,600	25,000
Air Cargo	430	540	600	700
Other Air Taxi	4,307	4,800	5,200	6,100
General Aviation	43,581	45,000	48,300	53,800
Military	1,135	1,200	1,200	1,200
Total Itinerant	**70,895**	**73,740**	**77,900**	**86,800**
Local				
General Aviation	37,132	39,000	41,300	46,100
Military	258	250	250	250
Total Local	**37,390**	**39,250**	**41,550**	**46,350**
Total Annual Operations	**108,285**	**112,990**	**119,450**	**133,150**
BASED AIRCRAFT				
Single Engine	125	132	135	144
Multi-Engine Piston	13	12	9	7
Turboprop	8	10	12	15
Jet	22	28	37	55
Helicopter	5	7	8	10
Other	5	5	5	5
Total Based Aircraft	**178**	**194**	**206**	**236**

PEAK ACTIVITY PROJECTIONS

	2011	2017	2022	2032
AIRLINE ENPLANEMENTS				
Annual Enplanements	365,769	440,000	503,400	657,000
Peak Month	34,685	42,240	48,326	63,072
Design Day	1,119	1,389	1,590	2,075
Design Hour	222	275	315	411
AIRLINE OPERATIONS				
Annual	21,442	22,200	22,600	25,000
Peak Month	1,916	2,437	2,481	2,744
Design Day	62	80	82	90
Design Hour	10	13	13	14
GENERAL AVIATION OPERATIONS				
Annual Operations	80,713	84,000	89,600	99,900
Peak Month	7,519	8,988	9,587	10,689
Busy Day	341	408	435	485
Design Day	247	296	315	352
Design Hour	27	33	35	39
TOTAL AIRPORT OPERATIONS				
Annual	108,285	112,990	119,450	133,150
Peak Month	10,004	11,525	12,184	13,581
Design Day	329	379	401	447
Design Hour	31	36	38	42

Santa Barbara Airport

Exhibit 2A
FORECAST SUMMARY

development subsequent to approval of the Master Plan would be fully addressed under both the *National Environmental Policy Act* (NEPA) *of 1969* and the *California Environmental Quality Act* (CEQA) and State of California (State) CEQA Guidelines, as appropriate.

2.2.1 Recommended Development Concept Overview

The overall development concept of the Master Plan is shown in **Exhibit 2B**. Development projects at the Airport would be focused in one of three areas: airfield safety improvements; landside redevelopment north of Runway 7-25; or improvements around the Terminal. No new development is proposed in the Master Plan for the Airport Industrial Area specific planning area located north of Hollister Avenue.

In 2011, the Airport was operating at 48 percent of its annual service volume (ASV)[1]; FAA recommends that when an airport reaches 60 percent of its total ASV then capacity-increasing development should be considered. The Airport is not expected to reach an operational level within the Master Plan's 20-year planning horizon that would require capacity-increasing improvements.

Recommended Airfield Development

Recommended airfield safety projects are highlighted on **Exhibit 2C**. Improvements to Runway 7-25 involve the extension of Taxiway H to the Runway 7 threshold to provide a full-length parallel taxiway on the north side of the runway and the construction of two new taxiway connectors. The existing glideslope antenna would be relocated to allow for the taxiway extension. The purpose of these improvements is to increase taxiway circulation safety and efficiency of the Airport (see **Appendix A**, which contains FAA's Local Runway Safety Action Plan for the Airport, dated April 19, 2012). By providing a full-length parallel taxiway north of Runway 7-25, aircraft utilizing the north general aviation ramps would no longer have to cross the active primary runway to get to the Runway 7 threshold.

Exhibit 2D shows the expected disturbance area for this recommended airfield safety project. The new taxiway would be 50 feet wide with 20-foot shoulders; an associated taxiway object free area (TOFA) would extend 93 feet on each side of the taxiway centerline. Including the area necessary for relocation of the existing glideslope antenna, an approximate 12.4-acre area would be disturbed with a net increase of approximately five acres of impervious surface. (This net increase in impervious area includes the removal of approximately 1.14 acres of pavement associated with the existing north general aviation apron to provide improved taxiway connection design from Runway 7 to the apron area.)

On Taxiway G, paved islands would be marked and lighted adjacent to either side of Runway 7-25 at its eastern end as well as at the northern end of crosswind Runways 15R and 15L. The

[1] Annual Service Volume (ASV) is defined as the number of annual aircraft operations that may be accommodated by the runway system at an airport.

purpose of the paved islands is to remove unnecessary pavement width at intersections between taxiways and the runways. When these intersections are too wide, important airfield signage has to be located too far from the areas of aircraft movement. By reducing the pavement width in these areas, airfield signage would be easier for pilots to use effectively. In addition, flush-mounted hold marking lighting is planned at the entrances to Runways 15R and 15L to increase situational awareness for pilots to help mitigate runway incursions.

The Runway 15L threshold is currently displaced by 217 feet. This displacement was originally put in place to account for a building north of Hollister Avenue that obstructed the approach path to the runway. The obstructing building has since been demolished. Therefore, the displaced threshold is planned to be removed so that the full runway length (4,178 feet) can be utilized for landing operations.

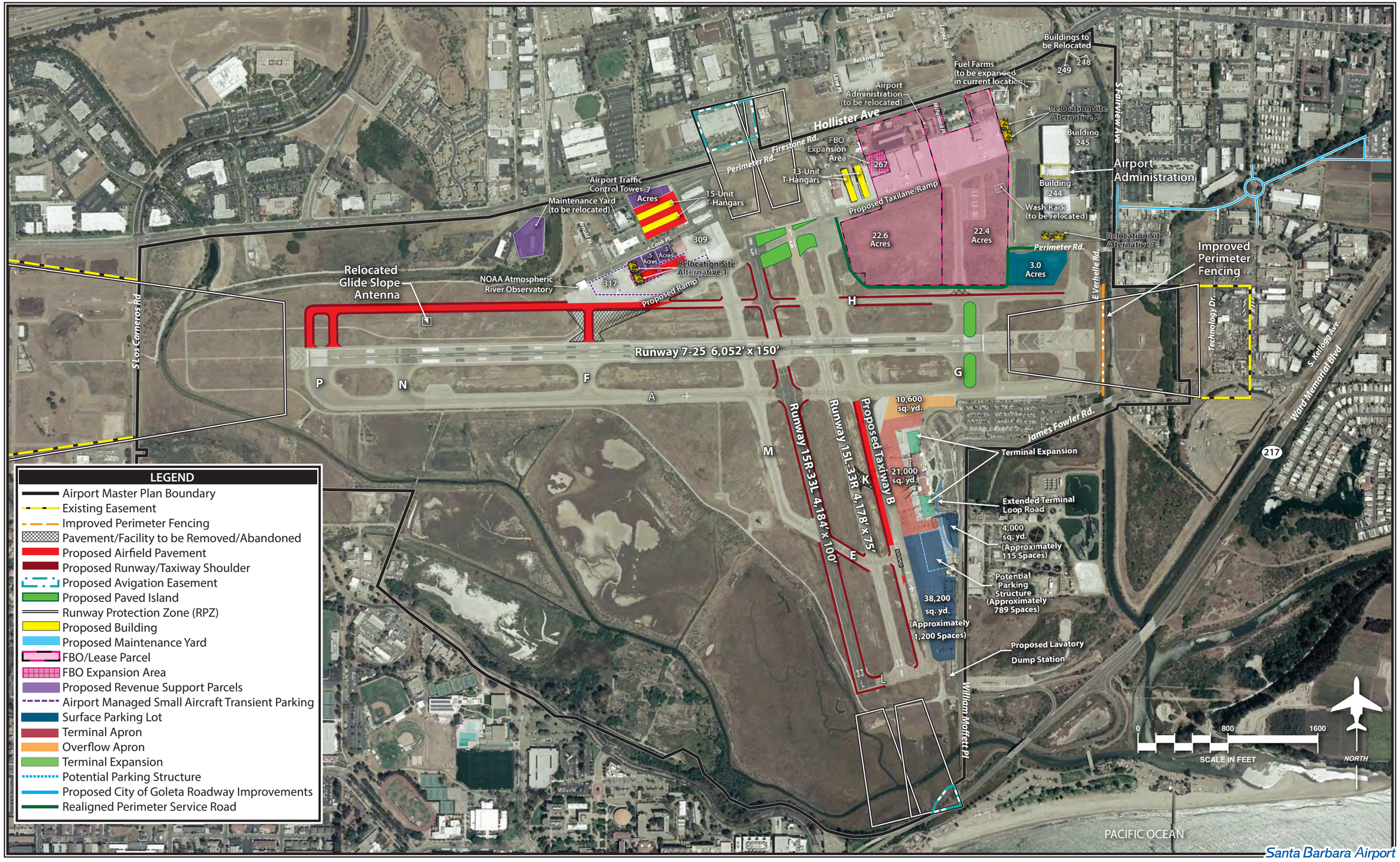
Avigation easements would be acquired over portions of the runway protection zones (RPZs) for crosswind Runways 15R-33L and 15L-33R that occur off the Airport north of Hollister Avenue and south of the Airport over Ward Memorial Boulevard. These easements are necessary to give the Airport control over land use decisions on property near the ends of the runways to prevent incompatible land uses and obstructions that may affect the safe operation of aircraft.

For safety reasons, south of Taxiway A, Taxiway B would be realigned to provide a 200-foot separation from Runway 15R-33L and existing connector Taxiway K would be removed. Small changes to pavement and the existing apron would occur in the vicinity of Taxiway E's intersection with the realigned Taxiway B to eliminate direct access to the runway from the apron areas, which will improve the safety and efficiency of this area for aircraft movement (see **Exhibit 2C**). In addition, shoulder pavement is proposed for Taxiways B, D, E, H, and L as well as Runway 15R-33L.

An existing perimeter fence segment at the end of Runway 25 along South Fairview Avenue would also be improved. This fence prevents unauthorized access to the Airport and would be improved to an eight-foot high chain link fence.

Recommended North Landside Development

The proposed north landside development is actually a redevelopment of the area (see **Exhibit 2E**). In order to provide for future expansion of terminal area facilities, general aviation facilities are planned to be consolidated on the north side of the airfield. This would provide distinct and separate functional areas for the primary aviation uses on the Airport. The following changes are proposed to provide the Airport with additional opportunities for revenue and to meet the future needs of general aviation at the Airport, and would occur as funding becomes available and as increased aviation activity creates a need for the improvement. Some changes are also proposed to address existing unsatisfactory conditions.



Santa Barbara Airport

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Exhibit 2B
RECOMMENDED DEVELOPMENT CONCEPT OVERVIEW

Santa Barbara Airport

REVISED

Exhibit 2C
RECOMMENDED AIRFIELD DEVELOPMENT CONCEPT

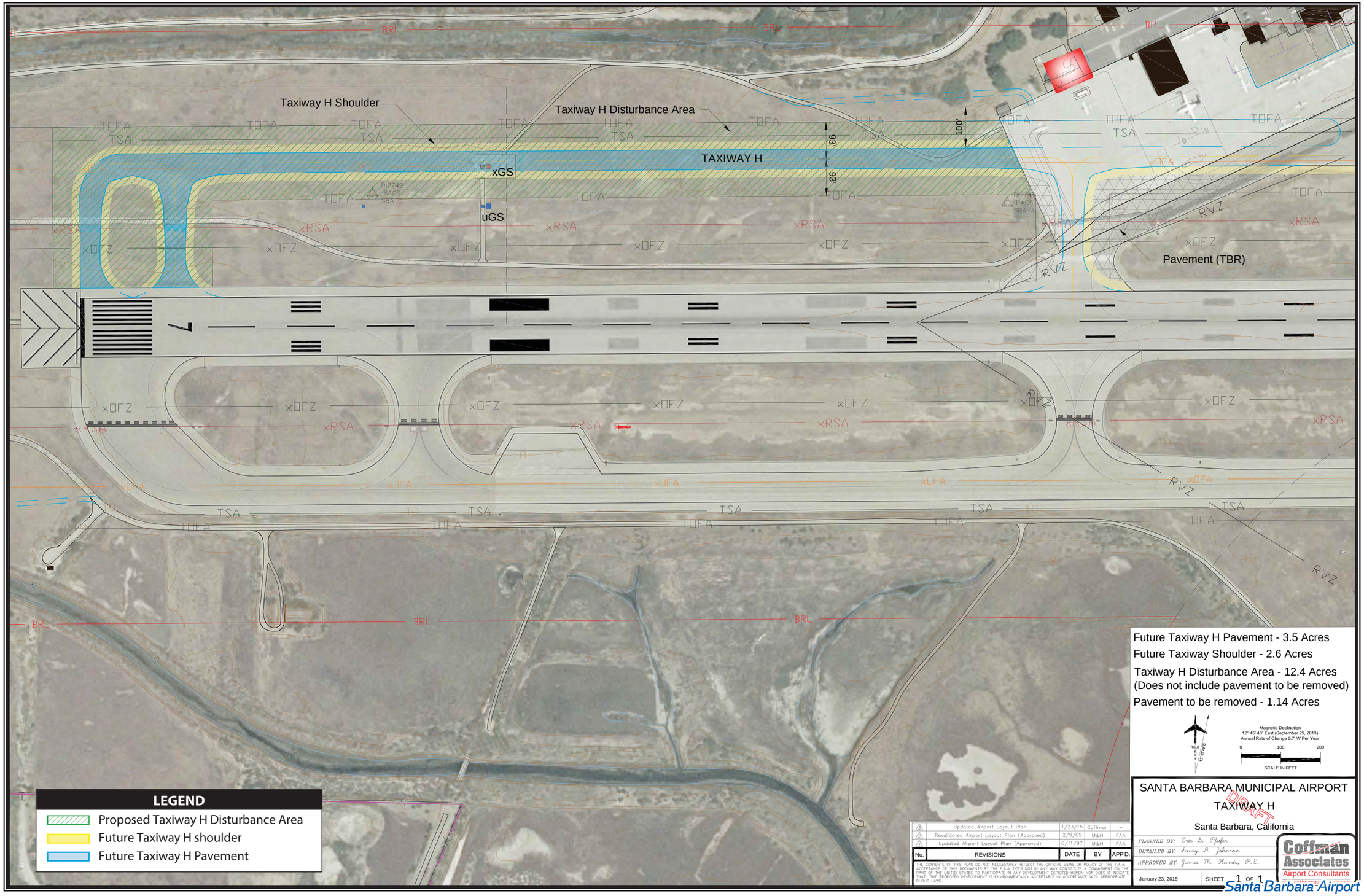
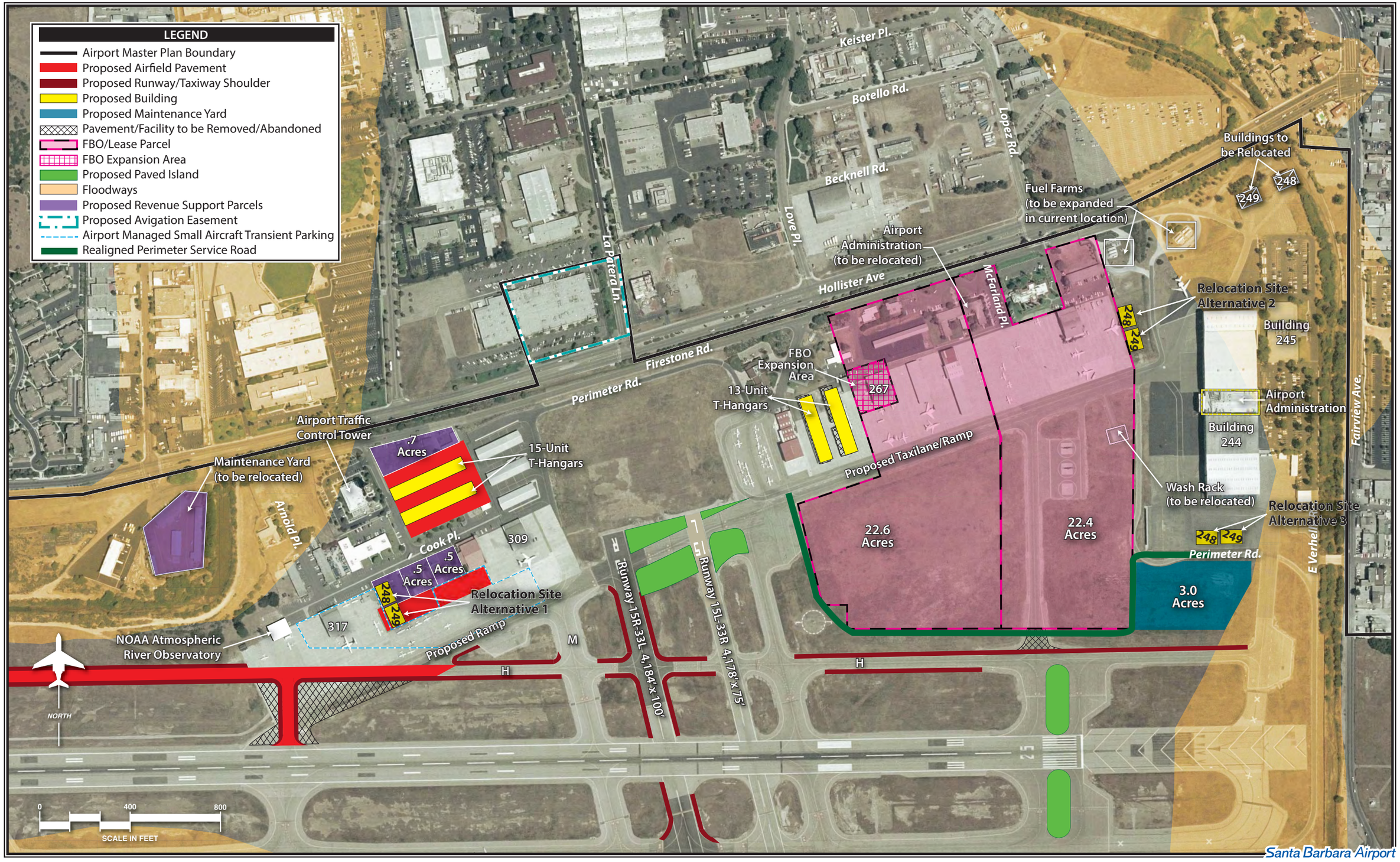


Exhibit 2D
PROPOSED TAXIWAY H EXTENSION



Santa Barbara Airport

REVISED

Exhibit 2E
RECOMMENDED NORTH LANDSIDE DEVELOPMENT CONCEPT

On the western side –

- An existing maintenance yard that is currently west of Los Carneros Creek within a Regulatory Floodway would be relocated to an area south of Building 244;
- Airport-managed small aircraft transient parking would be provided on, and adjacent to, the existing north general aviation apron;
- Four new revenue support parcels would be designated along Cecil Cook Place and Norman Firestone Road with a paved connection to the existing north general aviation apron;
- Two 15-unit T-hangars and associated pavement would be constructed north of Cecil Cook Place with a paved connection to the existing apron;
- Buildings 309 and 317 would be retained as historic structures;
- One potential site is identified to relocate historic structures (Buildings 248 and 249) out of the Regulatory Floodway.

On the eastern side –

- Two 13-unit T-hangar facilities would replace existing hangar facilities that are in poor condition;
- Two fixed base operator (FBO) parcels (22.4 and 22.6 acres) would be made available for lease;
- Three existing buildings would be removed within the FBO lease areas to clear ramp space;
- Building 267 would be retained as an historic structure (shown on **Exhibits 2B** and **2E** as a FBO expansion area , indicating that the FBO lessee would have the option of expanding its lease area to include the building under the condition that it be maintained as a historic structure);
- The Airport Administration offices would be relocated to Building 244 in the eastern part of the Airport;
- Two existing fuel farms would be expanded in their current location off of Hollister Avenue to provide additional aboveground storage of Jet A fuel;
- A 3-acre maintenance yard would be constructed to replace the existing maintenance yard that is currently west of Los Carneros Creek;
- Buildings 248 and 249 would be relocated out of the Regulatory Floodway.
- Two potential sites are identified to relocate historic structures (Buildings 248 and 249) out of the Regulatory Floodway.

Recommended Terminal Area Development

As previously discussed under Recommended Airfield Development and as shown on **Exhibit 2F**, Taxiway B in the vicinity of the Terminal is proposed to be realigned to provide an acceptable separation from Runway 15L-33R. In addition, to accommodate forecast activity levels at the Airport, future terminal expansion (16,190 square feet [sf]) may be needed as well as approximately 31,600 square yards (sy) of Terminal and overflow apron. The Master Plan expects that by the long term enplanement milestone, two additional gates and three passenger loading bridges would be required to fully meet the Airport's needs. The expansion of these facilities

would require the relocation of general aviation facilities south of the Terminal to the north side of the airfield as previously mentioned in the Recommended North Landside Development discussion.

If needed, additional parking would be provided by constructing/expanding two surface parking lots. An additional 1,315 parking spaces could be obtained overall. The Terminal's loop road would be extended to access the new surface parking lots and the expanded Terminal.

A lavatory dump station is also planned approximately 200 feet east of the southern end of Taxiway B. This station would improve both Airport safety and efficiency by providing a more convenient site for the disposal of sanitary wastes from commercial airline aircraft. Currently, the only dump station is located on the north side of the Airport and lavatory carts servicing the airlines have to drive across the airfield to access the existing lavatory dump station. This is not only inefficient, but it creates a runway incursion potential.

2.2.2 Proposed Capital Improvement Plan

Exhibit 2G shows a list of potential future projects that might be implemented at the Airport during the planning period of the Master Plan. The exhibit also indicates in which area of the Airport the improvement would be located and what the anticipated timeframe for each project is according to the CIP. These projects are planned to occur within the first five years (years 1-5), the second five years (years 6-10), or the last ten years (years 11-20) of the Master Plan's 20-year planning horizon. As discussed previously, the implementation of the proposed CIP is dependent on the availability of Federal and State funding.

2.3 REGIONAL SETTING

The Airport is located in the Goleta Valley on the South Coast of Santa Barbara County. Views in the area are dominated by the Santa Ynez Mountains, which form the backdrop for all view sheds to the north. The Airport is surrounded by urban and suburban development to the north and east, open space on the west, and by the University of California, Santa Barbara (UCSB) campus and the Pacific Ocean to its south and southwest.

The majority of the Airport is located within the historic boundaries of Goleta Slough, one of the few remaining saltmarsh habitats in California. Airport development between 1928 and the 1970s resulted in the filling of portions of Goleta Slough to accommodate runways, the conversion of grassland to accommodate a terminal, and the establishment of flood control channels and dikes, all of which caused the formation of basins within Goleta Slough that gradually became cut off from tidal circulation. Approximately half of the wetlands in the Goleta Slough are subject to tidal flow when the Slough mouth is open. Currently, the parts of the Airport not occupied by facilities comprise the major portion of the Goleta Slough Ecological Reserve (GSER) and the Goleta Slough State Marine Conservation Area (GSSMCA).

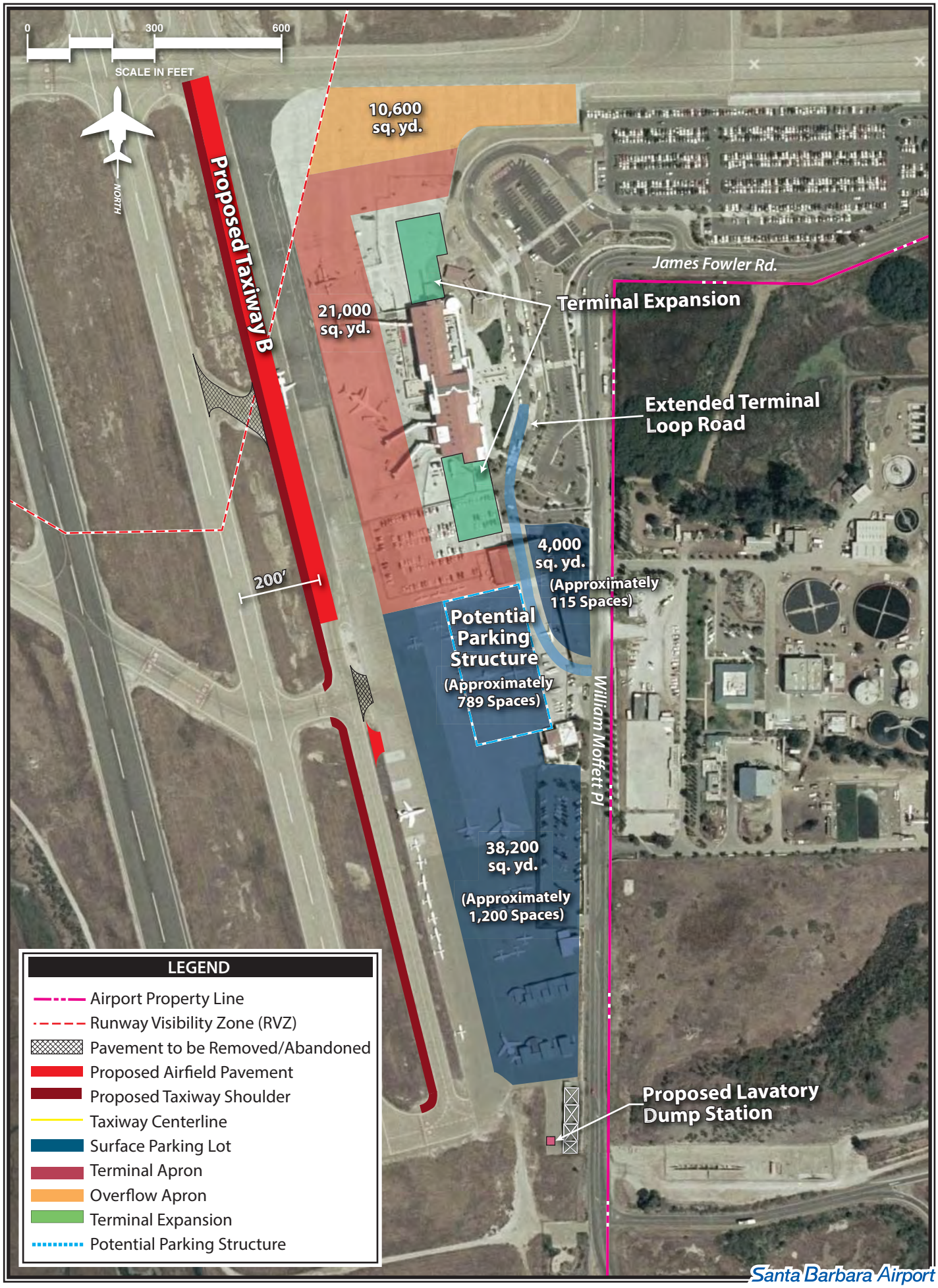


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Exhibit 2F
RECOMMENDED TERMINAL AREA CONCEPT

Project Description	AIP Eligible	Local Share	Total Costs
Short Term Program (Years 1-5)			
FY2014 (1) Runway 15L-33R Overlay	$1,583,533	$162,369	$1,745,902
(2) Runway 7-25 Overlay	$1,022,032	$104,795	$1,126,827
(3) Mark/Paint Airfield Islands	$680,400	$75,600	$756,000
FY2015 (4) Runway 7-25 Overlay	$2,855,286	$292,769	$3,148,055
(5) Install Flush-Mounted Hold Marking Lights and Remove 15L Displaced Threshold	$374,220	$41,580	$415,800
FY2016 (6) GA Pavement Replacement	$1,000,000	$102,536	$1,102,536
(7) Construct Lavatory Dump Station	$952,560	$105,840	$1,058,400
(8) Install Trash Compactor at Terminal Building	$408,240	$45,360	$453,600
(9) Acquire ARFF Equipment	$1,260,000	$140,000	$1,400,000
FY2017 (10) GA Pavement Replacement	$1,000,000	$102,536	$1,102,536
(11) Taxiway A Rehabilitation	$1,900,000	$194,818	$2,094,818
(12) Remove Taxiway K and Realign Taxiway E Stub	$112,437	$12,493	$124,930
(13) Acquire Avigation Easement (7.4 Acres)	$451,800	$50,200	$502,000
(14) Acquire Avigation Easement (1.3 Acres)	$79,371	$8,819	$88,190
(15) Extend Taxiway H to Runway 7 Threshold	$8,024,337	$891,593	$8,915,930
FY2018 (16) GA Pavement Replacement	$1,000,000	$102,536	$1,102,536
(17) Taxiway A Rehabilitation	$1,000,000	$102,536	$1,102,536
(18) Upgrade Airport Security System	$961,225	$98,560	$1,059,785
(19) Improve Perimeter Fencing East of Runway 25 Threshold	$54,450	$6,050	$60,500
(20) Add Passenger Loading Bridge to Terminal	$1,020,600	$113,400	$1,134,000
Short Term Program Total	**$25,740,491**	**$2,754,390**	**$28,494,881**
Intermediate Term Program (Years 6-10)			
(1) Mothball Hangars (Buildings #248 & #249)	$0	$200,000	$200,000
(2) Terminal Facility Addition (5,000 sf to the North)	$4,422,600	$491,400	$4,914,000
(3) Extend Terminal Loop Road to the South	$975,240	$108,360	$1,083,600
(4) Convert Atlantic Aviation Ramp to Long Term Surface Parking Lot (38,200 sy - Fencing/Marking/Circulation)	$1,070,811	$118,979	$1,189,790
(5) Expand Short Term Surface Parking Lot (4,000 sy)	$120,960	$13,440	$134,400
(6) Expand Terminal Apron (7,000 sy) Removing Rental Car Ready/Return Lot	$1,626,156	$180,684	$1,806,840
(7) Relocate Maintenance Yard Site Preparation/Grading and Extend Utilities	$5,361,552	$595,728	$5,957,280
(8) Construct T-Hangar Facilities (Two 13-Unit Structures)	$0	$3,144,960	$3,144,960
(9) Relocate Airport Administration Offices to Building #244	$0	$100,000	$100,000
(10) Airfield Pavement Maintenance	$2,250,000	$250,000	$2,500,000
Intermediate Term Program Total	**$15,827,319**	**$5,203,551**	**$21,030,870**
Long Term Program (Years 11-20)			
(1) Terminal Facility Addition (11,200 sf to the South)	$8,641,080	$960,120	$9,601,200
(2) Realign Taxiway B	$2,556,630	$284,070	$2,840,700
(3) Pave Runway 15R-33L and Taxiway E Shoulders	$1,182,384	$131,376	$1,313,760
(4) Construct Ramp (5,700 sy)	$1,388,016	$154,224	$1,542,240
(5) Clear/Grade Site for T-Hangar Facilities	$0	$1,459,458	$1,459,458
(6) Construct Taxilanes/Ramp for T-Hangar Facilities	$0	$4,711,770	$4,711,770
(7) Construct T-Hangar Facilities (Two 15-Unit Structures)	$0	$3,628,800	$3,628,800
(8) Relocate Hangars (Buildings #248 & #249)	$0	$3,111,500	$3,111,500
(9) Airfield Pavement Maintenance	$4,500,000	$500,000	$5,000,000
Long Term Program Total	**$18,268,110**	**$14,941,318**	**$33,209,428**
TOTAL PROGRAM COSTS	**$59,835,920**	**$22,899,259**	**$82,735,179**

Sources: Estimates prepared by Kimley-Horn and Associates.
All costs in current (2013) dollars and based upon current federal funding programs.

Santa Barbara Airport

Exhibit 2G

CAPITAL IMPROVEMENT PROGRAM

Most of the Airport is within the 100-year floodplain with two different Regulatory Floodways traversing the property. The only portions of the Airport that are not located within the 100-year floodplain are sections of the Airport Industrial Area located north of Hollister Avenue, a small area of higher elevation along Mesa Road, and the terminal area, which was constructed at a higher elevation to be out of the floodplain.

The Airport, including Goleta Slough, is located within the South Coast watershed, an approximate 416-square mile area that is comprised of smaller watersheds associated with various creeks. Four creeks, Tecolotito, Carneros, Las Vegas and San Pedro, along with designated tidal channels such as Mesa Road Tide Channel, traverse the Airport property. The entire Airport is flat and near sea level. Vegetation consists of pickleweed coastal salt marsh, a tidal estuary, a variety of seasonal wetlands, upland shrub and herbaceous communities, a small amount of woodland habitat, and transitional areas between upland and wetland habitats.

Cultural resources in the Goleta area, and especially in proximity to Goleta Slough, are numerous and include prehistoric and historic-era Native American sites as well as historic-era resources dating back to the late 1800s.

2.4 REQUIRED DISCRETIONARY ACTIONS

The City of Santa Barbara will be required to formally adopt the proposed Airport Master Plan. Based on a preliminary Local Coastal Program (LCP) policy conformance analysis completed as part of this Program EIR, the City will also consider the initiation of an LCP amendment, a City of Santa Barbara General Plan amendment, and a rezone for the portion of a future Taxiway H Airfield Safety Project that would occur within the GSER.

An updated Airport Layout Plan has been submitted to the FAA for review and was approved in May 2015. NEPA review will be completed on a project-by-project basis as part of the Airport Improvement Program grant review process.

2.5 OTHER PUBLIC AGENCY APPROVALS REQUIRED

Future projects recommended in the Master Plan would require discretionary approvals at the time that they are ready for implementation. For example, the Taxiway H Airfield Safety Project and the relocation of the glideslope antenna, which are related projects proposed to be located within the City's G-S-R/A-A-O (Goleta Slough Reserve/Airport Approach and Operations) zone, would require the approval of a Coastal Development Permit as well as an LCP amendment/rezone and General Plan Amendment. An amendment to the Cooperative Agreement between the City of Santa Barbara and the California Department of Fish and Wildlife (CDFW) for management of the GSER would also be necessary. All actions would be subject to future review by the City under CEQA; this programmatic EIR will be used to help determine the appropriate subsequent CEQA review.

The following City approvals or resource agency permits may be required for other specific actions occurring subsequent to approval of the Master Plan:

- Actions affecting potential historic properties would require review by the Historic Landmarks Commission;

- Building and landscape plans would require review by the Architectural Board of Review;

- Actions within Special Flood Hazard Areas, including the floodways present at the Airport, would require a City flood development permit or variance per Chapter 22.24, Floodplain Management of the City *Municipal Code*;

- Changes in the amount or location of impervious surfaces at the Airport would need to be incorporated into the Airport's storm water pollution prevention plan (SWPPP) and associated Section 401 *Clean Water Act* permit and may require review and approval by the Regional Water Quality Control Board. The City's Storm Water Management Program (SWMP) would also need to be updated to incorporate the changes;

- A City-approved Coastal Development Permit would be required for development projects within the Coastal Zone, with the exception of any projects within Goleta Slough, which is part of the California Coastal Commission's (CCC) Original Jurisdiction and, thus, would require CCC approval.

- Changes to the Goleta Slough Ecological Reserve require consultation with CDFW; and

- If structures or fill is placed in wetlands or other jurisdictional waters of the United States (U.S.), a Section 404 permit under the *Clean Water Act* would be necessary from the U.S. Army Corps of Engineers.

For Santa Barbara County, the Santa Barbara County Association of Governments (SBCAG) functions as the County's airport land use commission (ALUC). Prior to City certification of this Program EIR, the ALUC will have an opportunity to review and comment on the document. Once the proposed Master Plan has been adopted, SBCAG will be responsible for incorporating any changes into the current Airport Land Use Compatibility Plan (ALUCP) for the Airport. According to California Public Utilities Code (PUC) §21676(c), "each public agency owning any airport within the boundaries of an airport land use commission plan shall, prior to modification of its airport master plan, refer such proposed change to the airport land use commission." The ALUC must then determine whether the proposed airport master plan is consistent or inconsistent with the adopted ALUCP. When an inconsistency exists between a proposed airport master plan and an adopted ALUCP, the ALUC has the option of first modifying its plan to reflect the assumptions and proposals of the airport master plan. This is consistent with the concept that an ALUCP is based on a current airport master plan or airport layout plan (see Section 6.3.4, *California Airport Land Use Planning Handbook* [Caltrans 2011]).

Finally, all future development projects would require FAA approval. FAA's statutory mission is to ensure the safe and efficient use of navigable airspace in the U.S. Thus, FAA must ensure that future airport projects do not derogate the safety of aircraft and airport operations at the Airport. Moreover, it is the policy of FAA under Title 49 United States Code (USC) §47101(a)(6) that airport development projects provide for the protection and enhancement of natural resources and the quality of the environment of the U.S.

Chapter Three

Chapter Three
PROJECT ALTERNATIVES

There are no changes to this chapter of the Draft Environmental Impact Report.

Chapter Four
ENVIRONMENTAL CONDITIONS, IMPACTS AND MITIGATION

The following sections of the Draft Environmental Impact Report (EIR) have been revised and are included in this Recirculated Draft EIR:

- Section 4.1, Air Quality/Greenhouse Gas Emissions
- Section 4.2, Biological Resources
- Section 4.5, Hydrology and Water Quality
- Section 4.6, Land Use and Planning
- Section 4.8, Transportation/Traffic

All other sections of Chapter Four remain unchanged and are not repeated within this document.

4.1 AIR QUALITY/GREENHOUSE GAS EMISSIONS

4.1.1 Environmental and Regulatory Setting

The Santa Barbara region is located in the South Central Coast air basin, which is comprised of San Luis Obispo, Santa Barbara, and Ventura counties. Geographic features that influence the quality of air in the region include the Santa Barbara Channel, located in the Pacific Ocean to the south, and the Santa Ynez Mountains, which have elevations up to 4,707 feet above mean sea level (msl) and trend east-west on the north side of the region. The climate in Santa Barbara is characterized as a Mediterranean climate with warm summers, mild winters, and relatively dry

weather. Inversion layers that can trap both the cooler air and air pollutants often occur. In addition, wind patterns that link the South Central Coast air basin with the Los Angeles area (the South Coast air basin) occasionally blow pollutants located offshore back inland (City of Santa Barbara 2010).

Greenhouse gases (GHG) are those that trap heat in the earth's atmosphere. Greenhouse gases such as water vapor (H_2O), carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and ozone (O_3) are both naturally occurring and anthropogenic (man-made). Research has shown that there is a direct link between fuel combustion and GHG emissions and that CO_2 accounts for 85 percent of GHG emissions within the United States (U.S.).

California is a substantial contributor of GHG (2nd largest contributor in the U.S. and the 16th largest in the world), with transportation and electricity generation representing the largest sources (41 and 22 percent, respectively). In Santa Barbara, direct sources of GHGs are on-road vehicles, natural gas consumption, and off-road vehicles and equipment. Indirect sources are electricity consumption (power generation), landfill decomposition (methane releases), and State Water Project transport (electricity use).

The scientific community is developing areas of further study to enable it to more precisely estimate aviation's effects on the global atmosphere. At an airport, sources that require fuel or power are the primary sources of GHG generation. Aircraft jet engines, like many other vehicle engines, produce CO_2, H_20, nitrogen oxides (NO_x), carbon monoxide (CO), sulfur oxides (SO_x), volatile organic compounds (VOCs), particulates, and other trace compounds. The Federal Aviation Administration (FAA) is currently leading or participating in several efforts intended to clarify the role that commercial aviation plays in greenhouse gases and climate change.

A related concern to global warming is sea level rise. Per State Executive Order #S-03-05, California produces periodic scientific assessments on the potential impacts of climate change in California. The most recent assessment was published in 2012 (Publication #CEC-500-2012-007) and includes sea level rise projections under two emission scenarios. According to this publication, sea levels along the California coast could be 10-18 inches higher in 2050 than in 2000, depending on the emission scenario (CA.gov 2014). The *Goleta Slough Area Sea Level Rise and Management Plan* (Slough Management Plan) identifies habitat and infrastructure at risk from rising sea water level in the Goleta Slough (Slough) and is incorporated by reference into this Recirculated Draft EIR. It can be reviewed in its entirety at http://www.goletaslough.org/committee/2016-goleta-slough-management-plan/ (GSMC 2015).

Regulatory Setting

Federal

The U.S. Environmental Protection Agency (EPA) under the Federal *Clean Air Act* has established National Ambient Air Quality Standards (NAAQS) based on health risks for six pollutants (**Exhibit 4A**): CO; nitrogen dioxide (NO_2); sulfur dioxide (SO_2); lead (Pb); O_3; and two sizes of particulate

Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards [1]		National Standards [2]		
		Concentration [3]	Method [4]	Primary [3,5]	Secondary [3,6]	Method [7]
Ozone (O_3)[8]	1 Hour	0.09 ppm (180 μg/m^3)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 μg/m^3)		0.070 ppm (137 μg/m^3)		
Respirable Particulate Matter (PM10)[9]	24 Hour	50 μg/m^3	Gravimetric or Beta Attenuation	150 μg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 μg/m^3		—		
Fine Particulate Matter (PM2.5)[9]	24 Hour	—	—	35 μg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 μg/m^3	Gravimetric or Beta Attenuation	12.0 μg/m^3	15 μg/m^3	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m^3)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m^3)	—	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10 mg/m^3)		9 ppm (10 mg/m^3)	—	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		—	—	
Nitrogen Dioxide (NO_2)[10]	1 Hour	0.18 ppm (339 μg/m^3)	Gas Phase Chemiluminescence	100 ppb (188 μg/m^3)	—	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 μg/m^3)		0.053 ppm (100 μg/m^3)	Same as Primary Standard	
Sulfur Dioxide (SO_2)[11]	1 Hour	0.25 ppm (655 μg/m^3)	Ultraviolet Fluorescence	75 ppb (196 μg/m^3)	—	Ultraviolet Flourescence; Spectrophotometry (Pararosaniline Method)
	3 Hour	—		—	0.5 ppm (1300 μg/m^3)	
	24 Hour	0.04 ppm (105 μg/m^3)		0.14 ppm (for certain areas)[11]	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas)[11]	—	
Lead[12,13]	30 Day Average	1.5 μg/m^3	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 μg/m^3 (for certain areas)[12]	Same as Primary Standard	
	Rolling 3-Month Average	—		0.15 μg/m^3		
Visibility Reducing Particles[14]	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24 Hour	25 μg/m^3	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 μg/m^3)	Ultraviolet Fluorescence			
Vinyl Chloride[12]	24 Hour	0.01 ppm (26 μg/m^3)	Gas Chromatography			

Source: California Air Resources Board 2016

Santa Barbara Airport

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Exhibit 4A

CALIFORNIA AND FEDERAL AMBIENT AIR QUALITY STANDARDS

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 $\mu g/m^3$ is equal to or less than one. For PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.

3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

4. Any equivalent measurement method which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.

5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

7. Reference method as described by the U.S. EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the U.S. EPA.

8. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

9. On December 14, 2012, the national annual PM2.5 primary standard was lowered from 15 $\mu g/m^3$ to 12.0 $\mu g/m^3$. The existing national 24-hour PM2.5 standards (primary and secondary) were retained at 35 $\mu g/m^3$, as was the annual secondary standard of 15 $\mu g/m^3$. The existing 24-hour PM10 standards (primary and secondary) of 150 $\mu g/m^3$ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

10. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

11. On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

    Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

12. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

13. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 $\mu g/m^3$ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

14. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

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matter (PM), measuring 10 micrometers or less in diameter (PM_{10}) and 2.5 micrometers or less in diameter ($PM_{2.5}$). An area with ambient air concentrations exceeding the NAAQS for a criteria pollutant is said to be a nonattainment area for the pollutant's NAAQS, while an area where ambient concentrations are below the NAAQS is considered an attainment area. As of June 17, 2016, Santa Barbara County (County) was in attainment for each of the NAAQS (U.S. EPA 2016). Federal regulations under the *Clean Air Act* regarding the reduction of GHG emissions have yet to be approved.

State

The State of California (*California Clean Air Act of 1988*) has promulgated ambient air quality standards that are more stringent than the NAAQS. The California Ambient Air Quality Standards (CAAQS) apply to numerous potential pollutants (**Exhibit 4A**), including O_3, CO, SO_2, NO_2, $PM_{2.5}$, PM_{10}, and Pb. As of December 2015, Santa Barbara County was in nonattainment for the following State ambient air quality standards: O_3 and PM_{10}. The County was unclassified for $PM_{2.5}$ and Visibility Inducing Particles (CARB 2015).

In addition, California has a number of regulations regarding GHGs and climate change. California Assembly Bill (A.B.) 32 (*Global Warming Solutions Act of 2006*) required the California Air Resources Board (CARB) to create a program to reduce statewide GHGs to 1990 levels by the year 2020; Senate Bill (S.B.) 375 (*Sustainable Communities and Climate Protection Act of 2008*) required regional coordination of transportation and land use planning throughout the State to reduce vehicle GHG emissions. For Santa Barbara County, CARB established targets of not to exceed 2005 per capita vehicle emissions in the years 2020 and 2035. State S.B. 97 (enacted in 2007 and amended in 2010) required that project environmental reviews under CEQA include analysis of GHG impacts and mitigation, and established that public agencies may provide for a communitywide GHG emissions mitigation program through an adopted Climate Action Plan.

Regional/Local

The Santa Barbara County Air Pollution Control District (APCD) is the local agency that implements State and Federal air quality regulations in Santa Barbara. Stationary sources (e.g., businesses, utilities, government agencies, and universities) need an APCD permit before constructing, changing, replacing, or operating any equipment or process which may cause air pollution. This includes equipment designed to reduce air pollution.

There are two permits required: Authority to Construct (ATC) is required before construction begins; and Permit to Operate (PTO) is necessary after construction and demonstration of compliance. In certain cases, the APCD can issue a combined ATC/PTO permit. Permits are also required if an existing business that causes air pollution transfers ownership, relocates, or otherwise changes their operations (SBAPCD 2014).

The APCD has also issued several notifications and requirements regarding toxic air emissions generated from activities such as gasoline dispensing, dry cleaning, freeways, manufacturing, etc., that may require projects with these components to mitigate or redesign features of the

project to avoid excessive health risks. Additionally, the APCD requires submittal of an asbestos notification form for each regulated structure that is proposed to be demolished or renovated.

4.1.2 Applicable Plans and Policies

Regional

The APCD, in coordination with the Santa Barbara County Association of Governments (SBCAG), has completed its *2013 Clean Air Plan* (CAP) (SBCAPCD & SBCAG 2015), which is required to be updated every three years by the Federal *Clean Air Act* amendments (Title 42 United States Code [USC] §§ 7401 et seq.) and the *California Clean Air Act of 1988*. The 2013 CAP reports on air quality monitoring data, provides an emissions inventory, identifies trends in ozone precursors, NO_x and reactive organic compounds (ROCs), using a 2008 baseline condition, and re-evaluates previous emission control measures to attain the State 8-hour ozone standard. In the 2013 revision, the CAP continues to show that marine shipping will be the primary source of NO_x in the County. The CAP also predicts that NO_x and ROC from aircraft within the County will peak by 2020 and then decrease slightly by 2030 (2013 CAP, Table 3-3, Emissions by Source Category).

Local

The City of Santa Barbara (City), as part of its General Plan, assumed "moderate growth" at the Airport and continued build-out of the *Santa Barbara Airport Industrial Area Specific Plan* (SP-6 Plan) (City of Santa Barbara 2010, Section 4 – EIR Growth and Policy Assumptions). There are numerous policies and programs incorporated into the General Plan that address energy conservation, and thus, GHG emission reduction. Some of these policies, such as ER5 - Energy Efficient Buildings, might be applicable to development at the Airport.

A citywide *Climate Action Plan* (Climate Plan) was adopted in September 2012 in response to directives of the City General Plan and State Legislature (A.B. 32, S.B. 375, and S.B. 97). The Climate Plan identifies an inventory and forecasts of CO and other GHG emissions generated by the Santa Barbara community that contribute to accelerated global climate change. Strategies to reduce carbon emissions are identified in the areas of energy, travel and land use, vegetation, waste reduction, and water conservation. The Climate Plan also identifies potential climate changes in Santa Barbara, and strategies to begin planning for adaptation to climate change effects.

Past, present, and forecasted future citywide GHGs were analyzed in the Climate Plan (and associated Addendum to the Final General Plan EIR) in comparison to the State and City GHG emission targets for overall emission levels in the year 2020 (1990 emission levels), and vehicle-related emissions in 2020 and 2035 (2005 emission levels). The analysis demonstrates that citywide emissions are decreasing. With continued implementation of existing State and City legislative measures, citywide emissions associated with growth under the General Plan would meet and surpass these State and City emissions targets. Additional Climate Plan measures would further

reduce citywide emissions. The Climate Plan constitutes a citywide mitigation program for GHGs in accordance with S.B. 97.

In addition, the City has prepared a *Greenhouse Gas (GHG) Inventory and Carbon Footprint Reduction Plan for Santa Barbara Airport* (2007). Carbon footprint reduction recommendations for the Airport include the following:

- Prepare benefit/cost analyses of alternative GHG emission reduction measures;
- Convert diesel-powered preconditioned air units to electric power;
- Convert gasoline- and diesel-powered ground service equipment (GSE) to electric power;
- Install solar panels at the long term parking lot; and
- Evaluate use of fuel cells at nearby locations.

4.1.3 Impact Evaluation Methodology and Significance Criteria

Based on CEQA significance criteria adopted by the City, a project may create a significant air quality impact from the following:

- Exceeding an APCD pollutant threshold; inconsistency with APCD regulations; or exceeding population forecasts in the adopted County CAP;
- Exposing sensitive receptors, such as children, the elderly or sick people, to substantial pollutant concentrations;
- Substantial unmitigated nuisance dust during earthwork or construction operations; and
- Creation of nuisance odors inconsistent with APCD regulations.

Long Term (Operational) Impact Guidelines

The City of Santa Barbara uses the APCD thresholds of significance for evaluating air quality impacts. The APCD has determined that a proposed project will <u>not</u> have a significant air quality impact on the environment if operation of the project will:

- Emit (from all project sources, both stationary and mobile) less than 240 pounds per day for reactive organic compounds (ROC) and NO_x, and 80 pounds per day for PM_{10};
- Emit less than 25 pounds per day of ROC or NO_x from motor vehicle trips only;

- Not cause a violation of any California or National Ambient Air Quality Standard (except ozone);

- Not exceed the APCD health risks public notification thresholds adopted by the APCD Board; and

- Be consistent with the adopted Federal and State air quality plans for Santa Barbara.

Substantial long term project emissions could potentially stem from stationary sources which may require permits from the APCD and from motor vehicles associated with the project and from mobile sources. Examples of stationary emission sources that require permits from the APCD include gas stations, auto body shops, diesel generators, boilers and large water heaters, dry cleaners, oil and gas production and processing facilities, and waste water treatment facilities.

Construction Impact Guidelines

Projects involving grading, paving, construction, and landscaping activities may cause localized nuisance dust impacts and increased PM_{10}. Substantial dust-related impacts may be potentially significant, but are generally considered mitigable with the application of standard dust control mitigation measures. Standard dust mitigation measures are applied to projects with either significant or less than significant effects.

Exhaust from construction equipment also contributes to air pollution. Quantitative thresholds of significance are not currently in place for short term or construction emissions for non-stationary sources. However, the APCD uses the threshold for stationary sources as a guideline for determining the impacts of construction emissions for non-stationary sources. The stationary source threshold states that a project's combined emissions from all construction equipment cannot exceed 25 tons of any pollutant except CO within a 12-month period. Standard equipment exhaust mitigation measures are recommended by the APCD for projects with either significant or less than significant effects.

Cumulative Impacts and Consistency with Clean Air Plan

If the project-specific impact exceeds the ozone precursor significance threshold, it is also assumed to have a considerable contribution to cumulative impacts. When a project is not accounted for in the most recent CAP growth projections, then the project's impact may also be considered to have a considerable contribution to cumulative air quality impacts. SBCAG and CARB on-road emissions forecasts are used as a basis for vehicle emission forecasting. If a project provides for increased population growth beyond that forecasted in the most recently adopted CAP, or if the project does not incorporate appropriate air quality mitigation and control measures, or is inconsistent with APCD rules and regulations, then the project may be found inconsistent with the CAP and may have a significant impact on air quality.

Global Climate Change

In accordance with Appendix G of the CEQA Guidelines, a project may have a significant impact related to global climate change if it would generate substantial GHG emissions either directly or indirectly, or would conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emission of GHGs.

Based on the analysis within the City's Climate Plan and the General Plan Program EIR Addendum, projects within the growth assumptions of the General Plan and that meet applicable City regulations for GHG emission reductions:

(1) would be consistent with the Climate Plan and associated policies and regulations for reducing GHG emissions;

(2) would be within the citywide GHG impact assessment in the Climate Plan and associated General Plan Program EIR Addendum, which found that total citywide GHG emissions and per capita vehicle emissions would meet State and City reduction targets and would not constitute a significant environmental impact; and

(3) would be within the City Council's Climate Plan adoption finding that no significant GHG impacts would result from General Plan build-out of the City.

4.1.4 Project-Specific Impacts

Long Term (Operational) Impacts

Impact AQ-1: As part of the proposed Master Plan's Initial Study, an Airport operational emissions inventory for existing conditions (2011), the short term forecast (2017), and the long term forecast (2032) was calculated using EDMS, Version 5.1.3 (Appendix B of the Draft EIR). These emission projections included emissions from aircraft, automobiles, ground support equipment, and fueling operations. The change in future emissions due to anticipated airport operations, when compared to the existing conditions, did not exceed APCD's significance thresholds (**Tables 4A** and **4B**).

TABLE 4A Short Term Operational Emissions Inventory[1] Santa Barbara Airport	Operational Emissions (pounds per day)		
	VOC[2]	NO_x	PM_{10}
2011 (Baseline Condition, 108,285 operations)	240.2	268.1	7.2
2017 (Forecast, 112,990 operations)	247.5	269.7	7.0
Difference	7.3	1.6	- 0.2
APCD Threshold for Operational Emissions Above Baseline Condition (pounds per day)	240	240	80
Emissions Difference Exceeds Threshold?	No	No	No
Automobile Emissions			
2011	3.3	2.9	0.1
2017	2.8	2.0	0.1
Difference	- 0.5	- 0.9	0
APCD Threshold for Operations (pounds per day)	25	25	- [3]
Yearly Emissions Exceeds Threshold?	No	No	- [3]

Source: Coffman Associates' technical analysis (see Appendix B of the Draft EIR).

[1] Includes emissions from aircraft, automobiles, ground support equipment, and fueling operations based on 2011 Santa Barbara Airport Master Plan operations estimates.
[2] Also referred to as reactive organic compounds (ROCs).
[3] APCD has not adopted a PM_{10} threshold for automobile emissions.

TABLE 4B Long Term Operational Emissions Inventory[1] Santa Barbara Airport	Operational Emissions (pounds per day)		
	VOC[2]	NO_x	PM_{10}
2011 (Baseline Condition, 108,285 operations)	240.2	268.1	7.2
2032 (Forecast, 133,150 operations)	321.0	377.0	8.9
Difference	80.8	108.9	1.7
APCD Threshold for Operational Emissions Above Baseline Condition (pounds per day)	240	240	80
Emissions Difference Exceeds Threshold?	No	No	No
Automobile Emissions			
2011	3.3	2.9	0.1
2032	2.5	1.3	0.1
Difference	- 0.8	- 1.6	0.0
APCD Threshold for Operations (pounds per day)	25	25	- [3]
Yearly Emissions Exceeds Threshold?	No	No	- [3]

Source: Coffman Associates' technical analysis (see Appendix B of the Draft EIR).

[1] Includes emissions from aircraft, automobiles, ground support equipment, and fueling operations based on 2011 Santa Barbara Airport Master Plan operations estimates.
[2] Also referred to as reactive organic compounds (ROCs).
[3] APCD has not adopted a PM_{10} threshold for automobile emissions.

In addition, the proposed Master Plan is not responsible for the aviation growth expected to occur at the Airport over the next 20 years. This growth is driven primarily by economic and population-based factors and was included in the economic and population projections for the City in the City's Final General Plan EIR. Rather, the Master Plan's purpose is to provide strategies for safety improvements and redevelopment recommendations that would allow the growth anticipated at the Airport to occur in a safe, efficient, and environmentally-sensitive manner. Therefore, the proposed Master Plan is consistent with adopted population forecasts.

The City has also adopted CEQA thresholds related to the exposure of sensitive receptors, such as children, the elderly, or sick people, to substantial pollutant concentrations and the creation of nuisance odors inconsistent with APCD regulations. The closest sensitive receptors to the areas of the Airport that might be affected by additional long term emissions or nuisance odors would be residents located north Hollister Avenue off of Willow Springs Lane. This residential area is approximately 1,000 feet from the part of the airfield that could be developed with the recommended Taxiway H Airfield Safety Project as well as the closest recommended north side redevelopment. At the closest residence, located almost 0.2 mile away, pollutant concentrations or odors would not be substantial.

The proposed Master Plan does include recommendations for several activities that would require a permit from the APCD. Among these are the expansion of the Airport's fuel farm facilities and the removal of buildings that could contain asbestos.

Result AQ-1: **Airport emissions would be below the APCD threshold of 240 pounds per day of ROC and NO_x and 80 pounds per day of PM_{10} (stationary or mobile sources), and 25 pounds per day (for automobile emissions only), in both the short and long term build out scenarios (refer to Tables 4A and 4B). In addition, the Airport's forecast growth in the proposed Master Plan has been included in the adopted City General Plan and EIR. Therefore, the anticipated growth is consistent with applicable APCD and City planning documents, including the 2013 CAP, and the City's Climate Plan.**

Due to the intervening distance (approximately 1,000 feet) between the nearest residential neighborhood and potential development areas of the Airport, no substantial pollutant concentrations or nuisance odors would affect sensitive receptors as a result of the proposed Master Plan. Certain specific activities at the Airport (as discussed above) may require a permit from the APCD. As long as all conditions of the required permit are implemented, project-specific operational emissions would have a <u>Class III, Less than Significant Impact</u> on long term air quality.

Construction and/or Demolition Impacts

Impact AQ-2: Construction of recommended Master Plan projects would result in emissions of pollutants due to grading, fumes, and vehicle exhaust. Diesel- and gasoline-powered construction equipment emits particulate matter, NO_x, and ROC. In order for emissions from construction equipment to be considered a potentially significant environmental impact, combined emissions from all construction equipment would need to exceed 25 tons of any pollutant (except CO) within a 12-month period. Therefore, this comparative analysis must occur as specific development projects are proposed and the construction schedule and equipment inventories can be estimated.

As discussed previously, the City has also adopted CEQA thresholds related to the exposure of sensitive receptors, such as children, the elderly, or sick people, to substantial pollutant concentrations and the creation of nuisance odors inconsistent with APCD regulations. The City's CEQA Guidance criteria also state that substantial unmitigated nuisance dust during earthwork or construction operations should not occur. At the closest residence, located almost 0.2 mile away, pollutant concentrations or odors related to construction equipment or activities would not be substantial. Dust, however, can migrate over considerable distances during windy conditions.

Result AQ-2: **Air quality and dust control is addressed in the City's Standard Conditions of Approval (see Initial Study, Appendix A of the Draft EIR, Exhibit 2) and would be adhered to through all grading, hauling, and construction activities related to the Airport. In addition, as a Program EIR, this document includes programmatic measures intended to fully mitigate potential construction impacts of the proposed Master Plan to a less than significant level (see Section 4.1.7 below). Thus, construction- or demolition-related air quality impacts would be <u>Class II, Less than Significant Impact with Mitigation</u>.**

4.1.5 Regional (Cumulative) Impacts

Cumulative Impacts and Consistency with Clean Air Plan

Impact AQ-3: As stated previously in Sections 4.1.2 and 4.1.4, the City of Santa Barbara, as part of its General Plan, assumed "moderate growth" at the Airport and continued build-out of the SP-6 Plan (City of Santa Barbara 2010, Section 4 – EIR Growth and Policy Assumptions).

The proposed project is consistent with the City's General Plan land use designation and the General Plan "moderate growth" assumptions. Master Plan-recommended future projects would be subject to existing regulations, design guidelines, and the Airport's carbon footprint reduction recommendations, as

appropriate, to reduce GHG emissions in the areas of energy efficiency and green building, renewable energy, travel and land use, vegetation, waste management, and water conservation.

Result AQ-3: **The proposed Master Plan is consistent with the 2013 CAP. Therefore, cumulative impacts to regional air quality would be <u>Class III, Less than Significant Impact.</u>**

Global Climate Change

Impact AQ-4: As discussed in the Initial Study, sources of direct CO and other GHG emissions that could result from the proposed Master Plan include project-related traffic, natural gas use, and landscaping/maintenance equipment. Indirect emissions are associated with power generation for electricity consumption; electricity and travel associated with consumer product production, transport, and use; solid waste disposal/decomposition; and potable water delivery. The Initial Study estimated that operational GHG emissions at the Airport could increase from 17,699 MT CO_2e in 2011 to 19,043 MT CO_2e in 2017, an increase of 1,344 MT CO_2e.[1] For the long term scenario, it is estimated that operational greenhouse gas emissions could increase from 17,699 MT CO_2e (2011 baseline) to 26,753 MT CO_2e, an increase of 9,054 MT CO_2e generation (see Appendix B of the Draft EIR for calculations).

The increases during the time horizons analyzed represent an incremental contribution to citywide emissions that have already been addressed in the City's General Plan EIR; no new impacts would result from the project. The City's Climate Plan constitutes a citywide mitigation program for GHGs in accordance with S.B. 97. Projects recommended in the proposed Master Plan would be part of the citywide emissions identified in the Climate Plan and General Plan Program EIR Addendum, which were determined to comply with State and City GHG emission reduction targets.

Result AQ-4: **The proposed Master Plan is consistent with the City's General Plan and adopted Climate Plan. Therefore, cumulative impacts to GHG emission goals for the region would be <u>Class III, Less than Significant Impact</u>.**

[1] GHG emissions are typically measured in terms of pounds or tons of "CO_2 equivalent" (CO_2E). The CO_2E for a gas is derived by multiplying the mass of the gas by the associated global warming potential (GWP) (i.e., potential of a gas or aerosol to trap heat in the atmosphere), such that MT CO_2E = (metric tons of a GHG) x (GWP of the GHG). For example, the GWP for CH_4 is 21.

4.1.6 Comparative Impacts of Alternatives

No Project Alternative

The Airport is likely to experience moderate growth, as predicted by the City and FAA, whether or not the proposed Master Plan is implemented. Therefore, long term (operational) and regional (cumulative) impacts related to air quality and GHG emissions of the No Project alternative would be the same as those expected to occur due to the proposed project. Both are expected to have no significant impact since this growth was included in the City's General Plan and Climate Plan as well as the APCD's adopted and updated CAPs.

The No Project alternative would have less impact to air quality due to construction activities related to the Airport since only general maintenance projects would occur. The City's Standard Conditions of Approval for dust control and other construction-related emissions would still apply, however, as well as any necessary permit conditions of the APCD. In addition, mitigation proposed in Section 4.1.7 should still be applied to any maintenance projects with a potential to reach the City and APCD's emission thresholds.

Environmentally Superior Alternative

Similar to the proposed project and the No Project alternative, the Airport is likely to experience moderate growth, as predicted by the City and FAA, under the Environmentally Superior alternative. Therefore, long term (operational) and regional (cumulative) impacts related to air quality and GHG emissions of this alternative would also be the same as those expected to occur due to the proposed project. Both are expected to have no significant impact since this growth was included in the City's General Plan and Climate Plan as well as the APCD's adopted and updated CAPs.

The Environmentally Superior alternative would have less impact to air quality due to construction activities related to the Airport since some of the projects that could occur under the proposed project would not occur under this alternative. For the remaining development under this alternative, however, the City's Standard Conditions of Approval for dust control and other construction-related emissions would still apply, as well as any necessary permit conditions of the APCD. In addition, mitigation proposed in Section 4.1.7 should still be applied to any construction or redevelopment with a potential to reach the City and APCD's emission thresholds.

4.1.7 Mitigation Measures

The City's Standard Conditions of Approval Applicable to Project for dust control and other construction-related emissions will be applied to all recommended projects under the proposed Master Plan, as appropriate. Other specific permit conditions may be applied to individual projects by the APCD.

Mitigation Measure for Air Quality Impact AQ-2

The following programmatic measure will be incorporated into the Mitigation Monitoring and Reporting Plan (Chapter Seven) for the proposed Master Plan. This measure will reduce potential air quality impacts (construction-related) of the proposed Master Plan to a less than significant level.

AQ/mm-1: **As a condition of approval, all construction and/or building removal projects occurring under the proposed Master Plan shall be required to estimate said project's combined emissions from all construction equipment to ensure that the project would not exceed 25 tons of any pollutant except CO within a 12-month period. Standard equipment exhaust mitigation measures recommended by the APCD for such projects shall be implemented, as appropriate.**

4.2 BIOLOGICAL RESOURCES

4.2.1 Environmental and Regulatory Setting

The Airport is located on a coastal plain along an east-west trending segment of the southern California coastline. The majority of the Airport is located within the historic boundaries of Goleta Slough, a coastal wetland that is one of the few remaining saltmarsh habitats in California and the only large area within the City with tidal-influenced creeks and salt water or brackish water marsh (Final General Plan EIR, p. 7-7). Two major creeks, Tecolotito and Carneros Creeks, traverse Airport property while San Pedro Creek forms part of the Airport's eastern border. Las Vegas Creek is also present north of Hollister Avenue where it crosses Airport property through the Twin Lakes golf course before it joins San Pedro Creek.

Airport development between 1928 and the 1970s resulted in the filling of portions of the Slough to accommodate runways, the conversion of grassland to accommodate a terminal, and the establishment of flood control channels and dikes, all of which caused the formation of basins within the Slough that gradually became cut-off from tidal circulation. However, the Slough still contains several channels that support tidal flow, for example, the designated Mesa Road Tide Channel, as well as formerly tidal areas and non-tide engineered wetland basins.

Currently, the parts of the Airport not occupied by facilities consist of a major portion of the Goleta Slough Ecological Reserve (GSER) and Goleta Slough State Marine Conservation Area and a variety of modified habitats. (The GSER is comprised of approximately 400 acres of the City-owned portion of the Slough and 34 acres owned by the California Department of Fish and Wildlife [CDFW].) Dominant vegetation includes pickleweed, saltgrass, and alkali wetlands, with brackish or freshwater wetland along upper wetland margins and within the several on-airport creeks. The upper Slough transitions to upland communities, including oak woodlands, coastal sage scrub, and annual grassland. The Slough supports rare, declining, and migratory wildlife,

including sensitive and special interest bird species. These resources are discussed in more detail in the Special-Status Species subsection.

Within the past ten years, a number of Airport improvements have continued to shape the biology of the Airport. Tecolotito and Carneros Creeks were moved to accommodate the shifting of Runway 7-25 westward. Runway safety areas (RSAs) were extended on both sides of Runway 7-25, new taxiway improvements, new service roads and airfield drainage improvements were installed, as well as the removal of infield wetland habitat in and around the runways and taxiways. On-airport habitats are also routinely altered by the Santa Barbara County Flood Control District (SBFCD) for purposes of flood control and maintenance.

The Airport is also actively managing approximately 15 acres of the Goleta Slough Ecological Reserve, which is currently undergoing a habitat maintenance, monitoring and reporting program as required mitigation for the Airfield Safety Projects. A number of habitat restoration projects have occurred on the Airport, including the Airfield Storm Drain, Area R-2, Basin E/F Tidal Restoration, Firestone Drainage, Fuel Farm Ditch, Las Vegas Creek, Safety Area Grading Mitigation, Tecolotito Berms, Tecolotito/Carneros Creeks Banks, and Verhelle Bridge Relocation Restoration.

Regulatory Setting

Federal

The ***Endangered Species Act*** **(ESA)** provides legislation to protect federally-listed plant and animal species. Impacts to listed species require the responsible agency or individual to formally consult with the U.S. Fish and Wildlife Service (USFWS) (or National Marine Fisheries Service [NOAA Fisheries], if appropriate) to determine the extent of impact to a particular species. If USFWS or NOAA Fisheries determine that impacts to a species would likely occur, alternatives and measures to avoid or reduce impacts must be identified. USFWS and NOAA Fisheries also regulate activities conducted in Federal critical habitat, which are geographic units designated as areas that support primary habitat constituent elements for listed species.

The ***Magnuson-Stevens Fishery Conservation and Management Act*** **(MSA)** was originally passed in 1976 and most recently reauthorized in 2007.[2] Under the law, eight Regional Fishery Management Councils are charged with managing fisheries in Federal waters along the Atlantic, Pacific, and Gulf Coasts. In the Santa Barbara area, the MSA is implemented by NOAA Fisheries, West Coast Region.

The Councils are responsible for preparing Fisheries Management Plans, in which Essential Fish Habitat (EFH) is identified. EFH includes all types of aquatic habitat, (i.e., wetlands, coral reefs, seagrasses, and rivers) where fish spawn, breed, feed, or grow to maturity. For any Federal action that may adversely affect EFH, Federal agencies must provide NOAA Fisheries with a written assessment of the effects of that action on EFH (60 CFR §600.815).

[2] Known as the *Magnuson-Stevens Fisheries Conservation and Management Reauthorization Act of 2006*, available at: http://www.nmfs.noaa.gov/sfa/laws_policies/msa/.

The ***Migratory Bird Treaty Act*** **(MBTA)** ***of 1918*** protects all migratory birds, including their eggs, nests, and feathers. The MBTA was originally drafted to put an end to the commercial trade in bird feathers, popular in the latter part of the 1800s. The MBTA is enforced by the USFWS, and potential impacts to species protected under the MBTA are evaluated by the USFWS in consultation with other Federal agencies.

The ***Fish and Wildlife Coordination Act*** requires that agencies consult with the state wildlife agencies and the Department of the Interior (USFWS) concerning the conservation of wildlife resources where the water of any stream or other water body is proposed to be controlled or modified by a Federal agency or any public or private agency operating under a Federal permit.

Executive Order (E.0.) 13112, ***Invasive Species*** directs Federal agencies to use relevant programs and authorities, to the extent practicable and subject to available resources, to prevent the introduction of invasive species and provide for restoration of native species and habitat conditions in ecosystems that have been invaded. The FAA is to identify proposed actions that may involve risks of introducing invasive species on native habitat and populations. "Introduction" is the intentional or unintentional escape, release, dissemination, or placement of a species into an ecosystem as a result of human activity. "Invasive species" are alien species whose introduction does, or is likely to, cause economic or environmental harm or harm to human health.

The ***Clean Water Act*** **(CWA), section 404** allows the U.S. Army Corps of Engineers (USACE) to regulate the discharge of dredged and/or fill material into "Waters of the United States" (waters), including wetlands. The term "waters" is defined in the USACE regulations (Title 33 Code of Federal Regulations [CFR] section 328.3[a]) as:

1. All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

2. All interstate waters including interstate wetlands;

3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect foreign commerce including any such waters:

    i. Which are or could be used by interstate or foreign travelers for recreational or other purposes; or
    ii. From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
    iii. Which are used or could be used for industrial purpose by industries in interstate commerce;

4. All impoundments of waters otherwise defined as waters of the U.S. under the definition;

5. Tributaries of waters identified in paragraphs (a) (1) through (4) of this section;

6. The territorial seas;

7. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a)(1) through (6) of this section.

The term "wetlands" (a subset of waters) is defined in 33 CFR 328.3(b) as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas." The discharge of dredge or fill material into waters, including wetlands, requires authorization from the USACE prior to impacts.[3]

E.O. 11990*, Protection of Wetlands* also protects wetlands as defined by "those areas that are inundated by surface or groundwater with a frequency sufficient to support, and under normal circumstances, does or would support a prevalence of vegetation or aquatic life that require saturated or seasonally saturated soil conditions for growth and reproduction." Categories of wetlands include swamps, marshes, bogs, sloughs, potholes, wet meadows, river overflows, mud flats, natural ponds, estuarine areas, tidal overflows, and shallow lakes and ponds with emergent vegetation. Wetlands exhibit three characteristics: hydrology, hydrophytes (plants able to tolerate various degrees of flooding or frequent saturation), and poorly drained soils.

State

The ***California Endangered Species Act*** **(CESA)** ensures legal protection for plants listed as rare or endangered, and species of wildlife formally listed as endangered or threatened by the State. This State law also lists California Special Concern (CSC) species based on limited distribution, declining populations, diminishing habitat, or unusual scientific, recreational, or educational value. Under State law, CDFW is empowered to review projects for their potential to impact State-listed and CSC species and their habitats.

In addition, the ***California Fish and Game Code*** **(CFGC)** states that "Fully Protected" (FP) species may not be taken or possessed without a permit from the Fish and Game Commission (Commission) and/or CDFW. Information on these species can be found within section 3511 (birds), section 4700 (mammals), section 5050 (reptiles and amphibians), and section 5515 (fish) of the CFGC.

[3] For tidally influenced waters, the USACE has two limits to its jurisdiction: one for Section 10 of the *Rivers and Harbors Act* and one for Section 404 of the CWA. The shoreward limit to the USACE jurisdiction under Section 10 extends to the line on the shore reached by the plane of the mean high water, which is 5 feet above mean low water. The shoreward limit for jurisdiction under the USACE Section 404 is based on the high tide line. If there are wetlands meeting the USACE criteria abutting or adjacent the high tide line, then the USACE jurisdiction under Section 404 extends to the limit of those wetlands.

The ***California Ecological Reserve Act of 1968*** (CFGC sections 1580-1585) established the Goleta Slough Ecological Reserve. As defined by the CFGC, section 1584, "ecological reserve" means land or land and water areas that are designated as an ecological reserve by the Commission pursuant to Section 1580 and that are to be preserved in a natural condition, or which are to be provided some level of protection as determined by the Commission, for the benefit of the general public to observe native flora and fauna and for scientific study or research.

Under CFGC section 1900, et seq., the ***California Native Plant Protection Act of 1977*** (also managed by CDFW), was enacted to identify, designate, and protect rare plants. In accordance with CDFW guidelines, plant species included on the California Native Plant Society (CNPS) lists 1A, 1B, and 2 are considered "rare" under the Act, and must be fully evaluated under CEQA. Impacts to plants on CNPS lists 3 and 4 are also often evaluated in CEQA documents, especially if protected at the local level. CNPS list 3 plant species are those for which little information is known, while plants included on CNPS list 4 have limited distributions.

The ***Marine Life Protection Act of 1999*** aims to protect California's marine natural heritage by establishing a statewide network of marine protected areas (MPAs) to protect the diversity and abundance of marine life, the habitats they depend on, and the integrity of marine ecosystems (see CFGC, section 2853). MPAs along the central California coast (Pigeon Point to Point Conception) have been in effect in State waters since September 21, 2007. The Goleta Slough State Marine Conservation Area includes the waters below the mean high tide line within Goleta Slough northward of latitude 34° 25.02' N. The State Marine Conservation Area designation limits recreational and/or commercial take to protect the Slough's specific resources (CDFG 2012).

CFGC, section 1600 et seq. (Streambed Alteration) allows CDFW to regulate activities which "will substantially divert, obstruct, or substantially change the natural flow or bed, channel or bank, of any river, stream, or lake designated by CDFW in which there is at any time an existing fish or wildlife resource or from which these resources derive benefit." CDFW takes jurisdiction to the top of bank of a stream, or the limit of the adjacent riparian vegetation, often referred to as "streambed and associated riparian habitats." Applications to CDFW for Streambed Alteration under Section 1600 et seq. must include a complete certified CEQA document.

Within estuary environments, waters are not regulated under Section 1600 of the CFGC where waters are principally marine, aquatic shorelines are shaped principally by tidal current and wave action not by fluvial processes, vegetation is saline marsh and not brackish or freshwater vegetation, and marine fish and invertebrate communities are prevalent. Conversely, areas dominated by fresh and brackish salinities and freshwater aquatic species, with fluvial erosion patterns, are regulated under Section 1600.

The ***Porter-Cologne Water Quality Control Act*** allows local regional water quality control boards (RWQCBs) to regulate discharges of waste, or proposals to discharge waste, within any region that could affect a "water of the State" (*Water Code*, Section 13260(a)), pursuant to provisions of Section 401 of the Federal CWA. Waters of the State are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state" (*Water Code*, Section 13050(e)). Before the USACE will issue a CWA section 404 permit, applicants must receive a CWA

section 401 Water Quality Certification from the RWQCB. If a CWA section 404 permit is not required for the project, the RWQCB may still require a permit (i.e., Waste Discharge Requirement) under the *Porter-Cologne Water Quality Control Act*. Applications to the RWQCB must include a complete certified CEQA document.

Finally, the ***California Coastal Act*** **(Coastal Act)** is administered by the California Coastal Commission (CCC) to prevent impacts in the "Coastal Zone." From three miles seaward, the Coastal Zone generally extends approximately 1,000 yards inland, although in less developed areas, it can extend up to five miles inland from the mean high tide line; it can also be considerably less than 1,000 yards inland in developed areas. The Coastal Act protects designated sensitive coastal areas by providing additional review and approvals for proposed actions in these areas, i.e., a Coastal Development Permit (CDP) is required for almost all development within the Coastal Zone. The Coastal Act also directs each city or county within the Coastal Zone to prepare a Local Coastal Program (LCP) for CCC certification. Refer to Exhibit 1A for the location of the Coastal Zone in the areas near the Airport.

The Coastal Act includes specific sections that limit uses allowed in water and marine environments and in "environmentally sensitive habitat areas" (ESHAs). Section 30121 of the Coastal Act defines wetlands as "...lands within the coastal zone which may be covered periodically or permanently with shallow water and include saltwater marshes, swamps, mudflats, and fens…" The Coastal Act allows disking, filling, or dredging of wetlands for certain uses, such as restoration.

Section 30233 of the Coastal Act sets forth specific limitations on uses allowable in wetlands.[4] The limitations are generally defined in a three-part test as follows:

1. The purpose of the project is limited to one of eight allowable uses identified in Section 30233;

2. The project has no feasible less environmentally damaging alternative; and

3. Adequate mitigation measures to minimize the adverse impacts of the proposed project on habitat values have been provided.

Section 30240 of the Coastal Act mandates that only resource-dependent uses may be allowed in ESHAs. Resource-dependent uses are typically defined as nature study, aquaculture, limited and passive public recreational facilities that provide coastal resource educational experiences, or similar resource-dependent activities. The following three main elements must be met for an area or habitat to be considered an ESHA: first, a geographic area can be designated an ESHA

[4] In contrast to the USACE, which uses a three-parameter definition to delineate wetlands, the CCC essentially uses the Cowardin method of wetlands classification, which defines wetland boundaries by a single parameter (i.e., hydric soils, hydrophytic vegetation, or hydrology) (Cowardin et al. 1979). The CCC wetland definition is generally more encompassing than either the USACE or CDFW definition in most respects.

either because of the presence of individual species of plants or animals or because of the presence of a particular habitat; second, for an area to be designated as an ESHA, the species or habitat must be either rare or it must be especially valuable; and three, the area must be easily disturbed or degraded by human activities.

Local

The following City regulations also provide protection for biological resources (see Section 4.2.2, Applicable Plans and Policies for identification of specific General Plan and LCP policies regarding the protection of biological resources at the Airport):

- The ***Santa Barbara General Plan*, Conservation Element** requires enhancement and preservation of critical ecological resources (e.g., marine resources, major drainage channels, endangered species habitat, perennial grassland, oak woodland and specimen trees).

- The ***Santa Barbara General Plan*, Environmental Resources Element** includes goals and policies for managing the City's biological and water resources.

- The City's ***Coastal Plan: Airport and Goleta Slough*** (2003) is a certified LCP specific to development at the Airport that implements Coastal Act policies requiring protection of ESHAs and other sensitive biological resources.

- ***Santa Barbara Municipal Code*, Title 22, Environmental Policy and Construction, Chapter 15.20, Tree Preservation and Section 22.10.060, City Vegetation Removal Ordinance** requires protection and/or replacement of healthy specimen trees and significant vegetation.

- ***Santa Barbara Municipal Code*, Title 29, Goleta Slough Reserve Zone (G-S-R)** protects sensitive environmental resources through the City's zoning ordinance by providing additional development standards for lands at the Airport within the Coastal Zone. Section 29.25.030 lists the uses permitted in the G-S-R zone subject to a Goleta Slough CDP:

    - Restoration projects;
    - Incidental public service projects;
    - Nature study, bird watching, aquaculture, and other resource-dependent activities;
    - Flood control or water supply projects;
    - Fish and wildlife habitat improvement; and
    - Repair or maintenance activities that do not result in enlargement or expansion of the object being repaired.

Specific to the Airport are the following allowable uses:

A. Maintenance Activities

1. Trimming of vegetative growth within the extended runway safety area and flight control area in accordance with FAA regulations, as required.

2. Mowing of grass and maintenance in accordance with FAA requirements of areas directly adjacent to and parallel to the runways and taxiways within 135 feet of the existing paved surface.

3. Maintaining the existing approach lighting system and access road, the existing glide slope, the existing Airport Surveillance Radar and access road, the existing Airport patrol road running along the perimeter of the Slough, and safety related facilities and uses necessary to maintain existing airport capacity and operations.

Section 29.25.040 states that activities such as "the clearing of channels, digging of ditches, desilting, and dredging" would require a Goleta Slough CDP.

Special-Status Species

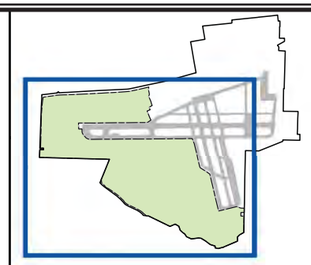
Special-status species are plant, fish, and wildlife species with limited distribution or abundance, are particularly vulnerable to human disturbances, or have special educational, scientific, cultural, or historic interest. As defined by the City, special-status species include (Final General Plan EIR, p. 7-9):

- Listed Species: Species listed as endangered, threatened, or rare under the Federal and/or State Endangered Species Acts, regardless of any other status of the species.

- Special-Status Species: Species that are not listed, but are designated as State FP or CSC species for wildlife, or CNPS List 1A (Presumed Extinct in California) or CNPS List 1B (Rare, Threatened, or Endangered in California and elsewhere) for plants.

- Species of Interest: Species identified as International Union for Conservation of Nature and Natural Resources (IUCN) Least Concern, CNPS List 4.2, CNPS List 4.3, locally rare, species of local interest, or regionally rare by a qualified biologist.

As part of the current Airport Master Plan, detailed vegetation maps, along with a Special-Status Species Inventory containing descriptions of all mapped vegetation communities, non-vegetated habitats, and potentially occurring special-status species, have been prepared for the biological study area (defined as the non-airfield portions of the Airport) (Appendix C of the Draft EIR). **Exhibit 4B** shows the location of special-status species and their associated habitats within the biological study area. Based on this recent inventory, several rare plants are present in transi-



Biological Survey Area

Airport Property Line

Special-Status Species Inventory

Special-Status Species- Dudek (2012)

- Coulter's goldfields
- Coulter's goldfields (Population count provided if known)
- southern tarplant
- southern tarplant

California Natural Diversity Database - 2012

Special Status Species

- Belding's savannah sparrow
- estuary seablite
- light-footed clapper rail

Sensitive Biological Habitat

- Southern Coastal Salt Marsh

Sensitive Nesting Habitat - DUDEK 2012

- Belding's savannah sparrow
- white-tailed kite

Special-Status Species Habitat - DUDEK 2012

- ABG - Annual Brome Grassland
- ARWT - Arroyo Willow Thickets
- ASH - Alkali Heath Marsh
- BG - Bare Ground
- CLOW - Coast Live Oak Woodland
- DRDG - Dredge Spoil or Work Area
- MBP - Meadow Barley Patches
- MBR - Salt Marsh Bulrush Marshes
- MDFT - Mudflats
- MFT - Mulefat Thickets
- OW - Open Water
- PW - Pickleweed Mats
- QS - Quailbush Scrub
- SGF - Salt Grass Flats
- STFT - Saltflats

HABITAT TYPES	ABG	ARWT	ASH	BG	CLOW	DRDG	MBP	MBR	MDFT	MFT	OW	PW	QS	SGF	STFT
Special-Status Species:															
Belding's savannah sparrow			◆									◆		◆	
Coulter's goldfields									◆			◆		◆	◆
estuary seablite			◆									◆			
least Bell's vireo		◆								◆					
light-footed clapper rail								◆	◆			◆			◆
southern tarplant	◆			◆		◆	◆						◆		
steelhead											◆				
tidewater goby											◆				
white-tailed kite					◆										
woolly seablite			◆						◆			◆	◆	◆	◆

0 50 100 200 300 400 500 Feet

Source: *Special-Status Species Inventory for the Santa Barbara Airport Master Plan Update*, Dudek 2012

Santa Barbara Airport

Exhibit 4B

SPECIAL-STATUS SPECIES INVENTORY

tional areas of the Slough, including Coulter's goldfields and southern tarplant, which have California Rare Plant Ranks (CRPR) of 1B.1 and 1B.2, respectively. Special-status plants, including locally rare plants, with the potential to occur at the Airport are listed in **Table 4C**.

TABLE 4C
Special-Status Plants Likely to Occur
Santa Barbara Airport

Common - *Scientific* Name	Life Form	Regulatory Status	Primary Habitat Association	Potential to Occur
Parish's glasswort - *Arthrocnemum Subterminale* (=*Salicornia subterminalis*)	perennial herb	LR	Coastal salt marsh, alkali sink, coastal sage scrub, wetland-riparian	Present
Watson's saltbush -*Atriplex watsonii*	perennial herb	LR	Coastal strand, coastal salt marsh, coastal sage scrub, wetland-riparian	Possible
Saltwort - *Batis maritima*	shrub	LR	Coastal strand, coastal salt marsh, wetland-riparian	Likely
Southern tarplant - *Centromadia parryi* ssp. *australis*	annual herb	CRPR 1B.1; LR	Margins of marshes and swamps, vernally mesic valley and foothill grassland, vernal pools	Present
Water pygmy weed - *Crassula aquatic* (=*Crassula saginoides*)	annual herb	LR	Yellow pine forest, foothill woodland, chaparral, valley grassland, wetland-riparian	Possible
Shore grass - *Distichlis littoralis* (=*Monanthochloe littoralis*)	perennial herb	LR	Coastal salt marsh, wetland-riparian	Likely
Short-seeded waterwort - *Elantine brachysperma*	annual or perennial herb	LR	Many plant communities, including wetland-riparian	Present
Mature coyote thistle - *Eryngium vaseyi*	perennial herb	LR	Valley grassland, wetland-riparian	Possible
Low barley - *Hordeum depressum*	annual herb	LR	Many plant communities, including wetland-riparian and grasslands	Present
Coulter's goldfields - *Lasthenia glabrata*	annual herb	CRPR 1B.1; LR	Salt water marshes and swamps, playas, vernal pools	Present
California marsh rosemary - *Limonium californicum* var. *californicum*	perennial herb	LR	Coastal salt marsh, coastal strand, wetland-riparian	Possible
Lemmon's canary grass - *Phalaris lemmonii*	annual herb	LR	Coastal sage scrub, valley grassland, foothill woodland, mixed evergreen forest, wetland-riparian	Possible
Pillwort - *Pilularia americana*	fern	LR	Valley grasslands, wetland-riparian	Possible
Estuary seablight - *Suaeda esteroa*	perennial herb	CRPR 1B.2; LR	Marshes and swamps (coastal salt)	Possible
Wooly seablight - *Suaeda taxifolia*	shrub	CRPR 4.2; LR	Coastal bluff scrub, coastal dunes, marshes and swamps (margins of coastal salt marshes)	Likely
Slim aster - *Symphyotrichum subulatum* var. *parviflorum (Aster subulatus* var. *ligulatus*)	perennial herb	LR	Saltflats and salt marshes, vacant lots	Likely
Arrow grass - *Triglochin concinna*	perennial herb	LR	Coastal salt marsh, creosote bush scrub, sagebrush scrub, pinyon-juniper woodland	Possible

Source: Dudek 2012; see Appendix C of the Draft EIR.

Legend:
CRPR = California Rare Plant Rank: 1B – Plants Rare, Threatened, or Endangered in California or elsewhere; 4-Plants of Limited Distribution – A Watch List; 0.1 – seriously threatened in California; 0.2 – Fairly threatened in California; 0.3 – Not very threatened in California or no known threats.

LR = Locally rare per *Rare Plants of Santa Barbara County* (Wilken 2010)

Goleta Slough and the Airport contain habitat for numerous special-status and common wildlife species. Several species of raptors, such as the State FP white-tailed kite and the northern harrier often hunt within portions of wetland habitat. Sandpipers and plovers foraging in mudflats and other sparsely vegetated areas feed on invertebrates. During particularly wet periods, these species also may feed in seasonal pools that form in grassy areas near the airfield. The pickleweed marsh in the Slough provides nesting habitat for the State endangered Belding's savannah sparrow and formerly hosted the Federal endangered light-footed clapper rail.

The brackish waters of Tecolotito and Carneros Creeks, as well as other tidal channels within the Slough, are occupied by the tidewater goby, a Federal endangered species and a CSC. Steelhead of the southern California distinct population segment (DPS), also a Federal endangered species and a CSC, may occasionally pass through Goleta Slough in transit to upstream spawning areas. The following information is taken primarily from Chapter 2 of the Slough Management Plan (GSMC 2015), which in turn references Appendix C of the Draft EIR. The entire Slough Management Plan is incorporated by reference into this Recirculated Draft EIR and can be reviewed in its entirety at http://www.goletaslough.org/committee/2016-goleta-slough-management-plan/**.**

- Tidewater gobies are found in brackish or freshwater in bays, sounds, and lagoons and creeks along the coast from Del Norte County south to San Diego County. Although this species inhabits creeks along the entire coast of Santa Barbara County and was present in Goleta Slough in the 1960s, collecting efforts in the 1990s failed to find tidewater gobies there, and the species was considered extirpated in the area in 2005. However, surveys conducted in 2006 in relation to the Airport's Creek Relocation Project recorded tidewater gobies in both Tecolotito and Carneros Creeks. Post-construction surveys also found the species in both of these creeks in 2007 and 2008. Surveys within limited areas of Basin E/F and adjacent portions of Tecolotito Creek resulted in observations of one tidewater goby in September/October 2010, five in May 2011, and none in August 2011. The species has also been observed in Atascadero Creek, but so far, has not been recorded in San Pedro or San Jose Creeks. The USFWS did not include any portion of the Airport in its final designation of tidewater goby critical habitat in 2008 (73 Federal Register [FR] 5920-6006); all five creeks converging in Goleta Slough were included within a proposed revision of critical habitat for the species in 2011 (76 FR 64996-65060).

- Adult steelhead occurrence in the Slough is limited to periods when the estuary is open and water depths in the river allow adults to use it as a migration corridor to the upper watershed. Juvenile steelhead may be present within upstream freshwater habitats of the Slough depending upon seasonal variations, and have been reported in upstream habitats of Atascadero, San Jose, San Pedro, and Tecolotito Creeks as well as in some of their tributaries. Adult steelhead has been reported in the lower sections (south of Highway 101) of San Pedro, Atascadero, and Maria Ygnacio Creeks.

Wildlife species protected by Federal and/or State regulations that are likely to occur at the Airport are listed in **Table 4D**. Although listed on the California Natural Diversity Database (CNDDB) for the general area, no suitable habitat exists at the Airport for the following federally protected species: California red-legged frog, California least tern, southwestern willow flycatcher, and snowy plover.

TABLE 4D
Special-Status Wildlife Likely to Occur
Santa Barbara Airport

Common – *Scientific* Name	Regulatory Protection	Regulatory Status	Habitat Types
Birds			
Belding's savannah sparrow - *Passerculus sandwichensis beldingi*	CESA; City's Local Coastal Program	State Endangered	Alkali heath marsh, mudflats, pickleweed mats, salt flats[1]
Least Bell's vireo - *Vireo bellii pusillus*	ESA; CESA	Federal Endangered; State Endangered	Arroyo willow thickets, mulefat scrub[2]
Light-footed clapper rail - *Rallus longirostris levipes*	ESA; CESA	Federal Endangered; State Endangered	Mudflats, pickleweed mats, salt marsh bulrush, saltflats
White-tailed kite - *Elanus leucurus*	CFGC	State Fully Protected	Coast live oak woodland[3]
Fish			
Steelhead, Southern California DPS - *Oncorhynchus mykiss irideus*	ESA; CESA	Federal Endangered; California Species of Concern	Open water
Tidewater goby - *Eucyclogobius newberryi*	ESA; CESA	Federal Endangered; California Species of Concern	Open water

Source: Dudek 2012; see Appendix C of the Draft EIR.

Legend:
CESA = California *Endangered Species Act*
ESA = Federal *Endangered Species Act*
CFGC = *California Fish and Game Code*
DPS = Distinct population segment

[1] Refers to breeding habitat only. Also forages in mudflats, saltflats, and a variety of scrub and grassland communities, especially near nesting habitat.
[2] Refers to breeding habitat only. Also forages in a variety of adjacent habitats.
[3] Refers to breeding habitat only. Also forages in a variety of grassland and open scrub communities.

Wildlife Hazards

In addition to the species identified in **Tables 4C** and **4D**, the Airport's scrub habitats and small amount of woodland support a more upland assemblage of common plant and wildlife species. Based on information received from the Santa Barbara Audubon Society in a letter regarding the Draft EIR, the following birds have been known to use the Slough historically and may or may not continue to use the undeveloped portions of the Slough: American bittern; Black-crowned night-heron; burrowing owl (wintering); California horned lark; California least tern; Cooper's hawks; double-crested cormorant; and numerous others. Grasshopper sparrows nest near the Slough on More Mesa and the great blue heron has a nesting rookery at Goleta Beach.

A more comprehensive discussion of wildlife at the Airport and its environs, and in particular, birds, is contained in a recently completed *Santa Barbara Airport Wildlife Hazard Assessment* (WHA) for the Airport (Dudek et al. 2016). FAA has strict regulations regarding the potential for bird strikes at airports. This report has been included in this Recirculated Draft EIR as **Appendix B**.

Environmentally Sensitive Habitat Areas

According to CNDDB, one special-status natural community occurs in the biological study area: southern coastal salt marsh. In addition, various vegetation communities occurring in the biological study area receive special protection under the Coastal Act or other regulations or agencies.

Southern Coastal Salt Marsh

Southern coastal salt marsh was identified as occurring in the biological study area (CNDDB 2011). This sensitive natural community occurs in California along the coast from Point Conception southward. In the biological study area, it occurs in the form of four distinct vegetation communities: alkali heath marsh, pickleweed mats, salt grass flats, and salt marsh bulrush. In addition to being listed as a sensitive natural community by the CDFW, southern coastal salt marsh at the Airport provides habitat for listed species as discussed below:

- Alkali heath marsh - Belding's savannah sparrows nest occasionally in alkali heath marsh and may use this community year-round for cover. Several rare plant species have the potential to occur within this community.

- Pickleweed mats - Pickleweed mats alliance in the biological study area currently provides nesting habitat for one listed bird species: Belding's savannah sparrow. This habitat also potentially provides habitat for a second listed bird species, the light-footed clapper rail, although without tidal circulation and predator management, the Airport's pickelweed marsh habitat is not presently suitable for the clapper rail. Some birds of prey forage in pickleweed mats and other salt marsh habitats when not inundated, including the white-tailed kite. Several special-status plant species also have the potential to occur in this community.

- Salt Marsh Bulrush - On the Airport property, it is unlikely that special-status wildlife species would regularly occupy this habitat; however, two special-status bird species (nesting) have low potential to utilize this habitat, i.e., the least bittern and tricolored blackbird. Light-footed clapper rails, extirpated from Goleta Slough, may have formerly nested in this community.

Riparian Scrub Communities

Two riparian vegetation communities found in the biological study area (arroyo willow thickets and mulefat scrub) are potentially habitat for special-status species, including at least one listed species. Although not specifically mentioned in the Airport's LCP, the LCP calls for protection of endangered species habitat, which potentially includes these communities.

- Arroyo Willow Thickets - Least Bell's vireo has occurred within willow habitat along Carneros Creek. Yellow warblers and yellow-breasted chats have been recorded within the biological study area during migration, and have some potential to nest there. White-tailed kites have roosted in willows within the biological study area and have the potential to roost in several locations. A small potential exists for birds of prey, such as the white-tailed kite and Cooper's hawk, to nest in this community.

- Mulefat Scrub - Mulefat scrub, when occurring adjacent to arroyo willow thickets, may potentially provide habitat for least Bell's vireos.

Open Water

Open water, identified as a habitat type within the biological study area, is important habitat for two listed species: tidewater goby and steelhead. As previously discussed, tidal channels and creeks within the biological study area provide habitat for the tidewater goby. This species occurs in less saline waters that occur away from the ocean, but has the potential to occur in streams and tidal channels anywhere within the biological study area. Steelhead of the southern California DPS have been reported in creeks flowing into the channel that meets the main slough channel at Goleta Beach County Park. Although this species is not known to occur in Carneros Creek, suitable spawning habitat is present upstream, and steelhead would have to travel through the lower reaches of the stream, within the biological study area.

Wetland communities

Various wetland communities, in addition to those mentioned above, are protected under the Coastal Act, the CWA, or the CFGC. As documented in Appendix D of the Draft EIR, biologists performed a Wetlands Inventory of the biological study area during February through March 2012 (Dudek 2012). All areas identified as being potentially subject to the jurisdiction of the USACE, RWQCB, CDFW, and/or CCC were field verified and mapped. Biologists also surveyed the infield for potential wetlands. These undeveloped areas were located near the runways and taxiways where the Airport has authority to maintain through regular mowing and occasional grading to deter use by wildlife and ensure the safety of aircraft. All developed areas (terminal, parking, hangers, airport facilities, etc.) that did not contain elements of natural vegetation were not surveyed for wetland habitat.

A detailed description of hydrophytic vegetative communities, hydric soils, and hydrology of the Airport is provided in Appendix D of the Draft EIR. The results of the wetlands inventory include areas delineated as jurisdictional by the USACE, RWQCB, CDFW, and CCC. The locations of these

varying jurisdictional boundaries are shown on **Exhibit 4C**. Wetland communities at the Airport include all four on-Airport creeks, the Mesa Road Tidal Channel, and several sub-basins within Goleta Slough.

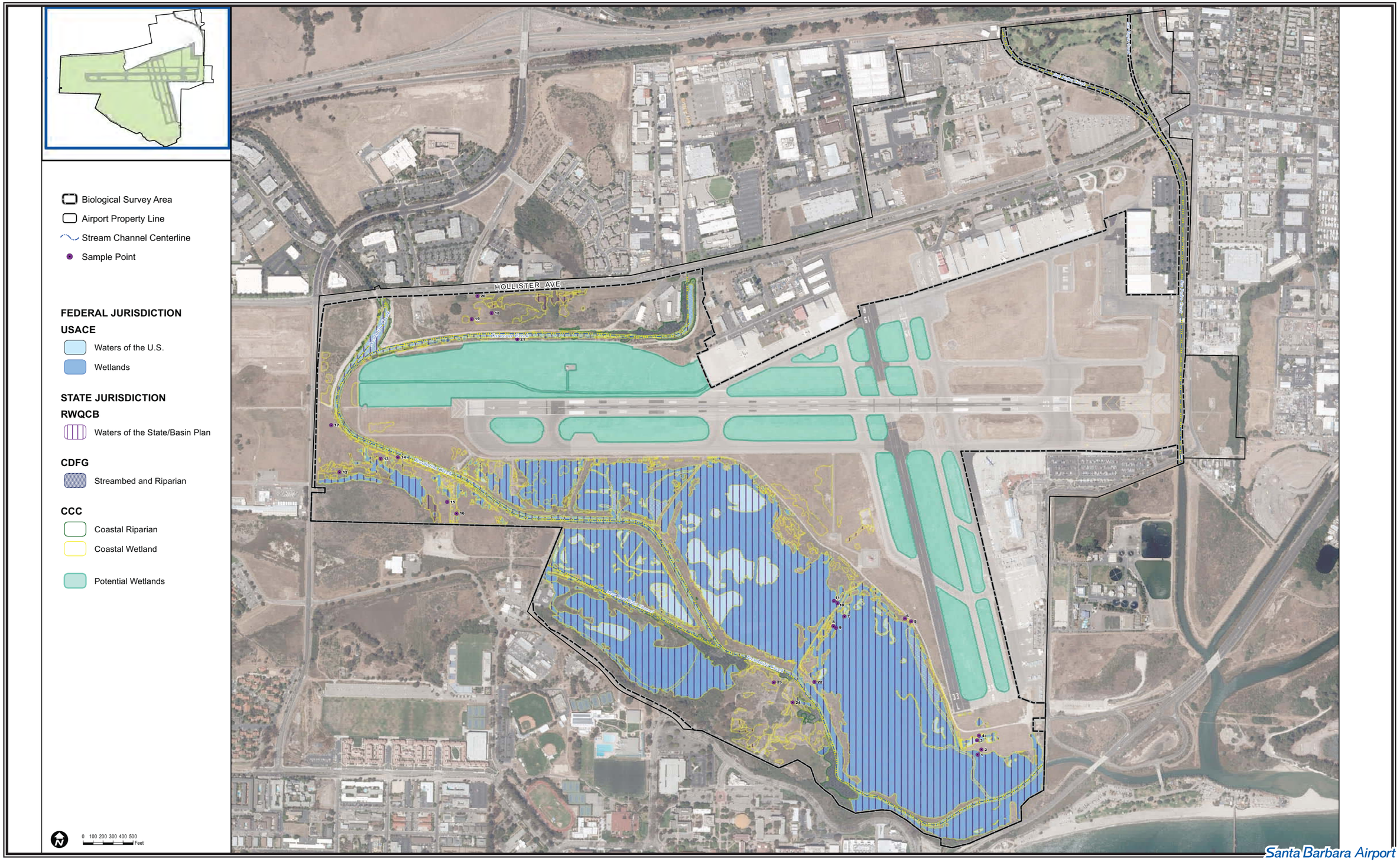
Many of the infield areas may also be subject to the jurisdiction of the CCC and potentially the USACE, especially to the west and south where the Airport was historically covered by Goleta Slough wetlands and where Tecolotito Creek once transected the Slough prior to its recent relocation. Hydrophytic vegetation was found to be intermittent to continuous through the majority of the infield areas that contain potential wetlands. This was especially evident in topographically depressed areas and areas adjacent to runways and storm drains, which likely receive greater amounts of local runoff. Alkali heath, meadow barley, and salt grass were the most common hydrophytes observed in these areas. Often when wetland vegetation had a clustered distribution, bare ground void or nearly void of vegetation was found in between these clumps. Upland vegetation was more evident as the survey continued to the east and north until it eventually dominated the infield areas.

Other indications of wetland potential included salt deposits, which were the widest spread primary indicator of hydrology within the infield areas and were often found on the surface of bare ground between clumps of hydrophytic vegetation and in unvegetated depressions. At one location, a storm drain was inundated with shallow runoff. A Baja California chorus frog (*Pseudacris hypochondriaca hypochondriaca*) was observed at this location further indicating the possibility of wetland habitat, although severely modified.

In conclusion, primary wetland indicators are present in western and southern infield areas as indicated above and presented on **Exhibit 4C**. These infield areas meet the definition of wetland under the Coastal Act and, therefore, the CCC could take jurisdiction over these areas. The USACE may also take jurisdiction under the CWA, section 404, based on the historical extent of the Goleta Slough and the wetland characteristics still evident in the infield areas. Additional surveys would be necessary to delineate the exact limits of jurisdiction based on vegetation and hydrologic conditions prior to any future proposed development(s). It is recommended that these surveys occur between late spring and summer prior to maintenance activities (i.e. mowing) when hydrophytic plants are in identifiable condition.

<u>Other Vegetation Communities</u>

Other vegetation communities, including some communities dominated by non-native vegetation, are often considered sensitive resources. At the Airport, eucalyptus groves are present along the Slough's border with UCSB. Although monarch butterflies are not known to roost within the biological study area, eucalyptus woodland there provides potential roosting habitat. At least one raptor species, the red-tailed hawk, has nested in this community within the biological study area, while others, such as the Cooper's hawk, have the potential to do so.



Source: *Wetlands Inventory for the Santa Barbara Airport Master Plan*, Dudek 2012

Exhibit 4C
JURISDICTIONAL WETLANDS INVENTORY

Wildlife Movement within the Vicinity of Goleta Slough

As part of the environmental scoping process for this EIR, both the Goleta Slough Management Committee (GSMC) and CDFW had comments regarding the movement of wildlife from open spaces near Isla Vista (such as Devereux Slough) and Atascadero Creek on the other side of Goleta Slough. The Santa Barbara Wildlife Linkages Project (UCSB research project) is currently monitoring and reporting wildlife sitings and movement in the area. Bears have been sighted at the mouth of Devereux Slough, along Atascadero Creek, and on UCSB's campus; bobcats have also been documented within the region (UCSB 2014). Currently, the Airport's perimeter fence is a barrier to certain small and medium-sized mammals, such as coyotes, gray foxes, and bobcats, that might otherwise enter the Goleta Slough. The Airport has an ongoing Wildlife Hazard Management Program that allows the removal of any wildlife hazard on an as-needed basis (see applicable subsection of Section 4.2.2).

4.2.2 Applicable Plans and Policies

City General Plan Policies

The *Santa Barbara General Plan* (2011) has several policies in its Environmental Resources Element that would offer protection for biological resources at the Airport:

> ER11. **Native and Other Trees and Landscaping.** Protect and maintain native and other urban trees, and landscaped spaces, and promote the use of native or Mediterranean drought-tolerant species in landscaping to save energy and water, incorporate habitat, and provide shade.
>
> ER12. **Wildlife, Coastal and Native Plant Habitat Protection and Enhancement.** Protect, maintain, and to the extent reasonably possible, expand the City's remaining diverse native plant and wildlife habitats, including ocean, wetland, coastal, creek, foothill, and urban-adapted habitats.
>
> ER13. **Trail Management.** Existing and future trails along creeks or in other natural settings shall be managed for both passive recreational use and as native species habitat and corridors.
>
> ER15. **Creek Resources and Water Quality.** Encourage development and infrastructure that is consistent with City policies and programs for comprehensive watershed planning, creeks restoration, water quality protection, open space enhancement, storm water management, and public creek and water awareness programs.
>
> ER17. **Creek Setbacks, Protection, and Restoration.** Protection and restoration of creeks and their riparian corridors is a priority for improving biological values, water quality, open space and flood control in conjunction with adaptation planning for climate change.

The City's Conservation Element has biological resource policies that are similar to Coastal Act policies in terms of protection of resources and enhancement of sensitive habitats. Since the Airport's LCP policies are more specific to the Airport and the Slough than the City's more general Conservation Element policies, see the discussion below.

City Coastal Plan: Airport and Goleta Slough

Biological coastal policies for the Airport are found in the Environmentally Sensitive Habitat section of the Airport's LCP. Policies applicable to future development at the Airport, as recommended by the proposed Master Plan, are listed in **Table 4E**.

TABLE 4E
LCP Policies Regarding Biological Resources
Santa Barbara Airport

	Policy
Policy C-4	A buffer strip a minimum of 100 feet in width shall be maintained in a natural condition along the periphery of all wetland communities, based upon wetlands delineated in the map entitled "Airport and Goleta Slough Coastal Plan Wetland Habitats, dated January 1998," and/or the most recent available wetland survey of the site prepared in accordance with the definitions of Section 13577(b) of Title 14 of the California Code of Regulations, and shall include open water, coastal saltwater marsh, freshwater marsh, swamps, salt flats, mudflats, fens, seasonal wetland meadow, riparian woodland, shrub-scrub thicket and wetland transition habitats. Incidental Airport uses and facilities necessary for existing Airport operations and found to be consistent with PRC section 30233 may be provided and maintained. Where development of the Airfield Safety Projects renders maintenance of a 100-foot buffer area between new development and delineated wetlands infeasible, the City shall provide the maximum amount of buffer area feasible and all impacts to wetland habitat shall be mitigated to the maximum extent feasible such that no net loss of wetland habitat occurs.
Policy C-8	No uses incompatible with the protection and maintenance of the wetland habitat and its open space character will be allowed in areas under City jurisdiction.
Policy C-9	Any development approved within or adjacent to the wetland areas identified on the habitat map shall have been found to be consistent with PRC's sections 30233, 30230, 30231 and 30607.1. Within the sensitive habitat areas, the approval of any restoration project which contains project elements which are not specifically permitted under PRC section 30233 shall occur only after the State Department of Fish and Game makes the finding, under Section 30411, that the wetland is so severely degraded that major restoration which might include other uses not specifically permitted under Section 30233 is necessary and will have the primary effect of restoring the degraded area.
Policy C-10	All development and mitigation of impacts on Goleta Slough shall be consistent with the policies of the *Goleta Slough Ecosystem Management Plan*, which is adopted and incorporated herein as Appendix G as it pertains to the Airport property.
Policy C-11	The Airfield Safety Projects, specifically development of the Runway Safety Area Project for Runway 7-25 and construction of Taxiway M, shall not result in the permanent net loss of wetland or upland habitat. Wetland areas temporarily affected by construction activities shall be restored to pre-construction conditions. The required mitigation ratios for the estimated 13.30 acres of permanent wetland and 10.87 acres of permanent upland impacts associated with the Airfield Safety Projects shall be as follows: • Seasonal Wetlands 4:1 • Creeks and open channels 2:1 • Uplands 1:1

	• Approximately 36 acres of wetland mitigation shall be accomplished in accordance with the Airport's October 2001 wetland mitigation plan for the Airfield Safety Projects, in addition to the supplementary mitigation required below. The upland mitigation shall be accomplished in accordance with the Airport's upland mitigation plan dated April 2002. • Prior to issuance of a Coastal Development Permit for the Airfield Safety Projects, final wetland and upland habitat mitigation, restoration, management, maintenance and monitoring plans shall be developed by a qualified biologist and/or resource specialist and shall be reviewed and approved by the California Department of Fish and Game. An implementation schedule shall be developed as part of the final mitigation plans that includes detailed descriptions of the mitigation sites and surrounding ecology, mitigation goals, objectives and performance standards; restoration and management actions including procedures and technical specifications for wetland and upland planting; methodology and specifications for removal of exotic species; soil engineering and soil amendment criteria; identification of plant species and density; maintenance requirements; monitoring methods, documentation requirements and submittal schedules for reviewing agencies; and performance criteria consistent with achieving the identified goals and objectives of mitigation; measures to be implemented if success criteria are not met; and long-term adaptive management of the restored areas for a period of not less than seven years. Compliance with the plans referenced above shall be a condition of approval of a Coastal Development Permit for the Airfield Safety Projects. • The City shall implement all habitat mitigation and restoration requirements prior to or in concurrence with development of the Airfield Safety Projects to comply with the above identified mitigation ratios. With respect to wetland mitigation and tidal restoration of Goleta Slough, the City shall implement all measures necessary to fulfill a 3:1 mitigation requirement for impacts to wetland habitat prior to or concurrently with development of the Airfield Safety Projects and shall continue to examine the feasibility of implementing tidal restoration as a means of meeting the full 4:1 wetland mitigation ratio requirement. • Once there is authorization from the FAA to proceed with tidal restoration, and concurrence with the California Department of Fish and Game and the Goleta Slough Management Committee on the nature, scope and schedule of the tidal restoration projects following completion of the tidal restoration experiment, the City shall act as lead agency to develop and implement a Tidal Restoration Plan for at least 13.30 acres with participation from U.C. Santa Barbara, the California Department of Fish and Game, the Goleta Slough Management Committee, and adjacent property owners. Should any participating agencies or property owners choose not to participate, or an agreement is not reached with all interested parties, the City shall continue to implement tidal restoration options to the maximum extent feasible unless the Commission or the FAA prohibit or deny tidal restoration. • Within five years of issuance of the Coastal Development Permit for the Airfield Safety Projects, the City shall present all documentation, findings and conclusions relative to the tidal restoration studies for review by the Commission. If the evidence demonstrates that tidal restoration is an infeasible means of satisfying the wetland mitigation requirements of the Airfield Safety Projects due to safety concerns, and/or the tidal restoration experiment or project is terminated at any point subsequent to implementation of an approved tidal restoration plan, the City shall immediately implement additional wetland mitigation measures to supplement mitigation efforts in full compliance with the 4:1 wetland mitigation requirements. • If the results of the Goleta Slough Tidal Restoration/Bird Strike Experiment indicate that tidal restoration will not significantly and adversely increase the potential for aircraft bird strikes as determined by the FAA, the City shall provide 13.30 acres of the required wetland mitigation as part of a future, long-term project to restore tidal circulation to portions of Goleta Slough. In the event that tidal restoration mitigation is determined to be infeasible, the City of Santa Barbara shall provide 13.30 acres of in-kind mitigation for impacts to seasonal wetlands to complete the mitigation requirement. The additional 13.30 acres of wetland mitigation will fulfill the Airport's require-

	ments for wetland mitigation for the Airfield Safety Projects. Priority shall be given to on-site mitigation for the additional 13.30 acres of wetland mitigation. Off-site mitigation measures shall only be approved should it not be feasible to fully mitigate impacts on-site. The City shall coordinate with the California Department of Fish and Game and the Goleta Slough Management Committee to identify potential off-site mitigation sites. Off-site mitigation measures shall be implemented in an area in close proximity to the project as is feasible, and shall not be located outside of the Santa Barbara County area. Full compliance with all the above provisions of Policy C-11 shall be required by the terms and/or conditions of the Coastal Development Permit authorizing the Airfield Safety Projects.
Policy C-12	New development shall be sited and designed to protect water quality and minimize impacts to coastal waters by incorporating measures designed to ensure the following: protect areas that provide important water quality benefits, that are necessary to maintain riparian and aquatic biota and/or that are particularly susceptible to erosion and sediment loss; limit increase of impervious surfaces; limit disturbance of natural drainage features and vegetation; minimize, to the maximum extent feasible, the introduction of pollutants that may result in significant impacts from site runoff from impervious areas. New development shall incorporate Best Management Practices (BMPs) or a combination of BMPs best suited to reduce pollutant loading to the maximum extent feasible.
Policy C-15	Special-status plant and wildlife protection measures shall be implemented for all development projects that will potentially impact sensitive plant and wildlife species and/or that will result in disturbance or degradation of habitat areas that contribute to the viability of plant or wildlife species designated as rare, threatened, or endangered under State or Federal law, including plant species designated as rare by the California Native Plant Society.
Policy C-16	With respect to the Airfield Safety Projects, all construction, habitat mitigation and restoration plans, and special-status plant and wildlife mitigation and protection measures, shall be reviewed and approved by the regulatory agency/agencies having jurisdiction over the identified resource, including the California Department of Fish and Game, U.S. Fish and Wildlife Service, and the National Marine Fisheries Service, and shall at a minimum include: • Project timing and implementation schedules that describe timing, duration, methods, and staging areas for all construction operations and restoration plans. The project timing and implementation schedules shall include a submittal schedule for implementation of proposed restoration plans and for all resource monitoring reports. • Prior to commencement of construction activities, surveys of the project area shall be conducted for special status wildlife species. Should the site surveys identify special status wildlife species on or near the project site, a qualified biologist or resource specialist shall develop a plan to avoid or mitigate potential impacts to the sensitive species. Resource avoidance or mitigation plans shall be reviewed and approved by the regulatory agency/agencies having jurisdiction over the identified resource and commencement of construction shall not proceed until such review and approval is granted. • Construction shall not occur during the nesting and breeding season from mid-March to the end of June, unless a qualified biologist and/or resource specialist and the California Department of Fish and Game determine with certainty that construction activities will not adversely impact sensitive bird species. Special resource avoidance and management plans shall be implemented for Belding's savannah sparrow. • Construction activities related to the Tecolotito Creek realignment shall minimize extensive stream diversions during construction and shall minimize potential impacts to steelhead. Construction of the new creek channel shall be completed prior to connecting with the existing channel and final diversion of stream flow into the new creek channel shall be conducted only between July 15 and October 1 of any given year to avoid the migration period of steelhead. • Prior to commencement of construction activities, surveys of the project area shall be conducted for special status plant species. Potential impacts to sensitive plant species shall be fully mitigated and a qualified botanist or other resource specialist shall develop a plan to avoid or mitigate

	potential impacts to the sensitive species. Resource avoidance or mitigation plans shall include, but not be limited to, species-specific salvage or seed collection, salvage of topsoil, restoration of disturbed areas and establishment of new populations in suitable habitat areas. Mitigation, restoration, management, maintenance and monitoring plans shall be developed by a qualified botanist and/or resource specialist and shall be reviewed and approved by the California Department of Fish and Game.
Policy H-1	Future development of Airport property and/or facilities within the "Major Public and Institutional Land Use Designation" shall not result in adverse impacts to the wetland habitats of the Goleta Slough, related stream tributaries, or sensitive habitat areas due to additional sedimentation, runoff, or other disturbances.

Source: City of Santa Barbara, 2003. *Coastal Plan: Airport and Goleta Slough*, as amended and certified by the California Coastal Commission, May.

PRC = California Public Resources Code

Guide to the Southern California Marine Protected Areas - Point Conception to California-Mexico Border

Under the State's *Marine Life Protection Act of 1999*, there are several general rules that apply to all MPAs, including rules regarding access, anchoring, transit and drifting, introducing species, feeding fish, and public safety. Permitted/Prohibited uses specific to the Goleta Slough State Marine Conservation Area are as follows (CDFG 2012):

- Take of all living marine resources is prohibited except for take pursuant to activities authorized under subsection 632(b)(78)(D).

- In waters below the mean high tide line inside the Goleta Slough Ecological Reserve as defined within Section 630, the following restrictions apply:

  1. Boating, swimming, wading, and diving are prohibited.
  2. No person shall enter this area and remain therein except on established trails, paths or other designated areas except Department employees or designated employees of Santa Barbara Airport, City of Santa Barbara, Goleta Sanitary District and Goleta Valley Vector Control District for the purposes of carrying out official duties.

- Routine maintenance, dredging, habitat restoration, research and education, maintenance of artificial structures, and operation and maintenance of existing facilities in the conservation area is allowed pursuant to any required Federal, State and local permits, or activities pursuant to Section 630, or as otherwise authorized by the Department.

Goleta Sough Area Sea Level Rise and Management Plan

The GSMC was formed in 1991 to help work cooperatively between the many regulatory agencies, property owners, and special interest groups "to provide for a healthy Goleta Slough ecosystem irrespective of jurisdictional or other boundaries" (GSMC 2015). The Slough Management

Plan (2015) provides a comprehensive update of previous Goleta Slough management plans and includes a sea level rise vulnerability analysis, which is hereby incorporated by reference (see http://www.goletaslough.org/committee/2016-goleta-slough-management-plan/). It contains detailed discussion of existing conditions within the Slough and the entire 2,250-acre Slough Management Plan area, which encompasses developed areas such as the Airport, the Goleta Sanitary District plant, the Goleta West Sanitary District plant, and multi-family residential, commercial, and industrial development within the City of Goleta, the County of Santa Barbara, and the University of California at Santa Barbara (UCSB). Prepared on behalf of the GSMC, the Slough Management Plan synthesizes available information related to historic and existing conditions and discusses current and future anticipated challenges.

Goals within the Slough Management Plan focus on four over-arching ideas:

- Administrative Framework (Goal A) – Provide an administrative framework for the adoption, implementation and periodic updates of the *Goleta Slough Ecosystem Management Plan* (GSEMP) (i.e., the Slough Management Plan) through cooperative interaction between landowners, public interest groups, responsible agencies and jurisdictions. Consider the evolution of habitats, adaptive management and other changes that are likely to occur over time, including those related to climate change. Compatibility with surrounding land uses must also be considered in the review of plans and projects.

- Protection and Maintenance of Existing Resources, Functions and Values (Goal P) – Protect and maintain the natural diversity and resilience of species, habitat types and ecosystem functions through protection of physical processes that naturally maintain these resources. More deliberate adaptation actions may be necessary as sea level rise accelerates and other climate change impacts become more apparent. These adaptation strategies, when implemented, should, to the maximum extent feasible, avoid further alteration of habitats or physical processes.

- Restoration and Enhancement of Historic Resources, Functions and Values (Goal R) – To the maximum extent possible, enhance and restore the Slough's natural diversity of resources, habitats, physical processes, and functions that have been lost or degraded and that are needed to maintain the resilience of the Slough in the light of climate change.

- Education and Research (Goal E) – Increase the understanding and awareness of the Goleta Slough Ecosystem and its historic and future functions and values, through providing inventories of resources and supporting research and monitoring to inform decision makers and the public.

Recommended policies include: avoidance of wetland and upland resources whenever possible (Policy P-1); managing the Goleta Slough mouth to maintain optimal tidal circulation, water quality, and diversity and resilience of species and habitats (Policy P-2); managing sedimentation from the watershed into tidal marshlands and flats of the Slough compatible with flood protection for the Airport and other potentially affected landowners (Policy P-4); allowing accretion to occur within wetlands to counteract sea level rise (Policy P-5) (GSMC 2015).

The Slough Management Plan also includes numerous policies aimed at restoration efforts within the Slough. These policies reflect the conclusions of the sea level rise portion of the Plan, which provides a summary of projections of climate change for Goleta Slough and the impacts it may have on the natural ecosystem and the built environment. In addition to the projected sea level rise, the future management of the Slough mouth will have a "very significant impact on future water levels and have a large effect on the distribution of habitats and species within the Slough" (GSMC 2015). The GSMC encourages local jurisdictions to consider the goals and the policies contained in the Slough Management Plan as they update their LCPs and undertake new studies in the Goleta Slough area.

Santa Barbara Municipal Airport Wildlife Hazard Management Plan

The Airport's Wildlife Hazard Management Plan (WHMP) was prepared in July 2008 as a draft pursuant to 14 CFR §139.337(e), in cooperation with the U.S. Department of Agriculture's Wildlife Services program. It will eventually be updated based on the recent WHA completed at the Airport (**Appendix B**). The 2008 WHMP includes both habitat management strategies and wildlife hazard management procedures. **Table 4F** lists the WHMP's Habitat Management Implementation Schedule.

TABLE 4F
Habitat Management Implementation Schedule
Santa Barbara Airport

Activity	Timeline
Monitor and improve drainage from runway, taxiway and safety areas that are found to impound storm water for extended periods.	Ongoing
Mow grass infield areas no lower than 7 inches where practical.	Ongoing
Mow infield areas prior to wet season to reduce cover availability throughout winter season.	October 2008
Time mowing during plant growth cycle to minimize seed production, if possible.	Spring 2009
Monitor and install exclusion barriers or anti-perching devices on Airport buildings that regularly attract wildlife.	Ongoing
Monitor and install anti-perching devices to attractive airfield structures to eliminate habitual perching opportunities.	Ongoing
Maintain the airfield perimeter fence to discourage access to the airfield by large mammals.	Ongoing
Control rodent populations on the airfield to prevent attracting predators.	Ongoing
When replanting airfield areas, select plant species that minimize attractiveness to wildlife, if possible.	As needed – project specific
Limit the availability of trash which may become an attractant for scavengers and rodents.	Ongoing
Remove carcasses on the airfield which may become an attractant for scavengers.	Ongoing
Discourage hand feeding of birds and rodents.	Ongoing

Source: Santa Barbara Municipal Airport, WHMP (Draft), July 18, 2008.

In addition to habitat management activities, birds, large mammals, and other wildlife may sometimes need to be captured or removed. For example, rodents attract many types of predators that, if struck, may pose a threat to aircraft. If it is determined, based on monitoring, that an actual wildlife hazard exists, then Airport Patrol or Airport Operations staff takes direct action as soon as possible to resolve the situation. These control measures are selective and allow for positive identification of target animals. This reduces the impact on listed endangered or threatened species.

4.2.3 Impact Evaluation Methodology and Significance Criteria

Based on CEQA significance criteria adopted by the City, existing native wildlife and vegetation on a project site should be assessed to identify whether they constitute important biological resources, based on the types, amounts, and quality of the resources within the context of the larger ecological community. If important or sensitive biological resources exist, project effects on the resources are qualitatively evaluated to determine whether the project would substantially affect these important biological resources. Significant biological resource impacts may potentially result from substantial disturbance to important wildlife and vegetation in the following ways:

- Elimination, substantial reduction or disruption of important natural vegetative communities, wildlife habitat, migration corridors, or habitats supporting sensitive species such as oak woodland, coastal strand, riparian, and wetlands.

- Substantial effect on a protected plant or animal species listed or otherwise identified or protected as endangered, threatened or rare.

- Substantial loss or damage to biologically important native trees such as oak or sycamore trees.

4.2.4 Project-Specific Impacts

Most of the development recommended by the proposed Master Plan would occur within the currently developed portion of the Airport. Biological resources in these areas of the Airport are minimal since they contain either impervious surfaces, such as buildings and pavement, or are vegetated with brome grasses that are regularly mowed, for example, around the runway/taxiway system. In addition, the acquisition of two avigation easements at the ends of Runway 33R and 15R would preclude future development of these two areas and would, therefore, reduce future impacts to wildlife or vegetation.

The following recommended development project (i.e., the Taxiway H Airfield Safety Project), however, could result in more substantial disturbance to important wildlife or vegetation, as defined in Section 4.2.3, primarily by disrupting potential wetlands and creating construction activity that could disturb protected birds.

Impacts to the Goleta Slough Ecological Reserve

Impact BIO-1: The proposed Master Plan recommends the extension of Taxiway H west to the Runway 7 threshold to provide safer access to the north side of the Airport (see **Appendix A**). This action would also involve the relocation of an existing glideslope antenna and the construction of two new connector taxiways. As shown in Exhibit 2D, the Taxiway H Airfield Safety Project and its related actions are likely to have direct impact on approximately 6.1 acres for construction of the taxiway pavement and shoulders and impacts to another 6.3 acres for grading within the taxiway object free area (TOFA). An estimated 12.4 acres of total disturbance would occur (does not include the removal of 1.14 acres of pavement where the taxiway would cross the existing apron). Approximately 11.2 acres of this area is located within the GSER.

As discussed in detail in Appendix C of the Draft EIR, vegetation within the Taxiway H disturbance area is annual brome grassland. This habitat type is composed primarily of non-native short to tall grasses and native and non-native broad-leaf forbs. In addition, noxious weeds may be present in disturbed areas. The Taxiway H project area is mowed in the fall and spring as part of the Airport's wildlife hazard management efforts. Although rodents and small mammals may use the area, overall, the wildlife hazard management practices are intended to suppress their presence; similarly, birds and larger mammals that might use the area for wildlife movement are also less likely to occur. The area is not likely to attract large numbers of reptiles and amphibians.

Depending on the amount of rainfall, however, this infield area may function as an intermittent wetland area. If this remains the case, the USACE and RWQCB would likely take jurisdiction and require permits under the CWA. Thus, potential impacts to biological resources from the Taxiway H Airfield Safety Project could include a loss of jurisdictional wetlands. This airfield safety project would also require additional development within the existing G-S-R zone and on land designated as Goleta Slough Natural Reserve in the City's General Plan, which are intended to protect biological resources of the GSER.

Result BIO-1: **The current LCP contains mitigation that was established for previous airfield safety projects, including the construction of Taxiway M within the G-S-R zone. It is anticipated that a mitigation program similar to what is set forth in LCP policies C-11 and C-16 would be necessary to fully mitigate the Taxiway H Airfield Safety Project. However, a full analysis of this project's impacts on jurisdictional wetlands, indirect impacts on the GSER, and consistency with the policies of the Airport's LCP cannot be undertaken until the project is actually proposed and the project's construction details are known.**

At that time, a thorough evaluation of the project under CEQA would be required, prior to the issuance of a CDP. See Section 4.6.4 for a discussion of the need for an LCP amendment/rezone/General Plan amendment.

Section 4.2.7 contains a programmatic level mitigation program for the Taxiway H Airfield Safety Project. Although a detailed mitigation program cannot be developed until the design features and grading plan for the Taxiway H project are known, the programmatic mitigation program described would meet the previously established mitigation standards of the LCP. Upon implementation of the mitigation program outlined in Section 4.2.7, project-specific impacts related to wetlands, and indirect impacts to the GSER would be <u>Class II, Less than Significant Impact with Mitigation</u> since the project would not result in the "elimination, substantial reduction, or disruption of important natural vegetative communities, wildlife habitat, migration corridors, or habitats supporting sensitive species…" after mitigation.

Impacts to Protected Birds

Impact BIO-2: Birds of prey such as red-tailed hawk and white-tailed kite, a California Fully Protected species, are encountered occasionally near the area proposed for the Taxiway H Airfield Safety Project area. However, implementation of the Airport's adopted WHMP requires the hazing of bird species within the runway and taxiway safety areas, in compliance with the FAA Manual "Wildlife Hazard Management at Airports (dated July 2005). Therefore, the area is not considered suitable foraging habitat for the white-tailed kite and direct impacts will not occur.

No suitable habitat for Belding's savannah sparrow (State endangered species) was identified within the runway and taxiway safety areas in recent surveys, including the Zembal et al. survey "A Survey of the Belding's Savannah Sparrow" (2010) with field work conducted by Mark Holmgren. However there remains a possibility of Belding's savannah sparrow use of the Taxiway H Airfield Safety Project site. In addition, the Belding's savannah sparrow may be present in any of the proposed restoration areas. Therefore, the potential for impacts to this protected species exists.

As previously discussed, the least Bell's vireo is a Federal and State endangered bird that has occurred within willow habitat along Carneros Creek. White-tailed kites and Cooper's hawk also have a slight potential to nest in this community. Carneros Creek is located approximately 250 feet from the Taxiway H Airfield Safety Project area at its closest point. Construction activities in proximity to Carneros Creek and its associated ESHA will need to be closely monitored to ensure that indirect impacts related to noise, dust, or other deterrents to the nesting of these protected birds do not result.

Result BIO-2: **Potentially significant direct impacts to the Belding's savannah sparrow would occur as a result of the Taxiway H Airfield Safety Project if this protected species is present during construction. This potential impact, as well as indirect impacts to nesting birds along Carneros Creek, can be avoided through the avoidance of the breeding and nesting season and/or by maintaining suitable buffers. These direct and indirect impacts to protected birds are considered <u>Class II, Less than Significant with Mitigation</u> since the project would not result in a "substantial effect on a protected plant or animal species listed or otherwise identified or protected as endangered, threatened, or rare" after mitigation.**

Impacts to Adjacent Creeks

Impact BIO-3: Several creeks border the north side development areas of the Master Plan. Carneros and Tecolotito Creeks border the northwestern and western corner, while San Pedro Creek forms the eastern boundary. The Taxiway H Airfield Safety Project area is in proximity to Carneros Creek. This creek contains ESHA (i.e., riparian scrub, wetlands, and open water) and is potential habitat for tidewater gobies and steelhead. Tidewater goby is a Federal endangered species and a CSC and is known to occur within the creek channel; steelhead of the southern California DPS is also a Federal endangered species and a CSC. It is not known to occur in Tecolotito or Carneros Creeks, but suitable spawning habitat is present upstream. Therefore, uncontrolled storm water runoff containing sedimentation or pollutants could have adverse effects on these protected fish within the creek waters. However, all ground disturbance for the Taxiway H project would occur at least 250 feet from the creek.

Significant indirect impacts to Carneros Creek as a result of construction activity related to the Taxiway H Airfield Safety Project can be avoided through strict adherence to conditions of the project's General Construction permit, issued by the Central Coast RWQCB, as well as any conditions related to applicable LCP policies through the CDP process.

No impacts to San Pedro Creek are anticipated. The closest recommended Master Plan development is a proposed maintenance yard that would be located approximately 300 feet from the San Pedro Creek riparian area and is separated from the creek by both Taxiway D and East Verhelle Road.

The Master Plan's Facility Requirements chapter (Chapter 4, Table 4L) also identifies the Airport's fuel storage requirements, based on a 2-week supply. Based on this analysis, the Airport may need an additional 66,200 gallons of Jet A fuel storage capacity by the long term planning period. Accordingly, the Master Plan recommends that the additional storage, if needed, be accommodated at the Airport's existing fuel farm, although this future project is not

listed in the Airport's Capital Improvement Plan. The existing fuel farm is located over 500 feet from the creek.

The Airport implements both the City of Santa Barbara's Storm Water Management Plan (SWMP) and an airport-specific storm water pollution prevention plan (SWPPP), approved by the Central Coast RWQCB. All future north side development will be subject to the provisions of the SWMP, SWPPP, and permit conditions from RWQCB, as applicable. These measures will ensure that all planned development will meet the local and regulatory standards for storm water control.

Result BIO-3: **There is no construction activity planned in close proximity to creeks located on or near the Airport as a result of the Master Plan. In addition, through implementation of the City's and RWQCB's existing drainage and water quality requirements, all future projects at the Airport must be designed to comply with the City's requirements for storm water runoff and the City's SWMP requirements. The Airport has an existing SWPPP, dated September 2009, which also maintains compliance with the City's SWMP. The Airport's SWPPP, as well as project-specific conditions of each project's General Construction permit and/or CDP, would be enforced during all construction projects. Therefore, indirect impacts to protected species within Carneros and San Pedro Creeks are <u>Class III, Less than Significant</u> since Master Plan implementation would not result in a "substantial effect on a protected plant or animal species listed or otherwise identified or protected as endangered, threatened, or rare" within the creek environs.**

4.2.5 Regional (Cumulative) Impacts

Impact BIO-4: To the extent that adverse impacts occur to the GSER, cumulative impacts would occur to a regional biological resource. According to the City's Final General Plan EIR (page 7-7), the Slough is one of four significant regional habitats in the Goleta Valley. Not only does it contain ESHAs protected by the Coastal Act and wetlands protected by the Coastal Act, CWA and the CFGC, but it supports sensitive species protected by the Federal ESA, the MBTA, the State ESA, the CFGC, and the *California Native Plant Protection Act*. Existing transitional and upland habitats are also important in sustaining Slough functions and species diversity.

Potential biological impacts of the proposed Master Plan would be tied to specific development projects recommended in the Master Plan as discussed above under Section 4.2.4 and would be subject to the Airport's LCP policies and CDP process. Similarly, other projects within the Slough Management Plan area are subject to their own LCP policies and CDP processes. The Slough

Management Plan, in turn, provides additional goals to help protect the resources of the Slough.

The proposed Master Plan would be consistent with rules related to the southern California MPAs, and more specifically, the Goleta Slough State Marine Conservation Area, and would not preclude measures recommended in the Slough Management Plan. (See Section 4.6.4 for a discussion of the need for an LCP amendment/rezone/General Plan amendment.)

Result BIO-4: **As discussed previously, most of the projects recommended within the proposed Master Plan would occur within the currently developed portion of the Airport where biological resources are minimal. As long as potential project-specific impacts to the Slough are adequately mitigated, cumulative biological impacts related to the project would be as well. As also discussed in Result BIO-1 for project-specific impacts, a programmatic mitigation program is provided as part of this Program EIR that would meet the previously established mitigation standards of the LCP. Upon implementation of the mitigation program outlined in Section 4.2.7, cumulative impacts to the Slough would be <u>Class II, Less than Significant Impact with Mitigation</u> since the project would not result in the "elimination, substantial reduction, or disruption of important natural vegetative communities, wildlife habitat, migration corridors, or habitats supporting sensitive species…" or a "substantial effect on a protected plant or animal species listed or otherwise identified or protected as endangered, threatened, or rare."**

4.2.6 Comparative Impacts of Alternatives

No Project Alternative

The No Project alternative would not result in impacts to the Slough or any other important wildlife and vegetation other than the restriction of wildlife movement in and out of the Slough due to the Airport's perimeter fence. The only projects that would occur as a result of this alternative would be general maintenance projects, which would be located within the developed portions of the Airport. Therefore, the No Project alternative would have <u>less impact</u> on biological resources than the project as proposed.

Environmentally Superior Alternative

The Environmentally Superior alternative would implement the Master Plan without the Taxiway H Airfield Safety Project. Therefore, impacts to potential wetlands within an intermittent wetland area and indirect impacts to the Slough, nearby creeks, and sensitive flora and fauna would be avoided. This alternative would have <u>less impact</u> on biological resources than the project as proposed.

4.2.7 Mitigation Measures

The City's Standard Conditions of Approval Applicable to Project for impacts to biological resources will be applied to all recommended projects under the proposed Master Plan, as appropriate. Other specific permit conditions may be applied to individual projects by the City as part of its CDP permitting process (see BIO/mm-2). In addition, additional permit conditions may be required by the RWQCB and USACE (if section 401 certifications or section 404 permits under the CWA are necessary).

No net loss of wetlands can occur as a result of the proposed Master Plan for its impacts to jurisdictional wetlands to be fully mitigated. For the Taxiway H Airfield Safety Project, it is anticipated that compensatory mitigation would be required since the area functions as potential wetland on an intermittent basis.

Mitigation Measures for Biological Resources Impacts BIO-1 and BIO-4

The following programmatic measures will be incorporated into the Mitigation Monitoring and Reporting Plan (Chapter Seven) for the proposed Master Plan. These measures would reduce potential project-specific and cumulative biological impacts to Class II, Less than Significant Impact with Mitigation at the programmatic level. Once project-specific details are known for the Taxiway H Airfield Safety Project, a project-specific mitigation program can be identified and required as part of the CDP process.

BIO/mm-1: **<u>Programmatic Wetland Restoration Plan (PWRP)</u>. The PWRP is intended to provide a framework for future project-specific Habitat Mitigation and Monitoring Plans (HMMPs) to provide compensatory mitigation for indirect and direct impacts to jurisdictional wetland habitat and established wetland and riparian setback/buffers. The PWRP shall be consistent with all Airport operation and management policies, the Wildlife Hazard Management Plan, the *California Coastal Act* and Airport LCP, the Slough Management Plan, the CFGC, the CWA, and other plans and polices that regulate wetland habitat. Under direction of the PWRP, the Taxiway H Airfield Safety Project will be required to submit for regulatory agency (USACE, CDFW, CCC, and City, as appropriate) approval of a HMMP for impacts to jurisdictional areas.**

Components of the PWRP shall include, at minimum, the following requirements and information:

1. **Mitigation for wetland habitat and and/or wetland and/or riparian buffers shall be a minimum of 2:1 (restoration to impact) ratio. Agencies may require a higher ratio depending on the habitat value and function that is proposed to be impacted. Upland habitat shall be replaced at a 1:1 ratio in a form and location acceptable to the Goleta Slough Management Committee.**

2. **Wetland mitigation should occur on Santa Barbara Airport property (onsite) in lands historically part of the Goleta Slough wetland complex and on lands currently mapped as disturbed or dominated by non-native species which would be reasonably expected to establish sustainable wetland habitat.**

3. **The Airport shall comply with the conditions and recommendation of existing guiding documents as well as those under development (i.e., Wildlife Hazard Assessment for the Airport, LCP amendments, and the Slough Management Plan).**

4. **Restoration strategies shall be proposed that balance the criteria identified in Nos. 2 and 3 above, as well as agency requirements for wetland restoration. Mitigation Areas 1 through 4 (see below) and potential restoration strategies shall be considered in preparation of any project-specific HMMPs.**

   Table 4G and Exhibit 4D identify four potential mitigation areas where areas within or adjacent to the Slough could be restored to create replacement wetlands. Areas 1 and 2 are located southwest of Tecolotito Creek within the existing G-S-R zone; Areas 3 and 4 are located southwest of the intersection of the Airport's existing runway system within the existing A-F (Airfield Facilities) zone. As part of the mitigation effort, if selected, Mitigation Areas 3 and/or 4 would first be rezoned to G-S-R. Combined, the mitigation areas would provide an opportunity for almost 30 acres of new wetland.

   The mitigation area(s) shall be selected in consultation with USACE, RWQCB, and CDFW, as appropriate. The areas would first be re-contoured, and then planted with a variety of short wetland vegetation. The desired plant composition shall be consistent with the Slough Management Plan and compliant with Airport safety regulations (for example saltgrass or meadow barley as key components). [5]

TABLE 4G
Potential Onsite Wetland Mitigation Areas
Santa Barbara Airport

Area 1 (3.5 acres)
Mitigation Area 1 (3.5 acres) is located along the western portion of the Airport between Tecolotito Creek and Los Carneros Road (**Exhibit 4D**) within Subarea R of the CDFW Management Plan Area (City of Santa Barbara 1997). A slightly elevated shrub covered area forms the southern boundary. This "mound" is oval shaped and approximately half of it (as viewed from above) is positioned on Airport property. The other half is part of the Ecological

[5] Grass-dominated wetlands are not expected to greatly increase the wildlife hazard levels for aircraft utilizing the airfield system. Water-dependent birds attracted to ponded areas would generally not be drawn to wetlands dominated by perennial grass species. An exception might be Canada goose; however, all wetland mitigation areas proposed already provide open grassy areas that could potentially attract this species. Although the proposed wetland program has the potential to attract wildlife species hazardous to aircraft, overall this type of wetland has relatively low potential in comparison to other wetland habitats that support extensive ponding, perennial surface water, or tidal circulation.

Preserve on CDFW property also known as Western Goleta Slough. The nearest GSEMP Subarea Basin is 0.18 mile southeast of non-tidal basin R-2 (City of Santa Barbara 1997).

Mitigation Area 1 currently contains a field of non-native annual grasslands comprised primarily of Italian rye grass and annual brome grass. Native vegetation abuts the southern extent of the area including pickleweed and alkali heath, both plant species considered hydrophytic (USACE 2014). Historically, Mitigation Area 1 was believed to provide upland habitat within the Goleta Slough with a small area of palustrine located in the southwestern area (GSMC 1997). A greater coverage of palustrine habitat was located north of the area, historically, but is now dominated by invasive grasses and forbs (Harding grass and black mustard) and native shrub, coyote brush, on the elevated area near Los Carneros Road. Mitigation Area 1 is separated from Tecolotito Creek by an Airport road that follows the creek south and then as it bends west towards Los Carneros Road at the end of runway. Based on current conditions (vegetation) and historical wetland habitats, Mitigation Area 1 is ideal for creation of wetlands (the area north of the Airport road – not delineated – also could be considered for restoration). The area is separated from the airfield by Tecolotito Creek, which could limit travel of coyotes to and from the site and taxiways and runways where they pose safety concerns.

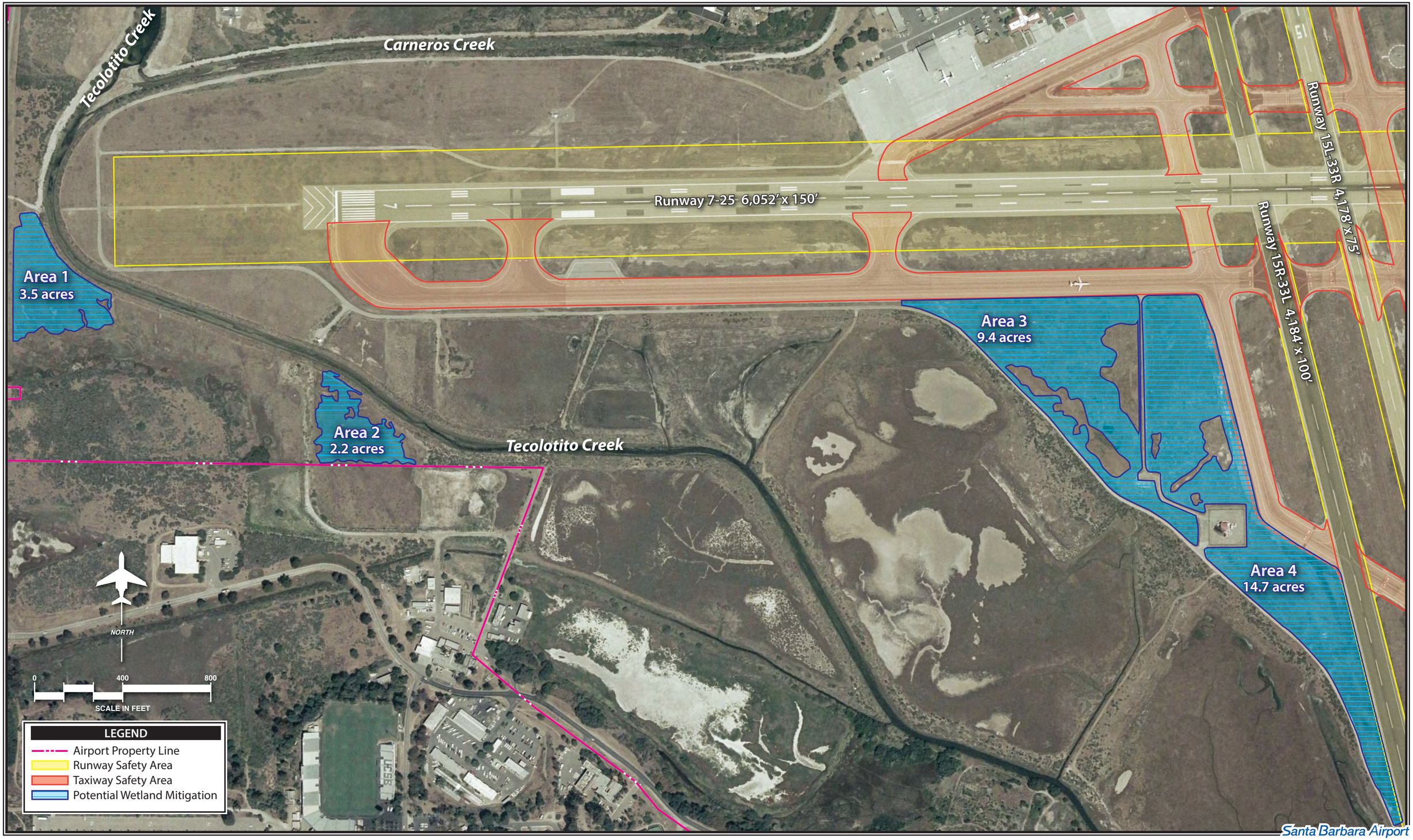
Two restoration strategies are available: grass-dominated wetlands (i.e., saltgrass, meadow barley, facultative [FAC] species) and emergent vegetation (herbaceous or emergent wetland). Grass-dominated wetlands would only meet 1- or 2-criteria wetland habitat.

Area 2
(2.2 acres)

Mitigation Area 2 (2.2 acres) is located in the southwest portion of the Airport property along its southern boundary which it shares with the Ecological Reserve on CDFW property (**Exhibit 4D**). Mitigation Area 2 is also within the Subarea R of the CDFW Management Plan Area (City of Santa Barbara 1997) and is approximately 0.25 mile southeast of Mitigation Area 1. Mitigation Area 2 is also within GSEMP's Study Area Basin R-2 designated as "Non-Tidal Basins that Impound Water." The slightly elevated shrub covered area is about 150 feet from the western boundary of the area separated by an Airport road that is no longer in use (historically part of the military installation). A channelized Tecolotito forms the northern boundary of the area. Mitigation Area 2 is over 400 feet from a taxiway safety area and even further from a runway and its safety area.

Mitigation Area 2 currently contains a field of non-native annual grasslands dominated by Italian rye grasses. Small patches of natural vegetation are found within the area including pickleweed, meadow barley, and alkali heath, all hydrophytic plants (USACE 2014). Historically, Mitigation Area 2 was believed to be palustrine-upland hybrid within the Goleta Slough (City of Santa Barbara 1997). Based on current conditions (vegetation) and historical wetland habitats, Mitigation Area 2 is ideal for creation of wetlands (the area north of the Airport road – not delineated – also should be considered for restoration). The area is separated from the airfield by Tecolotito Creek, which could limit travel of coyotes to and from the site and taxiways and runways where they pose safety concerns.

Two restoration strategies are available: grass-dominated wetlands (i.e., saltgrass, meadow barley, FAC species) and emergent vegetation (herbaceous or emergent wetland). Grass-dominated wetlands would only meet 1- or 2-criteria wetland habitat. The restoration of this area will not include grading to lower the entire site to become tidal wetland habitat.



Source: Dudek 2014

Exhibit 4D
POTENTIAL ONSITE WETLAND MITIGATION AREAS

Areas 3 and 4 (9.4 and 14.7 acres)
Mitigation Areas 3 (9.4 acres) and 4 (14.9 acres) are located directly south of taxiway safety area in the central to south-central portion of the Airport property south of Hollister Avenue. The taxiway and runway safety area are adjacent to Mitigation Area 4 to the east. An Airport road connecting a weather station separate Mitigation Area 3 (to the west) from 4 (to the east) (**Exhibit 4D**). Neither mitigation areas are within a Subarea of the CDFW Management Plan or Study Area Basin per the GSEMP (City of Santa Barbara 1997). Mitigation Area 4 currently contains a field of primarily non-native annual brome grasses with large patches of meadow barley and small patches of pickle weed and salt grass, all hydrophytic plants (USACE 2014). Historically, Mitigation Areas 3 and 4 were believed to be estuarine habitat of the Goleta Slough (City of Santa Barbara 1997). Based on current conditions (vegetation) and historical wetland habitats, Mitigation Areas 3 and 4 are ideal for creation of wetland habitat. There are no existing barriers between these two sites and the airfield. Two restoration strategies are available: grass-dominated wetlands (i.e., saltgrass, meadow barley, FAC species) and emergent vegetation (herbaceous or emergent wetland). Grass-dominated wetlands would only meet 1- or 2-criteria wetland habitat. The restoration of Area 4 will not include grading to lower the entire site to become tidal wetland habitat.

Source: Dudek 2015. Technical Memorandum to Judi Krauss, Coffman Associates, January 23.

5. **As necessary due to sea level rise or other changes in future conditions within the Slough, adaptive restoration measures consistent with the recommendations of the Slough Management Plan shall be implemented.**

6. **The genetic origin of all native wetland and riparian propagules shall be from the Goleta Slough. Wetland plants shall be, at a minimum, FAC species (i.e., equally likely to occur in wetlands [estimated probability 34 – 66 percent] or non-wetlands) per the USACE definition.**

7. **Restoration shall be phased to ensure that all restoration plantings are in place with sufficient irrigation prior to final inspection. Irrigation shall be reduced or eliminated after Year 2 depending on environmental conditions (i.e., drought may prolong irrigation). The wetland restoration shall be without supplemental irrigation for at least two years prior to final approvals. This could result in a maintenance and monitoring period greater than five years.**

8. **Prior to commencement of development activities, the Airport shall file a performance bond with the City to complete restoration and maintain plantings for a five-year period.**

9. **The extent of development shall be restricted to those areas displayed on site grading plans to avoid additional impacts to wetland habitat and wetland and/or riparian buffers. Development boundaries shall be delineated (i.e., using wooden stake with highly visible environmentally-friendly paint) in the field prior to any ground-breaking activities.**

10. **PWRP Timing and Approvals. The Airport shall submit the PWRP to the CCC for review and approval. The PWRP shall also be submitted to the USACE, CDFW, and RWQCB for their review; however, approvals are not required from these agencies. Future project-specific HMMPs will be reviewed and required as part of regulatory permitting (404/401, streambed alteration, etc.). For example, any activity that will divert or obstruct the natural flow, or change the bed, channel, or bank (and associated riparian resources, including salt marsh wetlands) of a river or stream may require a Lake and Streambed Alteration (LSA) agreement with the CDFW pursuant to Section 1602 of the CFGC.**

BIO/mm-2: **During construction of the Taxiway H Airfield Safety Project, all applicable policies of the LCP shall be required, including but not limited to the following:**

- **A buffer strip of a minimum of 100 feet in width shall be maintained in a natural condition along the periphery of all wetland communities. Where development of an airfield safety project renders maintenance of the buffer infeasible, the City shall provide the maximum amount of buffer area feasible and all impacts to wetland habitat shall be mitigated to the maximum extent feasible such that no net loss of wetland habitat occurs (Policy C-4).**

- **Wetland areas temporarily affected by construction activities shall be restored to pre-construction conditions (Policy C-11).**

- **The project shall incorporate BMPs or a combination of BMPs best suited to reduce pollutant loading to the maximum extent feasible (Policy C-12).**

- **Special-status plant and wildlife protection measures shall be implemented (Policy C-15).**

- **All construction, habitat mitigation and restoration plans, and special-status plant and wildlife mitigation and protection measures, shall be reviewed and approved by the regulatory agency/agencies having jurisdiction over the identified resource (Policy C-16).**

Mitigation Measures for Biological Resources Impact BIO-2

BIO/mm-3: **No construction shall occur during the avian breeding season (February 1-September 1) unless a survey from qualified biologist with experience in conducting breeding bird surveys finds that no bird breeding habitat exists within 300 feet of the disturbance area (500 feet for raptors) or can state with certainty that such habitat does not contain nesting birds. Project personnel, including**

contractors working on the site, shall be instructed on the sensitivity of the area. Reductions in nest buffer distance may be approved by the City's Community Development Department depending on the avian species involved, ambient levels of human activity, screening vegetation, or other factors.

BIO/mm-4: **Taxiway H Airfield Safety Project and its habitat restoration project sites shall be monitored by a qualified biologist for Belding's savannah sparrow. Prior to site preparation and construction activities, the Airport shall have a qualified biologist survey all breeding/nesting habitat within the project site every seven days for eight consecutive weeks. Documentation of findings, including negative findings, shall be submitted to the CDFW. Site preparation and construction activities will only begin if no breeding/nesting birds are observed and concurrence has been received from CDFW. If breeding activities or an active nest is located in a work area, site preparation and construction activities shall not begin in that area until the nest becomes inactive, the young have fledged, the young are no longer being fed by the parents, the young have left the area, and the young will no longer be impacted by the project.**

Once site preparation and construction activities have commenced, the project site shall be monitored for Belding's savannah sparrow on a weekly basis. Documentation of findings, including negative findings, shall be submitted to CDFW until construction is complete.

Site preparation or construction activities shall be suspended immediately in a given area if the qualified biologist determines that breeding or nesting activity is occurring in that area. Site preparation and construction activities shall not resume until the monitor determines that the breeding and nesting activities described above have stopped.

Noise levels will be monitored by a qualified biologist to determine if construction activities are disruptive to Belding's savannah sparrow in or adjacent to the project site. If a significant disruption to foraging behavior is observed, construction activities in the area of disturbance will be stopped immediately until the qualified biologist develops recommendations to reduce or eliminate the disturbances and receives concurrence from CDFW.

4.3 CULTURAL RESOURCES

No changes have been made to this section within the Recirculated Draft EIR.

4.4 GEOLOGY AND SOILS/HAZARDS AND HAZARDOUS MATERIALS

No changes have been made to this section within the Recirculated Draft EIR.

4.5 HYDROLOGY AND WATER QUALITY

4.5.1 Environmental and Regulatory Setting

Water Resources and Quality

The Airport is located within the South Coast watershed, which drains the steeply sloping land of the Santa Ynez Mountains southwards towards the Pacific Ocean. An approximate 416-square mile area, the watershed is comprised of smaller watersheds associated with seven sub-drainages. Of these seven sub-drainages, three discharge directly into Goleta Slough on the Airport property: Tecolotito Creek, Carneros Creek, and San Pedro Creek/Las Vegas Creek. In addition, runoff from the adjacent bluffs of UCSB and More Mesa influences Goleta Slough. The watershed of the Goleta Slough itself is approximately 48 square miles (GSMC 2014).

The Airport's existing storm drainage system is comprised of surface swales, drainage inlets, concrete pipe, and outfall structures. Ponding occurs in various locations throughout the Airport, which is controlled by the tide and the creeks' water levels at the storm drainage outlets. The existing system drains ponded water after the creeks' water levels have receded. The Airport's storm water system drains primarily the Airport-owned watershed; most of the storm water inlets are located within the restricted access areas. Sources of storm water discharges to these inlets are generally limited to airfield tenant and Airport Department activities (City of Santa Barbara 2009). The creeks that flow through the Airport and into Goleta Slough, however, receive discharges from off the Airport, including nearby upstream residential, industrial, transportation, and agricultural land uses.

The EPA's CWA section 303(d) List of Impaired Waters (reporting year 2008) includes Goleta Slough and several of its tributary creeks.[6] In addition, the Goleta Slough/Estuary is on the State's 2010 CWA section 303(d) list of impaired waters for pathogens and toxic organics.[7] Urban runoff and other nonpoint sources contribute to the impairment. Carneros Creek is also on the State's list for salinity/total dissolved solids/chlorides/sulfates, pathogens, nutrients, and pH/acidity/caustic conditions; the Pacific Ocean at Goleta Beach is on the State's list for pathogens.

Flooding and Inundation Hazards

The Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Maps (FIRMs) for the Goleta area show that the Airport is located within the 100-year floodplain (i.e., Special Flood Hazard Areas Subject to Inundation by the 1 Percent Annual Chance Flood). The Airport is located within Zone AE, which indicates that base flood elevations have been determined. The only portions of the Airport that are not located within the 100-year floodplain are sections of the Airport Industrial Area located north of Hollister Avenue.

[6] http://watersgeo.epa.gov/mwm/, accessed June 2014.
[7] http://cfpub.epa.gov/surf/huc.cfm?huc_code=18060013, accessed June 2014.

In addition, several Floodway Areas have been mapped over portions of the Airport as they correspond to San Jose, San Pedro, Carneros, and Tecolotito Creeks. Floodway Areas are the channel of the stream, plus any adjacent area that must be kept free of encroachment so that the 1 percent annual chance flood can be carried without substantial increase in flood heights. **Exhibit 4G** shows the Floodway Areas that cross the Airport, as of December 4, 2012.[8]

The SBFCD conducts flood control maintenance activities at the Airport. Erosion, both natural and man-made, has caused sedimentation of the stream channels that drain into Goleta Slough. This siltation, as well as growth of vegetation, has led to the exacerbation of flooding during times of heavy runoff. Therefore, the SBFCD routinely dredges the streams to prevent and reduce the severity of local flooding. Both dragline desilting and hydraulic dredging methods have been utilized. An average of 105,000 cubic yards (cy) are removed per season (SBFCD 2010).

There have been two major flood events at Goleta Slough since the construction of the Airport in the late 1930s. The highest water levels in the Slough in modern times occurred in connection with a flood occurrence in 1969 and covered most of the airport runway, access roads, and parking lots. A second major flood event occurred in 1995, caused ponding on low-lying portions of the runways, and deposited a considerable amount of sediment on the runways and taxiways (GSMC 2014).

The Airport is not located in any known inundation hazard zones for substantial mud flows or seiche; it is, however, located in the tsunami hazard zone for the City. The City has evacuation plans for those parts of the City that could be affected should a threat such as a tsunami be anticipated.

Anticipated Future Sea Level Rise and Hydrological Changes in Goleta Slough

Climate change projections indicate that the Goleta Slough and airport property are likely to experience additional flooding due to sea level rise. To date, there has been no formal evaluation of the expected changes in the hydrology of the Goleta Slough watershed. However, the Slough Management Plan recommends adaptive strategies to accommodate at least five feet of sea level rise by the year 2100. In addition to an increase in mean sea level, changes in future wave conditions can also affect coastal water levels. According to the Slough Management Plan, a 2012 Natural Research Council (NRC) report discusses a potential northward shift in the storm track affecting waves over the next century, while wave modeling efforts by the United States Geologic Survey (USGS) for the next Intergovernmental Panel on Climate Change (IPCC) report predicts a shift in wave direction by approximately 15 degrees south. The 2012 NRC report also indicates a potential decrease in precipitation for the Goleta Slough watershed, resulting in a corresponding decrease in watershed runoff over the next 100 years (GSMC 2015). The Slough Management Plan is incorporated by reference into this Recirculated Draft EIR (see http://www.goletaslough.org/committee/2016-goleta-slough-management-plan/).

[8] This map does not fully reflect the re-routing of Carneros and Tecolotito Creeks around the end of Runway 7.

Based on the studies and research conducted in preparation of the Slough Management Plan, future climate change is expected to have the following three primary impacts on water levels within the Slough (GSMC 2015):

1. Increased ocean tide elevations will lead to elevated water levels within the Slough during periods when the Slough inlet is open.

2. Increased sea levels will increase the elevation of wave run-up, which will increase the potential size and elevation of the beach berm. Increased elevation of the beach berm may cause higher water levels within the Slough due to ponding when the inlet is closed. Ponded water levels may significantly exceed tidal water levels depending on overtopping of the berm and stream flows into the Slough. The height of the beach berm and, therefore, the height of ponding, will depend on the management of the beach and Slough inlet.

3. Even with five feet of sea level rise, fluvial flood events (i.e., produced by stream action) will continue to cause the most extreme water levels in areas of the Slough nearest to the upstream creek confluences. Fluvial flood levels near the Slough may increase as a result of future climate change, but was beyond the scope of the study. (As previously discussed, however, the 2012 NRC report predicts a decrease in watershed runoff).

Regulatory Setting

<u>Federal</u>

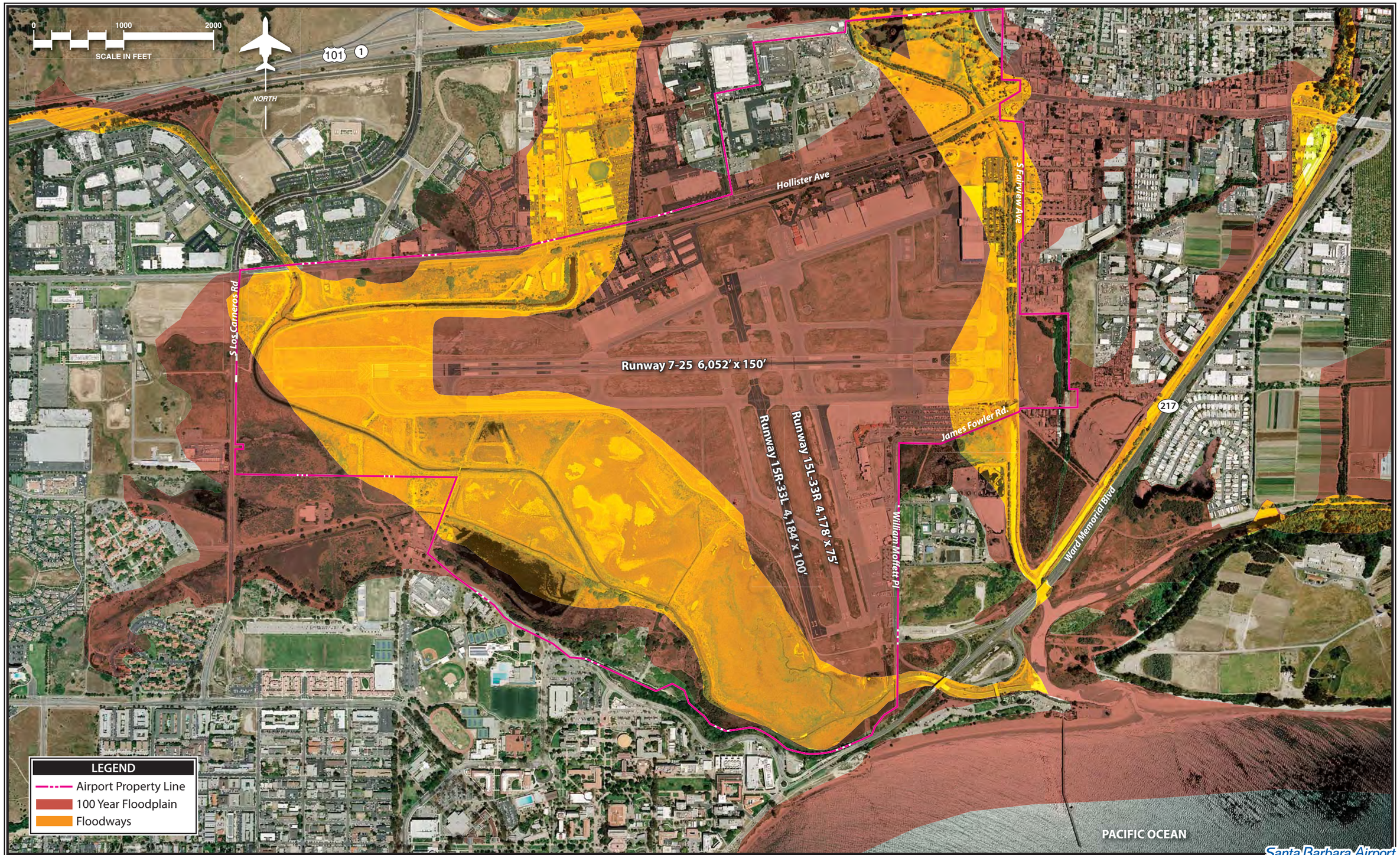
The CWA requires that each state regulate point and nonpoint sources of water pollution, including storm water discharges. The USACE and the EPA are the Federal agencies responsible for enforcing the CWA as listed below (see also Section 4.2.1 of this EIR):

- Section 401 requires certification for activities that result in discharge to the navigable Waters of the U.S., usually issued through a state or regional water quality control board;

- Section 402 authorizes the EPA to issue National Pollutant Discharge Elimination System (NPDES) permits to regulate discharges to Waters of the U.S.;

- Section 404 requires an USACE permit for any activity that results in the deposition or dredging of fill material within the "ordinary high water mark" (OHWM) of Waters of the U.S. (see also Federal *Rivers and Harbors Act*, section 10 [33 USC 403]).

E.O. 11988, *Floodplain Management*, directs Federal agencies to take actions to reduce the risk of flood loss, minimize the impacts of floods on human safety, health and welfare, and restore and preserve the natural and beneficial values served by floodplains. Department of Transportation (DOT) Order 5650.c, *Floodplain Management and Protection*, contains DOT policies and



Source: Federal Emergency Management Agency, FIRM Maps Nos. 06083C1361 & 1362, Effective date December 4, 2012.

Santa Barbara Airport

Exhibit 4G

100-YEAR FLOODPLAIN & FLOODWAYS

procedures for implementing E.O. 11988. Agencies are required to avoid, to the extent practicable, long and short term adverse impacts associated with modification of floodplains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative.

State/Regional Water Quality Control Boards

State water resources are also protected under the *Porter-Cologne Water Quality Control Act of 1967* (see Section 4.2.1). This Act establishes RWQCBs to oversee water quality on a day-to-day basis at the regional/local level. There are nine RWQCBs in California; Santa Barbara County is under the administration of the Central Coast RWQCB, located in San Luis Obispo. The applicable regional water quality control plan for the Santa Barbara/Goleta area is the 2011 *Water Quality Control Plan for the Central Coast Region* (Basin Plan). In addition, the State and its RWQCBs have been given the responsibility for administering permitted discharges into the coastal marine waters of the State under the adopted *California Ocean Plan* (2012).

The State of California and its RWQCBs work with the EPA to administer the NPDES permit program, including the regulation of storm water (CWA, section 402[p]). Municipalities with populations of less than 100,000 (such as Santa Barbara) are referred to as small municipal separate storm sewer systems (Small MS4s) and must comply with Phase II NPDES regulations. To receive a NPDES Small MS4 General Permit, such local governments must prepare and implement an approved SWMP.

Local

The City of Santa Barbara began implementing its SWMP in January of 2009. The SWMP addresses discharge of pollutants both during construction and after construction. The water quality treatment requirement is to retain and treat the 1-inch, 24-hour storm event. The peak runoff discharge rate requirement is that the peak runoff discharge rate shall not exceed the pre-development rate up to the 25-year storm. The volume reduction requirement is to retain on-site the volume difference between pre- and post-conditions for the 25-year, 24-hour storm, or the 1-inch storm (whichever is larger). The City's SWMP includes a separate chapter (Chapter 6.0) on the Airport as discussed below in Section 4.5.2.

The Airport itself operates under NPDES Industrial Activities Storm Water General Permit (CAS000001) and an RWQCB-approved SWPPP. The SWPPP contains a list of measures currently in place to ensure that contamination to water quality does not occur. Activities occurring outside of the airfield security fence, however, are not covered by the Airport's NPDES permit or its SWPPP. Tenants of the Airport Industrial Area that require a storm water discharge permit must seek their own.

The City also has a Flood Plain Management chapter of its *Municipal Code* (Chapter 22.24). The chapter includes the establishment of a development permit for construction or development within any Special Flood Hazard Area, the conditions that need to be met for a variance, general standards for flood hazard reduction, and specific regulations related to floodways. Special Flood Hazard Areas include both mapped floodways and Zone AE, both of which occur at the Airport.

4.5.2 Applicable Plans and Policies

State/Regional

The California State Water Resources Control Board identifies beneficial uses of both inland and coastal waters in its Basin Plan for the Central Coast region (2011). Uses of the inland waters of Goleta Slough (for example, Carneros and Tecolotito Creeks) include: recreational uses, wildlife habitat, groundwater recharge, fishing and shellfish harvesting, municipal, agricultural and industrial water supply, and freshwater replenishment of Goleta Slough.

As discussed previously in Section 4.2.1, Goleta Slough itself is one of the few remaining coastal wetlands in California. Beneficial uses include recreation, wildlife habitat, and fishing and shellfish harvesting. As part of the mitigation for projects at the Airport, certain portions of Goleta Slough have been set aside for wetlands and other habitat restoration (see Section 4.2.2 and **Table 4E**).

Beneficial uses of coastal waters off Goleta Beach include recreation, industrial water supply, navigation, support of habitat for rare, threatened and endangered species, and shellfish harvesting.

Local

Policies of the *Santa Barbara General Plan* Environmental Resources Element address water quality issues as follows:

> ER15. **Creek Resources and Water Quality.** Encourage development and infrastructure that is consistent with City policies and programs for comprehensive watershed planning, creeks restoration, water quality protection, open space enhancement, storm water management, and public creek and water awareness programs.
>
> ER16. **Storm Water Management Policies.** The City's Storm Water Management Program's policies, standards and other requirements for low impact development to reduce storm water run-off, volumes, rates, and water pollutants are hereby incorporated into the General Plan Environmental Resources Element.
>
> ER17. **Creek Setbacks, Protection, and Restoration.** Protection and restoration of creeks and their riparian corridors is a priority for improving biological values, water quality, open space and flood control in conjunction with adaptation planning for climate change.

City Airport LCP policies C-5 and C-12 through C-14 are also related to water quality.

> Policy C-5. Reduce the flow of sediment into the Slough to the minimum compatible with maintenance of the marshland.

Policy C-12. New development shall be sited and designed to protect water quality and minimize impacts to coastal waters by incorporating measures designed to ensure the following: protect areas that provide important water quality benefits, that are necessary to maintain riparian and aquatic biota and/or that are particularly susceptible to erosion and sediment loss; limit increase of impervious surfaces; limit disturbance of natural drainage features and vegetation; minimize, to the maximum extent feasible, the introduction of pollutants that may result in significant impacts from site runoff from impervious areas. New development shall incorporate BMPs or a combination of BMPs best suited to reduce pollutant loading to the maximum extent feasible.

Policy C-13. A Water Quality Management Plan (WQMP) shall be developed and implemented for new development or redevelopment projects that entail greater than or equal to one acre of disturbance. WQMPs shall be developed and implemented consistent with the most recent requirements of the RWQCB or Coastal Commission standards for controlling polluted runoff, whichever is more stringent. … (*See LCP for specific listed criteria.*)

Policy C-14. Construction Phase Erosion Control and Polluted Runoff Control Plans shall be developed for new development or redevelopment projects that require a CDP and a grading or building permit. These plans shall be implemented during the construction phase/phases of the project and shall include: … (*See LCP for complete list of requirements.*)

Policy H-1. Future development of Airport property and/or facilities within the "Major Public and Institutional Land Use Designation" shall not result in adverse impacts to the wetland habitats of the Goleta Slough, related stream tributaries, or sensitive habitat areas due to additional sedimentation, runoff, or other disturbances.

Chapter 6.0 of the City's SWMP functions as an Airport-specific SWMP. The Airport SWMP applies to both the airfield and the commercial/industrial areas of the Airport Industrial Area. The City's Airport Department is responsible for implementing, assessing, and reporting the effectiveness of the Airport SWMP as part of the City's annual report (City of Santa Barbara 2009). The Airport SWMP acknowledges that the Goleta Slough is a "Section 303(d) impaired" water and addresses pollutants of concern through BMPs targeted specifically at those pollutants (i.e., metals, pathogens, priority organics, and sediment/siltation). These BMPs are the "minimum control measures" (MCMs) required by the City SWMP.

There are also two fuel farms located at the Airport. Both have approved SPCC plans and operations manuals. The Airport's SWPPP also contains a list of measures currently in place to manage potential hazardous materials at the Airport and to ensure that contamination to water quality does not occur. These measures apply to the aboveground fuel farms as well as to Airport activities and operators.

Goleta Slough Area Sea Level Rise and Management Plan

The Slough Management Plan recommends that current planning efforts identify adaptation strategies to accommodate at least five feet of sea level rise and is incorporated by reference into this Recirculated Draft EIR (see http://www.goletaslough.org/committee/2016-goleta-slough-management-plan/). Moderate sea level rise scenarios indicate that this is approximately the amount of sea level rise that is expected to occur by the year 2100. The Slough Management Plan assumes that Airport infrastructure would be protected in all scenarios and includes the following recommendation to raise the Airport runways and taxiways (GSMC 2015):

> "The 2010 Coastal LiDAR[9] shows that portions of the taxiways are located at elevations as low as 9.5' NAVD88[10] making them prone to flooding under existing closed Slough conditions. The runway low point is at 10.5 feet NAVD. Significant flooding of the runways and taxiways occurred during the 1969 and 1995 storm events. As sea levels rise the tarmac will flood more frequently, creating the potential for more frequent disruption of airport operations.
>
> One potential strategy for reducing the risk of flooding at the airport is to increase the elevation of the tarmac by applying thicker pavement lifts during the regular resurfacing of the runways, taxiways and safety areas. Applying thicker lifts of pavement at regular intervals over the lifetime of the airport may significantly reduce the potential for flooding on the tarmac. This adaptation strategy has considerable potential effectiveness for the near term, as it can be readily incorporated into regular airport capital improvement plans. This will also require the elevation of infield and overrun areas. The effectiveness of this strategy over the long-term may be reduced due to increased ground settlement as the thickness and therefore the weight of paving increases." (GSMC 2015).

4.5.3 Impact Evaluation Methodology and Significance Criteria

Based on the City's CEQA significance criteria, a significant impact to hydrology and water quality would result from:

Water Resources and Drainage

- Substantially changing the amount of surface water in any water body or the quantity of groundwater recharge.

[9] LIDAR is an acronym for Light Detection and Ranging, a type of topographic data that was collected by the State for the purposes of studying potential sea level rise.

[10] NAVD88 is an acronym for North American Vertical Datum of 1988. NAVD 88 is the current standard reference datum in the United States for surveying and mapping activities performed or financed by the Federal Government.

- Substantially changing the drainage pattern or creating a substantially increased amount or rate of surface water runoff that would exceed the capacity of existing or planned drainage and storm water systems.

- Altering drainage patterns or affecting creeks in a way that would cause substantial erosion, siltation, on- or off-site flooding, or impacts to sensitive biological resources.

Water Quality

- Substantial discharge of sediment or pollutants into surface water or groundwater, or otherwise degrading water quality, including temperature, dissolved oxygen, or turbidity.

Flooding and Inundation Hazards

- Locating development within 100-year flood hazard areas; substantially altering the course or flow of flood waters or otherwise exposing people or property to substantial flood hazard.

- Exposing people or structures to substantial unmitigated risk involving inundation by seiche, tsunami, or mudflow.

4.5.4 Project-Specific Impacts

Drainage and Water Quality

Impact HYD-1: Future construction activity and impervious surfaces created by projects recommended in the Master Plan could result in drainage, storm water, and surface water quality impacts in Goleta Slough and other Section 303(d) impaired waters. For the most part, development would occur in areas of the Airport already covered by impervious surfaces, i.e., pavement and buildings. However, additional impervious surfaces would occur due to proposed shoulder improvements along Runway 15R-33L and Taxiways B and H (see Exhibit 2C, Recommended Airfield Development Concept) as well as potential development of new fixed base operator (FBO) lease areas. In addition, approximately five acres of net new pavement is expected in conjunction with the recommended Taxiway H Airfield Safety Project (see Exhibit 2D, Proposed Taxiway H Extension).

There are four creeks that traverse the Airport property from north to south. The recommended development within the Master Plan does not involve the

disturbance or alteration of any of the on-site creeks. The recommended Taxiway H Airfield Safety Project could involve grading and the placement of fill within 250 feet of Carneros Creek.

Result HYD-1: **As previously discussed in the Initial Study prepared on the proposed Master Plan and in Section 4.5.1 of this EIR, the City and State require that on-site capture, retention, and treatment of storm water be incorporated into the design of development projects. Pursuant to the City's SWMP and the NPDES General Permit for Storm Water Discharges, projects must be designed to capture and treat the calculated amount of runoff from the project site for a one-inch, 25-year storm event, over a 24-hour period.**

Therefore, at the planning level, potential drainage and water quality impacts would be <u>Class III, Less than Significant Impact</u>. Through implementation of the City's and RWQCB's existing drainage and water quality requirements, all future projects at the Airport must be designed to comply with the City's requirements for storm water runoff and the City's SWMP requirements. The Airport has an existing SWPPP, dated September 2009, which also maintains compliance with the City's SWMP. The Airport's SWPPP would be enforced during all construction projects.

Flooding and Inundation Hazards

Impact HYD-2: The proposed Master Plan recommends the removal of several existing structures from floodway areas. New development recommended by the Master Plan within the floodways is limited to the western 600 feet of the proposed Taxiway H Airfield Safety Project and most westerly taxiway connector with Runway 7, proposed shoulders on Taxiway D, perimeter fence improvements at the end of Runway 25, future use of existing buildings within the old maintenance yard, and potential expansion of one of the existing fuel farms. The remainder of the development recommended by the proposed Master Plan would occur within Zone AE, but outside mapped floodways (as mapped on FIRM maps, Panels 06083C1361G and 06083C1362G).

The risk to people and structures at the Airport due to flooding would be lessened by the recommended relocation of two historic hangars out of the floodway. Potentially significant impacts to people and structures could remain, however, due to the potential expansion of one of the fuel farms in the floodway, future use of existing buildings within the old maintenance yard, and due to future buildings located within Zone AE. The construction of a taxiway and connectors within the floodway could also have potentially significant impacts.

In addition, the Santa Barbara General Plan Safety Element projects that the region, including the Airport, will experience increased flooding attributable

to changing climate and sea level rise over the useful life of projects recommended in the Master Plan. This is also the conclusion of a statewide study (see Section 4.1.1) and the Slough Management Plan. As previously discussed, the Slough Management Plan recommends that current planning efforts identify adaptation strategies to accommodate at least five feet of sea level rise since infrastructure constructed now may still be in use within the time that a sea level rise of five feet could occur.

Result HYD-2a: **The extent to which new Airport facilities within floodway or Zone AE (100-year floodplain) areas would impede or redirect flood flows cannot be fully determined until the design of the future structures is known and has been evaluated. However, all development projects at the Airport would be required to comply with Chapter 22.24, Flood Plain Management of the City *Municipal Code*. The chapter includes the establishment of a development permit for construction or development within any Special Flood Hazard Areas, the conditions that need to be met for a variance, general standards for flood hazard reduction, and specific regulations related to floodways. Therefore, flooding impacts of future development under the proposed Master Plan would be <u>Class III, Less than Significant Impact</u>.**

Result HYD-2b: **The removal of existing structures and land uses from the floodway would reduce existing flooding risks at the Airport. Thus, these aspects of the proposed Master Plan would be <u>Class IV, Beneficial Impact</u>.**

Result HYD-2c: **Based on recent CEQA case law, (i.e., *California Building Industry Association [CBIA] vs. Bay Area Air Quality Management District [BAAQMD] [2015])*, CEQA analysis "is concerned with a project's impact on the environment, rather than with the environment's impact on a project and its users or residents" (CBIA, 62 Cal. 4th at 97). Therefore, no impacts related to sea level rise are attributable to the project. However, discussion of sea level rise has been retained for informational purposes and mitigation measures to aid in protecting Airport infrastructure from future flooding due to sea level rise is recommended.**

Impact HYD-3: Although the Airport is not located in any known inundation hazard zones for substantial mud flows or seiche, it is located in the tsunami hazard zone for the City. However, the proposed Master Plan would not result in substantial new growth at the Airport; rather, it contains plans for minor redevelopment of the Airport with an emphasis on improving the Airport's safety and efficiency.

Result HYD-3: **The City has evacuation plans for all parts of the City that would be affected should a threat such as a tsunami be anticipated. Based on these existing emergency procedures, inundation by tsunami is not considered to be a**

"substantial unmitigated risk," and impacts related to this significance threshold would be Class III, Less than Significant Impact.

4.5.5 Regional (Cumulative) Impacts

No regional or cumulative impacts to drainage and water quality would occur as a result of Master Plan implementation. As discussed above, the City and State require that on-site capture, retention, and treatment of storm water be incorporated into the design of development projects.

Potential changes to flood patterns at the Airport would be assessed at the project-specific level as certain development projects are implemented, as discussed above. Compliance with the City's Flood Plain Management zoning chapter would ensure that no cumulative impacts related to flooding would occur.

4.5.6 Comparative Impacts of Alternatives

No Project Alternative

The No Project alternative would have less impacts related to drainage and water quality as the project as proposed since less impervious surface would be present at the Airport. However, the Airport's existing SWPPP, which maintains compliance with the City's SWMP and its NPDES General permit, would still be enforced during all maintenance projects.

The No Project alternative could have greater risk related to flooding than the project as proposed. Under this alternative, several structures and land uses that are currently located within the floodways on the Airport would remain in place. This includes the maintenance yard located adjacent to Carneros Creek and two existing hangar buildings (Buildings Nos. 248 and 249). In addition, mitigation recommended to protect the Airport from future sea level rise would not necessarily be realized under the No Project alternative.

Environmentally Superior Alternative

The Environmentally Superior alternative would have less impact related to drainage and water quality since the Taxiway H project would not occur, resulting in less impervious surfaces at the Airport. The Airport's existing SWPPP, which maintains compliance with the City's SWMP and its NPDES General permit, would still be enforced during all development projects occurring under this alternative. These projects would be designed to capture and treat the calculated amount of runoff from the project site for a one-inch, 25-year storm event, over a 24-hour period.

The Environmentally Superior alternative would have less risk related to flooding when compared to the project as proposed. Under this alternative, the recommended taxiway project, which

would have been located partially within the floodway along Carneros Creek, would not be constructed.

Other existing uses located within floodway areas, i.e., the maintenance yard and two historic hangars, would be relocated out of the floodway in the same manner as they would under the proposed project. Future fuel farm expansion could occur, but would be subject to the City's Floodplain Management zoning chapter. Similarly, development occurring under the Environmentally Superior alternative that would be located within Zone AE, but outside mapped floodways, and would also be subject to the City's Floodplain Management zoning chapter.

Future recommended mitigation to protect the Airport from sea level rise would still be implemented with this alternative.

4.5.7 Mitigation Measures

The City's Flood Plain Management chapter of its *Municipal Code* (Chapter 22.24) would apply to any proposed construction within Special Flood Hazard Areas, which include the mapped floodways and the 100-year floodplain (Zone AE) at the Airport. This would affect all recommended development projects, including approximately 600 feet of the westernmost portion of the extension of Taxiway H and its most westerly connector taxiway with Runway 7-25 to be located within a mapped floodway. It would also potentially affect a segment of perimeter fence recommended for replacement that is located due east of the Runway 25 end and the future expansion of the existing fuel farm. Other than compliance with the City's *Municipal Code* and any conditions of a City-issued variance or development permit, as well as implementation of the City's SWMP and the Airport's NPDES permit and SWPPP, no mitigation for drainage, water quality and flooding is necessary.

Recommended Mitigation Measures for Hydrology and Water Quality Result HYD-2c

Future flooding at the Airport due to climate change and sea level rise is anticipated to be approximately five feet over the next 85 years.

HYD/mm-1: **The potential impact of local sea level rise associated with global climate change should be considered in the planning and design of recommended Master Plan projects. Project-specific CDP submittals for projects that may be subject to tidal inundation and flooding should include an analysis of improvement location and design in relation to projected future changes in sea level rise, utilizing the best available science, to ensure new development is located and designed to eliminate or minimize, to the maximum extent feasible, hazards associated with anticipated sea level rise over the expected design life of the project (75 years).**

HYD/mm-2: **The Airport should raise all new or reconstructed buildings to one foot above base flood elevations as well as apply thicker pavement lifts during regular intervals over the lifetime of the Airport to reduce the potential for flooding on the tarmac.**

4.6 LAND USE AND PLANNING

4.6.1 Environmental and Regulatory Setting

The Airport is owned and operated by the City of Santa Barbara; however, the Airport is surrounded by land within the City of Goleta, the County, and UCSB. Refer to Exhibit 1A, which depicts various jurisdictions within the vicinity of the Airport.

The land surrounding the Airport contains: Pacific Ocean coastline and beaches (south); UCSB and the associated student community of Isla Vista (southwest); industrial and commercial land uses (north and east); golf courses and undeveloped open space (north and west); and residential land uses (interspersed within the nearby commercial, recreational, and educational land uses). Specific land uses in proximity to the Airport include the Ocean Meadows Golf Course 0.7 mile to the west, the Twin Lakes Golf Course directly across Hollister Avenue to the north, the Goleta Sewer District Treatment Facility adjacent on the southeast, and the Goleta Beach and Pier further to the southeast.

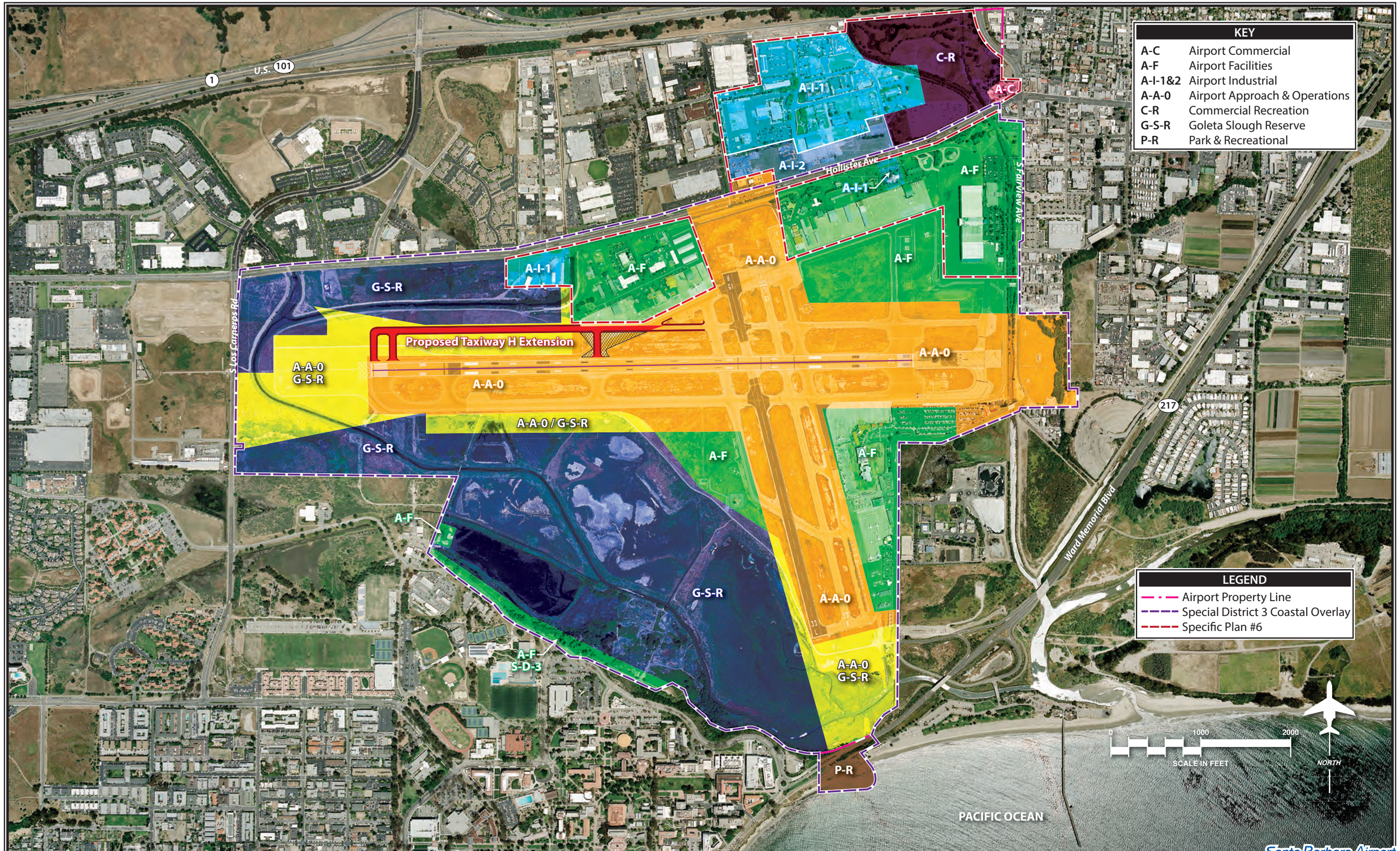
City General Plan land use designations for the Airport are "Airport" and "Goleta Slough Natural Reserve." These designations generally mirror the Airport's zoning districts, i.e., the "Goleta Slough Natural Reserve" land use designation covers areas of the Airport zoned as G-S-R while the remainder of the Airport is designated as "Airport." The following zones are present at the Airport (**Exhibit 4H**):

- A-C, Airport Commercial
- A-F, Airport Facilities
- A-I-1&2, Airport Industrial
- A-A-O, Airport Approach & Operations
- C-R, Commercial Recreation
- G-S-R, Goleta Slough Reserve
- P-R, Park & Recreational

The Airport is also in two overlay zones:

- SP-6, Airport Industrial Area Specific Plan, which applies to the Airport's industrial park located along Hollister Avenue.

- S-D-3, Special District 3 Coastal Overlay, which applies to all of the Airport property within the Coastal Zone (i.e., south of Hollister Ave.)



Source: Santa Barbara Airport Aviation Facilities Plan, 2003 (zoning updated as of 6/2016)

REVISED

Exhibit 4H
AIRPORT ZONING

Since land use compatibility can be related to noise and other nuisance impacts, a "windshield" survey was conducted to determine if sensitive receptors such as residences, schools, places of worship, and long term health care facilities, are located within proximity to the Airport. There are no sensitive receptors within the Airport's existing (2011) Community Noise Equivalent Level (CNEL) noise contour,[11] which extends off the Airport property east over a mixed industrial/warehouse area off Bush Lane and Thornwood Drive and west between South Los Carneros Road and Storke Road between the Airport boundary and Home Depot (**Exhibit 4J**).

The closest residences to the Airport are small single-family homes interspersed within the mixed industrial/warehouse area east along South Fairview Avenue and a multifamily residential complex (Willow Springs Apartments) along Willow Springs Lane. There are no residences located within the 65 CNEL for the Airport; there are, however, several single-family residential neighborhoods and one trailer park located within, or partially within, the 60 CNEL. Although located adjacent to Airport property to the south, UCSB is located outside the 60 CNEL and is buffered from Airport operations by Goleta Slough.

Regulatory Setting

Federal

The Federal government has delegated the administration of Federal airspace and airports to the FAA. Title 49 of the USC and Title 14 of the CFR contain many of the safety regulations, funding procedures, and other rules applicable to the development and operation of airports. FAA Order 5100.38D, *Airport Improvement Program Handbook,* in particular, contain the procedures that airports must follow pursuant to Federal regulations (FAA 2014).

In addition, the FAA is the lead Federal agency responsible for ensuring compliance of airport-related projects with the *National Environmental Policy Act of 1969* (42 USC 4321 et seq.). As discussed in FAA Order 5050.4B, *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions*, a project's compatibility with surrounding land uses is usually associated with the extent of the project's noise impacts. Per FAA Order 1050.1E, *Environmental Impacts: Policies and Procedures*, Appendix A, Paragraph 4.3, when the noise analysis determines that a significant impact would occur over noise-sensitive areas within the 65 dB DNL (also known as L_{dn}) noise contour, the compatible land use section should include a discussion on mitigation measures to be taken along with other land use controls (FAA 2006). Airport projects, such as those needed to accommodate fleet mix changes, an increase in operations at the airport, or air

[11] Ambient noise levels are determined as averaged 24-hour weighted levels, using the Day-Night Noise Level (L_{dn}) or Community Noise Equivalence Level (CNEL) measurement scales. The L_{dn} averages the varying sound levels occurring over the 24-hour day and gives a 10 decibel penalty to noises occurring between the hours of 10:00 p.m. and 7:00 a.m. to take into account the greater annoyance of intrusive noise levels during nighttime hours. Since L_{dn} is a 24-hour average noise level, an area could have sporadic loud noise levels above 60 dB(A) which average out over the 24-hour period. CNEL is similar to L_{dn} but includes a separate 5 dB(A) penalty for noise occurring between the hours of 7:00 p.m. and 10:00 p.m. CNEL and L_{dn} values usually agree with one another within 1 dB(A). In general, a change in noise level of less than three decibels is not audible. A doubling of the distance from a noise source will generally equate to a change in decibel level of six decibels.

traffic changes are examples of activities which can alter noise impacts and affect surrounding land uses.

In addition, if the proposed project would result in other impacts exceeding thresholds of significance which have land use ramifications, such as disruption of communities, relocation of businesses or residences, and induced socioeconomic impacts, the effects of these land use impacts are also discussed.

State

The California Department of Transportation, Division of Aeronautics (Caltrans Aeronautics), also has authority over airports pursuant to the *State Aeronautics Act* (SAA) (California Public Utilities Code [PUC], Sections 21001 et seq.). Caltrans Aeronautics issues permits for, and annually inspects, public-use airports. It also provides grants and loans to airports for safety, maintenance, and capital improvement projects. Caltrans has prepared the *California Airport Land Use Planning Handbook* (Handbook), which implements the SAA pursuant to California PUC sections 21674.5 and 21674.7 (Caltrans 2011).

Local/Regional

As previously discussed in Section 4.2.1, the City is responsible for processing CDPs in concert with the policies of the certified LCP for development within the Coastal Zone. The City is also responsible for issuing grading permits, building permits, and floodplain development permits for development at the Airport. The City's Historic Landmarks Commission and Architectural Board of Review processes may also apply. Authority to Construct permits from the County APCD would be required for certain projects, as discussed in Section 4.1.1. Review of the proposed Master Plan by the airport land use commission (ALUC) would also occur and is discussed in Sections 2.5 and 4.6.5.

4.6.2 Applicable Plans and Policies

There are two primary planning documents that address development at the Airport, both of which are under the jurisdiction of the City of Santa Barbara: the SP-6 Plan (1998) and the Airport's *Aviation Facilities Plan* (2003). Together, these two documents comprise the Airport's existing Master Plan.

The only parts of the current Master Plan study area that are within the SP-6 planning area are two areas south of Hollister Avenue and east of the GSER (SP-6 Plan, Subarea 1), one either side of the Runway 15R-33L airfield area (City of Santa Barbara 1998) (**Exhibit 4K)**. Applicable SP-6 Plan policies include:

> Policy V1: Preserve the economic self-sufficiency of the Airport by allowing flexibility in land use patterns, tenant types and mix.

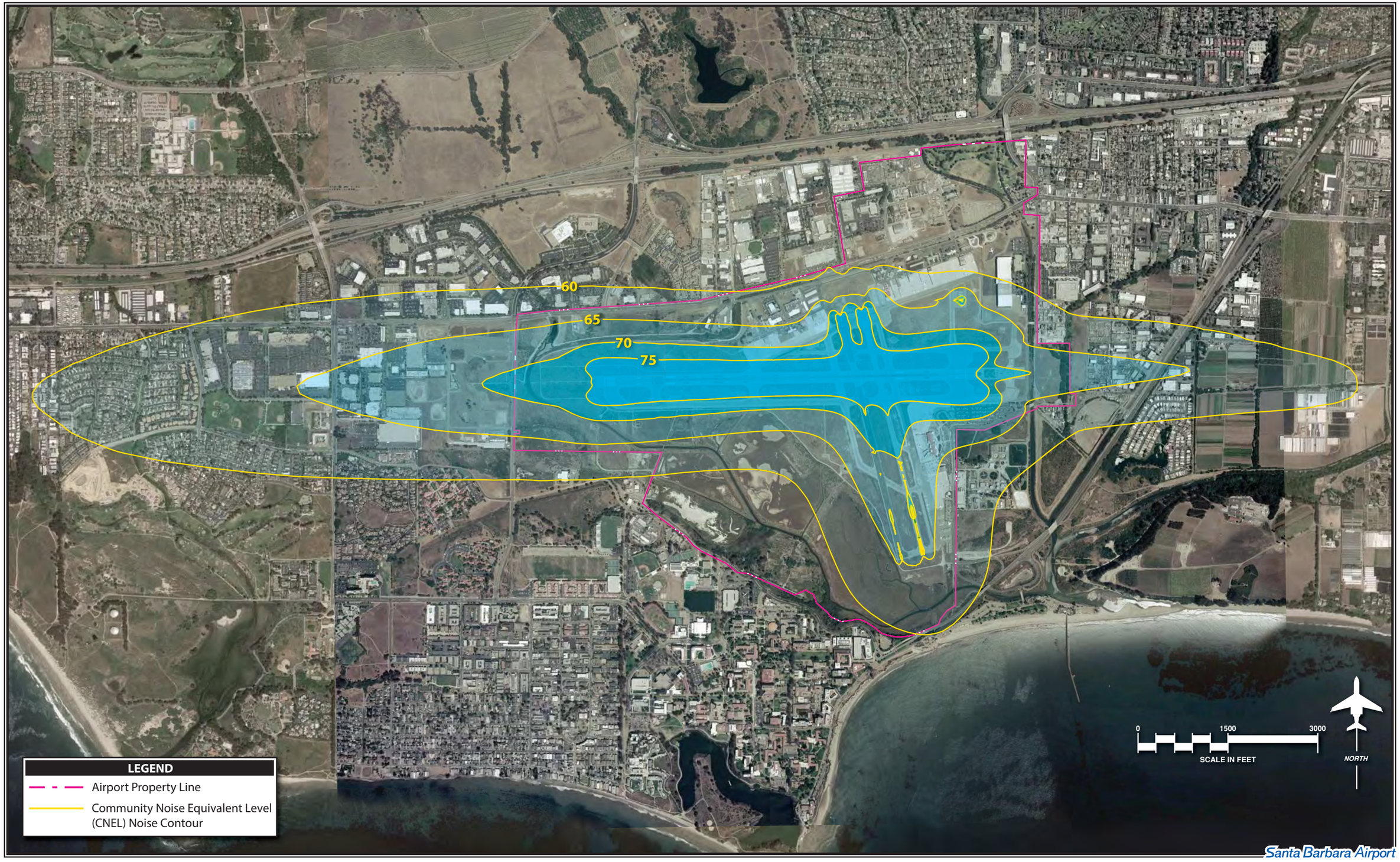
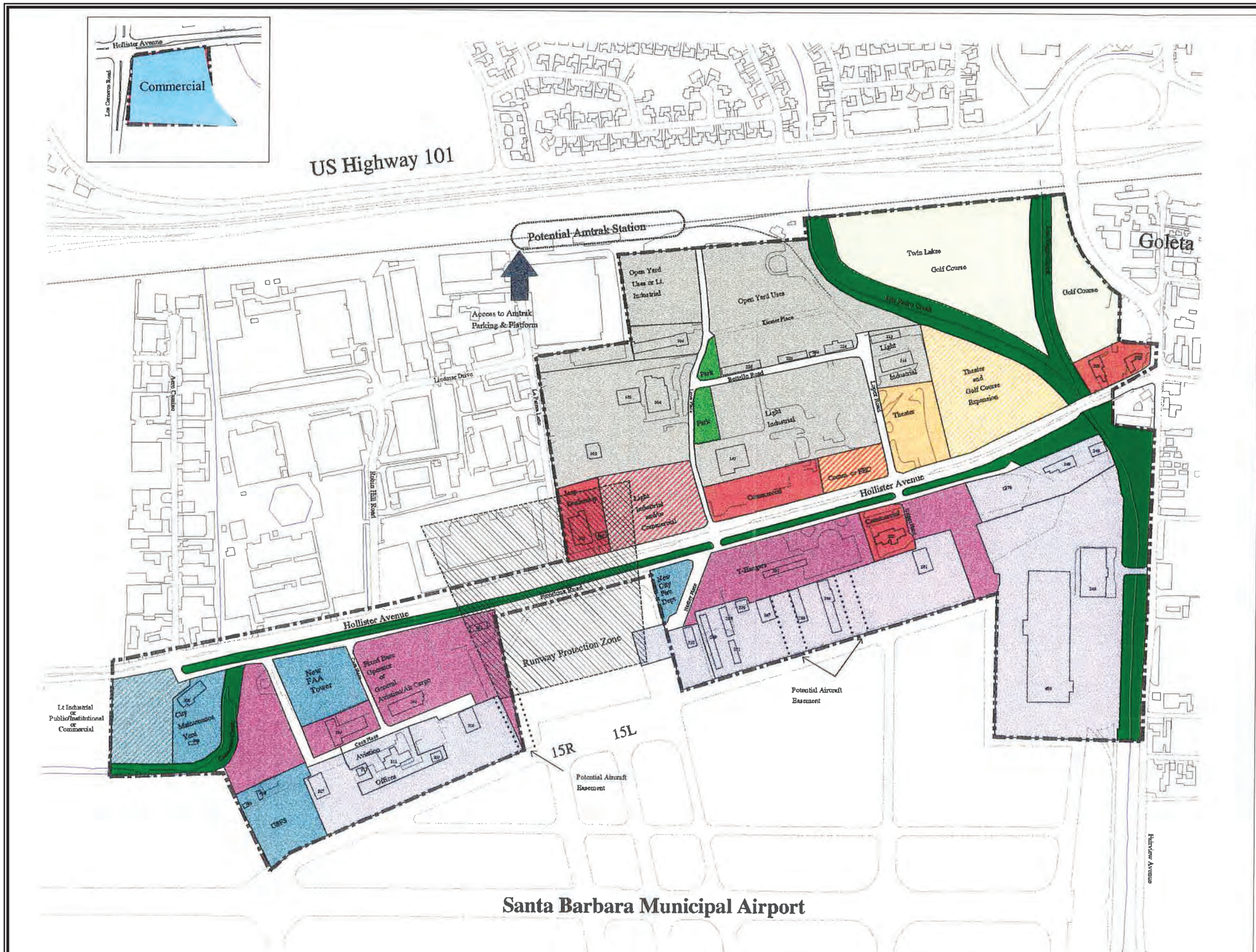


Exhibit 4J
EXISTING (2011) NOISE CONTOURS



Santa Barbara Airport Commercial/Industrial Specific Plan

Figure 10
Land Use Map

North of Hollister Avenue

- Light Industrial
- Commercial
- Entertainment Use (FEC)
- Golf Course
- Park
- Open Space

South of Hollister Avenue

- Existing Aviation Related Uses
- Proposed Aviation Related Uses
- Public/Institutional
- Open Space

Note:

Only theater parking expansion will occur in floodway.

N

0 200 400 600 800 Feet

Source: City of Santa Barbara 1998, *Santa Barbara Airport Industrial Area Specific Plan (SP-6)*

Santa Barbara Airport

Exhibit 4K

AIRPORT INDUSTRIAL AREA SPECIFIC PLAN LAND USE MAP

Policy V2: Provide opportunities that promote aviation related uses south of Hollister Avenue. Encourage the relocation of non-aviation uses to the north side of Hollister Avenue.

Policy TR1: Provide opportunities that promote aviation related uses south of Hollister Avenue.

Policy TR2: Preserve and encourage the expansion of existing businesses on Airport property.

Action TR2.1: Consider tenant relocation on a phased basis.

Policy SA1 (Sub-Area 1): Create opportunities for expansion of existing and new aviation related uses within this planning area which falls adjacent to the airfield east of Carneros Creek. Provide for expanded aviation services, e.g., Fixed Base Operators, air cargo, USFS facilities, T-hangars, etc. ...

The SP-6 Plan Land Use Map (**Exhibit 4K**) shows primarily existing and proposed Aviation-Related land uses, as well as existing Public/Institutional uses (the on-airport fire station, airport traffic control tower, and City maintenance yard), Open Space (the regulatory floodway), and one Commercial property (an existing restaurant).

The Airport also has its own LCP, prepared by the City of Santa Barbara and certified by the CCC. The City's *Coastal Plan: Airport and Goleta Slough* (2003) discusses the resources found within the Airport component of the City's Coastal Zone and the existing plans and policies of the City, and presents LCP policies designed to provide additional protection to coastal resources not adequately protected under the City General Plan policies. The LCP is also intended to regulate Coastal Zone development in conformance with the Coastal Act. See **Table 4E** (Section 4.2.2) for a list of LCP policies specific to protection of biological resources at the Airport. Other LCP policies applicable to the proposed Master Plan are listed in **Table 4J**.

TABLE 4J
LCP (Non-Biological) Policy Summary
Santa Barbara Airport

	Policy
Policy C-13	A Water Quality Mitigation Plan (WQMP) shall be developed and implemented for new development or redevelopment projects that entail greater than or equal to one acre of disturbance. WQMPs shall be developed and implemented consistent with the most recent requirements of the Regional Water Quality Control Board (RWQCB) or Coastal Commission standards for controlling polluted runoff, whichever is more stringent. A WQMP shall incorporate the following criteria: • Where feasible, drainage plans shall be designed to complement and utilize existing drainage patterns and systems, conveying drainage from developed areas of the site in a non-erosive manner. Disturbed or degraded natural drainage systems shall be restored where feasible, except where there are geologic or public safety concerns. • Post-development peak stormwater runoff discharge rates shall not exceed the estimated pre-development rate to the maximum extent feasible. All dry weather runoff shall be captured and filtered, infiltrated or treated to remove airport pollutants, including oil, grease and particulates, to the maximum extent feasible, prior to discharge.

	• Post-development phase drainage and polluted runoff control plans shall be developed which shall specify site design, source control and treatment control BMPs that will be implemented to minimize post-construction polluted runoff, and shall include monitoring and maintenance plans for BMPs. • Post-construction structural BMPs (or suites of BMPs) shall be designed to treat, infiltrate or filter the amount of stormwater runoff produced by all storms up to and including the 85th percentile, 24-hour storm event for volume-based BMPs and/or the 85th percentile, 1-hour storm event (with an appropriate safety factor, i.e., 2 or greater) for flow-based BMPs. • Necessary drainage devices, culverts, and outfalls shall not cause or contribute to streambank erosion or creek or wetland siltation and shall include BMPs to minimize impacts to water quality including construction phase erosion control and polluted runoff control plans, and soil stabilization practices. • The City shall maintain any drainage device to ensure it functions as designed and intended. All structural BMPS shall be inspected, cleaned, and repaired when necessary prior to September 30th of each year. Repairs modifications, or installation of additional BMPs, as needed, shall be carried out prior to the rainy season. • Alterations and disturbance of streams or natural drainage courses or human-made or altered drainage courses, where permitted pursuant to Coastal Act Section 30236 and LCP Policy 6.11, shall include BMPs for hydromodification activities. Monitoring shall be implemented, where required by the RWQCB, to ensure that average annual pollutant loadings do not exceed pre-development rates and/or water quality standards. The WQMP shall specify sampling locations, sampling protocols, pre-development pollutant levels and permitted standards for pollutants consistent with RWQCB standards. Monitoring shall be conducted annually consistent with RWQCB standards. If it is determined that pre-development levels and/or water quality standards are exceeded, annual monitoring shall be conducted for a period of at least five years, or until it is determined that pre-development levels and water quality standards are not exceeded. An assessment of the potential sources of the excessive pollutant loadings shall be conducted, including inadequate or failed BMPs, and corrective actions to remedy the water quality impacts shall be implemented.
Policy C-14	Construction Phase Erosion Control and Polluted Runoff Control Plans shall be developed for new development or redevelopment projects that require a Coastal Development Permit and a grading or building permit. These plans shall be implemented during the construction phase/phases of the project and shall include: • Best Management Practices (BMPs) designed to minimize erosion and sedimentation, provide adequate sanitary and waste disposal facilities and prevent contamination of runoff by construction chemical and materials. • Re-vegetation of disturbed areas shall occur at the completion of grading activities. Re-vegetation plans shall consist of native, non-invasive plants species and shall minimize the need for fertilizer, pesticides, herbicides, and excessive irrigation. Where irrigation is necessary to establish new plantings, efficient irrigation practices shall be required. • Outdoor material storage areas shall be designed using BMPs to prevent storm water contamination from stored materials. • Trash and debris storage areas shall be designed using BMPs to prevent stormwater contamination by loose trash and debris. • Grading and other ground disturbance activities shall be conducted outside of the rainy season. Grading during the rainy season shall be permitted only when there is no other feasible alternative for scheduling, and/or for completing ongoing construction activities prior to the rainy season, only where the City determines that completion of grading is more protective of resources, and only when adequate interim erosion control methods are implemented to ensure that activities will not result in excess erosion and sedimentation. • A Construction Contingency Plan shall be developed to address methods to control potential migration of contamination discovered during construction activities and shall include

	methods to identify and control potential migration of subsurface contaminants to the surrounding environment.
Policy A-1	Access within the Slough will be restricted to those persons and organizations conducting compatible research and educational projects. Actions: • Continue a permit system for Slough access and institute an ongoing screening procedure; keep records of how frequently; how many people enter the Slough, and keep track of research projects underway in the Slough. • Review the existing rules and regulations regarding use of the Slough and modify the restrictions if there is a need. Persons using the Slough must demonstrate that they are aware of the rules and regulations governing use of the Slough. • Determine if and when educational tour routes in dry land areas of the Slough are feasible and develop procedures for such tours. Post signs explaining why access has been limited and soliciting cooperation.
Policy B-1	Provide area(s) and facilities on the periphery of the wetland for the recreational and education use of Slough as funding permits. Actions: • A site-specific plan will determine the appropriate location, nature, and extent of viewing decks, platforms, and/or similar facilities for observing the Slough from the upland periphery. • The cooperation of the University will be sought in this matter, particularly with regard to the possibility of sharing parking facilities and locating viewing platforms on University property. • Realizing the financial limitations of the City, outside funding sources for the development and maintenance of such facilities will be sought. • Education/explanatory signs will be developed and installed as a part of any walking tour and viewing facilities project.
Policy E-1	Airport facility development shall reflect a high standard of development consistent with the character and quality of Santa Barbara. Actions: • The City shall adopt and implement a landscaping beautification plan for the Airport. • The City shall investigate using local college and university work study programs as a source of help for a planting or landscaping program. • The City shall investigate funding of street signing and tree planting programs. • The City shall establish an architectural theme for future airport development. • The regular repair and maintenance program directed at roofing and painting existing airport buildings shall be continued.
Policy F-1	The area of and around the archaeological site identified as SBa-52 is to be dedicated as a limited use area with access restricted. Use of this area by Chumash descendants for religious and ceremonial purposes which do not damage or destroy the archaeological resources of the site is preferred. Actions: • Repair and keep in good repair the fence and gate which encloses the site. • Report and prosecute those who trespass. Arrange a meeting with the various interested Indian groups (i.e. the Brotherhood of the Tomol, the Quabajai, the Indian Center of Santa Barbara), and interested archaeologists to determine the

	nature and extent of activities that would be allowed on the site if their exclusive use is allowed. If such use does not violate the letter and spirit of the goals and policies for the Goleta Slough - Sensitive Habitat portion of the Local Coastal Program, appropriate legal arrangements are to be made with the Chumash to formalize this arrangement.
Policy F-2	The City of Santa Barbara will seek to have the site known as SBa-52 placed on the National Register of Historic Places. <u>Actions</u>: • File application for registration as a Historic Place.
Policy F-3	New development shall protect and preserve archaeological or other culturally sensitive resources from destruction, and shall minimize and, where feasible. Avoid impacts to such resources. "Archaeological or other culturally sensitive resources" include human remains, and archaeological, paleontological or historic resources. • Coastal Development Permits for new development within or adjacent to archaeologically or other culturally sensitive resources shall be conditioned upon the implementation of appropriate mitigation measures to minimize and, where feasible, avoid impacts to such resources. • New development on or adjacent to sites with archaeologically or other culturally sensitive resources shall include on-site monitoring by a qualified archaeologist/sand appropriate Native American consultant/s of all grading, excavation and site preparation that involve earth-moving operations.
Policy G-1	Prior to approval of any development at the Airport by the Airport Commission, Architectural Board of Review, or other discretionary bodies of the City, a finding shall be made that adequate public service, including water, wastewater, traffic circulation, and parking are available to meet the needs generated by the proposed development. <u>Actions</u>: • Using the Master Environmental Assessment, the City shall monitor and update on an ongoing basis, information on water supply and demand, wastewater demand, traffic circulation and the adequacy of parking facilities to ascertain the short term and cumulative long term impacts of development in the Airport area. • As part of the Environmental Impact Statement required for adoption of the "Airport Land Use Plan", the City shall address the potential impacts upon public services including trat11c circulation which potentially would be created by implementation of the Plan. Prior to the approval of any development plans for the area, mitigation measures as developed in the EIS shall be implemented consistent with all relevant Coastal Act policies. • Any substandard portions of the water and wastewater systems at the Airport shall be improved when new developments would result in an increase in the use of the system. • The City shall support and continue to encourage the use of public transit for Airport employees and passengers. • Airport passenger parking spaces shall be increased at a rate equal to the rate of passenger demand and consistent with the "Airport Master Plan" when adopted. • The City shall continue to work towards the finalization of the Water Services Agreement with the Goleta Water District. • The City shall continue to pursue funding through the Clean Water Grant Program to upgrade any malfunctioning portions of the existing waste water system at the Airport.
Section 30253	New development shall do all of the following: (a) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.

	(b) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs. (c) Be consistent with requirements imposed by an air pollution control district or the State Air Resources Board as to each particular development. (d) Minimize energy consumption and vehicle miles traveled. (e) Where appropriate, protect special communities and neighborhoods that, because of their unique characteristics, are popular visitor destination points for recreational uses.
LCP/GP Seismic/Safety and Conservation Elements	Fault Displacement 1. Buildings shall not be allowed to be constructed over an identified active fault. Appropriate setback requirements shall be determined by a registered engineering geologist based upon the specific site conditions involved. 2. The Mesa and Lavigia Faults shall be considered as potentially active, unless detailed seismic-geologic investigations confirm the contrary. Any other faults shall be considered as potentially hazardous and subject to further geologic investigation prior to development. Ground Shaking 1. Specific seismic investigations shall be conducted by appropriate consultants (engineering geologist, geophysicists, structural engineer, etc.) for all public buildings, disaster response facilities, schools, etc., and any structure over three stories located in the filled estero or thicker alluvium areas as shown on the Seismic Hazards Map. Liquefaction 1. Liquefaction evaluations and recommendations should be made by a qualified soils engineer for all new major or public structures located in high or conditional liquefaction potential areas (shown on the Liquefaction Hazard Map) whose failure could result in loss of life or high monetary loss. 2. Geologic reports which are prepared for areas of potential liquefaction and submitted for City review shall be sent for review by an independent registered engineering geologist to determine its adequacy and completeness. Landslides 1. Any proposed development within areas of active and inactive landslides as shown on the Soil Creep and Expansive Soil Map of the Seismic Safety/Safety Element of the General Plan shall be evaluated by a qualified soils engineer to determine the feasibility of safe development occurring without the risk of renewed movement. The soils report shall include recommendations for slope stability measures to be taken, if needed, for safe development to occur. This report will be subject to the approval of the Building Official. 2. Any grading operations undertaken in areas of active and inactive landslides shall be designed and supervised by a qualified soils engineer. Erosion 1. Detailed grading plans with strict revegetation provisions shall be required for all sites of proposed structures in areas of active erosion or high erosion potential. If cuts greater than 4 feet in height are proposed, the grading plan should consider erosion control in areas with a conditional erosion potential. 2. Major construction projects in areas of active erosion or high erosion potential shall be required to implement erosion and sediment control procedures during the construction phase of the project.

	High Groundwater 1. In areas where near surface groundwater is present or where historic high groundwater levels could return to their previous high levels, soils engineering and foundation studies shall be conducted to determine what engineering measures would best mitigate any potentially adverse impacts. Tsunami 1. Tsunami warning and evacuation procedures as outlined in the City of Santa Barbara Natural Disaster Plan should be periodically reviewed and amended to insure that it will facilitate the rapid and orderly evacuation of the hazard area in the case of an imminent tsunami. Seiche 1. To reduce the potential impact of seismically induced seiches, the seiche hazard shall be considered in all development within areas near open bodies of water and the harbor. Flooding 1. Floodplain management programs shall be implemented through the Building Officer of the Division of Land Use Controls, and the Flood Control Division. - Prohibit the construction of new structures in stream channels (except stream measurement or flood control related facilities). - Encourage light-intensity use in the floodway or floodway fringe with the requirement that such uses shall not impair the flood-carrying capacity of the stream. - Require adequate setbacks from flood channels of any new development as defined under the Federal Flood Insurance Program, for those properties within the identified flood hazard area. - Encourage the use of permeable or pervious surfaces in all new development to minimize additional surface runoff. 2. Hazard reduction programs shall be implemented in urban sections of the City already built in hazardous, flood-prone areas. - Restrict the replacement of old structures within the floodway fringe unless the applicant has satisfactorily demonstrated that the structure will not impair flood flow, and has proved that the floodway fringe boundaries as designated by the HUD maps should be adjusted. - Regulate buffer zones along creeks to protect against bank erosion from public or private practices including grading, brush clearing, trail maintenance, dumping, or construction of private structures such as bridges or walkways across creeks. Routine debris removal by the City for flood reduction is exempted.

SOURCE: City of Santa Barbara, 2003. *Coastal Plan: Airport and Goleta Slough*, as amended by the California Coastal Commission, May.

City General Plan policies are also applicable to the Airport and include those found in both the various elements of the *City of Santa Barbara General Plan* the *Santa Barbara General Plan* amendments (2011). As part of this chapter (Chapter Four), and within each resource discussion, an analysis has been undertaken to determine any potential conflicts with applicable land use plans, policies, or regulations of agencies with jurisdiction over the project.

In addition to those plans and policies relating to environmental effects, *Santa Barbara General Plan* includes measures applicable to the Airport and its industrial areas, such as policies related to the Airport's role in promoting jobs and economic health in the City. When analyzing the environmental effects of *Santa Barbara General Plan,* the certified Final EIR assumed "continued

moderate growth of the City's Airport and adjacent specific plan area" (City of Santa Barbara 2010). These additional *Santa Barbara General Plan* policies are listed below.

EF15. **Protect Industrial Zoned Areas.** Preserve the industrial zones as a resource for the service trades, product development companies, and other industrial businesses not precluding priority housing in the C-M, Commercial Manufacturing Zone.

EF16. **Industrial Uses.** Ensure that there is sufficient land available for industrial uses.

Because *Santa Barbara General Plan* addressed only some of the elements within the City's General Plan, the old General Plan elements are still applicable as well. In Volume 1 of the City's 1995 General Plan, which includes the Land Use Element, it states the following with regard to the Airport:

"It is proposed that the following approaches be taken to the utilization and function of these lands.

1. The Airport facilities and Airport operation land uses should continue and be expanded as necessary to serve the function of a local airport with its passenger and freight service area generally confined to tying the South Coast area to the greater metropolitan areas of Los Angeles and San Francisco.

2. The land which will not be used for Airport functions is, essentially, no different than the surrounding lands in the Goleta area. The fact that the property owner happens to be the City of Santa Barbara does not affect its land use relationship to the balance of the area. Because of the magnitude of problems, such as noise, air, and visual pollution, the City, County, and UCSB should cooperate in determining a desirable and appropriate land use for this area of Goleta in relationship to economic, social, and environmental impact upon both individuals and community structure. …

… Planning for airport development should be guided by the following basic principles:

1. Noise, air pollution, and all other adverse environmental and ecological impacts must be reduced and held at absolute minimum levels.

2. Land use, both aeronautical and non-aeronautical related, must be planned to produce a low intensity of activity, commensurate with the local nature of the airport and respecting the low residential, commercial, and industrial density of the Goleta area.

3. All planning for this important transportation element and its related facilities should be coordinated with the County."

In addition, the Circulation Element contains the following policy and implementing strategy for other transportation facilities:

15.2 Manage and operate the Airport in an efficient, cost-effective, and safe manner.

Other policies of the General Plan include the preservation and restoration of the Goleta Slough (Conservation Element), the implementation of land use compatibility standards for noise (Noise Element), and the following policies related to urban design.

ER11. **Native and Other Trees and Landscaping.** Protect and maintain native and other urban trees, and landscaped spaces, and promote the use of native or Mediterranean drought-tolerant species in landscaping to save energy and water, incorporate habitat, and provide shade.

PS6. **Water Conservation Program.** The use of water conservation practices shall be both encouraged and required, as appropriate, for all development projects.

In addition, SBCAG, as the County's ALUC, has prepared the *Santa Barbara County Airport Land Use Plan* (ALUP) (1993). This document is being updated in the form of an Airport Land Use Compatibility Plan (ALCUP), per the Caltrans Handbook. The proposed Master Plan, if approved, would be incorporated into the next ALUCP update, as necessary. See Section 2.5 of this EIR for additional discussion.

4.6.3 Impact Evaluation Methodology and Significance Criteria

Based on the CEQA Guidelines checklist, the following significance criteria have been applied to this proposed project:

- Would the project physically divide an established community?
- Would the project conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

In addition, land uses incompatibility can result from a proposed project's generation of noise, odor, safety hazards, traffic, visual effects, or other environmental impacts. These potential impacts have been addressed within the proposed project's Initial Study and are addressed in this EIR as appropriate.

4.6.4 Project-Specific Impacts

Impacts to Established Communities

Impact LU-1: The proposed project does not involve any improvements that have the potential to physically divide the surrounding communities nor would it close any existing bridges or roadways. (See Section 4.8 for a discussion of transportation/traffic related to the proposed Master Plan's implementation.)

All improvements occurring under the proposed Master Plan would occur on Airport property.

The proposed Master Plan recommends several types of construction or demolition activity at the Airport over the next 20 years. These would include the demolition of existing buildings, the construction of new buildings, the relocation of the maintenance yard and glideslope antenna, replacement of Airport ancillary structures such as perimeter fencing, and the grading, paving and/or pavement rehabilitation of taxiways and runways. The closest sensitive noise-receptors (i.e., residents of Willow Springs Apartments) are located approximately 425 feet from the maintenance yard to be relocated. This is the closest recommended project to the neighborhood. The next closest project would be the Taxiway H Airfield Safety Project, which would be located approximately 900 feet away at its nearest point.

Result LU-1: **No significant impacts would occur to adjacent communities as a result of the proposed project. Since all construction or demolition activity at the Airport would be reviewed at a project-specific level by the City and is required to comply with the City's noise ordinance, construction noise at the distances discussed above would have <u>Class III, Less than Significant Impact</u> on noise-sensitive receptors.**

Compatibility with Applicable General Plan Policies and Other City Plans

Impact LU-2: Moderate enplanement growth at the Airport (2.8 percent compound annual growth rate) is projected to occur by FAA in its 2012 Terminal Area Forecast (TAF) and was used in the growth forecasts for the proposed Master Plan. This moderate growth rate is the basis for not only recommended projects in the proposed Master Plan, but was accounted for in the City's General Plan, Climate Plan, and SWMP. (As previously stated in Section 1.2, the City's General Plan considers "moderate growth" at the Airport that was based on the 2003 *Aviation Facilities Plan's* aviation demand forecast which included scenarios for one to four percent annual growth rate of annual enplaned passengers and two percent per year growth in general aviation (GA) aircraft operations.) The proposed project is also consistent with the City land use policies listed in Section 4.6.2.

An analysis of consistency with the City's General Plan policies and other plans adopted for the purpose of avoiding or mitigating an environmental effect has been included within the various environmental resource categories of this EIR. Based on this analysis, the project is Consistent with all applicable sections of the City's General Plan, Climate Plan, and SWMP. Analysis of City LCP policies as they relate to the Goleta Slough are discussed in the next section.

Result LU-2: **The proposed Master Plan would not preclude the implementation of applicable City General Plan, Climate Plan, or SWMP policies into individual development projects or airfield safety improvements, where appropriate, as long as the safety of the Airport is maintained. Required mitigation measures related to the City's Standard Conditions of Approval would also ensure that the project is consistent with the City's applicable plans and policies. Impacts to applicable land use and other City plans as a result of the proposed Master Plan would be Class III, Less than Significant Impact.**

Compatibility with the Santa Barbara Airport Industrial Area Specific Plan and SP-6 Zoning

Impact LU-3: The City of Santa Barbara Planning staff has analyzed the proposed Master Plan's consistency with the City's SP-6 Plan and has determined that it is consistent with the intent of policies within the SP-6 Plan, including policies specific to Subarea 1. The SP-6 Plan Land Use Map for Subarea 1 shows a pattern of development that is similar to what is recommended by the proposed Master Plan. In addition, the proposed Master Plan is consistent with the zoning districts currently over the subarea (A-I-1, Airport Industrial, and A-F, Airport Facilities).

Although the SP-6 Plan included an Illustrative Plan with a development concept that is different from the proposed Master Plan, the Illustrative Plan exhibit also states that it is intended to show "one potential development concept and the actual buildout will likely vary from this initial projection." The SP-6 Plan envisioned that approximately 70,000 square feet of new aviation-related facilities could occur at full buildout, excluding T-hangars. It also assumed the gradual removal of 18 older buildings within Subarea 1 with a net decrease in approximately 3,000 square feet overall.

The proposed Master Plan recommends the demolition of six buildings (approximately 41,000 square feet). Building Nos. 268, 269 and 271 are a storage building and two older hangars that would be replaced with two rows of 13-unit T-hangars; Building Nos. 303, 304, and 344 are two office/storage buildings and an office/research and development (R&D) building that would be replaced with two rows of 15-unit T-hangars. Other office or R&D buildings and older aircraft hangars may or may not be removed depending on the plans of future lease holders at the Airport. All future development within the part of the proposed Master Plan that is also within Subarea 1 of the SP-6 Plan will be evaluated by City of Santa Barbara Planning staff for consistency with relevant SP-6 Plan policies at a project-specific level.

Much of the recommended north landside development in the Master Plan would occur in the Airport Industrial Area specific planning area and would be subject to the provisions of the SP-6 overlay zone (see Chapter 29.30 of the

Santa Barbara's *Airport Zoning Ordinance*). No issues with the SP-6 overlay as a result of recommended development are anticipated. The maintenance yard is located within the A-I-1 zone. The closure of the maintenance yard is assumed to be consistent with this zone.

Result LU-3: **Since the proposed Master Plan is consistent with the SP-6 Plan's Land Use Map for Subarea 1, applicable policies and zoning, and Subarea 1's redevelopment focus, impacts related to SP-6 Plan consistency would be <u>Class III, Less than Significant Impact</u>.**

Compatibility with the Airport's Local Coastal Program

Impact LU-4: An analysis of consistency with the City's LCP policies adopted for the purpose of avoiding or mitigating impacts to coastal resources has been included within the various environmental resource categories of this EIR and a summary policy consistency analysis with the City's LCP policies is provided below. Based on this analysis, with mitigation, the proposed Master Plan is consistent with all applicable LCP policies addressing potential impacts to water/marine resources, wetlands, environmentally sensitive habitats, public access and recreation, visual resources, cultural resources, public services, and hazards related to geology, fire, flooding and sea level rise (including potential tsunami hazards).

<u>Water Quality and Marine Environments</u>

New development on the airport property in proximity to Goleta Slough and the various waterways/drainages that traverse the property has the potential to impact coastal water quality through grading, removal of native vegetation, increase of impervious surfaces and associated runoff, erosion, and sedimentation. In addition, due to the history of aviation use of the airport property and the types of material associated with aircraft operation and maintenance, there is a potential for encountering contaminated sites and/or release of hazardous materials during construction and operation.

New development associated with the Master Plan would not be located within the waterways/drainages that traverse the airport property and therefore would not result in channelization or substantial alteration of onsite waterways. The majority of proposed Master Plan improvements would be located in developed areas of the Airport, and airfield safety improvements (taxiway extension/improvements) would be located in level areas, thereby limiting grading, substantial increases of new impervious surfaces, and disturbance to natural drainage features. New or improved drainage systems necessary to convey runoff from improvement areas, including any drainage

discharge or disposal devices, would be designed to avoid or minimize impacts to the site's waterways/drainages.

Compliance with the LCP's water quality policies, Policies C-12, C-13 and C-14, and identified mitigation measures which include implementation of construction and post-construction BMPs, would ensure that new development for the Master Plan would be implemented in a manner to protect water quality. The Airport has an active SWPPP and a City-approved storm water management plan, both of which include measures to manage potential hazardous materials and to protect water quality at the Airport. In addition, all development would have to comply with the Airport's NPDES Industrial Permit and spill prevention control and countermeasures (SPCC) plans and operations manuals. Therefore, the project is consistent with LCP Policies C-12, C-13 and C-14.

Wetlands

Section 30233 of the Coastal Act and LCP Policies C-4 and C-10 set forth specific limitations on uses allowable in wetlands. The limitations are generally defined in a 3-part test as follows:

1. The purpose of the project is limited to one of eight allowable uses identified in Section 30233;
2. The project has no feasible less environmentally damaging alternative; and
3. Adequate mitigation measures to minimize the adverse impacts of the proposed project on habitat values have been provided.

Proposed airfield projects would be located within the existing airfield, primarily within developed areas or immediately adjacent to existing runways and taxiways. The Taxiway H Airfield Safety Project would be located on the north side of the airfield and would involve some extension of development into an undeveloped area currently zoned as G-S-R (see **Exhibit 4H**). Based on a preliminary wetlands inventory and vegetation mapping conducted on the Airport (Dudek 2012), the infield areas where runway and taxiway improvements are proposed, although consisting of non-native annual brome grassland (ABG) and dredge spoil or work areas (DRDG) (refer to **Exhibit 4B**), could contain wetlands as defined by CCC and/or USACE/RWQCB due to the presence of hydrophytic vegetation (refer to **Exhibit 4C**).

Additional surveys prior to actual development would be necessary to delineate the exact limits of jurisdiction. Any portion of the project involving improvements that result in temporary or permanent fill in wetlands trigger the 3-part test for projects involving wetland fill as required by Coastal Act Section 30233 and LCP Policies C-4 and C-10.

1. Allowable Use

Pursuant to the first of these tests, a project must qualify as one of the eight stated uses allowed under Section 30233(a). As it relates to Master Plan projects that have the potential to impact wetlands, Section 30233(a)(5) of the Coastal Act authorizes fill for "*Incidental public service purposes, including but not limited to, burying cables, pipes or inspection of piers and maintenance of existing intake and outfall lines"* and LCP Policy C-9 requires that *"Any development approved within or adjacent to the wetland areas identified on the habitat map shall have been found to be consistent with PRC's sections 30233, 30230, 30231 and 30607.1."*

Previous CCC findings for airfield safety projects resulting in wetland impacts at the Airport have concluded that fill for the expansion of existing runways/taxiways may constitute an "incidental public service purpose" if: (1) there is no less damaging feasible alternative; (2) the fill is undertaken by a public agency in pursuit of its public mission; and (3) the expansion is necessary to maintain existing capacity.

The 2013 Demand/Capacity Analysis for the Airport concludes the following:

The 2011 operations level equated to 48 percent of the airfield's annual service volume. By the long term planning horizon, total annual operations are expected to represent 65 percent of annual service volume.

FAA Order 5090.3C, *Field Formulation of the National Plan of Integrated Airport Systems* (NPIAS), indicates that improvements for airfield capacity purposes should begin to be considered once operations reach 60 to 75 percent of the annual service volume. Since this range is not anticipated to be reached at Santa Barbara Airport until the long term timeframe, major capacity improvements such as new runways are not considered necessary during the planning horizon.

Accordingly, none of the Master Plan project elements that could potentially impact wetlands would increase the operational capacity of the Airport, but are specifically intended to meet FAA design standards for safety and to improve the operational efficiency, circulation and capability of the airfield. The improvements are necessary to eliminate and/or minimize safety hazards associated with a number of "Hot Spots," identified by the FAA as a location in the Airport's movement area with a history of potential risk or collision or runway incursion, and where heightened attention by pilots is necessary. The location and design of the proposed airfield improvements have been determined based on FAA design standards and the location of existing facilities, i.e., most of the runway and taxiway improvements consist of minor, linear expansions that must occur immediately adjacent to existing runways

and taxiways. In the case of the Taxiway H Airfield Safety Project, the location and design is based on the most feasible, least environmentally damaging location, which avoids sensitive vegetation communities and provides maximum setbacks from Carneros and Tecolotito Creeks and Goleta Slough.

In conclusion, the Master Plan airfield improvements would not increase the operational capacity of the Airport and are necessary to ensure the safe and efficient operations of one of the region's primary public transportation systems providing coastal access to Santa Barbara and nearby coastal communities. In addition, the improvements are the least environmentally damaging, feasible alternative (see following discussion). Therefore, the project may be considered an allowable use for wetland fill pursuant to Coastal Act Section 30233 and LCP Policies C-4 and C-10.

2. The Project has no Feasible, Less Environmentally Damaging Alternative

The location and design of the proposed airfield improvements have been determined based on FAA design standards and the location of existing facilities. The runway and taxiway improvements consist of minor, linear expansions that must occur immediately adjacent to existing runways and taxiways. The location and design of the Taxiway H Airfield Safety Project avoids sensitive vegetation communities and provides maximum setbacks from adjacent resources associated with Carneros and Tecolotito Creeks and Goleta Slough. There are no alternative design or configuration options available that would allow for project implementation and avoid or reduce temporary or permanent impacts to wetlands. The No Project Alternative would result in reduced safety and/or efficiency of the Airport transportation, thereby adversely impacting maximum coastal access opportunities to the region's coastal communities. Thus, the project may be found consistent with Coastal Act Section 30233.

3. Adequate Mitigation Measures are Provided

Potential impacts to wetland resources would affect only degraded wetland areas consisting of non-native annual brome grassland (ABG) and dredge spoil or work areas (DRDG) (refer to **Exhibit 4B**). Nonetheless, should it be determined that impacts to wetlands would occur from the airfield projects, adequate mitigation measures to minimize adverse impacts on habitat values would be provided. A project-specific wetland mitigation plan would be prepared to determine sufficient mitigation for impacted resources based on a site-specific evaluation of the resource's function and values (see Section 4.2.7). Therefore, the project may be found consistent with Coastal Act Section 30233.

While the Taxiway H Airfield Safety Project would affect areas not immediately adjacent to existing facilities, the improvements would be located in proximity to an existing runway and the project location maximizes setbacks from adjacent creeks and Goleta Slough to the extent feasible.

The extension of Taxiway H would encroach into the G-S-R zone as identified on the City's zoning map, and although the Taxiway H Airfield Safety Project area is also zoned A-A-O, a project-specific analysis would be necessary to determine: 1) the extent of impacts to wetland habitat, if any; 2) feasibility of appropriate mitigation measures based on type and level of impacts on resource functions and values; and 3) overall compatibility of the taxiway Airfield Safety Project with the open space character of the GSER. Should a project-specific evaluation conclude that the Taxiway H Airfield Safety Project would not preserve the wetland as it exists or improve the habitat values of the Goleta Slough Reserve, an LCP amendment would be required to change the zoning of the proposed project area.

A full analysis of this project's consistency with the policies of the Airport's LCP and the G-S-R zoning would be conducted during the LCP amendment process and would address any potential policy consistency issues associated with adverse impacts to wetlands, wetland buffers (Policy C-4), long-term protection of Goleta Slough habitats and open space (Policies C-8, C-9 and H-1), and consistency with the Slough Management Plan (Policy C-10). See related analysis under Section 4.2.4 Impact BIO-1, and Impact LU-4 below. The City of Santa Barbara will consider the initiation of an LCP amendment and rezone for the portion of a future Taxiway H Airfield Safety Project that would occur within the G-S-R zone after formal adoption of the proposed Master Plan (refer to Section 2.4, Required Discretionary Actions, and Impact LU-6 below).

<u>Environmentally Sensitive Habitat Areas</u>

The majority of the airport improvements would be located in areas that are currently developed and therefore have no potential to impact ESHAs. Airfield improvements would occur in areas mapped as non-native annual brome grassland and dredge spoil or work areas, which are located immediately adjacent to or in proximity to existing facilities, and therefore have a low potential to contain ESHA. The location and design of the Taxiway H Airfield Safety Project avoids sensitive vegetation communities and provides maximum setbacks from adjacent resources associated with Carneros and Tecolotito Creeks and Goleta Slough, specifically avoiding development encroachment near the scrub and wetland habitats occurring southwesterly of the existing airfield facilities (refer to **Exhibit 4B**). No improvements would occur in habitat areas known to support special-status species.

Consistent with LCP policies addressing potential impacts to sensitive habitats and species, potential indirect impacts to ESHA and special-status species would be identified and mitigated during project-specific environmental review to ensure mitigation measures would be implemented to protect sensitive habitat and species, and to ensure provisions of appropriate setbacks/buffers between development and ESHA. These buffers are necessary to ensure adjacent land uses are developed and maintained compatible with the continuance of habitat areas and to address potential short term construction activity impacts that could inadvertently encroach into ESHA or occur during important roosting, breeding, foraging, migrating and nesting periods for special-status species. Compliance with the LCP's ESHA protection policies and identified project-specific mitigation measures would ensure that new development for the Master Plan would be implemented in a manner to protect ESHA and sensitive status species.

Public Access/Recreation

The proposed Master Plan does not raise issues of consistency relative to the public access and recreation policies of the Coastal Act or LCP as the projects are necessary to ensure the safe and efficient operation of one of the region's primary public transportation systems providing coastal access to Santa Barbara and nearby coastal communities. The proposed Master Plan would not result in intensification of the use of the existing facilities. A traffic study of the Master Plan projects has been prepared and is included in this EIR as **Appendix C** (see also Section 4.8). No significant project-specific or cumulative traffic impacts would occur as a result of the proposed Master Plan and proposed development would not interfere with the public's right of access to the sea. In addition, the project would have no adverse effect on public access and recreational opportunities on airport property beyond those limitations presently established at the Airport to ensure safe and secure airport operations.

Visual Resources

The proposed Master Plan does not raise issues of consistency relative to Coastal Act or LCP policies which require scenic and visual qualities of coastal areas be considered and protected, that new development protect views to and along the ocean and scenic coastal areas, and that development be consistent with the character and quality of Santa Barbara. Development of the proposed Master Plan projects would involve improvements predominantly constructed at grade, in the case of airfield projects, and new buildings would be located in developed areas of the Airport adjacent to existing structures. No grading or new buildings are proposed that would alter natural landforms. Areas proposed for new buildings or expansions are not located in the immediate vicinity of coastal resources and would not obscure

ocean or coastal views or impact the visual quality of the coastal area. All new lighting and developed areas associated with the proposed Master Plan would remain on the airfield and other developed portions of the Airport. From off-site areas, such as adjacent streets, the property would continue to look like a developed airport with no noticeable change in its appearance. Therefore, the project may be found consistent with Coastal Act Section 30251 and LCP Policy E-1.

Cultural Resources

The proposed Master Plan projects may potentially result in impacts to archaeological or other culturally sensitive resources. Proposed development located in the northeast corner of the Airport, south of Hollister Avenue, would occur partially in areas designated in the City's *Master Archaeological Resource Assessment* (MARA) study as Low sensitivity for Native American Resources and an area proposed for development south of the Terminal is designated as Moderate sensitivity for Native American Resources.

Master Plan project work would generally be limited to excavation and grading to remove existing pavement and construction of new pavement and foundations in developed areas. However, trenching for utilities may require deeper subsurface disturbance and could potentially affect unknown cultural resources at the site. LCP Policy F-3 requires mitigation and monitoring of activities that could affect sensitive cultural or archaeological resources including the requirement for onsite monitoring by a qualified archaeologist or resource specialist and an appropriate Native American consultant of all ground disturbing activities. Compliance with Policy F-3, the City's MARA, and standard City conditions of approval would ensure protection of cultural resources (refer to Section 4.3.7).

Public Services

The project is consistent with Section 30254 of the Coastal Act and LCP Policy G-1 as adequate public services such as water, wastewater, traffic circulation, and parking would be available to meet the needs generated by the proposed project. Future landfill capacity is currently constrained in the region and the Airport would be required to comply with citywide measures to reduce its waste stream. However, in terms of its consistency with this section of the Coastal Act, the Airport is a basic service that is vital to the economic health of both the region and the nation.

Hazards

Almost the entire Airport is located within the 100-year floodplain. Base flood elevations have been determined for development of new buildings which

would ensure potential flood hazards would be minimized. The only proposed projects within a mapped floodway would be the westernmost extension of Taxiway H, the removal of an existing maintenance yard, and the future relocation of historic buildings Nos. 248 and 249. As the Taxiway H Airfield Safety Project would consist only of an at-grade facility and does involve construction of structures, it is not expected to impede surface floodwater flows in the event of a 100-year flood.

The project site, and the region as a whole, is subject to seismic activity. Potential hazards related to seismic activity include: fault displacement and ground shaking (primarily from nearby historically active More Ranch fault), liquefaction, and tsunamis. Compliance with the City's Seismic/Safety and Conservation Elements and project-specific mitigation measures would ensure new development would be designed and constructed to minimize these risks.

An increase in emissions, including GHG emissions, would occur over the 20-year planning horizon of the Master Plan. However, the Airport has in place a *GHG Inventory and Carbon Footprint Reduction Plan* (City of Santa Barbara 2007). Sea level rise is a concern for much of coastal Santa Barbara and studies are underway to evaluate potential sea level rise scenarios at the Airport which will help to assess potential risks to airport facilities.

Result LU-4: **The proposed Master Plan would not conflict with any applicable LCP policy adopted for the purpose of avoiding or mitigating an impact to coastal resources. However, recommended projects, such as the proposed Taxiway H Airfield Safety Project, could result in inconsistencies with LCP policies related to Goleta Slough. See Section 4.6.7 for programmatic measures to be applied to future development projects occurring under the proposed Master Plan, and Section 4.2.7 for programmatic mitigation measures provided to ensure consistency with LCP policies for the protection of the Slough. Implementation of these measures would mitigate future potential impacts of the proposed Master Plan to coastal resources and ensure consistency with applicable LCP policies. Potential impacts of adoption of the proposed Master Plan would be <u>Class II, Less than Significant Impact with Mitigation</u>.**

General Plan Designation/Zoning Considerations/Goleta Slough Ecological Reserve

Impact LU-5: Most of the future actions discussed in the Master Plan would occur on portions of the Airport are designated as Airport in the City General Plan and zoned for airport-related activities (A-A-O or A-F) and would be consistent with the underlying designation and zoning. Two exceptions, however, would be at the off-site parcels where the Airport is seeking avigation easements over Airport runway protection zones (RPZs).

The recommended northern RPZ easement would occur over a property within the City of Goleta that is designated as Business Park (City of Goleta 2008) and zoned for M-RP, Industrial Research Park and M-S-GOL, Service Industrial – Goleta. This property is currently developed with a light industrial building and a parking lot. Given that the building does not penetrate any Part 77 airspace surfaces, it would not need to be removed. The avigation easement, if obtained by the Airport, would prevent the property owner from making improvements to the property that would conflict with Airport safety objectives. These restrictions on the use of the property would not conflict with the specifications of the underlying zoning and land use designations.

On the south side of the Airport, the off-site RPZ would occur over a small parcel of land within Santa Barbara County designated as PU, Public Utility and REC, Recreation. The parcel is owned by Caltrans and developed as a State highway (State Route [SR] 217). Again, an avigation easement would prevent the property owner from making improvements to the property that would conflict with Airport safety objectives. These restrictions on the use of the property would not conflict with the specifications of the underlying zoning and land use designations.

Result LU-5: **No conflicts to the City of Goleta's land use designations or zoning would occur from proposed avigation easements. Land use impacts of these easements would be <u>Class III, Less than Significant Impact</u>.**

Impact LU-6: A few of the airfield safety improvements discussed in the Master Plan, specifically the Taxiway H Airfield Safety Project and its associated actions, would occur in the G-S-R zone and would likely require a portion of the G-S-R/A-A-O zoning to be rezoned exclusively as A-A-O (refer to **Exhibit 4H**). The project would also require an amendment to the GSER boundary, an LCP amendment, and a General Plan amendment. It would be subject to a CDP and would be permitted as an incidental public service project only if there is no feasible less environmentally damaging alternative and if feasible mitigation measures have been provided to minimize adverse environmental effects (*Airport Zoning Ordinance*, section 29.25.030B). In addition, the CDFW is a Trustee Agency of resources in the GSER. Any changes to the GSER boundaries are, therefore, subject to the City's Cooperative Agreement with the CDFW (dated August 25, 1987, as amended).

Result LU-6: **The proposed Taxiway H Airfield Safety Project and its associated actions could result in inconsistencies with the G-S-R zone and General Plan land use designation that protects the GSER. Mitigation is, therefore, proposed to allow for the necessary General Plan and LCP amendments, rezone, and amendment to the City's Cooperative Agreement with CDFW. Assuming that the necessary CDPs, General Plan and LCP amendments, and rezones are approved, land use and planning impacts of recommended projects within the**

G-S-R zone (and associated General Plan land use designation) would be <u>Class II, Less than Significant Impact with Mitigation</u> since the projects would not "conflict with any applicable land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental impact." (Refer also to Section 4.2.7, BIO/mm-1 for programmatic mitigation measures provided to ensure consistency with LCP policies for the protection of the Slough.)

4.6.5 Regional (Cumulative) Impacts

Regional plans that are applicable to the Airport include the County APCD/SBCAG's 2010 and 2013 CAPs, RWQCB's Basin Plan, and SBCAG's *2040 Regional Transportation Plan and Sustainable Communities Strategy* (2013). Consistency with these plans is addressed in Sections 4.1.5, 4.5.5, and 4.7.5, respectively. No significant inconsistencies with these plans would occur since the proposed Master Plan is consistent with the City's General Plan and operates under an approved NPDES permit. In addition, as previously discussed in Section 4.2.5, other projects within the coastal area are subject to their own LCP policies and CDP processes, which address cumulative impacts and provide mitigation for sensitive coastal resources.

As discussed previously in Sections 2.5 and 4.6.2, SBCAG's existing ALUP is being updated in the form of an ALUCP, per the Caltrans Handbook. The proposed Master Plan, if approved, would be incorporated into the next ALUCP update, as necessary.

4.6.6 Comparative Impacts of Alternatives

No Project Alternative

Similar to the project as proposed, the No Project alternative would be consistent with all applicable plans and policies and would not involve any improvements that have the potential to impact established communities. However, the No Project alternative would not involve improvements within the GSER and, thus would not require a rezone or General Plan/LCP amendments. Mitigation for impacts to biological resources protected by the G-S-R zone and LCP would not be required. Therefore, this alternative has <u>less potential</u> to create land use impacts than the project as proposed.

Environmentally Superior Alternative

Similar to the project as proposed, the Environmentally Superior alternative would be consistent with all applicable plans and policies and would not involve any improvements that have the potential to impact established communities. Like the No Project alternative, however, the Environmentally Superior alternative would not involve improvements within the GSER and, thus

would not require a rezone or General Plan/LCP amendments. Mitigation for impacts to biological resources protected by the G-S-R zone and LCP would not be required. Therefore, this alternative has less potential to create land use impacts than the project as proposed.

4.6.7 Mitigation Measures

Standard City mitigation measures may be required for specific construction or demolition projects recommended by the proposed Master Plan, as determined by project-specific environmental review. These measures would be implemented at the project level by the City to mitigate potential construction-related impacts on the surrounding neighborhoods. (Refer to Initial Study, Appendix A of the Draft EIR**,** Section 7, Noise.)

Sections 4.1.7, 4.2.7 and 4.5.7 of this Recirculated EIR list programmatic mitigation measures that would ensure consistency with applicable City and regional plans adopted for the purpose of avoiding or mitigating an environmental effect. These measures have been incorporated into the Mitigation Monitoring and Reporting Plan (Chapter Seven) for the proposed Master Plan.

Mitigation Measures for Land Use Impacts LU-4 and LU-6

The following programmatic measures have been incorporated into the Mitigation Monitoring and Reporting Plan (Chapter Seven) for the proposed Master Plan. Implementation of these measures would serve to avoid or mitigate future potential impacts of the proposed Master Plan to coastal resources and ensure consistency with applicable LCP policies and the G-S-R zone/General Plan land use designation for the GSER. Therefore, potential impacts of recommended projects within the proposed Master Plan would be Class II, Less than Significant Impact with Mitigation.

LU/mm-1: **A detailed project-specific impact analysis and mitigation program for the Taxiway H Airfield Safety Project, and associated analysis of the project's consistency with the G-S-R zone and the policies of the Airport's LCP and *California Coastal Act*, shall be conducted during the CDP and LCP amendment review process. The analysis shall specifically address project alternatives, mitigation, and/or additional LCP policy requirements necessary to ensure that any permitted impacts to wetland and sensitive habitat and associated buffers will be adequately minimized and mitigated to ensure long term protection of Goleta Slough habitats and open space.**

LU/mm-2: **A consistency review of the Taxiway H Airfield Safety Project with the Slough Management Plan shall be conducted during the project-specific CDP and/or LCP amendment review process, as applicable. Project-specific mitigation measures shall be identified and incorporated into the City's CDP, and/or LCP policies shall be identified and incorporated into Airport LCP, where determined necessary and feasible, to ensure project consistency with the Slough**

Management Plan. Required mitigation shall also be evaluated for consistency with the Slough Management Plan restoration goals.

LU/mm-3: **The City of Santa Barbara and the CDFW shall amend the Cooperative Agreement dated August 25, 1987 (as revised) for the maintenance and management of the Goleta Slough to adjust the boundaries of the GSER to exclude the Taxiway H Airfield Safety Project site and to include a site of similar habitat value at an area ratio of 1:1 (i.e., if Taxiway H and associated actions removes 11 acres from the GSER, 11 acres would be added to the GSER from available Airport property adjacent to the Slough). This mutually-accepted exchange shall be in addition to required biological mitigation. The Cooperative Agreement amendment shall be presented to the California Fish and Game Commission.**

4.7 PUBLIC UTILITIES (SOLID WASTE DISPOSAL)

No changes have been made to this section as part of the Recirculated Draft EIR.

4.8 TRANSPORTATION/TRAFFIC

4.8.1 Environmental and Regulatory Setting

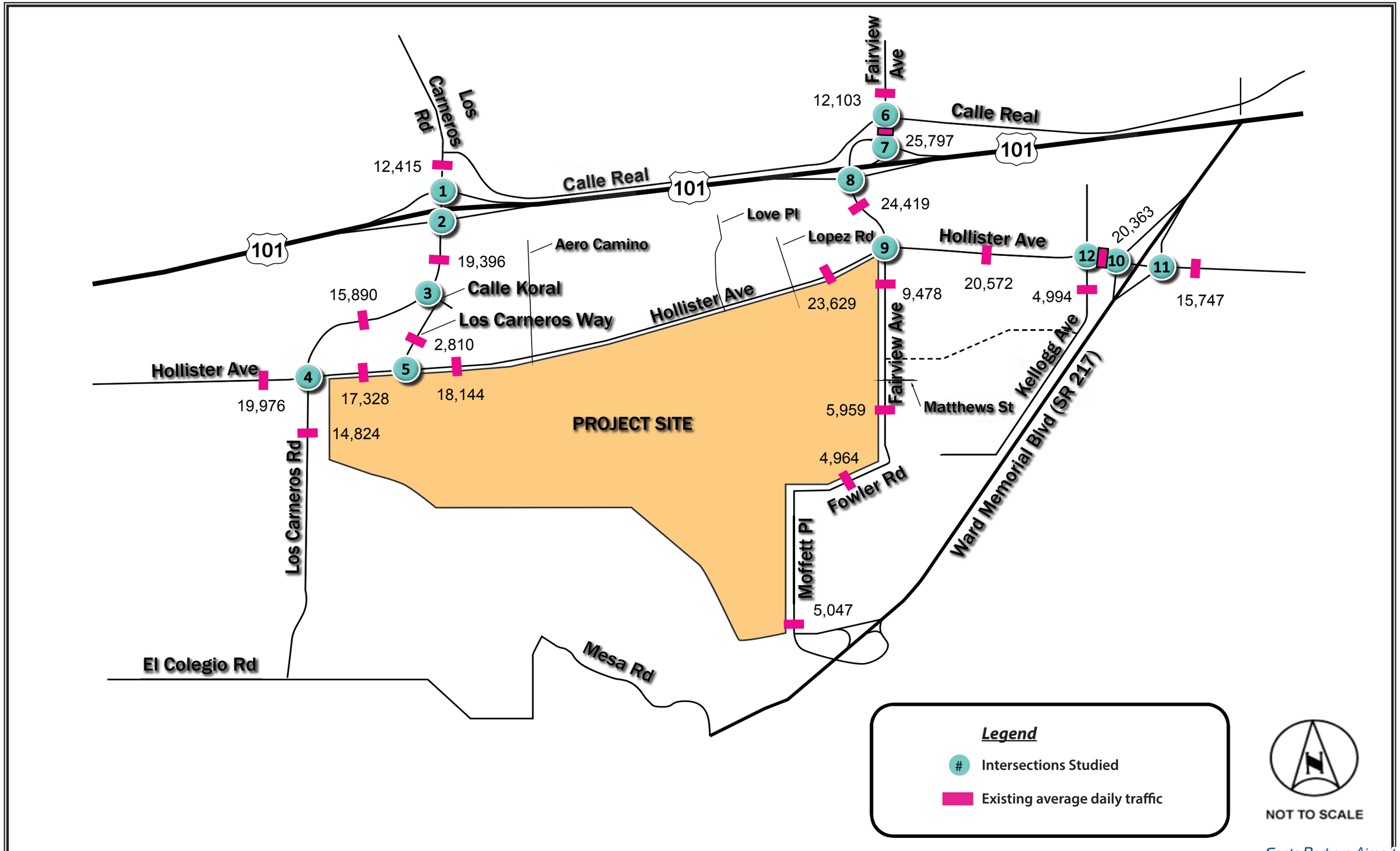
Exhibit 4L shows the street network surrounding the Airport and existing traffic volumes (based on traffic counts taken in April 2015 for this EIR work effort). The roadway segments studied within this EIR are listed below. Impacts to the regional circulation network, for example, US 101 and SR 217, have already been addressed as part of the City of Santa Barbara's Final General Plan EIR, which included moderate growth at the Airport and, thus, have not been re-evaluated in this EIR.

Hollister Avenue:

- East of eastbound (EB) SR 217;
- Between Kellogg Avenue and westbound (WB) SR 217;
- Between South Fairview Avenue and Kellogg Avenue;
- West of South Fairview Avenue;
- East of Los Carneros Way;
- Between South Los Carneros Road and Los Carneros Way;
- West of South Los Carneros Road.

South Fairview Avenue:

- North of Calle Real;
- Between Calle Real and US 101;
- Between US 101 and Hollister Avenue;
- Between Hollister Avenue and Airport access across from Matthews Street;



Source: Kimley Horn Associates 2016

REVISED

Santa Barbara Airport

Exhibit 4L

SURROUNDING STREET NETWORK AND EXISTING (2015) TRAFFIC VOLUMES

- Between Airport access across from Matthews Street and James Fowler Road.

James Fowler Road:
- Between South Fairview Avenue and Terminal access.

William Moffett Place:
- Between Terminal access and SR 217.

South Los Carneros Road:
- North of US 101;
- Between US 101 and Calle Koral;
- Between Calle Koral and Hollister Avenue;
- South of Hollister Avenue.

Los Carneros Way:
- Between Calle Koral and Hollister Avenue.

Kellogg Avenue:
- South of Hollister Avenue.

The following provides a description of the existing street system within the vicinity of the project area.

Hollister Avenue is a four-lane divided arterial roadway that forms the north boundary of the Master Plan area. Within the study area, Hollister Avenue has two travel lanes in each direction with a raised or painted center median and left turn pockets at side street intersections and driveways. Class II bike lanes are provided on both sides of the street. Hollister Avenue provides the primary east-west surface street route through the City of Goleta and is identified as part of SBCAG's *Congestion Management Plan* (CMP) network (SBCAG 2009). It is also listed as a Local Scenic Corridor on Figure 6-1 of the *Goleta General Plan/Coastal Land Use Plan* (City of Goleta 2009). Scenic views to be protected include views south across the Airport from Hollister Avenue at South Los Carneros Road and at South La Patera Lane.

South Fairview Avenue is a two- to four-lane divided arterial roadway that runs along the east side of the Airport. South of Hollister Avenue, South Fairview Avenue has one travel lane in each direction with a painted center median and left turn pockets at side street intersections and driveways. North of Hollister Avenue, South Fairview Avenue is a four-lane roadway connecting with US 101. Class II bike lanes are provided on both sides of the street. South Fairview Avenue is identified as part of the SBCAG CMP network (SBCAG 2009).

James Fowler Road turns into South Fairview Avenue at its eastern end. James Fowler Road provides direct access to the Terminal, short term parking lot, and long term parking Lot 1. James Fowler Road is classified as a minor arterial roadway and has one travel lane in each direction with left turn pockets at side street intersections and driveways. Class II bike lanes are provided on both sides of the street.

William Moffett Place turns into James Fowler Road at its northern end. William Moffett Place provides access to the Terminal passenger pick-up/drop-off area and rental car facility and connects SR 217 with the Airport. William Moffett Place is classified as a minor arterial and has one travel lane in each direction with left turn pockets at side street intersections and driveways. Class II bike lanes are provided on both sides of the street.

South Los Carneros Road is a two- to four-lane divided arterial roadway that runs along the west side of the Airport. South Los Carneros Road has two travel lanes in each direction with a raised center median and left turn pockets at side street intersections and driveways. Class II bike lanes are provided on both sides of the street. The South Los Carneros Road interchange with US 101 is north of Hollister Avenue. South Los Carneros Road is identified as a part of the SBCAG CMP network (SBCAG 2009).

Los Carneros Way is a two-lane divided collector roadway. Los Carneros Way has one lane in each direction with a raised center median and left turn pockets at side street intersections and driveways.

Kellogg Avenue is a two-lane undivided collector roadway providing access to several business and industrial land uses south of Hollister Avenue and to residential uses north of Hollister Avenue.

The following intersections were selected by Airport and City of Goleta planning staff for study within this EIR and are also shown on **Exhibit 4L**:

- South Los Carneros Road and US 101 northbound (NB) ramps;
- South Los Carneros Road and US 101 southbound (SB) ramps;
- South Los Carneros Road and Calle Koral;
- South Los Carneros Road and Hollister Avenue;
- Los Carneros Way and Hollister Avenue;
- South Fairview Avenue and Calle Real;
- US 101 NB ramps and South Fairview Avenue;
- South Fairview Avenue and US 101 SB ramps;
- South Fairview Avenue and Hollister Avenue;
- SR 217 WB ramp and Hollister Avenue;
- SR 217 EB ramp and Hollister Avenue; and
- Kellogg Avenue and Hollister Avenue.

All study intersections listed above are controlled by traffic signals. Existing (2015) intersection geometrics are shown on Figure 3-1 of the revised Traffic Impact Study included in this Recirculated EIR as **Appendix C**.

Tables 4L and **4M** show the existing intersection levels of service (LOS)[12] and average daily traffic (ADT) volumes on surrounding roadway segments. Existing AM (7:00 to 9:00 AM) and PM (4:00 to 6:00 PM) peak-hour turning movement counts were conducted at the intersections under study in April 2015. In addition, 24-hour roadway machine counts along the roadway segments were collected. This traffic volume data is included as an appendix to the Traffic Impact Study (**Appendix C**).[13] Currently (as of April 2015), all intersections and roadway segments studied in this EIR are operating at acceptable conditions (LOS C or better).

TABLE 4L
Peak-Hour Intersection Level of Service Summary
Existing Conditions Near Santa Barbara Airport

Intersection		Peak-hour	V/C Ratio [1]	Level of Service[1]
1	S. Los Carneros Rd & US 101 NB Ramp	AM	0.522	A
		PM	0.506	A
2	S. Los Carneros Rd & US 101 SB Ramp	AM	0.540	A
		PM	0.513	A
3	S. Los Carneros Rd & Calle Koral	AM	0.481	A
		PM	0.553	A
4	S. Los Carneros Rd & Hollister Ave	AM	0.458	A
		PM	0.566	A
5	Hollister Ave & Los Carneros Way	AM	0.287	A
		PM	0.425	A
6	S. Fairview Ave & Calle Real	AM	0.617	B
		PM	0.747	C
7	US 101 NB Ramps & S. Fairview Ave	AM	0.627	B
		PM	0.670	B
8	S. Fairview Ave & US 101 SB Ramps	AM	0.489	A
		PM	0.552	A
9	S. Fairview Ave & Hollister Ave	AM	0.575	A
		PM	0.661	B
10	Hollister Ave & SR 217 WB	AM	0.537	A
		PM	0.662	B
11	Hollister Ave & SR 217 EB	AM	0.312	A
		PM	0.496	A
12	Kellogg Ave & Hollister Ave	AM	0.502	A
		PM	0.706	C

Source: Kimley-Horn Associates 2016. (See **Appendix C**, Table 3-1).

V/C = volume to capacity ratio for the intersection based on the Intersection Capacity Utilization (ICU) method.

[1] Based on City of Goleta comments on the Draft EIR, traffic was remodeled using Traffix software.

[12] Level of service (LOS) is a measure of congestion on a transportation facility such as an intersection. LOS is represented by the letters A (best) through F (worst). "A" indicates free flow traffic and "F" indicates slow-speed stop-and-go conditions.

[13] As a result of continuous construction projects at the US 101 interchange ramps within the study area, traffic counts could not be conducted without a major ramp closure. When the April 2015 counts were collected, the US 101 NB on-ramp at South Fairview Avenue was closed. To account for the missing on-ramp volumes, traffic volumes from the 2013 Marriott EIR (City of Goleta 2013) were referenced and added on top of existing volumes throughout the study area intersections and roadway segments.

TABLE 4M
Roadway Segment Level of Service Summary
Existing Conditions Near Santa Barbara Airport

Roadway Segment	Roadway Classification[1]	LOS C Capacity	ADT[2]	Exceeds LOS C?
S. Los Carneros Road				
North of US 101	2-Lane Major Arterial	14,300	12,415	No
between US 101 & Calle Koral	4-Lane Major Arterial	34,000	19,396	No
between Calle Koral & Hollister Ave	4-Lane Major Arterial	34,000	15,890	No
south of Hollister Ave	4-Lane Major Arterial	34,000	14,824	No
Los Carneros Way				
between Calle Koral & Hollister Ave	2-Lane Minor Arterial	12,500	2,810	No
Hollister Avenue				
west of S. Los Carneros Rd	4-Lane Major Arterial	34,000	19,976	No
between S. Los Carneros Rd & Los Carneros Way	4-Lane Major Arterial	34,000	17,328	No
east of Los Carneros Way	4-Lane Major Arterial	34,000	18,144	No
west of S. Fairview Ave	4-Lane Major Arterial	34,000	23,629	No
between S. Fairview Ave & Kellogg Ave	4-Lane Major Arterial	34,000	20,572	No
between Kellogg Ave & WB SR 217	4-Lane Major Arterial	34,000	20,363	No
east of EB SR 217	4-Lane Major Arterial	34,000	15,747	No
S. Fairview Avenue				
north of Calle Real	4-Lane Major Arterial	34,000	12,103	No
between Calle Real & US 101 NB Ramps	4-Lane Major Arterial	34,000	25,797	No
between US 101 & Hollister Ave	4-Lane Major Arterial	34,000	24,419	No
between Hollister Ave & Matthews St	2-Lane Major Arterial	14,300	9,478	No
between Matthews St & James Fowler Rd	2-Lane Major Arterial	14,300	5,959	No
James Fowler Road				
between Hollister Ave & Terminal access (east)	2-Lane Minor Arterial	12,500	4,964	No
William Moffett Place				
between Terminal access (south) & SR 217	2-Lane Minor Arterial	12,500	5,047	No
Kellogg Avenue				
south of Hollister Ave	2-Lane Minor Arterial	12,500	4,994	No

Source: Kimley-Horn Associates 2016. (See **Appendix C**, Table 3-2).

[1] Street classifications are based on the Transportation Element of the *Goleta General Plan/Coastal Land Use Plan* (2006; updated 2009).
[2] Average daily traffic (ADT) volumes for the roadway segments were measured in April 2015 by Quality Counts, LLC.

Transit

Neither the City of Santa Barbara nor the City of Goleta provides transit service. Rather, Santa Barbara Metropolitan Transportation District (MTD) provides fixed route bus service in southern Santa Barbara County, including the cities of Santa Barbara and Goleta and the community of Isla Vista. In fiscal year (FY) 2007, MTD provided about 7.5 million rides annually. This level of ridership normally represents the ridership of a region with ten times the population of MTD's service area (City of Santa Barbara 2011). There is one bus route that provides bus service to the

Terminal and two other routes that pass through the study area. The description of the existing bus routes is described below and as shown on **Exhibit 4M**.

Route 11 – UCSB: Route 11 provides daily service between the transit center in downtown Santa Barbara and UCSB. The service utilizes Hollister Avenue, South Fairview Avenue, James Fowler Road, and William Moffett Place within the study area and provides service to the Santa Barbara Terminal. Weekday service operates from 6 AM until midnight. Weekend service begins at 6 AM and ends at 11 PM on Saturdays and 10 PM on Sundays. Bus headways are 30 minutes (20 minutes during weekday peak periods).

Route 6 – Goleta: Route 6 provides service between the transit center in downtown Santa Barbara and Goleta. The service travels along Hollister Avenue within the study area. This route provides daily service between 6 AM and 7 PM with headways of 30 minutes (20 minutes during peak periods).

Route 12X – Goleta Express: Route 12X provides express bus service between the transit center in downtown Santa Barbara and Goleta. The service travels along Hollister Avenue within the study area. This route provides weekday service between 6 AM to 7 PM and weekend service between 8 AM and 5:40 PM. Weekday headways are one hour and 30 minutes during peak periods. Saturday headways are one hour and 30 minutes during the midday while Sunday service operates hourly.

There are also several regional express bus services that provide commuter-oriented service between the Santa Barbara area and surrounding communities in north Santa Barbara County and Ventura County. The most heavily utilized are the Clean Air Express and the VISTA Coastal Express. The Clean Air Express operates commuter bus service from Santa Maria and Lompoc to Goleta and Santa Barbara. The VISTA Coastal Express operates between Oxnard, Ventura, Carpinteria, and the Santa Barbara area.

Other regional transit options include Santa Barbara Airbus; Central Coast Shuttle; Easy Lift Transportation, a para-transit service; and SMOOTH (Santa Maria Organization of Transportation Helpers) (SBCAG 2014). The Santa Barbara Airbus and Central Coast Shuttle provide shuttle service from the Santa Barbara Airport to Los Angeles International Airport (LAX).

Intra-city rail service is provided by the Amtrak Pacific Surfliner to the Goleta Amtrak station. The Amtrak station is located just south of US 101 at South La Patera Lane. Ten daily trains (five northbound and five southbound) serve Goleta and points south, including Los Angeles and San Diego. Four trains (two northbound and two southbound) serve points north, including Grover Beach and San Luis Obispo. Taxicabs provide connections between Goleta Amtrak Station and the Terminal.

Regulatory Setting

Caltrans is responsible for regulating transportation within the State and oversees all State-funded highway improvement projects. In this role, Caltrans allocates the various funding revenues for transportation projects according to Statewide and regional priorities. Caltrans is responsible for the planning, designing, building, operating, and maintaining of the State Highway System. It also has a division for aeronautics.

In 2013, S.B. 743 was signed into State law requiring that the Governor's Office of Planning and Research (OPR) develop a new approach to analyzing traffic impacts as part of the CEQA process. The revised approach is anticipated to eliminate the use of auto delay, LOS, and other vehicle capacity measurements in favor of using vehicle miles traveled (VMT) as a replacement measure. In response to S.B. 743, the OPR has released drafts of preliminary discussions regarding changes to the transportation aspect of CEQA. New analysis requirements have not yet been finalized, as of June 2016.

At the regional or county level, SBCAG is responsible for addressing regional and multi-jurisdictional impacts to the State highway system and for long range, region-wide, transportation planning. With the passage of S.B. 375, SBCAG is required to incorporate into its Regional Transportation Plan (RTP), a Sustainable Communities Strategy to identify areas within the region that are sufficient to house the entire forecasted population of the region and to meet regional housing needs for the eight-year period from 2014 to 2022. If feasible, the forecasted development pattern for the region, when integrated with the transportation network and policies, must reduce greenhouse gas emissions from passenger vehicles to achieve State-approved targets as well as the region's own goals. Thus, the RTP has now integrated an analysis of population growth, land use, and housing need into the long range transportation planning process.

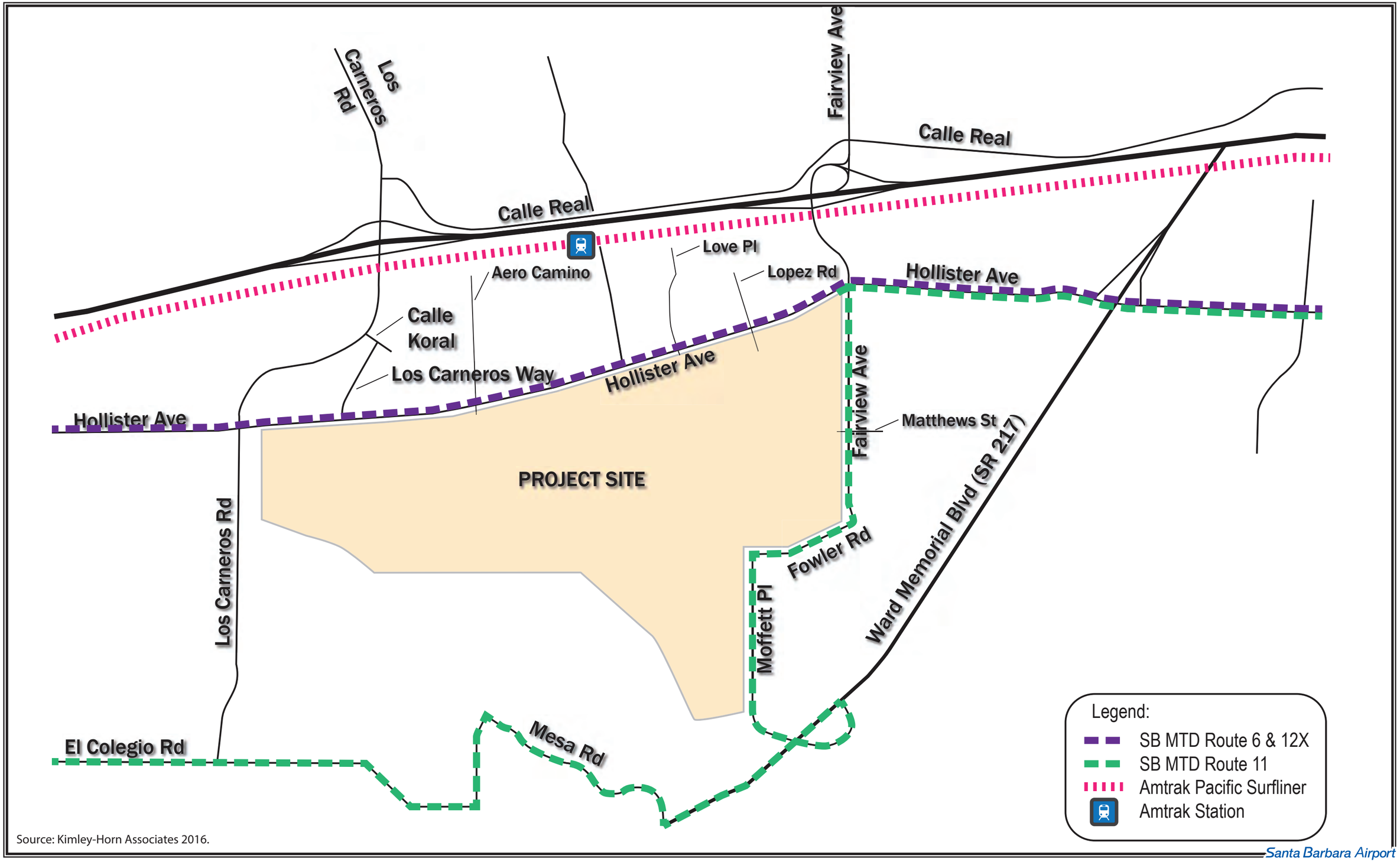
Local transportation planning and permitting is under the jurisdiction of the Public Works Departments of the cities of Santa Barbara and Goleta and the County of Santa Barbara.

4.8.2 Applicable Plans and Policies

Regional

SBCAG has prepared two separate planning documents to address overall transportation issues within Santa Barbara County: the *2009 Santa Barbara County Congestion Management Program* (CMP) (SBCAG 2009) and the *2040 Regional Transportation Plan and Sustainable Communities Strategy* (RTP-SCS) (SBCAG 2013). In addition, SBCAG has prepared a draft Regional Bicycle Plan (2008), a Transit Needs Assessment (2013), and a Park and Ride Study (2014).

The CMP is a comprehensive program designed to reduce auto-related congestion through capital improvements, travel demand management (TDM), and coordinated land use planning among all jurisdictions. It was last updated in June 2009. Since State law requires the CMP to be consistent with the programs and projects contained in the County's RTP (California Government



Source: Kimley-Horn Associates 2016.

REVISED

Santa Barbara Airport

Exhibit 4M

EXISTING TRANSIT NETWORK IN VICINITY OF AIRPORT

Code §65089.2[a]), a new update of the CMP will be forthcoming to address the recently adopted 2040 RTP-SCS. CMP network facilities located within the Airport study area include US 101, SR 217, South Fairview Avenue, Hollister Avenue, Calle Real, South Los Carneros Road, and Storke Road (Map 2.6, Goleta Valley CMP Network).

Santa Barbara County's CMP requires local agencies to maintain their regionally significant transportation facilities at LOS D, and if they cannot, to develop a deficiency plan that includes actions to improve circulation and air quality. Local agencies may choose to mitigate through capital improvement or approved system-wide strategies. Agencies that do not meet SBCAG's CMP standards risk losing certain portions of new gas tax revenues (SBCAG 2013).

The 2040 RTP-SCS plans how Santa Barbara County should meet its transportation needs for the 30-year period from 2010 to 2040 and considers existing and projected future land use patterns as well as forecast population and job growth. However, local land use jurisdictions are not required to incorporate its strategies into their individual General Plans; implementation of the RTP-SCS is dependent on local government policy decisions and voluntary local government action. The RTP-SCS is also dependent on the availability of adequate funding.

The RTP-SCS incorporates already adopted plans and planning studies, including, but not limited to: *Plan Santa Barbara*; *Goleta General Plan/Coastal Land Use Plan; Isla Vista Master Plan*; and the UCSB *2025 Long-Range Development Plan*. Local plan updates currently in process, such as the County's *Eastern Goleta Valley Community Plan*, were also considered.

Local

According to the City of Santa Barbara Final General Plan EIR, the central transportation issue facing the City is how to accommodate incremental growth while minimizing or avoiding substantial increases in congestion at freeway interchanges and major City roads. A transportation model specifically tailored for the City showed that future development generates the least amount of increased traffic if located within the downtown core and along major transit corridors north of US 101. This is due to the compact mix of land uses, a street design that supports all types of users, and the accessibility of the downtown commercial district within this area and from other areas via transit.

The traffic model also demonstrated that eliminating growth in the City altogether would not eliminate increases in traffic congestion as the trend of less people living and working in the City continues. The analysis showed that if people continue to relocate outside the City and drive to work via US 101, traffic at the freeway interchanges will increase. The most effective measure to combat traffic congestion is to aggressively support TDM strategies. The primary reason why TDM was found to be more effective than land use growth restrictions is because TDM strategies were shown to affect a percentage of all existing and future trips, rather than just eliminating the incremental amount of trips caused by future development projects (City of Santa Barbara 2011).

Since traffic related to the Airport uses a local circulation system located within the boundaries of the City of Goleta, transportation policies of the City of Goleta are the most germane to this policy discussion. The City of Goleta's Transportation Element (Chapter 7.0 of its General Plan/Coastal Land Use Plan) contains the following policies and objectives:

Policy TE 1: Integrated Multi-Modal Transportation System: To create and maintain a balanced and integrated transportation system to support the mobility needs of Goleta's residents and workforce, with choice of bus transit, bicycle, and pedestrian as well as private automobile modes. To reduce the percentage of peak-hour person-trips that are made by automobile and provide the facilities that will enable diversion of trips from automobiles to other modes. To develop, maintain, and operate a balanced, safe, and efficient multimodal transportation system to serve all persons, special-needs populations, and activities in the community.

Policy TE 2: Transportation Demand Management: To attempt to influence individual travel behavior, particularly by workers at larger scale employers, to lower future increases in peak-hour commute trips and other trips by persons in single-occupant vehicles.

Policy TE 3: Streets and Highways Plan and Standards: To provide a street network, including appropriate provisions for bicycles and pedestrians, that is adequate to support the mobility needs of city residents and businesses.

Policy TE 4: Target Level of Service Standards: To maintain an adequate LOS on the city street system, including at intersections, to provide for the mobility needs of the community. To avoid further degradation of service levels at intersections where existing service levels do not meet target standards.

Policy TE 5: Planned Street and Road Improvements: To identify and describe the major future improvements to the street and highway system that will be needed to accommodate the forecasted future traffic volumes, based upon the Land Use Plan, at acceptable levels of service.

Policy TE 6: Street Design and Streetscape Character: To ensure that the standards used for the design and development of new roadways and improvements to existing roadways reflect and support the character of adjacent development. To create streetscapes that will enhance neighborhood quality.

Policy TE 7: Public Transit (Bus Transportation): To support the efforts by MTD and other transit providers to sustain and expand the bus transit system to serve the needs of local and regional commuters, the transit-dependent population, and other users in a convenient, reliable, and efficient manner. To increase bus ridership levels in order to reduce peak-period automobile trips on area roadways.

Policy TE 8: Rail Transportation: To accommodate commuter-oriented rail passenger service along the UPRR (Union Pacific Railroad) corridor that would serve employment centers

in Goleta and UCSB, in the event that the region determines to pursue this option to accommodate long-distance work trips between Ventura County and Goleta.

Policy TE 9: Parking: To ensure that an adequate amount of parking is provided to accommodate the needs of existing, new, and expanded development, with convenient accessibility and attention to good design. To assure that on- and off-street parking is responsive to the varying and unique needs of individual commercial areas and residential neighborhoods.

Policy TE 10: Pedestrian Circulation: To encourage increased walking for recreational and other purposes by developing an interconnected, safe, convenient, and visually attractive pedestrian circulation system.

Policy TE 11: Bikeways Plan: To encourage increased bicycle use for commuting and recreational purposes by developing an interconnected circulation system for bicycles that is safe, convenient, and within a visually attractive environment.

Policy TE 12: Transportation Systems Management: To establish operational controls that will manage the street network in a manner that will efficiently and safely utilize the existing limited capacity consistent with protection of the surrounding neighborhood.

Policy TE 13: Mitigating Traffic Impacts of Development: To ensure that new development is supported by adequate capacities in transportation systems, including city streets and roads, without reducing the quality of services to existing residents, commuters, and other users of the city street system.

Policy TE 14: Financing Transportation Improvements: To ensure that there is adequate funding for construction of transportation facilities that are needed to support new development and address existing deficiencies to achieve the targeted level of service.

Policy TE 15: Regional Transportation: Participate in developing regional transportation solutions to expand choices for local citizens, make the highway system more efficient, improve regional bus service, consider potential commuter rail service, and create an interconnected system of bicycle routes and trails.

Sections 30252 and 30254 of the Coastal Act are also adopted as part of the Goleta Transportation Element for those areas of the City that fall within the Coastal Zone. Policies TE 1, 3, 5, 7, and 9 contain strategies to implement these sections of the *California Coastal Act*, which relate to maintaining public access to the coast and ensuring that public services to coastal-dependent land uses are not precluded by other development.

4.8.3 Impact Evaluation Methodology and Significance Criteria

As part of the EIR, a Traffic Impact Study was prepared to determine and evaluate the potential traffic impacts associated with the Airport redevelopment presented in the proposed Master Plan. Detailed analysis and associated backup information are included in the resultant technical report, which is included in this Recirculated EIR as **Appendix C**.

Impact Evaluation Methodology

The study area for an evaluation of traffic impacts was defined based on likely access patterns for the Airport. Based on this definition, the intersections and roadway segments listed in Section 4.8.1 were identified for evaluation. The analysis process included determining the AM and PM peak-hour operations at the study intersections as well as daily operations along the roadway segments for the existing condition (2015) as well as for future year scenarios (Year 2022 and 2032) with and without the proposed project. Adopted significance thresholds were then used to determine if the project might have significant traffic impacts.

Existing Airport ADT and peak-hour trip generation are based on traffic counts collected in April 2015. The Airport's trip generation includes traffic to/from the Terminal, the onsite rental car center, and adjacent short term and long term parking lots. To account for a projected increase in airline activity, trip generation rates were increased based on the projected enplanement information provided in the Master Plan forecasts. The resulting trip generation for the 2022 and 2032 traffic conditions is shown in **Table 4N** and is part of the baseline future traffic conditions for the area.

TABLE 4N
Airport Trip Generation
Santa Barbara Airport (2015 – 2032)

Year	Enplanements[1]	ADT	AM Total	AM in	AM out	PM Total	PM in	PM out
Existing Conditions:								
2015[2]	300,000	5,421	386	192	194	291	145	146
Intermediate:								
2022	503,400	9,096	648	322	326	488	243	245
+/- [3]		**3,675**	**262**	**130**	**132**	**197**	**98**	**99**
Long Term:								
2032	657,000	11,872	845	420	425	637	317	320
+/- [3]		**6,451**	**459**	**228**	**231**	**346**	**172**	**174**

Source: Kimley-Horn Associates 2016.

[1] Future enplanement forecasts taken from Master Plan (Exhibit 2M)
[2] 2015 enplanements based on 2014 volumes and 2015 enplanement trends provided by Santa Barbara Airport; 2015 trip generation based on counts conducted in April 2015.
[3] Change in traffic from baseline condition (2015).

Trip generation for the FBO located south of the Terminal (Atlantic Aviation) is also based on traffic counts collected in April 2015 that were increased by the forecast general aviation operations growth provided in the Master Plan to identify baseline future traffic conditions for the study area. The resulting trip generation for relocated general aviation operations (i.e., Atlantic Aviation) for the intermediate and long term traffic conditions is shown in **Table 4P**.

TABLE 4P
Atlantic Aviation Peak-Hour Trip Generation
Santa Barbara Airport (2015 – 2032)

Year	General Aviation Operations[1]	ADT	AM Total[2]	AM in[2]	AM out[2]	PM Total[2]	PM in[2]	PM out[2]
Existing Conditions:								
2015	82,904[3]	676	51	29	22	49	25	24
Intermediate:								
2022	89,600	731	55	31	24	53	27	26
+/- [4]		**55**	**4**	**2**	**2**	**4**	**2**	**2**
Long Term:								
2032	99,900	815	61	35	26	59	30	29
+/- [4]		**139**	**10**	**6**	**4**	**10**	**5**	**5**

Source: Kimley-Horn Associates 2016.

[1] Future GA operations taken from forecasts presented in Master Plan (Exhibit 2M).
[2] 2015 trip generation based on counts conducted in April 2015.
[3] 2015 general aviation operations (Atlantic Aviation) were attained via linear interpolation between 2011 and 2017 data from the Master Plan.
[4] Change in peak-hour trips from baseline condition (2015).

The distribution of the trips represented in **Tables 4N** and **4P** are based on proposed access locations, freeway access, and the roadway network within the study area. The revised Traffic Impact Study shows the projected trip distribution and trip assignments that were used in the traffic impact analysis **(Appendix C**, Figures 4-1 through 4-6).

Airport-related traffic on the north side of the Airport (including an additional FBO) is part of the existing traffic counts on Hollister Avenue and other streets in the study area. Future Master Plan implementation years 2022 and 2032 peak-hour volumes at the study intersections and ADT volumes on the study roadway segments were estimated based on the 2035 City of Goleta PM peak-hour travel demand model provided by Kittelson & Associates on behalf of the City of Goleta. The 2035 traffic demand model output is included in an appendix to the revised Traffic Impact Study. ADT along the roadway segments was estimated by increasing 2035 PM peak-hour volumes based on the percentage of existing daily traffic during the associated peak-hour. The resulting 2035 ADT volumes were then interpolated with the 2015 volumes to estimate 2022 and 2032 volumes.

To estimate 2022 and 2032 turning movement volumes at the study intersections, the projected change from the Goleta model's baseline peak-hour travel demand plots to the 2035 peak-hour travel demand plots were added to the existing (2015) counts to estimate intersection turning

movement values. The projected change in traffic volumes between baseline and future year conditions were added to the inflows and outflows of existing traffic counts. Each respective intersection movement was then derived using an iterative approach that balanced the inflows and outflows for each approach. An Excel model was then used to compute the forecast turning volumes. Copies of the Excel calculation worksheets are included in an appendix to the revised Traffic Impact Study (**Appendix C**). Year 2022 baseline condition peak-hour volumes at the study intersections and ADT volumes on the study roadway segments were then determined by adding the reasonably expected cumulative project volumes. (Reasonably expected cumulative project volumes for the 2032 conditions are included within Goleta's travel demand model and, thus, were not double counted by this EIR study.)

To analyze the operations of the signalized intersections, the Traffix traffic analysis software package was used using *Highway Capacity Manual (HCM)* 2000 methodology; roundabouts proposed by the City of Goleta at South Fairview Avenue/SR 217 were measured and quantified using Sidra Intersection 6 analysis software with the Sidra capacity model and HCM 2010 traffic signal delay parameters. LOS for signalized intersections was calculated utilizing the Intersection Capacity Utilization (ICU) method. The ICU method establishes a system whereby highway facilities are rated based on how an intersection is functioning and how much extra capacity is available to handle traffic fluctuations and incidents. Letters A to F are assigned to the intersection based on the cities of Goleta and Santa Barbara General Plan thresholds.[14]

Significance Thresholds

The City of Goleta has adopted the following threshold standards to determine the significance of project impacts to intersections and roadway segments. The City of Goleta traffic impact thresholds include the following criteria:

A) The project will result in a significant traffic impact when the addition of project traffic increases the V/C ratio at an intersection by the values provided below:

Intersection LOS (including project)	Increase in V/C or Trips Greater Than:
LOS A	0.20
LOS B	0.15
LOS C	0.10
LOS D	15 trips
LOS E	10 trips
LOS F	5 trips

B) The project's access to a major road or arterial road would require a driveway that would create an unsafe situation or a new traffic signal or major revisions to an existing traffic signal.

[14] As previously mentioned, revised methodology per S.B. 743 is not yet available.

C) The project would add traffic to a roadway that has design features (e.g., narrow width, road side ditches, sharp curves, poor sight distance, and inadequate pavement structure) that would become a potential safety problem with the addition of project traffic. Exceedance of a roadway's designated Circulation Element Capacity (see **Table 4Q**) may indicate the potential for the occurrence of the above impacts.

TABLE 4Q
Roadway Classifications and LOS Thresholds

Functional Street Classification	ADT Design Capacity	LOS C ADT Threshold[1]
Major Arterial		
2 Lanes	17, 900	14,300
4 Lanes	42,480	34,000
4+ Lanes	58,750	47,000
Minor Arterial		
2 Lanes	15,700	12,500
4 Lanes	37,680	30,100
Collector Streets		
2 Lanes	11,600	9,280
Local Streets		
2 Lanes	9,100	7,280

Source: City of Goleta 2006.

[1] For impacts on the study area roadway segments, the City of Goleta has established roadway classifications and LOS thresholds. The minimum standard is LOS C; segments operating at LOS D, E, or F are considered deficient.

D) Project traffic would utilize a substantial portion of an intersection's capacity where the intersection is currently operating at acceptable levels of service but with cumulative traffic would degrade to or approach LOS D (V/C 0.81) or lower. "Substantial" is defined as a minimum change of 0.03 for an intersection which would operate from 0.80 to 0.85, a change of 0.02 for an intersection which would operate from 0.86 to 0.90, and a change of 0.01 for an intersection which would operate greater than 0.90 (LOS E or worse).

For cumulative impacts, it is assumed that a proposed project would contribute substantially to a cumulative impact when the addition of project-related traffic increases V/C by the minimum threshold value (Item D above) when the intersection is within the listed V/C ranges.

The Santa Barbara City Council thresholds adopted as part of its 2013 *Traffic Management Strategy* were also considered as a secondary set of significance thresholds in the revised Traffic Impact Study (see Section 2.4 of **Appendix C**) although none of the study intersections are located within the City of Santa Barbara's jurisdiction. The City of Santa Barbara considers any trips through an intersection operating at a V/C of 0.77 or greater to be a significant cumulative impact.

4.8.4 Project-Specific Impacts

Based on the Master Plan development concept, the relocation of FBO facilities located south of the Terminal and the construction and consolidation of Terminal parking lots were identified as having the potential to impact traffic distribution within the study area in the intermediate (2022) and long term (2032) Master Plan implementation scenarios. These potential impacts are discussed in Section 4.8.5 as part of the cumulative impact discussion.

Impact T-1: In the first five years of implementation, the Master Plan recommends improvements to the Airport's airside facilities, land acquisition for runway protection zones, and other maintenance and safety improvements that would not affect external traffic volumes. Therefore, traffic in the short term (2017) would not be affected by the proposed project.

No changes or impacts would occur to the availability of public transit, bicycle lanes, or the implementation of City of Goleta TMD policies. In addition, implementation of the Master Plan will not cause CMP intersections to operate below a LOS D and is consistent with the City of Santa Barbara General Plan, which has been incorporated into the RTP-SCS.

Result T-1: **Project-specific traffic and circulation policy impacts of implementation of the proposed Master Plan in the short term are <u>Class III, Less than Significant Impact</u>.**

4.8.5 Regional (Cumulative) Impacts

Cumulative projects for the traffic analysis in the intermediate and long term were based on a cumulative project lists provided by the cities of Goleta and Santa Barbara (March 2016). These projects are included in Goleta's 2035 traffic demand model of future cumulative conditions. Projected growth in airport traffic due to future enplanements is also included in the future cumulative scenarios provided by Goleta's traffic demand model. To determine the appropriate cumulative traffic scenarios for the Master Plan implementation years of 2022 and 2032, specific Master Plan projects, other cumulative projects, and overall Airport growth have been incorporated into the intermediate or long term analyses, as appropriate, based on the anticipated year of completion. **Table 4R** shows the ADT and peak-hour trips associated with each cumulative project and the Master Plan scenario in which they were evaluated.

Intermediate Term (2022) Impacts

As a result of implementation of the proposed Master Plan, by 2022, trips associated with Atlantic Aviation, which is currently located south of the Terminal, would be redistributed from the south part of the Airport to the north part of the Airport. Overall Airport growth is not dependent

upon implementation of the proposed Master Plan and is evaluated as a project-related cumulative impact only to the extent that such traffic might be redistributed onto the street system in a different manner than the Goleta traffic demand model assumed due to implementation of the Master Plan.

Future baseline conditions for 2022 without the proposed project have been established to provide a method of determining the project-related cumulative impacts. There are 14 other development projects proposed within the study area that have been included in the 2022 baseline scenario for the intermediate term (see **Table 4R**). These projects, along with overall Airport projected growth, have been used to determine the 2022 future baseline conditions.

TABLE 4R
Cumulative Project Trip Generation
Santa Barbara Airport Environs (2022 & 2032)

Land Use	ADT	AM Peak-Hour			PM Peak-Hour		
		Total	In	Out	Total	In	Out
Intermediate Term (2022):							
Goleta Valley Cottage Hospital (GVCH) (10.8 tsf)	**350**	**22**	18	4	**34**	9	25
Village at Los Carneros (465 du)	**2,999**	**230**	46	184	**280**	182	98
Harvest Hill Ranch (6 du)	**56**	**4**	1	3	**6**	4	2
Investec (111.1 tsf self-storage)	**396**	**33**	26	7	**36**	9	27
Pacific Beverages (warehousing) (97.0 tsf)	**345**	**29**	23	6	**31**	8	23
Direct Relief International (office/warehousing) (158.2 tsf)	**789**	**89**	76	13	**90**	17	73
Airport Industrial Project (light industrial/retail) (50 tsf)	**1,469**	**205**	117	88	**104**	35	69
Chrysler Auto Dealership (49.3 tsf)	**1,593**	**95**	70	25	**129**	50	79
Fairview Commercial Center (retail/office) (17.0 tsf) (residential) (2 du)	**428**	**64**	34	30	**31**	12	19
Islamic Society of Santa Barbara (6.2 tsf)	**50**	**3**	2	1	**3**	1	2
Schwann Self Storage (111.7 tsf self-storage)	**398**	**34**	26	8	**36**	9	27
Marriott Residence Inn (118 rooms)	**925**	**63**	39	24	**67**	35	32
Somera Medical Office (20.0 tsf)	**650**	**41**	33	8	**62**	17	45
Old Town Village (residential) (175 du)	**987**	**75**	13	62	**88**	59	29
Intermediate Term Total:	***11,435***	***987***	*524*	*463*	***997***	*447*	*550*
Long Term (2032):							
Old Town Industrial Center (light industrial) (191.9 tsf)	**1,330**	**176**	155	21	**185**	22	163
Heritage Springs (apartments) (360 du)	**1,917**	**130**	29	101	**158**	101	57
Long Term Total:	***3,247***	***306***	*184*	*122*	***343***	*123*	*220*

Source: Kimley-Horn Associates 2016. (See **Appendix C**, Tables 5-1 and 6-1).

ADT = average daily traffic
tsf = thousand square feet
du = dwelling unit

In addition, by 2022, the distribution of traffic in proximity to the Airport may be affected by the completion of the following roadway construction projects:

- Ekwill Street extension
- SR 217/Hollister Avenue intersection improvements (roundabouts)

The Ekwill Road Extension project would construct an Ekwill Street extension across Old Town Goleta from Kellogg Avenue to South Fairview Avenue. The project would improve east-west circulation and relieve congestion within the Old Town Goleta area. An extension from Fowler Road was also planned, but is no longer likely due to need to locate the proposed road extension within the Airport's RPZ.

The SR 217 and Hollister Avenue Intersection Improvements would convert the SR 217 and Hollister Avenue intersections to roundabouts. The multilane roundabouts are currently in the design phase.

The resultant traffic volumes for the future baseline traffic conditions and the future conditions with implementation of the Master Plan for the intermediate term (2022) are shown in **Appendix C**, Figures 5-1 and 5-2 respectively.

Impact T-2: The intersection LOS for the 2022 cumulative planning horizon, with and without the proposed Master Plan, is shown in **Table 4S**. Based on the analysis and cumulative trip generation and distribution provided in the traffic study, most of the intersections within the study area would operate at LOS C or better during all peak periods under the intermediate term (2022) scenario. However, one intersection, listed below, would experience LOS below LOS C during the PM peak hour:

- Kellogg Avenue & Hollister Avenue: **LOS D** (PM peak-hour with or without project)

Implementation of the Master Plan is anticipated to contribute 14 PM peak-hour trips through the intersection in 2022.

All roadway segments analyzed would operate at LOS C or better.

No changes or impacts would occur to the availability of public transit, bicycle lanes, or the implementation of City of Goleta TMD. In addition, implementation of the Master Plan will not cause CMP intersections to operate below a LOS D and is consistent with the City of Santa Barbara General Plan, which has been incorporated into the RTP-SCS.

TABLE 4S
Intermediate Term (2022) Peak-Hour Intersection Levels of Service
Santa Barbara Airport Environs

Intersection		Peak Hour	Baseline		Baseline with Project		Significant Cumulative Impact?		
			V/C	LOS	V/C	LOS	Change in V/C	Santa Barbara	Goleta
1	S. Los Carneros Rd & US 101 NB Ramp	AM	0.621	B	0.621	B	0.000	No	No
		PM	0.603	B	0.603	B	0.000	No	No
2	S. Los Carneros Rd & US 101 SB Ramp	AM	0.595	A	0.595	A	0.000	No	No
		PM	0.592	A	0.592	A	0.000	No	No
3	S. Los Carneros Rd & Calle Koral	AM	0.637	B	0.637	B	0.000	No	No
		PM	0.665	B	0.665	B	0.000	No	No
4	S. Los Carneros Rd & Hollister Ave	AM	0.503	A	0.503	A	0.000	No	No
		PM	0.645	B	0.645	B	0.000	No	No
5	Hollister Ave & Los Carneros Way	AM	0.330	A	0.331	A	0.001	No	No
		PM	0.464	A	0.464	A	0.000	No	No
6	S. Fairview Ave & Calle Real	AM	0.555	A	0.555	A	0.000	No	No
		PM	0.760	C	0.760	C	0.000	No	No
7	US 101 NB Ramps & S. Fairview Ave	AM	0.703	C	0.710	C	0.007	No	No
		PM	0.733	C	0.740	C	0.007	No	No
8	S. Fairview Ave & US 101 SB Ramps	AM	0.533	A	0.536	A	0.003	No	No
		PM	0.608	B	0.612	B	0.004	No	No
9	S. Fairview Ave & Hollister Ave	AM	0.590	A	0.599	A	0.009	No	No
		PM	0.728	C	0.733	C	0.005	No	No
10	Hollister Ave & SR 217 WB[1]	AM	0.489	A	0.493	A	0.004	No	No
		PM	0.641	B	0.643	B	0.002	No	No
11	Hollister Ave & SR 217 EB[1]	AM	0.378	A	0.380	A	0.002	No	No
		PM	0.596	A	0.599	A	0.003	No	No
12	**Kellogg Ave & Hollister Ave**	AM	0.561	A	0.562	A	0.001	No	No
		PM	**0.800**	**D**	**0.801**	**D**	**0.001**	**Cumulative[2]**	No[3]

Source: Kimley-Horn Associates2016. (See **Appendix C**, Table 5-2).

V/C = volume/capacity ratio; LOS = level of service; **Bold** values indicate intersections forecast to operate at unacceptable level of service (LOS D, E, or F) (Goleta threshold) or 0.77 or greater V/C ratio (Santa Barbara threshold).

[1] Analyzed as a roundabout. Results are measured in V/C using the Sidra capacity model and HCM 2010 traffic signal delay parameters using Sidra 6 software.
[2] Project would add trips to this intersection, which is forecast to operate above 0.77 (V/C ratio).
[3] Project would add 14 trips, which is below the Goleta significance threshold (15 trips) for LOS D intersections.

Result T-2: **The intersection of Kellogg Avenue and Hollister Avenue would experience a significant cumulative impact during the PM peak-hour conditions in the intermediate term (2022) due to proposed Master Plan projects, specifically the relocation of Aviation Atlantic FBO from south of the commercial passenger terminal to the north side of the Airport. The project is anticipated to contribute 14 PM peak-hour trips through the intersection in 2022. This does not meet the City of Goleta's cumulative thresholds of significance.**

Based on the City of Santa Barbara's significance thresholds, however, impacts to the Kellogg Avenue and Hollister Avenue intersection are <u>Class I, Significant Environmental Impact</u> at this time (i.e., the City of Santa Barbara considers any trips through an intersection that would experience a V/C ratio of 0.77 or greater as a significant cumulative impact). Although the revised Traffic Impact Study includes mitigation that would improve the intersection LOS from LOS D to LOS B in the PM peak-hour, the street improvement is not within the control of the Airport or the City of Santa Barbara. If the recommended street improvements are undertaken, the Airport will contribute its fair-share cost allocation of the proposed improvements (based on City of Goleta traffic impact mitigation fees). If this occurs, this impact would be fully mitigated.

Long Term (2032) Impacts

Impact T-3: Although several road network changes are planned for the study area, for example, South Fairview Avenue and Calle Real intersection improvements, South Fairview Avenue and US 101 SB ramp improvements, a La Patera Freeway overcrossing, and a Hollister Avenue redesign, these specific improvements and project completion years are currently unknown. They have, therefore, not been incorporated into the following analysis.

The intersection LOS for the 2032 cumulative planning horizon, with and without the proposed Master Plan, is shown in **Table 4T**. Based on the analysis and cumulative trip generation and distribution provided in the traffic study, most of the intersections within the study area would operate at LOS C or better during all peak periods under the long term (2032) scenario. However, two intersections, listed below, would experience LOS below LOS C during the PM peak hour (with or without the project):

- South Fairview Avenue & US 101 NB ramps: **LOS D**; and
- Kellogg Avenue & Hollister Avenue: **LOS D**.

Implementation of the proposed Master Plan is anticipated to contribute 12 PM peak-hour trips through the South Fairview Avenue/US 101 NB ramps and 15 PM peak-hour trips through the intersection of Kellogg Avenue and Hollister Avenue in 2032. The South Fairview Avenue/US 101 NB ramp is part of the SBCAG's CMP network.

TABLE 4T
Long Term (2032) Peak-Hour Intersection Levels of Service
Santa Barbara Airport Environs

Intersection		Peak Hour	Baseline		Baseline with Project		Significant Cumulative Impact?		
			V/C	LOS	V/C	LOS	Change in V/C	Santa Barbara	Goleta
1	S. Los Carneros Rd & US 101 NB Ramp	AM	0.625	B	0.625	B	0.000	No	No
		PM	0.583	A	0.583	A	0.000	No	No
2	S. Los Carneros Rd & US 101 SB Ramp	AM	0.628	B	0.628	B	0.000	No	No
		PM	0.594	A	0.594	A	0.000	No	No
3	S. Los Carneros Rd & Calle Koral	AM	0.701	C	0.701	C	0.000	No	No
		PM	0.661	B	0.661	B	0.000	No	No
4	S. Los Carneros Rd & Hollister Ave	AM	0.536	A	0.537	A	0.001	No	No
		PM	0.658	B	0.658	B	0.000	No	No
5	Hollister Ave & Los Carneros Way	AM	0.355	A	0.356	A	0.001	No	No
		PM	0.470	A	0.471	A	0.001	No	No
6	S. Fairview Ave & Calle Real	AM	0.549	A	0.549	A	0.000	No	No
		PM	0.761	C	0.761	C	0.000	No	No
7	**US 101 NB Ramps & S. Fairview Ave**	AM	0.645	B	0.654	B	0.009	No	No
		PM	**0.855**	**D**	**0.855**	**D**	**0.000**	**Cumulative[2]**	No[3]
8	S. Fairview Ave & US 101 SB Ramps	AM	0.521	A	0.525	A	0.004	No	No
		PM	0.579	A	0.584	A	0.005	No	No
9	S. Fairview Ave & Hollister Ave	AM	0.552	A	0.561	A	0.009	No	No
		PM	0.692	B	0.699	B	0.007	No	No
10	Hollister Ave & SR 217 WB[1]	AM	0.523	A	0.527	A	0.004	No	No
		PM	0.665	B	0.667	B	0.002	No	No
11	Hollister Ave & SR 217 EB[1]	AM	0.418	A	0.420	A	0.002	No	No
		PM	0.620	B	0.621	B	0.001	No	No
12	**Kellogg Ave & Hollister Ave**	AM	0.576	A	0.578	A	0.002	No	No
		PM	**0.835**	**D**	**0.837**	**D**	**0.002**	**Cumulative[4]**	**Yes[5]**

Source: Kimley-Horn Associates 2016. (See **Appendix C**, Table 6-2).

NOTES: V/C = volume/capacity ratio; LOS = level of service; **Bold** values indicate intersections operating at unacceptable level of service (LOS D, E, or F) (Goleta threshold) or 0.77 or greater V/C ratio (Santa Barbara threshold).

[1] Analyzed as a roundabout. Results are measured in V/C using the Sidra capacity model and HCM 2010 traffic signal delay parameters using Sidra 6 software.
[2] Project would add trips to this intersection, which is forecast to operate above 0.77 (V/C ratio).
[3] Project would add 12 trips, which is below the Goleta significance threshold (15 trips) for LOS D intersections.
[4] Project would add trips to this intersection, which is forecast to operate above 0.77 (V/C ratio).
[5] Project would add 15 trips, which meets the Goleta significance threshold (15 trips) for LOS D intersections.

All roadway segments analyzed would also operate at LOS C or better (with or without the project) with the exception of the following:

- South Fairview Avenue between US 101 & Hollister Avenue;
- South Fairview Avenue between Hollister Avenue and Matthews Street; and
- Kellogg Avenue south of Hollister Avenue.

All of these roadway segments would have ADT exceeding LOS C with or without implementation of the Master Plan. Only the South Fairview Avenue segment between US 101 and Hollister Avenue would have higher volumes due to the proposed project (i.e., as a result of the redistribution of FBO traffic from the south side of the Airport to the north side). An estimated 326 additional project-related ADT would occur on South Fairview Avenue between US 101 and Hollister Avenue. The other two roadway segments (South Fairview between Hollister Avenue and Matthews Street and Kellogg Avenue south of Hollister Avenue) are expected to have a lower ADT than would otherwise occur as a result of Master Plan implementation.

The City of Goleta has not adopted significance thresholds for roadway segments unless the project would add traffic to a roadway that has design features (e.g., narrow width, road side ditches, sharp curves, poor sight distance, and inadequate pavement structure) that would become a potential safety problem with the addition of project traffic (refer to Section 4.8.3). Based on a field visit conducted in March 2014, these features are not present on the affected segment of South Fairview Avenue and, therefore, no significant impact would occur.

No changes or impacts would occur to the availability of public transit, bicycle lanes, or the implementation of City of Goleta TMD policies. In addition, implementation of the Master Plan will not cause CMP intersections to operate below a LOS D and is consistent with the City of Santa Barbara General Plan, which has been incorporated into the RTP-SCS.

Result T-3: **By full implementation of the proposed Master Plan (2032), two intersections would operate at LOS D during the PM peak-hour. None of these intersections would have project-specific impacts due to the proposed Master Plan; however, one of the intersections (South Fairview Avenue/ US 101 NB ramp) would experience cumulative impacts due to the project based on the City of Santa Barbara thresholds. The other intersection (Kellogg Avenue/ Hollister Avenue) would have significant cumulative intersection based on either city's significant thresholds. (The City of Goleta's significance threshold for cumulative impact is 15 or more additional trips at intersections experiencing LOS D; the City of Santa Barbara considers any trips through an intersection operating at a V/C ratio of 0.77 or greater to be a cumulative impact.)**

An estimated 12 project-related trips are expected to go through the South Fairview Avenue/US 101 NB ramp in the PM peak-hour; and 15 project-related trips are expected to go through the Kellogg Avenue/Hollister Avenue intersection. The South Fairview Avenue/US 101 NB ramp is part of the

SBCAG's CMP network and would remain operating at a LOS D, consistent with the CMP.

The use of traffic improvements and/or TDM measures in the future development of the new FBO lease areas are discussed in Section 4.8.7 to help reduce project-related cumulative impacts to these affected intersections. In addition, the Airport would contribute traffic mitigation fees toward the future construction of planned Goleta General Plan traffic improvement projects; however, cumulative traffic impacts of implementation of the proposed Master Plan in the long term remain Class I, Significant Environmental Impact at this time.[15]

4.8.6 Comparative Impacts of Alternatives

No Project Alternative

Under the No Project alternative, existing land uses at the Airport would continue to generate vehicular trips at their present rates. As discussed in Section 4.8.4 in the analysis of project-specific impacts, the proposed Master Plan itself would not create significant additional trips since the proposed project is primarily the redistribution of existing land uses within the Airport and safety projects. Temporary trip generation from construction and/or demolition would be less since the only projects to occur under this alternative would be general maintenance projects. However, significant cumulative impacts are forecast to occur in the project study area with or without the proposed project.

Environmentally Superior Alternative

The Environmentally Superior alternative would generate operational traffic at a similar rate as the project as proposed since the only projects that would not occur under this alternative are ones that would not generate operational vehicular traffic. For example, the proposed Taxiway H Airfield Safety Project and related actions are infrastructure projects that do not produce vehicular trips.

Similar to the No Project alternative, vehicular trips due to construction activities under this alternative would be less than the project as proposed since the taxiway project would not be built.

[15] Once S.B.743 is implemented, it is possible that project-related cumulative impacts associated with the Atlantic Aviation relocation would no longer be considered significant under CEQA. The VMT that are associated with this FBO in its new location would be less than its old location since the new location is closer to major arterials (i.e., South Fairview Avenue and Hollister Avenue) as well as US 101.

4.8.7 Mitigation Measures

Recommended Intersection Improvements

Kellogg Avenue & Hollister Avenue (Intermediate Term [2022] Cumulative Impact). To mitigate the PM peak-hour significant cumulative impact at the intersection of Kellogg Avenue and Hollister Avenue, the eastbound approach could be modified to remove the shared thru-right turn lane and add a thru-lane and right turn pocket. This proposed mitigation would improve the intersection from LOS D (V/C=0.801) to LOS B (V/C=0.632) during the PM peak-hour period.

This mitigation is consistent with the proposed improvement identified in the Goleta General Plan, and could be implemented through striping changes. However, this would eliminate the bike lane in the eastbound direction. Conversely, road widening would likely require land acquisition from the adjacent business. Improvements at this intersection should be consistent with the future Hollister Complete Streets Corridor Project between South Fairview Avenue and SR 217, which will focus on improved bike and pedestrian access while serving vehicle traffic and multi-modal connections.

Fairview Avenue & US 101 Northbound Ramps (Long Term [2032] Cumulative Impact). To mitigate the PM peak-hour cumulative impact at the intersection of South Fairview Avenue/US 101 NB ramps, an additional westbound thru-lane could be added to improve the LOS from LOS D (VC=0.855) to LOS B (V/C=0.663). The mitigation would require coordination with Caltrans to ensure proper design of the intersection. The proposed mitigation is consistent with the proposed improvement identified in the Goleta General Plan.

Kellogg Avenue & Hollister Avenue (Long Term [2032] Cumulative Impact). To mitigate the PM peak-hour cumulative impact at the intersection of Kellogg Avenue and Hollister Avenue, the eastbound approach could be modified to remove the shared thru-right turn lane and to add a thru-lane and a right turn pocket. This proposed mitigation would improve the intersection from LOS D (V/C=0.835) to LOS B (V/C=0.631) during the PM peak-hour period. This is the same improvement that is proposed for impacts in the intermediate term (see previous discussion).

Improved intersection LOS would be realized with any of the above improvements as shown below in **Table 4U**.

TABLE 4U
Long Term (2032) Mitigated Conditions
Peak-Hour Intersection Levels of Service
Santa Barbara Airport Environs

Intersection		Peak Hour	Baseline before Improvement		Baseline with Project before Improvement		With Project after Improvement	
			V/C	LOS	V/C	LOS	V/C	LOS
7	**S. Fairview Ave & US 101 NB Ramps** - add additional WB thru-lane	AM **PM**	0.645 **0.855**	B **D**	0.654 **0.855**	B **D**	0.474 0.663	A B
12	**Kellogg Ave & Hollister Ave** - Remove EB shared thru-right lane and add EB thru-lane and EB right-turn lane	AM **PM**	0.576 **0.835**	A **D**	0.578 **0.837**	A **D**	0.461 0.631	A B

Source: Kimley-Horn Associates 2016. (See **Appendix C**, Table 6-4).

NOTES: V/C = volume/capacity ratio; LOS = level of service; **Bold** values indicate intersections operating at unacceptable level of service (LOS D, E, or F) (Goleta threshold) or 0.77 or greater V/C ratio (Santa Barbara threshold).

On-Airport Public Road

In addition to the intersection improvements discussed above, a public road along the east edge of the airport property was considered to provide access from Matthews Street along South Fairview Avenue to the FBOs and additional north side airport uses via East Verhelle Road. However, due to proximity of the Airport's north side access to a major arterial (Hollister Avenue) and freeway ramps (US 101 at South Fairview Avenue and SR 217 at Hollister Avenue), the proposed on-airport connection was not anticipated to significantly improve traffic operations. It is more likely that the FBO users would continue to use the most direct route via freeways and Hollister Avenue.

La Patera Overcrossing

As part of the City of Goleta General Plan, a vehicular crossing is planned across US 101 at La Patera Road. The overcrossing would connect Calle Real north of US 101 to Hollister Avenue south of US 101 and is anticipated to relieve congestion and improve LOS on congested cross routes with freeway interchanges. The future improvement is intended to reduce traffic along roadway segments such as South Fairview Avenue and improve traffic conditions at the US 101 SB ramps.

Although listed in the Goleta General Plan, this improvement is currently programmed, but unfunded. The County of Santa Barbara's Regional Transportation Plan (2013) identifies the La Patera Overcrossing as a planned project to improve bike and pedestrian connectivity through Goleta with no mention of vehicle access. However, if the project does move forward, the Airport

could contribute mitigation fees for its fair-share cost allocation of the proposed improvements (based on City of Goleta traffic impact mitigation fees) to help alleviate traffic in the study area.

Transportation Demand Measures and Vehicle Miles Traveled Metrics

Implementation of TDM strategies and availability of alternative transportation options may provide opportunities to reduce the number of vehicle trips travelling through the study area. The FBOs, other north side airport uses, and neighboring businesses north of Hollister Avenue are conveniently located next to several MTD bus stops, the Amtrak Goleta Station, and other transit services. By promoting flexible work hours to reduce peak-hour travel, incentivizing transit use for employees, and removing free or cheap parking options, the public would be more likely to use alternative transportation modes and reduce peak-hour congestion. As a mitigation measure, the Airport could fund or organize a local campaign in conjunction with MTD, City of Santa Barbara, and City of Goleta to promote TDM, ride sharing, flexible schedules, transit ridership, and other alternative transportation modes with the goal of reducing vehicle trips.

Similarly, as part of the Goleta General Plan, a new multi-modal transit center is proposed to be located adjacent to the Amtrak Goleta Station. The multi-modal transit center would provide a connection hub between rail, express bus, local bus, bicycle routes, and other transportation modes, allowing greater flexibility and connections for alternative transportation modes. Due to the proximity of the proposed multimodal transit center, as a mitigation measure, the Airport could contribute funds to the design and/or construction.

Mitigation Measures for Transportation/Traffic Cumulative Impacts T-2 and T-3

T/mm-1: **The Airport will contribute its "fair share" cost allocation of traffic mitigation fees for the future construction of planned Goleta General Plan traffic improvement projects or a multi-modal transit center, based on adopted mitigation fee programs, at the time that such improvement projects go forward.**

T/mm-2: **The City will pursue the implementation of TDM measures within new north side lease agreements, consistent with City policy, as north side redevelopment opportunities become available.**

Since intersections potentially affected by implementation of the proposed Master Plan are expected to be above significance thresholds in years 2022 and 2032, cumulative traffic impacts of the proposed Master Plan remain a Class I, Significant Environmental Impact.

Chapter Five
OTHER CEQA SECTIONS

5.1 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

CEQA Guidelines, Section 15126.2(c) requires that the use of non-renewable resources and the commitment of future generations to similar uses be discussed in a project's Environmental Impact Report (EIR); the use of such resources is an irreversible effect of the development process. In addition, certain environmental accidents may cause irreversible damage to the environment.

The proposed Master Plan recommends that certain development or redevelopment projects be carried forth at the Airport over the next 20 years to increase the Airport's safety and efficiency. Construction of new buildings and paved surfaces would entail the commitment of energy and non-renewable natural resources, such as fossil fuels, sand and gravel, asphalt, metals and other minerals, and water, which could then no longer be utilized for other purposes. This commitment and consumption of building materials and energy is associated with any development in the region and would not be unique to the proposed project. Before any ground-disturbing actions take place, they must be authorized in subsequent site-specific environmental analyses. Therefore, adoption of the Master Plan itself would not cause an irreversible or irretrievable commitment of resources.

Future activities occurring at the Airport due to recommended projects would result in the ongoing irreversible commitment of energy, water, and land. For example, additional vehicle travel would utilize energy sources, while solid waste generation would utilize limited landfill capacity.

5.2 EFFECTS FOUND NOT TO BE SIGNIFICANT

An Initial Study was completed on the Airport's proposed Master Plan in June 2014 with an agency and public review period ending on July 25, 2014. Based on this environmental scoping process, the following possible effects of the proposed project have been determined to not be significant:

- Adverse impacts on visual resources, including changes in topography and impacts related to light or glare;
- Long term emissions, including greenhouse gases (GHGs) and odors, such that applicable air quality and GHG emission goals would not be met;
- Disturbance of known human remains or unique paleontological or geological resources;
- Soil erosion or impacts related to the use of septic systems;
- Hazards to the public due to the routine use, transport, or accidental upset of hazardous materials;
- Additional safety hazards related to the Airport Influence Area or adopted emergency response plans or evacuation plans;
- Risk of loss, injury, or death involving wildland fires;
- Excessive noise or groundborne vibration;
- Displacement of existing housing;
- Impacts to the availability of public services such as waste water disposal service or treatment, storm water drainage, water service or treatment, fire protection, police protection, schools, or other public facilities;
- Impacts to parks or other recreational facilities;
- Circulation-related impacts, such as impediments to emergency access and safe design of the transportation system;
- Impacts to the availability of public transit, bicycle, or pedestrian facilities;
- Change in air traffic patterns;
- Placement of housing within a flood hazard area or risk of loss, injury, or death due to inundation by seiche, tsunami, or mudflow;
- The physical division of an existing community.

The project's Initial Study was incorporated by reference into the Draft EIR and was included as Appendix A.

Following additional analysis completed as a part of the Draft EIR, additional possible effects of the proposed project have also been found to be less than significant, i.e., Class III. These additional environmental effects are:

- Construction of new Airport facilities within Special Flood Hazard Areas. All projects at the Airport would be subject to the provisions of the City's flood development permit process as defined in Chapter 22.24 of the City *Municipal Code*.

- The proposed Master Plan is consistent with the City's General Plan, Climate Action Plan, and Water Quality Management Plan. It is also consistent with regional plans such as the County Air Pollution Control District's (APCD) 2013 *Clean Air Plan* (CAP), the Regional Water Quality Control Board's (RWQCB) Basin Plan, and the Santa Barbara County Association of Government's (SBCAG) *Regional Transportation Plan and Sustainable Communities Strategy* (RTP-SCS). SBCAG's existing Airport Land Use Plan (ALUP) is currently being updated in the form of an Airport Land Use Compatibility Plan (ALUCP) per the California Department of Transportation's airport planning handbook; the proposed Master Plan, if approved, would be incorporated in the next ALUCP update, as necessary.

- Long term solid waste disposal for specific projects recommended by the proposed Master Plan are expected to be well below the City's 196-tons per year (tpy) threshold for project-specific impacts.

- The proposed Master Plan would not generate solid waste above what has already been accounted for by the City through its General Plan and Final General Plan EIR. Thus, the proposed Master Plan's cumulative solid waste disposal impacts have already been evaluated and mitigated through existing and proposed policies and programs of the City's General Plan.

5.3 UNAVOIDABLE SIGNIFICANT ENVIRONMENTAL EFFECTS

CEQA Guidelines Section 15126.2(b) requires that significant environmental effects that cannot be avoided be specifically identified. These "Class I" impacts are those that cannot be mitigated below a level of significance with the project as proposed and are thus "unavoidable" unless the project is redesigned to ameliorate the impact.

The Master Plan's long term cumulative traffic impacts fall into this category. Due to the proposed relocation of certain general aviation uses to the north side of the Airport, up to 15 additional PM peak-hour trips would use the Kellogg Avenue/Hollister Avenue intersection. In the years 2022 and 2032, this intersection is expected to operate at level of service (LOS) D. The City of Goleta has established a significance threshold of 15 trips for those intersections that operate at LOS D. In the long term scenario (year 2032), the project's cumulative impacts would be over this threshold. This number of additional trips would also be above the City of Santa Barbara cumulative traffic significance threshold.

In addition, implementation of the proposed Master Plan would generate an additional 12 trips through the South Fairview Avenue/US 101 NB ramps during the PM peak-hour by the year 2032. While not over the City of Goleta cumulative traffic significance threshold, this impact is above the City of Santa Barbara cumulative traffic significance threshold.

The additional trips cannot be avoided unless the proposed relocation of general aviation use does not occur. However, the consolidation of all general aviation uses to the north side of the Airport is one of the primary aspects of the proposed plan and has significant future safety and

efficiency ramifications for the Airport. However, it should be noted that before any ground-disturbing actions take place, they must be authorized in subsequent site-specific environmental analyses. Therefore, adoption of the Master Plan itself would not cause unavoidable adverse impacts.

5.4 GROWTH-INDUCING IMPACTS

Under CEQA Guidelines Section 15126.2(d), a discussion of growth inducement should include "the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly in the surrounding environment," "projects which would remove obstacles to population growth," or "the characteristic[s] of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively." CEQA Guidelines Section 15126.2(d) also cautions against assuming that "growth in any area is necessarily beneficial, detrimental, or of little significance to the environment."

The Airport is currently (2011) operating at 48 percent of its annual service volume (ASV). The Federal Aviation Administration (FAA) recommends that when an airport reaches 60 percent of its total ASV then capacity-increasing development should be considered. The proposed Master Plan relies on FAA-approved forecasts of aviation activity at the Airport and provides development scenarios for the short term (2017), intermediate term (2022) and long term (2032). These development scenarios are not only reflective of the level of activity forecast to occur at the Airport, but are dependent on Federal funding cycles and the availability of grant money for aviation projects. (Refer to Chapter Two of the Master Plan for a detailed discussion of the Master Plan's forecast methodology and conclusions and to Exhibit 2G of this EIR for the project's proposed Capital Improvement Program.) The Airport is not expected to reach an operational level within the Master Plan's 20-year planning horizon that would require capacity-increasing improvements.

The proposed Master Plan would help to direct growth that is forecast by the FAA to occur at the Airport over the next 20 years and to ensure that it occurs in a safe and efficient manner. This growth is expected to occur at an annual average rate of less than one percent of total and general aviation operations. Enplanements are expected to grow at an annual average rate of less than three percent, while based aircraft are expected to increase at an annual average rate of less than two percent. This moderate growth has been included in the City's General Plan and is an integral part of the City's overall anticipated economic activity. The previous Airport growth projections were based on the 2003 *Aviation Facilities Plan's* aviation demand forecast, which included scenarios for one to four percent annual growth rate of annual enplaned passengers and two percent per year growth in general aviation (GA) aircraft operations. Thus, new unforecasted growth is not anticipated to occur.

Since the proposed Master Plan recommends redevelopment of the Airport for safety and efficiency reasons, rather than capacity-increasing projects that would allow for additional airport operations, the project would not foster economic or population growth and is not

considered growth-inducing. The project would not involve unanticipated employment growth that would substantially increase population or housing demand and would not involve a substantial increase in major public facilities such as extension of water or sewer lines or roads that would facilitate other growth in the area. Rather, the Airport is in an urbanized area that is currently served by all required infrastructure.

The proposed Master Plan does not recommend the construction of additional housing nor would it remove obstacles to population growth or encourage or facilitate other activities that would significantly affect the environment within the cities of Santa Barbara or Goleta. Potential cumulative impacts of the proposed Master Plan itself are discussed in the following section below.

5.5 CUMULATIVE IMPACTS

Pursuant to CEQA Guidelines Section 15130(a), an EIR shall discuss the cumulative impacts of a project in order to determine whether those impacts are cumulatively considerable. "Cumulatively considerable" is defined by CEQA Guidelines Section 15065(a)(3) to include those situations where "the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." (See also CEQA Guidelines Section 15355(b), which refers to "reasonably foreseeable probable future projects.")

CEQA Guidelines Section 15130(b)(1) sets forth two methods for satisfying the cumulative impacts analysis requirement: (1) the "list-of-projects" approach; and, (2) the "summary-of-projections" approach. Under the former approach, the Lead Agency compiles a "list of past, present, and probable future projects producing related or cumulative impacts." Under the latter approach, the Lead Agency relies on a "summary of projections contained in an adopted local, regional or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect." Since this EIR is tiered off the City's Final General Plan EIR, the latter approach has been used for most of the cumulative analysis contained in this document. The exception to this is the cumulative traffic analysis, which is based in part on a list of projects that have occurred, are occurring, or will occur within the City of Goleta, where the Airport's surrounding street network is located (see **Appendix D**).

Based on the cumulative analysis provided in Chapter Four of this EIR, the following possible cumulative effects of the proposed project could occur:

- Cumulative impacts to regional air quality would be <u>Class III, Less than Significant Impact</u>. The proposed Master Plan is consistent with the Santa Barbara County Air Pollution Control District's (APCD) 2013 *Clean Air Plan* (CAP).

- Cumulative impacts to GHG emission goals for the region would be <u>Class III, Less than Significant Impact</u>. The proposed Master Plan is consistent with the City's General Plan and adopted Climate Action Plan.

- The proposed Master Plan would be consistent with rules related to the southern California marine protected areas (MPA) for the Goleta Slough Marine Conservation Area; similarly, it would not preclude measures recommended in the *Goleta Slough Area Sea Level Rise and Management Plan* (Slough Management Plan). It may, however, be inconsistent with existing City Local Coastal Program (LCP) and General Plan policies and zoning regulations regarding protection of the Slough.

  To the extent that adverse impacts occur to Goleta Slough, cumulative impacts would occur to a regional biological resource. Therefore, mitigation and design measures for specific Master Plan projects planned within the G-S-R zoning overlay must ensure that there is no net loss of wetlands and that other resources of the Slough are protected from indirect impacts. As long as project-specific impacts to the Slough are fully mitigated, cumulative impacts to the Slough would be less than significant. Thus, cumulative biological impacts would be Class II, Less than Significant Impact with Mitigation.

- The proposed Master Plan would not generate solid waste above what has already been accounted for by the City through its General Plan and Final General Plan EIR. Thus, the proposed Master Plan's cumulative solid waste disposal impacts have already been evaluated and mitigated through existing and proposed policies and programs of the City's General Plan and would be Class III, Less than Significant Impact.

- Cumulative traffic impacts would be Class I, Significant Environmental Impact unless local and regional traffic improvements are constructed within the City of Goleta. These measures are not within the City of Santa Barbara's ability to implement. Based on the revised Traffic Impact Study (**Appendix C**), in the intermediate and long term (years 2022 and 2032), the project's traffic would exceed City of Santa Barbara's adopted cumulative thresholds of significance at two intersections within the project study area (South Fairview Avenue/US 101 northbound ramps and Kellogg Avenue/Hollister Avenue) during the PM peak-hour. The Kellogg Avenue/Hollister Avenue cumulative traffic impacts would also exceed the City of Goleta's adopted cumulative thresholds of significance in the year 2032. The Airport would contribute its fair-share cost allocation to the cost of future traffic improvements related to these impacts (based on the City of Goleta traffic impact mitigation fees).

No cumulative impacts related to cultural resources, geology and soils, hazards or hazardous materials, hydrology and water quality, or land use and planning would occur as a result of the proposed Master Plan.

Chapter Six

Chapter Six
SUMMARY OF ALTERNATIVES ANALYSIS

6.1 PROJECT OBJECTIVES

As previously discussed in Section 2.1, the primary objective of the Santa Barbara Airport Master Plan (Master Plan) is to provide the City of Santa Barbara (City) with guidance for future development which will safely meet aviation demand at the Airport for the next 20 years, i.e., 2012 to 2032. Accomplishing this in an environmentally sensitive manner is also an objective of the Master Plan.

The City's Airport Department has identified the following goals to be considered in the Master Plan:

- Relocation of general aviation facilities and new general aviation improvements.
- Airfield safety improvements.
- Consolidation of automobile parking associated with the Terminal.
- Terminal expansion.

Exhibit 3A contains a list of specific considerations related to Airport needs and opportunities for improvement; however, no actual development projects are proposed at this time. Future development projects at the Airport would be focused in one of three areas: airfield safety improve-

ments; land side redevelopment north of Runway 7-25; or airfield and landside improvements around the Terminal.

6.2 ALTERNATIVES CONSIDERED BUT REJECTED

Chapter Three of the Draft Environmental Impact Report (EIR) summarizes design alternatives considered as part of the master planning effort that were eventually "rejected" in favor of the recommended development concept plan depicted in Exhibit 2B. Several of these preliminary design alternatives are vetted in detail in Chapter Five of the Final Draft Airport Master Plan, which has been incorporated into this EIR by reference. The Master Plan originally identified two airfield design alternatives, two terminal area alternatives, and two north landside alternatives. The recommended development concept plan was selected as the best design alternative based on Federal Aviation Administration (FAA) design and safety guidelines and criteria as well as environmental considerations (refer to Draft EIR, Exhibit 3B).

In addition, the draft Master Plan originally recommended the demolition of five older hangars (Building Nos. 248, 249, 267, 309, and 317) to make additional room for redevelopment of the north side general aviation area and to remove structures from the floodway. However, based on an historical evaluation of these buildings under Federal, State, and City historic regulations, it was determined early in the EIR process that the demolition of these buildings would result in significant impacts to historical resources under CEQA (Draft EIR, Appendix E). Instead, the recommended north side development concept plan was revised to include the retention of Buildings 267, 309, and 317 in their existing locations and the preservation and ultimate relocation of Buildings 248 and 249 out of the floodway.

The replacement of segments of perimeter fencing along Mesa Road was also originally considered in the draft Master Plan. In the long term, replacement of these perimeter fence segments would provide additional control over not only access to the Airport, but to the sensitive biological resources of the Goleta Slough Ecological Reserve (GSER). However, during the environmental scoping process for this EIR, the California Department of Fish and Wildlife (CDFW) and the Goleta Slough Management Committee (GSMC) both commented that the perimeter fence impedes the movement of wildlife through the area. Replacement of the fence with a higher chain link fence could exacerbate this situation. Therefore, it was determined that impacts related to higher chain link fencing that would restrict wildlife movement in and out of the Slough were potentially significant.

As mitigation, CDFW recommended that the existing fence be modified at key points to achieve a better balance within the Slough to support coyotes, gray foxes, and bobcats as key predators. This mitigation measure would need to be studied further by the Airport and FAA to ensure that such modifications did not hamper security and wildlife hazard management activities. It was determined that it would be better to reassess the situation in light of the findings of the Airport's ongoing wildlife hazard assessment.

Alternative locations for the Airport would require a comprehensive study that is beyond the scope of this EIR. The proposed project is a Master Plan to accommodate minor redevelopment, safety improvements, and expansion of the Terminal to allow its continued safe and efficient functionality through a 20-year planning period. As discussed previously, Section 15126.6 (f)(3) of the CEQA Guidelines states, "An EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative." Therefore, alternative locations have not been evaulated further in this EIR.

6.3 COMPARISON OF ALTERNATIVES CONSIDERED

Two alternatives, in addition to the project as proposed, were carried forth for analysis in this EIR: a No Project alternative and an Environmentally Superior alternative. **Table 6A** compares the environmental effects of each. Under the No Project alternative, the Airport would remain in its present condition with no improvements to the existing facilities other than general maintenance; the Environmentally Superior alternative would be similar to the project as proposed, but without the Taxiway H Airfield Safety Project and related actions. The primary differences in impact between the project as proposed and the No Project alternative are a reduction in impacts related to demolition or construction, indirect impacts to the Goleta Slough, a reduction in additional impervious surfaces, and inconsistencies with policies of the Airport's Local Coastal Program (LCP) and the City's G-S-R, Goleta Slough Reserve zone. However, the environmental benefits of the project as proposed, for example, removing existing structures within the floodway would not be realized under the No Project alternative.

TABLE 6A
Summary of Alternatives Analysis Comparison
Santa Barbara Airport

Resource Category	Proposed Master Plan (Proposed Project)	No Project Alternative (Degree of Impact when compared to Proposed Project)	Environmentally Superior Alternative (Degree of impact when compared to Proposed Project)
Air Quality/ Greenhouse Gas Emissions			
Impact AQ-1: Long term (Operation) Impact	Class III, Less than Significant Impact	Same	Same
Impact AQ-2: Short term (Demolition or Construction) Impact	Class II, Less than Significant Impact with Mitigation	Less	Less
Impact AQ-3: Cumulative Impact/*Clean Air Plan* Consistency	Class III, Less than Significant Impact	Same	Same
Impact AQ-4: Global Climate Change/Climate Plan Consistency	Class III, Less than Significant Impact	Same	Same
Biological Resources			
Impact BIO-1: Loss of jurisdictional wetlands and indirect impact to Goleta Slough	Class II, Less than Significant Impact with Mitigation	Less	Less
Impact BIO-2: Impacts to protected birds	Class II, Less than Significant Impact with Mitigation	Less	Less

TABLE 6A (continued)
Summary of Alternatives Analysis Comparison
Santa Barbara Airport

Resource Category	Proposed Master Plan (Proposed Project)	No Project Alternative (Degree of impact when compared to Proposed Project)	Environmentally Superior Alternative (Degree of impact when compared to Proposed Project)
Impact BIO-3: Indirect impacts to adjacent creeks	Class III, Less than Significant	Less	Less
Impact BIO-4: Cumulative impact to Goleta Slough	Class II, Less than Significant Impact with Mitigation	Less	Less
Cultural Resources			
Impact CR-1: Long-term relocation of Bldgs. 248 & 249 out of floodway	Class II, Less than Significant Impact with Mitigation	**Greater - Historic structures would remain in the floodway.**	Same
Impact CR-2: Impacts to Buildings 317, 309, and 267 (eligible for listing as City of Santa Barbara Structures of Merit)	Class III, Less than Significant Impact	Same	Same
Impact CR-3: Future projects could be located within a moderate sensitivity zone for cultural resources	Class II, Less than Significant Impact with Mitigation	Less	Same
Geology and Soils/Hazards and Hazardous Materials			
Impact G/HAZ-1: Risks due to seismic activity	Class II, Less than Significant Impact with Mitigation	Less	Same
Impact G/HAZ-2: Risks due to soil conditions	Class II, Less than Significant Impact with Mitigation (adverse soil conditions); Class III, Less than Significant Impact (erosion)	Less	Same
Impact G/HAZ-3: Risk due to routine handling and transport or accidents involving hazardous materials	Class III, Less than Significant Impact	Less	Same
Impact G/HAZ-4: Risks involving exposure to soil or groundwater contamination.	Class II, Less than Significant Impact with Mitigation	Less	Same
Hydrology and Water Quality			
Impact HYD-1: Potential drainage and water quality impact	Class III, Less than Significant Impact	Less	Less

TABLE 6A (continued)
Summary of Alternatives Analysis Comparison
Santa Barbara Airport

Resource Category	Proposed Master Plan (Proposed Project)	No Project Alternative (Degree of impact when compared to Proposed Project)	Environmentally Superior Alternative (Degree of impact when compared to Proposed Project)
Impact HYD-2: Potential flooding hazards	Impact 2a: Class III, Less than Significant Impact; Impact 2b: Class IV, Beneficial Impact (re: development within Floodway)	**Greater - Existing structures would remain in the floodway.**	Less - Taxiway H would no longer be proposed for the floodway.
Impact HYD-3: Substantial unmitigated risk of tsunami inundation	Class III, Less than Significant Impact	Same	Same
Land Use and Planning			
Impact LU-1: Impact to established communities	Class III, Less than Significant Impact	Same	Same
Impact LU-2: Compatibility with applicable General Plan policies and other City plans	Class III, Less than Significant Impact	Less	Less
Impact LU-3: Compatibility with SP-6 Plan and SP-6 overlay zone	Class III, Less than Significant	Same	Same
Impact LU-4: Compatibility with Airport's LCP	Class II, Less than Significant with Mitigation	Less	Less
Impact LU-5: Consistency with the City of Goleta's General Plan/Zoning (avigation easements)	Class III, Less than Significant Impact	Same	Same
Impact LU-6: Consistency with the City's General Plan, G-S-R zone, GSER (Taxiway H Airfield Safety Project)	Class II, Less than Significant Impact with Mitigation	Less	Less
Public Utilities (Solid Waste Disposal)			
Impact SW-1: Long term (operational) impact	Class III, Less than Significant Impact	Unknown	Same
Impact SW-2: Short term (Demolition and/or Construction) Impact	Class II, Less than Significant Impact with Mitigation	Less	Less
Impact SW-3: Cumulative impact	Class III, Less than Significant Impact	Unknown	Same
Transportation/Traffic			
Impact T-1: Project-specific impacts to traffic and circulation in the short term	Class III, Less than Significant Impact	Same	Same
Impact T-2: Cumulative project impacts to traffic and circulation in the intermediate term (Kellogg Avenue/Hollister Avenue)	Class I, Significant Environmental Impact[1]	Less	Same

TABLE 6A (continued)
Summary of Alternatives Analysis Comparison
Santa Barbara Airport

Resource Category	Proposed Master Plan (Proposed Project)	No Project Alternative (compared to Proposed Project)	Environmentally Superior Alternative (compared to Proposed Project)
Impact T-3: Cumulative project impacts to traffic and circulation in the long term (Kellogg Avenue/Hollister Avenue; South Fairview Avenue/US 101 NB ramps)	Class I, Significant Environmental Impact[1]	Less[1,2]	Same[1,2]

[1] Once Senate Bill (S.B.) 743 is implemented, it is possible that project-related cumulative impacts associated with the Atlantic Aviation relocation would no longer be considered significant under CEQA. The vehicle miles traveled (VMT) that are associated with Atlantic Aviation in its new location would be less than its old location since the new location is closer to major arterials (i.e., South Fairview Avenue and Hollister Avenue) as well as US 101.

[2] Some intersections within the study area are forecast to operate below an acceptable level of service with or without trips generated by the project.

6.4 IDENTIFICATION OF ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Based on the analysis contained in Chapter Four and summarized in **Table 6A**, the "environmentally superior" alternative involves not constructing the Taxiway H Airfield Safety Project and related projects. This would reduce environmental impacts to Goleta Slough and avoid inconsistencies with the City of Santa Barbara's General Plan land use designation, the Airport's LCP, and G-S-R zoning. Other differences in impact between the project as proposed and the Environmentally Superior alternative are a reduction in impacts related to construction, indirect impacts to Goleta Slough, and a reduction in additional impervious surfaces.

However, the "environmentally superior" alternative would not meet the project's objectives to accommodate future airport operations in a safe manner. Although removing the Taxiway H Airfield Safety Project and related actions from the proposed Master Plan would reduce environmental impacts, it would continue unsafe and inefficient airfield circulation patterns at the Airport that create safety hazards to aircraft using the runway and taxiway system. In FAA Advisory Circular 150/5300-13A, *Airport Design*, the discussion of methods to reduce runway incursions includes the following (FAA 2012):

> (c) Limit runway crossings. The airport designer can reduce the opportunity for human error by reducing the need for runway crossings. The benefits of such design are twofold – through a simple reduction in the number of occurrences, and through a reduction in air traffic controller workload.
>
> (d) Avoid "high energy" intersections. These are intersections in the middle third of the runways. By limiting runway crossings to the outer thirds of the runway, the portion of the runway where a pilot can least maneuver to avoid a collision is kept clear.

(f) Avoid “dual purpose” pavements. Runways used as taxiways and taxiways used as runways can lead to confusion. A runway should always be clearly identified as a runway and only a runway.

(g) Indirect Access. Do not design taxiways to lead directly from an apron to a runway. Such configurations can lead to confusion when a pilot typically expects to encounter a parallel taxiway.

If a full-length parallel taxiway north of Runway 7-25 is not provided, aircraft utilizing the north general aviation ramps would continue to cross the active primary runway to get to the Runway 7 threshold. This situation has been identified by FAA as a safety “hot spot.”

Chapter Seven

Chapter Seven
MITIGATION, MONITORING, AND REPORTING

The following mitigation, monitoring, and reporting program (MMRP) has been prepared pursuant to Section 15097 of the *California Environmental Quality Act* (CEQA). Section 15097 requires all State and local agencies establish monitoring or reporting programs for projects approved by a public agency whenever approval involves the adoption of either a mitigated Negative Declaration or specified environmental findings related to Environmental Impact Reports.

The following MMRP for the proposed Master Plan at Santa Barbara Airport describes the mitigation measures identified in the Draft Program Environmental Impact Report (EIR) (as revised by the Recirculated Draft Program EIR), identifies responsible entities for implementing and monitoring the plan, and outlines the mitigation measure timeline. The intent of the MMRP is to identify and enforce a means for properly and successfully implementing the mitigation measures as identified within the Draft EIR.

This MMRP is intended to be used by City of Santa Barbara (City) staff and mitigation monitoring personnel to ensure compliance with mitigation measures during project implementation. The MMRP will provide for monitoring activities prior to construction, during construction, and following project completion.

Airport staff will be responsible for the following:

- On-site, day-to-day monitoring of construction activities.
- Reviewing construction plans and equipment staging/access plans to ensure conformance with adopted mitigation measures.
- Ensuring contractor knowledge of and compliance with the MMRP.
- Obtaining assistance, as necessary, from technical experts in order to develop site-specific procedures for implementing the mitigation measures.
- Maintaining a log of all significant interactions, violations of permit conditions or mitigation measures, and necessary corrective measures.

In addition, individual projects under the Master Plan may be subject to existing or required permit conditions such as those associated with the Airport's National Pollutant Discharge Elimination System (NPDES) permit and storm water pollution prevention plan (SWPPP), the City's Storm Water Management Program (SWMP), and individual Special Flood Hazard Area development permits/variances, Coastal Development Permits (CDPs), Water Quality Management Plans (LCP Policy C-13), and Construction Phase Erosion Control and Polluted Runoff Control Plans (LCP Policy C-14). The City's Standard Conditions of Approval also apply to projects under the proposed Master Plan.

Mitigation Measure	Description	Implementing Entity	Monitoring Entity	Implementation Schedule	Date Initiated/ Date Completed
Impact AQ-2. Construction and/or building removal occurring under the proposed Master Plan could exceed 25 tons of any pollutant (except CO) within a 12-month period. (Short term impact)					
AQ/mm-1	As a condition of approval, all construction and/or building removal projects occurring under the proposed Master Plan shall be required to estimate said project's combined emissions from all construction equipment to ensure that the project would not exceed 25 tons of any pollutant except CO within a 12-month period. Standard equipment exhaust mitigation measures recommended by the Air Pollution Control District (APCD) for such projects shall be implemented, as appropriate.	Developer or contractor	APCD	Prior to issuance of Authority to Construct permit from APCD.	
Impact BIO-1 & BIO-4. The proposed Taxiway H Airfield Safety Project could include a loss of jurisdictional wetlands and indirect construction impacts to Goleta Slough and sensitive flora and/or fauna. (Project-specific & cumulative impact)					
BIO/mm-1	Programmatic Wetland Restoration Plan (PWRP). The PWRP is intended to provide a framework for future project-specific Habitat Mitigation and Monitoring Plans (HMMPs) to provide compensatory mitigation for indirect and direct impacts to jurisdictional wetland habitat and established wetland and riparian setback/buffers. The PWRP shall be consistent with all Airport operation and management policies, the Wildlife Hazard Management Plan, the *California Coastal Act* and Airport Local Coastal Program (LCP), the *Goleta Slough Area Sea Level Rise and Management Plan* (Slough Management Plan), the *California Fish and Game Code* (CFGC), the *Clean Water Act* (CWA), and other plans and polices that regulate wetland habitat. Under direction of the PWRP, the Taxiway H Airfield Safety Project will be required to submit for regulatory agency (United States Army Corps of Engineers [USACE], California Department of Fish and Wildlife [CDFW], California Coastal Commission [CCC], and City,	City Planning	Airport staff	Prior to approval of Master Plan	

	as appropriate) approval of a HMMP for impacts to jurisdictional areas. Components of the PWRP shall include, at minimum, the following requirements and information: 1. Mitigation for wetland habitat and and/or wetland and/or riparian buffers shall be a minimum of 2:1 (restoration to impact) ratio. Agencies may require a higher ratio depending on the habitat value and function that is proposed to be impacted. Upland habitat shall be replaced at a 1:1 ratio in a form and location acceptable to the Goleta Slough Management Committee. 2. Wetland mitigation should occur on Santa Barbara Airport property (onsite) in lands historically part of the Goleta Slough wetland complex and on lands currently mapped as disturbed or dominated by non-native species which would be reasonably expected to establish sustainable wetland habitat. 3. The Airport shall comply with the conditions and recommendation of existing guiding documents as well as those under development (i.e., Wildlife Hazard Assessment for the Airport, LCP amendments, and the Slough Management Plan). 4. Restoration strategies shall be proposed that balance the criteria identified in Nos. 2 and 3 above, as well as agency requirements for wetland restoration. Mitigation Areas 1 through 4 (see below) and potential restoration strategies shall be considered in preparation of any project-specific HMMPs. **Table 4G** and **Exhibit 4D** identify four potential mitigation areas where areas within or adjacent to the Slough could be restored to create replacement wetlands. Areas 1 and 2 are located southwest of Tecolotito Creek within the existing G-S-R zone; Areas 3				

	and 4 are located southwest of the intersection of the Airport's existing runway system within the existing A-F (Airfield Facilities) zone. As part of the mitigation effort, if selected, Mitigation Areas 3 and/or 4 would first be rezoned to G-S-R. Combined, the mitigation areas would provide an opportunity for almost 30 acres of new wetland. The mitigation area(s) shall be selected in consultation with USACE, Regional Water Quality Control Board (RWQCB), and CDFW, as appropriate. The areas would first be re-contoured, and then planted with a variety of short wetland vegetation. The desired plant composition shall be consistent with the Slough Management Plan and compliant with Airport safety regulations (for example saltgrass or meadow barley as key components). 5. As necessary due to sea level rise or other changes in future conditions within the Slough, adaptive restoration measures consistent with the recommendations of the Slough Management Plan shall be implemented. 6. The genetic origin of all native wetland and riparian propagules shall be from the Goleta Slough. Wetland plants shall be, at a minimum, facultative (FAC) species (i.e., equally likely to occur in wetlands [estimated probability 34 – 66 percent] or non-wetlands) per the USACE definition. 7. Restoration shall be phased to ensure that all restoration plantings are in place with sufficient irrigation prior to final inspection. Irrigation shall be reduced or eliminated after Year 2 depending on environmental conditions (i.e., drought may prolong irrigation). The wetland restoration shall be without supplemental irrigation for at least two years prior to final approvals. This could result in a maintenance and monitoring period greater than five (5) years.				

	8. Prior to commencement of development activities, the Airport shall file a performance bond with the City to complete restoration and maintain plantings for a five (5) year period. 9. The extent of development shall be restricted to those areas displayed on site grading plans to avoid additional impacts to wetland habitat and wetland and/or riparian buffers. Development boundaries shall be delineated (i.e., using wooden stake with highly visible environmentally-friendly paint) in the field prior to any ground-breaking activities. 10. PWRP Timing and Approvals. The Airport shall submit the PWRP to the CCC for review and approval. The PWRP shall also be submitted to the USACE, CDFW, and RWQCB for their review; however, approvals are not required from these agencies. Future project-specific HMMPs will be reviewed and required as part of regulatory permitting (404/401, streambed alteration, etc.). For example, any activity that will divert or obstruct the natural flow, or change the bed, channel, or bank (and associated riparian resources, including salt marsh wetlands) of a river or stream may require a Lake and Streambed Alteration (LSA) agreement with the CDFW pursuant to Section 1602 of the CFGC.				
BIO/mm-2	During construction of the Taxiway H project, all applicable policies of the LCP shall be required, including but not limited to the following: • A buffer strip of a minimum of 100 feet in width shall be maintained in a natural condition along the periphery of all wetland communities. Where development of an airfield safety project renders maintenance of the buffer infeasible, the City shall provide the maximum amount of buffer area feasible and all impacts to wetland habitat shall be mitigated to the	Contractor	City Planning or Airport staff	During/post construction	

	maximum extent feasible such that no net loss of wetland habitat occurs (Policy C-4). • Wetland areas temporarily affected by construction activities shall be restored to pre-construction conditions (Policy C-11). • The project shall incorporate best management practices (BMPs) or a combination of BMPs best suited to reduce pollutant loading to the maximum extent feasible (Policy C-12). • Special-status plant and wildlife protection measures shall be implemented (Policy C-15). • All construction, habitat mitigation and restoration plans, and special-status plant and wildlife mitigation and protection measures, shall be reviewed and approved by the regulatory agency/agencies having jurisdiction over the identified resource (Policy C-16).				
Impact BIO-2. Potentially significant impacts to the Belding's savannah sparrow would occur as a result of the Taxiway H Airfield Safety Project if this protected species is present during construction. In addition, indirect impacts might occur to nesting birds along Carneros Creek. (Project-specific impact)					
BIO/mm-3	No construction shall occur during the avian breeding season (February 1-September 1) unless a survey from qualified biologist with experience in conducting breeding bird surveys finds that no bird breeding habitat exists within 300 feet of the disturbance area (500 feet for raptors) or can state with certainty that such habitat does not contain nesting birds. Project personnel, including contractors working on the site, shall be instructed on the sensitivity of the area. Reductions in nest buffer distance may be approved by the City's Community Development Department depending on the avian species involved, ambient levels of human activity, screening vegetation, or other factors.	City Planning or Airport staff	City Planning or Airport staff	Prior to ground disturbance.	
BIO/mm-4	Taxiway H Airfield Safety Project and its habitat restoration project sites shall be monitored by a qualified biologist for Belding's savannah sparrow. Prior to site preparation and construction activities, the Airport shall have a qualified biologist survey all breeding/nesting habitat within the project site every seven days for eight consecutive weeks. Documentation of findings, including negative findings, shall be submitted to the	City Planning or Airport staff	City Planning or Airport staff	Prior to, and during, ground disturbance.	

	CDFW. Site preparation and construction activities will only begin if no breeding/nesting birds are observed and concurrence has been received from CDFW. If breeding activities or an active nest is located in a work area, site preparation and construction activities shall not begin in that area until the nest becomes inactive, the young have fledged, the young are no longer being fed by the parents, the young have left the area, and the young will no longer be impacted by the project. Once site preparation and construction activities have commenced, the project site shall be monitored for Belding's savannah sparrow on a weekly basis. Documentation of findings, including negative findings, shall be submitted to CDFW until construction is complete. Site preparation or construction activities shall be suspended immediately in a given area if the qualified biologist determines that breeding or nesting activity is occurring in that area. Site preparation and construction activities shall not resume until the monitor determines that the breeding and nesting activities described above have stopped. Noise levels will be monitored by a qualified biologist to determine if construction activities are disruptive to Belding's savannah sparrow in or adjacent to the project site. If a significant disruption to foraging behavior is observed, construction activities in the area of disturbance will be stopped immediately until the qualified biologist develops recommendations to reduce or eliminate the disturbances and receives concurrence from CDFW.				

Impact CR-1. The Master Plan proposes to pursue a management plan for the General Western Aero hangars that would mothball and stabilize the buildings in their existing location until such time as they can be relocated out of the floodway. (Project-specific impact)					
CR/mm-1	The following mitigation program shall be implemented: 1. Mothball and stabilize following National Park Service (NPS) Preservation Brief 31; 2. Prepare management plan, which includes: - Nominate for National Register of Historic Properties (NRHP); - Seek approval to move hangars out of floodway to a location on the Airport that would preserve the integrity of the historic property; - Consult with interested parties to propose future uses and explore research/grant funding options; - Based on proposed uses, determine treatment plan to restore, preserve, or rehabilitate per Secretary of Interior standards. 3. Show relocation areas on "Development Concept Map" of proposed Master Plan.	City Planning or Airport staff	City Planning or Airport staff	As soon as possible	
Impact CR-3. Proposed Master Plan projects located within a moderate sensitivity zone of the MARA could have project-specific or cumulative impacts on cultural resources protected by Federal, State or City laws and guidelines. (Project-specific impact)					
CR/mm-2	All future projects under consideration within the Master Plan shall be evaluated based on the screening process set forth in the City's *Master Archaeological Resources Assessment* (MARA). If a proposed project is located within a mapped sensitivity zone, a determination shall be made regarding whether or not all proposed earth disturbance would be confined to areas of previous disturbance. The proposed project shall then follow the appropriate mitigation and reporting requirements provided in the MARA. Native American consultation shall occur as each individual project is proposed and shall include, but not be limited to, the list of contacts provided by the Native	City Planning or Airport staff	City Planning or Airport staff	Prior to individual project approval	

	American Heritage Commission in response to the environmental scoping process for this EIR.				
CR/mm-3	The City's Standard Condition of Approval regarding "Unanticipated Archaeological Resources Contractor Notification" shall be implemented as necessary.	Contractor	City Planning or Airport staff	During construction	
Impacts G/HAZ-1 & G/HAZ-2. Future Master Plan development could be adversely affected by seismic activity or adverse soil conditions. (Project-specific impact)					
G/HAZ/mm-1	The construction of load-bearing structures shall be subject to the recommendations of a site- and project-specific geotechnical investigation and/or engineering report. This mitigation is not necessary for minor development projects such as the installation of replacement fencing or aboveground storage tanks.	Developer or contractor	City engineer	During project design	
Impact G/HAZ-4. There is the potential for the exposure of project occupants or construction workers to hazardous materials at the Airport. (Project-specific impact)					
G/HAZ/mm-2	A Construction Contingency Plan shall be developed that addresses methods to control potential migration of any contamination discovered during construction as well as safety practices for on-site construction personnel and the general public. Details of the plan shall include, but not be limited to: • Soils monitoring for identification of contaminated soil during and after construction for all eroded and/or graded soils; • Measures to be taken to protect workers and the public (such as fencing or hazard flagging, covering contaminated soil with plastic, etc.) and to prevent migration of contaminants to the surrounding environment; and • Notification procedures including, but not limited to, Santa Barbara County Environmental Health Services. These Contingency Plans may be incorporated into the Construction Phase Erosion Control and Polluted Runoff Control Plans required per LCP Policy C-14 for	Contractor	City Planning	Prior to project construction	

	projects requiring a CDP (see Section 4.5.2), if appropriate.				
GEO/mm-3	If contamination is discovered, a project-specific remediation plan shall be prepared and implemented that reduces all contaminant concentrations to acceptable levels.	Contractor	Airport staff	During project construction	
Impacts LU-4 and LU-6. Recommended projects within the proposed Master Plan, such as the proposed Taxiway H Airfield Safety Project, could result in inconsistencies with LCP policies related to Goleta Slough and with the City's General Plan designation and G-S-R zone for the GSER. (Project-specific impact)					
LU/mm-1	A detailed project-specific impact analysis and mitigation program for the Taxiway H Airfield Safety Project, and associated analysis of the project's consistency with the G-S-R zone and the policies of the Airport's LCP and *California Coastal Act*, shall be conducted during the CDP and/or LCP amendment review process. The analysis shall specifically address project alternatives, mitigation, and/or additional LCP policy requirements necessary to ensure that any permitted impacts to wetland and sensitive habitat and associated buffers will be adequately minimized and mitigated to ensure long term protection of Goleta Slough habitats and open space.	City Planning	Airport staff	Prior to approval of individual projects	
LU/mm-2	A consistency review of the Taxiway H Airfield Safety Project with the Slough Management Plan shall be conducted during the project-specific CDP and/or LCP amendment review process, as applicable. Project-specific mitigation measures shall be identified and incorporated into the City's CDP, and/or LCP policies shall be identified and incorporated into Airport LCP, where determined necessary and feasible, to ensure project consistency with the Slough Management Plan. Required mitigation shall also be evaluated for consistency with the Slough Management Plan restoration goals.	City Planning	Airport staff	Prior to approval of the Taxiway H Airfield Safety Project	
LU/mm-3	The City of Santa Barbara and the CDFW shall amend the Cooperative Agreement dated August 25, 1987 (as revised) for the maintenance and management of the Goleta Slough to adjust the boundaries of the GSER to exclude the Taxiway H Airfield Safety Project site and to include a site of similar habitat value at	City Planning	Airport staff	Prior to approval of the Taxiway H Airfield Safety Project	

	an area ratio of 1:1 (i.e., if Taxiway H and associated actions removes 11 acres from the GSER, 11 acres would be added to the GSER from available Airport property adjacent to the Slough). This mutually-accepted exchange shall be in addition to required biological mitigation. The Cooperative Agreement amendment shall be presented to the California Fish and Game Commission.				
Impact SW-2. Some proposed building demolition or construction under the proposed Master Plan could result in significant impacts to regional solid waste disposal. (Short term impact)					
SW/mm-1	As a condition of approval, projects recommended by the proposed Master Plan must feasibly reduce, reuse, and recycle demolition and construction waste consistent with State and City diversion goals.	Developer or contractor	City Planning or Airport staff	Prior/during construction	
Impact T-1 and T-2. Cumulative project impacts could occur to traffic and circulation in the intermediate term (Kellogg Ave/Hollister Ave) and in the long term (Kellogg Ave/Hollister Ave; South Fairview Ave/US 101 NB ramps)					
T/mm-1	The Airport will contribute its "fair share" cost allocation of traffic mitigation fees for the future construction of planned Goleta General Plan traffic improvement projects or a multi-modal transit center, based on adopted mitigation fee programs, at the time that such improvement projects go forward.	City planning	City Planning or Airport staff	When, and if, traffic improvements within the City of Goleta are constructed	
T/mm-2	The City will pursue the implementation of transportation demand measures (TDM) measures within new north side lease agreements, consistent with City policy, as north side redevelopment opportunities become available.	Airport staff	Airport staff	As part of north side lease agreements	

Chapter Eight

Chapter Eight
DOCUMENT PREPARERS AND REFERENCES

8.1 REPORT PREPARERS

Persons responsible for preparation of this Environmental Impact Report (EIR) document are listed below.

NAME	EXPERTISE	PROFESSIONAL EXPERIENCE
CITY OF SANTA BARBARA		
Andrew R. Bermond, AICP	Airport Project Planning, Environmental Analysis, Coastal Resources Planning	MPA, Public Administration; B.A. History and Environmental Studies. Prepares and manages development review and long-range planning efforts for the 960-acre Santa Barbara Airport; oversees and prepares environmental review documentation, coordinating with up to twelve state, federal, and local government regulatory agencies pursuant to CEQA/NEPA.
EIR PREPARERS		
Coffman Associates		
Jim Harris, PE	Airport Master Planning, Environmental Analysis and Airport Management	B.S., Civil Engineering. Responsible for overall project management of airport master planning, noise and land use compatibility planning and environmental documentation for airports.

Judi Krauss	Transportation and Land Use Planning; Environmental Analysis and Documentation; Socioeconomics	M.A., Economics w/ emphasis in Natural Resource Economics; B.A., Environmental Studies. Experience in transportation and land use planning, socioeconomic studies, and CEQA analysis/documentation. Has worked extensively in Santa Barbara County.
Kory Lewis	Land Use Planning, Environmental Analysis and Documentation, Noise Monitoring and Assessment, Air Quality Analysis	Masters, Urban Planning; B.A., Geography. Experience in land use management and noise assessment, and preparation of environmental documentation for airport development projects. Experienced in working with California Air Pollution Control Districts through southern California.
Eric Pfeifer, LEED Green Associate	Airport Master Planning, Environmental Analysis and Documentation	Masters, Business Administration; B.S., Airport Administration. Experienced in airport master planning and associated environmental documentation under both NEPA and CEQA. Prepares sustainability assessments and plans.
Applied Earthworks, Inc.		
M. Colleen Hamilton, RPA	Senior Architectural Historian	M.A., History; B.A., Anthropology. Conducts "built" environment surveys, building assessments, bridge evaluations, and data recovery of several historic archaeological sites in Santa Barbara. Developed and negotiated Memorandums of Agreement and Environmentally Sensitive Area action plans for historic properties in Santa Barbara.
Aubrie Morlet	Architectural Historian	M.A., Public History; B.A., History with emphasis in Architectural History. Specializes in history and architecture throughout the State. Prepared Historic Resource Evaluation Reports and Historic Property Survey Reports for the West Downtown Historic Building Survey; has a thorough understanding of the City Master Environmental Assessment (MEA) guidelines.
Dudek		
John Davis IV	Senior Biologist	M.S., Biology; B.S. Ecology. Has over 15 years' experience, specializing in biological assessments; special-status plant and wildlife species surveys; habitat restoration; and environmental regulations, permitting, and compliance.

April Winecki	Coastal Planner; Senior Project Manager	B.S., Environmental Studies. Expert in California Coastal Commission procedures, including the facilitation of LCP amendments and policy consistency analysis. Experienced in land development permit processing, environmental planning, impact and constraint analysis, condition compliance, and mitigation monitoring.
Kimley-Horn and Associates		
David K. Sorenson, PE	Senior Traffic Engineer	M.S., Transportation Planning; B.S. Civil Engineering. Specializes in traffic impact analysis, traffic operations, traffic modeling, military projects, transit planning, community planning, and master planning. Conducted hundreds of transportation and mobility studies ranging from airports, hospitals, shopping centers, military bases, and other commercial and residential developments.
David Park, PE	Traffic Analyst	M.S., Civil and Environmental Engineering (Transportation); B.S. Civil and Environmental Engineering. Specializes in traffic impact analysis studies and has conducted reports for airports, schools, casinos, military bases, residential lots, shopping centers, and other commercial developments.

8.2 LIST OF AGENCIES CONSULTED

The following agencies were notified and input solicited regarding the preparation of this EIR:

California Department of Transportation (Caltrans) – Division of Aeronautics
Caltrans, District 5
California Environmental Protection Agency, Air Resources Board
California Governor's Office of Planning and Research (State Clearinghouse)
California Highway Patrol
California Natural Resources Agency, Department of Conservation
California Natural Resources Agency, Department of Fish and Wildlife (CDFW), Region 5
California Natural Resources Agency, Department of Parks and Recreation
California Natural Resources Agency, Department of Water Resources
California Natural Resources Agency, Office of Historic Preservation
City of Goleta, Advanced Planning Division
City of Goleta, Public Works Department
Federal Aviation Administration (FAA), Western-Pacific Region, Los Angeles Airport District Office
Goleta Slough Management Committee (GSMC)
Native American Indian Commission

Regional Water Quality Control Board, Central Coast Region (3)
Santa Barbara County Air Pollution Control District (SBCAPCD)
Santa Barbara County Association of Governments (SBCAG)
Santa Barbara County Flood Control and Water Conservation District (SBFCD)
University of California, Santa Barbara (UCSB)

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8.4 ACRONYMS AND ABBREVIATIONS

A.B. – Assembly Bill (California State legislature)
ACM – asbestos-containing materials
A.D. – anno domini (dating system using the birth of Christ as a reference point in time)
ADT – average daily traffic/trips
AHPA – *Archaeological and Historic Preservation Act of 1974*
AIA – Airport Industrial Area
AIP- Airport Improvement Program
ALUC – airport land use commission
ALUCP – Airport Land Use Compatibility Plan

ALUP – Airport Land Use Plan
APCD – Air Pollution Control District
ARC – Airport Reference Code
ARFF – aircraft rescue and firefighting
ASOS – automated surface observation system
ASV – annual service volume (defined as the number of annual aircraft operations that may be accommodated by the runway system at an airport)
ATC – Authority to Construct (type of permit from APCD)
ATCT – airport traffic control tower
A-A-O zone – Airport Approach and Operations (City of Santa Barbara)
A-C zone – Airport Commercial (City of Santa Barbara)
A-F zone – Airport Facilities (City of Santa Barbara)
A-1-1 & 2 zones – Airport Industrial (City of Santa Barbara)

BAAQMD – Bay Area Air Quality Management District
BMPs – best management practices

CAAQS – California Ambient Air Quality Standards
Caltrans – California Department of Transportation
CAP – *Clean Air Plan*
CARB – California Air Resources Board
CAT – Category
CBIA – California Building Industry Association
CBSC – California Building Standards Commission
CCC – California Coastal Commission
CCR – California Code of Regulations
CDFG – California Department of Fish and Game (in January 2013, the CDFG was renamed CDFW)
CDFW – California Department of Fish and Wildlife
CDP – Coastal Development Permit
CEQA – *California Environmental Quality Act*
CERCLA – *Comprehensive Environmental Response, Compensation, Liability Act* (also known as Superfund)
CESA – *California Endangered Species Act*
CFCG – *California Fish and Game Code*
CFR – Code of Federal Regulations
CH_4 - methane
CIP – Capital Improvement Program
CIWMP – *California Integrated Waste Management Plan*
CMP – Congestion Management Plan
CNDDB – California Natural Diversity Database
CNEL – Community Noise Equivalent Level
CNPS – California Native Plant Society
CO – carbon monoxide
CO_2 -carbon dioxide
CRHR – California Register of Historic Resources

CRPR – California Rare Plant Rank
CSC – California Species of Concern
CWA – Federal *Clean Water Act*
cy – cubic yards
C-M zone – Commercial Manufacturing (City of Santa Barbara)
C-R zone – Commercial Recreation (City of Santa Barbara)

DNL (also known as L_{dn}) – Day-Night Noise Level
DOD – Federal Department of Defense
DOT – Federal Department of Transportation
DPR – California Department of Parks and Recreation
DPS – distinct population segment
DTSC – California Department of Toxic Substances Control
DTWL – dual tandem wheel loading
du – dwelling unit
DWL – dual wheel loading

EB – eastbound
EDMS – Emissions and Dispersion Modeling System (a computer program developed by the military and FAA to assess the air quality impacts of proposed airport development projects)
EFH – Essential Fish Habitat
EIR – Environmental Impact Report
E.O. – Executive Order
EPA – Federal Environmental Protection Agency
ESA – Federal *Endangered Species Act*
ESHA – environmentally sensitive habitat area (areas protected by the *California Coastal Act*)

FAA – Federal Aviation Administration
FAC – Facultative; equally likely to occur in wetlands (estimated probability 34 – 66 percent) or non-wetlands
FBO – fixed base operator
FEMA – Federal Emergency Management Agency
FIRM(s) – Flood Insurance Rate Map(s)
FP – Fully Protected
FR – Federal Register
FUDS – Formerly Used Defense Sites
FY – fiscal year

GA – general aviation
Gal. – gallon (or gallons)
GHG(s) – greenhouse gas (or gases)
GPS – global positioning system
GSE – ground service equipment
GSEMP – *Goleta Slough Ecosystem Management Plan*
GSER – Goleta Slough Ecological Reserve

GSMC – Goleta Slough Management Committee
GSSMCA – Goleta Slough State Marine Conservation Area
GWP – global warming potential
GVSH – Goleta Valley Cottage Hospital
G-S-R zone – Goleta Slough Reserve Zone (City of Santa Barbara)

HABS/HAER - Historic American Buildings Survey/Historic American Engineering Record
HCM – Highway Capacity Manual
HIRL – high intensity runway edge lighting
HMMP – habitat mitigation and monitoring plan
H_2O – water vapor

ICC – International Code Council
ICU – Intersection Capacity Utilization method
ILS – instrument landing system
IPCC – Intergovernmental Panel on Climate Change
IUCN – International Union for Conservation of Nature and Natural Resources
IWMF – Integrated Waste Management Facility

LAX – Los Angeles International Airport
LCP – Local Coastal Program
LiDAR – Light Detection and Ranging topographic data
LNAV – lateral navigation
LOS – Level of Service
LPV - localizer performance with vertical guidance
LR – locally rare (per *Rare Plants of Santa Barbara County*)
LSA – Lake and Streambed Alteration

MALSR – medium intensity approach lighting system (with runway alignment indicator lights)
MARA – *Master Archaeological Resources Assessment for the Santa Barbara Municipal Airport*
MBTA – *Migratory Bird Treaty Act of 1918*
MCAS – Marine Corps Air Station
MCMs – minimum control measures
MEA-CR – *Master Environmental Assessment* and its *Guidelines for Archaeological Resources and Historic Structures and Sites* (City of Santa Barbara document)
MIRL – medium intensity runway edge lighting
MITL – medium intensity taxiway lighting
MMRP – mitigation, monitoring, and reporting program
MOA – Memorandum of Agreement
MPA – marine protection area
MRS – Munitions Response Site
MSA - *Magnuson-Stevens Fishery Conservation and Management Act*
msl – mean sea level

MT CO_2e – metric tons of carbon dioxide equivalent (GHG emissions are typically measured in terms of pounds or tons of "CO_2 equivalent" [CO_2e]. The CO_2e for a gas is derived by multiplying the mass of the gas by the associated global warming potential [GWP], i.e., potential of a gas or aerosol to trap heat in the atmosphere, such that MT CO_2e = [metric tons of a GHG] x [GWP of the GHG]. For example, the GWP for CH_4 is 21.)
MTD – Metropolitan Transit District
M-RP zone – Industrial Research Park (City of Goleta)
M-S-GOL zone – Service Industrial (City of Goleta)

NAAQS – National Ambient Air Quality Standards
NAVD88 – North America Vertical Datum of 1988
NB – northbound
NEPA – *National Environmental Policy Act*
NHPA – *National Historic Preservation Act of 1966*
NOAA – National Oceanic and Atmospheric Administration
NOAA Fisheries – National Marine Fisheries Service
NOP – Notice of Preparation
NO_2 – nitrogen dioxide
NO_x – nitrogen oxides
NPDES – National Pollutant Discharge Elimination System
NPIAS – National Plan of Integrated Airport Systems
NPL – National Priorities List
NPS – National Park Service
NRC – Natural Research Council
NRHP – National Register of Historic Places
N_2O – nitrous oxide

OHP – California Office of Historic Preservation
OHWM – ordinary high water mark
OPR – Governor's Office of Planning and Research
O_3 - ozone

PAC – Airport Master Plan advisory committee
PAPI – precision approach path indicator
Pb – lead
PCBs – polychlorinated biphenyls
PM – particulate matter
$PM_{2.5}$ – particulate matter measuring 2.5 micrometers in diameter
PM_{10} – particulate matter measuring 10 micrometers or less in diameter
PRC – California Public Resources Code
PTO – Permit to Operate (type of permit from APCD)
PU zone – Public Utility (County of Santa Barbara)
PUC – California Public Utilities Code
PWRP – programmatic wetland restoration plan
P-R zone – Park & Recreational (City of Santa Barbara)

RCRA – *Resource Conservation Recovery Act*
R&D – research and development
REC zone – Recreation (County of Santa Barbara)
REIL – runway end identifier lighting
ROC – reactive organic compounds
RPZ – runway protection zone
RTP-SCS – *Regional Transportation Plan and Sustainable Communities Strategy*
RSA – runway safety area
RVZ – runway visibility zone
RWQCB – Regional Water Quality Control Board

SAA – *State Aeronautics Act*
SB – southbound
S.B. – Senate Bill (California State legislature)
SBA – Santa Barbara Municipal Airport
SBCAG – Santa Barbara County Association of Governments
SBCAPCD – Santa Barbara County Air Pollution Control District
SBFCD – Santa Barbara County Flood Control and Water Conservation District
SCH – State Clearinghouse (California Office of Planning and Research)
sf – square foot (or feet)
SMOOTH – Santa Maria Organization of Transportation Helpers
SO_2 - sulfur dioxide
SO_x - sulfur oxides
SPCC – spill preventions control and countermeasures
SP-6 zone – Airport Industrial Area Specific Plan (City of Santa Barbara)
SR – State Route
SWL – single wheel loading
SWMP – Storm Water Management Program
SWPPP – storm water pollution prevention plan
sy – square yard (or yards)
S-D-3 zone – Special District 3 Coastal Overlay (City of Santa Barbara)

TAF – Terminal Area Forecast
TDM – travel demand management
TOFA – taxiway object free area
tpy – tons per year
TRACON – Terminal Radar Approach Control
TSCA – *Toxic Substances Control Act*
tsf – thousand square feet

U.S. – United States
USACE – United States Army Corps of Engineers
USC – United States Code
UCSB – University of California, Santa Barbara
USFWS – United States Fish and Wildlife Service

USGS – United States Geologic Survey
USTs – underground fuel storage tanks
UXO – unexploded ordnance

V/C – volume to capacity ratio
VMT – vehicle miles traveled
VNAV – vertical navigation
VOCs – volatile organic compounds
VOR – very high frequency omni-directional range

WB – westbound
WHA – Wildlife Hazard Assessment
WHMP – Wildlife Hazard Management Plan
WQMP – Water Quality Mitigation Plan

Zone AE – FEMA flood zone definition indicating a Special Flood Hazard Areas Subject to Inundation by the 1% Annual Chance Flood where Base Flood Elevations have been determined.

Appendix A

Local Runway Safety Action Plan

Santa Barbara Municipal Airport

Santa Barbara, California

April 19, 2012

Approval by: _____ **Date:** 6/12/12

Manager, ATCT Facility

Concurred by: _____ **Date:** 6/14/2012

AWP Runway Safety Program Manager

LOCAL RUNWAY SAFETY ACTION PLAN
Santa Barbara Municipal Airport
April 19, 2012

I. Introduction

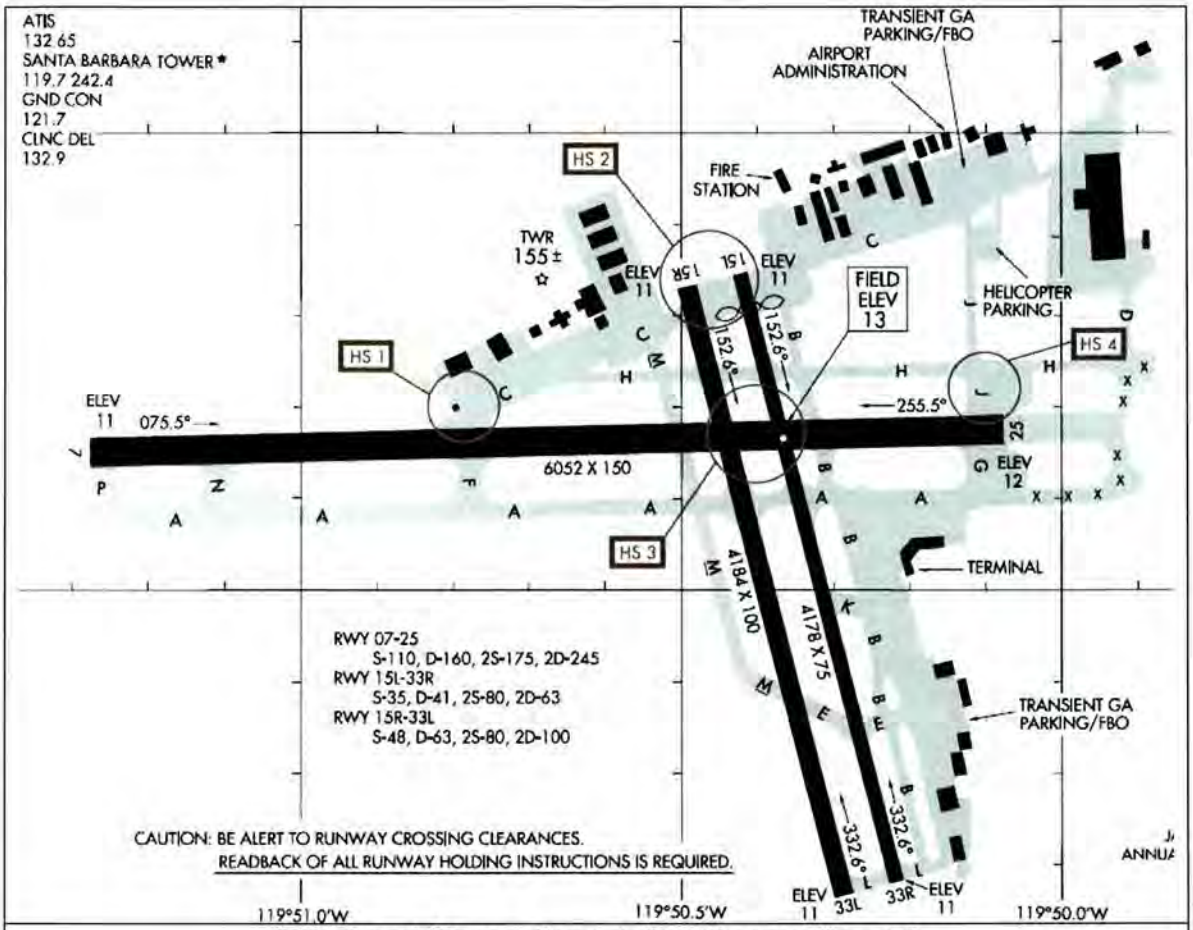
A. General Description of the Airport

Aviation near the City of Santa Barbara began in 1914 when Lincoln J. Beachey flew an airplane across Goleta Valley. Two years later the Loughead brothers, who later changed their name to Lockheed, established a seaplane factory on State Street and constructed a wooden ramp on West Beach to launch their planes. A flight school was started in a cow pasture near the corner of Hollister and Fairview Avenues about 1928, and that was the beginning of what was to become the Santa Barbara Municipal Airport. Commercial Air services started in Santa Barbara around 1932. The recently updated original historic Spanish-style terminal building was designed and built following the war, by the architectural team of William Edwards and Joseph Plunkett. The war film "Flying Leathernecks", staring John Wayne, was shot in Goleta. University of California, Santa Barbara shares one border of the present day airport property, and was the reason for the closure of an older airport Runway 3/21. Today the airport is owned and operated by the City of Santa Barbara and encompasses 948 acres.

The Santa Barbara Municipal Airport (SBA) listed 196 based aircraft at the end of 2010 including 29 jets, and 6 helicopters. Airport Operations were 148,440 at the end of 2010 as well, however annual operations have fallen to about 107,000 per year recently. Three runways are currently used: Runway 7/25 that is 6052 X 150 feet, and two parallel Runways 15L/33R and Runway 15R/33L which are 4178 X 75 feet and 4184 X 100 feet respectively. Airport Reference Code (ARC) C-IV represents the planning design goal for Runway 7/25 with the Boeing 757 listed as a Design Aircraft. Runways 15L/33R and 15R/33L have an existing and ultimate ARC of B-I (exclusively small aircraft) with the Beech Baron 58 listed as the Design Aircraft. ARC Code C-IV corresponds to aircraft with approach speeds of less than 141 knots, wingspans of less than 171 feet, and tail heights of less than 60 feet. ARC Code B-1 (small) corresponds to aircraft with approach speed of less than 112 knots, and wingspans of less than 79 feet. Runway 15R/33L has medium intensity runway perimeter edge lighting and Runway 15L/33R is not lighted. Runway 7/25 is marked as a precision instrument runway with an Instrument Landing System (ILS) and a Medium Approach Lighting System (MALSR) with high intensity runway perimeter edge lighting. A recent runway threshold relocation project on Runway 7/25 effectively provides for full 1000 foot Runway Safety Areas (RSA(s)) before and beyond each runway end with an unobstructed airport Runway Visual Zone (RVZ). An airport Master Plan update is currently underway. SBA serves as a regional Air Attack Firebase on a seasonal basis, and has several Fixed Base Operators and Flight Schools.

B. Incident History

Date	RI or SI	Severity Category	Incident Type Category	Incident Runway Location/Taxiway	Report Narrative
3/10/2012	RI	D	PD	15L / Charlie	C150 was issued taxi instructions from the North East corner to Runway 15L via Taxiway Charlie. Full pilot read-back was correct. After completing run-up the pilot taxied up to the Runway 15L Hold Short line, then crossed the Hold Bars without authorization. The pilot continued across Runway 15L eventually stopping short, in the Runway Protected.
2/20/2012	RI	C	PD	25 / Bravo	F900 was on final for Runway 25 when PA28R crossed Runway 25 hold line without clearance on Taxiway Bravo. The F900 was sent around. No distance reported.
11/27/2011	RI	D	PD	25 / Bravo	A Cessna C172 landed Runway 15L and requested taxi back for departure. Ground (GC) instructed the C172 to taxi on Taxiway Bravo and hold short of Runway 25. The pilot read back the hold short instructions. The C172 then crossed Runway 25 on Bravo without clearance thus conflicting with a Cirrus SR22 on final same runway. The SR22 was approximately one (1) mile final for Runway 25 when they observed the C172 entering and self-initiated a go around. The C172 was clear of runway prior to the SR22 crossing the threshold above 700 feet. No loss of separation reported.
10/9/2011	RI	C	OE	25	Training in progress on Local (LC) position. Ground (GC) coordinated a Runway 25 crossing at Taxiway Bravo with a Beech BE35. LC developmental approved the crossing and GC instructed the BE35 to cross 25 at Bravo. A VARIEZE (HXB experimental) requested departure and was cleared for takeoff on Runway 25 full length. GC observed the VARIEZE start departure roll on Runway 25 and instructed the BE35 to stop and hold position. The BE35 had already crossed the hold line but stopped midpoint between hold line and runway edge line. LC instructor then cancelled the VARIEZE? takeoff clearance and told the pilot to hold position. The VARIEZE stopped approximately 400 feet from departure point, 600 feet from Bravo, the closest horizontal proximity reported.
8/29/2011	RI	D	PD	15L	A Piper PA28A entered Runway 15L at approach end without clearance. No conflicts reported.



SBA Airport Diagram Excerpts (http://aeronav.faa.gov/)

II. RSAT Meeting Participant List

The following individuals were among those in attendance at the April 19th meeting and are members of this airport's Local Runway Safety Action Team (LRSAT):\

Todd A. Smith, SBA FAA Air Traffic Manager
Chuck Logan, SBA Operations & Noise Specialist
Tracy Lincoln, SBA Airport Operations Manager
Chris Schaefer, SBA ATCT, NATCA Representative/Specialist
Kurt Haukohl, FAA Runway Safety Program, Airport Operations Analyst

III. Runway Safety Issues and Concerns

- Mr. Smith opened the meeting and welcomed the LRSAT team members. After customary introductions of the meeting attendees, Mr. Smith asked Kurt Haukohl from the Runway Safety Program to provide some background from the national, regional and local perspectives and the changes which have been implemented.

- Due to a recent runway incursion Air Traffic inquired as to why the Runway 15L threshold was displaced and Runway 15R is not displaced. Tracy Lincoln mentioned that the displacement was due to approach sighting criteria of FAR Part 77 and a building located off the that runway end.

- Tracy Lincoln and Chuck Logan gave a brief overview of airport operations and on future construction projects scheduled for Santa Barbara Municipal Airport.

- Runway Incursions and surface incidents were reviewed and it was noted that two Hot Spots, HS-2 and HS-3 were areas of greatest concern.

IV. Best Practices

- Air traffic (ATC) offers tower tours to students and airport users on request.

- It is the policy of Airport Operations to offer controllers the opportunity to ride around on the airfield.

- The coordination and participation between Airport management, ATC, construction companies and other agencies involved in airport construction projects has been outstanding.

- Airport Operations and ATC support Surface Safety efforts on the airport and have a good day-to-day working relationship.

V. New Action Items Generated from Current LRSAT

The following is a list of new action items developed as a result of this LRSAT visit. The action items are developed to mitigate and where possible remove identified risks. Consensus is required for assignment of an action item, in particular from the organization responsible for accomplishing the action. Acceptance of an RSAP action item is voluntary.

Please note that when the phrase "LRSAT agreed" is used, this represents a consensus among the actual attendees of the LRSAT meetings (as listed in section II of this document). Proposed action items where consensus is not reached may be documented as recommendations at the discretion of the Regional Runway Safety Program Manager (RRSPM) or, in the case of Local RSATs, the Air Traffic Manager (ATM).

The action items are not a means to circumvent established procedures or practices to implement change, and may require an SRM, changes to the airport marking and sign plans require the appropriate routing/action with the FAA Airports Division, and so on. For the purpose of this action plan all Estimated Completion Dates (ECDs) are deadlines by which the responsible entity will provide updates to the Runway Safety Office as to the status of action items, including revised ECDs and proposed strategies to satisfy the items. Status categories include Open, Complete, Not Adopted (formerly Closed), Not Funded, and Continuous. All action items will be tracked by the Runway Safety Office (AJI-144), including the effectiveness of the actions taken.

In addition, the responsible parties named in the "Primary Office of Interest" section will ensure that items requiring SMS compliance will be appropriately addressed as needed.

Action Item Number:	**SBA-2012-001 (local)**
Estimated Completion Date:	**12/30/2013**
Status:	**Open**

Observation: It was noted that a number of potentially serious runway incursions have occurred at Taxiway B and involved accidental crossings of Runway 7/25 in the high energy segment of the runway. Additionally a number of Runway Incursions have occurred and continue to occur on Taxiway C, approaching the Runway 15L threshold and/or crossing Runway 15L to depart on Runway 15R. These areas are noted as Hot Spots, (HS) HS-3 and HS-2 respectively. LRSAT members believe that additional measures to get pilot's attention are needed at these locations to include In-Pavement Runway Guard Lights (RGLS).

Action Item: LRSAT agreed to seek installation of In-Pavement (LED) RGLS at Taxiway B, north and south of Runway 7/25 and secondarily on Taxiway C

protecting the Runway 15 end(s) in conjunction with upcoming local projects underway in the same areas. Airport sponsor has upcoming pavement projects and is undergoing a Master Plan update at this time. Airport sponsor will seek the first reasonable opportunity to include In-Pavement Runway Guard Lights at these all HS locations.

Responsible Regional Entity	**Contact**
SBA Airport Operations Director	Tracy Lincoln

Action Item Number:	**SBA-2012-002 (local)**
Estimated Completion Date:	**12/30/2014**
Status:	**Open**

Observation: It was noted that Runway 15L may have a displaced threshold that could be removed following a business closure north of the airport. The reason for the displacement is under study now with a Master Plan update underway. Pilots missing the Holding Position Markings and signage on Taxiway C at the Runway 15L threshold might miss seeing the runway numbers due to the displaced threshold.

Action Item: LRSAT agreed to investigate the reasons for a displace threshold on Runway 15L and seek to remove the displacement if possible and no longer necessary. A Master Plan currently underway may review alternatives for the existing runway end configuration, and if feasible and within FAA design standards, airport will remove the displaced threshold and relocate lighting as required. LRSAT felt pilot situational awareness of the upcoming runway would be improved by applying runway numbers directly in front of the runway entrance on Taxiway C.

Responsible Regional Entity	**Contact**
SBA Airport Operations Director	Tracy Lincoln

VI. Review of Previous Action Items

Action Item Number:	**SBA-2010-006**
Estimated Completion Date:	**01/30/2013**
Status:	**Open**

Observation: It was noted that air traffic must sometimes back-taxi aircraft to the numbers of Runway 7. Additionally, aircraft on the north side of Runway 7 must cross the high-energy segment of Runway 7 in order to reach the approach end of the runway. This increases the risk potential for a major runway incursion to occur.

Action Item: Recommend the airport and air traffic develop alternatives to avoid having aircraft taxi on the runway and crossing the high-energy segment of the runway. Recommend they include but not limit their options to rerouting aircraft on the ground via existing taxiways and pursuing plans to extend Taxiway H to the approach end of Runway 7 in order to eliminate crossings in the high-energy segment of the runway as well as taxiing on the runway.

Update: Upon completion of the Master Plan, extension of Taxiway H will be added to the ALP and considered in the airport improvement program.

Responsible Local Entity	**Contact**
SBA Airport Operations Manager	Tracy Lincoln

LOCAL RUNWAY SAFETY ACTION PLAN
Santa Barbara Municipal Airport
April 19, 2012

Airport Operations Summary:

From 03/2011 To 02/2012 | Facility=SBA

	IFR Itinerant					VFR Itinerant					
Date	Air Carrier	Air Taxi	General Aviation	Military	Total	Air Carrier	Air Taxi	General Aviation	Military	Total	Total Operations
Mar-11	389	1,761	1,442	51	3,643	0	44	2,119	46	2,209	8,943
Apr-11	393	1,678	1,406	78	3,555	0	65	2,312	21	2,398	8,818
May-11	418	1,808	1,519	96	3,841	0	55	2,375	35	2,465	9,697
Jun-11	306	1,927	1,760	73	4,066	0	40	1,734	24	1,798	9,025
Jul-11	278	1,938	1,620	55	3,891	0	51	2,389	23	2,463	9,225
Aug-11	274	2,001	1,567	92	3,934	0	64	2,382	42	2,488	10,004
Sep-11	227	1,894	1,609	79	3,809	0	36	1,830	30	1,896	8,051
Oct-11	278	1,854	1,502	57	3,691	0	55	2,266	32	2,353	9,208
Nov-11	191	1,887	1,334	39	3,451	0	48	2,200	31	2,279	8,248
Dec-11	190	1,890	1,070	64	3,214	0	57	2,217	27	2,301	8,722
Jan-12	222	1,878	1,133	59	3,292	0	55	2,420	32	2,507	8,477
Feb-12	199	1,846	1,252	63	3,360	0	38	2,177	37	2,252	8,650
Total:	**3,365**	**22,362**	**17,214**	**806**	**43,747**	**0**	**608**	**26,421**	**380**	**27,409**	**107,068**
Report created on Wed May 2 20:47:48 EDT 2012											
Sources: The Operations Network (OPSNET)											

Summary of Action Items to date:

ITEM STATUS	ITEM CODE
On Course	SBA-2010-006
Completed	SBA-2002-001
Completed	SBA-2002-002
Completed	SBA-2002-003
Completed	SBA-2007-001
Completed	SBA-2007-002
Completed	SBA-2007-003
Completed	SBA-2007-004
Completed	SBA-2007-005
Completed	SBA-2008-001
Completed	SBA-2008-002
Completed	SBA-2008-004
Completed	SBA-2008-005
Completed	SBA-2008-007
Completed	SBA-2008-008
Completed	SBA-2010-001
Completed	SBA-2010-002
Completed	SBA-2010-003
Completed	SBA-2010-004
Completed	SBA-2010-005
Completed	SBA-2010-007
Not Adopted	SBA-2008-003
Not Adopted	SBA-2008-006
Not Adopted	SBA-2008-009

Appendix B

SANTA BARBARA AIRPORT
WILDLIFE HAZARD ASSESSMENT

Prepared for:

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1 INTRODUCTION

This Wildlife Hazard Assessment (WHA) presents results and recommendations based on 12 months of studies of wildlife presence and wildlife attractants at the Santa Barbara Airport (SBA), as well as an assessment of current Operations procedures with regard to wildlife hazard issues at SBA. The threat of collision with wildlife is a long acknowledge hazard for aircraft. From 1990 to the end of the 2013, more than 140,000 wildlife strikes occurred in the United States, 97% of which involved birds, with mammals accounting for nearly all of the remaining strikes. During this period, the annual number of reported strikes increased more than six-fold (FAA 2014).

Wildlife strikes pose concerns for both safety and economic reasons. More than 255 people died worldwide because of wildlife strikes between 1988 and 2013. During the same period, more than 243 aircraft were destroyed. Nine percent of all reported strikes during 1990 to 2013 in the United States involved aircraft that suffered at least minor damage, including 30 (1%) that were destroyed (FAA 2014). A negative effect on flight was reported in 22% of bird strikes and 6% of mammal strikes. Precautionary or emergency landings accounted for more than half of these incidents, while aborted takeoff accounted for nearly half of the remaining incidents (FAA 2014).

1.1 Federal Aviation Regulation Part 139 Requirements

SBA is a federally obligated airport that holds an Airport Operating Certificate. Title 14, Code of Federal Regulations (CFR), Part 139, or Federal Aviation Regulations (FAR) Part 139, describes the requirements for certificate-holding airports, including requirements for managing wildlife hazards, in §§139.337 and 139.339. FAA is the agency responsible for establishing policies pursuant to FAR Part 139 and for enforcing these policies. FAR Part 139 requires preparation of a WHA and, potentially, a Wildlife Hazard Management Plan (WHMP) whenever a wildlife hazard is detected. Specifically, a certificate holder must prepare a WHA when any of the following events occurs on or near the airport:

> (1) An air carrier aircraft experiences multiple wildlife strikes;
>
> (2) An air carrier aircraft experiences substantial damage from striking wildlife. As used in this paragraph, substantial damage means damage or structural failure incurred by an aircraft that adversely affects the structural strength, performance, or flight characteristics of the aircraft and that would normally require major repair or replacement of the affected component;
>
> (3) An air carrier aircraft experiences an engine ingestion of wildlife; or

(4) Wildlife of a size, or in numbers, capable of causing an event described in paragraphs (b)(1), (b)(2), or (b)(3) of this section is observed to have access to any airport flight pattern or aircraft movement area" (14 CFR 139.337).

1.1.1 Federal Aviation Administration Requirements for a Wildlife Hazard Assessment

FAA outlines the requirements of a WHA in *Draft Advisory Circular (AC) 150/5200-XX Protocol for Conduct and Review of Wildlife Hazard Site Visits, Wildlife Hazard Assessments, and Wildlife Hazard Management Plans* (FAA 2007). A WHA must be conducted by a Biologist who meets the qualifications outlined in *AC 150/5200-36A Qualifications for Wildlife Biologist Conducting Wildlife Hazard Assessments and Training Curriculum for Airport Personnel Involved in Controlling Wildlife Hazards on Airports* (FAA 2012). The purpose of the WHA is to "provide a baseline of data and understanding of wildlife species considered hazardous on or near an airport and of attractants that provide food, water, and shelter. The Assessment also identifies wildlife trends at the airport (location of wildlife hazards and seasonality of wildlife) and how these fluctuations in behavior and abundance may affect aviation safety, with particular emphasis to wildlife strikes to aircraft" (FAA n.d.). The WHA describes the situation that prompted the WHA under FAR Part 139, what species occur at the airport (including legal status, movement patterns, and seasonal patterns), the features that attract wildlife to the airport and vicinity, the nature of the wildlife hazards, and recommendations for mitigating wildlife hazards (14 CFR 139.337; FAA n.d.). Surveys include a minimum of 12 months of data collection for bird surveys and two sampling trips per month, with surveys occurring in the morning, midday, and evening; mammalian surveys; and data from other sources. The latter may include published data or studies; National Environmental Policy Act (NEPA) documents; wildlife management or monitoring logs kept by Air Traffic Control (ATC), wildlife management, or patrol; and other sources. Point count stations are established on site and off site to collect data for assessing bird populations. Mammal surveys may include night-time spotlighting (vehicle surveys) and small mammal trapping. Analysis includes numbers of birds recorded during each survey per species, the number of locations at which different species were observed, seasonal and daily patterns in observations, and habitat types used by wildlife. The WHA should also include a basic habitat survey and evaluation, and a basic assessment of airport and aircraft operations.

1.1.2 Wildlife Hazard Management Plans

The finished WHA is submitted to FAA for review and approval, and to determine whether or not the airport must prepare a Wildlife Hazard Management Plan (WHMP). The decision on whether a WHMP should be prepared is based on results and recommendations presented in the WHA, but certificate-holding airports typically are required to prepare one. Specific

recommendations presented in the WHA for reducing wildlife hazards serve as the basis for the WHMP, which is also prepared in accordance with FAR Part 139.337, subparts (d), (e), and (f).

1.2 Wildlife Hazard Assessment at the Santa Barbara Airport

The current *Santa Barbara Municipal Airport Wildlife Hazard Management Plan* notes wildlife hazards existing at the Santa Barbara Airport and outlines measures to manage these hazards (City of Santa Barbara 2008). "Based on historical strike data and damage potential by behavior and size," the WHMP identifies bird guilds that present the greatest hazard to aircraft as raptors, gulls, pigeons and doves, and waterfowl (which includes ducks and geese). It also discusses specific wildlife attractants and identifies additional wildlife species that could be of concern, such as coyotes (*Canis latrans*) and swallows. Other species that occur regularly or in high numbers at the Santa Barbara airport and that are on the list in AC 150/5200-33B, an advisory circular describing *Hazardous Wildlife Attractants on or Near Airports* (FAA 2007), include herons and egrets, vultures, cormorants, crows, and shorebirds.

Wildlife hazards have been a guiding force in planning efforts at the Santa Barbara Airport, and Goleta Slough in particular, for many years. The process for developing the current SBA *Aviation Facilities Plan* began in 1991 (City 2002). In the early 2000s, among projects proposed under the *Aviation Facilities Plan*, FAA prioritized extension of the Runway Safety Areas associated with Runway 07/25. Because of impacts to Goleta Slough, SBA and government agencies and other stakeholders worked together to develop a restoration plan to mitigate for the Runway Safety Projects that included restoration of tidal circulation to parts of Goleta Slough, intended to improve the ecological function of the estuary (Ledbetter and Gray 2002). Baseline data on avian use of Goleta Slough, SBA, and surrounding habitats was collected in 2001-2002 and described in URS Corporation (2003). When the initial project to begin restoring tidal circulation to Basin E/F was implemented in 2005, a three-year study was conducted to determine the effect of the restoration effort on bird strike hazards (URS Corporation 2008a, 2008b, 2009). In 2010, after restoration was determined not to have increased the hazard from bird strikes, tidal influence was restored to the remainder of Basin E/F.

Prior to 2012, the Santa Barbara County Flood Control District (SBCFCD) possessed permits to periodically unblock the mouth of Goleta Slough. When SBCFCD's permits expired in 2012, the National Marine Fisheries Institute indicated that it would not consent to the issuance of new permits unless a study was undertaken of the impacts of breaching the slough mouth on the southern steelhead California distinct population segment (DPS; *Oncorhynchus mykiss irideus*), listed under the federal Endangered Species Act (ESA) as endangered in the region. In the winter of 2012-2013 and into the spring 2013, with the slough mouth blocked, areas that had previously been tidal were inundated as waters rose. A survey of bird presence in areas surveyed during studies conducted during the Tidal Restoration Demonstration Project showed that the numbers

of birds associated with a high hazard for aircraft were highly elevated in April 2013 compared to previous years (Dudek 2013). Emergency permits were obtained in 2013 to siphon water from the slough to reduce the bird-strike hazard. Twice subsequently, emergency permits have been obtained to breach the slough mouth when rising waters threatened to flood SBA and surrounding areas. SBA initiated a project to study the effects of water levels on steelhead and the tidewater goby (*Eucyclogobius newberryi*), another fish species listed as endangered under ESA, as well as on bird-strike hazards. Until a final plan for managing the slough mouth is devised, the nature of the bird strike hazard going forward at SBA cannot be precisely known.

1.3 Wildlife Strikes: Background

Numerous wildlife species at airports pose a hazard to aircraft, but the principal species involved in wildlife hazards vary considerably by region and specific location. In 2007, the Federal Aviation Administration (FAA) issued AC 150/5200-33B (FAA 2007). This advisory circular included a ranking and relative hazard score for species groups occurring at airports in the United States, based on data from FAA's National Wildlife Strike Database, January 1990-April 2003 (Table 1).

Table 1
Ranking of 25 Species Groups as to Relative Hazard to Aircraft in the United States [1]

Species Group	Composite Ranking [2]	Relative Hazard Score
Deer	1	100
Vultures	2	64
Geese	3	55
Cormorants/pelicans	4	54
Cranes	5	47
Eagles	6	41
Ducks	7	39
Osprey	8	39
Turkey/pheasants	9	33
Herons	10	27
Hawks (buteos)	11	25
Gulls	12	24
Rock pigeon	13	23
Owls	14	23
Horned lark/ snow bunting	15	17
Crows/ravens	16	16
Coyote	17	14
Mourning dove	18	14
Shorebirds	19	10
Blackbirds/starling	20	10
American kestrel	21	9
Meadowlarks	22	7
Swallows	23	4
Sparrows	24	4
Nighthawks	25	1

[1] – Federal Aviation Administration, National Wildlife Strike Database, January 1990-April 2003.
[2] – The composite ranking and relative hazard score were based three variables: 1) aircraft incurring at least some damage from a wildlife strike; 2) aircraft incurring damage that adversely affected the structure strength, performance, or flight characteristics, and which would normally require major repair or replacement of the affected component, or the damage sustained makes it inadvisable to restore aircraft to airworthy condition; and 3) aircraft aborting takeoff, engine shutdown, precautionary landing, or other.

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2 AIRPORT SETTING

2.1 Location

The 948–acre Santa Barbara Airport is located in the City of Santa Barbara (Figure 1). It is surrounded by the City of Goleta, the County of Santa Barbara, and the University of California, Santa Barbara (UCSB). The Pacific Ocean is approximately 275 feet the south of SBA (Figure 2, Figure 3). The Airport is bordered on the south by Mesa Road, UCSB, and Goleta Beach County Park; on the west by S. Los Carneros Road; on the north by Hollister Avenue and the Union Pacific railroad tracks, and, on the east by State Route 217 (SR217), Moffett Place, Fowler Road, and Fairview Avenue.

2.2 Land Uses

Portions of the Santa Barbara Airport not currently occupied by facilities consist of a major portion of the Goleta Slough Ecological Reserve and a variety of modified upland habitats. Two major creeks, Tecolotito and Los Carneros Creeks, along with tidal channels such as the Mesa Road Tide Channel, traverse the area. Most of the lands immediately surrounding the airport are developed. The University of California, Santa Barbara, lies immediately to the southwest. Lands to the west include a mixture of commercial and residential development, interspersed with open space. Commercial developments occupy most of the lands to the north and east, although a variety of undeveloped lands, open spaces, and agricultural lands are interspersed throughout this area.

2.3 Wildlife Attractants

A wide variety of attractants exist both on the Santa Barbara Airport and nearby. Due to its coastal location, many wetlands occur in the area, including tidal marshes, seasonal wetlands, and creeks. Several parks and other protected areas provide important attractants for many bird species. Several public facilities, including the Goleta Sanitary District Plant and the Goleta Transfer Station, attract waterfowl, shorebirds, and gulls. While many of these attractants occur on site and represent opportunities to manage wildlife hazards, others occur off site or are protected. Principal among these is the Goleta Slough Ecological Reserve, which occurs mostly within SBA property (Figure 4). This reserve is an important site for Belding's savannah sparrow (*Passerculus sandwichensis beldingi*), listed as endangered under the California Endangered Species Act (CESA), and other sensitive species, as well as of the site of several restoration sites established as mitigation for past airport projects. Likewise, a mosaic of bird attractants occurring off site influences the activity of birds and other wildlife on and around the airport, and thus influences the bird strike hazard (Figure 5). For example, a variety of sites, including the Goleta Sanitary District Plant, Lake Los Carneros Park, the lagoon at UCSB, Devereux Slough,

Rancho Goleta Mobile Home Park, and Laguna Blanca (at the La Cumbre Country Club in Hope Ranch), influence the movement of gulls in the vicinity of the Santa Barbara Airport, and thus influence wildlife hazards at the airport. Gulls resting on the Pacific Ocean in Goleta Bay or at the mouth of Goleta Slough (Goleta Beach County Park) travel inland to these locations, often crossing the airport en route. Off-site attractants noted during surveys included the following:

1. Devereux Slough (approximately 1.25 mi SW of Runway 07). This coastal lagoon attracts many water-dependent species. Depending on conditions, this site may attract hundreds of shorebirds during spring and late summer/early fall, if significant mudflats are present, or large numbers of waterfowl, if the lagoon is flooded, especially during winter. Smaller flocks of gulls and terns may rest here at any season. Other species occurring in smaller numbers include double-crested cormorants (*Phalacrocorax auritus*), great blue herons (*Ardea herodias*), great egrets (*Ardea alba*), and snowy egrets (*Egretta thula*). On rare occasion, dozens of the latter two species may occur, especially in summer. This location was visited on December 7, 2014, and February 8, March 8, March 22, May 10, June 12, July 4, and July 11, 2015, during surveys.

2. Cabrillo Business Park Wetlands (approximately 0.3 mi W of Runway 07, within the approach). This is a mitigation site for a private development that is still under construction. Waterfowl and shorebirds occur here during wet periods. Although the numbers are small, these are in the direct approach to Runway 07 and in close proximity. This location was visited on December 24, 2014, during surveys.

3. Lake Los Carneros, Lake Los Carneros Park (approximately 0.75 mi NNW of Runway 15R and approximately 0.85 mi N of Runway 07). This artificial lake attracts a variety of hazardous species. It attracts dozens of gulls from fall to spring. Waterfowl are present year-round, with numbers peaking during winter, when a variety of ducks may be present. Smaller numbers of other water birds, such as double-crested cormorants, are attracted here as well. This location was visited on December 31, 2014, and January 24 and September 5, 2015, during surveys. In addition, an off-site point count station (14) was located approximately 0.15 mile northwest of the lake during surveys, although the lake itself was not visible from the station.

4. University of California, Santa Barbara, lagoon (approximately 0.8 mi SW of Runway 33L). This coastal lagoon attracts several hazard species. Double-crested cormorants may roost on snags here at any season, sometimes numbering more than 200 from fall through spring (eBird 2015). A variety of waterfowl can occur, and several hundred may be present in winter. Brown pelicans (*Pelecanus occidentalis*) and several species of gulls and terns often occur here, as well. This location was visited on January 17, 2015, during surveys.

5. Goleta Beach County Park (adjacent to SBA and approximately 0.2 mi SSE of Runway 33R). The mouth of Goleta Slough attracts a variety of shorebirds, gulls, ducks, herons, and egrets. A

great blue heron rookery has been present for many years at this location (Southern California Gas property, north side of the slough mouth), numbering between 10 and 18 nests per year (Lehman 2014). A smaller rookery of great egrets has become established since 2002. A rookery of double-crested cormorants was first noted in 2008, and as many as 37 nests (May 20, 2012) have been noted (eBird 2016). All three of these species may commute regularly between this location and the Santa Barbara Airport during the nesting season, when feeding young. This location was visited during surveys on December 21, 2014, and January 12, February 2, February 8, June 28, September 29, October 14, November 14, and November 15, 2015.

6. Goleta Bay (immediately south of Goleta Beach County Park and approximately 0.3 mi S of Runway 33R and 33L). Although Goleta Bay represents the nearest extent of the Pacific Ocean to the airfield, the entire coastline east of Naples to nearly to Hendries Beach is within 10,000 feet of the airfield. One off-site point count station (12) was located on Goleta Pier, Goleta Bay, providing data for this location. This area attracts a variety of sea birds and other water birds. Gulls sometimes roost in large numbers in Goleta Bay. Brown pelicans rest on the nearshore waters, travel in flocks along the shore, and are regularly seen plunge-diving for prey in these waters. Other species that sometimes occur in high numbers include Brandt's cormorants (*Phalacrocorax penicillatus*), double-crested cormorants, waterfowl species such as brants (*Branta bernicla*) and surf scoters (*Melanitta perspicillata*), and several low-flying species that migrate or winter along the coast, such as western (*Aechmophorus occidentalis*) and Clark's grebes (*Aechmophorus clarkii*) and several species of loon (*Gavia* sp.).

7. Goleta Sanitary District Wastewater Treatment Plant Ponds (opposite SBA and Moffett Place and approximately 0.3 mi E of Runway 33R). The settling ponds at this location normally attract a significant number of birds, including several that can be significant wildlife hazards. Waterfowl are present at all seasons, including significant numbers of wintering birds and sometimes large numbers of locally nesting species that gather here in summer, after the nesting season. The project team recorded approximately 400 ducks here in November 2015, including 250 northern shovelers (*Anas clypeata*). During summer, an observer not part of the team reported 190 mallards (*Anas platyrhynchos*), and small numbers of other duck species, on August 4, 2015 (eBird 2016). Flocks of shorebirds are sometimes present, especially during spring and late summer/early fall. Moderate numbers of gulls and rock pigeons (*Columba livia*) occur here regularly. This location was visited during surveys on November 24, 2015.

8. Rancho Goleta Mobile Home Park (approximately 0.4 mi SE of Runway 25). In some winters, the lake at this mobile home park can attract significant numbers of waterfowl and gulls. For example, one observer recorded 127 gulls of several species and 114 ducks in January 2014. This location was visited on January 1, and February 8, 2014.

9. Private Agricultural Fields, Southeastern Goleta (between 0.6 and 1.00 mi E of Runway 25, within the approach). The fields that occur in this area are not typically an attractant for hazardous wildlife species. However, during surveys, flocks of gulls were observed occasionally resting in the fields. For example, 141 gulls, mostly California gulls (*Larus californicus*), were observed here on December 14, 2014. No such flocks were observed later in the survey period. This location was visited during surveys on December 14, 2014, and January 10, October 4, and November 14, 2015. In addition, an off-site point count station was located approximately 0.14 mile from these fields during surveys, although the view to the fields was obstructed.

10. Goleta Transfer Station (approximately 3.5 ENE of Runway 25). This location is was formerly an important attractant for gulls that came to feed on waste brought here for transfer to the Tejiguas Landfill, approximately 14 miles west of the airport. However, the recent employment of a falconer apparently has resulted in a decline in numbers of gulls here, and none were observed during a visit to this location during surveys. This location was visited during surveys on November 24, 2015.

11. Laguna Blanca, La Cumbre Country Club (approximately 4.0 mi E of Runway 25, within the approach). This artificial lake attracts a variety of water birds, although waterfowl and gulls are the species of primary concern. Dozens of gulls and several hundred ducks and geese may gather here during the winter. A flock of hundreds of American coots (*Fulica americana*), particularly given the distance of this location from SBA, were not a wildlife hazard at this location. Although high numbers of water birds were observed here during a visit early during surveys, persistent drought conditions resulted in the lake becoming dry later in the period. This location was visited on February 28, 2015, during surveys.

2.3.1 Open Water

Open water occurs on SBA property within the Goleta Slough Ecological Reserve. It persists year-round in areas such as Basins A/H and E/F and along the creeks that merge in Goleta Slough (Tecolotito and Los Carneros Creeks on SBA property and several other creeks off-site, east of the airport), where the extent of open water may vary with tides. As the mouth of Goleta Slough is currently allowed to remain closed for long periods, the extent and persistence of open water in these areas may be higher when the mouth is closed than when it is open and the estuary is tidal. In addition, several areas, notably Basins K and L/M, which never or very rarely receive any tidal influence, may collect large amounts of rainwater and support expanses of open water for months at a time.

Under the management regime that existed prior to late 2012, large parts of Goleta Slough were tidal, and open water typically existed in narrow channels in tidal areas of the slough, except during brief periods at high tide. The Santa Barbara County Flood Control District (SBCFCD)

maintained the mouth of Goleta Slough by mechanical means as part of its routine maintenance operations between the 1970s and late 2012 (Padre and Associates 2010). However, SBCFCD's permits to maintain the slough mouth expired in late 2012, and the National Marine Fisheries Service (NMFS) indicated that mechanical breaching of the slough could not continue under any new permits without an assessment of potential impacts to southern steelhead, federally listed as endangered. As the mouth of Goleta Slough is currently allowed to remain closed for long periods, the extent and persistence of open water in these areas may be higher when the mouth is closed than when it is open and the estuary is tidal.

Open water attracts a variety of water-dependent birds: ducks, including species occurring year-round, such as mallards and gadwalls (*Anas strepera*), and those occurring from fall to spring, such as northern shovelers, American wigeons (*Anas americana*), and buffleheads (*Bucephala albeola*); Canada geese (*Branta canadensis*) and other geese species; double-crested cormorants; and several species of herons and egrets, including great blue herons, great egrets, and snowy egrets. Gulls, which are larger birds that are mostly seen in transit over the airport, occasionally are found in open water in Goleta Slough, but more often are found using open water in off-site locations such as Goleta Beach County Park, Lake Los Carneros, and Laguna Blanca. Other species that are common in open water on SBA, such as American coots and pied-billed grebes (*Podilymbus podiceps*) rarely take flight and are less hazardous to aircraft.

2.3.2 Pickleweed Marsh

Pickleweed marsh, an herbaceous community dominated by pickleweed (*Salicornia pacifica*), occurs widely within the Goleta Slough Ecological Reserve on SBA property. As noted above, since 2012, tidal influence occurs in Goleta Slough only periodically. When the slough mouth is closed, no tidal influence occurs, and areas of open water may gradually increase as freshwater enters the slough from the several creeks that converge in the Goleta Slough area. Therefore, the amount of pickleweed marsh may vary depending, not only on tidal fluctuations, but also on whether the slough mouth is open or closed. However, in other areas, especially Basin L/M, pickleweed marsh is flooded only as a result of seasonal rains.

Pickleweed marsh is generally associated with small songbirds not generally considered hazardous to aircraft. The principal year-round resident of these areas is Belding's savannah sparrow, listed as endangered under CESA. Other species of songbirds, including song sparrows (*Melospiza melodia*), common yellowthroats (*Geothlpis trichas*), and (in winter) marsh wrens (*Cistothorus palustris*) typically occur only around the fringes of these areas, when they are not inundated at high tides or when the mouth of Goleta Slough is closed for long periods. Occasionally, raptor species such as northern harriers (*Circus cyaneus*) and white-tailed kites (*Elanus leucurus*) may hunt in the margins of these areas.

2.3.3 Seasonal Wetlands/Pools

In addition to areas of more permanent open water and human-created basins that hold water for months out of the year, seasonal pools and wetlands are found in various locations on and around the airport that are inundated for brief periods. These include vegetated wetlands and bare areas that temporarily hold water during rainy periods. The low elevation of the airfield presents challenges in draining the area in wetter periods. Water may collect in temporary pools in otherwise grassy or bare areas adjacent to runways and taxiways, attracting shorebirds such as greater yellowlegs (*Tringa melanoleuca*), willets (*Tringa semipalmatum*), whimbrels (*Numenius phaeopus*), marbled godwits (*Limosa fedoa*), and long-billed curlews (*Numenius americanus*). Other seasonal pools around the periphery of SBA, including off-site, may support small numbers of ducks, such as mallards, gadwalls, and Amercian wigeons, during the winter and early spring. Notable areas where such pooling occurs are on the south side of Hollister Avenue near Los Carneros Way and on the west side of Los Carneros Road in the approach of Runway 07 (see above).

2.3.4 Mudflats

Mudflats, like pickleweed marsh, occur in areas that periodically receive tidal influence, and the extent of these areas may decrease when the slough mouth remains closed for long periods. When surface water elevation is particularly high for extended periods, little or no mudflats may occur in areas subject to flooding when the slough mouth is closed, including Basin A, Basin B/C, and Basin E/F. Areas not typically influenced either by high tides or the ponding that occurs when the slough mouth is closed include Basins K and L/M. Mudflats occur in these areas seasonally from moderate amounts of rain, or as waters from winter rains recede from spring to early fall.

When mudflats are present, large numbers of shorebirds can occur, particularly in Basin K. When the presence of mudflats in Basin K coincides with the migration of shorebirds, large numbers of small species such as western sandpipers (*Calidris mauri*) and least sandpipers (*Calidris minutilla*), as well as moderate numbers of medium-size such species as killdeer (*Charadrius vociferus*) greater yellowlegs, lesser yellowlegs (*Tringa flavipes*), and pectoral sandpipers (*Calidris melanotos*) may occur. In mudflats that periodically receive tidal influence, located nearer the airfield than Basin K, numbers of shorebirds tend to be relatively low. However, small to moderate sized flocks (e.g., flocks of 15, 21, and 14 during surveys in April and May 2006) of larger shorebirds, such as marbled godwits, willets, whimbrels, and long-billed curlews occasionally roost in Basin B/C.

2.3.5 Grasslands

Grass and forb lands occur in unpaved areas throughout the airfield vicinity. The level of the attractant in these areas depends greatly on the time of year and the height of the grass. When vegetation is low and food is accessible, these areas may attract flocks of birds, such as American pipits (*Anthus rubescens*; fall and winter) and killdeer. Species such as rock pigeons, European starlings (*Sturnus vulgaris*), and several blackbirds may also be attracted to areas of shorter grass, such as immediately after mowing. When the grass is too high (e.g., higher than 12 inches), bird species requiring greater cover, such as song sparrows and common yellowthroats, may occur, and small mammal numbers may increase because these species are more difficult for predators to access. Higher vegetation may also have potential to support nesting species such as colonial-nesting red-winged blackbirds (*Agelauis phoeniceus*).

Several species may occur here regardless of grass height, especially during winter. Western meadowlarks (*Sturnella neglecta*), present in flocks around the airfield from fall through early spring, may occur in short grasses, but also in medium-height grasses and forbs up to 12 inches. During wet periods, shorebirds such as long-billed curlews and whimbrels may occasionally occur in grasslands of short to moderate height, and even in vegetation greater than 12 inches in height.

2.3.6 Bare Ground

Patches of bare ground within grasslands occur throughout the airfield, adjacent to runways and taxiways. These are typically low-lying areas where pooling may occur during wet periods. Killdeer, a shorebird species often favoring bare ground, may occur here when the ground is dry. They also may occur in these areas during wet periods, as may several medium-size and large shorebirds, such as greater yellowlegs, willets, whimbrels, marbled godwits, and long-billed curlews (see 2.3.3 Seasonal Wetlands/Pools, above).

2.3.7 Coastal Scrub

Scrub habitats at SBA consist mostly of communities dominated by quailbush (*Atriplex lentiformis*), coyote brush (*Baccharis pilularis*), California sagebrush (*Artemisia californica*), and Menzie's goldenbush (*Isocoma menziesii*). These species occur in many of the restored mitigation areas in Goleta Slough Ecological Reserve, along Tecolotito and Los Carneros Creeks, and elsewhere (such as near the intersection of Hollister Avenue and Los Carneros Road, in the northwestern corner of SBA). Scrub habitats bordering the access road paralleling Taxiway A, as well as those along Los Carneros Creek, are relatively close to Runway 07 (within 600 feet). In addition, those along Tecolotito Creek near Los Carneros Rd are in the approach of Runway 07, approximately 1,100 feet from the end of the runway.

Bird species attracted to these areas are mostly smaller, non-flocking species, such as northern mockingbirds (*Mimus polyglottos*) and song sparrows. White-crowned sparrows (*Zonotrichia leucophrys*), wintering songbirds that occurs in moderate size flocks in the area, also occur here. However, these areas are often havens for medium-size mammals, especially brush rabbits (*Sylvilagus bachmani*). This species occurs throughout scrub habitats at SBA and may be an important attractant for larger raptor species, notably red-tailed hawks (*Buteo jamaicensis*) and for coyotes, a mammalian predator that may travel relatively long distances to hunting areas.

2.3.8 Ornamental Trees and Landscaping

Ornamental trees may attract flocks of foraging or roosting birds and also may support nesting and roosting raptors. Ornamental trees and landscaping occur mostly off site. Some smaller ornamental trees and shrubs occur on SBA property near the administration buildings. In addition, some planted eucalyptus trees (*Eucalyptus* spp.) and pines (*Pinus* spp.) are on SBA property at Twin Lakes Golf Course and on the west side of Fairview Avenue, in the vicinity of Verhelle Road. Ornamental shrubs, which also occur near the administration buildings north of the airfield, are not a serious concern for bird strikes when away from the airfield.

Some species that may occur in flocks in ornamental trees in winter include yellow-rumped warblers (*Setophaga coronata*), cedar waxwings (*Bombycilla cedrorum*), and other small species that are not a serious threat to aircraft. However, European starlings may roost in flocks in ornamental trees, using these locations to rest or stage between bouts of foraging in grasses around the airfield. Raptors that may nest or roost in these locations, and that may be present at any season, include red-tailed hawks, white-tailed kites, red-shouldered hawks (*Buteo lineatus*), and Cooper's hawks (*Accipiter cooperii*). The red-tailed hawk, a large species that, compared to Cooper's hawk and red-shouldered hawk, tends to forage more often in open areas as occur around the airfield, is probably the most serious bird strike concern of these species.

2.3.9 Structures/Facilities

A variety of structures and other airport facilities may attract perching, roosting, and nesting birds. Any structure or facility providing a view over the open habitats of SBA may provide perching opportunities for raptors, flycatchers, or other birds. Birds may perch on instrument landing system (ILS) structures, weather stations, airport surveillance radar (ASR) towers, fences, lights, signs, and anything else elevated above its surroundings. In addition, utility poles and wires in the airport vicinity, as occur along Hollister Avenue adjacent to SBA, provide perching opportunities for many species, including species that may occur in large flocks, such as American crows (*Corvus brachyrhynchos*) and European starlings.

Some birds may also nest or roost within structures where the opportunity exists, such as from open windows or holes in buildings. Hangars whose doors are not secured at the appropriate time of day may permit nesting or roosting rock pigeons or barn owls (*Tyto alba*) to enter and exit these buildings. Rock pigeons roosting in flocks are potentially a major safety concern. In addition, cliff swallows (*Petrochelidon pyrrhonota*) may establish nesting colonies near the airfield, and forage widely in the airfield vicinity. Other species, such as black phoebes (*Sayornis nigricans*), house finches (*Haemorhous mexicanus*), and house sparrows (*Passer domesticus*), have the potential to take advantage of a variety of crevices and contours of buildings to establish nests, although these species are small and most are not colonial nesters.

2.3.10 Security Perimeter Fence

Airport perimeter fencing is important for both security and deterring wildlife from entering the airfield. Cert Alert No. 04-16, *Deer Hazard to Aircraft and Deer Fencing* (FAA 2004) recommends perimeter fences be 10-12 feet high, with three-strand barbed-wire outriggers. Depending on the level of deer activity in the area, a fence may be as low as eight feet in height. A four-foot skirt of chain link, buried at a 45° angle, should be attached to the bottom of the fence, to prevent animals from digging under the fence. Gaps in gates should be no more than 6 inches. Other fence specifications may be acceptable, for reasons of cost and environmental impacts (FAA 2004).

2.4 Stakeholders and Environmental Planning

Both current planning efforts and recent, past projects may be relevant to wildlife hazard issues at SBA. A variety of stakeholders are involved in planning efforts at SBA and Goleta Slough.

2.4.1 Stakeholders

In addition to the Santa Barbara Airport and FAA, many stakeholders are involved in planning efforts related to SBA. Several stakeholders are represented in the Goleta Slough Management Committee (GSMC). The purpose of GSMC is "is to work cooperatively with regulatory agencies, property owners and public interest groups to provide for a healthy Goleta Slough considering the Slough's ecosystem and recognizing a mixture of land uses." Part of GSMC's mission is to develop a Goleta Slough Ecosystem Management Plan, which "integrates existing plans and information and provides an environmentally sound and coordinated approach to the Goleta Slough Ecosystem" (GSMC 2005). The Plan area includes all of Goleta Slough Ecological Reserve, as well as the entire Airport Operations Area. The Draft Plan (GSMC 1997) was funded by the City of Santa Barbara and FAA. Agencies and other organizations regularly represented in GSMC meetings and planning include SBA, UCSB, SBCFCD, California

Department of Fish and Wildlife (CDFW), and U.S. Fish and Wildlife Service (USFWS), among others.

2.4.2 Current Planning Efforts

Several planning efforts are currently underway that may affect wildlife hazards.

2.4.2.1 Santa Barbara Airport Master Plan

The Santa Barbara Airport is preparing a Master Plan to provide guidance for the airport's development through approximately 2032. It will provide "development scenarios for the short-term (2017), intermediate-term (2022), and long-term (2032)" (City 2015). The Master Plan will outline a variety of potential future developments, including terminal expansion, an extension of Taxiway H, new runway and taxiway shoulders, ramps, parking areas, and hangars, and a relocated administration building. Some developments may require mitigation, including mitigation of wetlands under the jurisdiction of the California Coastal Commission. Potential wildlife hazards will be considered in the selection of new mitigation lands, so that any restoration of mitigation lands will not result in an elevated wildlife hazard level. However, the presence of additional lands set aside as mitigation in perpetuity could further restrict SBA's ability to manage wildlife hazards on site.

2.4.2.2 Goleta Slough Mouth Management

SBA has sought the renewal of permits for managing the mouth of Goleta Slough by mechanical means. A biological technical report and biological assessment are being prepared in support of this effort. The biological assessment will propose a new course of management of the slough mouth that will aim to minimize or avoid impacts to steelhead and tidewater goby while limiting water surface elevation, thus reducing the risk of flooding and the level of wildlife hazards from water-dependent bird species attracted to Goleta Slough.

2.4.2.3 Goleta Slough Management Committee Sea-Level Rise Study and Existing Conditions

GSMC has funded a study of the potential effects of sea-level rise on Goleta Slough and the surrounding area, and to provide information for planners to cope with the potential impacts on both infrastructure and the environment. Potential planning responses to future sea-level rise could impact the severity of wildlife hazards at SBA.

2.4.3 Recent Projects

A variety of projects impacting wildlife hazards have been implemented in recent years at SBA. In 2006, Tecolotito and Carneros Creeks were rerouted to accommodate the shifting of Runway 07/25 westward. Runway safety areas were extended on both sides of Runway 07/25, a new taxiway and new service roads were built, and airfield drainage improvements were installed.

As mitigation for these projects, several restoration projects were initiated. In 2000, 25 acres of wetlands were restored at Goleta Slough to mitigate for Airfield Safety Grading. Tidal circulation was restored in two phases to Basin E/F, in 2005 and 2010. This resulted in 10.3 acres of Goleta Slough Ecological Reserve, adjacent to Taxiway A, being transformed into pickleweed marsh, from an area that had been flooded annually during the wet season, sometimes attracting large numbers of waterfowl. Other restoration efforts conducted in recent years include the restoration of 25 acres within Area I, habitat restoration along the Tecolotito Creek berms, and several projects bordering tidal and formerly tidal basins in Goleta Slough Ecological Reserve. All of the above-mentioned improvement projects and mitigation were conducted with safety considerations in mind. For example, as noted above, the three-year study conducted as part as of the Tidal Circulation Demonstration Project was undertaken to satisfy FAA concerns over potential implications for wildlife hazards (URS Corporation 2003). However, the restored sites that resulted provide habitat for wildlife.

2.5 History of Wildlife Hazard Issues at SBA

Bird strikes have long been a recognized issue at SBA. The SBA wildlife-strike database includes information on wildlife strikes since 1999 (Section 5.1; SBA 2015). GSMC (1997), although focused on management of Goleta Slough as an ecosystem, nevertheless acknowledged the “need to minimize wildlife hazards” to aircraft. In the early 2000s, the Tidal Circulation Demonstration Project, focused on mitigating impacts of airport improvement projects by increasing tidal circulation in Goleta Slough, resulted in considerable time and expense reconciling the restoration efforts with bird-strike issues and satisfying FAA concerns over the wildlife hazard implications of the mitigation effort (URS 2003, 2008a, 2008b, 2009). A three-year experiment, in which tidal circulation was first restored in a small part of the historic estuary, was conducted in 2005-2008, before a larger restoration effort was undertaken in late 2010 (URS 2008a, 2008b, 2009). During this period, the U.S. Department of Agriculture conducted a WHA, which in part served as the basis of provisions in the current WHMP, finalized in 2008 (City 2008).

This WHA was undertaken as management of Goleta Slough, a major source of wildlife hazards at SBA, is in flux. Prior to 2012, SBCFCD would address natural closures of the slough mouth resulting from buildup of beach sand by periodically cutting a channel through sand buildup to

allow tidal water movement in and out of the slough. This practice was changed in late 2012, when existing permits to maintain an open slough mouth expired. NMFS declined to assent to a renewal of permits until impacts to two federally listed fish species, steelhead and tidewater goby, were assessed (Rincon Consultants, Inc. 2015). Prompted in part by an apparent increase in numbers of waterfowl and other water-dependent bird species under closed-mouth conditions, SBA has since commissioned a study emphasizing wildlife hazards and fish habitat in open- versus closed-mouth conditions, as well as a biological assessment proposing a future management course for the slough mouth.

SOURCE: Shaded Relief

DUDEK

FIGURE 1
Regional Map

Wildlife Hazard Assessment for the Santa Barbara Airport

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SOURCE: USGS Topo 7.5 Minute Series Goleta Quadrangle
Township 4N / Range 28W / Sections 08, 17-20

FIGURE 2
Vicinity Map

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Wildlife Hazard Assessment for the Santa Barbara Airport

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SOURCE: 2012 CIRGIS 6-inch Imagery

Figure 3
Survey Grid

WILDLIFE HAZARD ASSESSMENT FOR THE SANTA BARBARA AIRPORT

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SOURCE: NAIP 2014

Figure 4
Major On-site Wildlife Attractants

WILDLIFE HAZARD ASSESSMENT FOR THE SANTA BARBARA AIRPORT

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SOURCE: 2012 CIRGIS 6-inch Imagery

DUDEK

Figure 5
Off-site Wildlife Attractants

WILDLIFE HAZARD ASSESSMENT FOR THE SANTA BARBARA AIRPORT

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3 REGULATORY CONTEXT

Many wildlife species occurring at the Santa Barbara Airport are protected by federal, state, or local regulations. The Santa Barbara Airport is responsible for adhering to all regulations regarding wildlife management. However, if necessary, waivers are required to comply with FAA regulations and guidelines when conflicting with other regulatory requirements. This section identifies regulations guiding management of wildlife occurring at the Santa Barbara Airport.

3.1 Federal Endangered Species Act

The federal Endangered Species Act (ESA) of 1973 (16 U.S.C. 1531 et seq.), as amended, is administered by USFWS and the National Oceanic and Atmospheric Administration/NMFS. This legislation is intended to provide a means to conserve the ecosystems upon which endangered and threatened species depend and provide programs for the conservation of those species, thus preventing extinction of plants and wildlife. The ESA defines an endangered species as "any species that is in danger of extinction throughout all or a significant portion of its range." A threatened species is defined as "any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." Under the provisions of Section 9(a)(1)(B) of the ESA (16 U.S.C. 1531 et seq.), it is unlawful to "take" any listed species. Take is defined in Section 3(19) of the ESA as, "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." A Final Rule published in the Federal Register on November 8, 1999 (64 FR 60727–60731), further defines "harm" as any act that kills or injures fish or wildlife, and emphasizes that such acts may include significant habitat modification or degradation that significantly impairs essential behavioral patterns (e.g., nesting or reproduction) of fish or wildlife. Further, the USFWS, through regulation, has interpreted the terms "harm" and "harass" to include certain types of habitat modification that result in injury to or death of species, which therefore are defined as forms of take. These interpretations, however, are generally considered and applied on a case-by-case basis and often vary from species to species.

Several federally listed species are known to occur or have occurred in the past, within Santa Barbara Airport property and the vicinity. The brackish waters of Tecolotito and Los Carneros Creeks, as well as other tidal channels within the slough, are occupied by the tidewater goby, a federally endangered species and a California Species of Concern. Steelhead of the southern California distinct population segment, also a federally endangered species and a California Species of Concern, may occasionally pass through Goleta Slough in transit to upstream spawning areas. The federally and state endangered light-footed Ridgway's rail (*Rallus obsoletus levipes*) and federally endangered western snowy plover (*Charadrius nivosus nivosus*) (also a California Species of Concern) both formerly bred in Goleta Slough, but are now extirpated as

breeders. The federally and state endangered least Bell's vireo (*Vireo bellii pusillus*) has also occurred on SBA property. ESA would be applicable at the Santa Barbara Airport if any recommended management actions were directed toward federally listed species or their habitat. However, permits and waivers should be sought if necessary to comply with FAA regulations and guidelines that might conflict with these regulatory requirements.

3.2 California Endangered Species Act

CDFW administers the California Endangered Species Act (CESA) (Fish and Game Code), which prohibits the "take" of plant and animal species designated by the Fish and Game Commission as endangered or threatened in the state of California. Under CESA Section 86 (Fish and Game Code), take is defined as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." CESA Section 2053 (Fish and Game Code) stipulates that state agencies may not approve projects that will "jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat essential to the continued existence of those species, if there are reasonable and prudent alternatives available consistent with conserving the species or its habitat which would prevent jeopardy."

CESA (Section 2062) (Fish and Game Code) defines an endangered species as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease." CESA (Section 2067) (Fish and Game Code) defines a threatened species as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of the special protection and management efforts required by this chapter. Any animal determined by the Commission as rare on or before January 1, 1985, is a threatened species." Candidate species are defined (CESA, Section 2068; Fish and Game Code) as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the Commission has formally noticed as being under review by the department for addition to either the list of endangered species or the list of threatened species, or a species for which the Commission has published a notice of proposed regulation to add the species to either list." CESA does not list invertebrate species.

CESA Sections 2080 through 2085 (Fish and Game Code) address the taking of threatened, endangered, or candidate species by stating, "No person shall import into this state, export out of this state, or take, possess, purchase, or sell within this state, any species, or any part or product thereof, that the Commission determines to be an endangered species or a threatened species, or attempt any of those acts, except as otherwise provided in this chapter, the Native Plant

Protection Act (Fish and Game Code, Sections 1900–1913), or the California Desert Native Plants Act (Food and Agricultural Code, Section 80001)."

One state-listed endangered species occurs widely at the Santa Barbara Airport: Belding's savannah sparrow. The pickleweed marsh in Goleta Slough provides nesting habitat for this species. Any management recommendations that could result in take of Belding's savannah sparrow or its habitat would require authorization through an incidental take permit under Section 2081 of the Fish and Game Code. Other state-listed species have occurred at the Santa Barbara Airport, including the light-footed Ridgway's rail, which also occurs in salt marsh, and least Bell's vireo, which breeds in riparian habitat in southern California. However, light-footed Ridgway's rail has not been recorded at SBA since 1969, and least Bell's vireo has been recorded once, and has not been recorded breeding. FAA CertAlert 06-07, *Requests by State Wildlife Agencies to Facilitate and Encourage Habitat for State-Listed Threatened and Endangered Species and Species of Concern on Airports,* addresses state listed species and may supersede state requirements to remain in compliance with federal aviation safety concerns (FAA 2006).

3.3 National Environmental Policy Act

Under the 1970 National Environmental Policy Act (NEPA), federal agencies are required to prepare detailed statements assessing environmental impacts, as well as related social and economic impacts, of major federal actions significantly effecting the environment. As a WHA is a study and not a project, it is not subject to NEPA review. However, implementation of some measures identified in a WHA or WHMP may be subject to NEPA review and permitting.

3.4 California Environmental Quality Act

The California Environmental Quality Act (CEQA) requires identification of a project's potentially significant impacts on biological resources and ways that such impacts can be avoided, minimized, or mitigated. The act also provides guidelines and thresholds for use by lead agencies for evaluating the significance of proposed impacts.

CEQA Guideline 15380(b)(1) defines endangered animals or plants as species or subspecies whose "survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors" (AEP 2008). A rare animal or plant is defined in Guideline 15380(b)(2) as a species that, although not presently threatened with extinction, exists "in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens; or … [t]he species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and may be considered 'threatened' as

that term is used in the federal Endangered Species Act." Additionally, an animal or plant may be presumed to be endangered, rare, or threatened if it meets the criteria for listing, as defined further in CEQA Guideline 15380(c).

As a WHA is a study and not a project, it is not subject to CEQA review. However, implementation of some measures identified in a WHA or WHMP may subject to the CEQA review and permitting process.

3.5 Clean Water Act

Pursuant to Section 404 of the Clean Water Act (CWA) of 1972, the Army Corps of Engineers (Corps) regulates the discharge of dredged and/or fill material into "waters of the United States." The Corps issues permits for projects under Section 404. The permitting process encourages avoidance and minimization of impacts to waters of the United States, and requires mitigation of unavoidable impacts. A parallel process governs Regional Water Quality Control Board (RWQCB) review of projects under Section 401 of CWA. Implementation of any measures identified in a WHA or WHMP that may result in impacts to wetlands and waters protected under Sections 404 and 401 would be subject to review by the Corps and the RWQCB.

3.6 California Fish and Game Code

Pursuant to Section 1602 of the Fish and Game Code, CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake that supports fish or wildlife.

In 14 CCR 1.72, CDFG defines a "stream" (including creeks and rivers) as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation."

In 14 CCR 1.56, CDFG's definition of "lake" includes "natural lakes or man-made reservoirs." Diversion, obstruction, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake that supports fish or wildlife requires authorization from CDFG by means of entering into an agreement pursuant to Section 1602 of the Fish and Game Code. Streambed Alteration Agreements are frequently required of projects that are also subject to review by the Corps under Section 404 of the CWA and by the RWQCB under Section 401 of the CWA.

Pursuant to Section 3503.5 of the Fish and Game Code, it is unlawful to take, possess, or destroy any birds of prey; or to take, possess, or destroy any nest or eggs of such birds. Active nests of all other birds (except introduced species such as rock pigeons, Eurasian collared-doves, house sparrows, and European starlings) are similarly protected under Sections 3503 and 3513 of the

Fish and Game Code. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered "take" by the CDFG. This statute does not provide for the issuance of an incidental take permit.

The WHA itself is not subject to provisions of either Section 1602 or Section 3503 and 3513. However, actions recommended in the WHA and included in the WHMP may potentially be subject to the Section 1602 review process and requirements of Sections 3503 and 3513.

3.7 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) was originally passed in 1918 as four bilateral treaties, or conventions, for the protection of a shared migratory bird resource (16 U.S.C. 703–712). The primary motivation for the international negotiations was to stop the "indiscriminate slaughter" of migratory birds by market hunters and others. Each of the treaties protects selected species of birds and provides for closed and open seasons for hunting game birds. The MBTA protects more than 800 species of birds that are listed in the Code of Federal Regulations (50 CFR 10.13).

The MBTA prohibits the "take" of any migratory bird or any part, nest, or eggs of any such bird. Under the MBTA, take is defined as pursuing, hunting, shooting, capturing, collecting, or killing, or attempting to do so. Additionally, Executive Order 13186, "Responsibilities of Federal Agencies to Protect Migratory Birds" (Executive Order no. 13186) requires that any project with federal involvement address impacts of federal actions on migratory birds with the purpose of promoting conservation of migratory bird populations. The Executive Order requires federal agencies to work with the USFWS to develop a memorandum of understanding. The USFWS reviews actions that might affect these species.

As with regulations described above, the WHA itself, as a study and not a project, is not subject to requirements of MBTA. However, any recommendations in a WHA or WHMP affecting birds protected under MBTA may be subject to this statute. To reduce threats from species afforded protection under MBTA, a depredation permit must be sought from USFWS for the take of particular species. No permits are required from USFWS to manage habitat or non-lethally take (i.e., harass) MBTA species.

3.8 California Coastal Act

Under the California Coastal Act (CCA), the California Coastal Commission regulates impacts to wetlands in the "coastal zone" and requires a coastal development permit for almost all development within this zone. The coastal zone generally extends from three miles seaward to approximately 1,000 yards inland. In less developed areas, it can extend up to 5 miles inland from the mean high tide line, but can also be considerably less than 1,000 yards inland in developed areas.

The CCA also protects designated sensitive coastal areas by providing additional review and approvals for proposed actions in these areas. Section 30121 of the CCA defines wetlands as "lands within the coastal zone which may be covered periodically or permanently with shallow water and include saltwater marshes, swamps, mudflats, and fens. . . ." The CCA allows disking, filling, or dredging of wetlands for certain uses, such as restoration. The CCA also directs each city or county within the coastal zone to prepare a Local Coastal Program (LCP) for Coastal Commission certification (CCC 2009).

In contrast to the Corps, which uses a three-parameter definition to delineate wetlands, the CCC essentially uses the Cowardin method of wetlands classification, which defines wetland boundaries by a single parameter (i.e., hydric soils, hydrophytic vegetation, or hydrology) (Cowardin et al. 1979). Although SBA is subject to CCC regulation and project review, permits and waivers may be sought if necessary to comply with FAA regulations and guidelines that might conflict with CCC requirements. The 2003 *Memorandum of Agreement between the Federal Aviation Administration, the U.S. Air Force, the U.S. Army, the U.S. Environmental Protection Agency, the U.S. Fish and Wildlife Service, and the U.S. Department of Agriculture to Address Aircraft-Wildlife Strikes* (FAA et al. 2003) provides guidelines for when aviation safety may take precedence over conflicting state guidelines.

4 METHODS

This section describes work conducted prior to initiation of field studies, methods of all field studies, and collection of information on perimeter fences and other SBA structures as well as on Airport Operations procedures and practices relevant to wildlife hazards. Field studies include bird point counts and several mammal surveys: night-time spotlighting, camera studies, and small-mammal trapping. A grid system was used to record observations during all studies. The grid used for the studies was one already employed by SBA. It included 18 grid squares covering all of SBA and some adjacent off-site areas (Figure 3).

4.1 Site Reconnaissance and Literature Review

The project team conducted site reconnaissance on November 18 and 19, 2014. The project team conducted a kickoff meeting with Santa Barbara Airport staff on November 18 and toured the airport with Operations Supervisor Kellie Knauss subsequent to the meeting. The following morning, on November 19, 2014, project team members Dave Compton, Russ DeFusco, and Jennifer Turner conducted an additional visit of the site, again with Ms. Knauss, established bird point count locations on the site, and visit select off-site areas while establishing the off-site bird point count locations.

A literature review was conducted to familiarize the project team with aspects of wildlife hazards at SBA. This included a review of biological reports on Goleta Slough and SBA, and a review of SBA bird strike data.

4.2 Bird Point Counts

To gather information on the occurrence of birds, bird behavior, and bird attractants at SBA and vicinity, bird surveys were conducted during each of the 12 months of the period covered in this WHA. Three-minute avian point counts were conducted four times per month at 15 fixed locations, including 11 on-airport (Figure 6) and 4 off-airport (Figure 7), for 12 consecutive months beginning December 2014 (Table 2). On-airport point counts were selected to ensure adequate coverage of the AOA and basic habitat types within the airport property, and included locations on either side of each runway (Runway 07/25, Runway 15/33). Off-airport point count locations were selected approximately 0.5 to 1.0 miles from the end of the four runways to ensure adequate coverage of important habitat features that could support potential avian hazards within the approach and departure corridors, and of the primary habitat type surrounding the airport. To capture potential patterns in bird activity, point counts were conducted during three different survey periods: morning, midday, and evening, with two periods conducted each survey day (e.g., morning and midday, midday and evening), spaced a minimum of five days apart. At least one morning, one midday, and one evening survey were conducted per month. Biologists

alternated survey period and also alternated start points and the sequence in which point count locations were surveyed to avoid time biases.

For each point count, the surveyor remained in place for three minutes and recorded every species and individual that was visually and/or aurally detected at each point count location. Catalog data gathered at each point location included time, survey point, species, number observed, behavior/activity (e.g., flying, foraging, loafing, nesting), approximate height from the ground, and where possible and applicable, direction of flight and habitat/land cover or use type (e.g., grass, marsh, structure, runway). If the individual was detected on-airport property, the surveyor also recorded the grid location for each observation (Figure 6). When individuals could not be identified to species, the observer recorded genus, family, guild, and/or behaviors relevant to its bird-strike hazard potential. The survey data sheet is provided in Appendix C. Binoculars were used to aid in the searching, identification, and behavioral observations. Standard weather parameters (cloud cover, wind, temperature, precipitation) were recorded at the start and end of all surveys.

In addition to formal survey point counts, the surveyors also recorded all notable avian and other wildlife observations made during the survey day to ensure a robust sampling of the wildlife located within and adjacent to the SBA, and the potential hazards they presented.

Table 2
Dates, Survey Periods, and Survey Conditions for Bird Point Count Surveys

Date	Survey Period	Time (Hours)	Personnel	Survey Conditions			
				Temperature (degrees Fahrenheit)	Wind (miles per hour)	Cloud Cover	Precipitation
12/22/14	Morning	0649-1158	Jennifer Turner	53-75	1-7	Sunny	None
12/22/14	Midday	1220-1535	Jennifer Turner	75-79	1-6	Sunny	None
12/30/14	Midday	1034-1351	Dave Compton	54-61	1–9	Partly cloudy to sunny	None
12/30/14	Evening	1400-1651	Dave Compton	58-60	8–12	Partly cloudy to sunny	None
1/12/15	Morning	0710-1027	Dave Compton	47-65	1-4	Partly cloudy	None
1/12/15	Evening	1331-1640	Dave Compton	61-64	5	Partly cloudy to sunny	None
1/29/15	Morning	0700-1024	Jennifer Turner	57-60	0-5	Partly cloudy	None
1/29/15	Midday	1045-1401	Jennifer Turner	66-75	0-6	Partly cloudy	None
2/11/15	Midday	1001-1426	Jennifer Turner	74-80	3-11	Partly cloudy to sunny	None
2/11/15	Evening	1444-1751	Jennifer Turner	75-77	2-12	Sunny	None
2/24/15	Morning	0711-1031	Dave Compton	57-64	2-6	Sunny	None
2/24/15	Evening	1426-1738	Dave Compton	60-72	4-5	Sunny	None

Table 2
Dates, Survey Periods, and Survey Conditions for Bird Point Count Surveys

Date	Survey Period	Time (Hours)	Personnel	Survey Conditions			
				Temperature (degrees Fahrenheit)	Wind (miles per hour)	Cloud Cover	Precipitation
3/13/15	Morning	0717-1043	Dave Compton	51-65	0-3	Partly cloudy to sunny	None
3/13/15	Midday	1146-1507	Dave Compton	77-80	4-7	Sunny	None
3/25/15	Midday	1256-1543	Jennifer Turner	74-79	9-14	Sunny	None
3/25/15	Evening	1607-1934	Jennifer Turner	78-79	1-14	Sunny	None
4/6/15	Morning	0713-1040	Dave Compton	51-58	2-7	Sunny	None
4/6/15	Evening	1521-18332	Dave Compton	62-64	15-17	Sunny	None
4/28/15	Morning	0926-1233	Jennifer Turner	61-68	2-7	Sunny	None
4/28/15	Midday	1319-1555	Jennifer Turner	71-73	5-10	Sunny	None
5/18/15	Midday	1148-1450	Jennifer Turner	68-71	5-15	Sunny	None
5/18/15	Evening	1500-1756	Jennifer Turner	71-73	9-15	Sunny	None
5/27/15	Morning	0652-1025	Dave Compton	57-61	4-5	Sunny to cloudy	None
5/27/15	Evening	1621-1926	Dave Compton	67-69	4-12	Sunny	None
6/4/15	Morning	0638-1016	Dave Compton	54-66	2-3	Partly cloudy to sunny	None
6/4/15	Midday	1108-1421	Dave Compton	66-67	3-8	Partly cloudy	None
6/23/15	Midday	1102-1352	Jennifer Turner	69-73	2-7	Sunny	None
6/23/15	Evening	1411-1645	Jennifer Turner	73-74	2-8	Sunny	None
7/6/15	Morning	0724-1048	Dave Compton	62-66	2-5	Cloudy	None
7/6/15	Evening	1656-2002	Dave Compton	71-74	0-4	Sunny	None
7/14/15	Morning	0737-1132	Jennifer Turner	67-70	1-5	Partly Cloudy	None
7/14/15	Midday	1146-1434	Jennifer Turner	70-73	2-5	Partly Cloudy	None
8/17/15	Midday	1045-1335	Jennifer Turner	72-75	5-10	Partly Cloudy	None
8/17/15	Evening	1424-1717	Jennifer Turner	75-72	5-10	Sunny	None
8/25/15	Morning	749-1100	Dave Compton	64-74	0-3	Partly cloudy to sunny	None
8/25/15	Evening	1517-1833	Dave Compton	77-79	3-6	Partly cloudy to sunny	None
9/22/15	Morning	0741-1039	Jennifer Turner	68-71	0-3	Sunny	None
9/22/15	Midday	1102-1357	Jennifer Turner	73-78	2-4	Sunny	None
9/29/15	Midday	1052-1421	Dave Compton	70-77	5	Sunny	None
9/29/15	Evening	1533-1832	Dave Compton	80-82	2	Sunny	None
10/14/15	Morning	0808-1131	Dave Compton	70-73	0-5	Cloudy to party cloudy	None
10/14/15	Evening	1450-1808	Dave Compton	73-79	9-10	Cloudy	None
10/23/15	Morning	0720-1350	Jennifer Turner	60-76	0-7	Partly Cloudy	None
10/23/15	Midday	1402-1747	Jennifer Turner	71-77	1-5	Partly Cloudy to Sunny	None

Table 2
Dates, Survey Periods, and Survey Conditions for Bird Point Count Surveys

Date	Survey Period	Time (Hours)	Personnel	Survey Conditions			
				Temperature (degrees Fahrenheit)	Wind (miles per hour)	Cloud Cover	Precipitation
11/5/15	Midday	0949-1233	Jennifer Turner	60-69	0-3	Sunny	None
11/5/15	Evening	1244-1630	Jennifer Turner	64-68	0-2	Partly Cloudy to Sunny	None
11/19/15	Morning	0722-1108	Dave Compton	50-74	0-5	Sunny	None
11/19/15	Evening	1355-1657	Dave Compton	73-78	4-7	Sunny	None

4.3 Mammal Surveys

The objectives of the mammal field surveys was to determine what mammal species were utilizing SBA, estimate their general abundance and habitat affiliations, and assess the risk to aircraft. To accomplish these objectives mammal data were collected through focused studies, including night-time spotlighting, camera studies, and small mammal trapping surveys. Additional information was provided by incidental observations over the study period, including observation of scat, tracks, and burrows.

4.3.1 Night-time Spotlighting

Night-time spotlighting was conducted on February 18, May 28, August 26, and November 17, 2015, to gather information about mammal activity around the airfield.

During each survey, two observers drove a set route around the airfield (Figure 8). SBA provided an escort through the ILS critical area at the end of Runway 07 during all surveys except for August 26, but the observers accessed all other areas without an escort. This resulted in the route being broken into segments. However, all parts of the route were driven twice during each survey. Two observers drove a single vehicle, with one observer on each side. Each observer had shown a spotlight out of one side of the vehicle, scanning for wildlife. The vehicle traveled at 5 miles per hour or less at all times. The observers stopped when any mammal species was spotted, and recorded the species and number of individuals, as well as the grid number occupied by the wildlife and the time the observation was made. Dave Compton and Jennifer Turner conducted all spotlighting surveys.

Table 3
Camera Stations

Camera Station	Location Type	Location Description	Start/End Date	Days Active
1A	Potential access point	Tecolotito Creek at Hollister Avenue bridge	December 30, 2014/February 24, 2015; June 8/August 11 2015; October 12/November 10, 2015	149
2A	Potential access point	Los Carneros Creek at Firestone Avenue bridge	February 2/February 24, 2015; May 3/May 31, 2015; May 3/June 4, 2015; September 12/October 12, 2015	84
3A	Potential access point	Tecolotito Creek at Sandspit Rd bike bridge	December 30, 2014/February 24, 2015; May 12/May 31, 3015; May 12/June 4, 2015; September 12/October 12, 2015	109
1B	Suspected high activity area	Foxtrot Berm	March 4, 2015/April 3, 2015; June 8/July 6, 2015; September 12/October 12, 2015	88
2B	Potential access point	Ditch near refueling area	March 4, 2015/April 3, 2015; August 11/September 12, 2015; November 10/December 4, 2015	86
3B	Suspected high activity area	ASR berm	February 24, 2015/April 3, 2015; July 6/August 11, 2015; October 12/November 10, 2015	103
1C	Open, potential movement area	Runway 33 approach	April 3, 2015/May 3, 2015; August 11/September 12, 2015; November 10/December 4, 2015	86
2C	Open, potential movement area	West of Taxiway M	April 3, 2015/May 3, 2015; August 11/September 12, 2015; November 10/December 4, 2015	86
3C	Open, potential movement area	Near Runway 07 approach	April 3, 2015/May 3, 2015; July 6/August 11, 2015; October 12/November 10, 2015	95
			Total	*886*

4.3.2 Camera Studies

To gather additional data on mammal activity at the Santa Barbara Airport, wildlife cameras were deployed at stations in the vicinity of the airfield. These studies gathered information over extended periods at select locations, as opposed to recording information over the entire airfield through a brief, one-night sweep, as is done in night-time spotlighting. Cameras were deployed at a total of nine stations, with three stations active at any one time (Table 3; Figure 9). Cameras were rotated between stations approximately once a month.

Camera Stations. Camera stations included one digital, infrared/motion triggered camera (Bushnell 8MP Trophy Cam camera) with a minimum 4 GB SD cards. Cameras were set

approximately three feet above the ground and were typically attached to a wooden stake. In some locations, cameras were attached to a tree trunk or other feature present on the landscape, such as wooden bridge piling. Locations selected were those that larger wildlife species have the potential to use as access points onto airport property, those where wildlife activity was suspected to be relatively high, and those where openness of habitat provided an opportunity for wildlife movement, as well as the potential to capture images over a large area. Camera data was collected approximately monthly. Stations at locations considered as potential access points were monitored for longer periods overall. However, the number of days active at any given station was influenced in some cases by occasional camera malfunctions, as occurred at Camera Station 2A.

4.3.3 Small Mammal Trapping

The small mammal species at SBA may not pose a direct threat to aircraft, but may function as an important prey base for other wildlife that do pose a threat, specifically raptors and coyotes. Two small mammal-trapping sessions were conducted over a two-night period on April 29 – 30, 2015 and November 5 – 6, 2015. The trapping sessions were timed to occur during expected small mammal population peaks, as well as during the raptor breeding and over-wintering seasons.

Four trapping grid locations were selected, one within scrub/grassland transitional habitat immediately south of Taxiway A (Grid 1), one within scrub/marsh transitional habitat west of the ASR (Grid 2), and two within grassland habitats south of Runway 33 (Grids 3) and north of Runway 07 (Grid 4) (Figure 10). Each grid was configured with two parallel line transects spaced approximately 50 feet apart. Individual traps were spaced at approximately 50-foot intervals. Twenty-five traps were placed on each line, providing a total of 50 traps in each grid (200 traps total).

Trapping was conducted using long and short Sherman live-traps and supplemented with three medium-sized wiremesh Havaharts®. The Havaharts were utilized in an effort to sample medium-sized mammals. Each trap was given a unique identification number and marked with a pin flag. The location of trap lines was mapped using a Trimble GPS unit capable of sub-meter accuracy.

Traps were set with a small amount of food (rolled oats and bird seed) and covered with grass or thatch. Traps were set in the late afternoon/early evening, checked early the next morning, and then closed to prevent direct mortality of animals captured during the day and indirect mortality of young due to the absence of a nursing mother or through the re-absorption of embryos by a food-stressed female. On the final day, traps were checked beginning at dawn, and then each trap

was closed and collected for removal off-site. Trapping sessions were completed by two biologists, with assistance of one to two additional biologists when setting and collecting traps.

Catalog data gathered for each trapped specimen included: species, location (trap identification number), trap session (date), and trap status (open with food, open with no food [escapee], closed with food, closed with no food [escapee], disturbed, or missing). Notes of age and reproductive status were made as necessary.

4.4 Structures and Perimeter Fences

Hangars and various other structures provide perching, roosting, and nesting opportunities for birds, and bats may roost in some structures. Perimeter fences also provide perching opportunities. But, as noted above, they are important barriers to mammals accessing airports and should meet specifications in FAA (2004).

4.4.1 Perimeter Fence Inspection

Biologists inspected the entire perimeter fence during studies. Photographs were taken and observations were recorded for areas where fences did not comply with FAA (2004) guidelines, or where other issues related to wildlife deterrence and permeability were noted.

4.4.2 Hangar Visits

Hangar visits were conducted throughout the study period. An initial hangar visit included the Signature hangar east of Taxiway C on March 25, 2015 with Matt Long, Station Manager of Signature Flight Support, and the City hangars northwest of Runway 15R on April 2, 2015, accompanied by Rebecca Fribley and Kellie Knauss of the City of Santa Barbara. Two historic, unused hangars (Buildings 248 and 249 in Coffman Associates 2014) were visited on multiple occasions, including during night-time spotlighting on February 18, 2015, and during the day on June 4, 2015, and August 17, 2015. Hangar 1 and Hangar T11 were inspected on October 23, 2015. Hangars 9, 10, 12, 13, 16, T22, T25, and Hangar 3, Atlantic's Hanger 5, and additional Signature hangars were visited in November 2015. Atlantic's Line Supervisor Steven Roses was interviewed during the visit to Hangar 5. Incidental observations related to hangars were made at other times during studies. Some smaller hangars perceived to be identical in size and condition as other hangars were not visited.

4.4.3 Other Observations

Observations of other structures as wildlife attractants were recorded during the course of bird and mammal surveys and included in the monthly reports.

4.5 Airport Operations Assessment

Biologists collected information on Airport Operations wildlife procedures through several sources. These included a meeting with Operations staff about mowing practices and constraints at SBA; informal communications with Airport Operations, the Security Operations Center (SOC), and Patrol staff, including Operations Supervisor Kellie Knauss and Operations Manager Tracy Lincoln; visiting the Air Traffic Control Tower (ATCT) on several occasions; interviewing now-retired ATCT Front-Line Supervisor Mike Brown; and general observations of Operations practices in action.

4.5.1 Discussions with Airport Operations

The project team was in regular contact with Operations staff during surveys (including in reporting wildlife hazards to the SOC), had informal communications with Operations Supervisor Kellie Knauss and Operations Manager Tracy Lincoln, and observed wildlife hazard-related procedures firsthand. In addition, Dave Compton and Jennifer Turner attended a meeting with Operations Manager Tracy Lincoln, Operations Supervisor Kellie Knauss, Maintenance Supervisor Jeff McKee, and SBA Project Planner Andrew Bermond on April 6, 2015, to discuss mowing practices and constraints, and to discuss the background to current mowing practices and potential options for improving vegetation maintenance.

4.5.2 Air Traffic Control Tower

The project team visited the ATCT on November 19, 2014, and briefly met with ATC personnel. Observations of ATCT and interviews of controllers were also conducted on November 23 and November 24, 2015. Mike Brown, the now-retired ATCT front-line supervisor, was interviewed extensively on March 4, 2015. The content of the interviews with ATCT personnel focused on experience with wildlife issues, including which wildlife species were the greatest problems at the airport, procedures for responding to wildlife issues (including reports of wildlife hazards and strikes by pilots), communication procedures between FAA personnel in the ATCT and Airport Operations in regard to wildlife issues, and the effectiveness of procedures in addressing wildlife issues.

4.5.3 Other Observations

Pilots, crew, and supervisors who were present during hangar inspections and who were encountered at various times during studies were interviewed informally. Personnel were questioned regarding their observations of wildlife and wildlife encounters at the SBA, wildlife concerns, and attention to air traffic control broadcasts and Pilot Report (PIREPS) notifications concerning wildlife around the airfield during take-off and landing.

DUDEK

SOURCE: 2012 CIRGIS 6-inch Imagery

Figure 6
On-Site Bird Point Count Stations

WILDLIFE HAZARD ASSESSMENT FOR THE SANTA BARBARA AIRPORT

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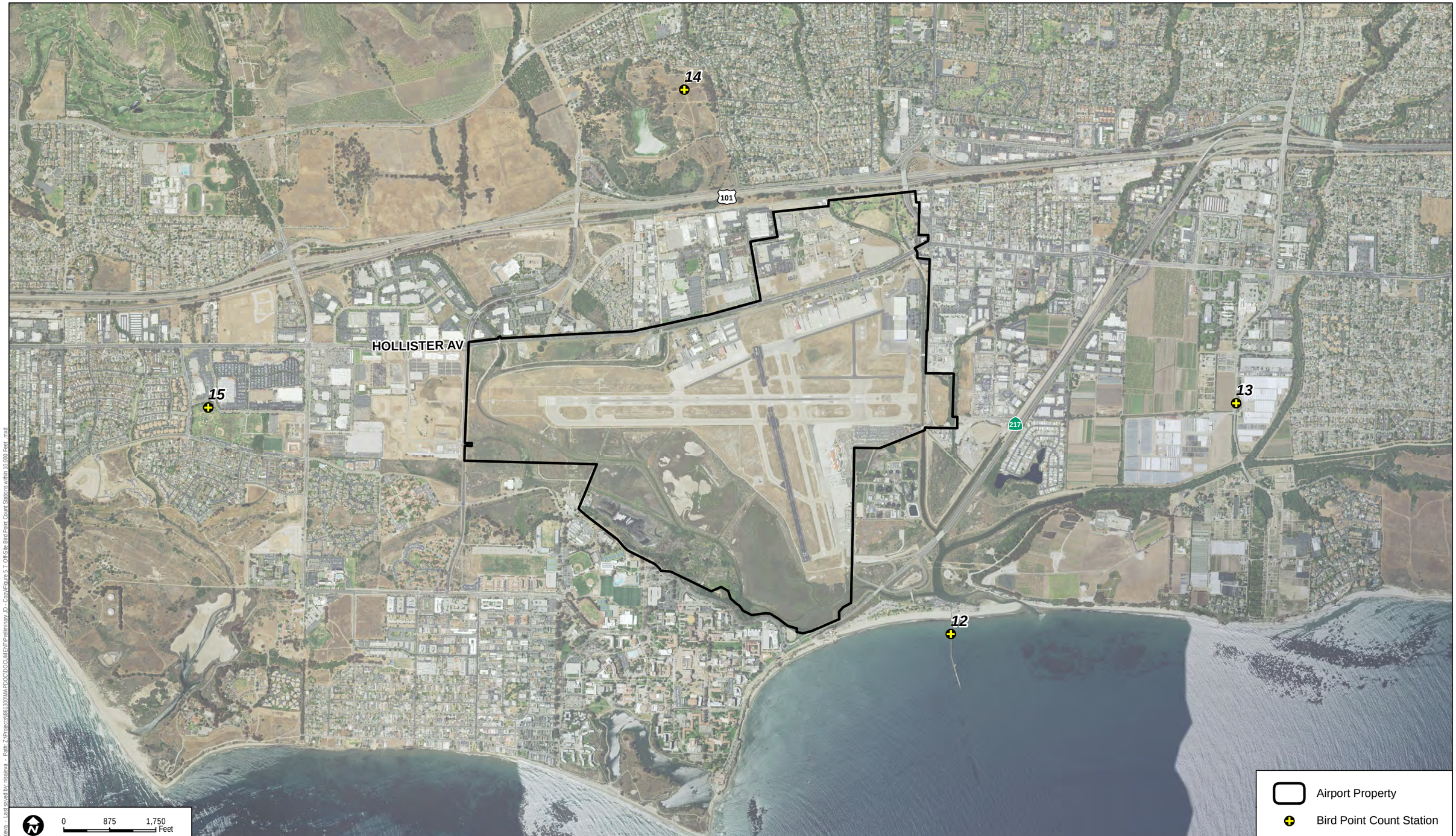

SOURCE: NAIP 2014

DUDEK

Figure 7
Off-Site Bird Point Count Stations (within 10,000 Feet of Airport)

WILDLIFE HAZARD ASSESSMENT FOR THE SANTA BARBARA AIRPORT

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SOURCE: NAIP 2014

DUDEK

Figure 8
Night-time Spotlighting Route

WILDLIFE HAZARD ASSESSMENT FOR THE SANTA BARBARA AIRPORT

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DUDEK

SOURCE: 2012 CIRGIS 6-inch Imagery

Figure 9
Camera Stations

WILDLIFE HAZARD ASSESSMENT FOR THE SANTA BARBARA AIRPORT

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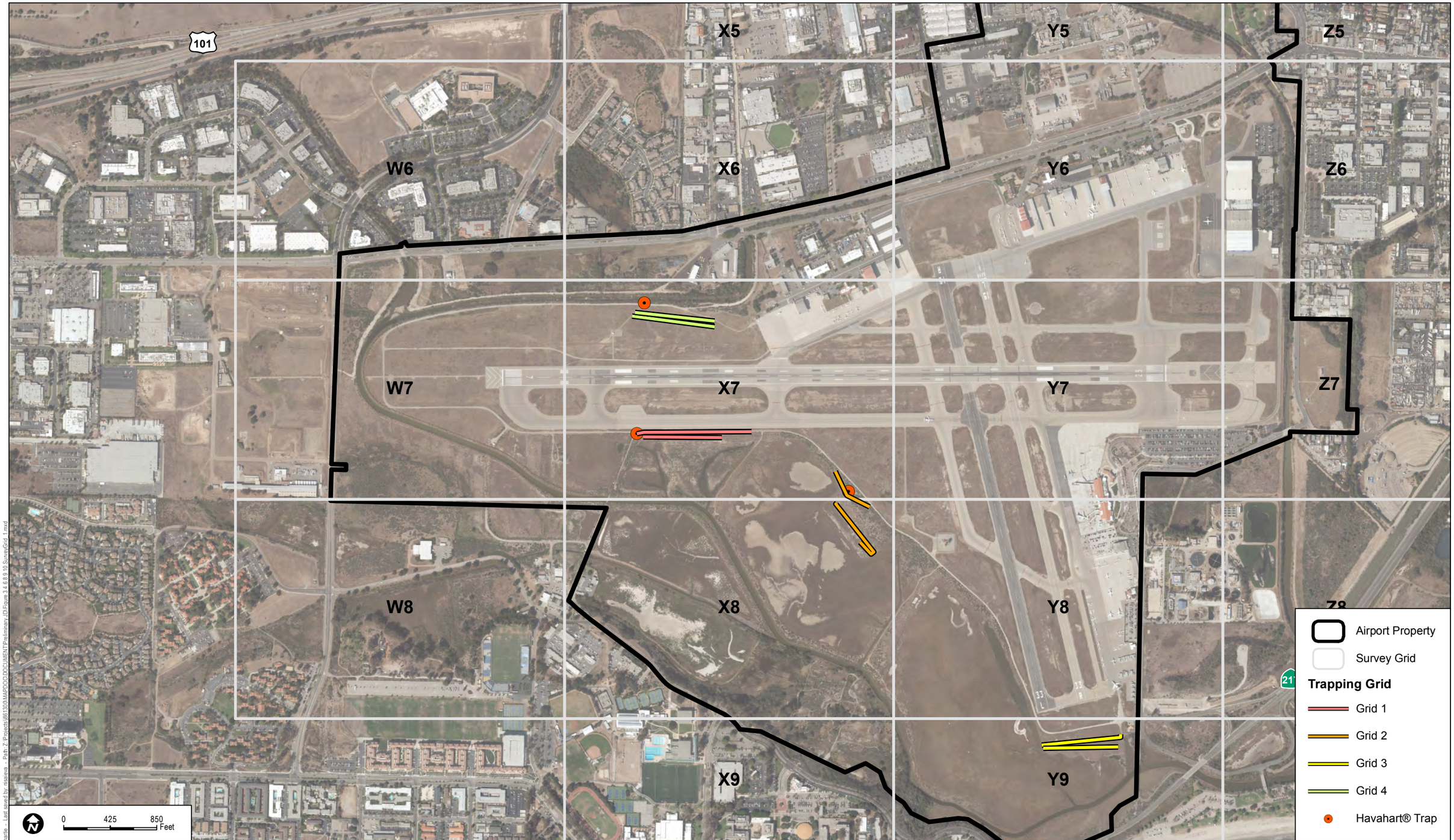

SOURCE: 2012 CIRGIS 6-inch Imagery

DUDEK

Figure 10
Small Mammal Trapping Grids

WILDLIFE HAZARD ASSESSMENT FOR THE SANTA BARBARA AIRPORT

Date: 11/4/2015 - Created by: martie - Last saved by: nisaieva - Path: Z:\Projects\861300\MAPDOC\DOCUMENT\Preliminary JD\Figure 3.4.6.8.9.10 SurveyGrid_1.mxd

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5 RESULTS

This section reports the results of all WHA studies. It also includes observations pertaining to structures and perimeter fences at SBA as they relate to wildlife issues and provides an assessment of SBA Operations in terms of the approach to wildlife hazards.

5.1 Site Reconnaissance and Literature Review

Site reconnaissance conducted on November 18–19, 2014, permitted the project team to familiarize itself with SBA and plan bird and mammal surveys. Point count locations for the bird surveys, outlined in Section 4.2, were finalized during site reconnaissance, and the project team discussed potential study designs for mammal surveys.

Sources consulted during the literature review included bird strike data for SBA (see Section 5.1.1, below), the current WHMP (City 2008), and a variety of reports on literature on the wildlife and wildlife issues at SBA, Goleta Slough, and the Goleta area. In addition to the wildlife hazards in the SBA area, these reports provided information on ecological management and stakeholders at Goleta Slough. These included several reports related to the Tidal Restoration Demonstration Project (URS 2003, 2008a, 2008b, 2009), the *Draft Goleta Slough Ecosystem Management Plan* (GCMS 1997), the *Final Subsequent Environmental Impact Report for Flood Control Maintenance Activities in the Goleta Slough* (Padre and Associates 2010), and the *Special-Status Species Inventory for the Santa Barbara Airport Master Plan Update* (Dudek 2012). In addition, the project team participated in preparation of *Goleta Slough Mouth Management Biological Technical Report* (Rincon, Inc. 2015) and *Goleta Slough Mouth Management Biological Assessment* (Rincon, Inc. 2016).

5.1.1 Wildlife Strikes at the Santa Barbara Airport

From March 1990 to September 2015, 493 wildlife strikes, 19.4 per year, were recorded at the Santa Barbara Airport (FAA 2016). Seven of these strikes involved mammals, with the remainder involving birds. Therefore, 486 strikes recorded in the 25-year, 6-month period were known to involve birds. A majority of these strikes (259) occurred from 2000 to 2007, for an average of 32.4 per year. The average declined to 18.1 from 2011 to 2014 (Table 4).

The species involved was recorded for most strikes. Remains were sent to the Smithsonian Institution Feather Identification Laboratory for feather and DNA analysis beginning in February 2006, and the results were available to the project team for remains recovered through June 2013. Based on feather and DNA analysis, “bird species” information provided by the person filing the report was frequently incorrect. Therefore, reliable data for species are available only for the period from February 2006 to June 2013 (Table 5). But these data include 93 instances in which the identity of the species was determined. During this period, 31 different bird species

were involved in strikes in which the species was confirmed (Table 5). Cliff swallows (19 strikes) were the species most often involved, followed by western meadowlarks (13) and American kestrels (*Falco sparverius*; 12). All three of these species were hit in at least 6 of the 8 years for this period. Perhaps more notable, however, is the variety of species struck, and the presence on this list of larger species such as Canada geese (3 strikes, plus 2 additional strikes recorded on the form as involving this species), turkey vultures (*Cathartes aura*) (4), great blue herons (1), great egrets (1), several gull species (4), and two duck species (2).

Table 4
Wildlife Strikes by Year

Year	Bird Strikes	Other Wildlife Strikes	Total
1990	4	0	4
1991	5	0	5
1992	8	0	8
1993	15	0	15
1994	12	0	12
1995	7	0	7
1996	7	0	7
1997	5	0	5
1998	8	0	8
1999	11	0	11
2000	21	0	21
2001	31	0	31
2002	35	0	35
2003	37	1	38
2004	44	0	44
2005	33	0	33
2006	37	1	38
2007	22	1	23
2008	10	0	10
2009	17	0	17
2010	34	1	35
2011	15	0	15
2012	21	0	21
2013	17	0	17
2014	13	1	14
2015	18	1	19

Table 5
SBA Wildlife Strikes by Species, Year: February 2006 to June 2013

Species	2006	2007	2008	2009	2010	2011	2012	2013	Total
Canada goose				1	1			1	3
American wigeon						1			1
Mallard		1							1
Great blue heron								1	1
Great egret					1				1
Black-crowned night-heron		1							1
White-tailed kite		1							1
Red-tailed hawk							1		1
Turkey vulture				1		2	1		4
Semipalmated plover					1				1
Killdeer	1	1			5		1		8
Long-billed curlew						1			1
Red-necked phalarope							1		1
Ring-billed gull					2				2
Western gull		1							1
California gull			1						1
Rock pigeon		1				1			2
Mourning dove			1						1
Barn owl	2				2		2		6
American kestrel	3	1	1	1	3	2		1	12
Peregrine falcon		1			1				2
Prairie falcon	1								1
Loggerhead shrike					1				1
American crow	1								1
Horned lark	1			1					2
Cliff swallow	6	4		2	1		3	3	19
Swainson's thrush				1					1
Northern mockingbird		1							1
Chipping sparrow	1								1
Western meadowlark	2	1	1	3	2	2	2		13
Striped skunk					1				1
Bat sp.		1							1
Unknown	19	8	6	7	14	6	10	5	75
Total	*37*	*23*	*10*	*17*	*35*	*15*	*21*	*11*	*169*

Note: The data in this table pertain only to reports in the period during which recovered remains were identified through DNA analysis provided by the Smithsonian Institution. The FAA database (http://wildlife.faa.gov/database.aspx) includes additional reports during this period for wildlife whose remains were not recovered or otherwise were not identified. These are included as "Unknown" species.

The FAA wildlife strike database includes thirty reports of damaged aircraft (FAA 2016; Table 6). Table 6 includes one additional incident not yet included in the database, involving the strike of a Canada goose by a commercial aircraft on April 28, 2016, resulting in damage to the landing gear and diversion of the flight to Los Angeles International Airport. The WHA team confirmed the species identification based on photos.

Incidents causing damage were less frequent before 2000, when seven separate incidents were recorded as resulting in damage to aircraft. Incidents resulting in aircraft damage have occurred every year since 2007, except in 2014. Feather and DNA analysis by the Smithsonian Institution resulted in identification of the species involved for eight of the wildlife strikes listed in Table 6. Canada geese and red-tailed hawks were each involved in two of these strikes, while single barn owls, black-crowned night-herons (*Nycticorax nycticorax*), turkey vultures, and Swainson's thrushes (*Catharus ustulatus*) were involved in one each. Table 6 also includes species identifications not confirmed by the Smithsonian. Three strikes resulting in damage to aircraft occurred during the WHA period. A "medium'sized bird" caused damage to the wing of an aircraft, resulting in more than $26,000 in repairs and other costs, on May 27, 2015. Two strikes occurred on August 22, 2015, including a mammal reported as a coyote that damaged the landing gear of one aircraft as it landed, and a "medium-sized bird" causing minor wing damage after departure on another aircraft.

Table 6
Wildlife Strikes Causing Damage

Date	Species	Feather/DNA analysis?	Damage	Cost (inflation adjusted)
3/31/1990	Turkey vulture	No	Left wing	Unknown
9/19/1990	gull	No	Paint on tail	Unknown
2/17/1994	Turkey vulture	No	Left engine destroyed	Unknown
5/17/1994	Small bird	No	Residue on spinner intake	Unknown
7/28/1995	Gull	No	Right wing	Unknown
4/30/2000	Medium-sized bird	No	Dent on left wing	Unknown
8/23/2000	Medium-sized bird	No	Dent on left wing	Unknown
8/28/2000	Large bird	No	Dent on wing	Unknown
11/14/2000	Large bird	No	Radome destroyed	$21,695
11/16/2000	Rock pigeon	No	Left wing, nose, engines #1 and #2	Unknown
12/12/2000	Hawks	No	Dent on left wing tip	Unknown
12/16/2000	Red-tailed hawk, pigeon	No	Wing tip, fuselage	Unknown
8/19/2001	Hawk	No	Wing	Unknown
1/3/2002	Hawk	No	Right wing, left engine (minor)	Unknown
7/8/2002	Medium-sized bird	No	Replaced left engine	Unknown
10/23/2004	Barn owl	Yes	Front cowling	Unknown
11/3/2004	Medium-sized bird	No	Left wing dent	
12/23/2007	Black-crowned night-heron	Yes	Pitot tube	Unknown
1/18/2008	Small bird	No	Engine #2	$99,565
3/7/2008	Canada goose	Yes	De-ice boot for Engine #2	Unknown

Table 6
Wildlife Strikes Causing Damage

Date	Species	Feather/DNA analysis?	Damage	Cost (inflation adjusted)
5/19/2008	Small bird	No	Left horizontal stabilizer	$1,757
8/5/2009	Canada goose	Yes	Wing, nose gear	Unknown
9/7/2009	Swainson's thrush	Yes	Wing	$1,711
6/28/2010	Large bird	No	Nose radome	Unknown
1/3/2011	Turkey vulture	Yes	Right wing dent	Unknown
9/15/2012	Red-tailed hawk	Yes	Left wing	Unknown
2/17/2013	Red-tailed hawk	Yes	Left wing landing light	$719
5/27/2015	Medium-sized bird	No	Dent on left flap	$26,271
8/22/2015	Fox/coyote	No	Landing gear	Unknown
8/22/2015	Medium-sized bird	No	Minor wing dent	Unknown
4/28/2016	Canada goose*	No	Landing gear	Unknown

Source: FAA (2016), except where noted.
* - Strike reported by SBA to WHA team, who confirmed species based on photos.

5.2 Bird Point Counts

A total of 30,739 birds (17,640 On-Airport; 13,099 Off-Airport), representing 13 avian guilds and 144 bird species, were documented during the study (Table 7, Appendix D). Gulls and terns, woodland/scrub birds, waterfowl, and aerial foragers comprised 62% of all observations (Table 7, Chart 1). On-airport observations were dominated (57%) by waterfowl, woodland/scrub birds, and aerial foragers. Off-airport observations were dominated (69%) by gulls and terns, woodland/scrub birds, and doves and pigeons.

The number of birds observed throughout the day (i.e., morning, midday, and evening) was approximately the same (31-35%). On-airport observations were also the same through the day (33-34%). However, fewer birds were observed off-site during the morning period (28% of the off-site total) compared with the midday and evening periods (35-37%). Birds were observed loafing (31%), feeding (26%), flying locally (15%), or vocalizing (10%) 82% of the time (Chart 2).

The total number of birds observed during a given month varied from 1,235 to 4,174, with the fewest observed during early fall and the most during mid-winter and mid-spring (Chart 3). These periods correspond to when migrants and fledglings leave breeding grounds and resident birds become less vocal/active (early fall), and when over-winter migrants and resident birds are both present and demonstrate large flocking potential (mid-winter) and when migrants are moving to breeding grounds and breeding birds are more vocal/active (mid-spring). The number of birds observed on versus off airport was similar during most months, although in general more

birds were observed on-airport than off (all but four months) (Chart 3). However, given surveys included 12 on-airport and 4 off-airport locations, the number of birds observed per survey location was higher off-airport: an average of 140 per survey per location for the 4 off-site locations versus 61.3 for the 12 on-site locations.

Table 7
Number of Birds Observed by Guild From December 2014 - November 2015

Guild Name	Species Birds Included in Guild	Total On-Airport	Total Off-Airport	Total Observations (% of total)	
Waterfowl	Geese, brant, swans, wigeons, buffleheads, teals, gadwalls, scaups, mallards, pintails, shovelers, mergansers, scoters	3,963	549	4,512	(15)
Grebes, Loons, and Coots	Coots, grebes, loons	1,545	521	2,066	(7)
Pelicans and Cormorants	Pelicans, cormorants	101	525	626	(2)
Wading Birds	Herons, egrets	598	82	680	(2)
Raptors, Owls, and Vultures	Kestrels, falcons, hawks, harrier, osprey, vultures, kites, owls	513	159	672	(2)
Shorebirds	Plovers, stilts, curlews, godwits, whimbrels, willets, yellowlegs, killdeer, sandpipers, sanderlings, kingfishers	791	382	1,173	(4)
Gulls and Terns	Gulls, terns	473	5,190	5,663	(18)
Doves and Pigeons	Doves, pigeons	415	1,806	2,221	(7)
Crows and Ravens	Crows, ravens	1,398	498	1,896	(6)
Aerial Foragers	Swallows, swifts	2,921	926	3,847	(13)
Woodland/Scrub Birds	Warblers, sparrows, bushtits, wrens, woodpeckers, hummingbirds, jays, shrikes, finches, thrushes, waxwings, flycatchers, kinglets, grosbeaks, gnatcatchers, thrashers, mockingbirds, towhees, orioles, juncos, vireos, titmice, wrentits, munias	3,141	1,918	5,059	(16)
Grassland Birds	Pipits, savannah and grasshopper sparrows, larks, meadowlarks	1,389	52	1,441	(5)
Blackbirds and Starlings	Blackbirds, starlings, grackles, cowbirds	392	491	883	(3)
	Total observations (% of total)	**17,640 (57)**	**13,099 (43)**	**30,739**	

Total bird observations varied between the 15 survey locations (Chart 4) and by grid location on/around SBA (Chart 5 [letters W-Z provides west to east orientation and numbers 5-9 provide north to south orientation; Figure 3]). On-airport, survey Point 10, which corresponds to Grid Square X8 (Chart 5), had significantly more observations than any other point (28% of total on-airport observations). This location overlooks Basin K, which provides habitat for large numbers of waterfowl (49% of observations at Point 10) and American coots (27%) during the winter period when the basin is flooded. Nearly all observations of these species from this location were observed between December 2014 and April 2015 (3,702 of 3,720 total observations). Aerial foragers (almost entirely cliff swallows) comprised 53% of the on-airport observations at Point 6 (Chart 4), and were primarily observed during the breeding season between April and July 2015 (1,158 of 1,185 observations). In general, the grids located along the northern and southwestern portion of the airport had the fewest bird observations (Chart 5), which generally overlapped with more developed areas of the airport and surrounding community. The most bird observations occurred in the central-western (grassland/slough/creek), south-central (Goleta Slough), and southeastern (Goleta Slough/ocean) portion of the airport grid (Chart 5, Figure 3). Off-airport, survey Point 12 had significantly more observations than the other points (66% of the total off-airport observations) (Chart 4; corresponds to Z9 on Chart 5). This location Goleta Beach pier, where Goleta Beach County Park and the Pacific Ocean provide habitat for many species, including gulls, shorebirds, pelicans, cormorants, and pigeons. Gulls, and to a lesser extent terns, comprised 56% of the birds observed at Point 12, while rock pigeons comprised 18% of the observations. Both guilds were observed in large numbers throughout the year; however higher numbers were generally observed during the winter (gulls and pigeons) and fall and spring (gulls). Among off-airport locations, survey Point 13, mostly surrounded by a mix of agriculture and development, had the fewest observations (i.e., less than 1,000 birds observed) off-airport (Chart 4).

Chart 1
Total Birds Observed by Guild

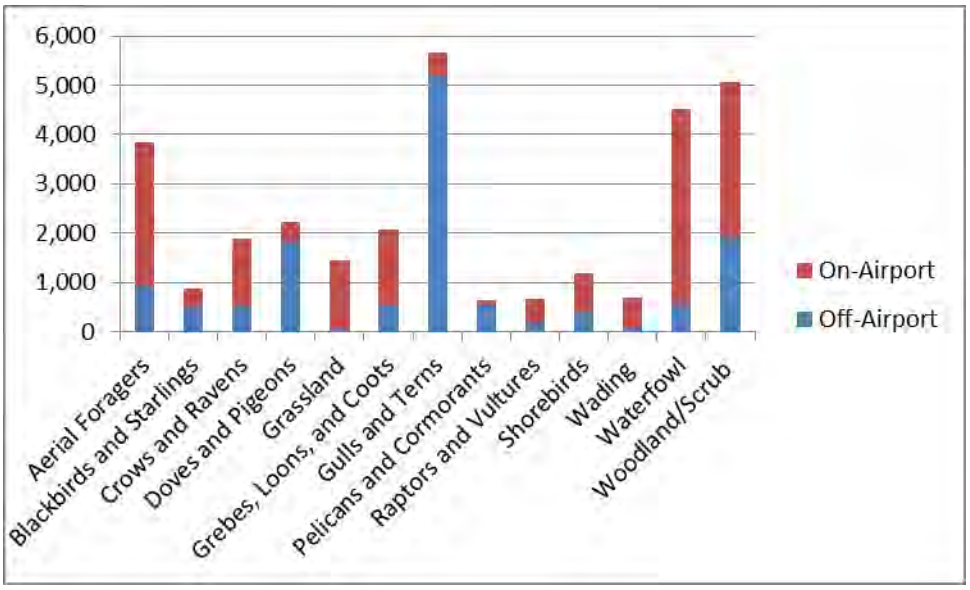


Chart 2
Bird Behavior or Activity

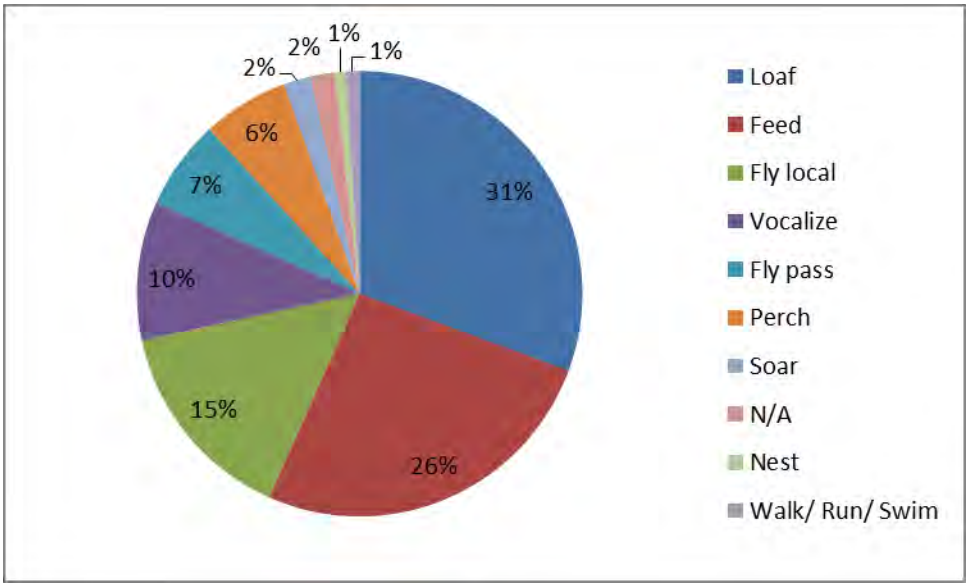


Chart 3
Total Birds Observed by Month

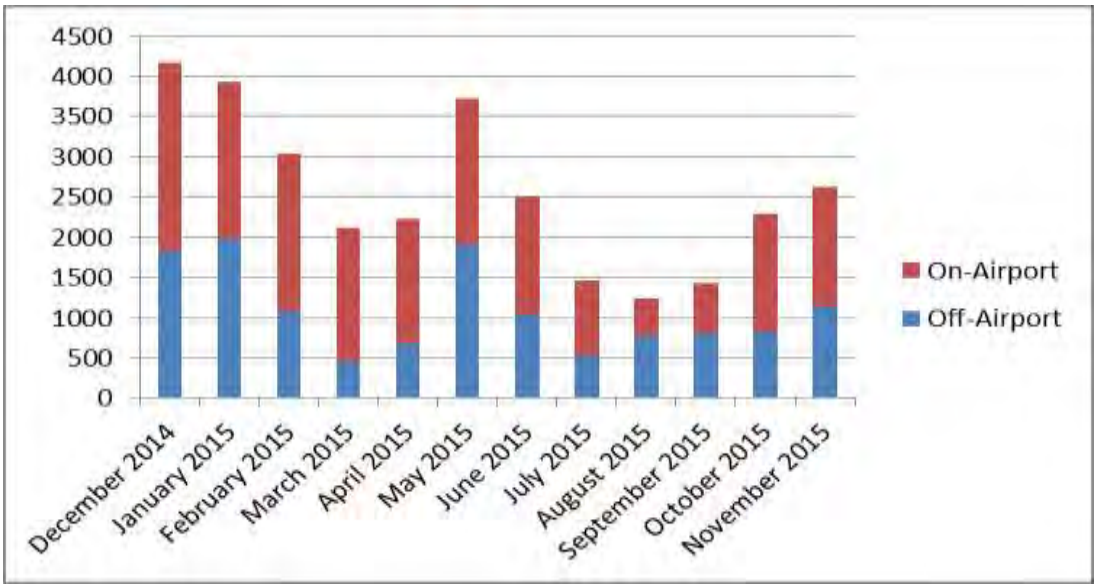


Chart 4
Total Birds Observed by Survey Point

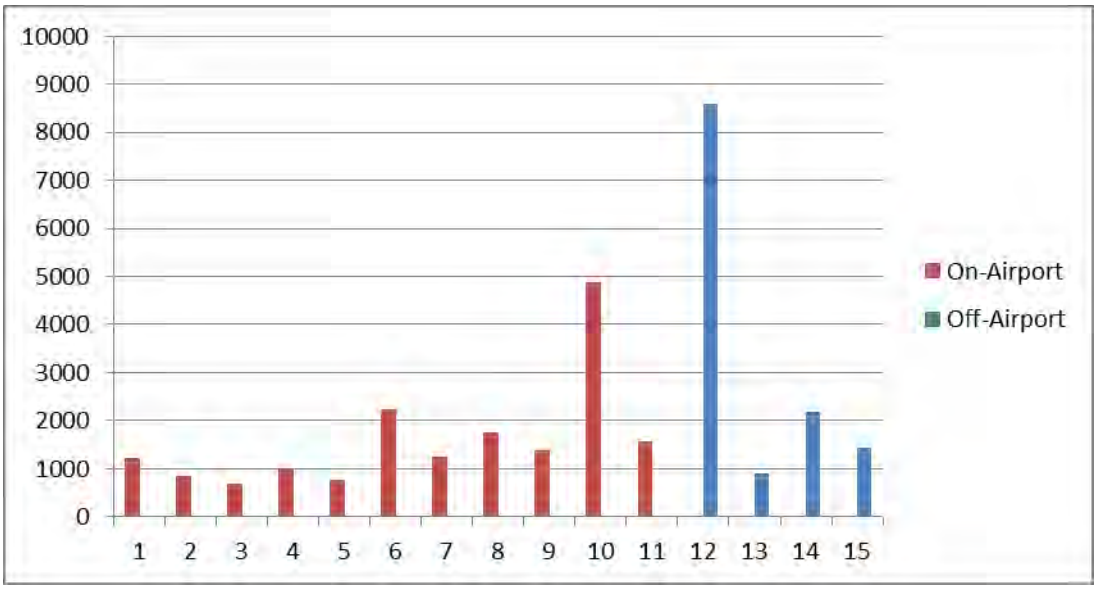
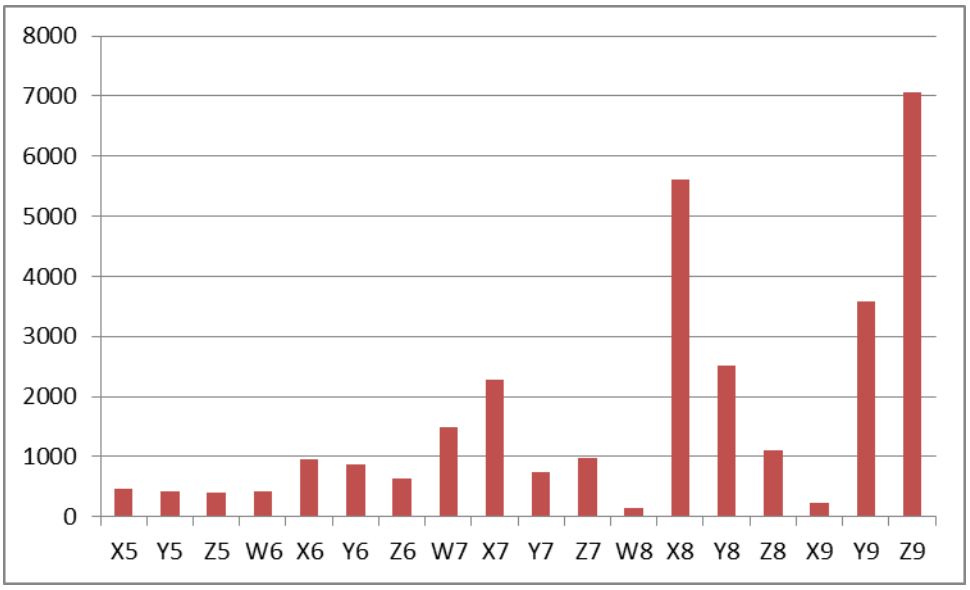


Chart 5
Total Birds Observed by Grid



5.2.1 Bird Hazards at the Santa Barbara Airport

Observations of bird species and guilds recorded during the surveys are discussed below in terms of their associated relative hazard score, abundance at or near SBA, or involvement in aircraft strikes at SBA. Guilds are generally presented in order of their relative hazard score and risk at SBA (i.e., high, moderate, or low).

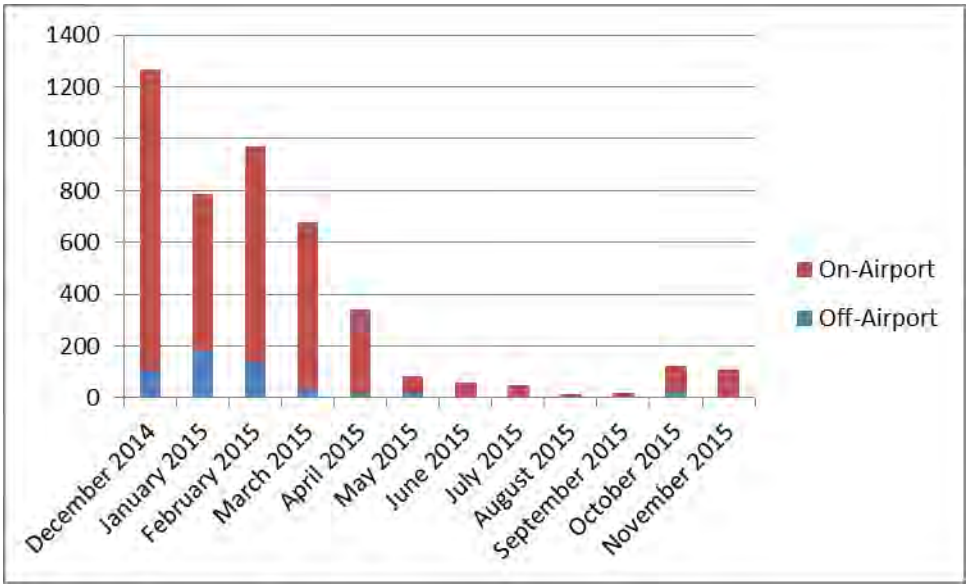
5.2.1.1 Waterfowl

Waterfowl (i.e., ducks, geese, and swans) are medium to large, semi-aquatic birds that pose a significant threat to aircraft because of their abundance, size, and flocking behavior. Waterfowl are attracted to standing water, wetlands, and open grass to feed, nest, loaf, and escape predators. Most waterfowl are migratory, and will travel in large flocks during spring and fall migratory periods. Canada geese are especially hazardous to aircraft based on their size, behavior, and increasing populations. Geese are grazers and frequent agricultural fields, parks, golf courses, and other manicured areas to forage on grasses. Several pairs of Canada geese breed in Goleta Slough and vicinity annually. Flocks of several dozen were observed feeding in grassy areas or loafing in Goleta Slough during surveys. Smaller numbers were observed in the same areas during spring. In winter, several species of ducks were observed in ponded areas in Goleta Slough. Large numbers of northern shovelers (more than 100) were regularly observed in Basin K from survey Point 10. Smaller numbers of ducks were observed in winter and spring in Basin

A from Point 11, Basin E/F from Point 8, and Tecolotito Creek from Point 9. At all seasons, one to several mallards were occasionally observed flying over the airfield and vicinity.

The FAA has identified waterfowl as one of the greatest threats to aviation based on the number of recorded strikes. Geese are ranked the third most hazardous species to aviation, while ducks are ranked seventh (Table 1). Canada geese (3%) and ducks (mallards (1%) and American wigeons (1%)) represent 5% of the confirmed bird species struck by aircraft at SBA over a 8-year period (Table 5). This guild accounted for 15% of all observations, with 88% of those observed being on-airport (Table 7). Individuals were observed equally at all time of the day, and were primarily engaged in loafing (55%), feeding (34%), or flying (9%) behaviors. They were primarily associated with the Goleta Slough area from December 2014 to April 2015 (Chart 6). Individually, ducks represented 90% of birds observed in this guild, while geese represented 10% (Appendix D).

Chart 6
Waterfowl, by Month



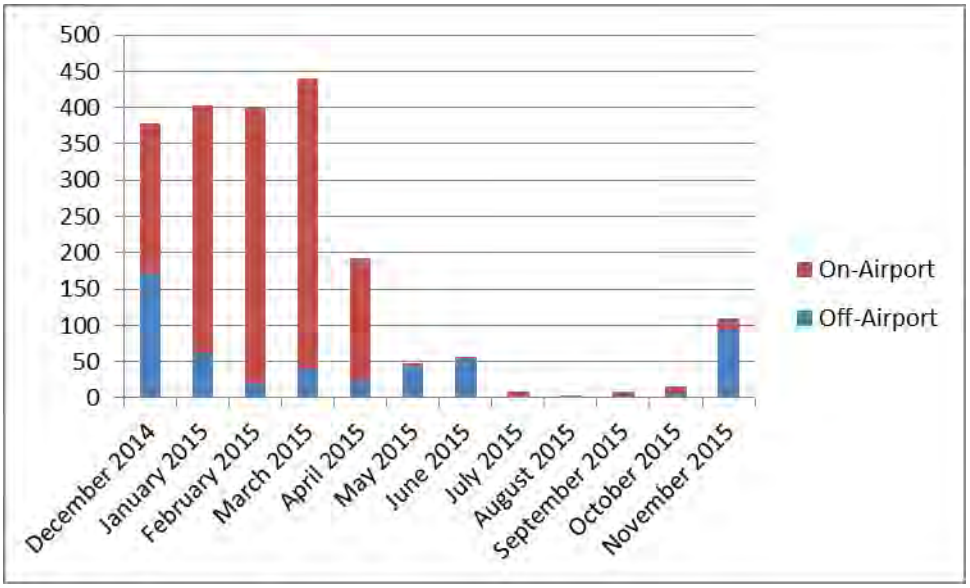
5.2.1.2 Grebes, Loons, and Coots

Grebes, loons, and coots are large to medium-sized birds that frequent wetlands and open water. Except during migration, they tend to remain in the same area for long periods while taking flight infrequently and rarely reaching high altitudes. American coots are medium-sized and can be found on almost any inland or coastal water body, including ponds in city parks, marshes, reservoirs, lakes, roadside ditches, sewage treatment ponds, saltwater inlets or saltmarshes, and

seasonal wetlands. American coot's long toes have broad lobes of skin (instead of webbed feet like ducks) that allow them to walk on dry land. They primarily eat aquatic plants, but when foraging on land they also eat terrestrial plants and grains or leaves. They also eat insects, crustaceans, snails, and small vertebrates such as tadpoles and salamanders. In the winter, they can be found in rafts mixed with waterfowl and in groups numbering hundreds or even several thousand individuals. In winter and spring, they were observed in large numbers mixed with waterfowl in Basin K from Point 10, and in smaller numbers in Basin A and Tecolotito Creek from Point 11 and Basin E/F from Point 8. During the winter, coots were also sometimes observed in small groups in upland areas adjacent to the slough, feeding in the grasses, and crossing or loafing on runway edges, taxiway edges, and ramps.

Grebes and loons are small to large-bodied birds that spend almost all of their time in water and are adept swimmers and divers. They are rarely found on land. Except for pied-billed grebe, western grebe, and Clark's grebe, these species are primarily wintering and migratory species in the vicinity of SBA.

Chart 7
Grebes, Loons, and Coots



Grebes, loons, and coots pose a low hazard to aircraft. No records of species within this guild have been reported struck at the SBA (confirmed via feather and DNA analysis or not) (Table 5). None of these species are they listed within the top 25 most hazardous species (Table 1). However, given the large numbers of coots observed within the SBA and their tendency to forage in upland areas along the edges of taxiways and runways adjacent to the sough, their risk to aircraft at SBA cannot be discounted. Birds in this guild represented 7% of the total observations, with 75% being seen on-airport property (Table 7). They were most often observed in the morning (38%) and evening (36%). Birds were most often observed loafing (77% of the time), followed by feeding (22%) and flying (1%). American coots, representing 73% of the birds observed in this guild (Appendix D), were primarily seen from Point 10, which overlooks Basin K. Clarks' and western grebes, representing 24% of observations of this guild (Appendix D), were seen primarily off-airport in the ocean from Point 12. Species in this guild were observed most commonly during the winter and early spring (Chart 7).

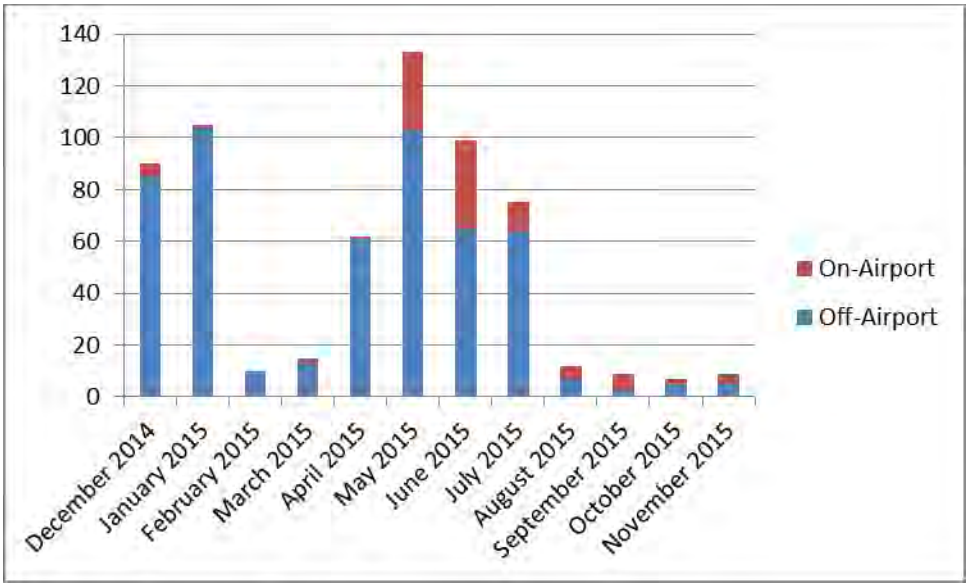
5.2.1.3 Pelicans and Cormorants

Pelicans and cormorants are medium to large water birds that pose a threat to aircraft because of their size, relative abundance, and slow flight (pelicans). Brown pelicans and double-crested cormorants are fairly common in the area and were observed throughout the survey year. Brown pelicans live year-round in estuaries and coastal marine habitats and are rarely seen inland. They nest in colonies on dry, rocky offshore islands, such as Anacapa Island. When not feeding or nesting, they rest on sandbars, pilings, jetties, breakwaters, or offshore rocks. Double-crested cormorants roost and breed in colonies in trees and cliffs near water along the coast, or on smaller lagoons or ponds near the coast. A breeding rookery is located close to SBA on the Southern California Gas Company property, adjacent to the mouth of the Goleta Slough and Goleta Beach County Park. Cormorants were also seen standing on the dock, pilings, or wires at or near the beach, with wings spread open to dry after diving for fish. In flight along the cost, they often travel in flocks, but they were regularly observed flying individually or in pairs over SBA when traveling between the ocean, Goleta Slough, and local on-shore freshwater bodies.

No species within this guild were confirmed by feather or DNA analysis to have been struck by aircraft at SBA during an 8-year period (Table 5). However, this species was reported in connection with bird strikes on February 15, 2000; August 17, 2001; and December 13, 2007. An individual found dead on August 17, 2001, was believed to have been killed by an aircraft and was identified by a Wildlife Services biologist. Although the other two strikes were not confirmed by feather or DNA analysis, the identity of the individuals involved in the strikes was likely correct, given the ease in identifying this familiar species. The FAA has ranked pelicans and cormorants as the fourth most hazardous species group to aviation (Table 1), and they are considered to pose a high hazard at the Airport. Pelicans and cormorants accounted for 2% of total observations, with 84% being seen off-airport (Table 7). They were observed equally in the

evening (36%) and midday (35%) periods, and were primarily engaged in feeding (24%), nesting (23%, all double-crested cormorants), flying (31%), or loafing (11%) activities. Cormorants (mostly double-crested) comprised 76% of birds observed in this guild, while brown pelicans made up 24% of the observations (Appendix D). Pelicans were more common in December, while cormorants were more frequently observed in January and during the breeding season of May–July (Chart 8). Cormorants were most frequently observed on-airport in Tecolotito Creek from Points 6 and 11, and off-airport in the ocean or in the vicinity of the nesting colony. Pelicans were most often observed in association with the ocean or beach at Point 12.

Chart 8
Pelicans and Cormorants, by Month



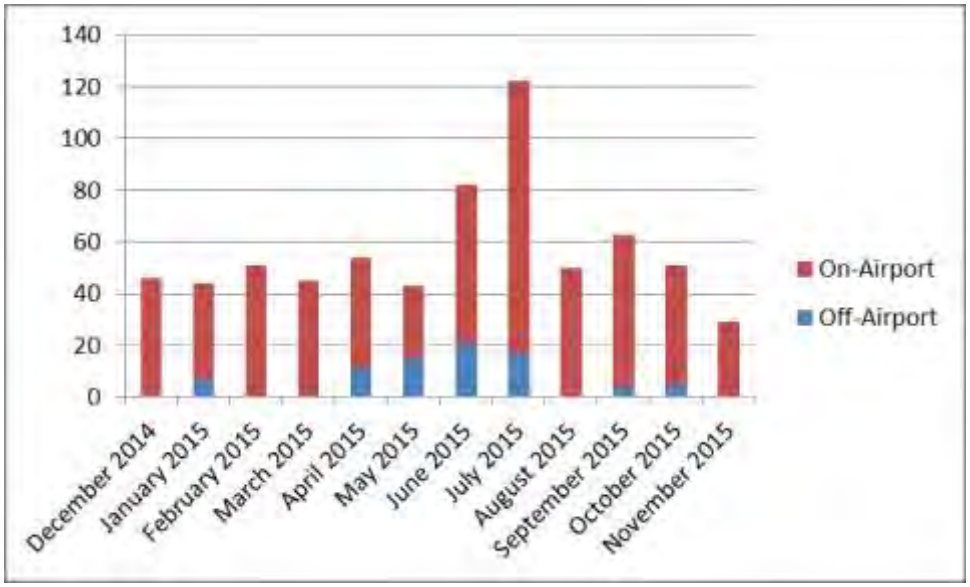
5.2.1.4 Wading birds

Great blue herons, great egrets, and snowy egrets are fairly common wading birds in Santa Barbara County and typically are associated with wetland habitats that support good populations of fish, frogs, and other small vertebrates. Great blue herons and great egrets are also frequently seen foraging for rodents, such as California voles (*Microtus californicus*) and Botta's pocket gophers (*Thomomys bottae*), in grassy upland areas, often far from water. Great blue herons and great egrets were frequently observed in low numbers at SBA in grassy upland areas and around Goleta Slough and other various water bodies in the vicinity of SBA throughout the WHA. Great blue herons and great egrets breed in a rookery with double-crested cormorants on the Southern California Gas Company property adjacent to the mouth of Goleta Slough and Goleta Beach County Park. Snowy egrets were also observed regularly during the surveys; however, this

species is smaller and more associated with Goleta Slough than with the airfield, so is less of a hazard to aircraft. Black-crowned night-herons were observed only during two during surveys, but are known to occur in vicinity of SBA, including in a seasonal roost at Goleta Beach County Park. One black-crowned night-heron was struck in 2007 (Table 5). This species typically roosts in dense trees during the day and forages for fish and invertebrates along wetland edges at dusk and during the night and early morning. Suitable foraging habitat is limited to Goleta Slough, creeks, and other ponds located in the vicinity of the SBA.

Herons and egrets pose a moderate hazard at the Airport. They occur only in relatively small numbers, but they constitute a potential hazard to aircraft due to their large size and tendency to forage in grasslands in the infield area and take flight when disturbed. Herons are ranked the tenth most hazardous species group to aviation (Table 1), and great blue herons (1%), great egrets (1%), and black-crown night heron (1%) represent 3% of the known bird species struck by aircraft at SBA over a 8-year period (Table 5). Wading birds represented 2% of all birds observed, but 88% of those observed were on SBA property (Table 7). Individuals were most often observed during the morning (37%), but also commonly seen in the midday (33%) and evening (30%), and were primarily engaged in feeding (50%), loafing (23%), flying (16%), or nesting (8%) behaviors. They were primarily observed from point 11, which overlooks the southeastern portion of the Airport slough area. Birds were observed throughout surveys, but were most common on the airport during July 2015 (Chart 9). Great blue herons (39%), great egrets (39%), and snowy egrets (21%) represented 99% of birds observed in this guild (Appendix D).

Chart 9
Wading Birds, by Month

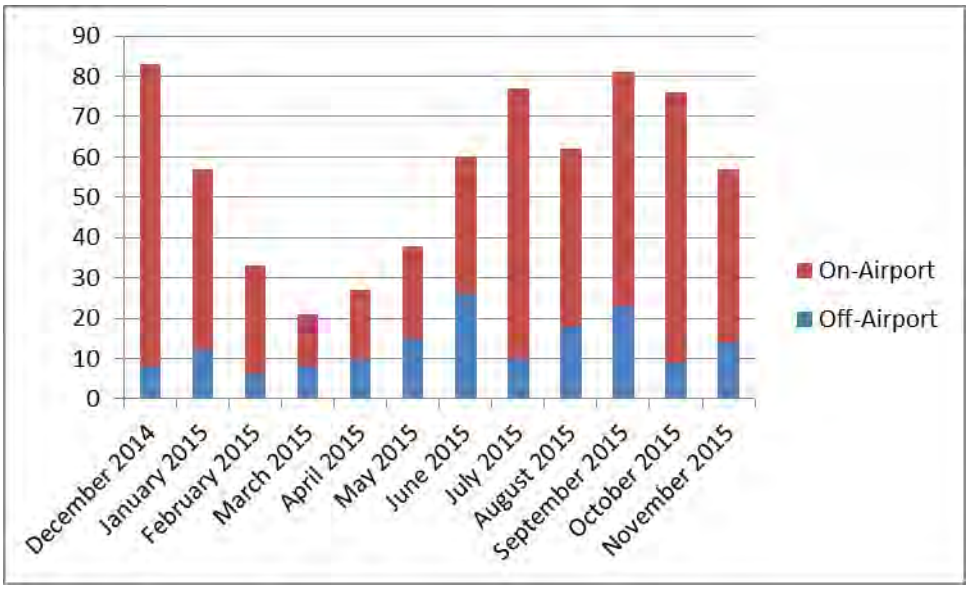


5.2.1.5 Raptors, Owls, and Vultures

Raptors, owls, and vultures are medium to large predatory birds and scavengers that pose a threat to aircraft because of their size, relative abundance as a guild, and flight behavior. Red-tailed hawks, white-tailed kites, and other raptors are attracted to SBA by the presence of an open landscape and a prey base of small mammals and birds. Other important attractants are exposed perch, roost, and nest sites (e.g., tall trees, utility poles, radar towers). At least two pairs of red-tailed hawks nest in the immediately vicinity of SBA, and individuals were frequently observed around the airfield throughout the WHA. A third pair attempted to nest in the glideslope antenna, near Runway 07. Other species such as Cooper's hawks and red-shouldered hawks are attracted to woodland and edge habitats along the creeks in the airport vicinity, which provide foraging, perching, and nesting opportunities. These species were infrequently observed. The presence of ducks, rock pigeons, and other birds can attract peregrine falcons (*Falco peregrinus*), while the availability of fish in the creeks and other adjacent waterbodies to SBA can attract osprey (*Pandion haliaetus*). The American kestrel is a common small raptor in Santa Barbara County, but it generally occurs in low population densities. The resident population is augmented in the fall and winter by migrants from more northern areas. American kestrels were regularly observed in open areas around and within SBA. In general, raptors were seen in moderate but consistent numbers during the surveys, perching on structures, signs, windsocks, and airport lights, as well as on fences and power poles at the airport perimeter.

The barn owl is also common species in the County that was observed during nighttime spotlighting surveys foraging over open habitats in search of small mammals such as voles and pocket gophers. Barn owls typically roost in abandoned buildings, holes in large trees, or in other secluded natural or human-created cavities. Individuals are known to currently utilize the northeast hangar of Signature Flight Support on SBA for roosting and nesting. Turkey vultures were regularly observed soaring over SBA and vicinity during the survey period. Turkey vultures feed on carrion, which they detect by sight and smell as they soar over the landscape. On several occasions, small groups were observed gathered in the grasses near the airfield. Despite the relative lack of fresh carrion at SBA, two factors likely attract turkey vultures: the large area of open habitat with relatively light human activity, and thermals, which turkey vultures use to facilitate soaring and which may be more frequent over the open paved runways and short-grass infields. Several roosting sites are known in the Goleta area within several miles of SBA, and this very large species appeared daily around the airfield in late morning and early afternoon.

Chart 10
Raptors, Owls, and Vultures, by Month

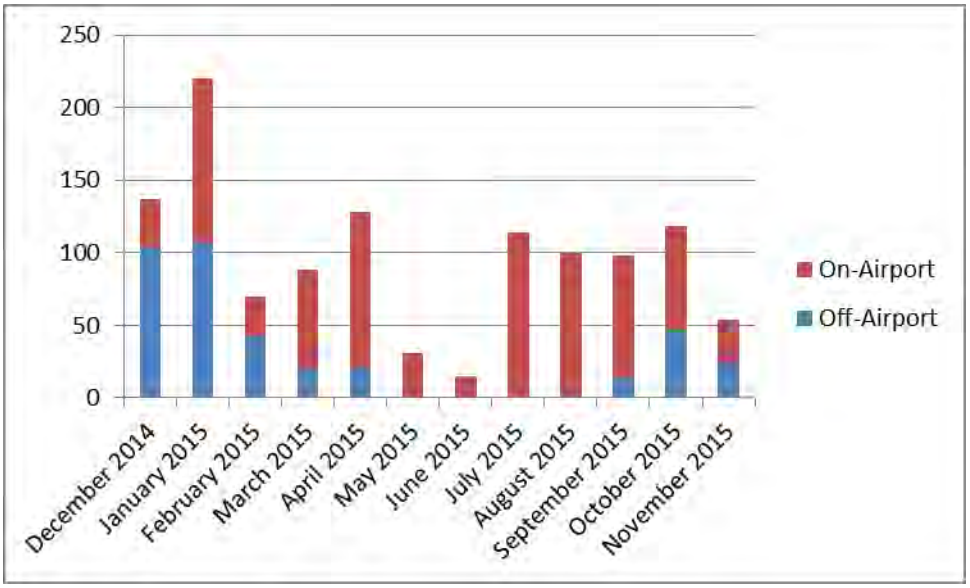


The FAA has identified species within the raptor, owl, and vulture guild as some of the greatest threats to aviation based on the number of recorded strikes. Vultures are ranked the second most hazardous species to aviation, while osprey, hawks, owls, and American kestrels are ranked 8, 11, 14, and 21, respectively (Table 1). This guild represents 29% of the known birds struck by aircraft at SBA over a 8-year period (Table 5). American kestrels represent 13%, while barn owls and turkey vultures represent 7% and 4%, respectively. Other raptor species less commonly observed on SBA (prairie falcons [*Falco mexicanus*], red-tailed hawks, white-tailed kites [each 1%] and peregrine falcons [2%]) represent 5% of the combined known strikes at the airport. Other species reported struck (but not confirmed by DNA analysis) include northern harrier, Cooper's hawk, and red-shouldered hawk. Species within the raptor, owl, and vulture guild represented 2% of all birds observed, although 76% of those observed were on SBA property (Table 7). Individuals were primarily observed soaring or flying (56%) or perched (34%), and were seen more frequently during the morning (42%) and midday (33%) periods. On-airport, they were commonly observed from all survey points, but somewhat more frequently on the west side of SBA due to their association with the glideslope antenna north of Runway 07. Most off-airport observations were from Point 14, north of the airport in an area that supports both nesting and foraging individuals. Birds in this guild were observed regularly throughout the year, but were most frequently seen during the late summer, fall, and early winter periods (Chart 10). Individually, turkey vultures represented 47% of birds observed in this guild, red-tailed hawks 39%, and American kestrels 7% (all other raptors were ≤ 2%; Appendix D).

5.2.1.6 Shorebirds

Birds in this group are small to medium-sized, long-legged birds typically found foraging on invertebrates around the edges of ponds, lake, sloughs, oceans, or short grass fields. At SBA, these species include killdeer, marbled godwits, long-billed curlews, whimbrels, willets, greater yellowlegs, small sandpipers, black-necked stilts (*Himantopus mexicanus*), and plovers. Species in this guild often occur as individuals, pairs, or in small, mixed species groups, but can occur in larger flocks, especially during migration and winter. While most of these species do not breed in the SBA area, killdeer often use gravel and hard surfaces for grit and nesting areas, and were frequently observed on runway edges, taxiway edges, and ramps, and nesting along the perimeter road. With the exception of killdeer, the species in this guild were primarily observed at the Goleta Beach and Goleta Slough. However, during winter 2014-2015, long-billed curlews, willets, marbled godwits, and whimbrels were also observed feeding in the grasses around the airfield, and crossing or loafing on runway edges, taxiway edges, and ramps, sometimes in flocks of ten or more. As conditions turned drier in late winter, these observations occurred less often.

Chart 11
Shorebirds, by Month



Shorebirds generally were recorded in low numbers at SBA. However, as noted above, large concentrations can occur and can pose a moderate hazard to aircraft. Shorebirds are ranked 19th on the FAA's hazardous species to aviation list (Table 1). They represent 12% of the combined known species struck by aircraft at SBA, with killdeer making up 9% of the total strikes, and semipalmated plovers (*Charadrius semipalmatus*), long-billed curlew, and red-necked phalarope

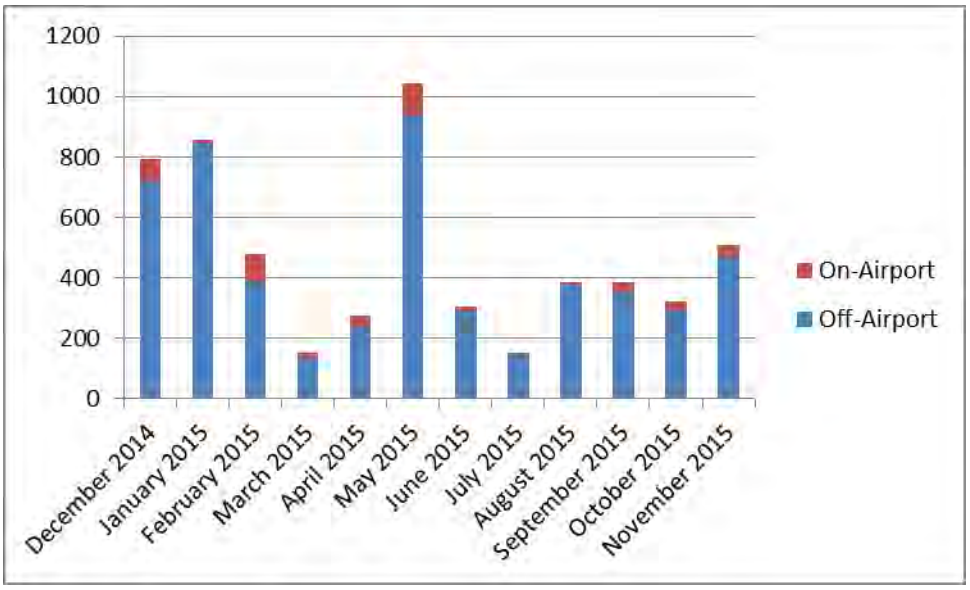
(*Phalaropus lobatus*) each representing 1% (Table 5). This guild represented 4% of all birds observed; 67% of those observed were on SBA property (Table 7). Species in the guild were observed equally at all times of the day, and were most commonly seen in the slough portion of the airport or associated with the Goleta Beach area off-airport property. But, as noted above, several species were also observed along the edges of taxiways and runways. Shorebirds were observed each month, but peak observations occurred during December and January, when overwintering and resident species were present, as well as during peak spring migration in April. Relatively steady numbers were recorded during fall migration, from July to October (Chart 11). Birds were most commonly observed feeding (53%), loafing (23%), or flying (14%). Killdeer were the most common species observed (21%), followed by black-necked stilts (12%) and sanderlings (11%; Appendix D). Of those observed in the grassland areas around the airport, whimbrels were 10% of the observations in this guild, willets 8%, marbled godwits 6%, and long-billed curlews 2% (Appendix D).

5.2.1.7 Gulls and terns

Gulls accounted 96% of the birds observed in this guild, with terns accounting for only 4% (Appendix D). Gulls are medium-sized birds that are fairly common in Santa Barbara County; six species were observed during surveys. Gulls are opportunistic and will feed on a large variety of prey, including grasshoppers, fish, frogs, ground-nesting birds, other small vertebrates, and human refuse. Gulls will also flock onto hard surfaces, especially after rain events, to forage on earthworms. Loose debris can attract gulls, presumably because the litter is mistaken for other gulls or for food, which can encourages flocking. During the surveys, flocks of several dozens were regularly observed at Goleta Beach and Goleta Bay, from Point 12. Although these flocks are away from the airfield, they are subject to regular disturbances by beach-goers, which can result in a large number of birds in the airspace near the south side of Runway 33. Additionally, individual and small groups of gulls were commonly observed flying over the airfield and vicinity while traversing between favored feeding, roosting, and loafing sites in the Goleta area. Gulls also often gather on or near runways of coastal airports like SBA when storms prevent their roosting at sea or on coastal beaches.

Gulls are ranked 12th on the FAA's hazardous species to aviation list (Table 1). All of the observed species of gull have a moderate likelihood of being involved with an air strike at SBA, and this group represents 4% of the known strikes during an 8-year period (Table 5). This guild represented 18% of all birds observed, with 92% of them being observed off SBA property (Table 7). Birds were most often observed in the evening (45%) and midday (32%), and were seen engaged in loafing (66%), flying (14%), or feeding (11%) activities, primarily at the Goleta Beach area south of the Airport. Gulls were observed regularly through the year but were most common during the winter period of December to January, and during May (Chart 12).

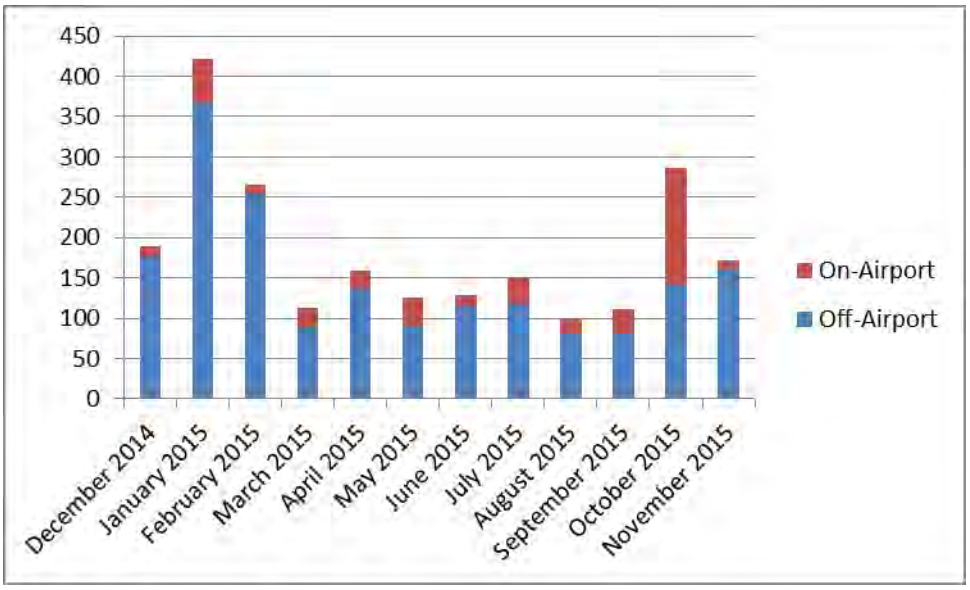
Chart 12
Gulls and Terns, by Month



5.2.1.8 Doves and Pigeons

Doves and pigeons are small to medium-sized birds that are typically observed in small to large flocks and forage for various types of seeds on the ground. These species serve as prey for certain raptor species, such as peregrine falcons. Rock pigeons primarily roost and nest on and in buildings, and the primary attractant for them at the SBA is most likely the availability of a secure roost/nest sites in buildings. The species was occasionally observed in flocks in transit over the airfield during surveys. The Goleta Pier, at Goleta Beach County Park, is also an important roost site, and small to moderate size flocks sometimes occur in the parking lot at the east end of the park or along the beach front. Mourning doves (*Zenaida macroura*) breed in scrubland in the mitigation areas surrounding Goleta Slough. Local numbers of mourning doves are expected to be augmented by winter visitors, but based on observations , large aggregations of these birds are rare on the airport property. Mourning doves were observed in moderate to low numbers, with individuals and pairs frequently observed adjacent to or in transit over the airfield during surveys. However, flocks between 22 and 35 were observed during all four surveys from Point 7, near the ASR and in Grid Square Y8, during October 2015. Eurasian collared-doves (*Streptopelia decaocto*) occur around buildings and ornamental vegetation north of the airfield and were observed occasionally during surveys.

Chart 13
Doves and Pigeons, by Month



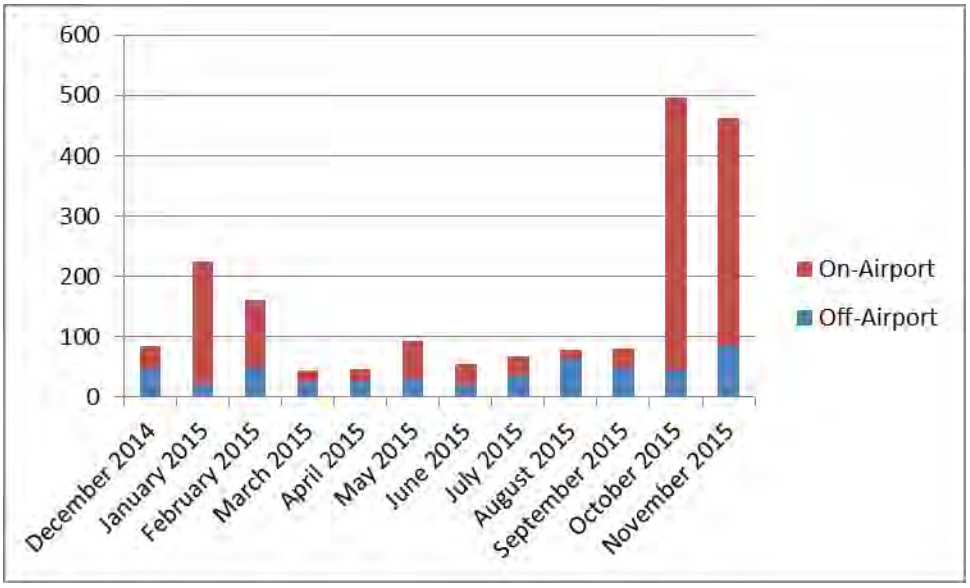
Doves and pigeons generally pose a low hazard to aircraft when occurring individually or in pairs, and most of the observed activity was outside of the flight path of aircraft. However, these species are considered to have a moderate threat overall at SBA, as large flocks of rock pigeons are known or have a high potential to travel across the airfield and surrounding areas. Rock pigeons and mourning doves are ranked the 13th and 18th, respectively, on the FAA's hazardous species to aviation list (Table 1). These species represent 3% of the combined known species struck by aircraft at SBA over an 8-year period (Table 5). This guild represented 7% of all birds observed; 81% of those observed were off SBA property (Table 7), including 71% at Point 12 at Goleta Beach County Park. Individuals were observed equally at all time of the day, and were primarily engaged in loafing or perching (62%) or flying (30%) behaviors. Rock pigeons accounted for 86% of all birds observed in this guild, with mourning doves 12% of the time, and band-tailed pigeons (*Patagioenas fasciata*) and Eurasian collared-doves combined 2% (Appendix D). Birds in this guild were observed during each survey month, but were most common during the late fall and winter months (Chart 13).

5.2.1.9 Crows and Ravens

With the exception of one observation of a common raven, all birds observed in this guild were American crows (Appendix D). American crows are medium-sized birds that are recognized for their high level of intelligence. They are social and often observed traveling in small to large flocks. Crows are omnivores and feed on a range of food items such as crops, fruit, carrion,

insects, and human refuse. This species was frequently seen flying over the airfield in small numbers, although flocks of more than 20 were seen on occasion, either in trees near the airport or in grasses near the airfield. Two large roosts of at least several hundred birds are known in the area, and large flocks are known to move over the airfield and vicinity on a nightly basis in fall and winter.

Chart 14
Crows and Ravens, by Month

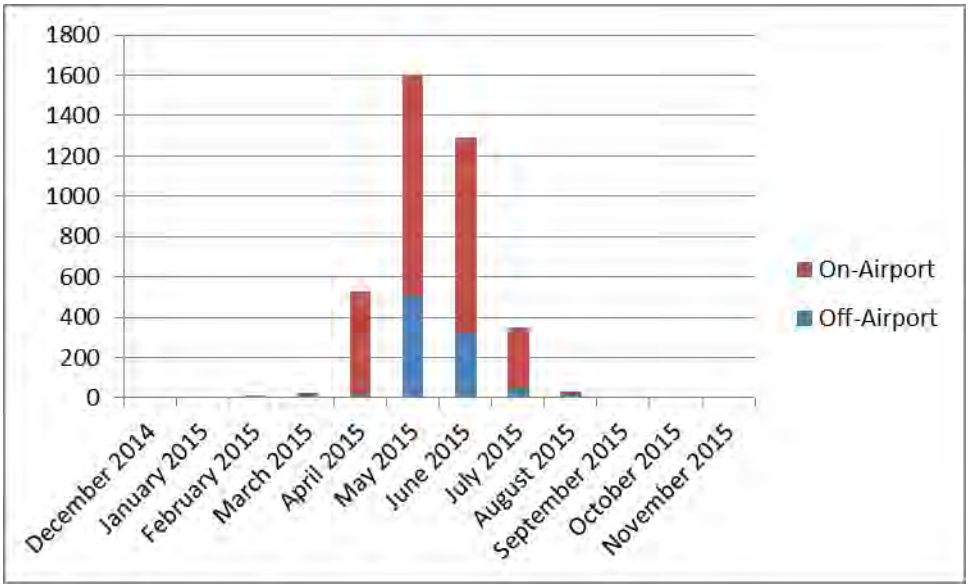


Although they appear infrequently in strike records (1%; Table 5), the species is considered to have a moderate threat overall at the SBA due to their known tendency to travel across the airfield and surrounding areas in large numbers in the fall and winter periods. American crows are ranked the 16th most hazardous species to aviation (Table 1) and represented 6% of all birds observed, with 74% observed from within the airport (Table 7). Crows were most frequently observed in the evening (50%) and midday (34%), and were most often seen flying (73%) from the central survey points on-airport (points 1, 2, 8, and 10). Off-airport, crow observations were most common at point 15, which is located on the west side of the airport. Some individual and small groups of crows were observed each month; large flocks were observed in October and November as they traveled west to east, over and north of the airfield to a roost located east of Runway 25 (on both occasions the birds were observed moving through the approaches to both Runway 07 and 25; Chart 14).

5.2.1.10 Aerial Foragers

Swallows and swifts are small birds that forage for flying insects in the air and often occur in loose flocks over water, open fields, and open woodland habitat. They can occur in large numbers near breeding colonies and when insect activity is greatest. Flocks of swallows are often attracted to insect prey over fields that are being actively mowed. Some species such as the cliff swallow can form large nesting colonies, placing their mud nests under bridges, under the eaves of buildings, and in other sheltered places on human-made structures. At SBA, dozens of pairs of cliff swallows were observed nesting at a well-known colony under the bike bridge over Tecolotito Creek, near the end of Runway 33, starting in April. Large numbers were observed foraging throughout the airfield and surrounding areas during the surveys. They were also sometimes observed perching on the perimeter fence at various locations around SBA. Swallows and swifts are highly migratory birds, and are generally present in large numbers in Santa Barbara County only during the spring and summer months. Although swallows accounted for nearly all aerial foragers, white-throated swifts (*Aeronautes saxatalis*) also occur at SBA.

Chart 15
Aerial Foragers, by Month



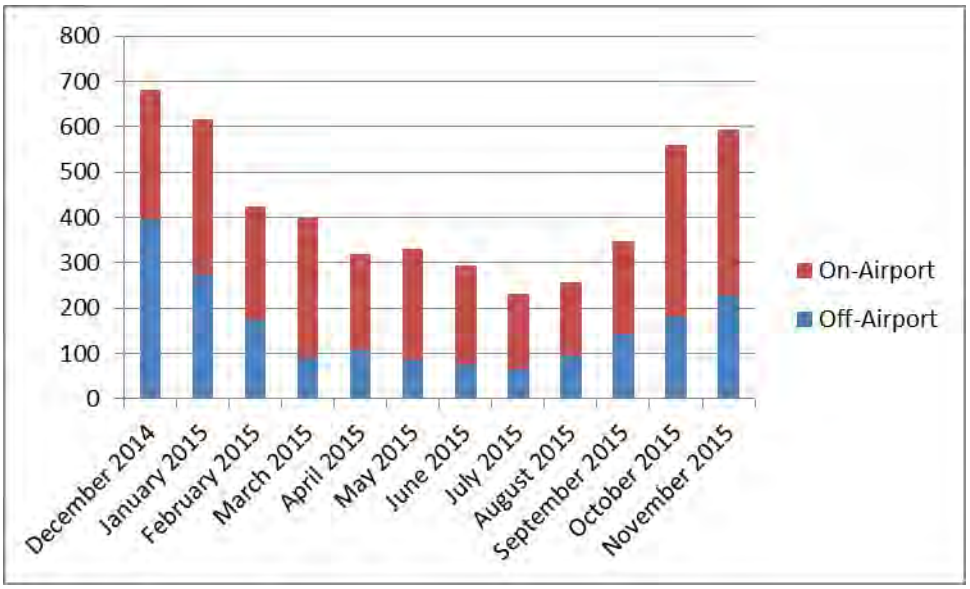
The relative risk posed by this guild is highest in spring and summer, when large numbers of swallows are present in the airspace. Although swallows are ranked 23 out of the FAA's top 25 hazardous species to aviation (Table 1), at SBA, cliff swallows represent 21% of all known strikes during an 8-year period (Table 5). This guild represented 13% of all birds observed, with 76% of those being observed on SBA property (Table 7). Cliff swallows were observed most

frequently from Point 6, which is near the bike bridge. Off-airport observations were dominated by birds foraging in the open habitats around Point 14, north of the airport. Individuals were most often observed in the midday (44%) and evening (31%) periods, and were nearly always seen flying and feeding (98%). Cliff swallows represented 67% of those identified in this guild (Appendix D). Swallows were present in the greatest numbers during the breeding season, April through July (Chart 15). White-throated swifts were observed only twice during surveys, both times in small numbers (less than 10) and on SBA.

5.2.1.11 Woodland/Scrub Birds

Woodland/scrub birds are small species typically associated with woodland or woodland/grassland/scrub edge habitat, where they feed on seeds, berries, and insects. Fifty-two species of this guild were observed in or around SBA, including finches, sparrows and towhees, warblers, thrashers, shrikes, jays and mockingbirds, flycatchers, titmice, bushtits (*Psaltriparus minimus*), waxwings, hummingbirds, thrushes, woodpeckers, and wrens. Many of these species do not aggregate in large flocks, but some can occur in large numbers during migration and winter. The most common individual species observed in this guild were house finches (23%), yellow-rumped warblers (11%), northern mockingbirds (8%), common yellowthroats (7%), song sparrows (7%), and cedar waxwings (5%; Appendix D). All other species individually comprised less than 5% (each) of the total birds observed within this guild (Appendix D).

Chart 16
Woodland/Scrub Birds, by Month



Species within this guild represent 4% of the known strikes to date at the SBA, with one strike each of a loggerhead shrike (*Lanius ludovicianus*), northern mockingbird, Swainson's thrush, and chipping sparrow (*Spizella passerine*; Table 5). The majority of these species are considered to pose a low hazard to the Airport and none individually, or as a guild, are listed within the top 25 most hazardous species (Table 1). However, despite appearing infrequently in strike records (Table 5) they pose a moderate risk to aircraft at SBA due to some species with larger numbers and flocking tendencies during the migratory and winter periods (e.g., house finch, sparrows, waxwings) or their foraging habits (e.g., shrikes), which take them into grassland area around taxiways and runways. These species comprised 17% of the total observations, with 62% observed on SBA (Table 7), where they were mostly associated with the scrubby habitats around the airport perimeter (off-site they were most frequently observed from Point 14 that supported the most woodland and scrub habitats). Woodland/scrub birds were most commonly observed in the morning (40%) and afternoon (33%), and were primarily engaged in vocalizing (52%), flying (18%), feeding (14%), or perching (14%) activities. By type or group within the guild, the most common species were finches (26%), sparrows and towhees (16%), warblers (19%), thrashers, shrikes, jays, and mockingbirds (9%), flycatchers (6%), and waxwings (5%; Appendix D). All other groups (e.g., hummingbirds, thrushes, woodpeckers, wrens) accounted for less than 5% or less (each) of the total woodland/scrub bird groups observed. Birds in this guild were most frequently observed in the late fall and winter (Chart 16).

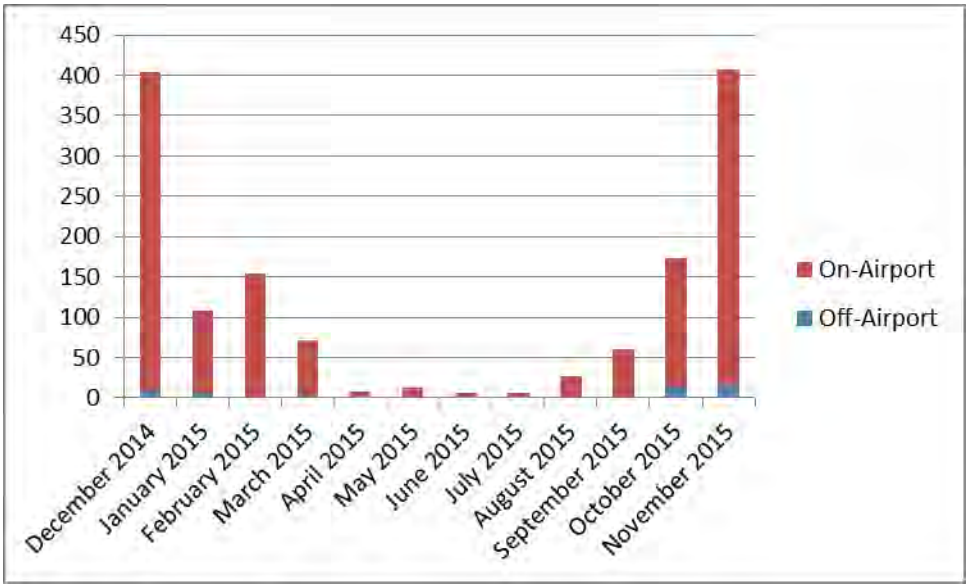
5.2.1.12 Grassland Birds

Grassland birds are small species that typically favor grassland or brushy edge habitat, where they feed on seeds and insects. Species represented in this guild at the SBA include western meadowlarks, horned larks (*Eremophila alpestris*), savannah sparrows, and American pipits. Many species of sparrow do not aggregate into large flocks; however meadowlarks, horned larks, and pipits can occur in large numbers in the area during migration and winter. Western meadowlarks were the most common grassland species observed, including in groups of 40 or more in grasses around the airfield, although none were observed April through August.

The relative risk posed by species by this group at SBA is low during the summer. However, due to their larger numbers and the flocking tendencies of some species, they present a moderate risk during the migratory and winter periods. Horned larks, meadowlarks, and sparrows (all species) are ranked 15th, 22nd, 24th, respectively, on the FAA's hazardous species to aviation list (Table 1). These species represent 16% of the known strikes to date, with meadowlarks comprising 14% and horned larks 2% (Table 5). This guild represented 5% of all birds observed, with 96% of them being observed on SBA property (Table 7). Grassland species were more frequently observed during midday (48%), but were also commonly seen in the morning (28%) and evening (24%). The most frequent activities included flying (39%), feeding (26%), and vocalizing (11%). Western meadowlarks (68%) and savannah sparrows (27%) accounted for the majority of the

species observed in this guild (Appendix D). Birds were observed more frequently during the winter months, when both resident and overwintering species were present, and during migration periods in the spring and fall (Chart 17).

Chart 17
Grassland Birds, by Month

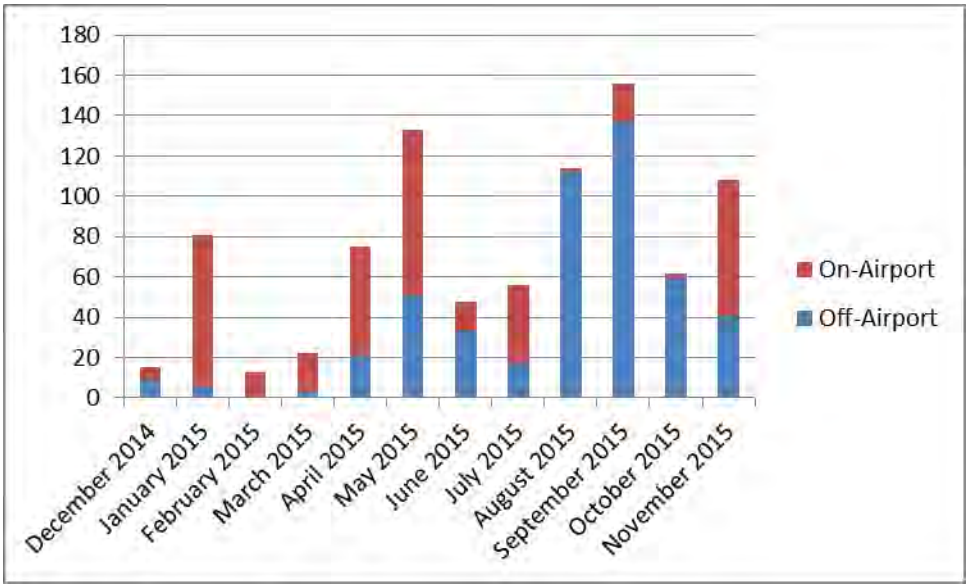


5.2.1.13 Blackbirds and Starlings

Blackbirds and starlings are small to medium-sized passerine birds that are common in Santa Barbara County. They are associated with a wide range of habitats, from urban to natural habitats. They are attracted to grass, crops, livestock facilities, and landfills. Both can also be commonly found feeding in developed areas such as around beaches, restaurants, shopping centers, lawns, fields, sidewalks, and parking lots. Starlings are not native to the Americas but are now one of the continent's most numerous songbirds. They are well adapted to urban environments, which provide abundant nesting and foraging sites. Starlings and blackbirds are boisterous and loud, and can gather in large flocks, some numbering tens of thousands. Blackbirds, including red-winged blackbirds common the SBA vicinity, often nest in colonies in breeding habitat that is open to semi-open, often near water. Cattails (*Typha* sp.) and tall grass are often utilized for nesting, but some blackbirds, such as Brewer's (*Euphagus cyanocephalus*), will nest in trees or on cliffs. Colonies of red-winged blackbirds are known to nest in the Goleta Slough area of SBA, and this species was frequently observed there in large numbers during the breeding season. Starlings were observed nesting in small numbers in several buildings on the airport, are flocks of 30 to 50 birds were occasionally observed within SBA in the spring and

winter (also, 160 were observed incidentally around the fuel farm in November 2015). Brewer's blackbirds were primarily observed off-airport during the late summer and fall, where they were observed on several occasions in flocks of 20 to 80 individuals.

Chart 18
Blackbirds and Starlings, by Month



SBA bird-strike data include no confirmed records of strikes of species within this guild during an 8-year period (Table 5). However, blackbirds and starlings pose a moderate hazard at the Airport, and have been reported strikes at the SBA (although these were not verified by feather or DNA analysis). The relatively small physical size of this guild poses only a minor threat to aviation; however, the flocking nature of these species greatly increases the hazard, and aircraft strikes usually involve multiple birds. The FAA has ranked blackbirds and starlings as the 20th most hazardous species group to aviation (Table 1). This guild comprised 3% of all observations, with 56% on-airport and 44% off-airport (Table 7). Individuals were observed slightly more often in the evening (38%), but were also commonly seen during the morning and midday periods (31% each). Birds were most often seen perching (35%), feeding (27%), or flying (24%). Individually, Brewer's blackbirds represented 37% of birds observed in this guild, followed by European starlings (30%) and red-winged blackbirds (23%; Appendix D). Brewer's blackbirds were most often observed off-airport at Goleta Beach County Park and Girsh Park (Points 12 and 15), while red-winged blackbirds were most commonly observed from Point 10, where the nesting colony was visible in the cattails of the Goleta Slough. Starlings were observed in the largest numbers on airport, associated with the largest flocks occurring at Point 4 on the east side of SBA (30 on May 27, 2015, and 50 on November 19, 2015). Birds in this guild were most

frequently observed in May (all three of the most common species), in August and September (primarily Brewer's blackbirds), and in November (starlings; Chart 18).

5.3 Mammal Surveys

Mammal observations were recorded during night-time spotlighting, camera studies, small mammal trapping, and incidentally during bird surveys and other work.

5.3.1 Night-time Spotlighting

Six mammal species were observed during night-time spotlighting. No mammals larger than raccoons (*Procyon lotor*) and red foxes (*Vulpes vulpes*) were observed. Brush rabbirs were the most frequently observed mammal during spotlighting and were also the only mammals observed during each spotlighting survey, with at least two observed per survey and a maximum of 8 individuals on November 17, 2015. Brush rabbits occurred along the edges of scrub habitats north of Runway 07 and at the edge of the Goleta Slough Ecological Reserve, south of Taxiway A. Striped skunks (*Mephitis mephitis*) were observed during three of the four surveys, with a high of five on November 17, 2015, when the species was observed in grasses north of Runway 07 and in the approach (south) of Runway 33. Raccoons were observed on two occasions: two during winter spotlighting on February 18, at the edge of scrub habitat near Los Carneros Creek and north of Runway 07, and one on August 26, 2015, in the same area. Two long-tailed weasels (*Mustela frenata*) were observed on November 17, 2015, in the approach (north) of Runway 15. An unidentified rat (*Rattus* sp.) was observed along the access road near the west end of Runway 07 on May 28, 2015. A red fox was observed incidentally in the early morning of August 27, 2015, after night-time spotlighting, in the parking lot for the SBA administrative offices. Several bird species were also observed during spotlighting. Killdeer, a shorebird species active at night, were observed widely around SBA during surveys. Several other species of shorebird and several species of waterfowl were in evidence in Goleta Slough in areas where these species were recorded during bird surveys. A single barn owl was observed in grassland north of Runway 15 on May 28, 2015. One was observed flying in the same area on August 26, 2015, and a second individual was observed the same night on a light fixture in the approach to Runway 07.

5.3.2 Camera Studies

Nine camera stations were active during surveys. Table 8 includes the dates of activity and the number of days for each camera station.

Eleven mammals species were identified from photographs during camera studies: bobcat (*Lynx rufus*), brush rabbit, California ground squirrel (*Spermophilus beecheyi*), coyote, red fox, roof rat (*Rattus rattus*), raccoon, striped skunk, Virginia opossum (*Didelphis virginiana*), domestic dog (*Canis familiaris*), and human. Several unidentified rodents were also captured. In terms of the

number of camera days captured, the most frequently photographed mammal species was the raccoon, at 180 camera days out of a total of 886 camera days of data. This species was captured at seven of nine camera stations and was captured on 88 of 149 days at Camera Station 1A (Table 8). Brush rabbits were the second most frequently captured species, at 11 camera days, with Camera Stations 2A (44 days) and 2B (54 days) the locations of the greatest activity. Virginia opossums (67 days), bobcats (66 days), and striped skunks (46) were also captured relatively frequently. Coyotes, a highly mobile species and one of only two mammals species/groups ranked in FAA's top 25 hazardous species to aviation list, were captured on 40 camera days, but was captured only 4 times during the final seven months of the study. No other mammal species was captured on more than 11 camera days. Bobcats (8 locations) were recorded at the most locations 8). After coyotes, and excluding humans and domestic dogs, this is probably the most mobile species captured. Coyotes, despite being recorded only 40 times overall, were captured at 7 locations. Raccoons and striped skunks were also captured at 7 locations.

The most active locations for mammals during camera studies were Camera Stations 1A, 2B, and 2A. Camera Station 1A captured 8 different mammal species over a total of 149 camera days; Camera Station 2B captured 8 mammal species on a total of 86 camera days; and Camera Station 2A captured a minimum of 7 mammal species on a total of 84 camera days. Camera Station 1C, by contrast, captured only one mammal species (bobcat) in 86 days. Camera Stations 3B, 2C, and 3C all captured only three mammal species.

In addition to capturing a high number of species and having a high overall capture rate, Camera Station 1A captured the two most mobile species, bobcats and coyotes, at the highest rates of frequency (Table 8). This may suggest some animals passing Camera Station 1A, located at a potential access point, are using Tecolotito Creek to access the airport. In many of the photos taken at Camera Station 1A, raccoons were photographed moving up and down the creek, between the Hollister Avenue bridge and the airport. This suggests this species is moving freely between the airport and adjacent property via this route. However, coyotes and bobcats, two highly mobile species, were often photographed moving across the creek, rather than along it, suggesting these animals were not using the Hollister Avenue bridge as an access point for the airport, and that they may be permanent or seasonal residents, or using some other point to access the airport. But note that bobcats captured at Camera Station 2A appeared to be moving under the bridge to access the site. Raccoons at Camera Station 3A also appeared to be passing under the bike bridge to access the site. A variety of smaller mammals, possibly including red foxes, appeared to be using the culvert at Camera Station 2B to move between the site and surrounding areas, although somewhat larger species, coyotes and bobcats, were infrequently captured here and may not use the culvert to access the site.

Table 8
Camera Station Days Photographed, per Mammal Species and Camera Station

Species	Camera Station (# days active)									Total (886 days)
	1A (149 days	2A (84 days)	3A (109 days)	1B (88 days)	2B (86 days)	3B (103 days)	1C (86 days	2C (86 days)	3C (95 days)	
Bobcat	32	9	3	5	1	9	4	3	--	66
Brush rabbit	6	44	--	7	54	--	--	--	--	111
California ground squirrel	3	--	--	--	8	--	--	--	--	11
Coyote	21	1	1	5	4	5	--	2	1	40
Domestic dog	--	--	1	--	--	--	--	--	--	1
Human	--	--	1	--	--	--	--	--	--	1
Red fox	--	--	--	--	6	--	--	--	--	6
Raccoon	88	37	24	4	18	8	--	--	1	180
Roof rat (black rat)	1	--	--	--	--	--	--	--	--	1
Striped skunk	9	2	1	2	28	--	--	1	3	46
Unidentified rodent	--	31	--	--	--	--	--	--	--	31
Virginia opossum	9	17	--	--	41	--	--	--	--	67
Total capture days	*169*	*141*	*31*	*23*	*160*	*22*	*4*	*6*	*5*	*561*

5.3.3 Small Mammal Trapping

A total of 33 small mammals, 1 western fence lizard (*Sceloporus occidentalis*), and 1 California towhee (*Melozone crissalis*) were captured during the April trapping session, while 72 small mammals and one brush rabbit were captured in November (Table 9). The dominant small mammal species captured (103 of 105) was the western harvest mouse (*Reithrodontomys megalotis*). This species was trapped on all four grids, although the majority of the animals were captured at Grid 2 in the more upland portion of the grid, which was primarily coyote brush scrub.

Table 9
Number of Small Animals Captured per Trap Night
April 2015 and November 2015

Grid	Habitat	Captures Per Trap Night			
		April 29	April 30	November 5	November 6
1	Scrub/grassland transitional	0	1 western harvest mouse	6 western harvest mice	13 western harvest mice 1 California vole
2	Scrub/marsh transitional	13 western harvest mice (12 in the more upland trap line)	18 western harvest mice (16 in the more upland trap line)	12 western harvest mice (11 in the more upland trap line) 1 brush rabbit	30 western harvest mice (24 in the more upland trap line)
3	Grassland	0	1 western harvest mouse	5 western harvest mice	3 western harvest mice 1 deer mouse
4	Grassland	1 western fence lizard	1 California towhee	0	1 western harvest mouse

5.3.4 Incidental Observations

One mammal species in addition to those species mentioned above was observed incidentally during surveys. Botta's pocket gophers (*Thomomys bottae*) likely serve as an attractant for several predatory species at SBA. Evidence of this was an observation of a great-blue heron consuming a Botta's pocket gopher in Grid Square Z7 during a bird point count survey. Another Botta's pocket gopher was observed above ground in Grid Square Y8 during bird surveys. In addition to attracting predators, gophers can be a nuisance because of repairs necessitated by their burrowing activities in infields. Sign of Botta's pocket gophers in the form of excavated burrow systems was observed commonly in Grid Squares X7, X8, Y6, Y7, and Y8.

5.4 Structures and Perimeter Fencing

Several observations recorded during the studies suggests some structures serve as attractants to wildlife, and that the modifications or repairs to perimeter fences could limit access by wildlife.

5.4.1 Perimeter Fence Inspection

SBA began addressing fence-related issues in the November 2015, when maintenance personnel began clearing vegetation away from fences in many areas, in preparation for fence replacement. SBA subsequently installed new perimeter fencing around a large part of its property. The primary areas of replacement were from near the World War II memorial south of Taxiway G,

east along Taxiway X, the length of the eastern boundary (including the wooden fence immediately east of Runway 07, bordering San Pedro Creek), and on the northern side of the airport to approximately the location of the City hangars. The project team observed the newly installed fence in some areas subsequent to the completion of studies. Some observations noting where perimeter fencing was not adequate for deterring wildlife no longer apply, and these instances are noted below. Currently, there are no plans to replace the fence within and adjacent to the Goleta Slough Ecological Reserve area, which includes much of the southern and western boundary of SBA, and a portion of the northern boundary.

In most portions of the perimeter fence that were inspected during the study period, height and design specifications mostly met FAA (2004) standards. However, no underground fencing was witnessed in any part of the perimeter fence. Therefore, in several areas, holes where animals had dug under the fence, or other gaps between the fence and the ground where animals might access the airport, were observed. In addition, as noted in the *Draft Final Airport Master Plan for the Santa Barbara Airport, Santa Barbara, California* (Coffman Associates 2014), two areas of the perimeter fence were generally not adequate to the purposes of such fencing during the study period. One area where the Goleta Slough Ecological Reserve borders UCSB included a chain link fence less than four feet high, lacking barbed-wire outriggers, and easily permeated by wildlife. Development associated with UCSB provides a significant barrier to wildlife potentially moving through this area, and no significant habitat patches exist within one mile of SBA in this area. Therefore, it is likely that fence permeability here mostly provides access for animals with small ranges occupying Goleta Slough, rather than permitting coyotes or any larger species a linkage between the slough and off-site habitat patches. Nonetheless, installation of fencing meeting FAA standards would further limit wildlife access in this area and meet current security requirements. Another portion of the fence was composed of wooden planks and no barbed wire during the study period. This section of fence, located along San Pedro Creek and Fairview Avenue in the approach of Runway 25, also included gaps between planks that potentially permitted access to the airfield by medium-sized animals, such as coyotes, bobcats, and raccoons (Appendix A). Coffman Associates (2014) called for installation of perimeter fencing per FAA standards in both the area bordering UCSB and at the location of the wooden fence within the Runway 25 approach. During the fall 2015, SBA installed a new fence per FAA standards within the existing wooden fence in the latter area. Therefore, issues involving this section of fence have been resolved.

In a third area, fence design more closely followed FAA standards but included many gaps and was encroached by significant growth of vegetation. Inspection of fences west of Basins K and L/M and extending to near Los Carneros Rd revealed many gaps at ground level, with some as large as 12 inches. The top of the fence, including the wire, was also observed to be in a state of disrepair in a number of locations. Vegetation was growing into the fence in many places, also potentially

providing access for wildlife. Fence replacement did not include these areas, as the slough is considered to provide a barrier to any security threats here. However, wildlife gaining access here would likely not be deterred by natural barriers. Note that a section of fence in the western portion of the area inspected included installation of hardware cloth along the bottom. This section is likely a much greater barrier to wildlife movement than other sections in this part of the airport. Also note that, as with the area immediately east of here, development associated with UCSB provides a movement barrier outside SBA property, for any species potentially accessing open areas west of the university. But upgrading the fence here to FAA standards would further limit wildlife access to SBA.

Specific gaps noted in other portions of the perimeter fence were noted in monthly reports and in a previous draft of this WHA. These gaps have since been addressed.

Areas where shrubs growing within or adjacent to the fence may permit access by wildlife include:

- Over a long stretch immediately south of Hollister Avenue along Los Carneros Rd;
- South of the V-54 gate (near the south end of Moffett Place); and
- Immediately west of the E-65 gate.

In addition to poor fence design, fence gaps, and vegetation growing within fences, wildlife can gain access to the airport through bridges and culverts supporting passage of several streams through SBA. Tecolotito Creek flows onto SBA property via a bridge under Hollister Avenue just east of Los Carneros Road. Los Carneros Creek flows onto SBA via a culvert under Firestone Road just east of Aero Camino. These creeks converge just north of Runway 07 and exit SBA south of Runway 33, under a wooden bicycle bridge. Two areas noted above where vegetation was observed growing into the perimeter fence are near locations where creeks provide access to SBA. In addition, some of the vegetation growing through the perimeter fence is part of mitigation for SBA projects.

5.4.2 Hangar Visits

Inspection of hangars during the study demonstrated some issues with wildlife access as well as efforts by hangar owners to deter wildlife entry. The northeast hangar of Signature Flight Support, east of Taxiway C, showed extensive evidence of the presence of barn owls on March 25, 2015, including extensive white wash (droppings), a small mammal carcass, and a barn owl feather (the latter two apparently under a preferred perch site). Signature Station Manager Matt Long stated that Signature has spent extensively to seal the hangar and prevent access by the owls, which have apparently roosted, and possibly nested, in this location for a number of years.

No large openings were observed during the visit on March 25, and no owls were observed. However, numerous small openings, some likely large enough permit access by a barn owl, were observed in the middle to upper portions of the hangar, particularly around the hangar doors.

During the visit to the City hangars on April 2, 2015, several house finch nests were observed on the outer track of several of the hangar doors, including an active nest being attended by adults. Bird droppings were observed within two of the hangars. No other sign of wildlife was observed. Inspection of Hangar 1 in October 2015 revealed deployment of bird netting, although a single small bird nest present in the hangar suggested at least some access by wildlife. In Hangar T11, also visited in October 2015, a dead/desiccated gopher and a large pellet (likely from an owl) were found inside the door (given the distance of the hangar to the nearest gopher habitat, it is likely that the animal was carried to this location by either an avian or mammalian predator). Bird droppings were observed in several smaller hangars, but not in large quantities. Atlantic Hangar 12 was observed to be open at dusk on November 19, 2015, contrary to previous recommendations to close hangar doors from an hour before dusk to an hour after dusk. However, no evidence of wildlife presence was observed. In addition to situations mentioned above, indications of hangar owner attempts to deter entry by wildlife included the installation of bird netting at Atlantic Hangar 5 in the fall 2015, due to periodic roosting of birds in the hangar.

5.4.3 Other Observations

The project team recorded additional observations related to on-site structures/facilities and wildlife hazards during studies.

5.4.3.1 Unused/Dilapidated Buildings

Several buildings in disrepair were observed on airport property that potentially provided habitat to roosting birds and bats. Two unused historic hangars in the northeast corner of SBA (Buildings 248 and 249 in Coffman Associates 2014), built in the 1930s and near the north end of E. Verhelle Road, included open or broken windows, open doors, or other access points and are potential habitat for roosting and nesting owls, roosting and nesting pigeons, and roosting bats. Several visits to this location, however, during both evening and daylight hours, uncovered no evidence of presence of any of these species. These buildings are proposed for demolition under North Landslide Alternatives 4, 1 Refined, and 2 Refined, in the *Draft Final Airport Master Plan* (Coffman Associates 2014), although the document called for consultation with a historian beforehand. A small structure (Lift Station 3) near the west end of Taxiway C, and also near the west end of Cook Place, is also in disrepair. Open doors and broken windows provided easy access for roosting birds and bats. However, as with the two historic hangars, inspections of this building on May 28 and June 4, 2015, revealed no signs of these species.

5.4.3.2 Instrument Landing System (ILS) Glideslope Antenna

The ILS glideslope antenna, approximately 100 meters (approximately 330 feet) north of Runway 07, was regularly the site of perching red-tailed hawks, and a pair of red-tailed hawks began building a nest structure here in the winter 2015. The project team reported the nest structure to Operations, and the information was imparted to the FAA. The nest was removed before it was complete. However, red-tailed hawks continued to perch on the antenna into the summer 2015.

5.4.3.3 Bird Deterrents on Airport Signs, etc.

Bird deterrent spikes were applied to many airport signs and other potential perches around the airfield. However, spikes on some signs and other sites were lacking or in disrepair.

5.5 Airport Operations Assessment

This section describes aspects of Airport Operations relevant to wildlife hazards, based on activities related to the Operations Assessment discussed in Section 4.5.

5.5.1 Discussions with Airport Operations

Discussions with Airport Operations highlighted several issues, including general awareness of wildlife hazards, wildlife hazing procedures, species potentially posing hazards, and grasses and mowing.

5.5.1.1 General Awareness of Wildlife Hazards

Wildlife hazards have long been a part of planning efforts as SBA. As expected, Airports Operations personnel demonstrated a high awareness of wildlife hazards issues. Security Operations Center (SOC) and Patrol were responsive when the project team reported wildlife hazards. Some personnel showed an interest in understanding wildlife hazards better, while all showed a knowledge of many of the basic hazards, such as which species tended to pose the greatest threat to aircraft, and willingly imparted information and observations to the project team. In addition, Airport Operations conducts twice daily sweeps of the runways “to insure that the condition of the commercial service runway is adequate for safe aircraft operations” (City 2008).

5.5.1.2 Wildlife Hazing Procedures

The existing WHMP provides several guidelines in regard to controlling wildlife, including: that personnel should “haze hazardous birds located around the Airfield”; that wildlife hazards should be “managed using safe, effective, legal, and environmentally responsible direct control

techniques"; and that an essential element to controlling wildlife is "a flexible, innovative, and adaptive approach to managing such hazards." Hazing procedures at SBA show a concern for flexibility in practice. While Operations personnel are responsive to reports of hazards, the exact response varies. Depending on the location and nature of a hazard, personnel in many cases may elect not to haze birds that are near the runway. Several personnel reported the experience that birds hazed from one location may simply fly a short distance, sometimes to an area where they are more of a hazard, in response to hazing efforts. However, for hazards regarded as being more serious, such as flocks of geese or turkey vultures near the runways, SBA responds with hazing.

- In practice, hazing at SBA conducted as follows: Patrol uses shotguns for wildlife dispersal. Most dispersal is conducted using blanks/cracker rounds. On rare occasion, a hazard may merit use of live rounds under the Airport's depredation permit.
- Operations does not use handguns or shotguns when participating in dispersal, and is not currently trained for dispersal or depredation.
- Patrol performs the majority of dispersal, but Operations does participate by hazing wildlife with vehicles, including use of the horn. When this technique is not effective, Operations calls on Patrol to disperse the wildlife using a shotgun.

5.5.1.3 Wildlife Hazard Observations

Operations personnel have provided several observations about wildlife hazards at SBA, most of which are hazards noted elsewhere in this WHA. One observation relates to a significant hazard not witnessed by the project team: American crows seasonally gather in large numbers in the morning near Runway 33R. Operations has also provided information about several incidents that occurred during the WHA studies. An incident on August 12, 2015, in which a pilot reported striking four "small birds" near the approach end of Runway 25, demonstrated coordination among pilots, ATCT, and Operations. A binder including copies of all strike reports is kept in SOC.

5.5.1.4 Grasses and Mowing

Mowing was observed to be consistent with the requirement in the current WHMP that grasses be cut to a minimum of 7 inches. Prior to establishment of the current WHMP, SBA mowed grasses well below seven inches, because of the difficulties of keeping up with growing grasses and forbs around the airfield. SBA faces several obstacles in keeping grasses to a relatively consistent height: (1) wet ground during winter and early spring, a period of rapid growth of grasses and forbs in the region, often makes mowing impossible in some areas around the airfield; (2) the very rapid growth of mustard (such as *Brassica nigra*), wild oats (*Avena* spp.), ragweed (*Ambrosia psilostachya*), and other herbaceous plants in the summer makes it difficult

to keep up with growing vegetation at that season; (3) most mowing of safety areas occurs only at night. Thus, despite SBA's best efforts, keeping grass consistently a foot or less, a typical maximum height requirement, has not been possible. However, SBA has devoted considerable time and effort to finding the best approach to minimizing the attraction of grasses to wildlife, investigating appropriate seed mixes, considering the use of rock and sand, and even replacing soil in some areas. Solutions are limited to an extent by the presence of the Goleta Slough Ecological Reserve. For example, seed mixes using non-native seed have the potential to spread non-native species in the reserve; also, replacement of vegetated areas with rock and sand would potentially damage habitat in the reserve through excessive runoff (in addition to the practical difficulty of deterring vegetation from growing through these materials).

5.5.1.5 Coyote Trapping Program

SBA conducts a regular trapping program for coyotes. Trapping is conducted on an as-needed basis, and is triggered when coyote sightings in the movement areas become frequent. Trapping usually occurs for several weeks, and continues until no evidence of coyote presence is recorded for up to approximately two weeks (T. Lincoln, pers. comm.). Trapping occurred during January to March 2015, and two coyotes were trapped during this period. Although the decline in coyote observations by the WHA project team, particularly after April 2015, was likely related to the success of the trapping effort, SBA reported observations of coyotes during the latter months of the studies. A Cessna aircraft reported minor damage from striking what the pilot believed to be a coyote, on August 22, 2015. Patrol chased a coyote from the airfield, north of Runway 15L, to the Goleta Slough area, on September 12, 2015.

5.5.2 Air Traffic Control Tower

During the March 4, 2015, interview with then ATCT Front-Line Supervisor Mike Brown touched on several aspects of wildlife hazards in the area, including communications with Airport Operations over hazards, his impression/awareness of the overall hazard at SBA, and the species or groups of species that he sees are the biggest problems. During the tower visits, the project team gained additional information on the role of ATCT in addressing wildlife hazards, as well as ATCT awareness of the general issue. Overall, ATCT personnel expressed an understanding that the wildlife hazard at SBA is relatively high, particularly from birds. Mr. Brown expressed overall satisfaction with current procedures involving ATCT and Airport Operations, including communication between the two, in regard to wildlife hazards. ATCT response to wildlife was witnessed on November 23, when several red-tailed hawks and a peregrine falcon spent a prolonged period flying over the Runway 07 vicinity, prompting an alert of heightened bird activity on the ATIS.

5.5.2.1 Communications with Operations

ATCT passes along their own observations of wildlife hazards, and those of pilots, to Airport Operations. ATCT also communicates elevated wildlife hazards to aircraft through the ATIS. No specific criteria apply for reporting birds, for example, in terms of species involved or the number of birds present. Controllers simply report hazards to Operations when they see something they perceive as out of the ordinary. Observations of birds, coyotes, or other wildlife that they perceive as not being a threat, for example, because they are far from where aircraft are operating, are not reported to Operations. Often, if a reported threat is perceived to be moving away from the runway, the personnel, such as Patrol personnel, sent to deal with the threat will do nothing to disperse the wildlife.

Pilots are only required to report wildlife hazards when damage occurs to aircraft. All reports from pilots are forwarded to Operations, who then communicates with ground control to determine the approach to dealing with the hazard. Pilot reports typically relate to actual strikes or other observations made during takeoff and landing, rather than during approach or after takeoff, and include reports of coyotes.

Mr. Brown expressed satisfaction with the effectiveness of communication between Ground and Operations when wildlife issues arose. ATCT personnel described a flexible approach to hazing wildlife that took into account the locations and behaviors of the birds in relation to aircraft activity, in which action was not always taken to chase wildlife away from the airfield, as on many occasions this can result in birds moving to an area where they present a greater hazard.

5.5.2.2 General Perceptions of Wildlife Hazards

ATCT perceptions of the wildlife hazard is that it is relatively high at SBA (Mr. Brown noted that, “I’m surprise we don’t have more bird strikes that we do”) and that birds in general are the issues. ATCT personnel generally do not distinguish between the types of birds when considering whether wildlife present a hazard in any particular situation.

5.5.2.3 Problem Species/Groups

Although ATCT generally does not take note of species involved in hazardous situations, interviews and ATCT visits resulted in several important comments on specific bird hazards:

- American crows congregate at sunset in high numbers (500-1,000) at certain times of year around the buildings and power lines in the vicinity of the Tower. However, these flocks generally do not approach the runways.

- Turkey vultures tend to occur mostly near the end of Runway 07. Also, this is the only species regularly reported off-site by pilots on final approach. (Numerous turkey vultures were observed flying over the airfield during the November 24 visit.)
- Gulls sometimes gather in flocks on the ground around the airfield. The project team has not observed this, but this behavior is consistent with that of gulls gathering in grassy areas during wet periods.
- Pigeons are generally assumed to be among the more significant wildlife problems at SBA.
- Mowing itself was also perceived to be an attractant, as some birds will follow behind the mower when it is active.
- Coyotes appear to be the mammal species of which ATCT is most aware, but they are also aware of the presence of foxes in the vicinity, and one reported seeing a juvenile bobcat west of the tower in the fall 2015.

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6 RECOMMENDATIONS

This section makes several recommendations to reduce or control wildlife hazards. Recommendations fall under two categories: general Operations-related recommendations and site-specific recommendations. Table 10 shows recommendations and their applicability by guild. Several Operations-related recommendations that apply to wildlife hazard management in general are not included in the table. SBA faces some limitations in managing wildlife hazards related to the presence of Goleta Slough on SBA property and the many environmental restrictions associated with the site, such as those relating to special-status plant and wildlife species, to impacts to wetlands and streams, and the presence of extensive mitigation sites for past SBA projects. However, we suggest ways of working around these limitations or gaining waivers as per FAA guidelines where necessary to reduce hazards from wildlife.

Birds of several types present the greatest threats to aircraft safety at SBA. Some of the most prominent avian threats are geese, ducks, gulls, cormorants, herons and egrets, raptors, and pigeons. Several other species that have rarely or never been struck by aircraft are also important wildlife hazards, as a single strike could be disastrous. Two such very large species include turkey vultures, which are prevalent in SBA area year-round, and brown pelicans, which frequently move along the shore south of Runway 33. Coyotes are the principal mammalian threat to wildlife at SBA. Other wildlife in the same size class or somewhat smaller are less dangerous to aircraft. Bobcats, which have proved to be relatively common at SBA, are rarely seen in the open at SBA, or only venture into the open at night. The lack of awareness of this species' presence among Patrol and Operations personnel suggests it avoids the airfield. Raccoons, brush rabbits, skunks, and other somewhat smaller species likely present relatively little hazard. However, small mammals, such as gophers, may be an important attractant to birds of prey and coyotes and compromise turf and other vegetation management on the airfield. Brush rabbits, although not a direct threat to aircraft, are very common in many of the restoration areas, including some scrub areas near the airfield, and may present a hazard as a prey item attracting coyotes and large birds of prey.

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Table 10
Recommendations by Guild

	Lethal control (depredation permit)	Pyrotechnics	Grass height	Perching deterrence	Coyote trapping program	Maintain security perimeter fence	Structures	Slough management
Waterfowl	x	x	x					x
Grebes, loons, and coots	x (coots)	x (coots)						x
Pelicans and cormorants	x (cormorants)	x (cormorants)						x
Wading birds	x	x	x					x
Raptors, owls, and vultures	x	x		x			x	
Shorebirds	x	x	x					x
Gulls and terns	x	x	x					x
Doves and pigeons	x	x	x				x	
Crows and ravens	x	x	x	x				
Aerial foragers	x	x	x					x
Woodland/scrub birds	x	x		x			x	x
Grassland birds	x	x	x	x				
Blackbirds and starlings	x	x	x	x			x	
Coyotes	x	x	x		x	x		x
Other medium-size mammals (racoons, bobcats, red foxes, striped skunks)	x	x	x			x	x	x
Small mammals			x					x

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6.1 Update the SBA Wildlife Hazard Management Plan

FAA is responsible for determining the necessity of updating SBA's WHMP. The current WHMP addresses many of the wildlife hazard issues at SBA. However, based on data collected during WHA, we recommend that SBA update the current WHMP to better manage existing hazards. An updated WHMP should include the following elements:

1. Designate an Airport Wildlife Coordinator
2. Form a Wildlife Hazard Working Group (WHWG)
3. Develop a communications protocol for Operations staff, ATCT, pilots, and FBOs
4. Obtain and update depredation permits
5. Train personnel in hazing procedures and wildlife identification
6. Obtain and maintain supplies for wildlife control and management
7. Maintain a record of wildlife strike information
8. Monitor land use changes in the airport vicinity.

Each of these elements is discussed in more detail below, including whether incorporated in current airport practices.

6.1.1 Airport Wildlife Coordinator (AWC)

SBA currently has a designated as the Wildlife Coordinator. The responsibilities of the Wildlife Coordinator are currently detailed in Chapter 2 of the WHMP, and include (1) implementation and monitoring of activities described in the WHMP; (2) chairing the Wildlife Hazard Working Group (WHWG; see Section 6.1.2) and leading WHWG meetings at least twice per year; (3) disseminating information and assignments through the Wildlife Hazard Working Group; (4) designating personnel within the Airport Patrol and Operations Divisions who will be trained and equipped to respond to wildlife hazards on the airfield; (5) maintaining records of animals taken pursuant to federal and state permits; (6) ensure the availability of supplies necessary for conducting wildlife control activities; (7) requiring Airport Department staff to document wildlife activity of significance; (8) communicating the importance of wildlife strike reporting to air traffic control personnel, pilots, maintenance staff, and others, and informing them of the procedures to report wildlife strikes to the FAA and the Operations Division; (9) encourage SBA and ATCT personnel, pilots, and airlines personnel to properly report all types of wildlife strikes and assure that the Wildlife Strike Report Form, FAA form 5200-7, is readily available; (10)

coordinate the issuance of notices to airmen (NOTAMs) concerning eminent wildlife hazards on the airport; (11) providing access to wildlife hazard management training courses regarding bird and wildlife identification, wildlife hazard management techniques, reporting, etc.; (12); serving as liaison between Wildlife Services and the Airport Director; (13) authorizing use of lethal wildlife control in emergency situations; (14) ensuring communication between ATCT and wildlife control personnel; and (15) collecting all completed Wildlife Strike Report Forms and submitting them to FAA.

6.1.2 Wildlife Hazard Working Group

The current WHMP includes provisions for a Wildlife Hazard Working Group (WHWG). Meeting a minimum of twice a year and chaired by the Wildlife Coordinator, the WHWG is tasked with monitoring wildlife issues and practices. In addition to the Wildlife Coordinator, the WHWG includes representatives of Patrol, Facilities Management, and Facilities Planning and Development. Optionally, the WHWG may include the Certification Inspector and representatives of ATCT and the airlines. We recommend the continuance of the WHWG, and additionally recommend that ATCT be invited to all meetings of the WHGH, as their participation in wildlife hazard issues is paramount.

6.1.3 Develop a Communications Protocol for Operations Staff, ATCT, Pilots, and FBOs

SBA has one ATCT that provides daily service from 0600 to 2400. The entire AOA is visible from the ATCT, and tower staff should be vigilant of any potential wildlife hazards as they present themselves. In the event that the ATCT, pilots, or SBA operations staff observe wildlife that could pose a risk to aircraft, immediate communication with all parties involved should be initiated. A protocol for the ATCT, pilots, and ground staff to report the incidents to the Wildlife Coordinator for corrective action documentation of potentially hazardous wildlife is critical.

6.1.3.1 Communication Protocol and Procedures Development

Some of the elements of a communications protocol outlined below are already in place at SBA. At a minimum, the protocol should address the following situations:

1. Procedures for ATCT to report wildlife hazards to pilots in the traffic pattern;
    a. Immediately alert, through direct voice communications and/or ATIS, all incoming/outgoing aircraft to the hazard, including location, species, number observed, activity, and potential direction of travel.
    b. Suspend operations if the hazard poses an immediate or severe threat to aviation safety or equipment.
    c. Contact the Wildlife Coordinator about the hazard.

2. Procedures for appropriate airport staff to alert pilots of potential hazards prior to takeoff or landing;
    a. If a wildlife hazard is observed by airport ground personnel, the ATCT will be contacted via radio immediately. The location, species, number observed, activity, and potential direction of travel will be relayed to the ATCT, so pilots can be properly informed, and appropriate action taken.
3. Procedures for alerting airport operations staff to address wildlife hazards that require immediate attention; and
    a. The Wildlife Coordinator and ATCT will be contacted immediately if wildlife hazards are observed.
    b. The Wildlife Coordinator will assess the situation and designate trained personnel to address the situation.
    c. Wildlife management procedures will follow a stepped approach including:
        i. Small or minor hazards—hazing through car horns and lights
        ii. Moderate or persistent hazards—combination or car horns, lights, pyrotechnics, bioacoustics, and lethal control
        iii. Severe hazards—lethal control.
4. Documentation procedures
    a. The AWC will log wildlife observations in a master list for easy reflection.
    b. All management procedures will be recorded (hazing, lethal control, etc.) along with the results of the procedure.
    c. All wildlife lethally controlled will be documented.

6.1.3.2 Observations and Communication Implementation

Communication at SBA appears to be sufficient at this time, but it is important for all staff members to understand the level of hazard each species presents to aviation. Not all SBA operations staff, including ATCT staff, may be aware of the dangers presented by wildlife, including when a situation is observed well away from the airfield. It is imperative that all significant wildlife observations be communicated immediately between the SBA operations staff and ATCT, so appropriate actions can be taken.

6.1.4 Federal and State Depredation Permits

As noted in Section 3, most of the bird species identified during the WHA are protected by the MBTA or other federal and state regulations. USFWS is authorized to provide permits for the take of particular species. SBA currently possesses a federal depredation permit that authorizes lethal take of wildlife species in emergency situations, pursuant to requirements of the existing WHMP. We recommend that this permit be renewed and retained to continue management of hazardous wildlife.

Species that should be covered under the depredation permit include:

- Canada goose (*Branta canadensis*)
- Ducks
- Turkey vulture (*Cathartes aura*)
- Red-tailed hawk (*Buteo jamaicensis*)
- Killdeer (*Charadrius vociferus*)
- Western gull (*Larus occidentalis*)
- California gull (*Larus californicus*)
- Ring-billed gull (*Larus delawarensis*)
- Mew gull (*Larus canus*)
- American crow (*Corvus brachyrhynchos*)
- Blackbirds

6.1.5 Train Personnel in Hazing Procedures and Species Identification

FAA AC 150/5200-36A (Appendix D) outlines the minimum recommended training requirements for airport personnel involved in wildlife control. We recommend that the Wildlife Coordinator organize and obtain training for all personnel that have duties within the AOA. Personnel must be trained to recognize and respond appropriately to all potential wildlife hazards using harassment, deterrence, exclusion, and lethal removal. Hazing and lethal removal may be effective means of controlling wildlife hazards from almost any bird guild species as well as for coyotes and several other species of mammals occurring at SBA. The complete text of Appendix D of 150/5200-36A is as follows:

Training Curriculum Outline for Airport Personnel Actively Involved in Implementing FAA-Approved Wildlife Hazard Management Plans.

1. Training Curriculum Outline.

The goal of the training course must be to provide the knowledge, skills, and abilities needed by airport personnel to safely, accurately, and effectively implement relevant portions of an FAA-approved Wildlife Hazard Management Plan. To be acceptable to the FAA, initial and recurrent training must include the following agenda items:

a. General survey of wildlife hazards to aviation based on the most recent annual FAA National Wildlife Strike Database Serial Report

b. Review of wildlife strikes, control actions, and observations at the airport over at least the past 12 months

c. Review of the airport's Wildlife Hazard Assessment is to include

(1) Existing wildlife hazards and trends in wildlife abundance

(2) Status of any open or unresolved recommended action items for reducing identified wildlife hazards to air carrier operations within the past 12 months

d. Review of the airport's Wildlife Hazard Management Plan, to include the following:

(1) Airport-specific wildlife attractants, including man-made and natural features and habitat management practices of the last 12 months.

(2) Review of the airport's wildlife permits (local, State, and Federal)

(3) Review of other airport-specific items:

(a) Wildlife hazard management strategies, techniques, and tools:

(i) Flight schedule modification

(ii) Habitat modification, exclusion

(iii) Repelling methods

(iv) Wildlife population management

(b) Responsibilities of airport personnel for

(i) Reporting wildlife strikes, control actions, and wildlife observations

(ii) Communicating with personnel who conduct wildlife control actions or who see wildlife hazards and air traffic control tower personnel and others who may require notification, such as airport operations or maintenance departments

(iii) Documenting and reporting wildlife hazards seen during patrols and inspections and follow-up control efforts

(iv) Documenting and reporting when no hazards are seen during patrols and inspections

e. Basic bird and mammal identification, stressing local hazardous and rare or endangered species of concern

f. For any airport personnel using pyrotechnic launchers or firearms, training on the following topics from a qualified individual:

(1) Safety, parts, and operation of pyrotechnic launchers

(2) Fundamentals of using pyrotechnics to safely and effectively disperse wildlife

(3) Personnel protective equipment

(4) Cleaning, storage, and transport of firearms and pyrotechnic launchers

(5) Applicable local, State, and Federal regulations on firearms, pyrotechnic launchers, and pyrotechnics

(6) Live fire training with pyrotechnic launchers including strategies for dispersing wildlife away from runways and aircraft movement corridors

(7) For any airport personnel using firearms, live fire training. This training is highly recommended from a qualified individual but not a requirement for this training program.

g. Any other training required by local, State, or Federal regulations

2. Recommendations.

a. Exams or tests may be oral, written, practical demonstrations, or a combination of all three.

b. The Trainer should retain passing grades/evaluations records.

c. The Trainer should retain course attendance records for a period of three years.

d. Airport personnel responsible for the airport's wildlife hazard management program should retain records of those to whom instruction in airport wildlife hazard management has been given for the period of time during which the employees conduct hazardous wildlife management activity on the airport and for six months after termination of employment.

6.1.6 Supplies for Wildlife Hazard Control and Management

Although the current WHMP includes provisions for maintaining wildlife hazard management supplies, few specifics are included. While Patrol uses blank rounds to haze wildlife, Operations personnel do not currently possess the equipment or training to use this equipment to haze wildlife occupying the airfield. We recommend that both Operations and Patrol obtain supplies that will more effectively haze wildlife from the airfield (Table 11).

Operations, in particular, would benefit from obtaining additional hazing equipment. Obtaining the necessary equipment and training would increase the available tools for Operations to disperse wildlife and relieve the burden on Patrol for hazing. We acknowledge that SBA already possesses some of the listed supplies.

Table 11
Wildlife Hazard Management Supplies

Active Harassment Methods	
Item	***Description***
Pistol Launcher	One available in each vehicle performing airfield inspections
Screamers/Whistlers	Available in each vehicle performing airfield inspections; additional available in storage
Bird Bangers	Available in each vehicle performing airfield inspections; additional available in storage
Propane Cannon	May be used to supplement other non-lethal activities. Location and frequency of use should be varied to avoid birds becoming habituated.
Personal Safety Equipment	Two sets of protective goggles and ear protectors should be available in each vehicle performing airfield inspections
Bioacoustics	Bioacoustics or similar species-specific sonic devices can be considered for controlling wildlife.
Monitoring and Control Equipment	
Item	***Description***
Binoculars	One pair available to perform airfield inspections
Bird Identification Guides	Available in each vehicle performing airfield inspections; additional in airport manager's office
Mammal Identification Guide	Available in each vehicle performing airfield inspections; additional in airport manager's office
Monitoring Log	Log book or computer file available to personnel to document daily observations pertaining to wildlife hazards and wildlife hazard management activities
Firearms/Ammunition	
Item	**Description**
12-Gauge Shotgun, Modern Rifle, Ammunition	One of each should be available. For use only when lethal control is necessary, and only by trained personnel. Rifle should be used only when no people, structures, or equipment are in the line of fire, and may not be practical because of safety concerns.

6.1.7 Maintain a Record of Wildlife Strike Information

SBA currently tracks records of all wildlife strikes, including all carcasses found within 200 feet of a runway centerline, unless the cause of death is known not to be from an aircraft strike. The Wildlife Coordinator is responsible for collecting all completed Wildlife Strike Forms and submitting forms to FAA. For any strikes in which the species is not positively identified, remains are submitted to the Smithsonian Institution Feather Identification Lab. We acknowledge the success of procedures recording strikes. However, due to the potential misidentification of birds by SBA staff, we recommend that, except when the cause of death is known to be from something other than an aircraft strike, *all* carcasses be submitted to the Smithsonian Institution Feather Identification Lab, accompanied by FAA Form 5200-7. Otherwise, we recommend that current procedures be continued.

6.1.8 Maintain a Record of Wildlife Management Efforts

The Wildlife Coordinator should ensure the keeping of detailed records of wildlife harassment and other wildlife control and management efforts. Such records will allow SBA to monitor the effectiveness of wildlife harassment activities and track wildlife abundance. The recorded data should identify the person conducting the action, the date and time of the action, the species and number of individuals, location on airfield, and management method applied. The Wildlife Coordinator should maintain these records in a database from which the data can be easily extracted or sorted for reporting purposes. Keeping sufficient records will allow the airport to conduct its annual update of the WHMP and delay or eliminate the FAA requirement for subsequent WHAs to be conducted periodically in the future.

6.1.9 Monitor Changes in Land Use on or Near the Airport.

SBA currently and has in the past commented on proposed projects in the airport vicinity that may influence the wildlife hazard at SBA. As noted in the current WHMP, the Santa Barbara County Airport Land Use Commission monitors notices of or proposed developments seeking approval under the CEQA process, and forwards information on proposed development plans to SBA planning staff for review. Staff review focuses on proposed developments' compatibility with airport operations, including wildlife hazard issues. We acknowledge the benefit of this approach and recommend that SBA continue to monitor and comment on proposed developments with regard to their potential to influence wildlife hazards at SBA.

6.2 Site-Specific Recommendations

6.2.1 Grasses and Mowing

The general goal of mowing should be to maintain vegetation around the airfield at an intermediate height. Maintaining grass at an FAA-recommended height between 6 and 12 inches is beneficial for several reasons. Geese prefer to feed on short, manicured grasses, and maintaining grasses at more than six inches can deter flocks from gathering near the airfield to graze. Gulls, crows, doves and pigeons, shorebirds, grassland birds, and blackbirds and starlings sometimes feed in flocks in short grass, while grasses longer than six inches can obstruct their views, disrupt communication, and make them vulnerable to predation. However, herbaceous vegetation more than 12 inches high can provide nesting habitat for species such as red-winged blackbirds, which nests commonly in the area. Also presence of higher grasses for long periods permits grasses to go to seed and provides both a food source and cover for small mammals, which then attract predators including raptors, wading birds, and coyotes when grasses are mowed and the prey becomes accessible. In addition, mowing of tall, mature grasses can spread the seeds of these species, providing additional food for blackbirds and starlings, as well as some woodland/scrub species, such as sparrows. Specific recommendations below take these considerations into account, but acknowledge potential limitations, such as wet conditions preventing mowing at certain times of year.

- Maintain grasses at a minimum height of six inches, according to requirements of the current WHMP.

- During wet times of year at SBA, infields become too muddy for the operation of mowers. But to the extent possible, considering this limitation, do not allow grasses to exceed 12 inches in height. Keeping grasses below this height will keep many species of grass from going to seed, limiting food sources and cover for small mammals, as noted above.

- Also, to the extent possible, time mowing around the entire airfield annually in late February (if conditions permit) to limit bird nesting adjacent to runways and taxiways. Mowing to an appropriate height at this time will prevent many bird species from nesting and will limit wildlife attraction at a critical time of year.

- Although a proper mowing regime should limit the attraction of the airfield to wildlife, mowing may result in some birds being attracted to insects exposed during the operation. Always monitor bird activity during mowing operations so that flocking birds may be dispersed if necessary.

- Look for opportunities to plant or seed low-growing native grasses such as saltgrass (*Distichlis spicata*) and meadow barley (*Hordeum brachyantherum*), which would potentially reduce the need for mowing and result in areas where vegetation naturally remains at a moderate height.

6.2.2 Perching

Many structures and facilities provide perches at SBA. Red-tailed hawks that perch and hunt around the airfield are a particular hazard. Other species in the raptors, owls, and vultures guild (such as American kestrels and barn owls) use airport facilities to perch, as do American crows, blackbirds and starlings, and some species of woodland/scrub birds. Recommendations and considerations for addressing this hazard include:

- Maintaining, replacing, and installing bird deterrent spikes on airport signs and facilities located around the airfield, especially those located along runways and taxiways.

- Deterring red-tailed hawks from using the ILS glide-slope antenna as a hunting perch and nesting site should be a priority. Work with ATC to monitor this issue and deter this species from nesting here.

- Also refer to 6.1.6 Supplies for Wildlife Hazard Control and Management. Regular use of blank rounds and pyrotechnics may help deter birds from perching on lights, signs, and other facilities.

6.2.3 Continue Coyote Trapping Program

Coyote trapping conducted during early 2015 resulted in removal of two coyotes from SBA property. Although coyotes were regularly captured during camera studies during the first five months of the WHA, no coyotes were captured on camera after April 2015 (but note that SBA continued to receive reports of coyotes during this period). Although implementing measures to exclude coyotes from the airfield would be preferable to relying on trapping (which occurs only when coyotes are already present), it may not be possible to completely exclude this species. The effectiveness of exclusion is limited by the presence of access points for wildlife provided by several creeks flowing onto SBA and compromised fences and gates. In addition, use of rifles, such as .223 or .243 caliber rifles, while potentially effective to deal with immediate hazards, may not be practical at SBA because of surrounding development. Therefore, SBA should continue the coyote trapping program as needed to control this wildlife hazard.

6.2.4 Maintain the Security Perimeter Fence

Maintaining the perimeter fence, including removing vegetation growing into the fence where possible, will limit access by mammal species such as coyotes and bobcats. Construction of fences to block wildlife access to SBA along creeks is not practical, at least partly for flood control reasons. But maintaining fences to deter access by mammals wherever possible is important to limiting wildlife hazards.

During surveys and other WHA activities, various issues related to the perimeter fence in relation to FAA (2004) standards were noted, as described in Section 5.4. SBA replaced large portions of the perimeter fence beginning in late 2015 and during the WHA addressed several recommendations made by the WHA team.

UCSB/Goleta Slough Ecological Reserve boundary. Proposed perimeter fencing bordering UCSB would be within the Goleta Slough Ecological Reserve, and Coffman Associates (2014) noted that improvements to the fence in these areas would require analysis for consistency with the LCP and application for a Coastal Development Permit. Should SBA seek a Coastal Development Permit for installing a fence in this area, any new fence should be designed to meet FAA (2004) standards, which would reduce the hazard from coyotes and other mammals.

San Pedro Creek near Runway 25. This wooden fence runs between the airfield and riparian vegetation along the creek. During the WHA, the vegetation near the fence provided potential access for coyotes moving along the creek, and at least one breach observed near the southern end of the fence provided additional access. Turkey vultures were observed perching on the fence during the day. A fence meeting specifications of FAA (2004) was installed just inside the perimeter marked by the wooden fence in late 2015. Therefore, wildlife hazard issues associated with the wooden fence have been addressed.

Specific Perimeter Fence Changes. Several specific recommendations for changes to the perimeter fence made during the WHA included:

- Modify the V-42A gate (immediate east of Tecolotito Creek) to reduce gaps between the gate and the ground, either by lowering the fence or installing material, such as a concrete "speed bump" or construction debris, to elevate the substrate. However, note that this location is adjacent to Tecolotito Creek, which will continue to provide access to mammals.

- Reduce the gap underneath the fence near the World War II Memorial overlook.

- Fill the hole under the fence south of the V-54 gate (Slough Overlook) to prevent wildlife access, and take any other necessary measures to deter wildlife access here.

The latter two issues have been addressed.

Vegetation Growing within or Adjacent to Perimeter Fences. In general, shrubs should be cut back from the perimeter fence, where feasible, so that wildlife such as coyotes are not able to use the vegetation to access the airport. A vegetation free or managed buffer zone on both sides of all fences should be established wherever possible to deter wildlife access to the airfield. As several creeks provide relatively easy wildlife access to SBA (especially Tecolotito Creek at Hollister Avenue just east of Los Carneros Road), clearing of vegetation in these areas (up to approximately 200 feet of the creeks) may provide relatively little benefit because of on-going access via the creeks.

6.2.5 Structures

Several measures could reduce the attraction of various SBA structures to wildlife, including:

- To the extent possible, ensure that hangar doors are closed from approximately one hour prior to sunset until after sunset to limit access by owls, pigeons, and bats. For hangars leased by the City, include such requirements in future lease agreements. For hangars not owned/controlled by the City, request or recommend closing hangar doors per these specifications.

- Repair any openings in abandoned or seldom-used buildings, to deter birds from using these buildings for roosting or nesting. This specifically applies to the two unused, historic hangars in the northeast corner of SBA and to Lift Station 3, near the west end of Taxiway C.

- Repair hangar doors that do not close properly.

- Require or request the closing of any other openings providing wildlife access to hangars or other buildings. Specifically, request that the openings observed at the northeast hangar of Signature Flight Support, east of Taxiway C, be closed to deter barn owls from nesting and roosting in the hangar.

- Application of netting and spike strips to restrict bird access to structures.

These measures are effective for controlling nesting by a variety of species, including barn owls (raptors, owls, and vultures guild), European starlings (blackbirds and starlings guild), rock pigeons (pigeons and doves guild), and several species in the woodland/scrub birds guild, such house finches and house sparrows.

6.2.6 Goleta Slough Management

As the major property holder and one of the primary stakeholders involved in the Goleta Slough Ecological Reserve, SBA should seek to manage the slough in ways that will limit wildlife hazards. Limiting standing water that is present over long durations would result in lower numbers of many of the most hazardous species at SBA, including waterfowl, wading birds, gulls, shorebirds, and cormorants. It would also likely limit availability of insect prey for swallows. Limiting the creation of additional scrub or woodland habitats would reduce the numbers of woodland/scrub birds and limit populations of brush rabbits and small mammals, which are likely attractants for coyotes, as well as several other species of mammals. Recommendations for management of Goleta Slough include:

- *Continue to seek a solution to management of the Goleta Slough mouth that will limit wildlife hazards*. Absent any other considerations, restoration of tidal circulation, a guiding principal of slough mouth management prior to the 2013, remains the best answer to balancing restoration efforts with controlling wildlife hazards from birds using Goleta Slough. However, it is currently unlikely that agencies will agree to resumption of slough mouth management as practiced prior to 2013.

- To comply with FAA regulations, seek permits and waivers to normal prescriptive policies should wildlife hazards become elevated.

- In future restoration projects, if any are conducted as mitigation for SBA projects such as those proposed in Coffman Associates (2014), emphasize vegetation communities that will provide less of an attractant to hazardous wildlife. Avoid additional projects establishing scrub habitat or relatively permanent open water. If creation of wetlands is required, emphasize those types that lack open water and do not attract waterfowl. For single-parameter wetland mitigation for impacts to coastal wetlands, emphasize creation of herbaceous communities dominated by saltgrass, pickleweed, alkali heath (*Frankenia salina*), and other hydrophytic herbaceous species of moderate height that both satisfy Coastal Commission requirements and do not provide significant cover for wildlife.

- Whenever possible, seek opportunities for mitigation off-site and outside the 10,000 foot separation criterion established in FAA AC 150/5200-33B in areas where any wildlife attractants will not impact aircraft safety, as provided for in the 2003 *Memorandum of Agreement between the Federal Aviation Administration, the U.S. Air Force, the U.S. Army, the U.S. Environmental Protection Agency, the U.S. Fish and Wildlife Service, and the U.S. Department of Agriculture to Address Aircraft-Wildlife Strikes* (FAA et al. 2003).

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7 CONCLUSION

SBA's location on the Pacific Ocean and on an estuary fed by several creeks originating in the Santa Ynez Mountains results in a significant wildlife hazard for the airport. This is supported by the frequency of bird strikes recorded, the variety of species involved, the many attractants found in the area, and the presence of several species that are hazardous to aircraft. Nonetheless, the wildlife hazard can be managed to a great degree using the proper integrated approach. The chief issues are as follows:

1. Prolonged periods during which standing water attracts large numbers of birds.
2. A variety of water birds (ducks, geese, herons and egrets, cormorants) associated with Goleta Slough and other wetlands and aquatic habitats in the area.
3. Large birds of prey and vultures.
4. Gulls traversing the area between resting and feeding sites on the Goleta coastal plain.
5. Pigeons, including those attracted to Goleta Beach County Park.
6. Swallows nesting and foraging around the airfield.
7. Security perimeter fence porousness and vegetation encroachment.
8. Available hazing options and the limited number of personnel trained in their use.
9. Communications protocols between Operations, ATCT, FBOs, and pilots.

SBA already has many necessary standard practices for managing wildlife hazards in place, and has made a high priority of addressing the wildlife hazard issue. However, additional improvements are necessary, as the airport continues to adapt to changing conditions and newly available information on hazards at SBA.

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APPENDIX A

Photos

APPENDIX A
PHOTOS

Photo 1. Basin A after blocking of Goleta Slough mouth (approximately 5.5 surface water elevation), near Runway 33L. March 4, 2015.

Photo 2. High water in Goleta Slough (left) near Runway 33L (right). March 13, 2015.

Photo 3. Continuing high water in Goleta Slough. April 6, 2015.

Photo 4. Standing water near the mouth of Goleta Slough. March 13, 2015.

Photo 5. Evaporating seasonal pool within Basin K, in the non-tidal portion of the Goleta Slough Ecological Reserve, and resulting temporary mudflats. May 18, 2015.

Photo 6. Great egret flying over Taxiway A. February 11, 2015.

Photo 7. Great blue heron near Runway 15L. March 13, 2015.

Photo 8. Mixed flock of 15 whimbrels, marbled godwits, and long-billed curlews on the south end of Runway 33L. The flock was foraging in the high grass located south of the runway and flushed to the runway upon vehicle approach. February 11, 2015.

Photo 9. Turkey vultures in the Runway 15 approach. April 6, 2015.

Photo 10. Large number of American crows in and near the approach to Runway 25 near dusk. November 5, 2015.

Photo 11. Flock of European starlings gathering on power lines near the fuel farm. November 19, 2015.

Photo 12. Coyote at Tecolotito Creek near Hollister Avenue, Camera Station 1A. February 18, 2015.

Photo 13. Bobcat at ASR Berm, Camera Station 3B. March 9, 2015.

Photo 14. One of five striped skunks observed during night-time spotlighting in November, this one near the approach to Runway 33. November 17, 2015.

Photo 15. Small mammal trap in Grid 4. April 29, 2015.

Photo16. Western harvest mouse captured in Grid 2. April 29, 2015.

Photo 17. Gaps below and through the V-42A gate, Hollister Avenue adjacent to Tecolotito Creek. December 30, 2014.

Photo 18. The 6 foot perimeter fence being replaced and the existing 8 foot fence near the World War II memorial. September 22, 2015.

Photo 19. Gap below perimeter fence near Fowler Rd, south of V-54 gate. December 30, 2014.

Photo 20. Fence repair work conducted southeast of Taxiway L/Runway 33R to eliminate gaps under the fence line. October 23, 2015.

Photo 21. Shrubs associated with Goleta Slough Ecological Reserve growing through fence line bordering Los Carneros Road south of Hollister Avenue. December 24, 2014.

Photo 22. Perimeter fence with small gap near the end of Runway 22. An interior fence installed in late 2015-early 2016 addressed this issue. February 24, 2015.

Photo 23. Perimeter fence adjacent to the Goleta Slough and UCSB west of Basins K and L/M, including vegetation growing on/over the fence. October 23, 2015.

Photo 24. Red-tailed hawk on light in approach of Runway 7. July 6, 2015.

Photos 25-27. Bird deterrent spikes should be properly installed and maintained to be effective. February 11, 2015.

Photo 28. Red-tailed hawks on FAA structure adjacent to Runway 7. June 4, 2015.

Photos 29 and 30. Incomplete coverage of bird deterrent spikes affords prime perching locations for raptors within the airfield. White-wash observed on the top of the wind sock in Photo 29 indicates this is an often used perch. February 11, 2015.

Photo 31. Barn owl on light in approach to Runway 7, during night-time spotlighting. August 26, 2015.

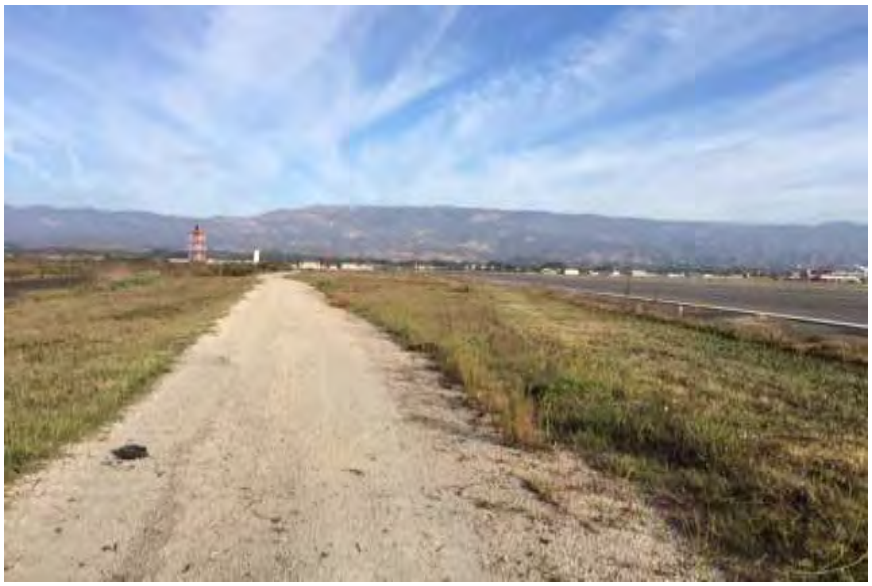

Photo 32. An American coot carcass on the access road west of Runway 33L; the bird was reported to SOC and was subsequently removed. October 23, 2015.

Photo 33. Recently mown grasses near Runway 7. March 13, 2015.

Photo 34. Late-season growth of black mustard and wild oats adjacent to Taxiway A. May 27, 2015.

Photo 35. Late season growth adjacent to Taxiway A. July 6, 2015.

Photo 36. Mowing to moderate grass height, consistent with lower hazard. July 14, 2015.

Photos 37 and 38. Signature hangar with owl concern. Note multiple perching locations available in ceiling, and dark corners and crevices suitable for roosting/nesting owls (left photo). Note light showing through gaps in the hangar doors (left; right, close up), and example of flashing installed in effort to exclude birds from entering the hangar, which has been bent inward post installation in present (arrows in right photo).

Photos 39-41. Example of bird deterrent netting installed in Signature's welcome/entrance hanger. March 25, 2015.

Photo 42. Inspection of City hangars located northwest of Runway 15R. April 2, 2015.

Photos 43 and 44. House finch nest and droppings on hangar door (above). Screen covering vent on hangar door (right). April 2, 2015.

Photo 45. View of Hangar 2, which was built in the 1940s. April 2, 2015.

Photos 46 and 47. Gap in door of Hanger 2 (left). European starlings observed nesting in holes and eaves of Hangar 2 (right). April 2, 2015.

Photo 48. View inside one of the two unused historic hangars, which could serve as potential habitat for roosting and nesting owls and pigeons, and roosting bats. August 17, 2015.

Photo 49. Seasonal wetland 0.3 mile west of Runway 7, west of Los Carneros Rd. December 14, 2014.

Photo 50. Laguna Blanca, La Cumbre County Club, approximately 4.0 miles east of Runway 22. February 28, 2015.

Photo 51. University of California, Santa Barbara, lagoon, 0.8 mi southwest of Runway 33L. January 17, 2015.

Photo 52. Devereux Slough, 1.25 mi southwest of Runway 7. December 7, 2014.

Photo 53. Double-crested cormorants gathered on sand bar at the mouth of Goleta Slough, Goleta Beach County Park, 0.6 mi east southeast of Runway 33. September 29, 2015.

Photo 54. A mixed flock of over 50 individuals (ducks, geese, swan) was observed at Lake Los Carneros, 0.8 mi north of Runway 15. September 22, 2015.

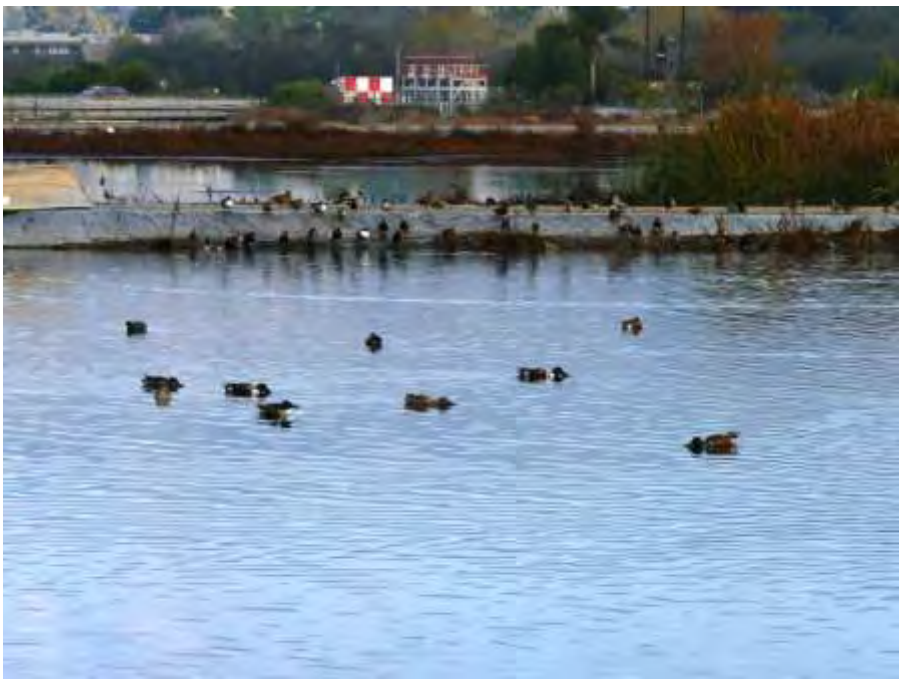

Photo 55. Northern shovelers and other waterfowl at the Goleta Sanitary District plant. November 24, 2015.

APPENDIX B

Wildlife Species Observed

APPENDIX B
Wildlife Species Observed

AMPHIBIAN

TREEFROGS

Pseudacris hypochondriaca—Baja California treefrog

REPTILES

LIZARDS

Sceloporus occidentalis—western fence lizard
Elgaria multicarinata—southern alligator lizard

BIRDS

WATERFOWL

Branta canadensis—Canada goose
Branta bernicla—brant
Chen rossii—Ross's goose
Cygnus olor—mute swan
Anas strepera—gadwall
Anas americana—American wigeon
Anas platyrhynchos—mallard
Anas discors—blue-winged teal
Anas cyanoptera—cinnamon teal
Anas clypeata—northern shoveler
Anas acuta—northern pintail
Anas crecca—green-winged teal
Aythya marila—greater scaup
Aythya affinis—lesser scaup
Melanitta perspicillata—surf scoter
Bucephala albeola—bufflehead
Mergus serrator—red-breasted merganser
Oxyura jamaicensis—ruddy duck

LOONS

Gavia stellata – red-throated loon
Gavia immer – common loon
Gavia pacifica—Pacific loon

GREBES

Podilymbus podiceps—pied-billed grebe
Podiceps auritus—horned grebe
Podiceps nigricollis—eared grebe

Aechmophorus occidentalis—western grebe
Aechmophorus clarkii—Clark's grebe

PELICANS
Pelecanus occidentalis—brown pelican

CORMORANTS
Phalacrocorax penicillatus—Brandt's cormorant
Phalacrocorax auritus—double-crested cormorant
Phalacrocorax pelagicus—pelagic cormorant

HERONS & BITTERNS
Ardea herodias—great blue heron
Ardea alba—great egret
Egretta thula—snowy egret
Butorides virescens—green heron
Nycticorax nycticorax—black-crowned night-heron

NEW WORLD VULTURES
Cathartes aura—turkey vulture

HAWKS
Pandion haliaetus—osprey
Elanus leucurus—white-tailed kite
Circus cyaneus—northern harrier
Accipiter striatus—sharp-shinned hawk
Accipiter cooperii—Cooper's hawk
Buteo lineatus—red-shouldered hawk
Buteo jamaicensis—red-tailed hawk

RAILS, GALLINULES & COOTS
Porzana carolina—sora
Fulica americana—American coot

SHOREBIRDS
Himantopus mexicanus—black-necked stilt
Pluvialis squatarola—black-bellied plover
Charadrius semipalmatus—semipalmated plover
Charadrius vociferus—killdeer
Actitis macularia—spotted sandpiper
Tringa melanoleuca—greater yellowlegs
Tringa semipalmata—willet

Numenius phaeopus—whimbrel
Numenius americanus—long-billed curlew
Limosa fedoa—marbled godwit
Calidris alba—sanderling
Calidris minutilla—least sandpiper
Calidris mauri—western sandpiper

GULLS & TERNS

Larus heermanni—Heermann's gull
Larus delawarensis—ring-billed gull
Larus occidentalis—western gull
Larus californicus—California gull
Larus argentatus—herring gull
Larus glaucescens—glaucous-winged gull
Hydroprogne caspia—Caspian tern
Sterna forsteri—Forster's tern
Thalasseus maximus—royal tern
Thalasseus elegans—elegant tern

PIGEONS & DOVES

**Columba livia*—rock pigeon (rock dove)
Patagioenas fasciata—band-tailed pigeon
**Streptopelia decaocto*—Eurasian collared-dove
Zenaida macroura—mourning dove

OWLS

Tyto alba—barn owl

SWIFTS

Aeronautes saxatalis—white-throated swift

HUMMINGBIRDS

Calypte anna—Anna's hummingbird
Selasphorus rufus—rufous hummingbird

KINGFISHERS

Megaceryle alcyon—belted kingfisher

WOODPECKERS

Melanerpes formicivorus—Acorn woodpecker
Picoides nuttallii—Nuttall's woodpecker
Picoides pubescens—downy woodpecker

Picoides villosus—hairy woodpecker
Colaptes auratus—northern flicker

FALCONS
Falco sparverius—American kestrel
Falco peregrinus—peregrine falcon

FLYCATCHERS
Sayornis nigricans—black phoebe
Sayornis saya—Say's phoebe
Myiarchus cinerascens—ash-throated flycatcher
Tyrannus vociferans—Cassin's kingbird
Tyrannus verticalis—western kingbird

SHRIKES
Lanius ludovicianus—loggerhead shrike

VIREOS
Vireo huttoni—Hutton's vireo

JAYS, MAGPIES & CROWS
Aphelocoma californica—western scrub-jay
Corvus brachyrhynchos—American crow
Corvus corax—American raven

LARKS
Eremophila alpestris—horned lark

SWALLOWS
Tachycineta bicolor—tree swallow
Stelgidopteryx serripennis—northern rough-winged swallow
Petrochelidon pyrrhonota—cliff swallow
Hirundo rustica—barn swallow

TITMICE
Baeolophus inornatus—oak titmouse

BUSHTITS
Psaltriparus minimus—bushtit

WRENS
Troglodytes aedon—house wren
Cistothorus palustris—marsh wren

Thryomanes bewickii—Bewick's wren

OLD WORLD WARBLERS & GNATCATCHERS
Polioptila caerulea—blue-gray gnatcatcher

WRENTITS
Chamaea fasciata—wrentit

KINGLETS
Regulus calendula—ruby-crowned kinglet

THRUSHES
Sialia mexicana—western bluebird
Catharus guttatus—hermit thrush
Turdus migratorius—American robin

MOCKINGBIRDS & THRASHERS
Toxostoma redivivum—California thrasher
Mimus polyglottos—northern mockingbird

STARLINGS & ALLIES
*Sturnus vulgaris—European starling

WAGTAILS & PIPITS
Anthus rubescens—American pipit

WAXWINGS
Bombycilla cedrorum—cedar waxwing

WOOD WARBLERS & ALLIES
Oreothlypis celata—orange-crowned warbler
Geothlypis trichas—common yellowthroat
Setophaga coronata—yellow-rumped warbler
Setophaga petechia—yellow warbler
Setophaga townsendi—Townsend's warbler
Cardellina pusilla—Wilson's warbler

EMBERIZINES & ALLIES
Pipilo maculatus—spotted towhee
Melozone crissalis—California towhee
Passerculus sandwichensis—savannah sparrow
Ammodramus savannarum—grasshopper sparrow
Melospiza melodia—song sparrow

Melospiza lincolnii—Lincoln's sparrow
Zonotrichia leucophrys—white-crowned sparrow
Zonotrichia atricapilla—golden-crowned sparrow
Junco hyemalis—dark-eyed junco

CARDINALS, GROSBEAKS & ALLIES
Piranga ludoviciana—western tanager
Pheucticus melanocephalus—black-headed grosbeak

BLACKBIRDS, ORIOLES & ALLIES
Agelaius phoeniceus—red-winged blackbird
Sturnella neglecta—western meadowlark
Euphagus cyanocephalus—Brewer's blackbird
Quiscalus mexicanus—great-tailed grackle
**Molothrus ater*—brown-headed cowbird
Icterus cucullatus—hooded oriole

FINCHES
Haemorhous mexicanus—house finch
Spinus pinus—pine siskin
Spinus psaltria—lesser goldfinch
Spinus tristis—American goldfinch

OLD WORLD SPARROWS
**Passer domesticus*—house sparrow

MUNIAS
Lonchura punctulata—scaly-breasted munia

MAMMAL

CATS
Lynx rufus—bobcat

CANIDS
Canis latrans—coyote
**Canis lupus familiaris*—domestic dog
**Vulpes vulpes*—red fox

EARED SEALS
Zalophus californianus—California sea lion

SKUNKS

Mephitis mephitis—striped skunk

HARES & RABBITS

Sylvilagus bachmani—brush rabbit

RACCOONS

Procyon lotor—raccoon

SQUIRRELS

Spermophilus (Otospermophilus) beecheyi—California ground squirrel

POCKET GOPHERS

Thomomys bottae—Botta's pocket gopher

RATS & MICE

Rattus rattus —roof rat
Reithrodontomys megalotis—western harvest mouse
Peromyscus maniculatus—North American deer mouse

VOLES

Microtus californicus —California vole

OPOSSUMS

**Didelphis virginiana*—Virginia opossum

* signifies introduced (non-native) species

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APPENDIX C

Point Count Survey Data Sheet

APPENDIX C
Point Count Survey Data Sheet

Date: __________

Obs: __________

Period: ________

Page____ of ____

Santa Barbara Airport Wildlife Hazard Assessment Data Sheet

(3 minutes at each location)

Time (24 hr)	Station #	Wildlife Species	Number	Activity	Height	Cover Type	Grid	Notes

ACTIVITY

FL – flying	RN – running
FP – fly/ passing	WK – walking
SR – soaring	LF – loafing
	PR - perching
FD – feeding	RS – roosting
HW – hawk insects	
	NS - nesting
VO - vocalizing	SI – sign

WEATHER

SU – sunny	FG - fog
PC – partly cloudy	RN – rain
CL – cloudy	

COVER TYPE

RWY – runway	GRS – grass short	MAR – marsh
TWY – taxiway	GRM – grass med	MUD – mud flat
RMP – ramp	GRH – grass high	PND – pond
		TSW – temp stand water
ASP – asphalt/ concrete	SHR – shrubs	CRK – creek
UNP – unpaved road	TRE – tree	DTC – ditch
ARO – airport road	WDL – woodland	LKE – lake
STR - structure	AGF – ag field	PWL – power line
APL – airport light	BEA – beach	PLP – power pole
ILS – ILS structure	OCE - ocean	FNL – fence line
HGR – hangar		

	START	END
Time		
Station		
Temp		
Wind		
CC		
Prec.		

Notes:

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APPENDIX D

Number of Birds Observed by Species and Guild
December 2014 - November 2015

APPENDIX D
Number of Birds Observed by Species and Guild

Guild Name	Species	Total On-Airport	Total Off-Airport	Total Observations
Waterfowl		**3,963**	**549**	**4,512**
	Ross's goose	3		3
	Canada goose	302	32	334
	Brant	12	83	95
	Goose sp.	3		3
	Mute swan	1		1
	Gadwall	111		111
	American wigeon	5		5
	Mallard	215	12	227
	Blue-winged teal	1		1
	Cinnamon teal	3		3
	Northern shoveler	1,465		1,465
	Northern pintail	20		20
	Green-winged teal	172		172
	Greater scaup	3		3
	Lesser scaup	2		2
	Surf scoter		76	76
	Scoter sp.		4	4
	Bufflehead	30		30
	Red-breasted merganser		1	1
	Ruddy duck	10		10
	Duck sp.	1,605	11	1,616
	Sp. (medium-sized waterbirds)		330	330
Grebes, Loons, and Coots		**1,545**	**521**	**2,066**
	Red-throated loon		13	13
	Common loon		2	2
	Pied-billed grebe	39		39
	Horned grebe		8	8
	Eared grebe	9	5	14
	Western grebe	3	12	15
	Clark's grebe		2	2
	Clark's grebe/western grebe	2	472	474
	Grebe sp.	1		1
	American coot	1,491	7	1,498
Pelicans and Cormorants		**101**	**525**	**626**
	Brown pelican	52	98	150
	Brandt's cormorant		50	50
	Double-crested cormorant	49	228	277
	Pelagic cormorant		1	1

Guild Name	Species	Total On-Airport	Total Off-Airport	Total Observations
	Cormorant sp.		148	148
Wading Birds		**598**	**82**	**680**
	Great blue heron	240	27	267
	Great egret	223	41	264
	Snowy egret	126	14	140
	Green heron	2		2
	Black-crowned night-heron	7		7
Raptors, Owls, and Vultures		**513**	**159**	**672**
	Turkey vulture	222	97	319
	Osprey	7	2	9
	White-tailed kite	10	6	16
	Northern harrier	1		1
	Sharp-shinned hawk	1		1
	Cooper's hawk	1	4	5
	Red-shouldered hawk	1	6	7
	Red-tailed hawk	225	37	262
	American kestrel	42	3	45
	American peregrine falcon	2	3	5
	Raptor sp.	1	1	2
Shorebirds		**791**	**382**	**1,173**
	Black-necked stilt	124	11	135
	Black-bellied plover	1	23	24
	Semipalmated plover	1		1
	Killdeer	247	1	248
	Spotted sandpiper	2		2
	Greater yellowlegs	23		23
	Willet	22	72	94
	Whimbrel	66	55	121
	Long-billed curlew	27		27
	Marbled godwit	18	55	73
	Sanderling		127	127
	Least sandpiper	13		13
	Western sandpiper	21		21
	Shorebird sp.	10	10	20
	Belted kingfisher	2	1	3
Gulls and Terns		**473**	**5,190**	**5,663**
	Heermann's gull		82	82
	Ring-billed gull	3	48	51
	Western gull	41	581	622
	California gull	9	135	144

Guild Name	Species	Total On-Airport	Total Off-Airport	Total Observations
	Herring gull	1		1
	Glaucous-winged gull		1	1
	Gull sp.	418	4,140	4,558
	Caspian tern		2	2
	Forster's tern		1	1
	Royal tern		59	59
	Elegant tern	1	21	22
	Elegant/royal tern		67	67
	Tern sp.		53	53
Doves and Pigeons		**415**	**1,806**	**2,221**
	Rock pigeon (rock dove)	184	1,719	1,903
	Band-tailed pigeon	1	23	24
	Eurasian collared-dove	13	5	18
	Mourning dove	217	59	276
Crows and Ravens		**1,398**	**498**	**1,896**
	American crow	1,398	497	1,895
	Common raven		1	1
Aerial Foragers		**2,921**	**926**	**3,847**
	White-throated swift	5		5
	Tree swallow	2	23	25
	Northern rough-winged swallow	8	7	15
	Cliff swallow	2,211	374	2,585
	Barn swallow	8	2	10
	Swallow sp.	687	520	1,207
Woodland/Scrub Birds		**3,141**	**1,918**	**5,059**
	Anna's hummingbird	70	76	146
	Allen's hummingbird		1	1
	Allen's/rufous hummingbird		2	2
	Hummingbird sp.	11	2	13
	Acorn woodpecker	8	33	41
	Nuttall's woodpecker	1	6	7
	Downy woodpecker	1	4	5
	Hairy woodpecker	1		1
	Northern flicker	17	4	21
	Black phoebe	111	64	175
	Say's phoebe	69	8	77
	Ash-throated flycatcher	1		1
	Cassin's kingbird	41	14	55
	Western kingbird	1	2	3
	Kingbird sp.	2		2

Guild Name	Species	Total On-Airport	Total Off-Airport	Total Observations
	Flycatcher sp.		1	1
	Loggerhead shrike	32		32
	Hutton's vireo		1	1
	Western scrub-jay	12	22	34
	Oak titmouse	3	10	13
	Bushtit	133	94	227
	House wren	10	2	12
	Marsh wren	11		11
	Bewick's wren	27	17	44
	Blue-gray gnatcatcher	52	2	54
	Wrentit	8	1	9
	Ruby-crowned kinglet	2	11	13
	Western bluebird	25	22	46
	Hermit thrush	2	1	3
	American robin	2	67	69
	California thrasher	16	1	17
	Northern mockingbird	358	37	395
	Cedar waxwing	64	171	235
	Orange-crowned warbler	16	4	20
	Common yellowthroat	343	29	372
	Yellow warbler	2	1	3
	Yellow-rumped warbler	189	379	568
	Townsend's warbler		1	1
	Spotted towhee	12	3	15
	California towhee	135	73	208
	Song sparrow	326	43	369
	Lincoln's sparrow	3	3	6
	White-crowned sparrow	94	55	149
	Golden-crowned sparrow	1		1
	Sparrow sp.	28	3	31
	Dark-eyed junco	1		1
	Western tanager		2	2
	Black-headed grosbeak	3		3
	Hooded oriole	12	6	18
	House finch	704	457	1,161
	Pine siskin		4	4
	Lesser goldfinch	32	73	105
	American goldfinch	1		1
	Finch sp.	1	3	4
	House sparrow	4	8	12

Guild Name	Species	Total On-Airport	Total Off-Airport	Total Observations
	Scaly-breasted munia	43	3	46
	Passerine sp.	100	92	192
Grassland Birds		**1,389**	**52**	**1,441**
	Horned lark	14		14
	American pipit	32	25	57
	Savannah sparrow	366	18	384
	Grasshopper sparrow	1		1
	Western meadowlark	976	9	985
Blackbirds and Starlings		**392**	**491**	**883**
	European starling	167	99	266
	Red-winged blackbird	176	23	199
	Brewer's blackbird	45	284	329
	Great-tailed grackle		1	1
	Brown-headed cowbird	2	83	85
	Blackbird sp.	2	1	3
	Total Observations	***17,640***	***13,099***	***30,739***

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Appendix C

SANTA BARBARA AIRPORT MASTER PLAN

Traffic Impact Study

JUNE 2016 | FINAL TIS

Prepared By:

Kimley»Horn

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1 INTRODUCTION

The following traffic impact analysis has been prepared to determine and evaluate the potential traffic impacts associated with the airport redevelopment presented in the Santa Barbara Airport Master Plan[1].

The Santa Barbara Airport (SBA) is located near the southern coast of Santa Barbara County. While a part of the City of Santa Barbara, the airport is surrounded by the City of Goleta and the University of California – Santa Barbara (UCSB). Forming the extents of the Airport Master Plan area is Fairview Avenue on the east, Los Carneros Road on the west, and Hollister Avenue on the north. Inbound access to the SBA terminal is from James Fowler Road and outbound access is to William Moffett Place. The circulation through the Airline Terminal area is provided by a one-way loop. Land uses along the north side of the airport can be accessed via Hollister Avenue at Lopez Road, Love Place, and Aero Camino/Adams Road. **Figure 1-1** shows the airport location in its regional context and **Figure 1-2** shows the roadways and study intersections for the SBA.

1.1 PROJECT DESCRIPTION

The Airport Master Plan was developed to evaluate the required facility improvements due to future aviation demand forecasts. In short, the Airport Master Plan provides guidelines for the SBA's overall development, maintenance, and operation for the proceeding 20 years (long-term planning period). Included in the master plan is a recommended development concept that outlines the proposed uses for all areas of airport property. The Master Plan Concept includes improvements to the airfield, Airline Terminal area, and general aviation facilities to meet current and forecast needs over the long-term planning period. **Figure 1-3** shows the Long Term (2032) recommended concept plan for the SBA.

This traffic impact analysis will evaluate the potential traffic impacts associated with the planned changes on the airport property. The relocation of the Fixed Base Operator (FBO) facilities from the southern end of the Airline Terminal to the northern side of the runways was the primary change identified to affect traffic patterns in the study area. Traffic growth associated with the projected increase in flight activity and related uses such as parking and rental car facilities would be analyzed as part of cumulative "without project" conditions. Growths in airline activity and related uses were accounted for within the City of Goleta's traffic demand model and should not be considered an element of the Santa Barbara Airport Master Plan since the growth in air travel is in response to growth in the region.

The Master Plan Concept carries forward plans from previous planning efforts to consolidate the FBO facilities to the north side of the airfield. The Santa Barbara Airport has two full-service fixed base operators, Atlantic Aviation and Signature Flight Support, which provide services primarily to general aviation (GA) users, which include business/corporate aircraft, recreational/personal fliers, flight training, and emergency medical flights, among other users. Services provided by both FBOs include: aviation fueling, aircraft maintenance and detailing, aircraft storage, GA terminal and pilot services, and aircraft chartering services. GA operations accounted for 74 percent of all SBA operations in 2014 and are forecast to increase by approximately one percent each year through the long range horizon of the Airport Master Plan (AMP). Currently, the two FBOs are in separate locations on the airfield with Atlantic Aviation located south of the

[1] Airport Master Plan, Santa Barbara Airport, 2014.

Airline Terminal building and Signature Flight Support located on the north side. The AMP proposes relocating Atlantic Aviation's facilities to the north side of the airfield to allow for the future expansion of terminal area facilities including expanded surface vehicle parking lots. The consolidation of FBOs on the north side of the airfield will also enhance airfield safety by segregating GA and commercial operations, which involve different aircraft types and security measures.

Presently, SBA has one short-term and one long-term parking lot adjacent to the Airline Terminal. When combined, these lots provide spaces for passengers and SBA terminal employee parking. With projected future aviation demand, it is anticipated that SBA will need to provide additional spaces over the next 20 years. As part of the Master Plan Concept, a new surface parking lot will be constructed and the existing short-term lot will be expanded. The new surface lot will be divided among long-term parking, rental car ready/return, and employee parking. Due to its location within a floodway, a second remote long-term parking lot has been closed.

The Airport Master Plan would redevelop the north side of the airport to aggregate general aviation and other aviation-related uses to one side of the airport. Outside the relocation of the Atlantic Aviation FBO to the north side, the redevelopment of the north side of the airport is not anticipated to significantly impact traffic operations.

1.2 ANALYSIS SCENARIOS

The scenarios for this analysis were determined from the Airport Master Plan. These scenarios represent the planning horizons when a determined level of activity is recommended for implementation in the Master Plan. A total of five scenarios were analyzed as part of the project and are listed below:

Existing Conditions

1) Existing Conditions: Represents the traffic conditions of the existing street network.

Short Term Program Conditions (2017) include improvements to the airport airside facilities, land acquisition, and other projects that would not affect external roadway traffic volumes. Traffic will not be affected with the Short Term AMP and therefore the Short Term (2017) Condition was not analyzed.

Intermediate Term Program Conditions (2022)

2) Year 2022 Baseline Conditions: Represents the traffic conditions of the street network assumed to be in place in year 2022. This scenario includes traffic from cumulative projects identified in the study area and traffic growth from an increase in airline activity.
3) Year 2022 with Airport Intermediate Term Program Conditions: Represents the traffic conditions when the Master Plan Concept Intermediate Term horizon projects milestones are reached. In the Airport Master Plan, it is assumed that FBO facilities south of the Airline Terminal will be vacated and the FBO leaseholds in the northeast corner are developed. It is also assumed that the next phase of the terminal area is developed and the additions to the short-term lot and the construction of the new long-term lot are completed.

Long Term Program Conditions (2032)

4) Year 2032 Baseline Conditions: Represents the traffic conditions of the street network assumed to be in place in year 2032. This scenario includes traffic from cumulative projects identified in the study area and traffic growth from an increase in airline activity.
5) Year 2032 with Airport Long Term Program Conditions: Represents the traffic conditions when the Master Plan Concept Long Term horizon project milestones are reached. The FBO located south of the Airline Terminal is anticipated to be vacated while the FBO leaseholds in the northeast corner would be developed.

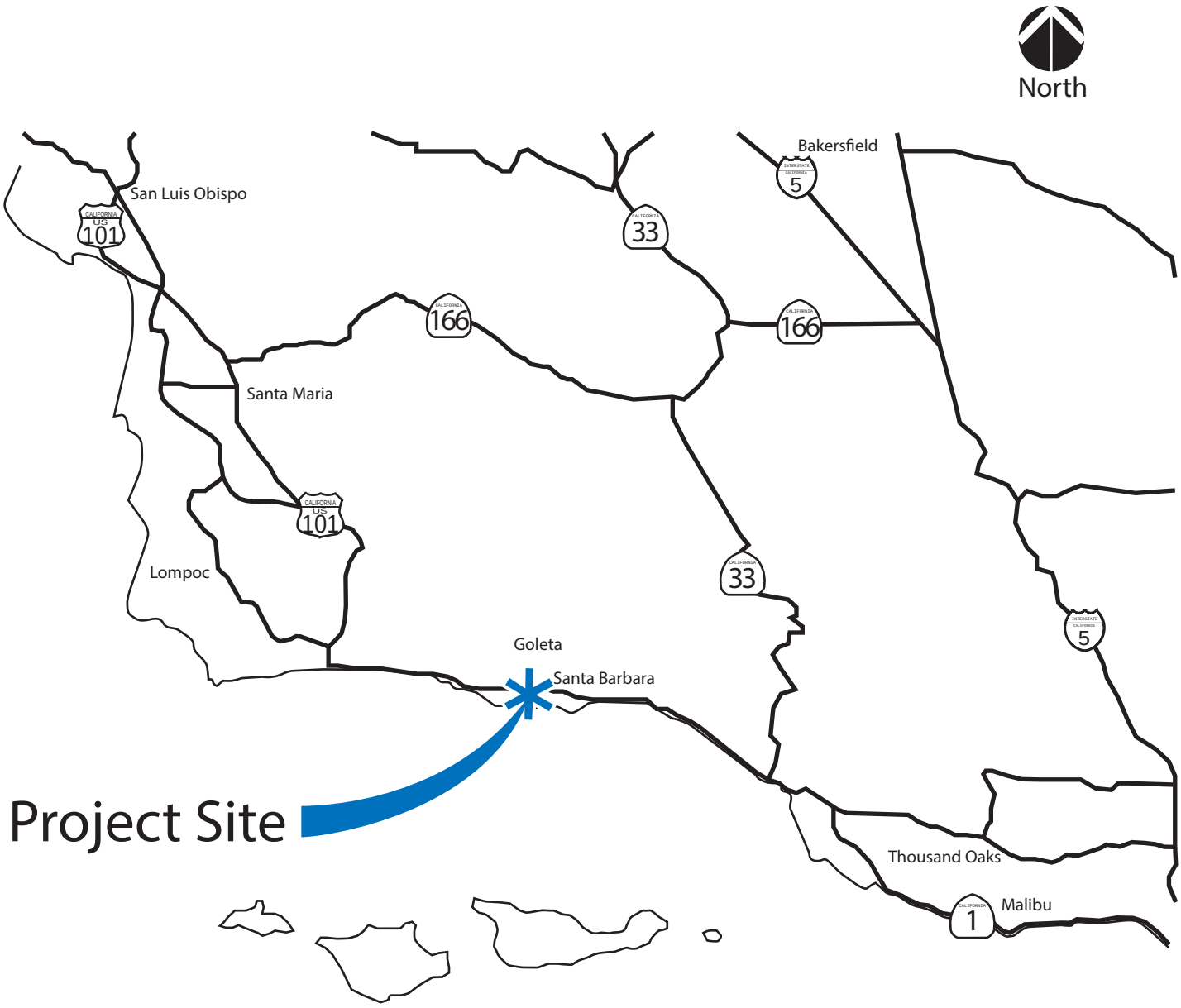

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FIGURE 1-1
Vicinity Map

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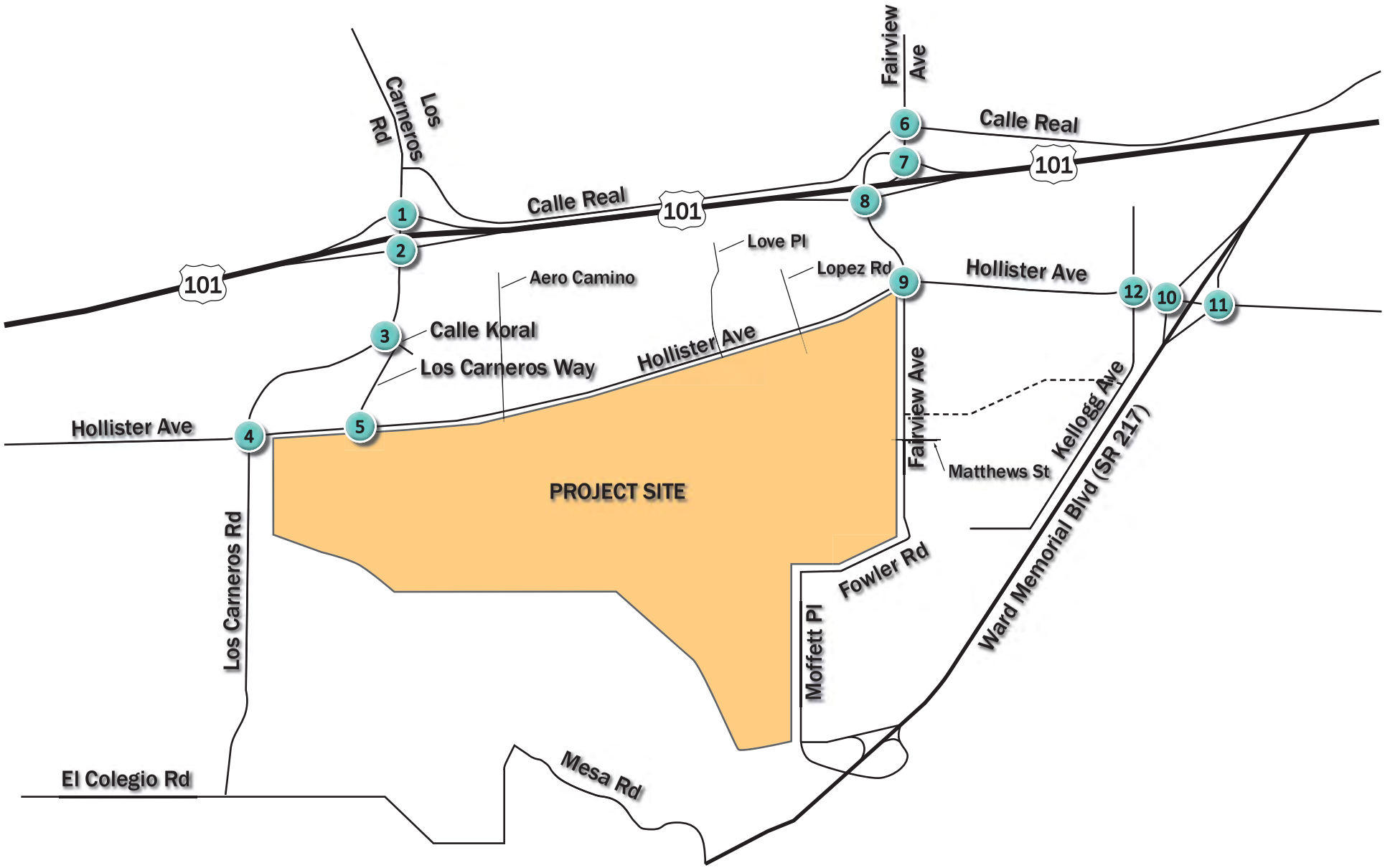

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FIGURE 1-2

Study Area

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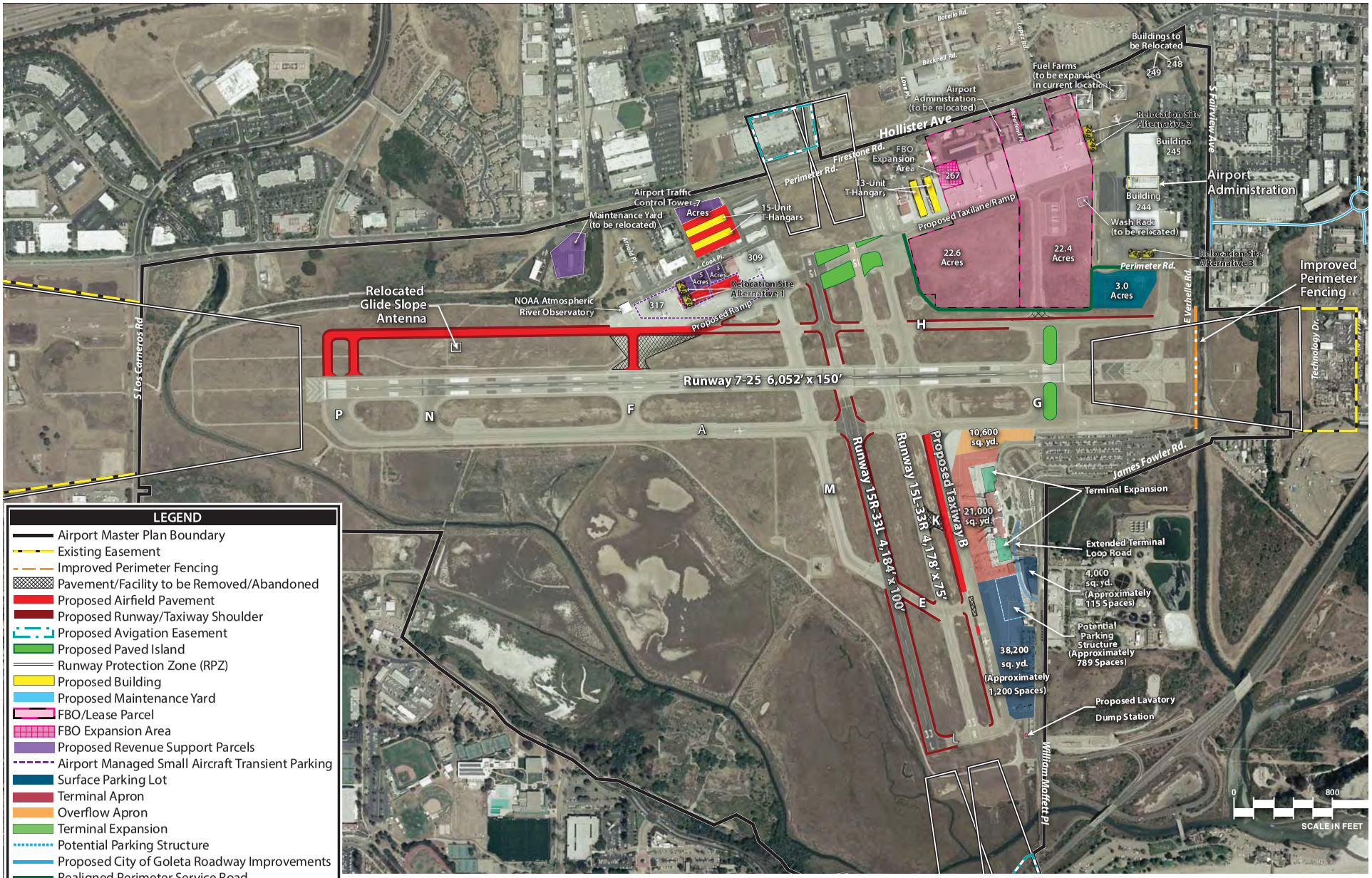

Source: Airport Master Plan, Santa Barbara Airport, 2016.

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Figure 1-3

Recommended Airport Concept Plan

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2 METHODOLOGY

The following section describes the methodology used to forecast traffic data, determine study intersections, perform capacity analysis, and determine significant impacts.

2.1 TRAFFIC VOLUME FORECASTING

Year 2032 peak-hour volumes at the study intersections and the average daily traffic (ADT) volumes on the study roadway segments were estimated based on the 2035 City of Goleta peak-hour travel demand models provided by Kittelson & Associates on behalf of the City of Goleta. The travel demand model plots are provided in **Appendix E**. ADT along the roadway segments were estimated by increasing 2035 p.m. peak hour volumes based on the percentage of existing daily traffic traveling during the associated peak hour. The resulting 2035 ADT volumes were interpolated with existing volumes to estimate 2022 and 2032 volumes.

To estimate year 2022 and 2032 turning movement volumes at the study intersections, the projected change from the baseline peak-hour travel demand plots to the Year 2035 peak-hour travel demand plots were added to the existing counts to estimate intersection turning movement values. The projected change in traffic volumes between baseline and future year conditions were added to the inflows and outflows of existing traffic counts. Each respective intersection movement was then derived using an iterative approach that balances the inflows and outflows for each approach within an Excel model. A copy of the Excel calculation worksheets is included in **Appendix A**.

Year 2022 Baseline conditions peak-hour volumes at the study intersections and ADT volumes on the study roadway segments were then determined by adding the reasonably expected cumulative project volumes. Reasonably expected cumulative project volumes for Year 2032 conditions were captured within the travel demand model and were not double counted in the volumes. Chapters 5 and 6 include a more detailed description of the cumulative projects included in the study.

2.2 STUDY AREA

The study area was defined based on likely access patterns for the SBA. The intersections listed in **Table 2-1** were identified for evaluation. The roadway segments listed in **Table 2-2** were identified for evaluation.

As shown in Table 2-1, all twelve of the study intersections are signalized.

Table 2-1 Study Intersections

	Intersection	Traffic Control
1	Los Carneros Road & US 101 NB Ramps	Traffic Signal
2	Los Carneros Road & US 101 SB Ramps	Traffic Signal
3	Los Carneros Road & Calle Koral	Traffic Signal
4	Los Carneros Road & Hollister Avenue	Traffic Signal
5	Los Carneros Way & Hollister Avenue	Traffic Signal
6	Fairview Avenue & Calle Real	Traffic Signal
7	Fairview Avenue & US 101 NB Ramps	Traffic Signal
8	Fairview Avenue & US 101 SB Ramps	Traffic Signal
9	Fairview Avenue & Hollister Avenue	Traffic Signal
10	SR 217 WB Ramp & Hollister Avenue	Traffic Signal
11	SR 217 EB Ramp & Hollister Avenue	Traffic Signal
12	Kellogg Avenue & Hollister Avenue	Traffic Signal

Table 2-2 Study Roadway Segments

Roadway	Segment
Hollister Avenue	West of Los Carneros Road
	Between Los Carneros Road and Los Carneros Way
	East of Los Carneros Way
	West of Fairview Avenue
	Between Fairview Avenue and Kellogg Avenue
	Between Kellogg Avenue and WB SR 217
	East of EB SR 217
Fairview Avenue	North of Calle Real
	Between Calle Real and US 101
	Between US 101 and Hollister Avenue
	Between Hollister Avenue and Matthews Street (airport access)
	Between Matthews Street (airport access) and James Fowler Road
James Fowler Road	Between Fairview Avenue and Terminal Access
William Moffett Place	Between terminal access (south) and Ward Memorial Boulevard (SR 217)
Los Carneros Road	North of US 101
	Between US 101 and Calle Koral
	Between Calle Koral and Hollister Avenue
	South of Hollister Avenue
Los Carneros Way	Between Calle Koral and Hollister Avenue
Kellogg Avenue	South of Hollister Avenue

2.3 ANALYSIS PROCESS

The analysis process includes determining the a.m. and p.m. peak-hour operations at the study intersections and operations daily along the roadway segments. Signalized intersections were analyzed using the Traffix traffic analysis software package using HCM 2000 methodology while roundabouts were analyzed using Sidra 6 software with the Sidra capacity model and HCM 2010 traffic signal delay parameters.

2.3.1 SIGNALIZED AND ROUNDABOUT INTERSECTIONS

Level of service (LOS) for signalized intersections was calculated utilizing the Intersection Capacity Utilization (ICU) method. The ICU method establishes a system whereby highway facilities are rated based on how an intersection is functioning and how much extra capacity is available to handle traffic fluctuations and incidents. Letters A to F are assigned to the intersection based on the City of Santa Barbara and City of Goleta General Plan thresholds. The criteria for the various LOS designations is given in **Table 2-3**.

Within the City of Santa Barbara and City of Goleta, LOS C is the minimum standard LOS for all signalized intersections. Signals operating at LOS D, E, or F are considered deficient.

Table 2-3 Level of Service (LOS) Criteria for Signalized Intersections

LOS	ICU Rate	Description
A	0 to 60%	Describes primarily free-flow conditions at average travel speeds. Vehicles are seldom impeded in their ability to maneuver in the traffic stream. Delay at intersections is minimal.
B	61% to 70%	Represents reasonably unimpeded operations at average travel speeds. The ability to maneuver in the traffic stream is slightly restricted and delays are not bothersome.
C	71% to 80%	Represents stable operations; however, ability to change lanes and maneuver may be more restricted than LOS B and long queues are experienced at intersections.
D	81% to 90%	Congestion occurs, and a small change in volumes increases delays substantially.
E	91% to 100%	Severe congestion occurs with extensive delays, and low travel speeds occur.
F	>100%	Characterizes arterial flow at extremely low speeds, and intersection congestion occurs with high delays and extensive queuing.
Source: Goleta General Plan, Transportation Element, Table 7-3		

2.3.2 ROADWAY SEGMENTS

In order to determine the impacts on the study area roadway segments, the City of Goleta has established roadway classifications and level of service thresholds. The criteria for the various LOS designations are given in **Table 2-4**. Within the City of Goleta, LOS C is the minimum standard LOS for roadway segments. Segments operating with ADT greater than the design capacity are considered deficient.

The City of Santa Barbara did not identify additional roadway segment ADT thresholds of significance in the Program Environmental Impact Report for the Plan Santa Barbara General Plan Update (2010).

Table 2-4 Roadway Classification & Level of Service Thresholds

Functional Street Classification [(a)]	Purpose and Design Factors	ADT Design Capacity			LOS C ADT Threshold		
		2 Lanes	4 Lanes	4 + Lanes [(b)]	2 Lanes	4 Lanes	4 + Lanes [(b)]
Major Arterial (MA)	Continuous roadways that carry through traffic between various neighborhoods and communities, frequently providing access to major traffic generators such as shopping areas, employment centers, and higher density residential areas. Roadways would have minimum of 12-foot wide lanes with shoulders. Signals are typically spaced at a minimum 0.5 mile interval.	17,900	42,480	58,750	14,300	34,000	47,000
Minor Arterial (MNA)	Roadways that serve as a secondary type of arterial facility carrying local and through traffic within communities, frequently connecting neighborhood areas within the City, providing access to shopping areas, employment centers, and higher density residential areas. Roadways would have a minimum of 12-foot wide lanes with shoulders. Signal intervals typically range from 0.25 to 0.5 mile.	15,700	37,680	NA	12,500	30,100	NA
Collector Streets (Col)	Roadways designed to collect traffic from local streets and connect to major or minor arterials. Collector Streets provide access to local streets within residential and commercial areas and connect streets of higher classifications to permit adequate traffic circulation. Generally no more than 2 travel lanes and signalized at intersections with arterial roadways.	11,600	NA	NA	9,280	NA	NA
Local Streets (L)	Roadways designed to provide access to individual properties carrying traffic to and from a collector street. Intended to serve adjacent uses and are not intended for through traffic. Designed with two lanes and close to moderately close driveways.	9,100	NA	NA	7,280	NA	NA

Source:
(a) City of Goleta, 2006.
(b) 4 + Lanes includes 5 or 6 lane roadways

2.4 SIGNIFICANCE DETERMINATION

The Santa Barbara City Council adopted an update to the City's traffic impact significance thresholds in its 2013 Traffic Management Strategy. The City Council adopted the policy that a project would have a considerable contribution to a significant cumulative traffic effect when its net peak-hour traffic with other cumulative projects from existing and reasonably foreseeable pending projects would cause an intersection level of service to exceed 0.77 volume to capacity (v/c) ratio; or when the project would contribute peak-hour traffic to an intersection already exceeding a 0.77 v/c ratio. For projects proposed in the airport area, a significant project-specific traffic would result if a project's net peak-hour traffic generation would increase the v/c ratio at an intersection to 0.77 v/c ratio or greater; or if the project would increase the v/c ratio by 0.01 or more if the v/c ratio is already equal to 0.77 or greater.

The City of Goleta also has acceptable threshold standards (adopted from the *County of Santa Barbara Environmental Thresholds and Guidelines Manual*) to determine the significance of project impacts to intersections and roadway segments and include the following criteria[2]:

A) The project will result in a significant traffic impact when the addition of project traffic increases the v/c ratio at an intersection by the values provided in **Table 2-5.**

Table 2-5 Significant Changes in Levels of Service

Intersection LOS (Including Project)	Increase in v/c or Trips Greater Than
LOS A	0.20
LOS B	0.15
LOS C	0.10
LOS D	15 Trips
LOS E	10 Trips
LOS F	5 Trips

B) The project's access to a major road or arterial road would require a driveway that would create an unsafe situation or a new traffic signal or major revisions to an existing traffic signal.

C) The project would add traffic to a roadway that has design features (e.g., narrow width, road side ditches, sharp curves, poor sight distance, and inadequate pavement structure) that would become a potential safety problem with the addition of project traffic. Exceedence of the roadways designated Circulation Element Capacity may indicate the potential for the occurrence of the above impacts.

D) Project traffic would utilize a substantial portion of an intersection's capacity where the intersection is currently operating at acceptable levels of service but with cumulative traffic would degrade to or

[2] County of Santa Barbara Environmental Thresholds and Guidelines Manual, *Chapter 18. Thresholds of Significance for Traffic Impacts and Contents of a Traffic Study,* Planning and Development Department, October 2002.

approach LOS D (v/c 0.81) or lower. Substantial is defined as a minimum change of 0.03 for an intersection which would operate from 0.80 to 0.85, a change of 0.02 for an intersection which would operate from 0.86 to 0.90 and a change of 0.01 for an intersection which would operate greater than 0.90 (LOS E or worse). *Interpretation:* A project contributes substantially to a cumulative impact when the addition of the project increases v/c by the minimum threshold value when with project v/c is within the listed v/c ranges.

If the above thresholds are exceeded, improvements or project modifications to reduce the LOS to insignificance are required. To reduce project impacts to levels of insignificance the transportation facility must be restored to an acceptable LOS (C) and/or reduce the safety impacts to insignificance.

2.4.1 ADDITIONAL SIGNIFICANCE CONSIDERATION

In 2013, SB 743 was signed into law to have the Governor's Office of Planning and Research (OPR) to develop a new approach for analyzing traffic impacts as part of the CEQA process. The revised approach is anticipated to eliminate the use of auto delay, level of service (LOS), and other vehicle capacity measurements in favor of using vehicle miles traveled (VMT) as a replacement measure. At this time, the OPR has released drafts of preliminary discussions regarding changes to the transportation aspect of CEQA. New analysis requirements have not been finalized and therefore were not incorporated into this report.

3 EXISTING CONDITIONS

3.1 ROAD NETWORK

The following provides a description of the existing street system within the vicinity of the project area.

Hollister Avenue is a four-lane divided arterial roadway that forms the north boundary of the SBA Master Plan area. Within the study area, Hollister Avenue has two travel lanes in each direction with a raised or painted center median, and left-turn pockets at side street intersections and driveways. Class II bike lanes are provided on both sides of the street. Hollister Avenue provides the primary east-west surface street route through the City of Goleta and is identified as part of the Santa Barbara Association of Governments (SBCAG) Congestion Management Plan (CMP) network.

Fairview Avenue is a two-to four-lane divided arterial roadway that runs along the east side of the airport. South of Hollister Avenue, Fairview Avenue has one travel lane in each direction with a painted center median, and left-turn pockets at side street intersections and driveways. North of Hollister Avenue, Fairview Avenue is a 4-lane roadway connecting with US 101. Class II bike lanes are provided on both sides of the street. Fairview Avenue is also identified to be a part of the SBCAG CMP network.

James Fowler Road turns into Fairview Avenue at its eastern end. James Fowler Road provides direct access to the Airline Terminal, short-term parking lot, and long-term parking lot 1. James Fowler Road is classified as a minor arterial roadway and has one travel lane in each direction with left-turn pockets at side street intersections and driveways. Class II bike lanes are provided on both sides of the street.

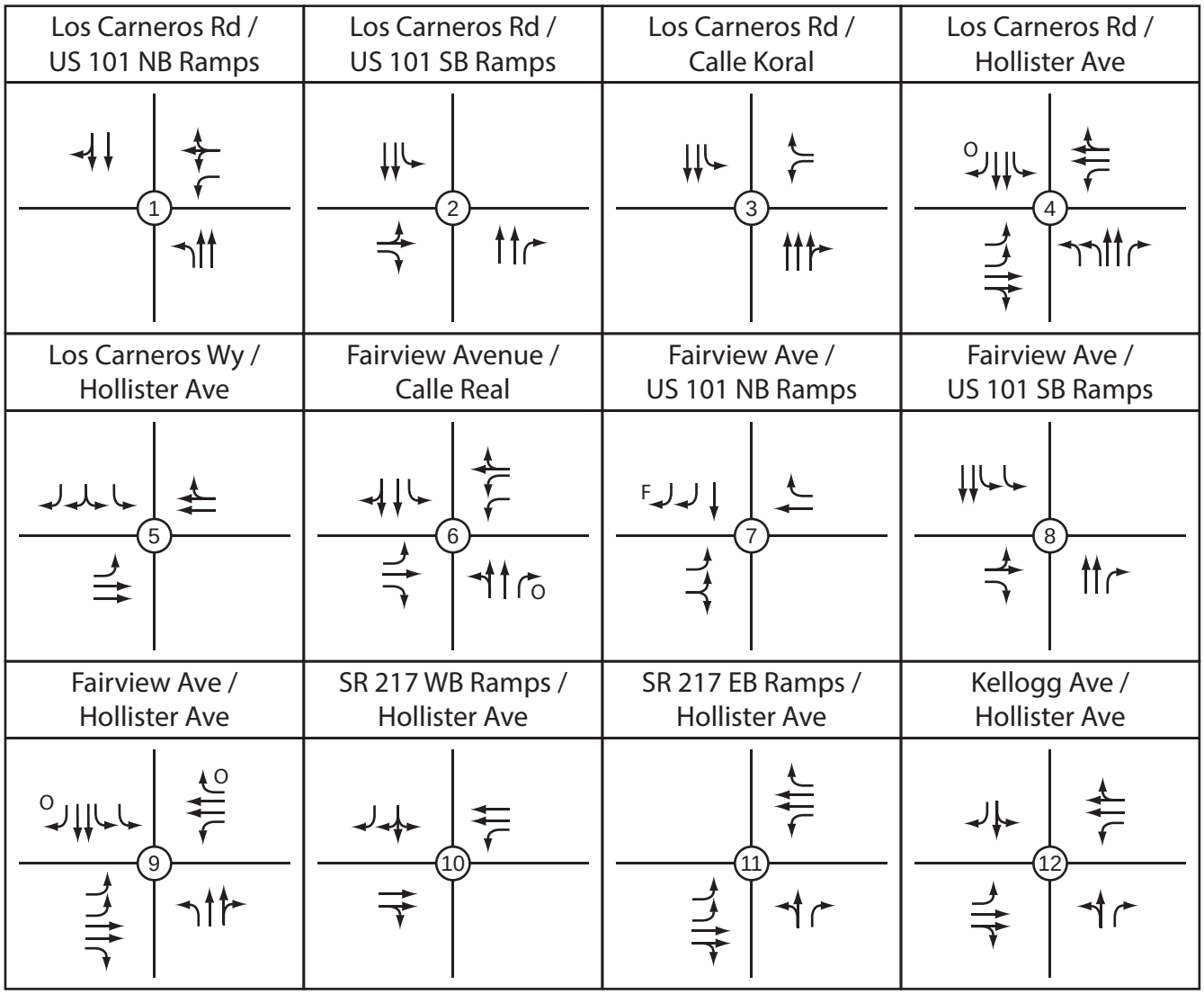
William Moffett Place turns into James Fowler Road at its northern end. William Moffett Place provides access to the airline terminal passenger pick-up/drop-off area and rental car facility and connects SR 217 with the SBA. William Moffett Place is classified as a minor arterial and has one travel lane in each direction with left-turn pockets at side street intersections and driveways. Class II bike lanes are provided on both sides of the street.

Los Carneros Road is a two- to four-lane divided arterial roadway that runs along the west side of the airport. Los Carneros Road has two travel lanes in each direction with a raised center median and left-turn pockets at side street intersections and driveways. Class II bike lanes are provided on both sides of the street. The Los Carneros Road interchange with the US 101 is north of Hollister Avenue. Los Carneros Road is also identified as a part of the SBCAG CMP network.

Los Carneros Way is a two-lane divided collector roadway. Los Carneros Way has one lane in each direction with a raised center median and left-turn pockets at side street intersections and driveways.

Kellogg Avenue is a two-lane undivided collector roadway providing access to several business and industrial land uses south of Hollister Avenue and residential uses north of Hollister Avenue.

Figure 3-1 shows the geometrics of the study intersections, roadway segments and freeway segments for the Existing scenario.



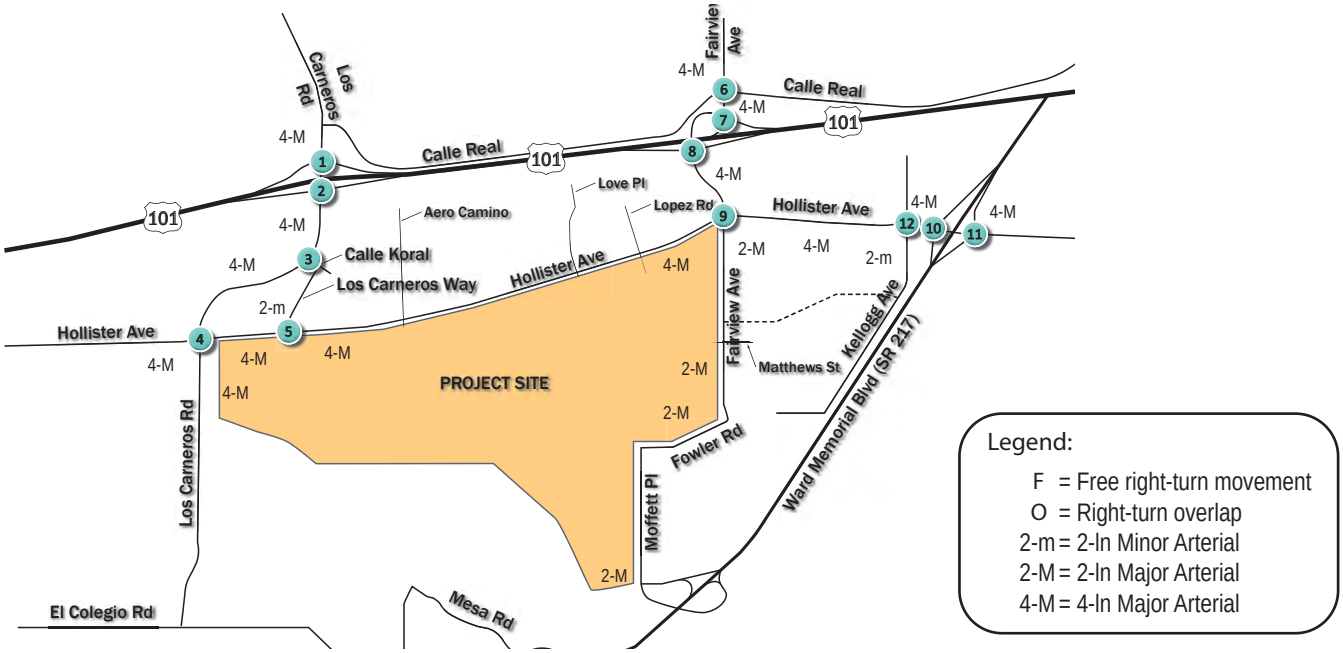


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FIGURE 3-1

Existing Conditions Intersection Geometrics

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3.2 TRANSIT SERVICE

The following provides a description of the existing transit service within the vicinity of the project area.

3.2.1 BUS SERVICE

Bus service within the project area is served by the Santa Barbara Metropolitan Transit District. There is one bus route that provides bus service to the Airline Terminal and two other routes that pass through the study area. The description of the existing bus routes are described below.

Route 11 – UCSB: Route 11 provides daily service between the transit center in downtown Santa Barbara and the University of California, Santa Barbara. The service utilizes Hollister Avenue, Fairview Avenue, Fowler Road, and Moffett Place within the study area and provides service to the Santa Barbara Airport terminal. Weekday service operates beginning at 6 a.m. until midnight. Weekend service begins at 6 a.m. and ends at 11 p.m. on Saturdays and 10 p.m. on Sundays. Bus headways are 30 minutes and 20 minutes during weekday peak periods.

Route 6 – Goleta: Route 6 provides service between the transit center in downtown Santa Barbara and Goleta. The service travels along Hollister Avenue within the study area. This route provides daily service between 6 a.m. and 7 p.m. with headways of 30 minutes and 20 minutes during peak periods.

Route 12X – Goleta Express: Route 12X provides express bus service between the transit center in downtown Santa Barbara and Goleta. The service travels along Hollister Avenue within the study area. This route provides weekday service between 6 a.m. to 7 p.m. and weekend service between 8 a.m. and 5:40 p.m. Weekday headways are one hour and 30 minutes during peak periods. Saturday headways are one hour and 30 minutes during the midday while Sunday service operates hourly.

3.2.2 RAIL SERVICE

Intra-city rail service is provided by the Amtrak Pacific Surfliner to the Goleta Amtrak station. The Amtrak station is located just south of US 101 at South La Patera Lane. Ten daily trains (five northbound and five southbound) serve Goleta and points south, including Los Angeles and San Diego. Of those trains, four (two northbound and two southbound) serve points north, including Grover Beach and San Luis Obispo. Taxicabs provide connections between Goleta Amtrak Station and the Airline Terminal. **Figure 3-2** illustrates the existing bus and rail services within the study area.

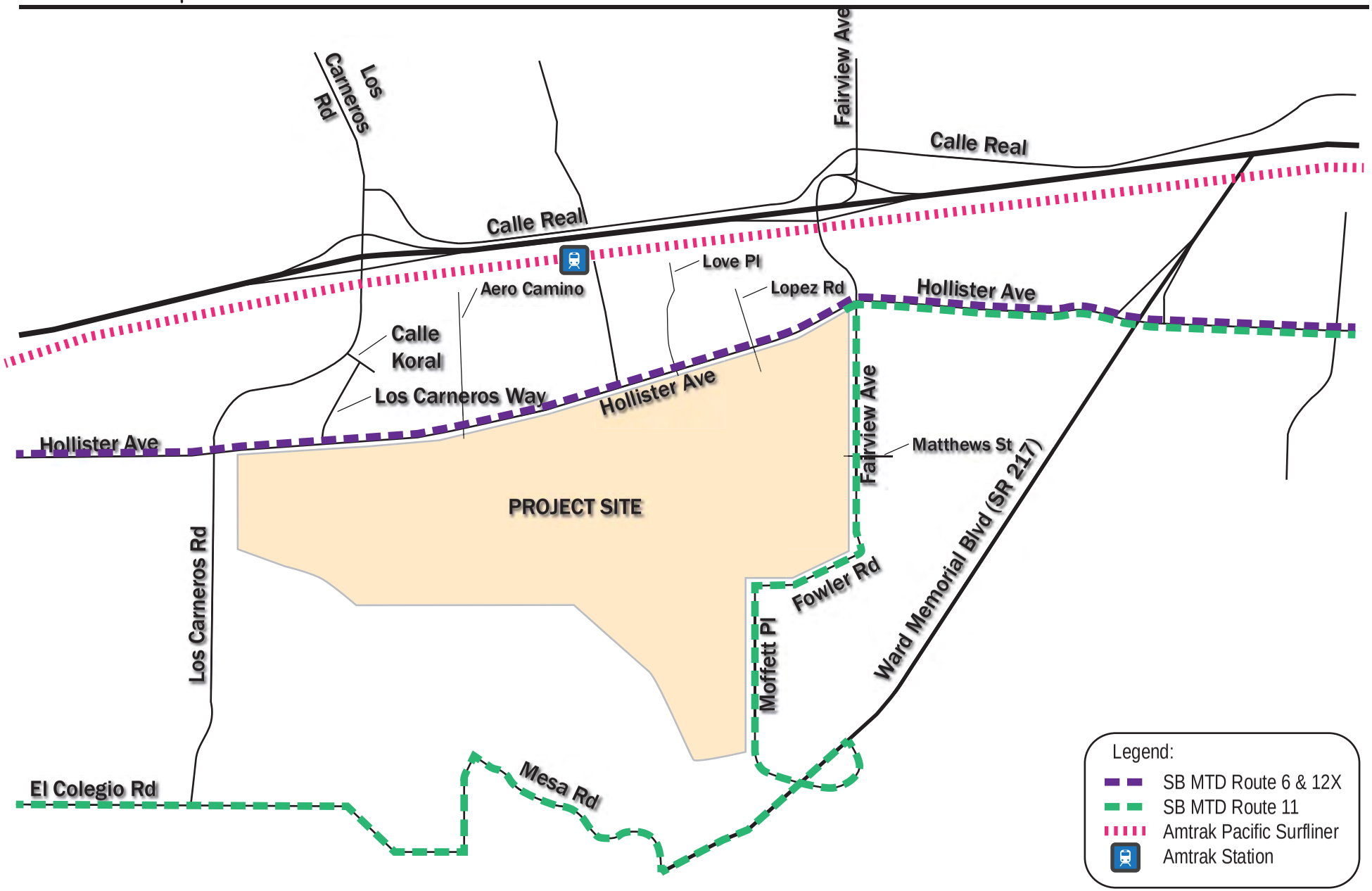

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FIGURE 3-2

Existing Transit Network

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3.3 TRAFFIC VOLUMES

Existing a.m. (7:00 to 9:00 a.m.) and p.m. (4:00 to 6:00 p.m.) peak-hour turning movement counts were conducted by Quality Counts, LLC at all the existing intersections within the study area in April 2015. The 24-hour roadway machine counts along the roadway segments within the study area were also collected by Quality Counts, LLC in April 2015. Existing peak-hour traffic volume data at the study intersections and the existing ADT volume data for the roadway segments are provided in **Appendix B**.

As a result of continuous construction projects at the interchange ramps within the study area, traffic counts could not be conducted without a major ramp closure. When the counts in April 2015 were collected, the US-101 northbound on-ramp at the Fairview Avenue was closed. To account for the missing on-ramp volumes, April 2013 traffic volumes from the 2013 Marriott EIR were referenced and added on top of existing volumes through the study intersections and roadway segments. A table providing count sources used for each intersection is provided in Appendix B.

Figure 3-3 illustrates the Existing Condition traffic volumes for the study area.

3.4 INTERSECTION ANALYSIS

Table 3-1 displays the LOS analysis results for the study intersections under Existing conditions. As shown in the table, all study intersections operate at LOS C or better during both peak periods.

Appendix C contains the peak-hour intersections LOS calculation worksheets.

3.5 ROADWAY SEGMENT ANALYSIS

Table 3-2 displays the roadway segment analysis under Existing conditions. As shown in the table, average daily traffic volumes along the study roadway segments do not exceed the LOS C capacity threshold.

1	130 / 312 278 / 253 Los Carneros Rd	29 / 35 2 / 7 848 / 255 US 101 NB Ramps	32 / 271 151 / 736
2	1091 / 489 30 / 18 Los Carneros Rd	US 101 SB Ramps	53 / 226 1 / 17 158 / 145 134 / 768 138 / 570
3	1064 / 492 201 / 145 Los Carneros Rd	77 / 321 27 / 16 Calle Koral	194 / 1035 7 / 38
4	118 / 95 307 / 343 48 / 122 Los Carneros Rd	28 / 24 304 / 648 100 / 117 Hollister Ave	62 / 253 398 / 499 196 / 86 43 / 209 132 / 330 96 / 132
5	39 / 24 121 / 87 Los Carneros Wy	38 / 213 402 / 718 Hollister Ave	18 / 43 477 / 736
6	44 / 62 317 / 328 31 / 114 Fairview Ave	23 / 52 133 / 305 129 / 224 Calle Real	21 / 62 83 / 304 358 / 323 218 / 428 229 / 438 130 / 395
7	705 / 585 110 / 293 Fairview Ave Fairview Ave	298 / 535 534 / 191 US 101 NB Ramps	270 / 702 129 / 219 US 101 NB Ramps
8	870 / 563 346 / 222 Fairview Ave	US 101 SB Ramps	87 / 192 0 / 19 187 / 224 322 / 751 283 / 573
9	484 / 240 277 / 137 175 / 365 Fairview Ave	271 / 383 416 / 487 41 / 42 Hollister Ave	220 / 517 332 / 631 182 / 91 68 / 162 136 / 377 27 / 70
10	519 / 433 154 / 48 SR 217 WB Ramp	426 / 512 96 / 70 Hollister Ave	601 / 1402 47 / 31
11	SR 217 EB Ramp	83 / 63 486 / 461 70 / 26 Hollister Ave	317 / 428 310 / 960 135 / 65 48 / 113 53 / 94 44 / 235
12	25 / 30 10 / 10 81 / 116 Kellogg Ave	80 / 89 747 / 663 269 / 136 Hollister Ave	46 / 29 413 / 1076 68 / 36 23 / 57 9 / 13 52 / 161

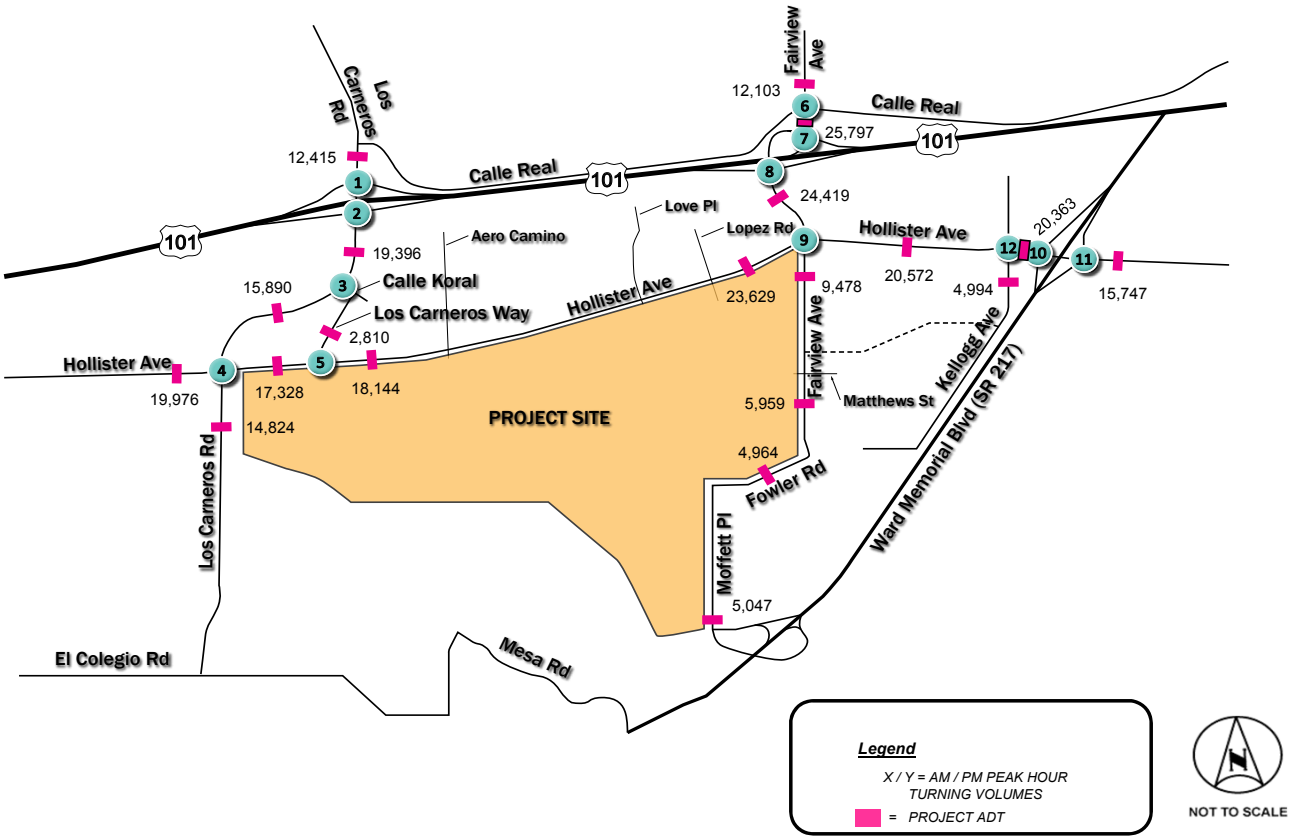

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FIGURE 3-3
Existing Conditions Traffic Volumes

TABLE 3-1

EXISTING CONDITIONS

PEAK-HOUR INTERSECTION LOS ANALYSIS SUMMARY

INTERSECTION		PEAK HOUR	EXISTING	
			V/C Ratio (a)	LOS
1	Los Carneros Rd & US 101 NB Ramp	AM	0.522	A
		PM	0.506	A
2	Los Carneros Rd & US 101 SB Ramp	AM	0.540	A
		PM	0.513	A
3	Los Carneros Rd & Calle Koral	AM	0.481	A
		PM	0.553	A
4	Los Carneros Rd & Hollister Ave	AM	0.458	A
		PM	0.566	A
5	Hollister Ave & Los Carneros Way	AM	0.287	A
		PM	0.425	A
6	Fairview Ave & Calle Real	AM	0.617	B
		PM	0.747	C
7	US 101 NB Ramps & Fairview Ave	AM	0.627	B
		PM	0.670	B
8	Fairview Ave & US 101 SB Ramps	AM	0.489	A
		PM	0.552	A
9	Fairview Ave & Hollister Ave	AM	0.575	A
		PM	0.661	B
10	SR 217 WB & Hollister Ave	AM	0.537	A
		PM	0.662	B
11	SR 217 EB & Hollister Ave	AM	0.312	A
		PM	0.496	A
12	Kellogg Ave & Hollister Ave	AM	0.502	A
		PM	0.706	C

Notes:
(a) v/c refers to the volume to capacity ratio for the intersection based on the Intersection Capacity Utilization (ICU) method.

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TABLE 3-2
EXISTING CONDITIONS
ROADWAY SEGMENT LOS SUMMARY

ROADWAY SEGMENT	ROADWAY CLASSIFICATION (a)	LOS C CAPACITY	ADT (b)	EXCEEDS THRESHOLD?
Los Carneros Rd				
north of US-101	2-Lane Major Arterial	14,300	12,415	NO
US-101 & Calle Koral	4-Lane Major Arterial	34,000	19,396	NO
Calle Koral & Hollister Ave	4-Lane Major Arterial	34,000	15,890	NO
South of Hollister Ave	4-Lane Major Arterial	34,000	14,824	NO
Los Carneros Way				
Calle Koral & Hollister Ave	2-Lane Minor Arterial	12,500	2,810	NO
Hollister Ave				
west of Los Carneros Rd	4-Lane Major Arterial	34,000	19,976	NO
between Los Carneros Rd & Los Carneros Wy	4-Lane Major Arterial	34,000	17,328	NO
east of Los Carneros Wy	4-Lane Major Arterial	34,000	18,144	NO
west of Fairview Ave	4-Lane Major Arterial	34,000	23,629	NO
between Fairview Ave & Kellogg Ave	4-Lane Major Arterial	34,000	20,572	NO
between Kellogg Ave & WB SR 217	4-Lane Major Arterial	34,000	20,363	NO
east of EB SR 217	4-Lane Major Arterial	34,000	15,747	NO
Fairview Ave				
north of Calle Real	4-Lane Major Arterial	34,000	12,103	NO
between Calle Real & US 101 NB Ramps	4-Lane Major Arterial	34,000	25,797	NO
between US 101 & Hollister Ave	4-Lane Major Arterial	34,000	24,419	NO
between Hollister Ave & Matthews St	2-Lane Major Arterial	14,300	9,478	NO
between Matthews St & Fowler Rd	2-Lane Major Arterial	14,300	5,959	NO
Fowler Rd				
between Fairview Ave & terminal access (east)	2-Lane Minor Arterial	12,500	4,964	NO
Moffett Pl				
between terminal access (south) & Ward Memorial Blvd	2-Lane Minor Arterial	12,500	5,047	NO
Kellogg Ave				
South of Hollister Ave	2-Lane Minor Arterial	12,500	4,994	NO

Notes:
(a) Existing roads street classification is based 2006 Goleta General Plan.
(b) Average Daily Traffic (ADT) volumes for the roadway segments were provided by Quality Counts, LLC and measured in April 2015.

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4 OVERALL AIRPORT TRAFFIC

Based on the Airport Master Plan Development Concept, the relocation of the FBO facilities and the construction and consolidation of Airline Terminal parking lots were identified as having the potential to impact traffic volumes within the study area. Projected growth in airport traffic due to future enplanements is included in the Future Cumulative (No Action) scenario provided by the City of Goleta's traffic demand model. The projected growth is evaluated in this study only to the extent that such traffic might be redistributed onto the street system in a different manner than the traffic demand model assumed, due to implementation of the Airport Master Plan Development Concept.

4.1 TRIP GENERATION

Existing airport average daily traffic (ADT) and peak-hour trip generation were based on traffic counts collected by Quality Counts in April 2015. The airport trip generation includes traffic to/from the Airline Terminal, on-site rental car center, and adjacent short-term and long-term parking lots. To account for projected increase in airline activity, trip generation rates were grown based on the projected enplanement information provided in the 2014 Airport Master Plan. The resulting trip generation for Intermediate and Long Term conditions are shown in **Table 4-1**. The Goleta travel demand model accounts for increase in airport trip generation for future conditions, therefore, the increase in airport trip generation for Intermediate and Long Term conditions was included as part of cumulative baseline conditions.

Trip generation for the Atlantic Aviation FBO was also based on the traffic counts collected by Quality Counts in April 2015. The trip generation rates were grown based on the projected general aviation operations information provided in the 2014 Airport Master Plan. The resulting trip generation for Intermediate and Long Term conditions are shown in **Table 4-2**.

The summary of existing traffic counts for the airport, rental car, short-term and long-term parking lots, and Atlantic Aviation FBO are included in **Appendix E**.

Table 4-1 Airport Trip Generation

Year	Enplanements (a)	ADT	AM Total	AM in	AM out	PM Total	PM in	PM out
2015 (b) (c)	300,000	5,421	386	192	194	291	145	146
+ / -		-	-	-	-	-	-	-
2022	503,400	9,096	648	322	326	488	243	245
+ / -		3,675	262	130	132	197	98	99
2032	657,000	11,872	845	420	425	637	317	320
+ / -		6,451	459	228	231	346	172	174

Notes:

(a) Enplanements based on forecasted volumes presented in the Santa Barbara Master Plan (2014), Exhibit 2M.

(b) 2015 enplanements based on 2014 volumes and 2015 enplanement trends information provided by the Santa Barbara Airport.

(c) 2015 trip generation volumes based on counts conducted in April 2015.

Table 4-2 FBO Peak-Hour Trip Generation

Year	General Aviation Operations (a)	ADT	AM Total	AM in (c)	AM out (c)	PM Total	PM in (c)	PM out (c)
2015 (b)	82,904	676	51	29	22	49	25	24
+ / -		-	-	-	-	-	-	-
2022	89,600	731	55	31	24	53	27	26
+ / -		55	4	2	2	4	2	2
2032	99,900	815	61	35	26	59	30	29
+ / -		139	10	6	4	10	5	5

Notes:

(a) General Aviation Operations based on forecast presented in the Santa Barbara Master Plan (2014).

(b) 2015 operations based on linear interpolation between 2011 enplanement (80,713) and projected 2017 enplanement (84,000) volumes.

(c) 2015 trip generation volumes based on counts conducted in April 2015.

4.2 TRIP DISTRIBUTION

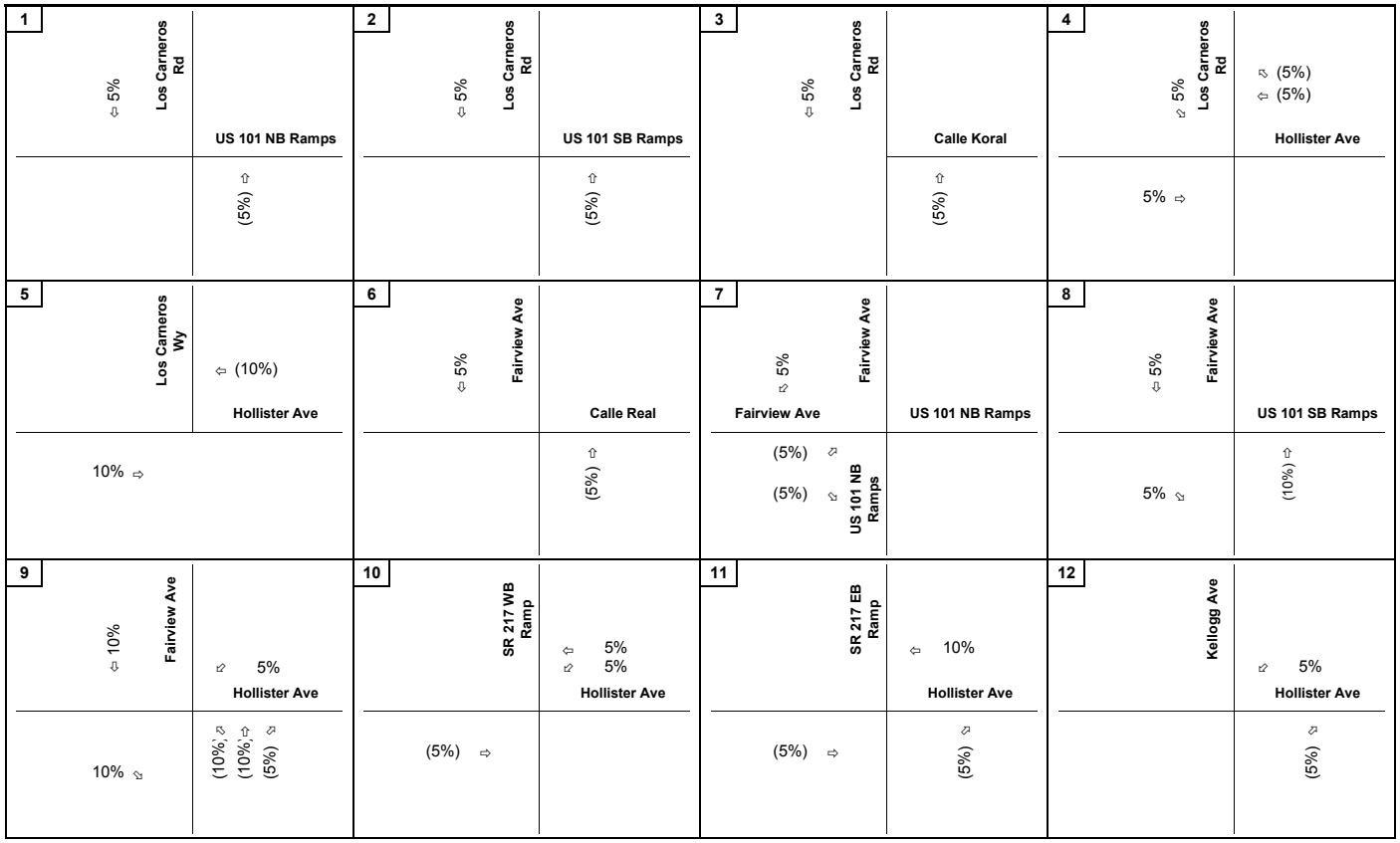
Traffic trip distributions for the airport and airport related uses were based on access locations, freeway access, and roadway network within the study area. Two distinctive distributions were developed for airport land uses along the north and south sections of the airport property: '*Airport Project Trip Distribution – South*' and '*Airport Project Trip Distribution – North*.'

Airport Project Trip Distribution – South represents the traffic distribution for vehicles accessing the Airline Terminal, adjacent short-term and long-term parking lots, the rental car facility, and other related land uses along the south side of the airport. Access for the south side airport uses can be found along Fowler Road and Moffett Place. The Atlantic Aviation FBO uses the South distribution in the baseline condition but would use the North distribution for with-Project conditions due to the relocation of the FBO from the south to the north side. The distribution assumes the Ekwill Road Extension project through downtown Goleta is completed. The traffic distribution through the intersections and roadways are presented in **Figure 4-1**.

Airport Project Trip Distribution – North represents the traffic distribution for vehicles accessing the north side airport uses. Access to the north side is located along Hollister Avenue at Lopez Road, Love Place, and Aero Camino/Adams Road. As part of the Airport Master Plan Intermediate Term Program, the Atlantic Aviation FBO would be relocated to the north side of the airport just south of Hollister Avenue. The traffic distribution through the intersections and roadways are presented in **Figure 4-2**.

4.3 TRIP ASSIGNMENT

Based on the project trip generation and distributions, daily, a.m. peak-hour, and p.m. peak-hour project trips were assigned to the local roadway network and study intersections. **Figures 4-3 and 4-4** show the traffic assignment for Intermediate Term (2022) and Long Term (2032) conditions resulting from the projected growth in airline passenger activity. **Figures 4-5 and 4-6** show the traffic assignment associated with the Atlantic Aviation FBO for Intermediate Term (2022) and Long Term (2032) conditions. As mentioned in the trip distribution section, the Atlantic Aviation FBO trip distribution would change from the *South* distribution under Existing conditions to the *North* distribution for Intermediate and Long Term Scenarios following Atlantic Aviation's relocation to the north-end of the airport.



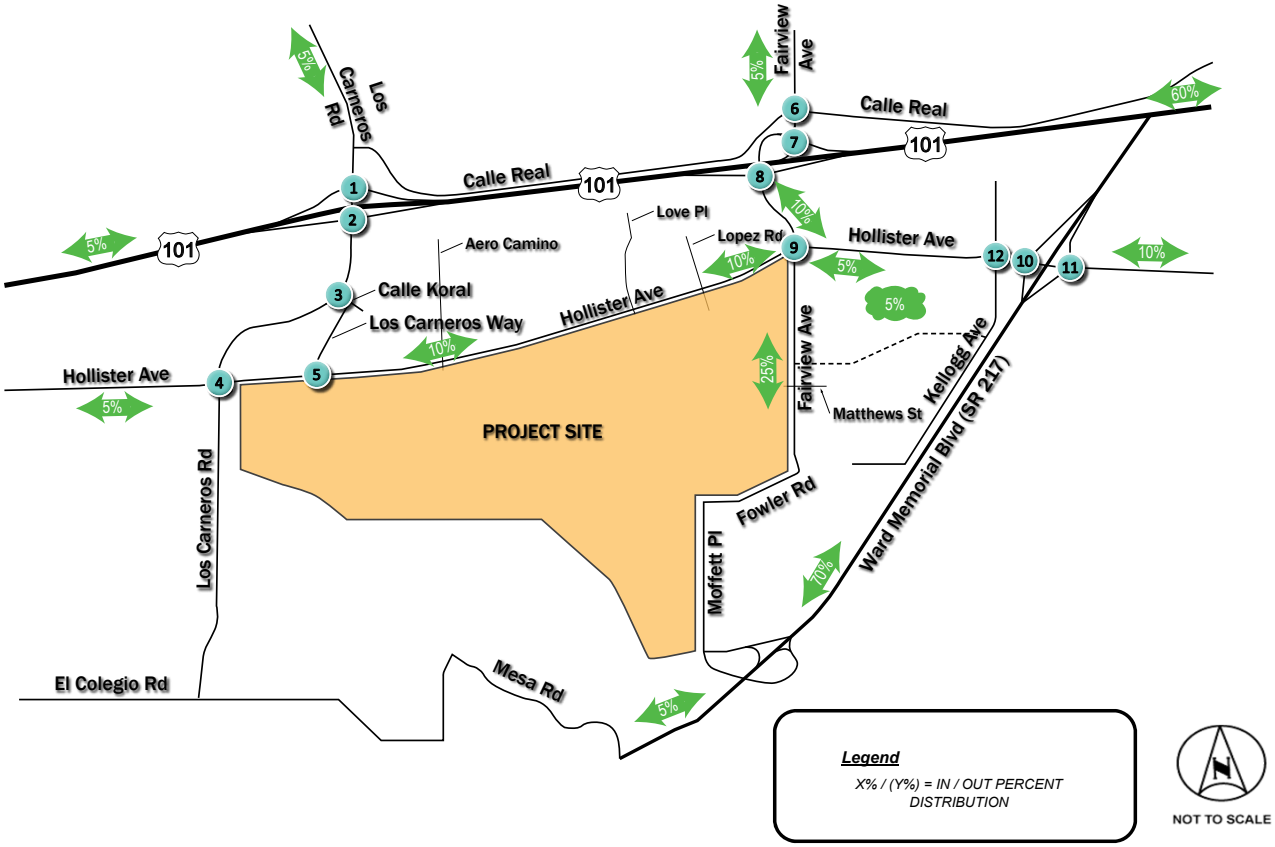


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FIGURE 4-1
Airport Project Trip Distribution - South

1 5% ⇩ Los Carneros Rd	US 101 NB Ramps (5%) ⇧	**2** 5% ⇩ Los Carneros Rd	US 101 SB Ramps (5%) ⇧
3 5% ⇩ Los Carneros Rd	Calle Koral (5%) ⇧	**4** 5% ⇦ Los Carneros Rd (5%) ⇨ (5%) ⇦ (5%) ⇨	Hollister Ave 5% ⇨ 5% ⇦
5 Los Carneros Wy	⇦ (15%) Hollister Ave 15% ⇨	**6** 5% ⇩ Fairview Ave	Calle Real (5%) ⇧
7 5% ⇨ Fairview Ave Fairview Ave (5%) ⇨ (5%) ⇦ US 101 NB Ramps	⇦ 40% US 101 NB Ramps	**8** 45% ⇩ Fairview Ave 5% ⇦	US 101 SB Ramps (10%) ⇧ (40%) ⇦
9 50% ⇨ Fairview Ave (50%) ⇦ (35%) ⇨	⇦ 35% Hollister Ave	**10** 20% ⇨ SR 217 WB Ramp (30%) ⇨	⇦ 10% Hollister Ave
11 SR 217 EB Ramp (20%) ⇦ (10%) ⇨	⇦ 10% Hollister Ave	**12** Kellogg Ave (30%) ⇨	⇦ 30% Hollister Ave

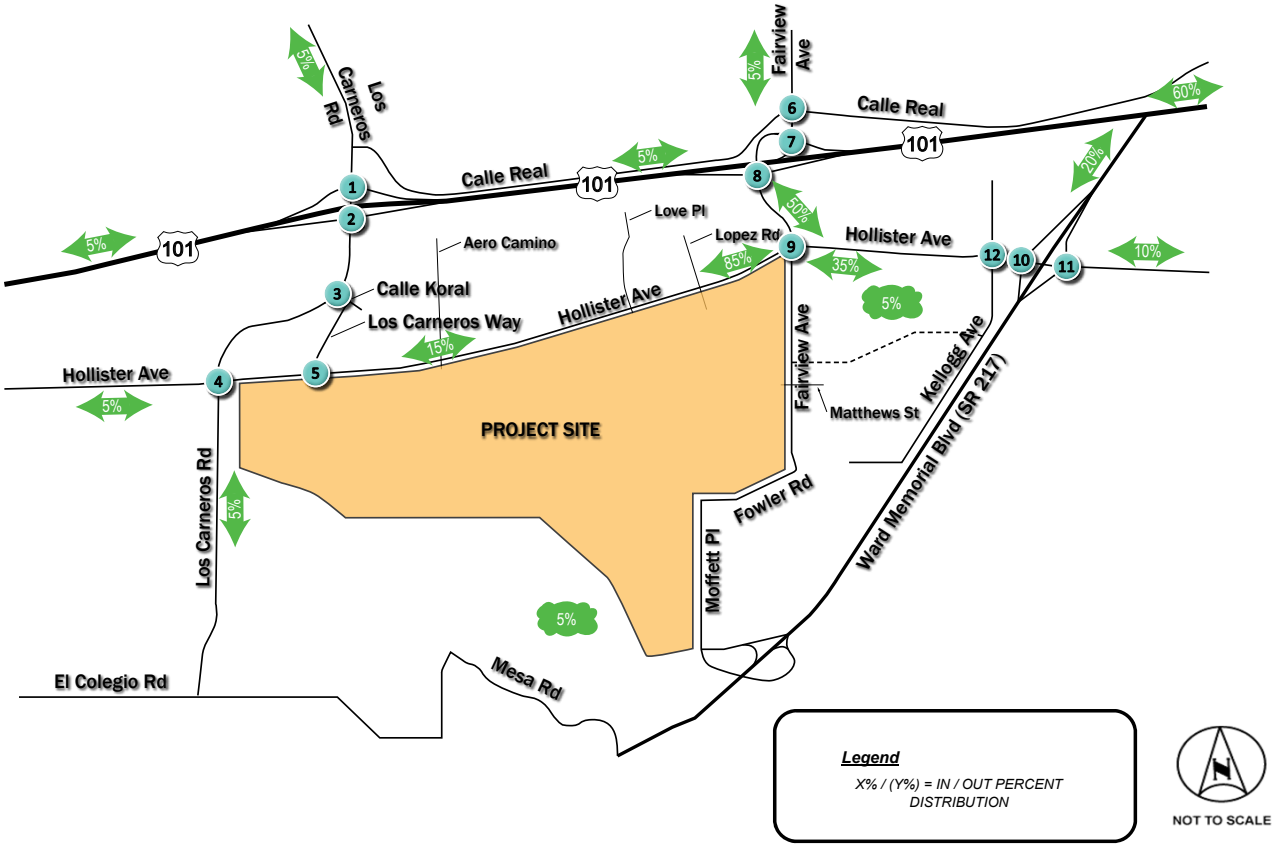

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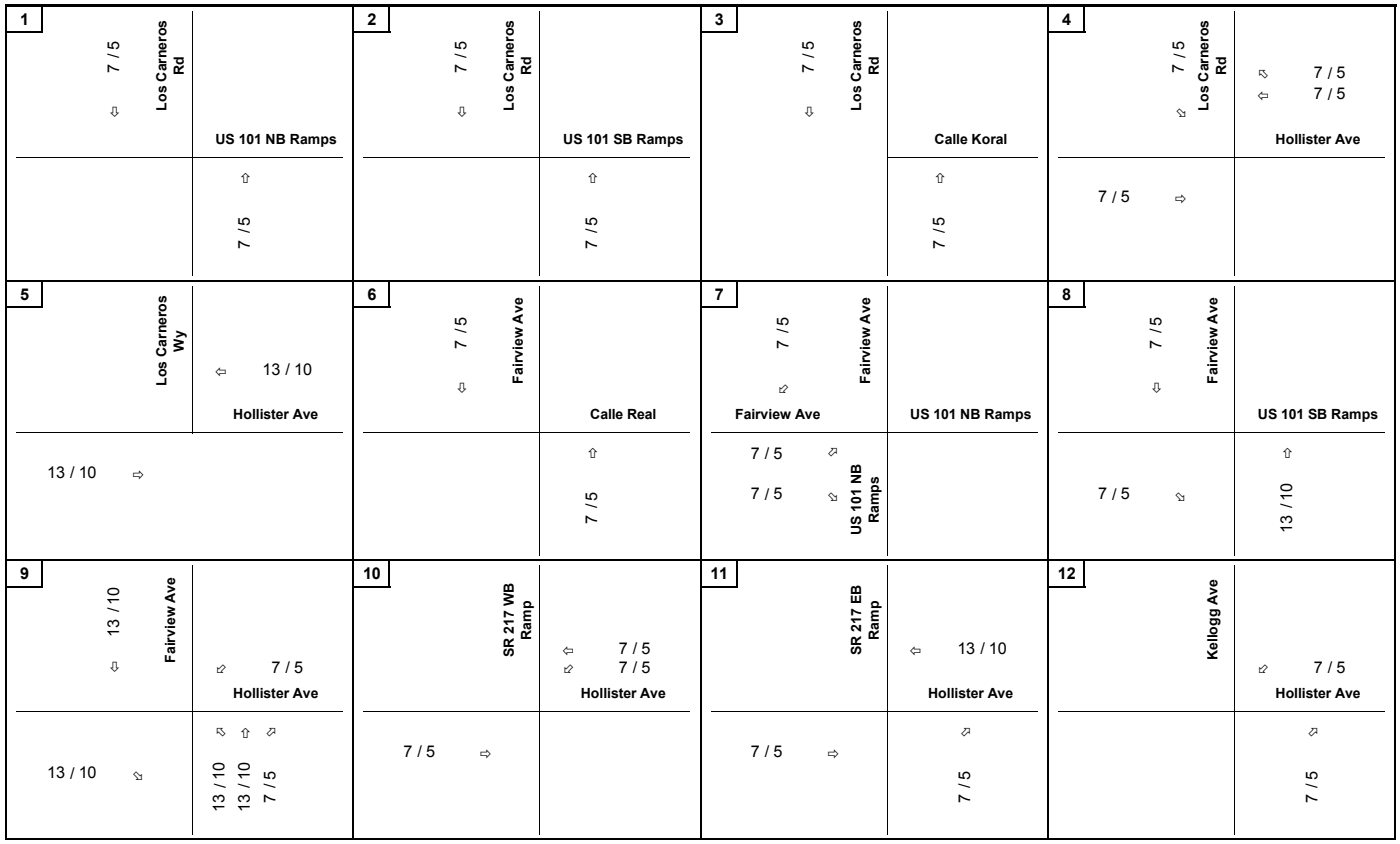
FIGURE 4-2
Airport Project Trip Distribution - North



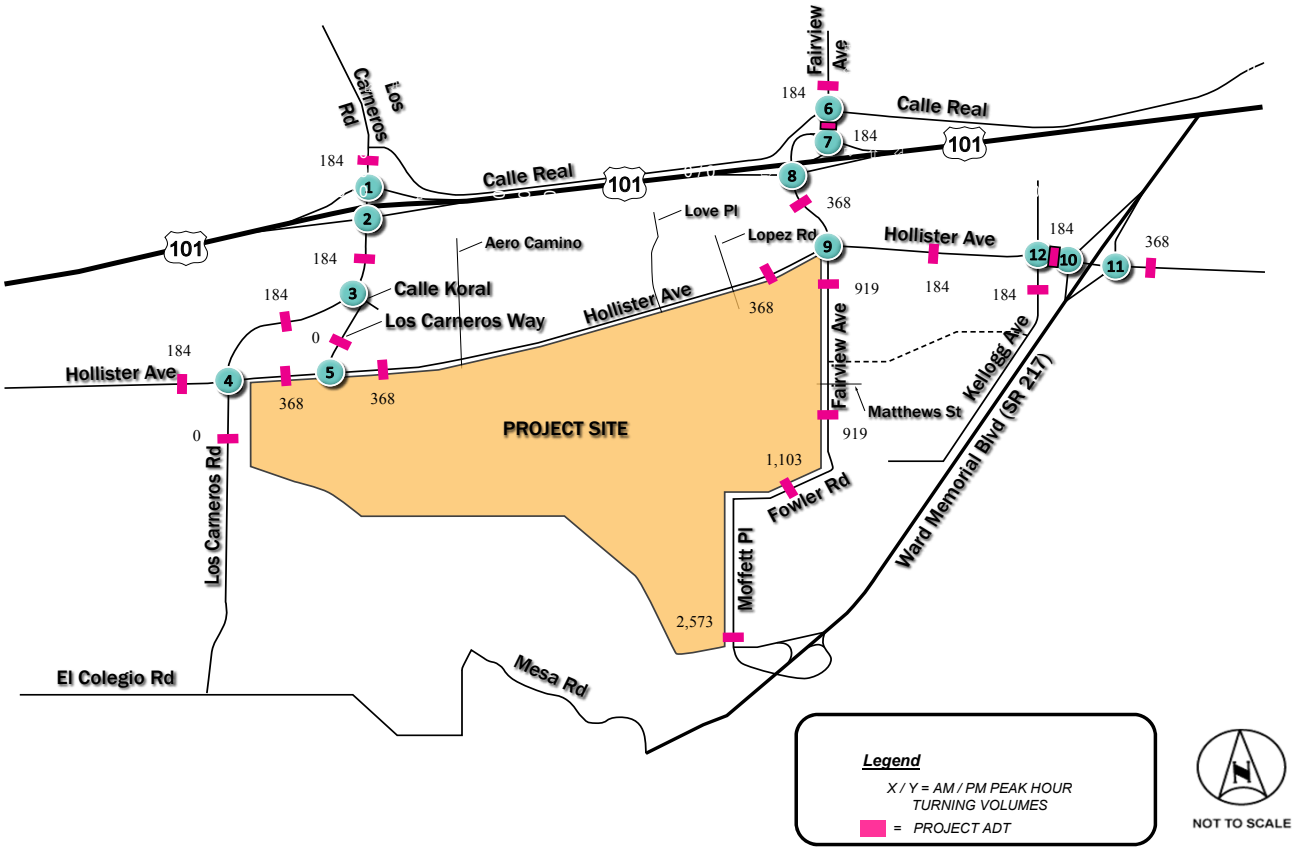


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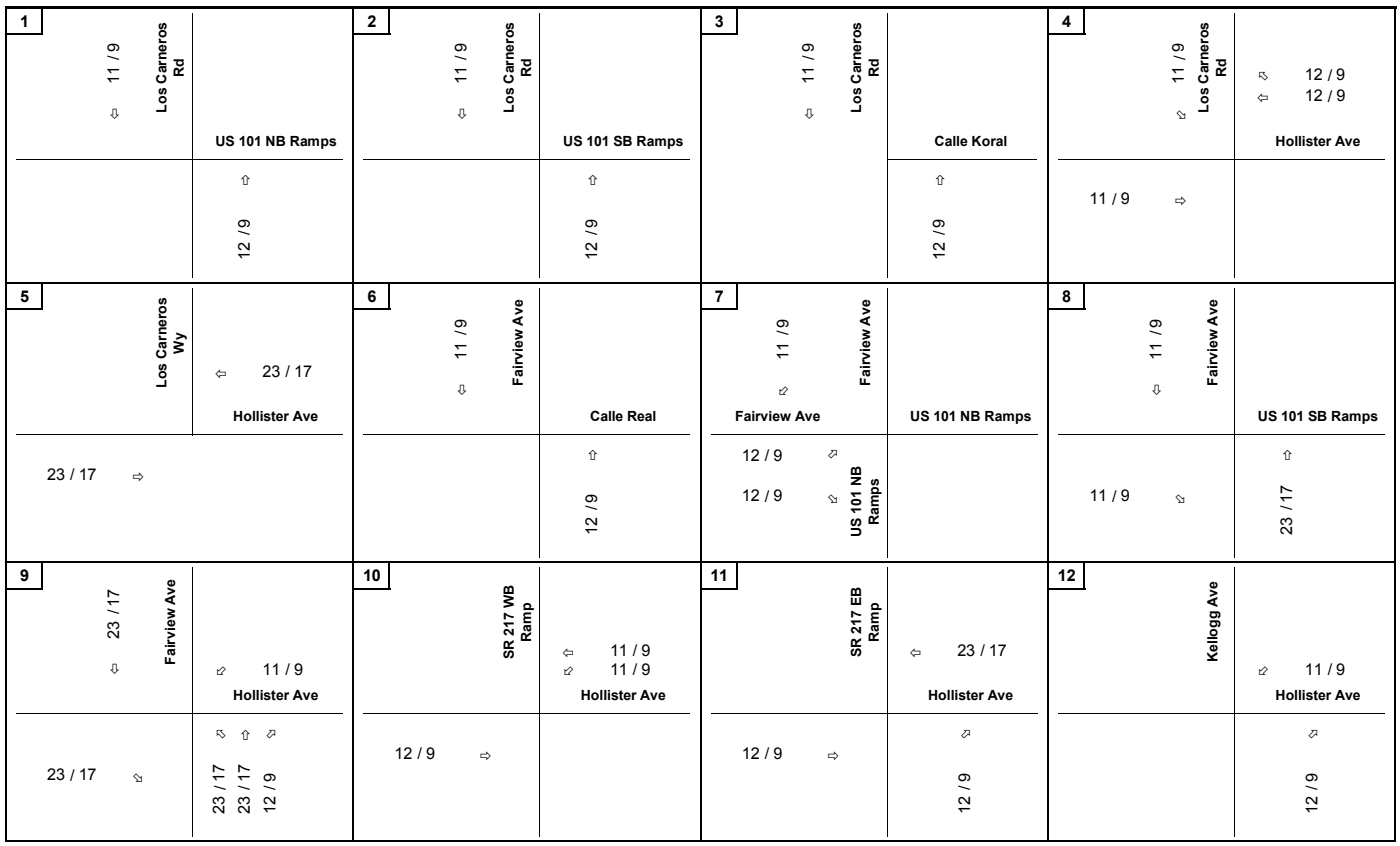
FIGURE 4-3
Airport Trip Assignment - (Intermediate Term 2022)



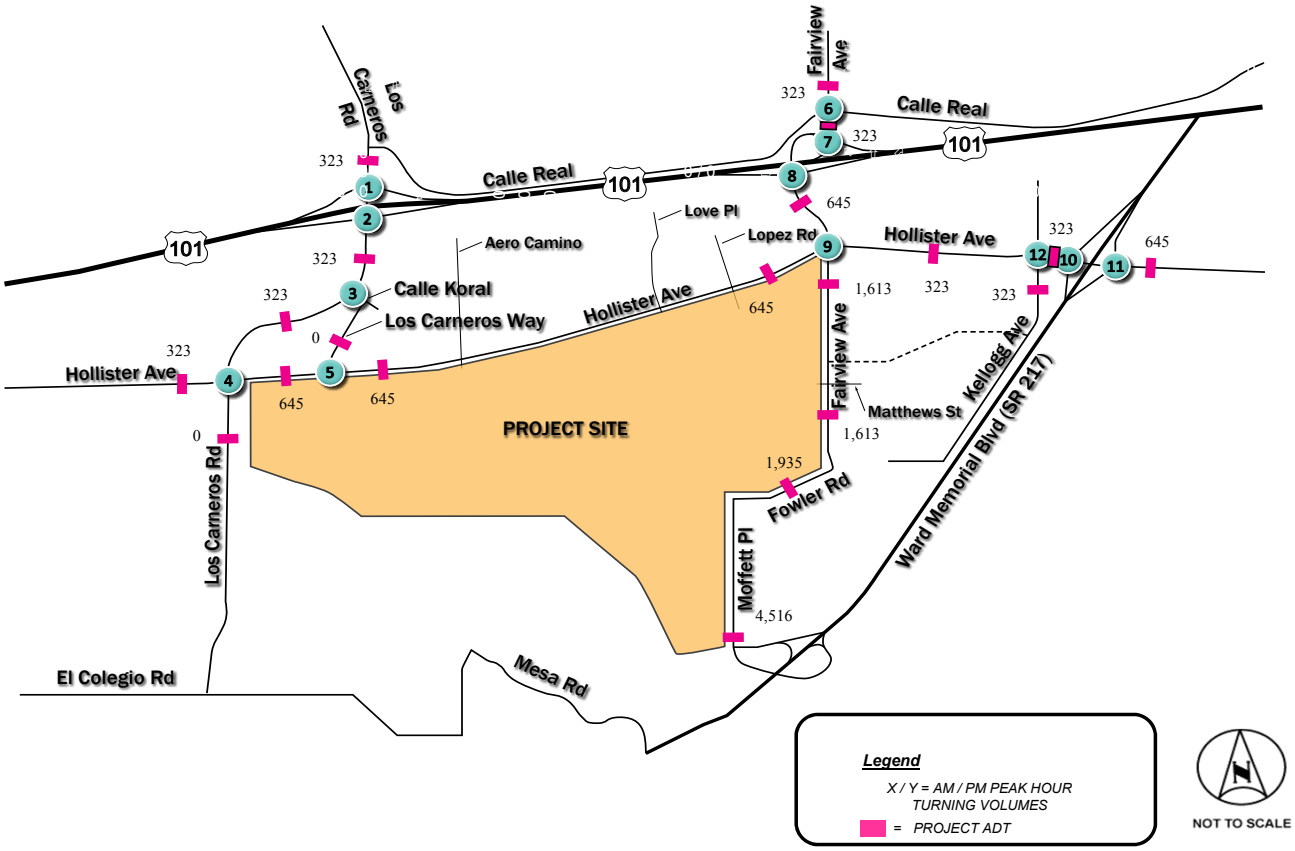


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FIGURE 4-4
Airport Trip Assignment - (Long Term 2032)

1 Los Carneros Rd US 101 NB Ramps	**2** Los Carneros Rd US 101 SB Ramps	**3** Los Carneros Rd Calle Koral	**4** Los Carneros Rd ⇨ 1 / 1 Hollister Ave ⇦ 2 / 1
5 Los Carneros Wy ⇦ 2 / 1 Hollister Ave 2 / 1 ⇨	**6** Fairview Ave Calle Real	**7** Fairview Ave Fairview Ave ⇦ 12 / 11 US 101 NB Ramps US 101 NB Ramps	**8** 12 / 11 ⇩ Fairview Ave US 101 SB Ramps ⇦ 10 / 10
9 16 / 14 ⇨ -3 / -3 ⇩ Fairview Ave ⇦ 11 / 9 ⇨ -2 / -1 Hollister Ave 12 / 13 ⇦ 8 / 9 ⇨ -3 / -3 ⇨ ⇦ ⇧ ⇦ -2 / -3 -2 / -3 -1 / -1	**10** 6 / 5 ⇨ SR 217 WB Ramp ⇦ 1 / 2 ⇨ -2 / -1 Hollister Ave 6 / 7 ⇨	**11** SR 217 EB Ramp Hollister Ave 5 / 5 ⇦ 1 / 2 ⇨ ⇦ -1 / -1	**12** Kellogg Ave ⇦ 9 / 8 ⇨ -2 / -1 Hollister Ave 7 / 8 ⇨ ⇦ -1 / -1

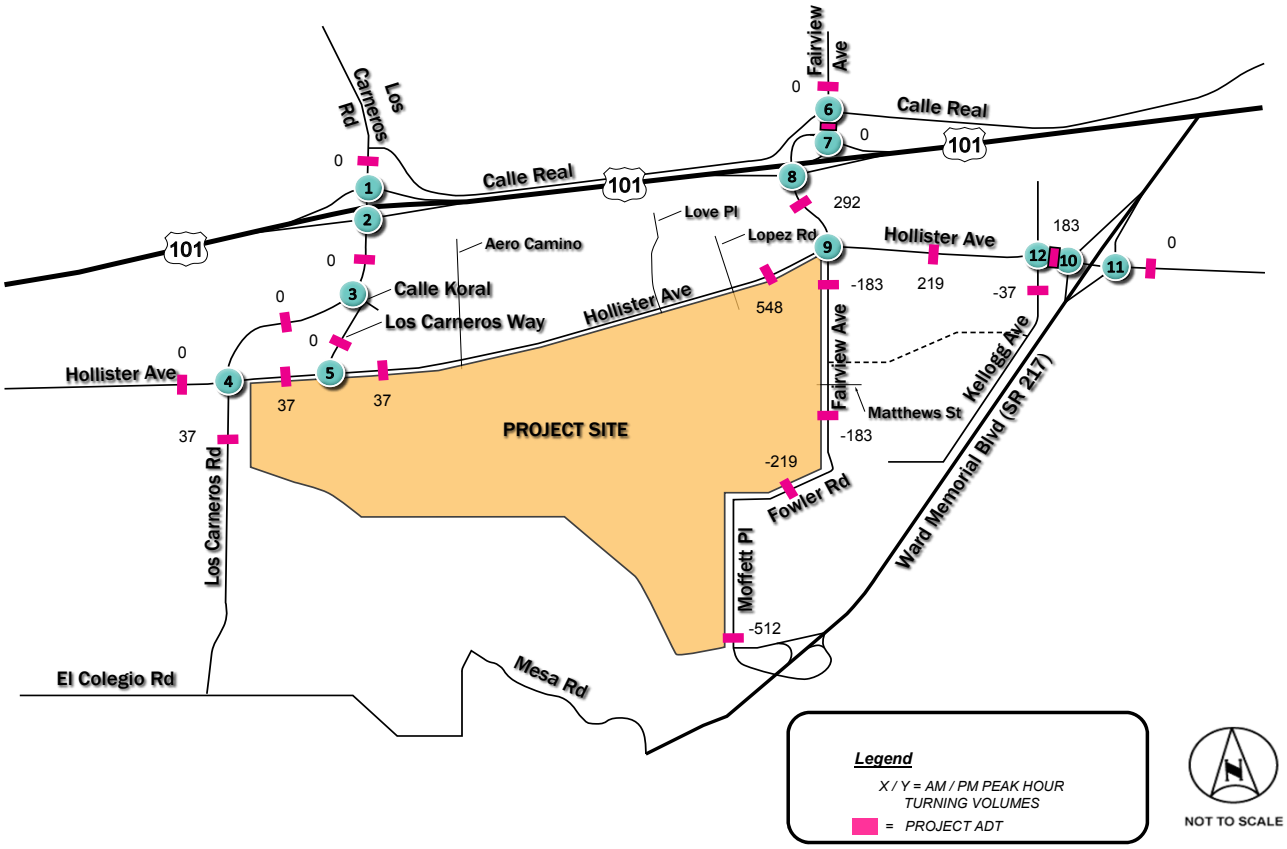

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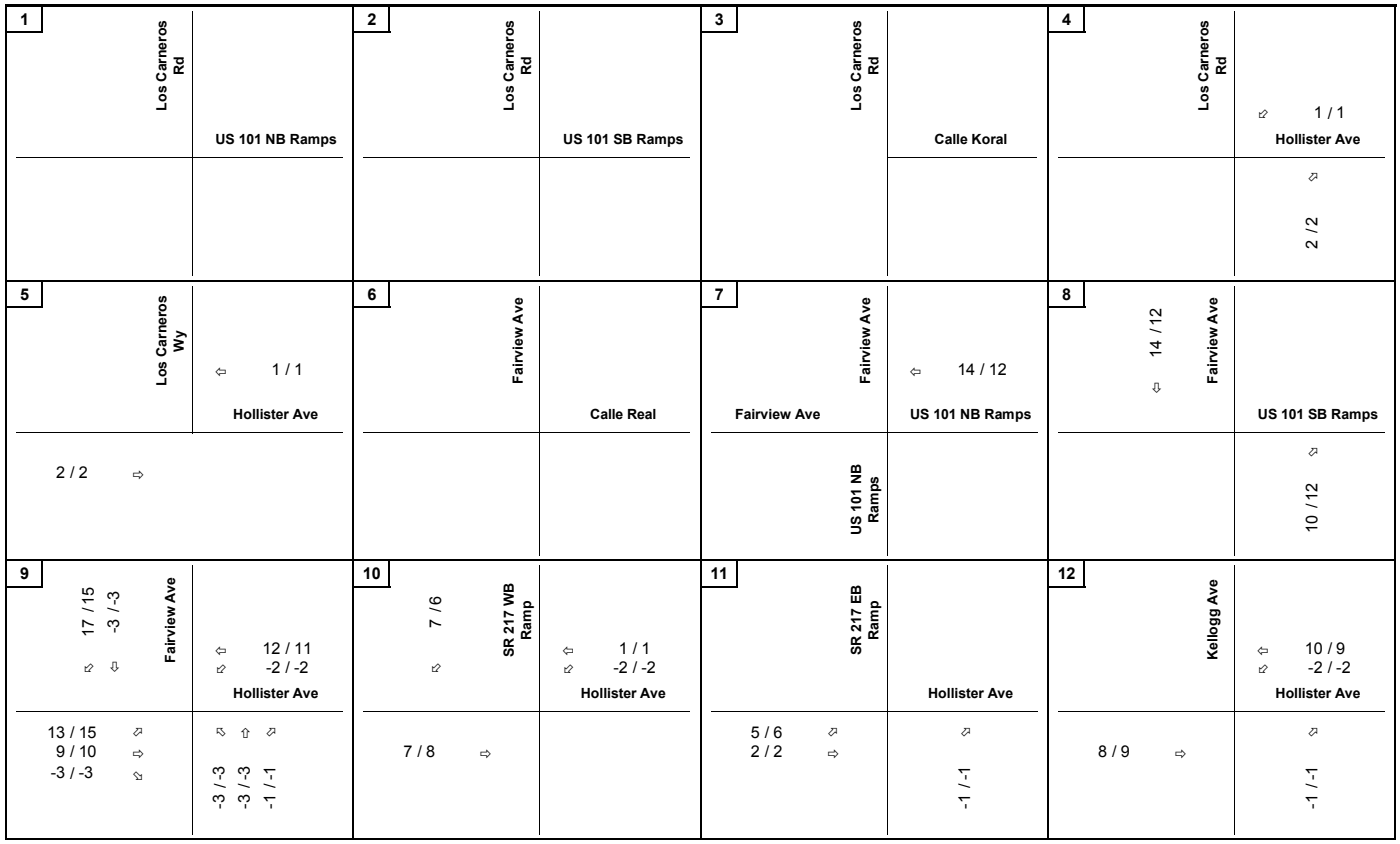
FIGURE 4-5
FBO Trip Assignment - (Intermediate Term 2022)



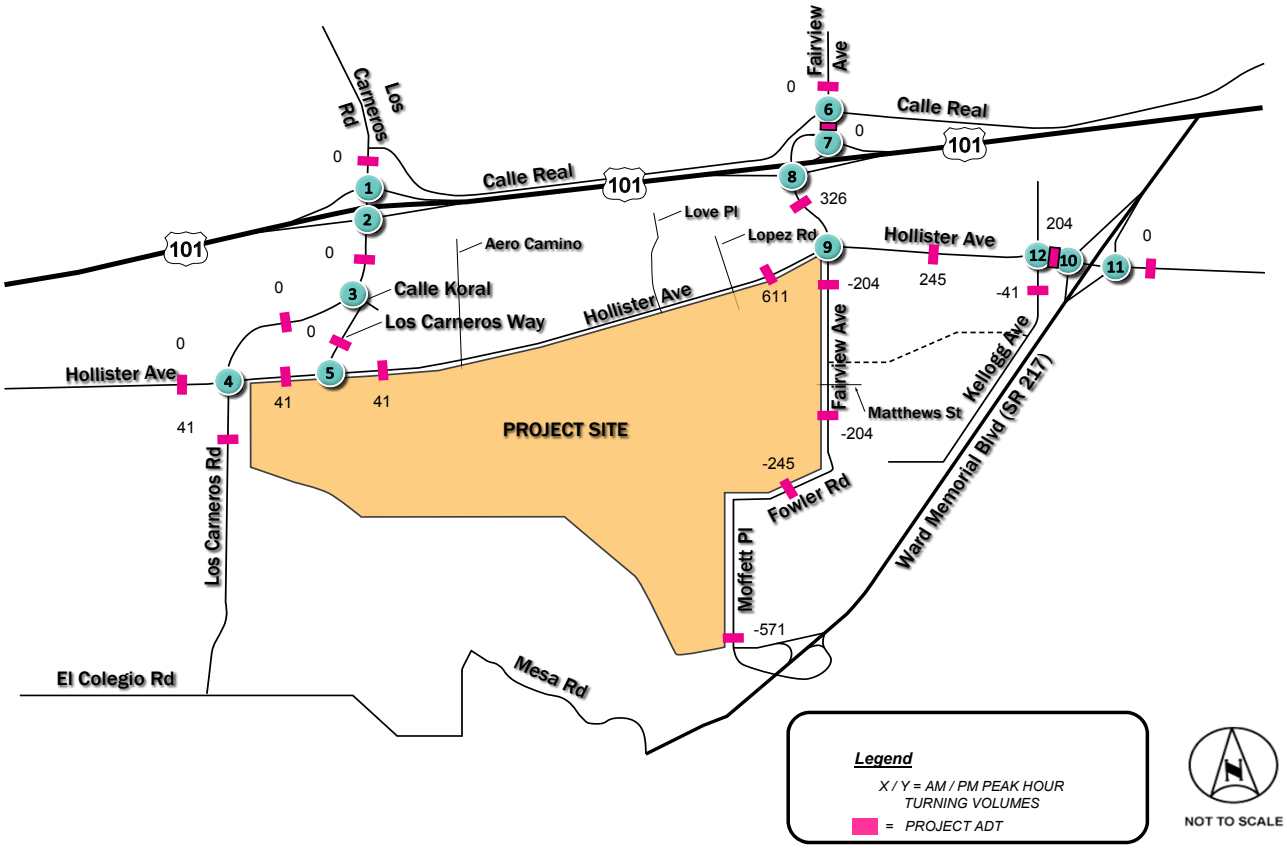


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FIGURE 4-6
FBO Trip Assignment - (Long Term 2032)

5 INTERMEDIATE TERM (2022) CONDITIONS

This section provides a description of the Intermediate Term (2022) conditions with the addition of the proposed Airport Master Plan. Under the Intermediate Term conditions, Santa Barbara Airport is forecasted to experience an increase in airline and general aviation activity resulting in additional traffic towards the Airline Terminal, parking facilities, car rental facility, and FBOs. As part of the SBA Master Plan Intermediate Term Program, the Atlantic Aviation FBO would be relocated from south of the Airline Terminal to the north side of the airport south of Hollister Avenue. Additionally, the airport would expand parking lots, airline terminal facilities, and other airside facilities to accommodate additional passenger, vehicle, and airline demands.

5.1 ROAD NETWORK

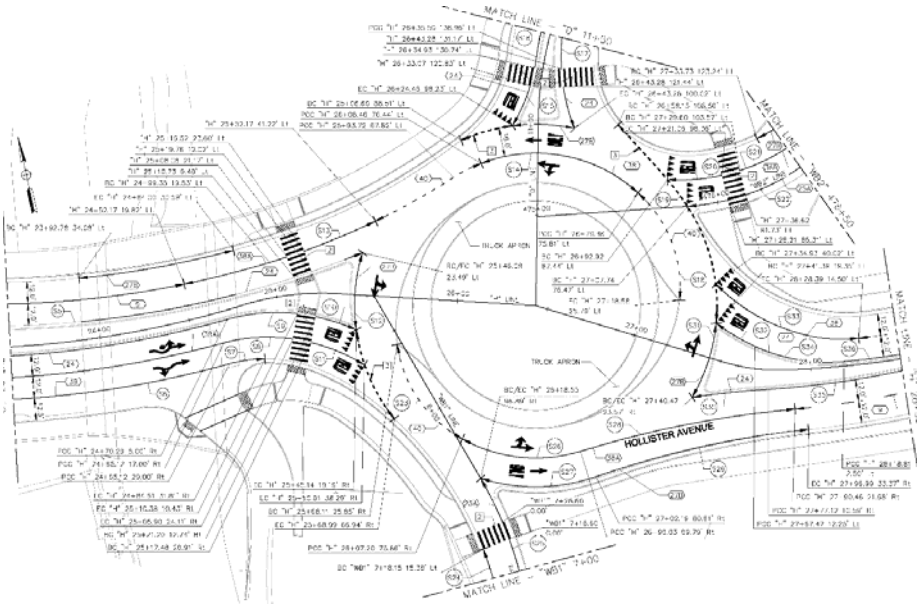
Based on the 2006 City of Goleta General Plan and Project Goleta website, road network changes anticipated to be open and complete by the year 2022 are listed below.

- Ekwill Street Road Extension
- SR 217 and Hollister Avenue Intersection Improvements (Roundabouts)

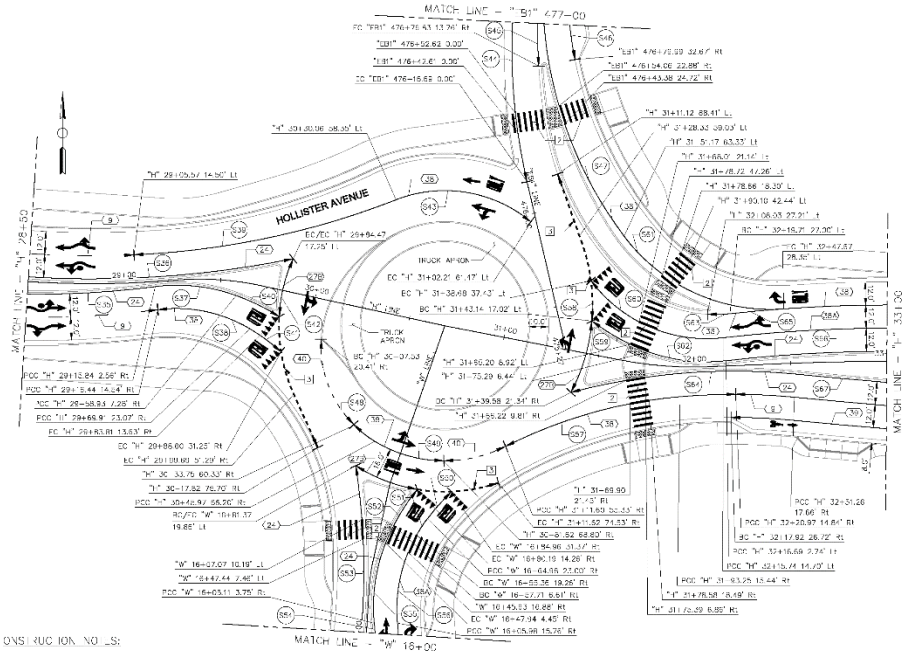
The Ekwill Street Road Extension project would construct the Ekwill Street extension across Old Town Goleta from Kellogg Avenue to Fairview Avenue. The project would improve east-west circulation and relieve congestion within the Old Town Goleta area. The extension for Fowler Road was not included as a change in the network due to the road extension's location in the airport's runway protection zone (RPZ).

The SR 217 and Hollister Avenue Intersection Improvements would convert the SR 217 and Hollister Avenue intersections to roundabouts. The multilane roundabouts are currently in the design phase and the proposed intersection geometry is described and shown below.

The Hollister Avenue and SR 217 Westbound Ramps intersection will form a five-way roundabout with the southbound approach of Dearborn Place. The Hollister Avenue and SR 217 Westbound Off-ramp approaches will provide two entrance and exit lanes into and out from the roundabout. Dearborn Place will provide one entrance and exit lane. SR 217 Westbound On-ramp will provide one exit lane from the roundabout. The preliminary design is presented below.



The Hollister Avenue and SR 217 Eastbound Ramps intersection will form a four-way roundabout. The Hollister Avenue approaches will provide two entrance and exit lanes into and out from the roundabout. The SR 217 Eastbound Off-ramp/Ward will provide two entrance and one exit lane to and from the roundabout. SR 217 Eastbound On-ramp will provide two exit lanes from the roundabout. The preliminary design is presented below.



5.2 CUMULATIVE PROJECTS

Based on the Cumulative Projects List provided by the City of Goleta (March 10, 2016) and City of Santa Barbara, fourteen (14) projects were under construction or approved within the study area and assumed to be included in the Intermediate Term (2022) conditions analysis. The included projects are listed below:

1. GVCH Medical Office Building (10,776 sf medical-dental office building)
2. Villages at Los Carneros (465 dwelling units)
3. Harvest Hill Ranch (6 dwelling units)
4. Investec (111,100 sf self-storage)
5. Pacific Beverages (96,980 sf warehousing)
6. Direct Relief International (27,904 sf office, 130,279 sf warehousing)
7. Airport Industrial Project (42,004 sf light industrial, 6,040 sf retail, 2,002 sf coffee shop)
8. Chrysler Auto Dealership (49,310 sf car dealership)
9. Fairview Commercial Center (8,757 sf retail, 6,206 sf office, 2 dwelling units)
10. Islamic Society of Santa Barbara (6,183 sf church)
11. Schwann Self Storage (111,730 sf self-storage)
12. Marriott Residence Inn (118 room hotel)
13. Somera Medical Office Building (20,000 sf new medical office)
14. Old Town Village (175 dwelling units)

Trip generation for the Intermediate Term cumulative projects are presented in **Table 5-1**. Assumed cumulative project trip distributions and total trip assignment are provided in Appendix D.

The addition of the Village at Los Carneros is planned to add a west leg to the existing 3-leg intersection of Los Carneros Road and Calle Koral. The east and west legs are projected to consist of left-turn and through-right lanes. Volumes to/from the west leg were manually added based on the travel demand model volumes and existing turn rates onto Calle Koral.

5.3 TRAFFIC VOLUMES

Intermediate Term (2022) Baseline peak-hour volumes at the study intersections and the ADT volumes on the study roadway and freeway segments were estimated by linearly interpolating between existing and Long Term (2032) traffic volumes. Trips associated with the Intermediate Term (2022) cumulative projects were added on top of the interpolated volumes to fully capture the associated trips.

Figure 5-1 illustrates the Intermediate Term (2022) Baseline conditions with cumulative project traffic volumes at the study intersections and road segments.

To determine the traffic volumes under the Intermediate Term (2022) with Project conditions, the trips associated with the Airport Master Plan Intermediate Term Program were applied to the Intermediate Term (2022) Baseline volumes in the study area. Intermediate Term (2022) with Project traffic volumes are shown in **Figure 5-2**.

Table 5-1 Intermediate Term (2022) Cumulative Project Trip Generation

			AM Peak-Hour			PM Peak-Hour		
Land Use	Units	ADT	In	Out	Total	In	Out	Total
GVCH Medical Office Bldg.	10.8 ksf	350	18	4	22	9	25	34
Village at Los Carneros	465 du	2,999	46	184	230	182	98	280
Harvest Hill Ranch	6 du	56	1	3	4	4	2	6
Investec	111.1 ksf	396	26	7	33	9	27	36
Pacific Beverage	97.0 ksf	345	23	6	29	8	23	31
DRI	158.2 ksf total	789	76	13	89	17	73	90
Airport Industrial Project	50 ksf total	1,469	117	88	205	35	69	104
Chrysler Auto Dealership	49.3 ksf	1,593	70	25	95	50	79	129
Fairview Commercial Center	17 ksf	428	34	30	64	12	19	31
Islamic Society of SB	6.2 ksf	50	2	1	3	1	2	3
Schwann Self Storage	111.7 ksf	398	26	8	34	9	27	36
Marriott Residence Inn	118 rm	925	39	24	63	35	32	67
Somera Medical Office	20.0 ksf	650	33	8	41	17	45	62
Old Town Village	175 du	987	13	62	75	59	29	88
TOTAL		11,435	524	463	987	447	550	997

1	131 / 324 324 / 259 Los Carneros Rd	30 / 49 2 / 11 1031 / 447 US 101 NB Ramps	98 / 315 165 / 780	2	1313 / 684 34 / 23 Los Carneros Rd	US 101 SB Ramps	54 / 230 4 / 18 195 / 217
3	20 / 60 1351 / 746 211 / 149 Los Carneros Rd	112 / 344 10 / 31 23 / 21 Calle Koral	85 / 54 33 / 21 15 / 9	4 / 14 405 / 1253 7 / 46	4	235 / 115 402 / 389 77 / 152 Los Carneros Rd	37 / 43 381 / 681 108 / 139 Hollister Ave
5	64 / 30 131 / 91 Los Carneros Wy	51 / 231 471 / 777 Hollister Ave	49 / 67 590 / 819	6	44 / 62 333 / 333 31 / 114 Fairview Ave	23 / 54 133 / 305 132 / 228 Calle Real	21 / 65 83 / 312 360 / 333
7	739 / 593 115 / 325 Fairview Ave Fairview Ave	301 / 559 654 / 241 US 101 NB Ramps	282 / 726 154 / 241 US 101 NB Ramps	8	1022 / 632 347 / 223 Fairview Ave	US 101 SB Ramps	95 / 192 0 / 20 259 / 261
9	635 / 291 341 / 153 200 / 358 Fairview Ave	291 / 388 473 / 535 46 / 50 Hollister Ave	274 / 640 361 / 713 233 / 120	103 / 204 179 / 418 33 / 82	10	582 / 507 203 / 62 SR 217 WB Ramp	490 / 554 139 / 77 Hollister Ave
11	SR 217 EB Ramp	96 / 90 599 / 498 80 / 32 Hollister Ave	363 / 452 378 / 1071 139 / 75	64 / 125 66 / 100 58 / 275	12	33 / 36 14 / 15 104 / 167 Kellogg Ave	131 / 110 792 / 692 309 / 200 Hollister Ave
12	63 / 31 447 / 1069 72 / 38	30 / 81 18 / 25 109 / 293					

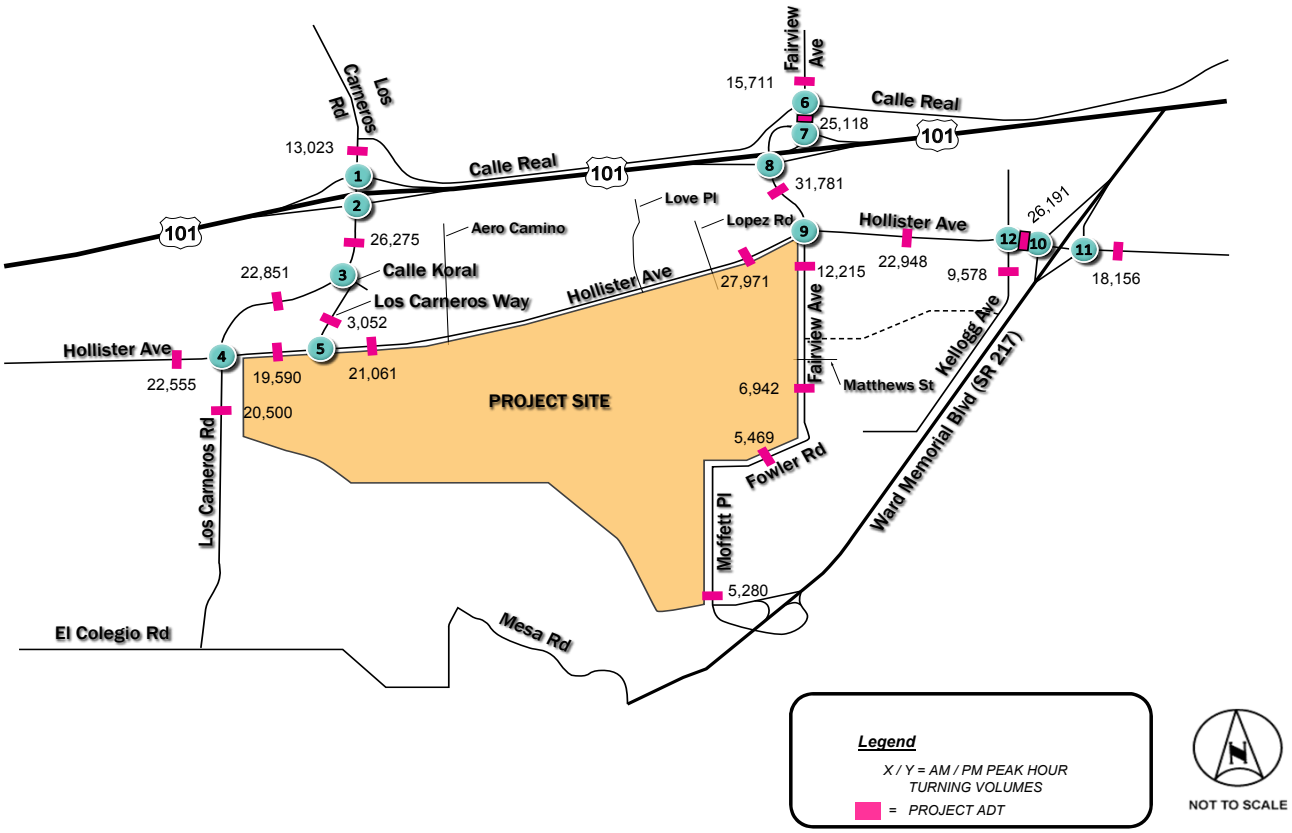


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FIGURE 5-1
Intermediate Term (2022) Baseline Traffic Volumes

Intersection	Eastern Ramp	Eastern Ramp	Eastern Ramp	Eastern Ramp	Eastern Ramp	Eastern Ramp	Eastern Ramp	Eastern Ramp	Eastern Ramp	Eastern Ramp	Eastern Ramp	Eastern Ramp	Eastern Ramp	Eastern Ramp	Eastern Ramp	Eastern Ramp
1	Los Carneros Rd	131 / 324	324 / 259	US 101 NB Ramps	30 / 49	2 / 11	1031 / 447	98 / 315	165 / 780							
2	Los Carneros Rd	1313 / 684	34 / 23	US 101 SB Ramps	54 / 230	4 / 18	195 / 217	217 / 867	304 / 737							
3	Los Carneros Rd	20 / 60	1351 / 746	211 / 149	Calle Koral	112 / 344	10 / 31	23 / 21	85 / 54	33 / 21	15 / 9	4 / 14	405 / 1253	7 / 46		
4	Los Carneros Rd	235 / 115	402 / 389	77 / 152	Hollister Ave	37 / 43	381 / 681	109 / 140	73 / 328	456 / 587	216 / 100	64 / 231	141 / 400	122 / 164		
5	Los Carneros Wy	64 / 30	131 / 91	Hollister Ave	51 / 231	473 / 778	49 / 67	592 / 820								
6	Fairview Ave	44 / 62	333 / 333	31 / 114	Calle Real	23 / 54	133 / 305	132 / 228	21 / 65	83 / 312	360 / 333	222 / 431	235 / 453	133 / 407		
7	Fairview Ave	739 / 593	115 / 325	US 101 NB Ramps	301 / 559	666 / 252	282 / 726	154 / 241								
8	Fairview Ave	1034 / 643	347 / 223	US 101 SB Ramps	95 / 192	0 / 20	259 / 261	346 / 812	360 / 708							
9	Fairview Ave	651 / 305	338 / 150	200 / 358	Hollister Ave	291 / 388	484 / 544	44 / 49	286 / 653	369 / 722	230 / 117	101 / 201	177 / 415	32 / 81		
10	SR 217 WB Ramp	588 / 512	203 / 62	Hollister Ave	491 / 556	137 / 76	688 / 1580	56 / 36								
11	SR 217 EB Ramp	368 / 457	379 / 1073	139 / 75	Hollister Ave	96 / 90	599 / 498	80 / 32	64 / 125	66 / 100	57 / 274					
12	Kellogg Ave	33 / 36	14 / 15	104 / 167	Hollister Ave	131 / 110	801 / 700	307 / 199	63 / 31	454 / 1077	72 / 38	30 / 81	18 / 25	108 / 292		

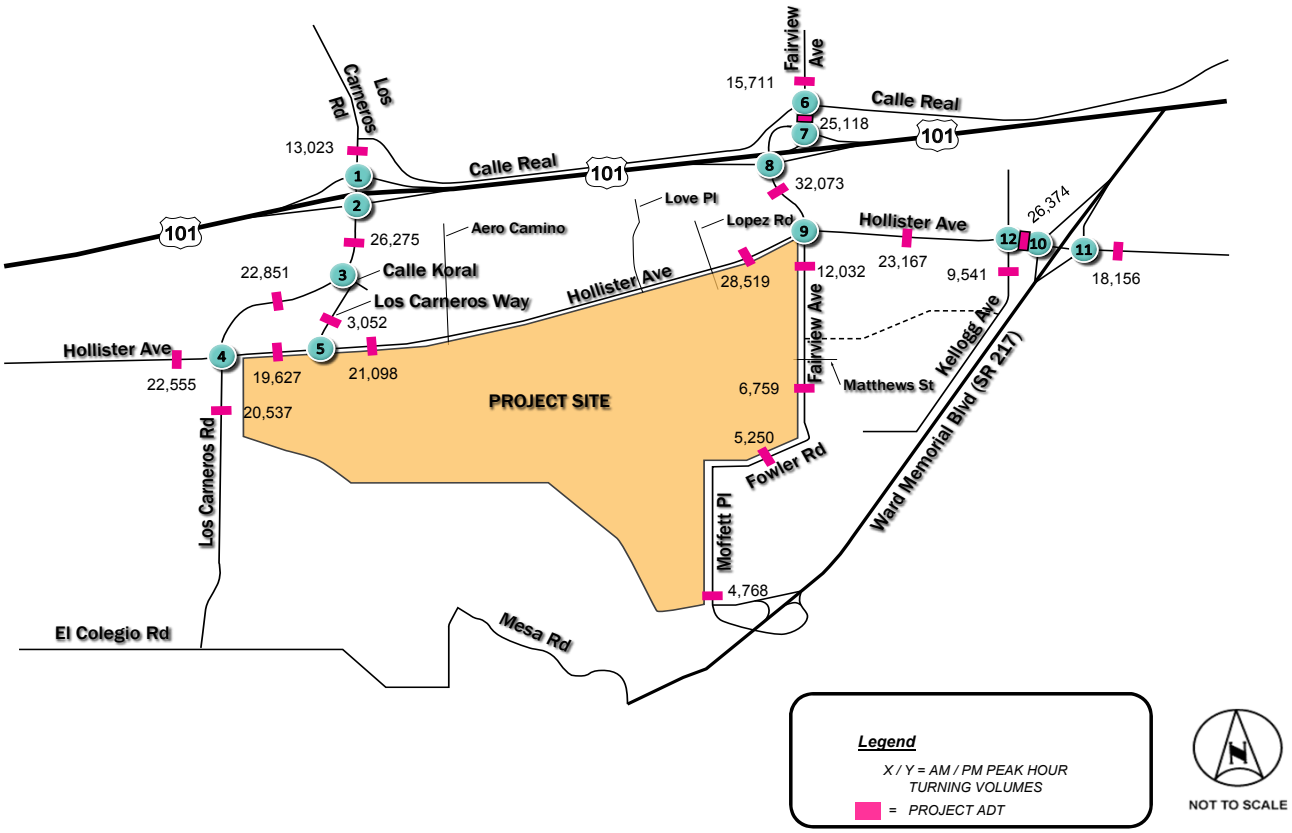

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FIGURE 5-2
Intermediate Term (2022) with Project Traffic Volumes

5.4 INTERSECTION ANALYSIS

Table 5-2 displays the LOS analysis results for the study intersections under Intermediate Term (2022) with and without the Airport Master Plan Intermediate Term Program project conditions. As shown in the table, all study intersections would continue to operate at acceptable LOS C or better during both peak periods with and without the proposed project with the exception of the following intersections:

- Kellogg Avenue & Hollister Avenue (LOS D; p.m. peak-hour with and without project)

The intersection of Kellogg Avenue & Hollister Avenue was found to have a cumulative impact for p.m. peak-hour conditions with the addition of the Intermediate Term Concepts under City of Santa Barbara thresholds. The Intermediate Term Concepts are projected to add trips to an intersection operating at a v/c ratio greater than 0.77 (v/c = 0.800; p.m.), therefore contributing to a cumulative impact. The Intermediate Term Concepts would not increase the v/c ratio by 0.01 or more (+0.001 v/c) and therefore was not found to cause a project-specific impact at this intersection. Based on City of Goleta significance thresholds, the addition of the Intermediate Term Concepts at the Kellogg Avenue and Hollister Avenue intersection would not cause a cumulative impact because the addition of 14 p.m. peak-hour trips would not exceed the 15-trip LOS D threshold.

Appendix C contains the peak-hour intersections LOS calculation worksheets.

5.5 ROADWAY SEGMENT ANALYSIS

Table 5-3 displays the roadway segments analysis for Intermediate Term (2022) conditions with and without the Airport Master Plan Intermediate Term Program project conditions. As shown in the table, the roadway segments analyzed do not exceed the LOS C capacity threshold.

TABLE 5-2
INTERMEDIATE TERM (2022) CONDITIONS
PEAK-HOUR INTERSECTION LOS SUMMARY

INTERSECTION		PEAK HOUR	INTERMEDIATE TERM 2022 BASELINE		2022 BASELINE WITH PROJECT		SIGNIFICANT?		
			v/c Ratio (a)	LOS	v/c Ratio (a)	LOS	Δ	Santa Barbara	Goleta
1	Los Carneros Rd & US 101 NB Ramp	AM	0.621	B	0.621	B	0.000	No	No
		PM	0.603	B	0.603	B	0.000	No	No
2	Los Carneros Rd & US 101 SB Ramp	AM	0.595	A	0.595	A	0.000	No	No
		PM	0.592	A	0.592	A	0.000	No	No
3	Los Carneros Rd & Calle Koral	AM	0.637	B	0.637	B	0.000	No	No
		PM	0.665	B	0.665	B	0.000	No	No
4	Los Carneros Rd & Hollister Ave	AM	0.503	A	0.503	A	0.000	No	No
		PM	0.645	B	0.645	B	0.000	No	No
5	Hollister Ave & Los Carneros Way	AM	0.330	A	0.331	A	0.001	No	No
		PM	0.464	A	0.464	A	0.000	No	No
6	Fairview Ave & Calle Real	AM	0.555	A	0.555	A	0.000	No	No
		PM	0.760	C	0.760	C	0.000	No	No
7	US 101 NB Ramps & Fairview Ave	AM	0.703	C	0.710	C	0.007	No	No
		PM	0.733	C	0.740	C	0.007	No	No
8	Fairview Ave & US 101 SB Ramps	AM	0.533	A	0.536	A	0.003	No	No
		PM	0.608	B	0.612	B	0.004	No	No
9	Fairview Ave & Hollister Ave	AM	0.590	A	0.599	A	0.009	No	No
		PM	0.728	C	0.733	C	0.005	No	No
10*	SR 217 WB & Hollister Ave	AM	0.489	A	0.493	A	0.004	No	No
		PM	0.641	B	0.643	B	0.002	No	No
11*	SR 217 EB & Hollister Ave	AM	0.378	A	0.380	A	0.002	No	No
		PM	0.596	A	0.599	A	0.003	No	No
12	Kellogg Ave & Hollister Ave	AM	0.561	A	0.562	A	0.001	No	No
		PM	0.800	**D**	0.801	**D**	0.001	**Cumulative (b)**	No (c)

Notes:
Bold values indicate intersections operating at unacceptable level of service (LOS C (v/c ≥ 0.77), LOS D, LOS E, or LOS F).
(a) v/c refers to the volume to capacity ratio for the intersection based on the Intersection Capacity Utilization (ICU) method.
(b) Δ v/c < 0.01 threshold with the addition of the project traffic
(c) Added project trips (14) ≤ LOS D trips threshold (15)
* Analyzed as a roundabout. Results are measured in v/c using the Sidra capacity model and HCM 2010 traffic signal delay parameters using Sidra 6 software.

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TABLE 5-3
INTERMEDIATE TERM (2022) CONDITIONS
ROADWAY SEGMENT LOS SUMMARY

ROADWAY SEGMENT	ROADWAY CLASSIFICATION	LOS C CAPACITY	INTERMEDIATE TERM BASELINE		INTERMEDIATE TERM WITH PROJECT	
			ADT	EXCEEDS THRESHOLD?	ADT	EXCEEDS THRESHOLD?
Los Carneros Rd						
north of US-101	2-Lane Major Arterial	14,300	13,023	NO	13,023	NO
US-101 & Calle Koral	4-Lane Major Arterial	34,000	26,275	NO	26,275	NO
Calle Koral & Hollister Ave	4-Lane Major Arterial	34,000	22,851	NO	22,851	NO
South of Hollister Ave	4-Lane Major Arterial	34,000	20,500	NO	20,537	NO
Los Carneros Way						
Calle Koral & Hollister Ave	2-Lane Minor Arterial	12,500	3,052	NO	3,052	NO
Hollister Ave						
west of Los Carneros Rd	4-Lane Major Arterial	34,000	22,555	NO	22,555	NO
between Los Carneros Rd & Los Carneros Wy	4-Lane Major Arterial	34,000	19,590	NO	19,627	NO
east of Los Carneros Wy	4-Lane Major Arterial	34,000	21,061	NO	21,098	NO
west of Fairview Ave	4-Lane Major Arterial	34,000	27,971	NO	28,519	NO
between Fairview Ave & Kellogg Ave	4-Lane Major Arterial	34,000	22,948	NO	23,167	NO
between Kellogg Ave & WB SR 217	4-Lane Major Arterial	34,000	26,191	NO	26,374	NO
east of EB SR 217	4-Lane Major Arterial	34,000	18,156	NO	18,156	NO
Fairview Ave						
north of Calle Real	4-Lane Major Arterial	34,000	15,711	NO	15,711	NO
between Calle Real & US 101 NB Ramps	4-Lane Major Arterial	34,000	25,118	NO	25,118	NO
between US 101 & Hollister Ave	4-Lane Major Arterial	34,000	31,781	NO	32,073	NO
between Hollister Ave & Matthews St	2-Lane Major Arterial	14,300	12,215	NO	12,032	NO
between Matthews St & Fowler Rd	2-Lane Major Arterial	14,300	6,942	NO	6,759	NO
Fowler Rd						
between Fairview Ave & terminal access (east)	2-Lane Minor Arterial	12,500	5,469	NO	5,250	NO
Moffett Pl						
between terminal access (south) & Ward Memorial Blvd	2-Lane Minor Arterial	12,500	5,280	NO	4,768	NO
Kellogg Ave						
South of Hollister Ave	2-Lane Minor Arterial	12,500	9,578	NO	9,541	NO

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5.6 INTERSECTION ROADWAY MITIGATIONS

Kellogg Avenue & Hollister Avenue [Santa Barbara cumulative impact]

To mitigate the p.m. peak-hour significant cumulative impact at the intersection of Kellogg Avenue & Hollister Avenue, the eastbound approach could be modified to remove the shared thru-right turn lane and add a thru lane and right-turn pocket (v/c = 0.632, LOS B (p.m.). The proposed mitigation would improve the intersection from LOS D to LOS B during the p.m. peak-period. The intersection capacity utilization rate and corresponding LOS of the intersection with the mitigation options are presented in **Table 5-4**.

The proposed mitigation is consistent with the proposed improvement identified in the Goleta General Plan. The mitigation could be implemented through striping changes, however, this would eliminate the bike lane in the eastbound direction. Roadway widening would likely require land acquisition from the adjacent business. Improvements at this intersection must also be consistent with the future Hollister Complete Streets Corridor Project between Fairview Avenue and SR 217, which will focus on improved bike and pedestrian access while serving vehicle traffic and multi-modal connections.

TABLE 5-4

INTERMEDIATE TERM (2022) MITIGATED CONDITIONS

PEAK-HOUR INTERSECTION LOS SUMMARY

INTERSECTION		PEAK HOUR	INTER. TERM BASELINE BEFORE IMPROVEMENT		TERM WITH PROJECT BEFORE IMPROVEMENT		TERM WITH PROJECT AFTER IMPROVEMENT		DESCRIPTION
			v/c Ratio (a)	LOS	v/c Ratio (a)	LOS	v/c Ratio (a)	LOS	
12	Kellogg Ave & Hollister Ave	AM	0.561	A	0.562	A	0.426	A	Remove eastbound shared thru-right lane and add eastbound thru lane and eastbound right-turn lane.
		PM	0.800	**D**	0.801	**D**	0.632	B	

Notes:

Bold values indicate intersections operating at unacceptable level of service (LOS C (v/c≥ 0.77), LOS D, LOS E, or LOS F).

(a) v/c refers to the volume to capacity ratio for the intersection based on the Intersection Capacity Utilization (ICU) method.

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6 LONG TERM (2032) CONDITIONS

This section provides a description of the Long Term (2032) conditions with the addition of the proposed Airport Master Plan. Under the Long Term conditions, Santa Barbara Airport is forecasted to experience an increase in airline and general aviation activity resulting in additional traffic towards the Airline Terminal, parking facilities, car rental facility, and FBOs. In addition to the improvements mentioned in the Intermediate Term Program, the Long Term Program would include an addition to the Airline Terminal facility and further modify and expand airside facilities.

6.1 ROAD NETWORK

In addition to the road network change summarized for Intermediate Term (2022) conditions, several additional road network projects were planned within the study area and include, but are not limited to, the following projects below:

- Fairview Avenue & Calle Real Intersection Improvements
- Fairview Avenue & US 101 SB Ramp Improvements
- La Patera Freeway Overcrossing
- Hollister Avenue Redesign

The specific improvements and projected completion year of these projects are currently unknown and therefore were not included as part of this analysis.

6.2 CUMULATIVE PROJECTS

Based on the Cumulative Projects List provided by the City of Goleta (March 10, 2016) and City of Santa Barbara, two (2) projects are planned within the study area and are included in the Long Term (2032) conditions analysis. The included projects are listed below:

- Old Town Industrial Center (186,770 sf light industrial, 5,100 sf office)
- Heritage Ridge (228 apartments, 132 senior apartments)

Trip generation for the Long Term cumulative projects are presented in **Table 6-1**. Assumed cumulative project trip distributions and total trip assignment are provided in Appendix D.

Table 6-1 Long Term (2032) Cumulative Project Trip Generation

			AM Peak-Hour			PM Peak-Hour		
Land Use	Units	ADT	In	Out	Total	In	Out	Total
Old Town Industrial Center	191.9 ksf (total)	1,330	155	21	176	22	163	185
Heritage Ridge	360 du (total)	1,917	29	101	130	101	57	158
TOTAL		3,247	184	122	306	123	220	343

6.3 TRAFFIC VOLUMES

Long Term (2032) Baseline peak-hour volumes at the study intersections were estimated based on the method discussed in Section 2.1. Average Daily Traffic (ADT) volumes were estimated by applying a peak-hour factor to the peak p.m. roadway segments volumes provided by Kittelson & Associates.

Figure 6-1 illustrates the Long Term (2032) Baseline conditions with cumulative project traffic volumes at the study intersections and road segments.

To determine the traffic volumes under the Long Term (2032) with Project conditions, the trips associated with the Airport Master Plan Long Term Program were applied to the Long Term (2032) Baseline volumes in the study area. Long Term (2032) with Project traffic volumes are shown in **Figure 6-2**.

6.4 INTERSECTION ANALYSIS

Table 6-2 displays the LOS analysis results for the study intersections under Long Term (2032) with and without the Airport Master Plan Long Term Program project conditions. As shown in the table, all study intersections would continue to operate at acceptable LOS C or better with a v/c ratio less than 0.77 during both peak periods with and without the proposed project with the exception of the following intersections:

- Fairview Avenue & US 101 NB Ramps (LOS D; p.m. peak-hour with and without project)
- Kellogg Avenue & Hollister Avenue (LOS D; p.m. peak-hour with and without project)

Intersection	Leg	Left	Right	Thru
1	Los Carneros Rd	130 / 335	362 / 255	29 / 65
				2 / 16
				1112 / 415
	US 101 NB Ramps	46 / 290	171 / 805	
2	Los Carneros Rd	1422 / 647	37 / 26	53 / 231
				8 / 20
				190 / 171
	US 101 SB Ramps	162 / 862	250 / 735	
3	Los Carneros Rd	20 / 60	1512 / 657	201 / 145
				142 / 352
				10 / 31
				17 / 28
	Calle Koral	85 / 54	33 / 21	15 / 9
		4 / 14	280 / 1229	7 / 55
4	Los Carneros Rd	289 / 105	480 / 425	74 / 155
				28 / 30
				445 / 665
				100 / 141
	Hollister Ave	64 / 328	457 / 663	240 / 117
		91 / 259	141 / 448	123 / 189
5	Los Carneros Wy	96 / 37	121 / 87	54 / 233
				478 / 741
	Hollister Ave	88 / 97	604 / 848	
6	Fairview Ave	45 / 62	321 / 328	31 / 114
				23 / 56
				133 / 305
				129 / 229
	Calle Real	21 / 68	83 / 321	358 / 342
		225 / 433	229 / 439	130 / 410
7	Fairview Ave	734 / 585	122 / 364	304 / 584
				562 / 191
	Fairview Ave	277 / 716	142 / 219	
	US 101 NB Ramps			
8	Fairview Ave	926 / 589	346 / 222	
	US 101 SB Ramps	106 / 193	0 / 21	300 / 258
		322 / 804	340 / 631	
9	Fairview Ave	560 / 232	412 / 155	175 / 304
				271 / 333
				416 / 508
				51 / 53
	Hollister Ave	237 / 555	332 / 691	289 / 137
		123 / 243	212 / 460	33 / 95
10	SR 217 WB Ramp	597 / 489	220 / 58	495 / 509
				192 / 85
	Hollister Ave	601 / 1622	67 / 43	
11	SR 217 EB Ramp	317 / 404	338 / 1101	145 / 88
				101 / 61
				666 / 447
				92 / 40
	Hollister Ave	84 / 140	83 / 108	76 / 324
12	Kellogg Ave	42 / 43	20 / 22	124 / 200
				165 / 125
				760 / 626
				338 / 188
	Hollister Ave	85 / 33	413 / 972	76 / 41
		38 / 111	29 / 40	83 / 412

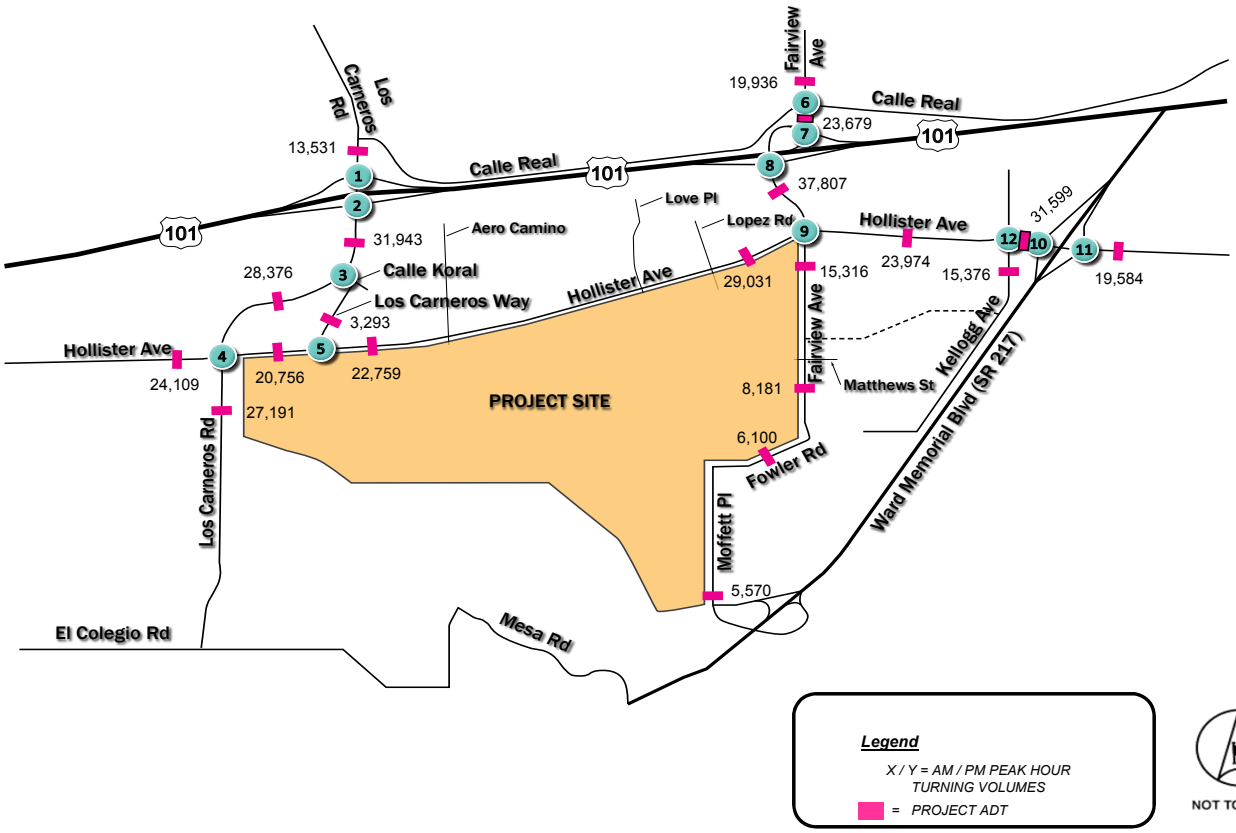

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FIGURE 6-1
Long Term (2032) Baseline Traffic Volumes

Intersection	Leg	Left	Right	Thru
1	Los Carneros Rd	130 / 335	362 / 255	29 / 65
				2 / 16
				1112 / 415
	US 101 NB Ramps	46 / 290	171 / 805	
2	Los Carneros Rd	1422 / 647	37 / 26	
	US 101 SB Ramps	53 / 231		162 / 862
		8 / 20		250 / 735
		190 / 171		
3	Los Carneros Rd	20 / 60	1512 / 657	142 / 352
			201 / 145	10 / 31
				17 / 28
	Calle Koral	85 / 54		4 / 14
		33 / 21		280 / 1229
		15 / 9		7 / 55
4	Los Carneros Rd	289 / 105	480 / 425	28 / 30
			74 / 155	445 / 665
				101 / 142
	Hollister Ave	64 / 328		91 / 259
		457 / 663		141 / 448
		240 / 117		125 / 191
5	Los Carneros Wy	96 / 37	121 / 87	54 / 233
				479 / 742
	Hollister Ave	88 / 97		
		606 / 850		
6	Fairview Ave	45 / 62	321 / 328	23 / 56
			31 / 114	133 / 305
				129 / 229
	Calle Real	21 / 68		225 / 433
		83 / 321		229 / 439
		358 / 342		130 / 410
7	Fairview Ave	734 / 585	122 / 364	304 / 584
				576 / 203
	Fairview Ave	277 / 716		
		142 / 219		
	US 101 NB Ramps			
8	Fairview Ave	940 / 601	346 / 222	
	US 101 SB Ramps	106 / 193		322 / 804
		0 / 21		350 / 643
		300 / 258		
9	Fairview Ave	577 / 247	409 / 152	271 / 333
			175 / 304	428 / 519
				49 / 51
	Hollister Ave	250 / 570		120 / 240
		341 / 701		209 / 457
		286 / 134		32 / 94
10	SR 217 WB Ramp	604 / 495	220 / 58	496 / 510
				190 / 83
	Hollister Ave	608 / 1630		
		67 / 43		
11	SR 217 EB Ramp			101 / 61
				666 / 447
				92 / 40
	Hollister Ave	322 / 410		84 / 140
		340 / 1103		83 / 108
		145 / 88		75 / 323
12	Kellogg Ave	42 / 43	20 / 22	165 / 125
			124 / 200	770 / 635
				336 / 186
	Hollister Ave	85 / 33		38 / 111
		421 / 981		29 / 40
		76 / 41		82 / 411

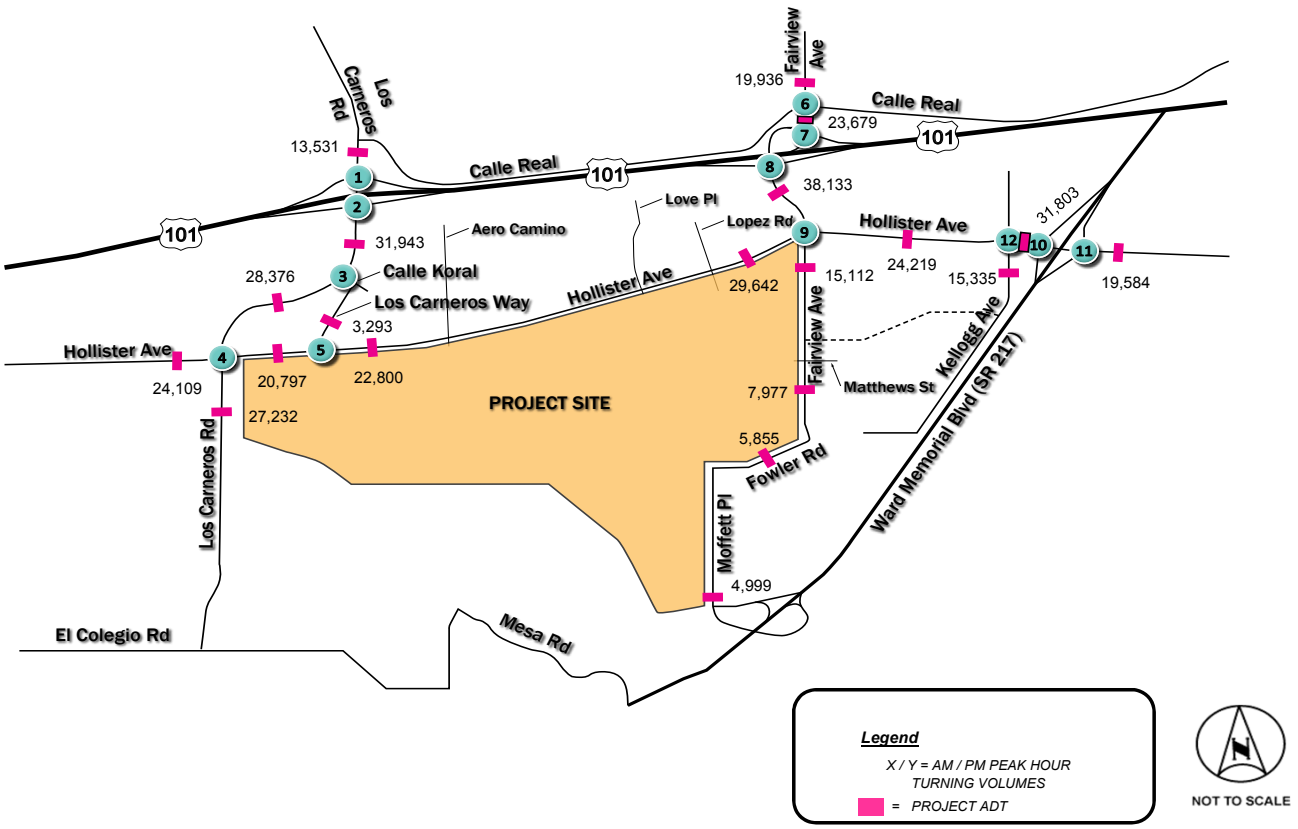

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FIGURE 6-2
Long Term (2032) with Project Traffic Volumes

TABLE 6-2
LONG TERM (2032) CONDITIONS
PEAK-HOUR INTERSECTION LOS SUMMARY

INTERSECTION		PEAK HOUR	LONG TERM 2032 BASELINE		2032 BASELINE WITH PROJECT		SIGNIFICANT?		
			v/c Ratio (a)	LOS	v/c Ratio (a)	LOS	Δ	Santa Barbara	Goleta
1	Los Carneros Rd & US 101 NB Ramp	AM	0.625	B	0.625	B	0.000	No	No
		PM	0.583	A	0.583	A	0.000	No	No
2	Los Carneros Rd & US 101 SB Ramp	AM	0.628	B	0.628	B	0.000	No	No
		PM	0.594	A	0.594	A	0.000	No	No
3	Los Carneros Rd & Calle Koral	AM	0.701	C	0.701	C	0.000	No	No
		PM	0.661	B	0.661	B	0.000	No	No
4	Los Carneros Rd & Hollister Ave	AM	0.536	A	0.537	A	0.001	No	No
		PM	0.658	B	0.658	B	0.000	No	No
5	Hollister Ave & Los Carneros Way	AM	0.355	A	0.356	A	0.001	No	No
		PM	0.470	A	0.471	A	0.001	No	No
6	Fairview Ave & Calle Real	AM	0.549	A	0.549	A	0.000	No	No
		PM	0.761	C	0.761	C	0.000	No	No
7	US 101 NB Ramps & Fairview Ave	AM	0.645	B	0.654	B	0.009	No	No
		PM	0.855	**D**	0.855	**D**	0.000	**Cumulative (b)**	No (c)
8	Fairview Ave & US 101 SB Ramps	AM	0.521	A	0.525	A	0.004	No	No
		PM	0.579	A	0.584	A	0.005	No	No
9	Fairview Ave & Hollister Ave	AM	0.552	A	0.561	A	0.009	No	No
		PM	0.692	B	0.699	B	0.007	No	No
10*	SR 217 WB & Hollister Ave	AM	0.523	A	0.527	A	0.004	No	No
		PM	0.665	B	0.667	B	0.002	No	No
11*	SR 217 EB & Hollister Ave	AM	0.418	A	0.420	A	0.002	No	No
		PM	0.620	B	0.621	B	0.001	No	No
12	Kellogg Ave & Hollister Ave	AM	0.576	A	0.578	A	0.002	No	No
		PM	0.835	**D**	0.837	**D**	0.002	**Cumulative (b)**	**Yes (d)**

Notes:
Bold values indicate intersections operating at unacceptable level of service (LOS C (v/c≥ 0.77), LOS D, LOS E, or LOS F).
(a) v/c refers to the volume to capacity ratio for the intersection based on the Intersection Capacity Utilization (ICU) method using Traffix software.
(b) Δ v/c < 0.01 threshold with the addition of the project traffic
(c) Added project trips (12) < LOS D trips threshold (15)
(d)Added project trips (15) ≥ LOS D trips threshold (15)
* Analyzed as a roundabout. Results are measured in v/c using the Sidra capacity model and HCM 2010 traffic signal delay parameters using Sidra 6 software.

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The addition of the Airport Long Term Master Plan Concept was found to have a significant impact at the intersection of Fairview Avenue & US 101 Northbound Ramps based on the City of Santa Barbara thresholds. The addition of the Long Term Concepts added trips to an intersection operating at 0.77 or higher (v/c = 0.855; p.m.) and therefore found to contribute to a cumulative impact at this intersection. The Long Term Concepts would not increase the v/c ratio by 0.01 or more (+0.000 v/c; p.m.) and therefore was not found to cause a project-specific impact at this intersection. Based on City of Goleta significance thresholds, the addition of the Long Term Concepts at the Fairview Avenue & US 101 Northbound Ramps intersection would not cause a cumulative impact. The Long Term Concepts would add less trips than the 15-trip LOS D threshold by adding 12 net p.m. peak-hour trips.

The intersection of Kellogg Avenue & Hollister Avenue was found to have a cumulative impact for the p.m. peak-hour condition with the addition of the Long Term Concepts under both City of Santa Barbara and City of Goleta thresholds. Under the City of Santa Barbara thresholds, the Long Term Concepts are projected to add trips to an intersection operating at a v/c ratio greater than 0.77 (v/c = 0.835; p.m.), hence contributing to a cumulative impact under City of Santa Barbara thresholds. The Long Term Concepts would not increase the v/c ratio by 0.01 or more (+0.002 v/c; p.m.) and therefore was not found to cause a project-specific impact at this intersection. Based on City of Goleta significance thresholds, the addition of the Long Term Concepts at the Kellogg Avenue and Hollister Avenue intersection would cause a cumulative impact. The Long Term Concepts are projected to add 15 trips during p.m. peak-hour condition, which meets the 15-trip LOS D threshold for a cumulative impact.

Appendix C contains the peak-hour intersections LOS calculation worksheets.

6.5 ROADWAY SEGMENT ANALYSIS

Table 6-3 displays the roadway segments analysis for Long Term (2032) conditions with and without the Airport Master Plan Long Term Program project conditions. As shown in the table, the roadway segments analyzed do not exceed the LOS C capacity threshold with the exception of the following roadway segments:

- Fairview Avenue between US 101 and Hollister Avenue (with and without project conditions);
- Fairview Avenue between Hollister Avenue and Matthews Street (with and without project conditions); and
- Kellogg Avenue south of Hollister Avenue (with and without project conditions).

The roadway segments listed above were all found to have ADT exceeding the LOS C threshold for both with and without project conditions. Of the three roadway segments, only the Fairview Avenue segment between US 101 and Hollister Avenue was found to have higher volumes with the proposed project (+326 ADT). Fairview Avenue is a major arterial in the City of Goleta General Plan and based on a field visit conducted In March 2014, this segment was not observed to have design features (narrow width, sharp curves, poor sight distance, and inadequate pavement structure) that would become potential safety problems with the addition of project traffic.

The other two roadway segments operating above the LOS C threshold were projected to have reduced ADT with the addition of the project conditions due to the redistribution of trips with the Airport Master Plan. Fairview Avenue between Hollister Avenue and Matthews Street and Kellogg Avenue south of Hollister Avenue were projected to have lower ADT due to the redistribution associated with the project conditions.

TABLE 6-3
LONG TERM (2032) CONDITIONS
ROADWAY SEGMENT LOS SUMMARY

ROADWAY SEGMENT	ROADWAY CLASSIFICATION	LOS C CAPACITY	LONG TERM BASELINE		LONG TERM WITH PROJECT	
			ADT	EXCEEDS THRESHOLD?	ADT	EXCEEDS THRESHOLD?
Los Carneros Rd						
north of US-101	2-Lane Major Arterial	14,300	13,531	NO	13,531	NO
US-101 & Calle Koral	4-Lane Major Arterial	34,000	31,943	NO	31,943	NO
Calle Koral & Hollister Ave	4-Lane Major Arterial	34,000	28,376	NO	28,376	NO
South of Hollister Ave	4-Lane Major Arterial	34,000	27,191	NO	27,232	NO
Los Carneros Way						
Calle Koral & Hollister Ave	2-Lane Minor Arterial	12,500	3,293	NO	3,293	NO
Hollister Ave						
west of Los Carneros Rd	4-Lane Major Arterial	34,000	24,109	NO	24,109	NO
between Los Carneros Rd & Los Carneros Wy	4-Lane Major Arterial	34,000	20,756	NO	20,797	NO
east of Los Carneros Wy	4-Lane Major Arterial	34,000	22,759	NO	22,800	NO
west of Fairview Ave	4-Lane Major Arterial	34,000	29,031	NO	29,642	NO
between Fairview Ave & Kellogg Ave	4-Lane Major Arterial	34,000	23,974	NO	24,219	NO
between Kellogg Ave & WB SR 217	4-Lane Major Arterial	34,000	31,599	NO	31,803	NO
east of EB SR 217	4-Lane Major Arterial	34,000	19,584	NO	19,584	NO
Fairview Ave						
north of Calle Real	4-Lane Major Arterial	34,000	19,936	NO	19,936	NO
between Calle Real & US 101 NB Ramps	4-Lane Major Arterial	34,000	23,679	NO	23,679	NO
between US 101 & Hollister Ave	4-Lane Major Arterial	34,000	37,807	**YES**	38,133	**YES (a)**
between Hollister Ave & Matthews St	2-Lane Major Arterial	14,300	15,316	**YES**	15,112	**YES (b)**
between Matthews St & Fowler Rd	2-Lane Major Arterial	14,300	8,181	NO	7,977	NO
Fowler Rd						
between Fairview Ave & terminal access (east)	2-Lane Minor Arterial	12,500	6,100	NO	5,855	NO
Moffett Pl						
between terminal access (south) & Ward Memorial Blvd	2-Lane Minor Arterial	12,500	5,570	NO	4,999	NO
Kellogg Ave						
South of Hollister Ave	2-Lane Minor Arterial	12,500	15,376	**YES**	15,335	**YES (b)**

Notes:
- City of Goleta CEQA Thresholds Manual does not specify a significance threshold for roadway segment average daily trips (ADT).
(a) Roadway segment operates above LOS C capacity threshold in baseline condition Additional 326 ADT not anticipated to significantly impact traffic operations.
(b) Project reduces the number of the trips along this roadway

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6.6 SB 743 VMT ANALYSIS CONSIDERATION

The State of California Governor's Office of Planning and Research (OPR) released a new approach for analyzing traffic impacts in Senate Bill 743 (SB 743). SB 743 was signed in 2013 and provides a framework for providing an alternative to level of service (LOS) for analyzing traffic impacts. SB 743 is required to be implemented by late 2018. Though still undergoing revisions, SB 743 intends to focus on vehicle miles travelled (VMT) in lieu of LOS. The use of LOS typically favors "first-in" developments due to less vehicles on the roadway network while making it difficult for infill developments, which would add vehicles to an already built-out and often impacted road network. With VMT, the new approach would focus on the net impact of the project on the region's VMT in California's effort to reduce greenhouse gases and promote more effective use of existing infrastructure by encouraging alternative transportation modes such as biking and transit. For example, constructing a mixed-use project with residential on top of a grocery store within a high density downtown setting may ultimately reduce net VMT by providing neighbors with a walkable nearby grocery store, whereas a big box store located in the outskirts of town would cause an increase in VMT due to more people having to drive to get to the store.

With respect to SB 743, the proposed Airport Master Plan would likely result in a net decrease in VMT and not be considered to cause a significant impact. The relocation of the Atlantic Aviation FBO to the north side of the airport from the existing remote location at the south side of the airport would move the facility closer to the City's major arterials (Hollister Avenue and Fairview Avenue) and freeways (US 101), resulting in a slight reduction in VMT.

6.7 MITIGATION

Based on the City of Santa Barbara and/or City of Goleta Environmental thresholds as described in Section 6.4, there would be a significant cumulative impact under the Long Term Conditions with Airport Master Plan at the following intersections:

- Fairview Avenue & US 101 Northbound Ramps (Santa Barbara cumulative impact)
- Kellogg Avenue & Hollister Avenue (Santa Barbara and Goleta cumulative impact)

Potential mitigations are presented below:

6.7.1 INTERSECTION ROADWAY MITIGATIONS

Fairview Avenue & US 101 Northbound Ramps [Santa Barbara cumulative impact]

To mitigate the p.m. peak-hour significant cumulative impact at the intersection of Fairview Avenue & US 101 Northbound Ramps, an additional westbound thru lane could be added (v/c = 0.663; p.m.). The Santa Barbara Airport would pay its fair-share contribution to the intersection improvement to the mitigation fee agreement between the City of Goleta and City of Santa Barbara. The proposed mitigation is consistent with the proposed improvement identified in the Goleta General Plan. The mitigation would require coordination with Caltrans to provide proper design of the intersection. The intersection capacity utilization rate and corresponding LOS of the intersection with the mitigation options are presented in **Table 6-4**.

Kellogg Avenue & Hollister Avenue [Santa Barbara and Goleta cumulative impact]

To mitigate the significant cumulative impact at the intersection of Kellogg Avenue & Hollister Avenue, the eastbound approach could be modified to remove the shared thru-right turn lane and add a thru lane and right-turn pocket (v/c = 0.631, LOS B; p.m.). The proposed mitigation would improve the intersection from LOS D to LOS B during the p.m. peak-period. The intersection capacity utilization rate and corresponding LOS of the intersection with the mitigation options are presented in **Table 6-4**.

The proposed mitigation is consistent with the proposed improvement identified in the Goleta General Plan. The mitigation could be implemented through striping changes, however, this would eliminate the bike lane in the eastbound direction. Bicyclists would therefore need to share the travel lane with vehicles as they pass through the intersection. Roadway widening would likely require land acquisition from the adjacent business. Improvements at this intersection must also be consistent with the future Hollister Complete Streets Corridor Project between Fairview Avenue and SR 217, which will focus on improved bike and pedestrian access while serving vehicle traffic and multi-modal connections.

TABLE 6-4

LONG TERM (2032) MITIGATED CONDITIONS

PEAK-HOUR INTERSECTION LOS SUMMARY

INTERSECTION		PEAK HOUR	LONG TERM BASELINE BEFORE IMPROVEMENT		LONG TERM WITH PROJECT BEFORE IMPROVEMENT		LONG TERM WITH PROJECT AFTER IMPROVEMENT		DESCRIPTION
			v/c Ratio (a)	LOS	v/c Ratio (a)	LOS	v/c Ratio (a)	LOS	
7	US 101 NB Ramps & Fairview Ave	AM	0.645	**B**	0.654	**B**	0.474	A	Add additional westbound thru lane.
		PM	0.855	**D**	0.855	**D**	0.663	B	
12	Kellogg Ave & Hollister Ave	AM	0.576	**A**	0.578	**A**	0.461	A	Remove eastbound shared thru-right lane and add eastbound thru lane and eastbound right-turn lane.
		PM	0.835	**D**	0.837	**D**	0.631	B	

Notes:

Bold values indicate intersections operating at unacceptable level of service (LOS C (v/c ≥ 0.77), LOS D, LOS E, or LOS F).

(a) v/c refers to the volume to capacity ratio for the intersection based on the Intersection Capacity Utilization (ICU) method.

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6.7.2 ADDITIONAL MITIGATION CONSIDERATIONS

As part of the City of Goleta General Plan, a vehicular crossing was planned across US 101 at La Patera Road. The overcrossing would connect Calle Real north of US 101 to Hollister Avenue south of US 101. The overcrossing is anticipated to relieve congestion and improve LOS on congested cross routes with freeway interchanges. The future improvement is intended to reduce traffic along roadway segments such as Los Carneros Road, Fairview Avenue, and Hollister Avenue. The proposed overcrossing is presented in **Figure 6-3**.

Figure 6-3 Proposed US 101 Overcrossing at La Patera Road

The La Patera Overcrossing is currently programmed but unfunded. The County of Santa Barbara's Regional Transportation Plan (Approved in August 2013) identifies the La Patera Overcrossing as a planned project to improve bike and pedestrian connectivity through Goleta with no mention of vehicle access. If the La Patera Vehicular Overcrossing is considered as a future planned project for the City of Goleta, the Santa Barbara Airport could pay a fair-share contribution associated with the FBO development to the Goleta Transportation Improvement Program (GTIP) to help alleviate traffic in the study area.

In addition, a public road (not part of the General Plan) along the east edge of the airport property, parallel to Fairview Avenue, was considered to provide access from Matthews Street at Fairview Avenue to the FBOs and additional north side airport uses via Verhelle Road. However, due to the proximity of the airport's north side access to a major arterial (Hollister Avenue) and freeway ramps (US 101 at Fairview Avenue and SR 217 at Hollister Avenue), the proposed on-airport connection would be redundant and not significantly improve traffic operations.

Implementation of travel demand management (TDM) strategies and availability of alternative transportation options may provide opportunities to reduce the number of vehicle trips travelling through the study area. The fixed base operators, other north-side airport uses, and neighboring businesses north of Hollister Avenue are conveniently located next to several Metropolitan Transit District (MTD) bus stops, the Amtrak Goleta Station, and other transit services. By promoting flexible work hours to reduce peak-hour travel, incentivizing transit use for employees, and removing free or cheap parking options, the public would be more prone to use alternative transportation modes and reduce peak-hour congestion. As a mitigation measure, the Santa Barbara Airport could fund or organize a local campaign in conjunction with MTD, City of Santa Barbara, and City of Goleta to promote TDM, ride sharing, flexible schedules, transit ridership, and other alternative transportation modes with the goal of reducing vehicle trips.

Similarly, as part of the Goleta General Plan, a new multi-modal transit center is proposed to be located adjacent to the Amtrak Goleta Station. The multi-modal transit center would provide a connection hub between rail, express bus, local bus, bicycle routes, and other transportation modes, allowing greater flexibility and connections for alternative transportation modes. Due to the proximity of the proposed multi-modal transit center, as a mitigation measure, the Santa Barbara Airport could contribute funds to the design and/or construction.

7 FINDINGS AND CONCLUSIONS

The following section provides a summary of the key findings and study recommendations and includes a summary table that compares the results from the different scenarios.

7.1 SUMMARY OF INTERSECTION ANALYSIS

Table 7-1 displays the LOS at all the study intersections for the different scenarios analyzed. As shown in Table 7-1, all intersections would operate at LOS C (v/c < 0.77) or better during all peak periods under all scenarios except for the intersections listed below.

- Fairview Avenue & US 101 NB Ramps (LOS D; 2032 p.m. peak-hour with and without project)
- Kellogg Avenue & Hollister Avenue (LOS D; 2022 and 2032 p.m. peak-hour with and without project)

The intersections above were found to have a cumulative traffic impact in 2032 based on the City of Santa Barbara's thresholds adopted as part of their 2013 Traffic Management Strategy. However, only Kellogg Avenue & Hollister Avenue was found to have a cumulative impact based on the City of Goleta thresholds.

The following roadway mitigations were proposed to improve intersection operations to acceptable LOS. The specific intersection mitigations are presented below:

- Fairview Avenue & US 101 Northbound Ramps Mitigation: Add additional westbound through lane and eastbound left-turn lane.
- Kellogg Avenue & Hollister Avenue Mitigation: Remove eastbound through-right lane, add eastbound through lane and eastbound right-turn lane.

In addition to the individual intersection improvements, the construction of the La Patera vehicular overcrossing is anticipated to help relieve traffic at the congested freeway crossings. Though the vehicular overcrossing is currently unfunded, the Santa Barbara Airport could pay its fair-share contribution for the overcrossing should the City of Goleta move forward with the project.

To further promote vehicle reduction to the surrounding roadway network, the Santa Barbara Airport could fund or organize a local campaign in conjunction with MTD, City of Santa Barbara, and City of Goleta to promote travel demand management strategies, ride sharing, flexible schedules, transit ridership, and other alternative transportation modes with the goal of reducing vehicle trips. The Santa Barbara Airport could also pay a fair-share contribution to a future multi-modal transit center located adjacent to the Amtrak Goleta Station to promote alternative transportation modes. The multi-modal transit center is discussed as a possible transit improvement within the City of Goleta's General Plan.

7.2 SUMMARY OF ROADWAY SEGMENT ANALYSIS

Table 7-2 displays the LOS at all the study roadway segments for the different scenarios analyzed. As shown in Table 7-2, the roadway segments analyzed would operate at LOS C or better during all scenarios with and without the project with the exception of the following roadway segments:

- Fairview Avenue between US 101 and Hollister Avenue (2032);
- Fairview Avenue between Hollister Avenue and Matthews Street (2032); and
- Kellogg Avenue south of Hollister Avenue (2032).

The three roadway segments listed above were all found to have ADT exceeding the LOS C threshold for both with and without project conditions in the Long Term Condition. Of the three roadway segments, only the Fairview Avenue segment between US 101 and Hollister Avenue was found to have higher volumes with the proposed project (+326 ADT). Fairview Avenue is a major arterial in the City of Goleta General Plan and based on a field visit conducted In March 2014, this segment was not observed to have design features (narrow width, sharp curves, poor sight distance, and inadequate pavement structure) that would become potential safety problems with the addition of project traffic.

The other two roadway segments operating above the LOS C threshold were projected to have reduced ADT with the addition of the project conditions due to the redistribution of trips with the Airport Master Plan. Fairview Avenue between Hollister Avenue and Matthews Street and Kellogg Avenue south of Hollister Avenue were projected to have lower ADT due to the redistribution associated with the project conditions.

Therefore, implementation of the Master Plan would not exceed any applicable significance thresholds for roadway segment traffic within the study area.

TABLE 7-1

SUMMARY OF PEAK-HOUR INTERSECTION LOS ANALYSIS

INTERSECTION		PEAK HOUR	EXISTING		INTERMEDIATE TERM 2022 BASELINE		2022 BASELINE WITH PROJECT		LONG TERM 2032 BASELINE		2032 BASELINE WITH PROJECT	
			v/c Ratio	LOS	v/c Ratio	LOS	v/c Ratio	LOS	v/c Ratio	LOS	v/c Ratio	LOS
1	Los Carneros Rd & US 101 NB Ramp	AM	0.522	A	0.621	B	0.621	B	0.625	B	0.625	B
		PM	0.506	A	0.603	B	0.603	B	0.583	A	0.583	A
2	Los Carneros Rd & US 101 SB Ramp	AM	0.540	A	0.595	A	0.595	A	0.628	B	0.628	B
		PM	0.513	A	0.592	A	0.592	A	0.594	A	0.594	A
3	Los Carneros Rd & Calle Koral	AM	0.481	A	0.637	B	0.637	B	0.701	C	0.701	C
		PM	0.553	A	0.665	B	0.665	B	0.661	B	0.661	B
4	Los Carneros Rd & Hollister Ave	AM	0.458	A	0.503	A	0.503	A	0.536	A	0.537	A
		PM	0.566	A	0.645	B	0.645	B	0.658	B	0.658	B
5	Hollister Ave & Los Carneros Way	AM	0.287	A	0.330	A	0.331	A	0.355	A	0.356	A
		PM	0.425	A	0.464	A	0.464	A	0.470	A	0.471	A
6	Fairview Ave & Calle Real	AM	0.617	B	0.555	A	0.555	A	0.549	A	0.549	A
		PM	0.747	C	0.760	C	0.760	C	0.761	C	0.761	C
7	US 101 NB Ramps & Fairview Ave	AM	0.627	B	0.703	C	0.710	C	0.645	B	0.654	B
		PM	0.670	B	0.733	C	0.740	C	0.855	**D**	0.855	**D**
8	Fairview Ave & US 101 SB Ramps	AM	0.489	A	0.533	A	0.536	A	0.521	A	0.525	A
		PM	0.552	A	0.608	B	0.612	B	0.579	**A**	0.584	A
9	Fairview Ave & Hollister Ave	AM	0.575	A	0.590	A	0.599	A	0.552	A	0.561	A
		PM	0.661	B	0.728	C	0.733	C	0.692	B	0.699	B
10*	SR 217 WB & Hollister Ave	AM	0.537	A	0.489	A	0.493	A	0.523	A	0.527	A
		PM	0.662	B	0.641	B	0.643	B	0.665	B	0.667	B
11*	SR 217 EB & Hollister Ave	AM	0.312	A	0.378	A	0.380	A	0.418	A	0.420	A
		PM	0.496	A	0.596	A	0.599	A	0.620	B	0.621	B
12	Kellogg Ave & Hollister Ave	AM	0.502	A	0.561	A	0.562	A	0.576	A	0.578	A
		PM	0.706	C	0.800	**D**	0.801	**D**	0.835	**D**	0.837	**D**

Notes:

Bold values indicate intersections operating at unacceptable level of service (LOS C (v/c ≥ 0.77), LOS D, LOS E, or LOS F).

Highlighted rows indicate intersection scenarios with significant impacts.

- v/c refers to the volume to capacity ratio for the intersection based on the Intersection Capcity Utilization (ICU) method.

* Analyzed as a roundabout. Results are measured in v/c using the Sidra capacity model and HCM 2010 traffic signal delay parameters using Sidra 6 software.

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TABLE 7-2
SUMMARY OF ROADWAY SEGMENT LOS ANALYSIS

ROADWAY SEGMENT	ROADWAY CLASSIFICATION	LOS E CAPACITY	EXISTING		INTERMEDIATE TERM BASELINE		INTERMEDIATE TERM WITH PROJECT		LONG TERM BASELINE		LONG TERM WITH PROJECT	
			ADT	EXCEEDS THRESHOLD?	ADT	EXCEEDS THRESHOLD?	ADT	EXCEEDS THRESHOLD?	ADT	EXCEEDS THRESHOLD?	ADT	EXCEEDS THRESHOLD?
Los Carneros Rd												
north of US-101	2-Lane Major Arterial	14,300	12,415	NO	13,023	NO	13,023	NO	13,531	NO	13,531	NO
US-101 & Calle Koral	4-Lane Major Arterial	34,000	19,396	NO	26,275	NO	26,275	NO	31,943	NO	31,943	NO
Calle Koral & Hollister Ave	4-Lane Major Arterial	34,000	15,890	NO	22,851	NO	22,851	NO	28,376	NO	28,376	NO
South of Hollister Ave	4-Lane Major Arterial	34,000	14,824	NO	20,500	NO	20,537	NO	27,191	NO	27,232	NO
Los Carneros Way												
Calle Koral & Hollister Ave	2-Lane Minor Arterial	12,500	2,810	NO	3,052	NO	3,052	NO	3,293	NO	3,293	NO
Hollister Ave												
west of Los Carneros Rd	4-Lane Major Arterial	34,000	19,976	NO	22,555	NO	22,555	NO	24,109	NO	24,109	NO
between Los Carneros Rd & Los Carneros Wy	4-Lane Major Arterial	34,000	17,328	NO	19,590	NO	19,627	NO	20,756	NO	20,797	NO
east of Los Carneros Wy	4-Lane Major Arterial	34,000	18,144	NO	21,061	NO	21,098	NO	22,759	NO	22,800	NO
west of Fairview Ave	4-Lane Major Arterial	34,000	23,629	NO	27,971	NO	28,519	NO	29,031	NO	29,642	NO
between Fairview Ave & Kellogg Ave	4-Lane Major Arterial	34,000	20,572	NO	22,948	NO	23,167	NO	23,974	NO	24,219	NO
between Kellogg Ave & WB SR 217	4-Lane Major Arterial	34,000	20,363	NO	26,191	NO	26,374	NO	31,599	NO	31,803	NO
east of EB SR 217	4-Lane Major Arterial	34,000	15,747	NO	18,156	NO	18,156	NO	19,584	NO	19,584	NO
Fairview Ave												
north of Calle Real	4-Lane Major Arterial	34,000	12,103	NO	15,711	NO	15,711	NO	19,936	NO	19,936	NO
between Calle Real & US 101 NB Ramps	4-Lane Major Arterial	34,000	25,797	NO	25,118	NO	25,118	NO	23,679	NO	23,679	NO
between US 101 & Hollister Ave	4-Lane Major Arterial	34,000	24,419	NO	31,781	NO	32,073	NO	37,807	**YES**	38,133	**YES (a)**
between Hollister Ave & Matthews St	2-Lane Major Arterial	14,300	9,478	NO	12,215	NO	12,032	NO	15,316	**YES**	15,112	**YES (b)**
between Matthews St & Fowler Rd	2-Lane Major Arterial	14,300	5,959	NO	6,942	NO	6,759	NO	8,181	NO	7,977	NO
Fowler Rd												
between Fairview Ave & terminal access (east)	2-Lane Minor Arterial	12,500	4,964	NO	5,469	NO	5,250	NO	6,100	NO	5,855	NO
Moffett Pl												
between terminal access (south) & Ward Memorial Blvd	2-Lane Minor Arterial	12,500	5,047	NO	5,280	NO	4,768	NO	5,570	NO	4,999	NO
Kellogg Ave												
South of Hollister Ave	2-Lane Minor Arterial	12,500	4,994	NO	9578	NO	9541	NO	15,376	**YES**	15,335	**YES (b)**

Notes:
- City of Goleta CEQA Thresholds Manual does not specify a significance threshold for roadway segment average daily trips (ADT).
(a) Roadway segment operates above LOS C capacity threshold in baseline condition Additional 326 ADT not anticipated to significantly impact traffic operations.
(b) Project reduces the number of the trips along this roadway

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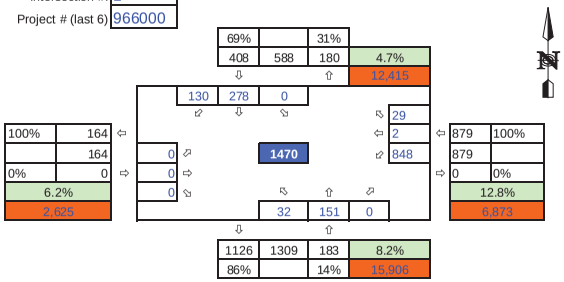
APPENDIX A

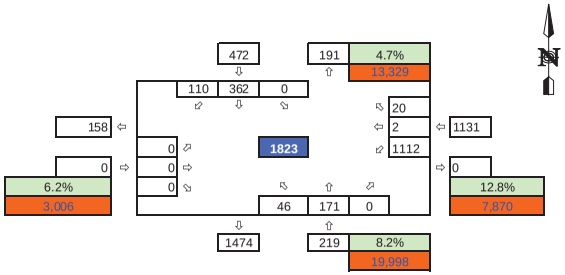
PEAK-HOUR FUTURE FORECAST WORKSHEETS

Int 1 AM Peak Volumes

Scenario:	Existing Conditions
N/S Street:	Los Carneros Rd
E/W Street:	US 101 NB Ramps
Intersection #:	1
Project # (last 6)	966000



Scenario:	Horizon Year Conditions
N/S Street:	Los Carneros Rd
E/W Street:	US 101 NB Ramps

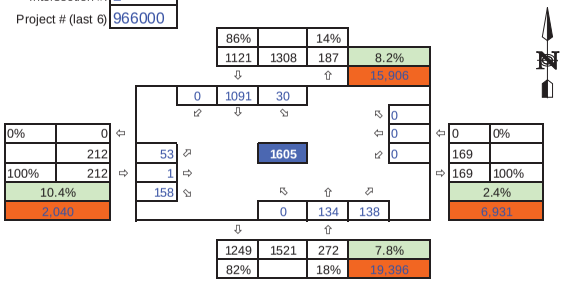


LEGEND

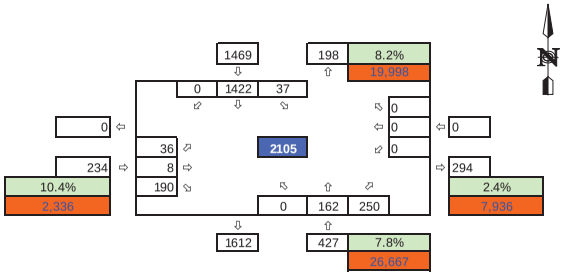
Existing K-Factor	xx%
ADT Volume	xx

Int 2 AM Peak Volumes

Scenario:	Existing Conditions
N/S Street:	Los Carneros Rd
E/W Street:	US 101 SB Ramps
Intersection #:	2
Project # (last 6)	966000



Scenario:	Horizon Year Conditions
N/S Street:	Los Carneros Rd
E/W Street:	US 101 SB Ramps



LEGEND

Existing K-Factor	xx%
ADT Volume	xx

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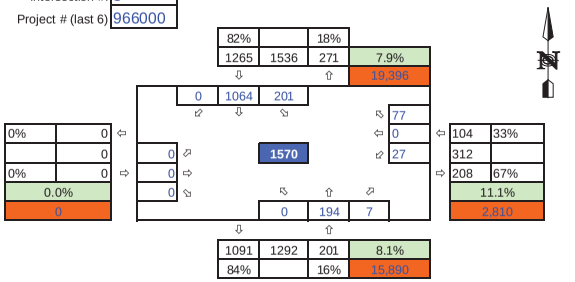
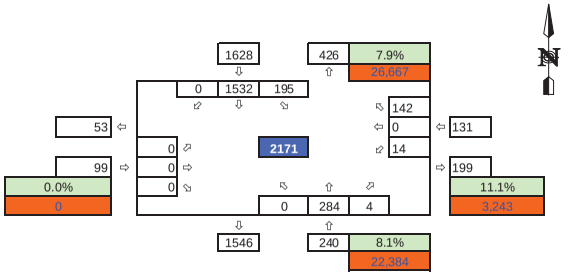
Int 3 AM Peak Volumes

Scenario:	Existing Conditions
N/S Street:	Los Carneros Rd
E/W Street:	Calle Koral
Intersection #:	3
Project # (last 6)	966000



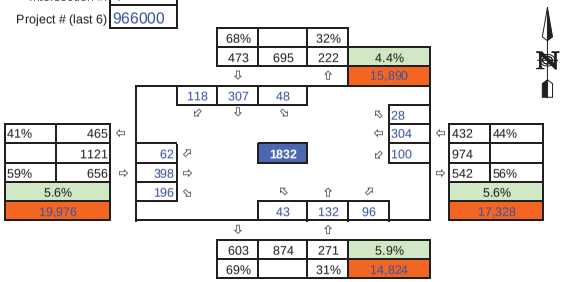
Scenario:	Horizon Year Conditions
N/S Street:	Los Carneros Rd
E/W Street:	Calle Koral



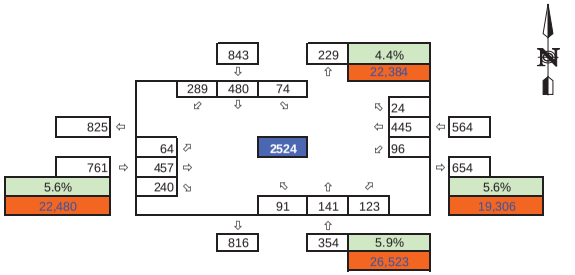
LEGEND	
Existing K-Factor	xx%
ADT Volume	xx

Int 4 AM Peak Volumes

Scenario:	Existing Conditions
N/S Street:	Los Carneros Rd
E/W Street:	Hollister Ave
Intersection #:	4
Project # (last 6)	966000



Scenario:	Horizon Year Conditions
N/S Street:	Los Carneros Rd
E/W Street:	Hollister Ave



LEGEND	
Existing K-Factor	xx%
ADT Volume	xx

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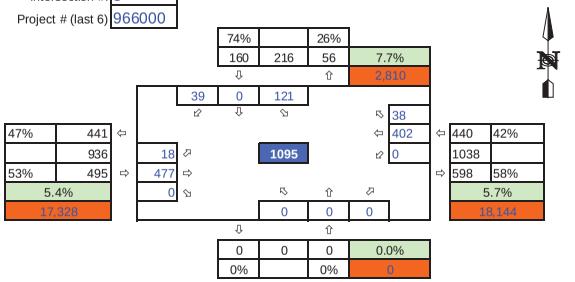
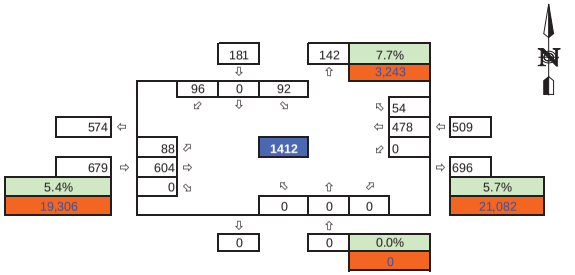
Int 5 AM Peak Volumes

Scenario: **Existing Conditions**
N/S Street: **Los Carneros Wy**
E/W Street: **Hollister Ave**
Intersection #: 5
Project # (last 6) 966000



Scenario: **Horizon Year Conditions**
N/S Street: **Los Carneros Wy**
E/W Street: **Hollister Ave**

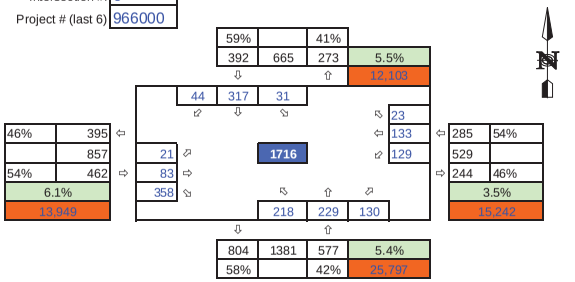


LEGEND

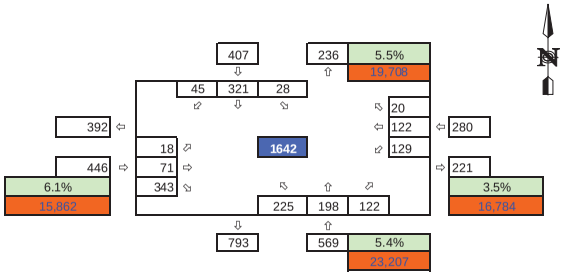
Existing K-Factor	xx%
ADT Volume	xx

Int 6 AM Peak Volumes

Scenario: **Existing Conditions**
N/S Street: **Fairview Ave**
E/W Street: **Calle Real**
Intersection #: 6
Project # (last 6) 966000



Scenario: **Horizon Year Conditions**
N/S Street: **Fairview Ave**
E/W Street: **Calle Real**



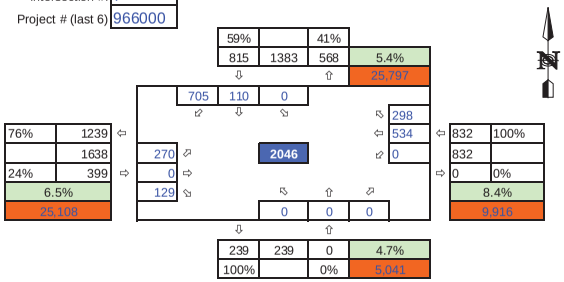
LEGEND

Existing K-Factor	xx%
ADT Volume	xx

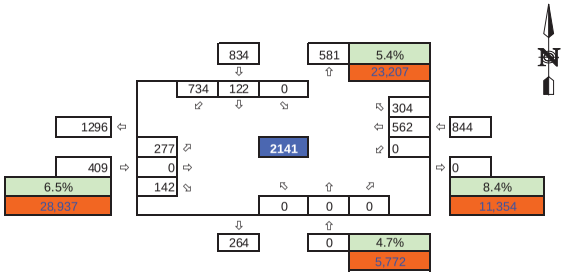
K:\SND_TPTO\095966000 - SB Airport\Excel\Turn32.xlsx

Int 7 AM Peak Volumes

Scenario:	Existing Conditions
N/S Street:	Fairview Ave / US 101 NB Ramps
E/W Street:	Fairview Ave / US 101 NB Ramps
Intersection #:	7
Project # (last 6)	966000



Scenario:	Horizon Year Conditions
N/S Street:	Fairview Ave / US 101 NB Ramps
E/W Street:	Fairview Ave / US 101 NB Ramps

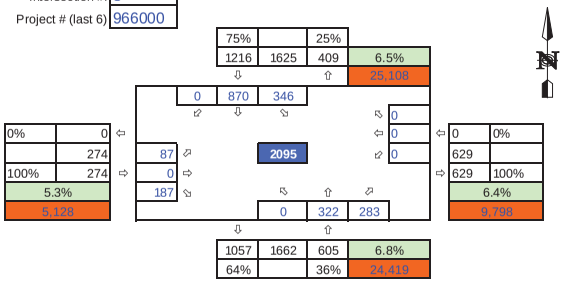


LEGEND

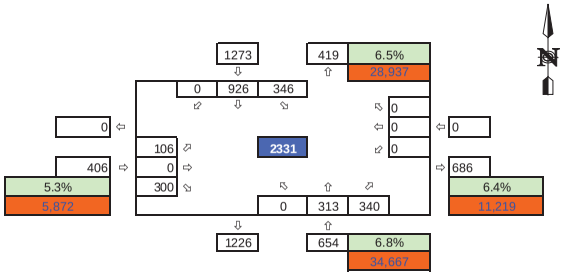
Existing K-Factor	xx%
ADT Volume	xx

Int 8 AM Peak Volumes

Scenario:	Existing Conditions
N/S Street:	Fairview Ave
E/W Street:	US 101 SB Ramps
Intersection #:	8
Project # (last 6)	966000



Scenario:	Horizon Year Conditions
N/S Street:	Fairview Ave
E/W Street:	US 101 SB Ramps



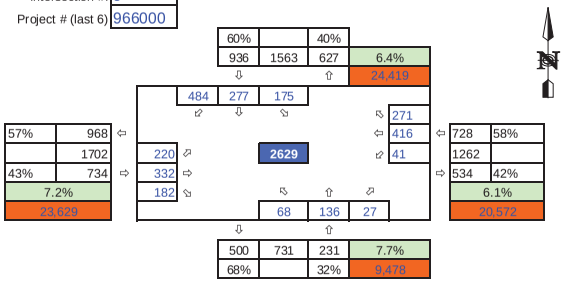
LEGEND

Existing K-Factor	xx%
ADT Volume	xx

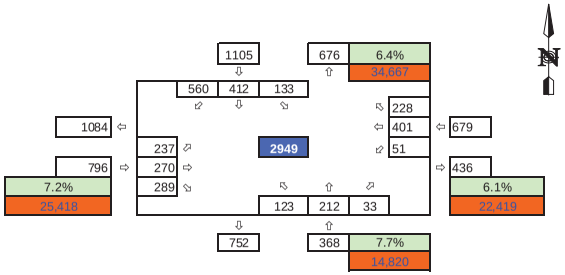
K:\SND_TPTO\095966000 - SB Airport\Excel\Turn32.xlsx

Int 9 AM Peak Volumes

Scenario: **Existing Conditions**
N/S Street: **Fairview Ave**
E/W Street: **Hollister Ave**
Intersection #: 9
Project # (last 6) 966000



Scenario: **Horizon Year Conditions**
N/S Street: **Fairview Ave**
E/W Street: **Hollister Ave**

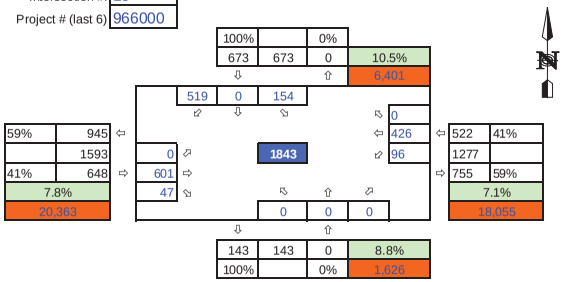


LEGEND	
Existing K-Factor	xx%
ADT Volume	xx

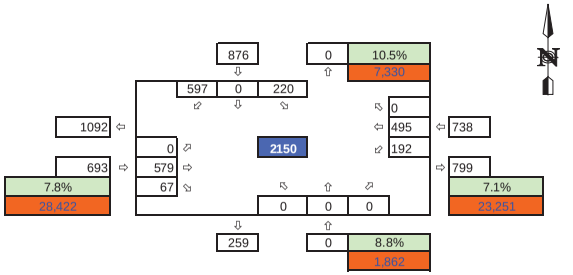
K:\SND_TPTO\095966000 - SB Airport\Excel\Turn32.xlsx

Int 10 AM Peak Volumes

Scenario: **Existing Conditions**
N/S Street: **SR 217 WB Ramp**
E/W Street: **Hollister Ave**
Intersection #: 10
Project # (last 6) 966000



Scenario: **Horizon Year Conditions**
N/S Street: **SR 217 WB Ramp**
E/W Street: **Hollister Ave**

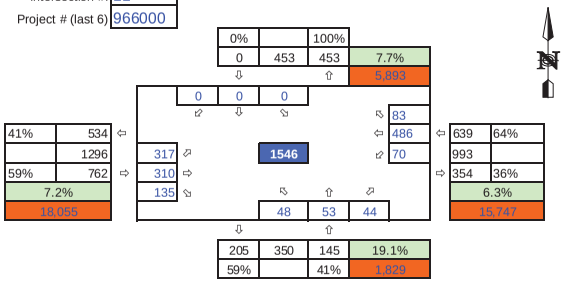


LEGEND	
Existing K-Factor	xx%
ADT Volume	xx

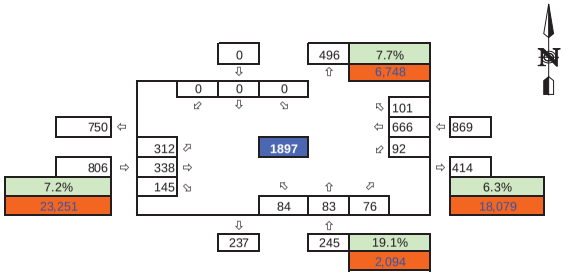
K:\SND_TPTO\095966000 - SB Airport\Excel\Turn32.xlsx

Int 11 AM Peak Volumes

Scenario:	Existing Conditions
N/S Street:	SR 217 EB Ramp
E/W Street:	Hollister Ave
Intersection #:	11
Project # (last 6)	966000



Scenario:	Horizon Year Conditions
N/S Street:	SR 217 EB Ramp
E/W Street:	Hollister Ave

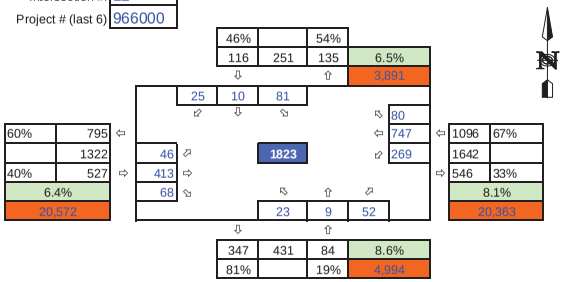


LEGEND

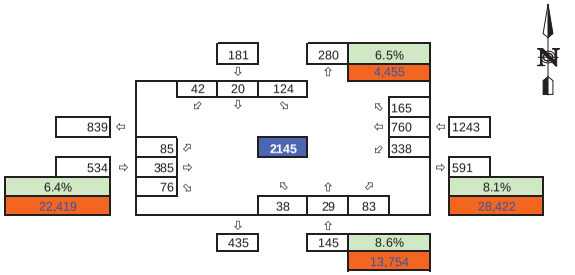
Existing K-Factor	xx%
ADT Volume	xx

Int 12 AM Peak Volumes

Scenario:	Existing Conditions
N/S Street:	Kellogg Ave
E/W Street:	Hollister Ave
Intersection #:	12
Project # (last 6)	966000



Scenario:	Horizon Year Conditions
N/S Street:	Kellogg Ave
E/W Street:	Hollister Ave



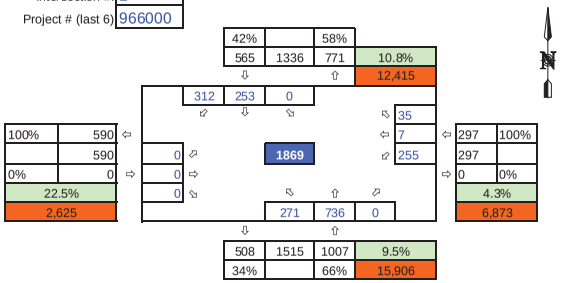
LEGEND

Existing K-Factor	xx%
ADT Volume	xx

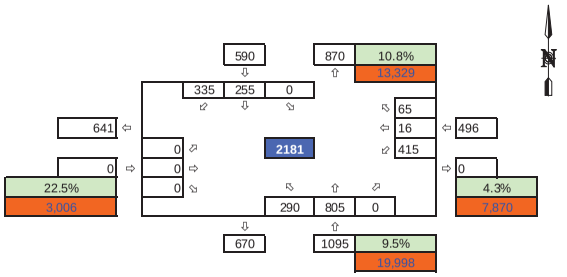
K:\SND_TPTO\095966000 - SB Airport\Excel\Turn32.xlsx

Int 1 PM Peak Volumes

Scenario: **Existing Conditions**
N/S Street: **Los Carneros Rd**
E/W Street: **US 101 NB Ramps**
Intersection #: 1
Project # (last 6): 966000



Scenario: **Horizon Year Conditions**
N/S Street: **Los Carneros Rd**
E/W Street: **US 101 NB Ramps**



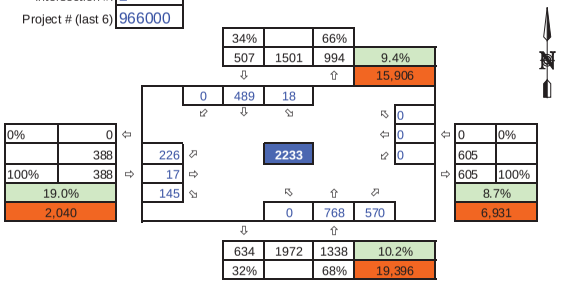
LEGEND

Existing K-Factor	xx%
ADT Volume	xx

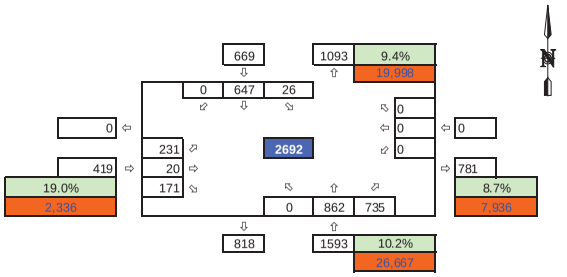
K:\SND_TPTO\095966000 - SB Airport\Excel\Turn32.xlsx
Int 1 PM

Int 2 PM Peak Volumes

Scenario: **Existing Conditions**
N/S Street: **Los Carneros Rd**
E/W Street: **US 101 SB Ramps**
Intersection #: 2
Project # (last 6): 966000



Scenario: **Horizon Year Conditions**
N/S Street: **Los Carneros Rd**
E/W Street: **US 101 SB Ramps**



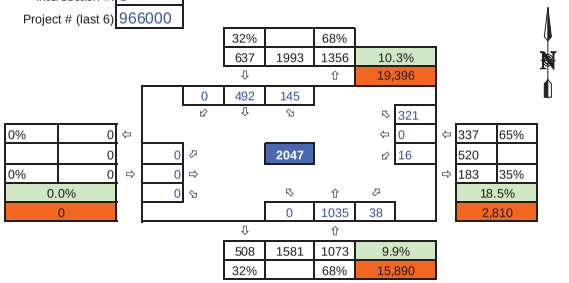
LEGEND

Existing K-Factor	xx%
ADT Volume	xx

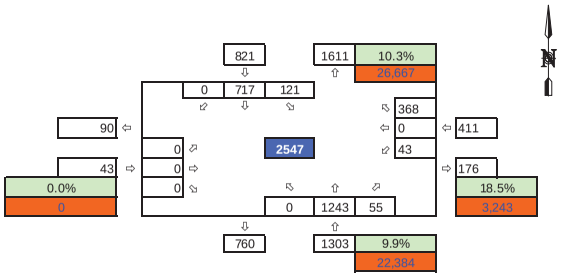
K:\SND_TPTO\095966000 - SB Airport\Excel\Turn32.xlsx
Int 2 PM

Int 3 PM Peak Volumes

Scenario:	Existing Conditions
N/S Street:	Los Carneros Rd
E/W Street:	Calle Koral
Intersection #:	3
Project # (last 6)	966000



Scenario:	Horizon Year Conditions
N/S Street:	Los Carneros Rd
E/W Street:	Calle Koral



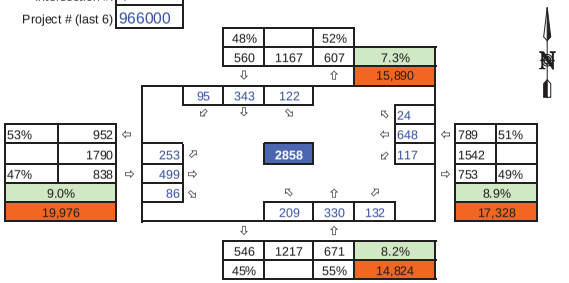
LEGEND

Existing K-Factor	xx%
ADT Volume	xx

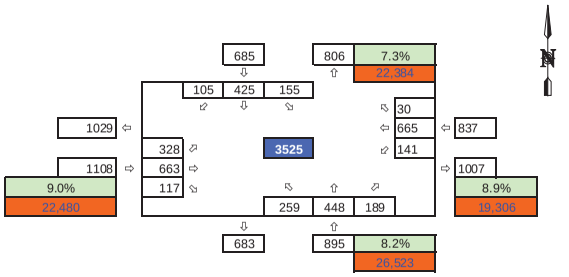
K:\SND_TPTO\095966000 - SB Airport\Excel\Turn32.xlsx
Int 3 PM

Int 4 PM Peak Volumes

Scenario:	Existing Conditions
N/S Street:	Los Carneros Rd
E/W Street:	Hollister Ave
Intersection #:	4
Project # (last 6)	966000



Scenario:	Horizon Year Conditions
N/S Street:	Los Carneros Rd
E/W Street:	Hollister Ave



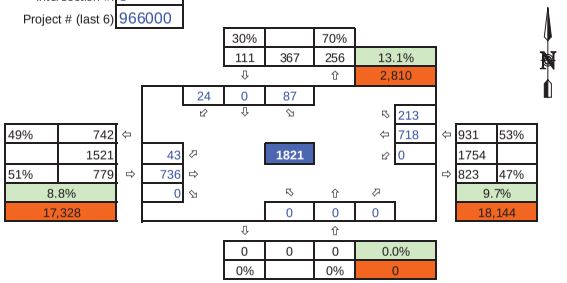
LEGEND

Existing K-Factor	xx%
ADT Volume	xx

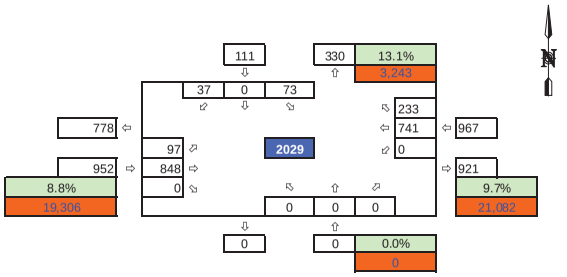
K:\SND_TPTO\095966000 - SB Airport\Excel\Turn32.xlsx
Int 4 PM

Int 5 PM Peak Volumes

Scenario: **Existing Conditions**
N/S Street: **Los Carneros Wy**
E/W Street: **Hollister Ave**
Intersection #: 5
Project # (last 6): 966000



Scenario: **Horizon Year Conditions**
N/S Street: **Los Carneros Wy**
E/W Street: **Hollister Ave**



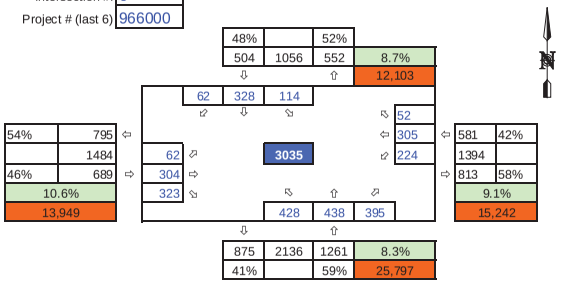
LEGEND

Existing K-Factor	xx%
ADT Volume	xx

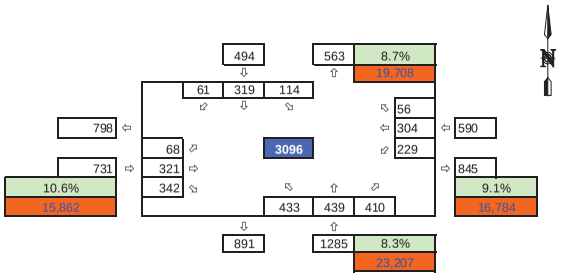
K:\SND_TPTO\095966000 - SB Airport\Excel\Turn32.xlsx
Int 5 PM

Int 6 PM Peak Volumes

Scenario: **Existing Conditions**
N/S Street: **Fairview Ave**
E/W Street: **Calle Real**
Intersection #: 6
Project # (last 6): 966000



Scenario: **Horizon Year Conditions**
N/S Street: **Fairview Ave**
E/W Street: **Calle Real**



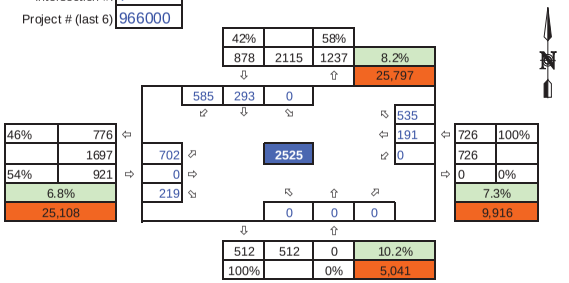
LEGEND

Existing K-Factor	xx%
ADT Volume	xx

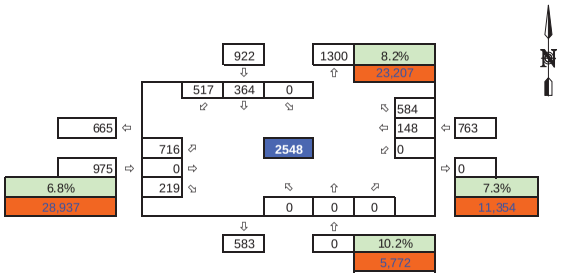
K:\SND_TPTO\095966000 - SB Airport\Excel\Turn32.xlsx
Int 6 PM

Int 7 PM Peak Volumes

Scenario: **Existing Conditions**
N/S Street: **Fairview Ave / US 101 NB Ramps**
E/W Street: **Fairview Ave / US 101 NB Ramps**
Intersection #: 7
Project # (last 6): 966000



Scenario: **Horizon Year Conditions**
N/S Street: **Fairview Ave / US 101 NB Ramps**
E/W Street: **Fairview Ave / US 101 NB Ramps**



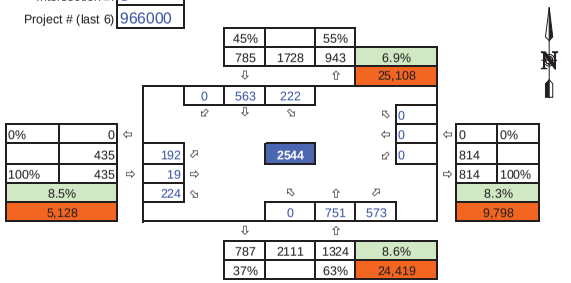
LEGEND

Existing K-Factor	xx%
ADT Volume	xx

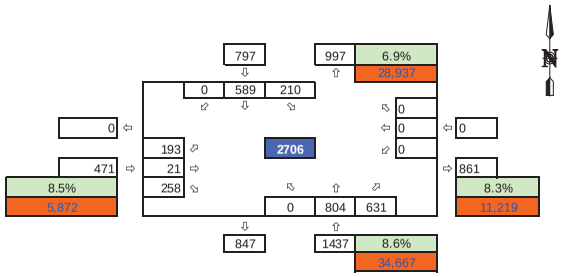
K:\SND_TPTO\095966000 - SB Airport\Excel\Turn32.xlsx
Int 7 PM

Int 8 PM Peak Volumes

Scenario: **Existing Conditions**
N/S Street: **Fairview Ave**
E/W Street: **US 101 SB Ramps**
Intersection #: 8
Project # (last 6): 966000



Scenario: **Horizon Year Conditions**
N/S Street: **Fairview Ave**
E/W Street: **US 101 SB Ramps**



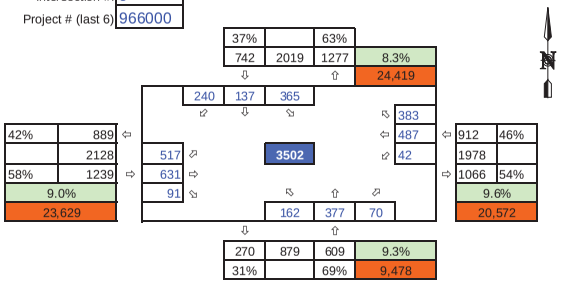
LEGEND

Existing K-Factor	xx%
ADT Volume	xx

K:\SND_TPTO\095966000 - SB Airport\Excel\Turn32.xlsx
Int 8 PM

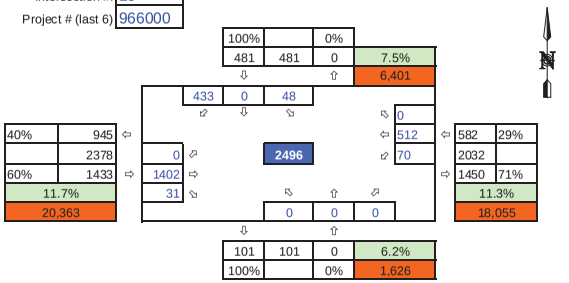
Int 9 PM Peak Volumes

Scenario: **Existing Conditions**
N/S Street: **Fairview Ave**
E/W Street: **Hollister Ave**
Intersection #: 9
Project # (last 6): 966000

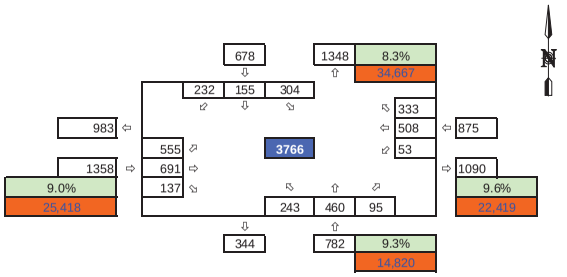


Int 10 PM Peak Volumes

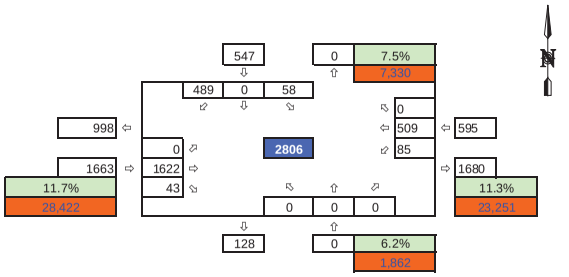
Scenario: **Existing Conditions**
N/S Street: **SR 217 WB Ramp**
E/W Street: **Hollister Ave**
Intersection #: 10
Project # (last 6): 966000



Scenario: **Horizon Year Conditions**
N/S Street: **Fairview Ave**
E/W Street: **Hollister Ave**



Scenario: **Horizon Year Conditions**
N/S Street: **SR 217 WB Ramp**
E/W Street: **Hollister Ave**



LEGEND

Existing K-Factor	xx%
ADT Volume	xx

LEGEND

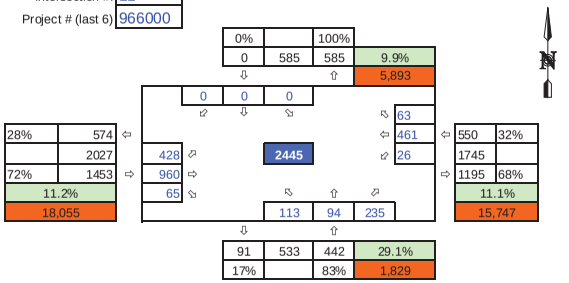
Existing K-Factor	xx%
ADT Volume	xx

K:\SND_TPTO\095966000 - SB Airport\Excel\Turn32.xlsx
Int 9 PM

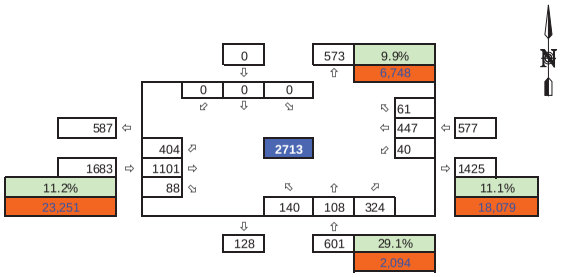
K:\SND_TPTO\095966000 - SB Airport\Excel\Turn32.xlsx
Int 10 PM

Int 11 PM Peak Volumes

Scenario:	Existing Conditions
N/S Street:	SR 217 EB Ramp
E/W Street:	Hollister Ave
Intersection #:	11
Project # (last 6)	966000



Scenario:	Horizon Year Conditions
N/S Street:	SR 217 EB Ramp
E/W Street:	Hollister Ave



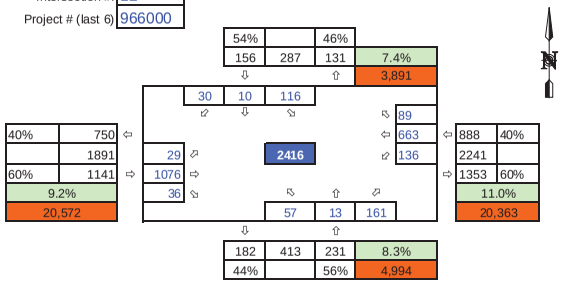
LEGEND

Existing K-Factor	xx%
ADT Volume	xx

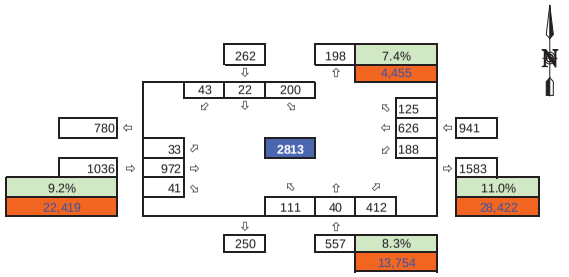
K:\SND_TPTO\095966000 - SB Airport\Excel\Turn32.xlsx
Int 11 PM

Int 12 PM Peak Volumes

Scenario:	Existing Conditions
N/S Street:	Kellogg Ave
E/W Street:	Hollister Ave
Intersection #:	12
Project # (last 6)	966000



Scenario:	Horizon Year Conditions
N/S Street:	Kellogg Ave
E/W Street:	Hollister Ave



LEGEND

Existing K-Factor	xx%
ADT Volume	xx

K:\SND_TPTO\095966000 - SB Airport\Excel\Turn32.xlsx
Int 12 PM

APPENDIX B

TRAFFIC COUNT SHEETS

Type of peak hour being reported: System Peak

Method for determining peak hour: Total Entering Volume

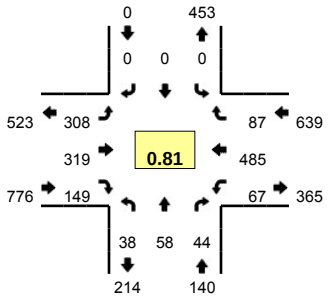
LOCATION: US 217 EB Ramp/Ward Dr -- Hollister Ave

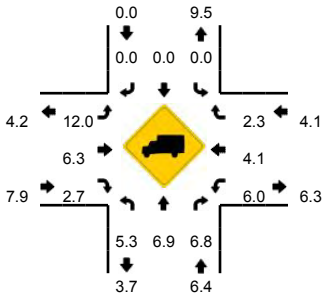
CITY/STATE: Goleta, CA

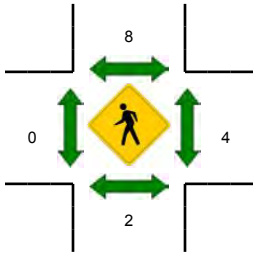
QC JOB #: 13337501

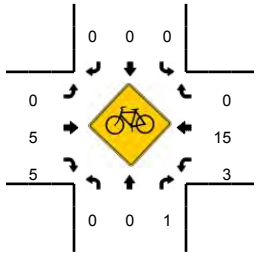
DATE: Thu, Apr 02 2015

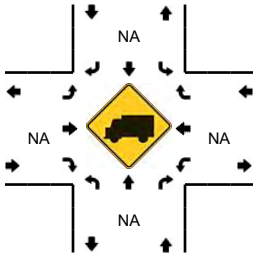
Peak-Hour: 7:35 AM -- 8:35 AM
Peak 15-Min: 7:50 AM -- 8:05 AM

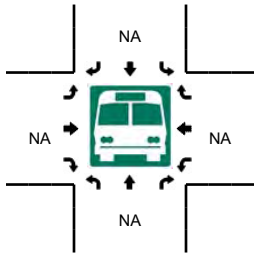












5-Min Count Period Beginning At	US 217 EB Ramp/Ward Dr (Northbound)				US 217 EB Ramp/Ward Dr (Southbound)				Hollister Ave (Eastbound)				Hollister Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	7	2	1	0	0	0	0	0	17	11	5	0	2	23	1	0	69	
7:05 AM	1	1	2	0	0	0	0	0	15	10	7	0	7	18	2	0	63	
7:10 AM	1	5	1	0	0	0	0	0	22	26	9	0	4	21	6	0	95	
7:15 AM	3	3	0	0	0	0	0	0	23	18	9	0	3	19	0	0	78	
7:20 AM	2	2	3	0	0	0	0	0	20	15	10	0	0	19	2	0	73	
7:25 AM	8	2	3	0	0	0	0	0	18	20	18	0	4	33	2	0	108	
7:30 AM	0	3	2	0	0	0	0	0	29	29	16	0	2	28	2	0	111	
7:35 AM	1	5	3	0	0	0	0	0	28	23	17	0	3	31	4	0	115	
7:40 AM	2	5	4	0	0	0	0	0	20	25	13	0	4	41	10	0	124	
7:45 AM	2	7	2	0	0	0	0	0	31	36	16	0	3	48	6	0	151	
7:50 AM	5	6	8	0	0	0	0	0	26	27	16	0	8	63	14	0	173	
7:55 AM	1	6	5	0	0	0	0	0	27	39	11	0	5	57	8	0	159	1319
8:00 AM	8	8	1	0	0	0	0	0	26	28	11	0	11	43	11	0	147	1397
8:05 AM	1	2	5	0	0	0	0	0	27	27	11	0	9	41	7	0	130	1464
8:10 AM	4	11	3	0	0	0	0	0	23	24	14	0	2	31	9	0	121	1490
8:15 AM	5	1	2	0	0	0	0	0	31	23	10	0	6	34	4	0	116	1528
8:20 AM	4	3	2	0	0	0	0	0	26	22	14	0	4	26	3	2	106	1561
8:25 AM	4	3	2	0	0	0	0	0	21	20	8	0	5	34	5	0	102	1555
8:30 AM	1	1	7	0	0	0	0	0	22	25	8	0	5	36	6	0	111	1555
8:35 AM	7	2	4	0	0	0	0	0	22	23	9	0	5	35	7	0	114	1554
8:40 AM	6	3	3	0	0	0	0	0	35	16	7	0	5	38	3	0	116	1546
8:45 AM	6	1	5	0	0	0	0	0	21	31	6	0	5	42	2	0	119	1514
8:50 AM	6	7	5	0	0	0	0	0	31	18	7	0	3	31	5	0	113	1454
8:55 AM	3	4	4	0	0	0	0	0	30	28	11	0	6	33	6	0	125	1420

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	56	80	56	0	0	0	0	0	316	376	152	0	96	652	132	0	1916
Heavy Trucks	4	0	0		0	0	0		36	20	4		4	28	0		96
Pedestrians		0				16				0				4			20
Bicycles	0	0	0		0	0	0		0	0	2		1	5	0		8
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/9/2015 7:25 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: System Peak

Method for determining peak hour: Total Entering Volume

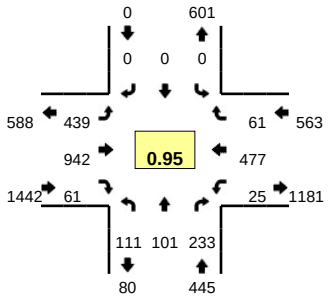
LOCATION: US 217 EB Ramp/Ward Dr -- Hollister Ave

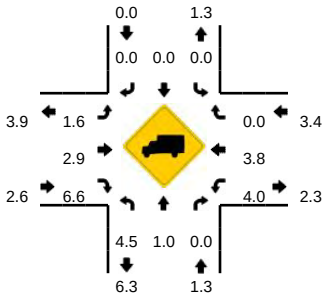
CITY/STATE: Goleta, CA

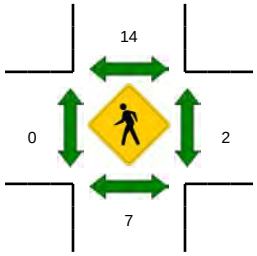
QC JOB #: 13337502

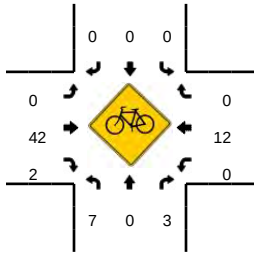
DATE: Thu, Apr 02 2015

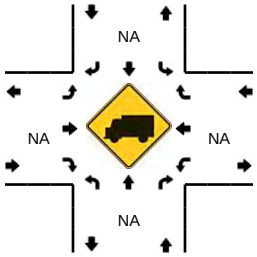
Peak-Hour: 4:55 PM -- 5:55 PM
Peak 15-Min: 5:05 PM -- 5:20 PM

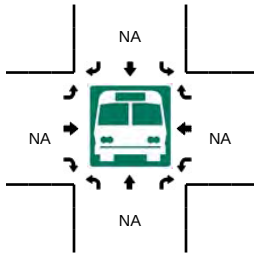












5-Min Count Period Beginning At	US 217 EB Ramp/Ward Dr (Northbound)				US 217 EB Ramp/Ward Dr (Southbound)				Hollister Ave (Eastbound)				Hollister Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	13	16	11	0	0	0	0	0	30	35	5	0	1	45	2	0	158	
4:05 PM	15	13	16	0	0	0	0	0	38	37	3	0	1	41	5	0	169	
4:10 PM	14	16	17	0	0	0	0	0	34	28	2	0	0	36	5	0	152	
4:15 PM	5	4	16	0	0	0	0	0	48	46	10	0	4	42	7	0	182	
4:20 PM	4	3	8	0	0	0	0	0	41	33	4	0	2	27	2	0	124	
4:25 PM	5	11	13	0	0	0	0	0	33	37	4	0	4	37	3	0	147	
4:30 PM	12	4	6	0	0	0	0	0	44	46	10	0	6	24	3	0	155	
4:35 PM	6	17	20	0	0	0	0	0	44	45	7	0	6	46	3	1	195	
4:40 PM	13	10	21	0	0	0	0	0	36	50	4	0	4	52	2	1	193	
4:45 PM	12	11	15	0	0	0	0	0	48	50	6	0	5	21	1	0	169	
4:50 PM	8	7	16	0	0	0	0	0	29	48	8	0	4	43	4	0	167	
4:55 PM	7	10	15	0	0	0	0	0	43	51	6	0	2	41	3	0	178	1989
5:00 PM	15	10	16	0	0	0	0	0	36	50	7	0	1	29	4	2	170	2001
5:05 PM	14	14	33	0	0	0	0	0	41	53	2	0	0	45	7	0	209	2041
5:10 PM	10	8	27	0	0	0	0	0	37	71	7	0	3	46	7	0	216	2105
5:15 PM	11	11	35	0	0	0	0	0	29	79	6	0	2	39	8	0	220	2143
5:20 PM	9	6	13	0	0	0	0	0	35	96	5	0	1	42	2	0	209	2228
5:25 PM	10	5	17	0	0	0	0	0	38	94	6	0	3	32	5	1	211	2292
5:30 PM	3	5	24	0	0	0	0	0	26	98	3	0	1	58	8	0	226	2363
5:35 PM	5	9	22	0	0	0	0	0	32	88	4	0	2	50	5	0	217	2385
5:40 PM	10	7	12	0	0	0	0	0	45	72	3	0	0	29	4	0	182	2374
5:45 PM	13	8	12	0	0	0	0	0	34	97	6	0	3	36	4	2	215	2420
5:50 PM	4	8	7	0	0	0	0	0	43	93	6	0	1	30	4	1	197	2450
5:55 PM	9	3	17	0	0	0	0	0	32	69	10	0	2	25	5	1	173	2445

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	140	132	380	0	0	0	0	0	428	812	60	0	20	520	88	0	2580
Heavy Trucks	8	0	0		0	0	0		4	16	0		0	32	0		60
Pedestrians		4				8				0				0			12
Bicycles	1	0	2		0	0	0		0	9	1		0	2	0		15
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/9/2015 7:27 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

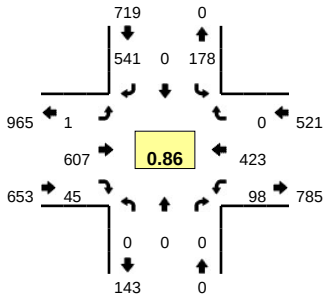
Type of peak hour being reported: System Peak

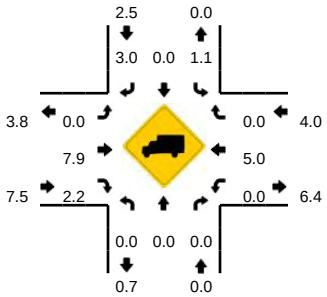
Method for determining peak hour: Total Entering Volume

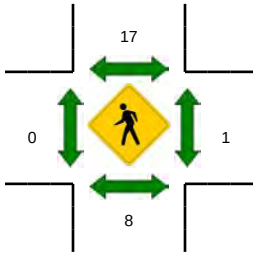
LOCATION: US 217 WB Ramps -- Hollister Ave
CITY/STATE: Goleta, CA

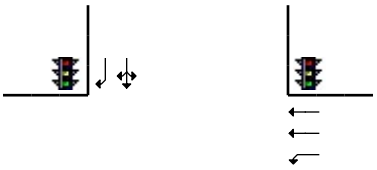
QC JOB #: 13337503
DATE: Thu, Apr 02 2015

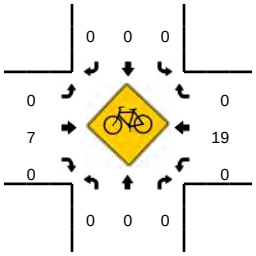
Peak-Hour: 7:35 AM -- 8:35 AM
Peak 15-Min: 7:50 AM -- 8:05 AM

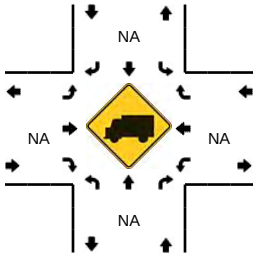


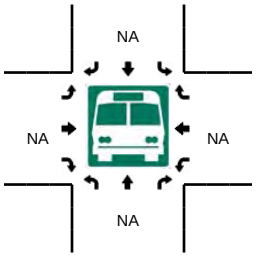












5-Min Count Period Beginning At	US 217 WB Ramps (Northbound)				US 217 WB Ramps (Southbound)				Hollister Ave (Eastbound)				Hollister Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	4	0	25	0	0	27	4	0	10	27	0	0	97	
7:05 AM	0	0	0	0	7	0	24	0	0	30	4	0	3	14	0	0	82	
7:10 AM	0	0	0	0	5	0	31	0	0	50	3	0	2	18	0	0	109	
7:15 AM	0	0	0	0	4	0	23	0	0	51	3	0	3	21	0	0	105	
7:20 AM	0	0	0	0	7	0	33	0	0	28	2	0	6	15	0	0	91	
7:25 AM	0	0	0	0	16	0	37	0	0	45	0	0	3	35	0	0	136	
7:30 AM	0	0	0	0	16	0	33	0	0	62	2	0	11	17	0	0	141	
7:35 AM	0	0	0	0	19	0	43	0	0	48	5	0	7	27	0	0	149	
7:40 AM	0	0	0	0	17	0	50	0	0	53	2	0	7	39	0	0	168	
7:45 AM	0	0	0	0	19	0	46	0	0	48	6	0	11	38	0	0	168	
7:50 AM	0	0	0	0	20	0	46	0	0	67	6	0	13	45	0	0	197	
7:55 AM	0	0	0	0	20	0	54	0	0	47	2	0	13	46	0	0	182	1625
8:00 AM	0	0	0	0	10	0	40	0	0	61	6	0	8	46	0	0	171	1699
8:05 AM	0	0	0	0	13	0	58	0	0	44	8	0	7	31	0	0	161	1778
8:10 AM	0	0	0	0	12	0	30	0	0	53	4	0	8	30	0	0	137	1806
8:15 AM	0	0	0	0	15	0	49	0	0	50	0	0	8	25	0	0	147	1848
8:20 AM	0	0	0	0	13	0	37	0	0	45	2	0	5	32	0	0	134	1891
8:25 AM	0	0	0	0	10	0	51	0	0	37	3	1	6	25	0	0	133	1888
8:30 AM	0	0	0	0	10	0	37	0	0	54	1	0	5	39	0	0	146	1893
8:35 AM	0	0	0	0	5	0	26	0	0	47	5	0	6	33	0	0	122	1866
8:40 AM	0	0	0	0	7	0	45	0	0	48	4	0	6	36	0	0	146	1844
8:45 AM	0	0	0	0	9	0	39	0	0	42	0	0	12	38	0	0	140	1816
8:50 AM	0	0	0	0	6	0	41	0	0	49	7	0	9	31	0	0	143	1762
8:55 AM	0	0	0	0	12	0	42	0	0	62	5	0	3	28	0	0	152	1732

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	200	0	560	0	0	700	56	0	136	548	0	0	2200
Heavy Trucks	0	0	0		0	0	16		0	56	0		0	32	0		104
Pedestrians		8				40				0				4			52
Bicycles	0	0	0		0	0	0		0	0	0		0	5	0		5
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/9/2015 7:25 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

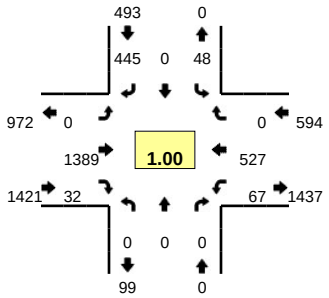
Type of peak hour being reported: System Peak

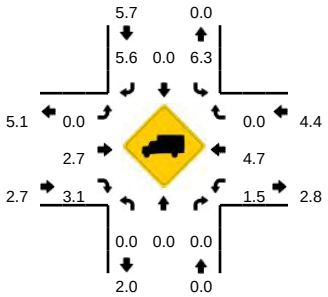
Method for determining peak hour: Total Entering Volume

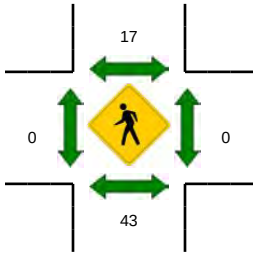
LOCATION: US 217 WB Ramps -- Hollister Ave
CITY/STATE: Goleta, CA

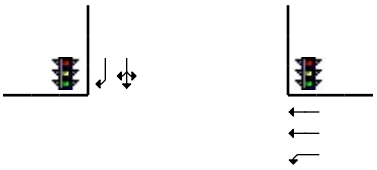
QC JOB #: 13337504
DATE: Thu, Apr 02 2015

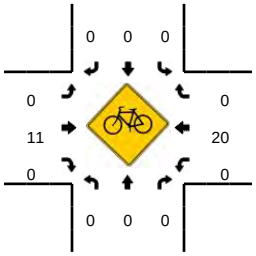
Peak-Hour: 4:55 PM -- 5:55 PM
Peak 15-Min: 5:05 PM -- 5:20 PM

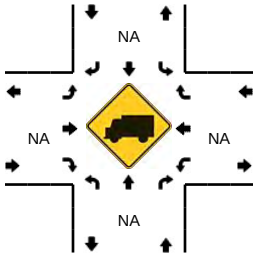


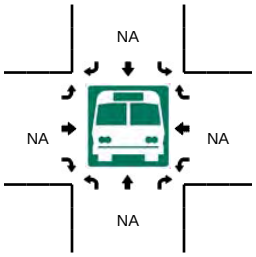












5-Min Count Period Beginning At	US 217 WB Ramps (Northbound)				US 217 WB Ramps (Southbound)				Hollister Ave (Eastbound)				Hollister Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	5	0	38	0	0	66	2	0	5	50	0	0	166	
4:05 PM	0	0	0	0	1	0	29	0	0	77	6	0	10	49	0	0	172	
4:10 PM	0	0	0	0	1	0	39	0	0	80	3	0	9	41	0	0	173	
4:15 PM	0	0	0	0	8	1	40	0	0	75	2	0	4	38	0	0	168	
4:20 PM	0	0	0	0	3	0	33	0	0	70	2	0	3	29	0	0	140	
4:25 PM	0	0	0	0	2	0	37	0	0	91	3	0	6	36	0	0	175	
4:30 PM	0	0	0	0	9	0	36	0	0	77	3	0	4	32	0	0	161	
4:35 PM	0	0	0	0	2	0	39	0	0	89	3	0	5	42	0	0	180	
4:40 PM	0	0	0	0	5	0	44	0	0	93	4	0	6	59	0	0	211	
4:45 PM	0	0	0	0	4	0	27	0	0	89	2	0	7	33	0	0	162	
4:50 PM	0	0	0	0	5	0	37	0	0	91	3	0	3	41	0	0	180	
4:55 PM	0	0	0	0	5	0	38	0	0	82	2	0	3	45	0	0	175	2063
5:00 PM	0	0	0	0	5	0	34	0	0	98	3	0	7	39	0	0	186	2083
5:05 PM	0	0	0	0	1	0	63	0	0	82	2	0	5	51	0	0	204	2115
5:10 PM	0	0	0	0	2	0	36	0	0	116	3	0	8	48	0	0	213	2155
5:15 PM	0	0	0	0	4	0	42	0	0	108	2	0	5	48	0	0	209	2196
5:20 PM	0	0	0	0	6	0	37	0	0	140	1	0	6	45	0	0	235	2291
5:25 PM	0	0	0	0	7	0	38	0	0	130	2	0	8	36	0	0	221	2337
5:30 PM	0	0	0	0	3	0	32	0	0	131	3	0	4	57	0	0	230	2406
5:35 PM	0	0	0	0	4	0	32	0	0	119	3	0	9	45	0	0	212	2438
5:40 PM	0	0	0	0	3	0	33	0	0	103	4	0	6	38	0	0	187	2414
5:45 PM	0	0	0	0	3	0	28	0	0	138	5	0	2	42	0	0	218	2470
5:50 PM	0	0	0	0	5	0	32	0	0	142	2	0	4	33	0	0	218	2508
5:55 PM	0	0	0	0	5	0	26	0	0	95	1	0	6	30	0	0	163	2496

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	28	0	564	0	0	1224	28	0	72	588	0	0	2504
Heavy Trucks	0	0	0		0	0	32		0	20	0		0	36	0		88
Pedestrians		28				16				0				0			44
Bicycles	0	0	0		0	0	0		0	4	0		0	5	0		9
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/9/2015 7:27 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

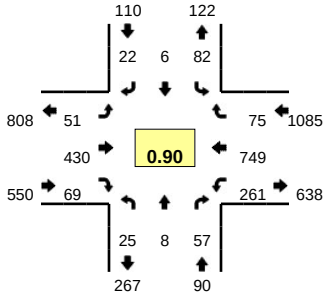
Type of peak hour being reported: System Peak

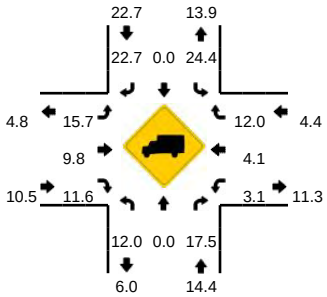
Method for determining peak hour: Total Entering Volume

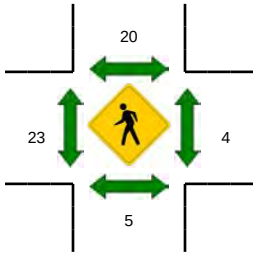
LOCATION: S Kellogg Ave -- Hollister Ave
CITY/STATE: Goleta, CA

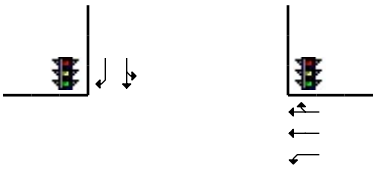
QC JOB #: 13337505
DATE: Thu, Apr 02 2015

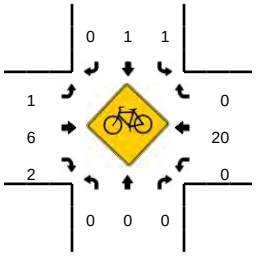
Peak-Hour: 7:35 AM -- 8:35 AM
Peak 15-Min: 7:50 AM -- 8:05 AM

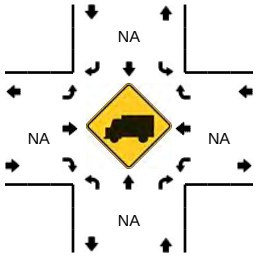


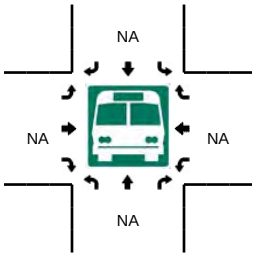












5-Min Count Period Beginning At	S Kellogg Ave (Northbound)				S Kellogg Ave (Southbound)				Hollister Ave (Eastbound)				Hollister Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	3	1	3	0	9	1	2	0	2	16	4	0	6	40	10	1	98	
7:05 AM	2	0	3	0	2	0	1	0	0	24	2	0	3	29	10	3	79	
7:10 AM	2	0	2	0	8	1	1	0	2	39	3	0	7	43	4	8	120	
7:15 AM	0	1	1	0	11	1	1	0	2	37	6	0	10	36	6	5	117	
7:20 AM	1	0	1	0	5	0	3	0	0	24	5	0	11	35	6	5	96	
7:25 AM	0	0	4	0	4	0	3	0	8	24	0	1	18	51	6	5	124	
7:30 AM	1	0	4	0	11	1	4	0	3	44	2	0	7	43	3	6	129	
7:35 AM	2	0	9	0	7	0	1	0	6	37	6	0	15	54	7	4	148	
7:40 AM	4	1	6	0	10	0	0	0	0	39	1	1	11	66	3	5	147	
7:45 AM	1	0	1	0	7	2	3	0	3	42	4	0	23	73	8	5	172	
7:50 AM	1	2	1	0	11	1	2	0	3	47	9	2	14	66	10	6	175	
7:55 AM	2	0	7	0	2	0	3	0	6	27	5	2	27	70	4	6	161	1566
8:00 AM	2	3	5	0	6	0	3	0	5	43	4	0	13	77	6	6	173	1641
8:05 AM	3	0	7	0	4	1	0	0	2	45	6	2	18	73	6	9	176	1738
8:10 AM	1	0	3	0	8	1	0	0	6	27	7	1	7	59	5	8	133	1751
8:15 AM	3	0	3	0	5	0	2	0	1	37	7	1	15	43	6	8	131	1765
8:20 AM	3	0	6	0	8	0	3	0	3	26	8	0	15	66	3	6	147	1816
8:25 AM	3	0	4	0	8	1	4	0	1	29	3	0	12	53	9	1	128	1820
8:30 AM	0	2	5	0	6	0	1	0	3	31	9	3	22	49	8	5	144	1835
8:35 AM	1	0	4	0	9	3	3	0	1	34	2	0	6	52	11	6	132	1819
8:40 AM	3	2	6	0	7	1	1	0	1	25	4	0	20	66	4	11	151	1823
8:45 AM	1	0	5	0	9	0	2	0	1	28	3	2	15	70	3	8	147	1798
8:50 AM	3	3	6	0	10	0	3	0	2	25	4	0	13	39	6	7	121	1744
8:55 AM	1	0	6	0	8	0	5	0	2	44	8	0	18	65	4	7	168	1751

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	20	20	52	0	76	4	32	0	56	468	72	16	216	852	80	72	2036
Heavy Trucks	0	0	8		16	0	12		12	52	12		4	36	8		160
Pedestrians		8				32				48				0			88
Bicycles	0	0	0		0	1	0		1	0	0		0	6	0		8
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/9/2015 7:25 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: System Peak

Method for determining peak hour: Total Entering Volume

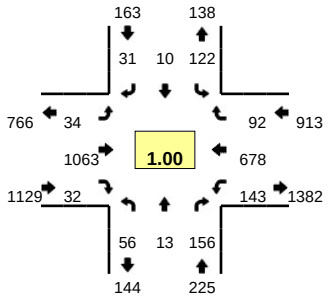
LOCATION: S Kellogg Ave -- Hollister Ave

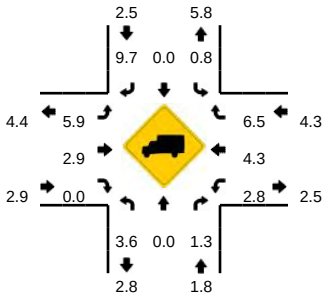
CITY/STATE: Goleta, CA

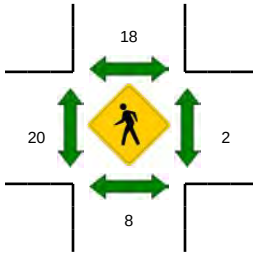
QC JOB #: 13337506

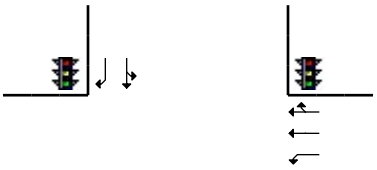
DATE: Thu, Apr 02 2015

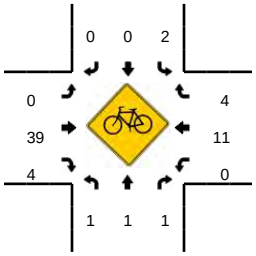
Peak-Hour: 4:55 PM -- 5:55 PM
Peak 15-Min: 5:05 PM -- 5:20 PM

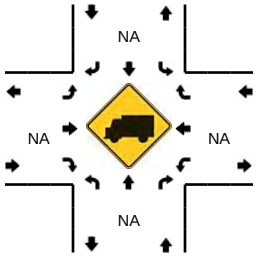


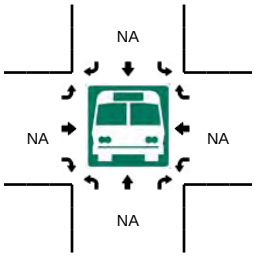












5-Min Count Period Beginning At	S Kellogg Ave (Northbound)				S Kellogg Ave (Southbound)				Hollister Ave (Eastbound)				Hollister Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	11	1	7	0	11	1	6	0	3	34	2	1	13	50	13	6	159	
4:05 PM	4	0	18	0	15	1	2	0	6	41	4	2	7	52	16	6	174	
4:10 PM	9	0	11	0	18	0	3	0	6	43	8	0	11	60	6	5	180	
4:15 PM	1	1	17	0	10	1	4	0	3	54	4	0	10	61	9	1	176	
4:20 PM	6	0	6	0	8	0	4	0	4	49	3	2	10	47	10	5	154	
4:25 PM	6	2	13	0	11	1	2	0	3	56	2	0	5	48	11	3	163	
4:30 PM	8	1	18	0	10	1	12	0	3	54	3	0	11	44	10	3	178	
4:35 PM	6	2	16	0	9	1	1	0	0	62	5	0	11	66	8	2	189	
4:40 PM	5	3	18	0	9	0	6	0	8	61	1	0	14	64	15	2	206	
4:45 PM	4	1	14	0	6	0	4	0	3	63	3	1	5	40	8	3	155	
4:50 PM	4	0	14	0	11	1	5	0	5	62	4	0	7	65	12	3	193	
4:55 PM	2	0	7	0	14	1	2	0	6	57	2	0	13	50	8	3	165	2092
5:00 PM	4	2	24	0	11	0	6	0	1	60	3	0	6	57	8	8	190	2123
5:05 PM	4	0	12	0	10	1	1	0	1	61	4	0	11	76	7	6	194	2143
5:10 PM	4	2	20	0	12	1	3	0	1	75	4	0	8	69	12	0	211	2174
5:15 PM	3	2	14	0	8	2	2	0	6	85	4	0	5	60	6	3	200	2198
5:20 PM	6	1	11	0	13	0	6	0	5	108	3	0	11	50	9	4	227	2271
5:25 PM	6	1	7	0	10	0	1	0	3	112	2	0	7	56	7	3	215	2323
5:30 PM	5	1	16	0	9	0	3	0	0	89	2	0	7	57	12	2	203	2348
5:35 PM	7	1	16	0	4	0	2	0	3	105	2	0	8	51	6	4	209	2368
5:40 PM	8	2	14	0	16	0	2	0	3	99	1	1	14	53	6	4	223	2385
5:45 PM	4	0	7	0	9	5	3	0	2	94	4	0	6	50	5	2	191	2421
5:50 PM	3	1	8	0	6	0	0	0	2	118	1	0	6	49	6	2	202	2430
5:55 PM	3	0	12	0	8	1	1	0	1	70	6	0	6	35	5	3	151	2416

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	44	16	184	0	120	16	24	0	32	884	48	0	96	820	100	36	2420
Heavy Trucks	0	0	0		0	0	4		4	20	0		8	40	12		88
Pedestrians		16				32				44				0			92
Bicycles	0	0	0		1	0	0		0	10	2		0	2	0		15
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/9/2015 7:27 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: System Peak

Method for determining peak hour: Total Entering Volume

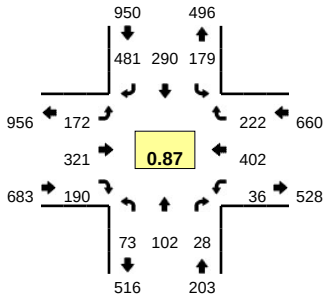
LOCATION: S Fairview Ave -- Hollister Ave

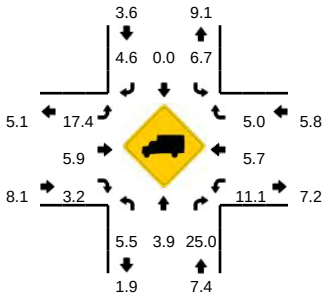
CITY/STATE: Goleta, CA

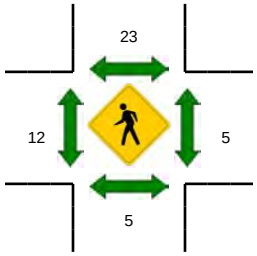
QC JOB #: 13337507

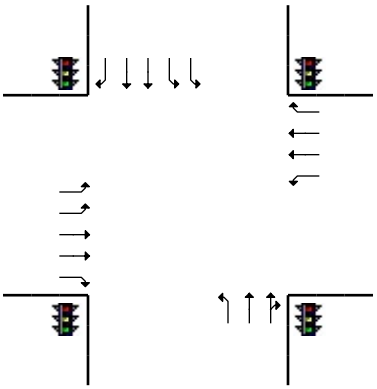
DATE: Wed, Apr 08 2015

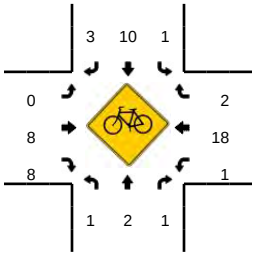
Peak-Hour: 7:35 AM -- 8:35 AM
Peak 15-Min: 7:50 AM -- 8:05 AM

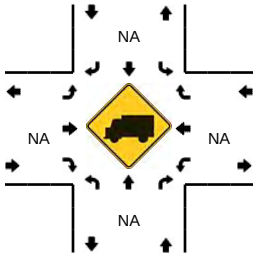


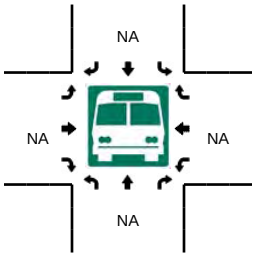












5-Min Count Period Beginning At	S Fairview Ave (Northbound)				S Fairview Ave (Southbound)				Hollister Ave (Eastbound)				Hollister Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	4	12	1	0	7	17	34	0	12	16	9	0	3	14	12	0	141	
7:05 AM	0	7	2	0	5	11	37	0	9	17	9	0	6	34	15	0	152	
7:10 AM	2	2	0	0	7	10	27	0	14	14	4	0	2	27	11	0	120	
7:15 AM	3	3	2	0	3	9	25	0	27	19	10	0	4	23	18	0	146	
7:20 AM	2	5	1	0	11	22	27	0	5	21	15	0	2	29	15	0	155	
7:25 AM	4	8	2	0	9	16	41	0	13	17	7	0	3	14	11	0	145	
7:30 AM	2	7	1	0	14	18	24	0	12	23	7	0	2	39	15	0	164	
7:35 AM	4	3	1	0	17	28	28	0	18	24	17	0	2	15	21	0	178	
7:40 AM	9	9	4	0	17	18	31	0	7	24	11	0	1	28	19	0	178	
7:45 AM	4	6	1	0	9	20	42	0	12	24	18	0	3	23	17	0	179	
7:50 AM	7	10	2	0	12	23	47	0	14	43	18	0	4	46	26	0	252	
7:55 AM	2	10	3	0	14	41	46	0	10	24	25	0	1	35	22	0	233	2043
8:00 AM	8	11	1	0	17	31	50	0	8	37	16	0	1	36	19	0	235	2137
8:05 AM	8	10	5	0	19	16	41	0	15	23	21	0	2	43	20	0	223	2208
8:10 AM	4	10	1	0	18	18	36	0	17	25	15	0	7	35	22	0	208	2296
8:15 AM	8	14	4	0	9	21	34	0	24	33	12	0	4	37	16	0	216	2366
8:20 AM	7	10	2	0	13	22	35	0	17	21	13	0	3	37	8	0	188	2399
8:25 AM	8	3	1	0	16	16	46	0	14	20	11	0	4	47	20	0	206	2460
8:30 AM	4	6	3	0	18	36	45	0	16	23	13	0	4	20	12	0	200	2496
8:35 AM	3	7	2	0	19	17	36	0	17	30	12	0	5	23	25	0	196	2514
8:40 AM	5	5	2	0	11	16	26	0	10	29	8	0	3	34	15	0	164	2500
8:45 AM	7	9	3	0	12	16	35	0	18	22	7	0	1	31	14	0	175	2496
8:50 AM	8	7	4	0	3	8	34	0	18	24	16	0	6	39	22	0	189	2433
8:55 AM	1	12	0	0	15	18	35	0	14	23	9	0	1	21	12	0	161	2361

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	68	124	24	0	172	380	572	0	128	416	236	0	24	468	268	0	2880
Heavy Trucks	4	4	8		12	0	12		24	32	16		4	16	8		140
Pedestrians		0				20				12				4			36
Bicycles	0	0	0		1	2	1		0	3	0		1	5	0		13
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/9/2015 7:25 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: System Peak

Method for determining peak hour: Total Entering Volume

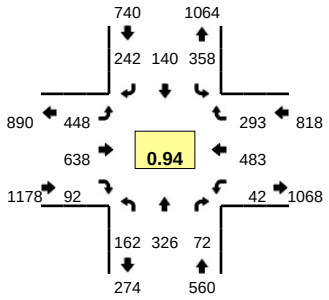
LOCATION: S Fairview Ave -- Hollister Ave

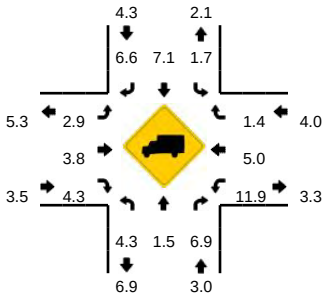
CITY/STATE: Goleta, CA

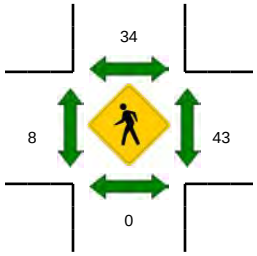
QC JOB #: 13337508

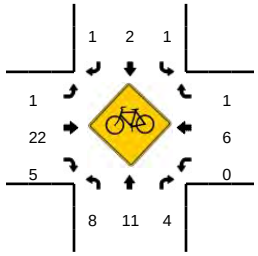
DATE: Thu, Apr 02 2015

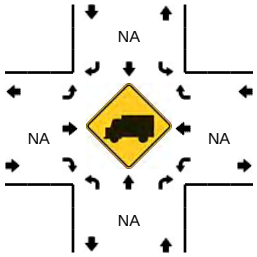
Peak-Hour: 4:55 PM -- 5:55 PM
Peak 15-Min: 5:05 PM -- 5:20 PM

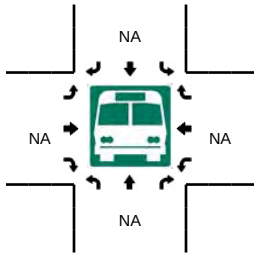












5-Min Count Period Beginning At	S Fairview Ave (Northbound)				S Fairview Ave (Southbound)				Hollister Ave (Eastbound)				Hollister Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	18	40	6	0	27	18	21	0	32	26	14	0	5	20	20	0	247	
4:05 PM	20	26	5	0	24	13	25	0	39	38	8	0	2	44	22	0	266	
4:10 PM	12	20	1	0	20	10	20	0	45	32	13	0	4	39	29	0	245	
4:15 PM	14	24	5	0	17	16	21	0	36	31	4	0	5	23	13	0	209	
4:20 PM	9	27	5	0	17	16	19	0	33	33	9	1	2	46	34	0	251	
4:25 PM	13	21	6	0	11	15	23	0	28	32	7	0	4	20	14	0	194	
4:30 PM	8	16	3	0	20	6	11	0	41	32	12	0	2	44	35	0	230	
4:35 PM	9	35	3	0	9	9	18	0	52	49	10	0	9	27	24	0	254	
4:40 PM	14	25	8	0	23	11	18	0	48	23	6	0	4	20	22	0	222	
4:45 PM	16	14	6	0	16	18	20	0	32	51	7	0	5	40	27	0	252	
4:50 PM	8	26	5	0	12	7	12	0	33	42	8	0	5	43	27	0	228	
4:55 PM	7	28	5	0	17	10	17	0	39	35	8	0	5	26	19	0	216	2814
5:00 PM	18	39	8	0	30	17	22	0	38	15	4	3	8	31	14	0	247	2814
5:05 PM	19	40	7	0	18	13	21	0	38	51	6	0	2	45	28	0	288	2836
5:10 PM	19	23	5	0	17	8	20	0	42	59	9	0	1	61	28	0	292	2883
5:15 PM	10	24	7	0	31	14	26	0	57	63	3	0	4	38	20	0	297	2971
5:20 PM	14	31	4	0	40	10	24	0	36	37	11	0	4	30	28	0	269	2989
5:25 PM	12	26	9	0	43	7	24	0	19	50	7	0	2	43	25	0	267	3062
5:30 PM	18	20	4	0	52	14	15	0	44	58	8	0	1	45	28	0	307	3139
5:35 PM	9	35	6	0	34	11	19	0	49	80	6	0	5	49	31	0	334	3219
5:40 PM	14	25	6	0	44	15	20	0	22	53	12	0	1	34	30	0	276	3273
5:45 PM	12	12	2	0	16	11	24	0	36	84	8	0	8	44	18	0	275	3296
5:50 PM	10	23	9	0	16	10	10	0	25	53	10	0	1	37	24	0	228	3296
5:55 PM	7	22	3	0	24	7	15	0	29	28	7	0	5	30	26	0	203	3283

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	192	348	76	0	264	140	268	0	548	692	72	0	28	576	304	0	3508
Heavy Trucks	8	8	4		4	12	20		36	20	4		4	20	8		148
Pedestrians		0				44				0				36			80
Bicycles	2	2	0		1	0	0		0	8	0		0	3	0		16
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/9/2015 7:27 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: System Peak

Method for determining peak hour: Total Entering Volume

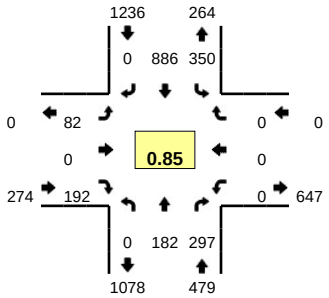
LOCATION: N Fairview Ave -- US 101 SB Ramps

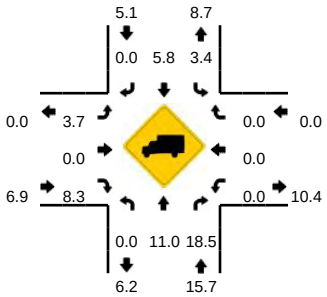
CITY/STATE: Goleta, CA

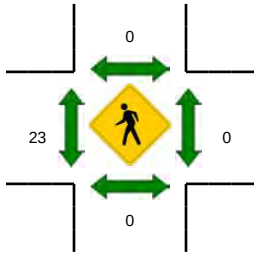
QC JOB #: 13337509

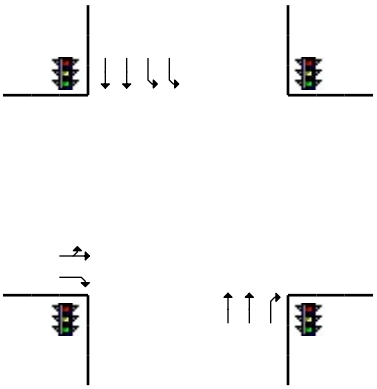
DATE: Thu, Apr 02 2015

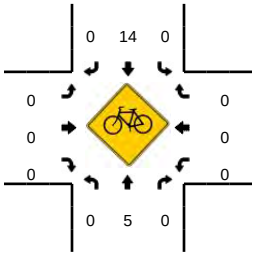
Peak-Hour: 7:35 AM -- 8:35 AM
Peak 15-Min: 7:50 AM -- 8:05 AM

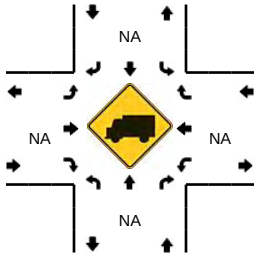


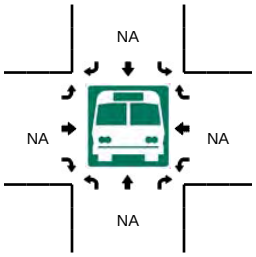












5-Min Count Period Beginning At	N Fairview Ave (Northbound)				N Fairview Ave (Southbound)				US 101 SB Ramps (Eastbound)				US 101 SB Ramps (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	10	19	0	11	45	0	0	3	0	11	0	0	0	0	0	99	
7:05 AM	0	15	20	0	29	39	0	0	1	0	9	0	0	0	0	0	113	
7:10 AM	0	8	23	0	16	59	0	0	3	0	15	0	0	0	0	0	124	
7:15 AM	0	10	22	0	15	42	0	0	3	0	8	0	0	0	0	0	100	
7:20 AM	0	11	29	0	19	52	0	0	3	0	13	0	0	0	0	0	127	
7:25 AM	0	6	19	0	17	72	0	0	11	0	16	0	0	0	0	0	141	
7:30 AM	0	11	32	0	30	57	0	0	4	0	22	0	0	0	0	0	156	
7:35 AM	0	12	35	0	33	54	0	0	6	0	14	0	0	0	0	0	154	
7:40 AM	0	9	26	0	40	82	0	0	6	0	12	0	0	0	0	0	175	
7:45 AM	0	13	28	0	43	59	0	0	5	0	18	0	0	0	0	0	166	
7:50 AM	0	18	28	0	24	114	0	0	7	0	20	0	0	0	0	0	211	
7:55 AM	0	18	28	0	23	93	0	0	12	0	16	0	0	0	0	0	190	1756
8:00 AM	0	14	20	0	31	87	0	0	9	0	21	0	0	0	0	0	182	1839
8:05 AM	0	12	17	0	23	77	0	0	6	0	22	0	0	0	0	0	157	1883
8:10 AM	0	14	27	0	22	72	0	0	10	0	24	0	0	0	0	0	169	1928
8:15 AM	0	16	21	0	20	51	0	0	8	0	16	0	0	0	0	0	132	1960
8:20 AM	0	20	32	0	37	64	0	0	4	0	9	0	0	0	0	0	166	1999
8:25 AM	0	17	19	0	21	65	0	0	3	0	13	0	0	0	0	0	138	1996
8:30 AM	0	19	16	0	33	68	0	0	6	0	7	0	0	0	0	0	149	1989
8:35 AM	0	15	28	0	32	64	0	0	6	0	7	0	0	0	0	0	152	1987
8:40 AM	0	17	19	0	37	56	0	0	11	0	14	0	0	0	0	0	154	1966
8:45 AM	0	14	19	0	38	66	0	0	8	0	12	0	0	0	0	0	157	1957
8:50 AM	0	26	23	0	19	58	0	0	15	0	20	0	0	0	0	0	161	1907
8:55 AM	0	30	25	0	17	68	0	0	11	0	9	0	0	0	0	0	160	1877

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	200	304	0	312	1176	0	0	112	0	228	0	0	0	0	0	2332
Heavy Trucks	0	36	80		4	84	0		0	0	28		0	0	0		232
Pedestrians		0				0				12				0			12
Bicycles	0	3	0		0	6	0		0	0	0		0	0	0		9
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/9/2015 7:25 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: System Peak

Method for determining peak hour: Total Entering Volume

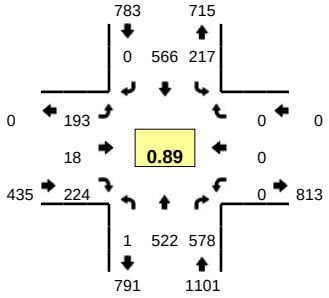
LOCATION: N Fairview Ave -- US 101 SB Ramps

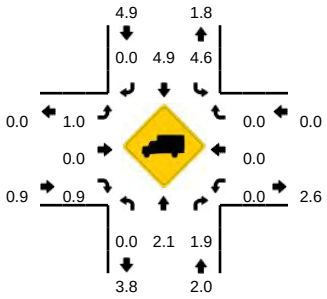
CITY/STATE: Goleta, CA

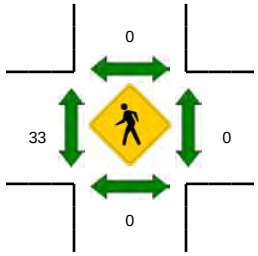
QC JOB #: 13337510

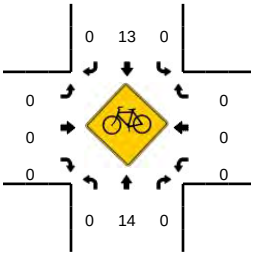
DATE: Thu, Apr 02 2015

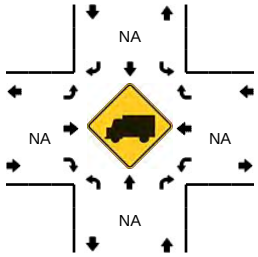
Peak-Hour: 4:55 PM -- 5:55 PM
Peak 15-Min: 5:05 PM -- 5:20 PM

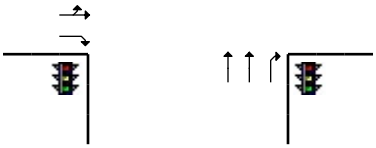


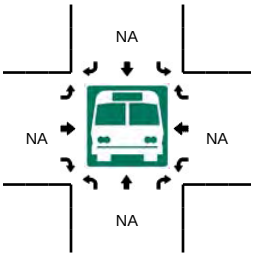












5-Min Count Period Beginning At	N Fairview Ave (Northbound)				N Fairview Ave (Southbound)				US 101 SB Ramps (Eastbound)				US 101 SB Ramps (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	39	38	0	24	49	0	0	14	0	8	0	0	0	0	0	172	
4:05 PM	0	40	66	0	20	60	0	0	13	1	6	0	0	0	0	0	206	
4:10 PM	0	47	54	0	33	61	0	0	14	0	11	0	0	0	0	0	220	
4:15 PM	0	24	43	0	23	61	0	0	15	1	13	0	0	0	0	0	180	
4:20 PM	0	51	43	0	22	55	0	0	12	0	10	0	0	0	0	0	193	
4:25 PM	0	41	44	0	23	45	0	0	17	0	3	0	0	0	0	0	173	
4:30 PM	0	49	59	0	21	38	0	0	11	1	5	0	0	0	0	0	184	
4:35 PM	0	35	45	0	29	38	0	0	9	0	6	0	0	0	0	0	162	
4:40 PM	0	52	71	0	22	48	0	0	15	0	9	0	0	0	0	0	217	
4:45 PM	0	46	44	0	27	46	0	0	15	0	7	0	0	0	0	0	185	
4:50 PM	0	41	58	0	18	51	0	0	19	0	8	0	0	0	0	0	195	
4:55 PM	0	30	44	0	21	46	0	0	13	0	10	0	0	0	0	0	164	2251
5:00 PM	0	51	56	0	14	50	0	0	13	0	9	0	0	0	0	0	193	2272
5:05 PM	0	48	68	0	42	52	0	0	10	0	8	0	0	0	0	0	228	2294
5:10 PM	0	38	66	0	26	49	0	0	18	0	9	0	0	0	0	0	206	2280
5:15 PM	0	55	42	0	14	52	0	0	23	1	34	0	0	0	0	0	221	2321
5:20 PM	0	65	38	0	11	53	0	0	13	3	22	0	0	0	0	0	205	2333
5:25 PM	0	39	37	0	15	36	0	0	26	1	27	0	0	0	0	0	181	2341
5:30 PM	0	32	34	1	9	61	0	0	13	2	29	0	0	0	0	0	181	2338
5:35 PM	0	54	54	0	9	45	0	0	24	3	34	0	0	0	0	0	223	2399
5:40 PM	0	27	51	0	13	41	0	0	12	3	18	0	0	0	0	0	165	2347
5:45 PM	0	54	40	0	25	44	0	0	15	2	11	0	0	0	0	0	191	2353
5:50 PM	0	29	48	0	18	37	0	0	13	3	13	0	0	0	0	0	161	2319
5:55 PM	0	40	39	0	26	43	0	0	12	1	10	0	0	0	0	0	171	2326

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	564	704	0	328	612	0	0	204	4	204	0	0	0	0	0	2620
Heavy Trucks	0	16	20		8	32	0		4	0	0		0	0	0		80
Pedestrians		0				0				32				0			32
Bicycles	0	5	0		0	2	0		0	0	0		0	0	0		7
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/9/2015 7:27 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

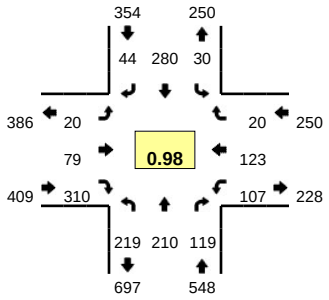
Type of peak hour being reported: System Peak

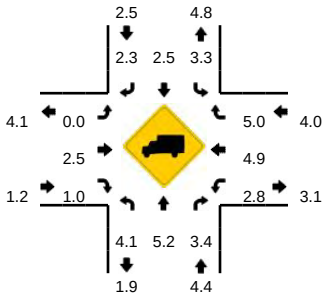
Method for determining peak hour: Total Entering Volume

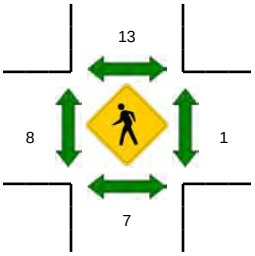
LOCATION: N Fairview Ave -- Calle Real
CITY/STATE: Goleta, CA

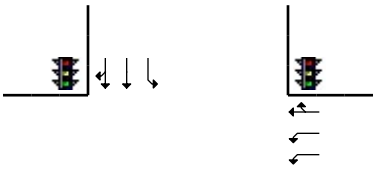
QC JOB #: 13337513
DATE: Thu, Apr 02 2015

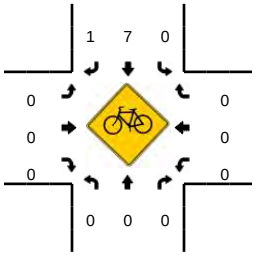
Peak-Hour: 7:35 AM -- 8:35 AM
Peak 15-Min: 7:50 AM -- 8:05 AM

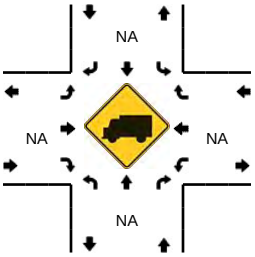


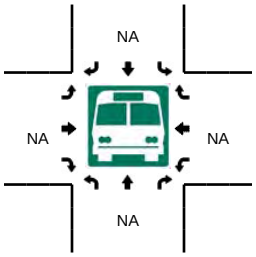












5-Min Count Period Beginning At	N Fairview Ave (Northbound)				N Fairview Ave (Southbound)				Calle Real (Eastbound)				Calle Real (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	12	7	6	0	2	11	1	0	0	2	11	0	4	3	0	0	59	
7:05 AM	15	8	5	0	3	16	2	0	3	5	34	0	2	4	1	0	98	
7:10 AM	12	8	4	0	1	9	0	0	0	7	16	0	7	2	0	0	66	
7:15 AM	11	8	4	0	2	9	3	0	1	3	16	0	5	4	1	0	67	
7:20 AM	16	10	13	0	2	16	1	0	1	5	20	0	1	6	2	0	93	
7:25 AM	9	15	12	0	2	12	1	0	4	7	30	0	11	6	0	0	109	
7:30 AM	12	15	6	0	2	12	6	0	0	3	32	0	12	6	0	0	106	
7:35 AM	17	6	6	0	3	31	1	0	2	8	25	0	4	7	0	0	110	
7:40 AM	26	15	10	0	1	18	4	0	1	3	26	0	10	5	0	0	119	
7:45 AM	14	22	4	0	5	37	3	0	0	3	33	0	3	13	1	0	138	
7:50 AM	20	22	13	0	0	20	1	0	1	5	33	0	16	7	1	0	139	
7:55 AM	19	15	13	0	3	18	3	0	2	11	29	0	12	6	3	0	134	1238
8:00 AM	9	30	14	0	2	23	4	0	0	8	27	0	4	4	1	0	126	1305
8:05 AM	13	20	8	0	2	26	1	0	4	8	18	0	14	10	0	0	124	1331
8:10 AM	20	19	11	0	0	27	7	0	1	5	15	0	10	20	3	0	138	1403
8:15 AM	21	19	9	0	0	23	4	0	0	2	25	0	10	13	5	0	131	1467
8:20 AM	21	14	5	0	5	20	6	0	1	13	26	0	9	12	5	0	137	1511
8:25 AM	17	14	12	0	3	18	6	0	4	5	25	0	5	6	0	0	115	1517
8:30 AM	22	14	14	0	6	19	4	0	4	8	28	0	10	20	1	0	150	1561
8:35 AM	11	15	12	0	2	28	3	0	2	6	30	0	8	9	2	0	128	1579
8:40 AM	31	25	15	0	3	14	2	0	2	9	25	0	6	13	1	0	146	1606
8:45 AM	21	17	13	0	3	26	4	0	2	3	22	0	5	11	4	0	131	1599
8:50 AM	27	18	23	0	4	24	4	0	6	13	19	0	4	10	0	0	152	1612
8:55 AM	34	22	16	0	7	12	1	0	2	10	20	0	15	8	3	0	150	1628

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	192	268	160	0	20	244	32	0	12	96	356	0	128	68	20	0	1596
Heavy Trucks	8	20	8		0	4	4		0	8	12		4	0	4		72
Pedestrians		4				0				4				0			8
Bicycles	0	0	0		0	1	1		0	0	0		0	0	0		2
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/9/2015 7:25 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

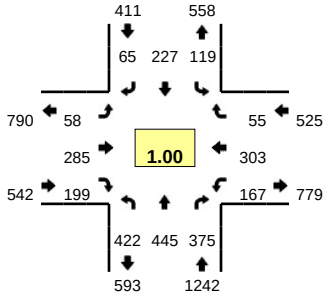
Type of peak hour being reported: System Peak

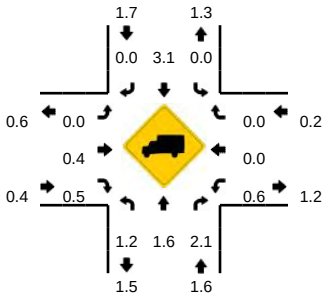
Method for determining peak hour: Total Entering Volume

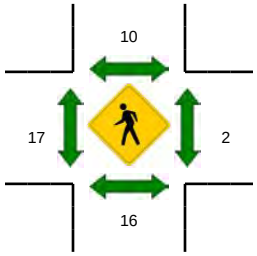
LOCATION: N Fairview Ave -- Calle Real
CITY/STATE: Goleta, CA

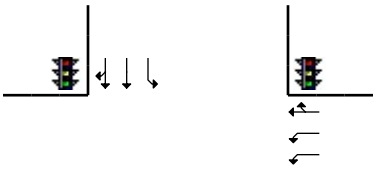
QC JOB #: 13337514
DATE: Thu, Apr 02 2015

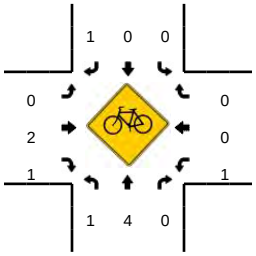
Peak-Hour: 4:55 PM -- 5:55 PM
Peak 15-Min: 5:05 PM -- 5:20 PM

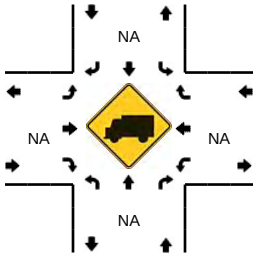


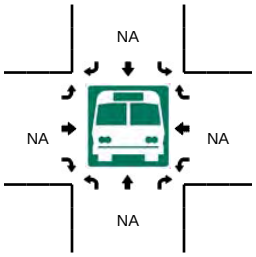












5-Min Count Period Beginning At	N Fairview Ave (Northbound)				N Fairview Ave (Southbound)				Calle Real (Eastbound)				Calle Real (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	44	23	29	0	3	20	2	0	2	6	19	0	21	22	2	0	193	
4:05 PM	48	32	23	0	9	25	4	0	0	12	20	0	6	22	1	0	202	
4:10 PM	41	31	22	0	2	22	1	0	2	11	27	0	22	36	8	0	225	
4:15 PM	31	25	25	0	10	30	6	0	4	20	23	0	20	18	5	0	217	
4:20 PM	34	26	23	0	7	11	5	0	3	15	13	0	11	26	3	0	177	
4:25 PM	52	42	35	0	13	22	2	0	2	9	25	0	5	10	3	0	220	
4:30 PM	39	44	27	0	5	7	4	0	1	17	16	0	15	33	4	0	212	
4:35 PM	24	17	23	0	13	32	9	0	6	25	19	0	17	36	7	0	228	
4:40 PM	39	20	26	0	9	18	6	0	5	20	23	0	8	16	5	0	195	
4:45 PM	42	37	30	0	5	10	2	0	1	19	16	0	19	24	2	0	207	
4:50 PM	38	39	35	0	12	22	3	0	2	17	17	0	13	28	8	0	234	
4:55 PM	23	23	14	0	18	33	5	0	2	16	10	0	18	29	4	0	195	2505
5:00 PM	45	38	45	0	9	25	7	0	0	12	19	0	14	18	4	0	236	2548
5:05 PM	51	36	28	0	6	17	3	0	6	26	23	0	22	26	8	0	252	2598
5:10 PM	7	16	26	0	11	24	5	0	12	27	25	0	17	31	6	0	207	2580
5:15 PM	49	42	38	0	13	20	6	0	4	14	9	0	11	14	3	0	223	2586
5:20 PM	30	52	36	0	5	12	8	0	6	27	10	0	19	25	7	0	237	2646
5:25 PM	36	31	29	0	9	24	6	0	9	28	14	0	7	22	3	0	218	2644
5:30 PM	37	66	37	0	10	16	1	0	4	19	14	0	17	25	3	0	249	2681
5:35 PM	24	27	25	0	13	21	6	0	4	38	10	0	9	26	5	0	208	2661
5:40 PM	48	48	38	0	6	13	6	0	1	22	14	0	14	29	4	0	243	2709
5:45 PM	30	26	20	0	15	19	8	0	9	35	24	0	12	22	4	0	224	2726
5:50 PM	42	40	39	0	4	3	4	0	1	21	27	0	7	36	4	0	228	2720
5:55 PM	29	16	34	0	13	17	2	0	6	35	17	0	16	31	1	0	217	2742

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	428	376	368	0	120	244	56	0	88	268	228	0	200	284	68	0	2728
Heavy Trucks	8	4	8		0	8	0		0	0	0		0	0	0		28
Pedestrians		16				16				16				4			52
Bicycles	1	1	0		0	0	0		0	0	0		0	0	0		2
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/9/2015 7:27 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

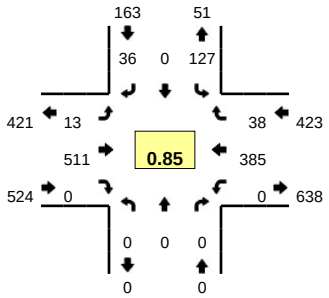
Type of peak hour being reported: System Peak

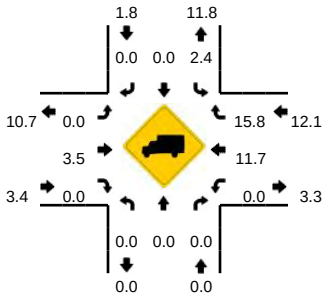
Method for determining peak hour: Total Entering Volume

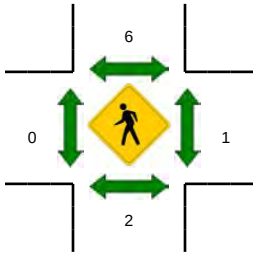
LOCATION: Los Carneros Way -- Hollister Ave
CITY/STATE: Santa Barbara, CA

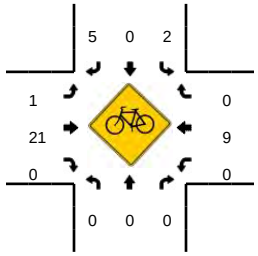
QC JOB #: 13337515
DATE: Thu, Apr 02 2015

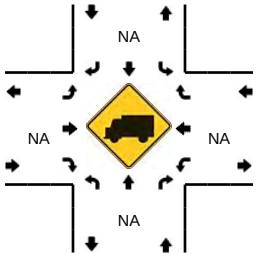
Peak-Hour: 7:35 AM -- 8:35 AM
Peak 15-Min: 7:50 AM -- 8:05 AM

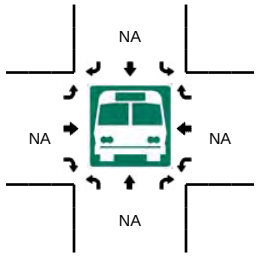












5-Min Count Period Beginning At	Los Carneros Way (Northbound)				Los Carneros Way (Southbound)				Hollister Ave (Eastbound)				Hollister Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	10	0	3	0	2	28	0	0	0	22	4	0	69	
7:05 AM	0	0	0	0	5	0	2	0	0	22	0	0	0	21	1	0	51	
7:10 AM	0	0	0	0	2	0	1	0	0	22	0	0	0	23	1	0	49	
7:15 AM	0	0	0	0	14	0	1	0	1	24	0	0	0	24	0	0	64	
7:20 AM	0	0	0	0	12	0	1	0	0	31	0	0	0	30	4	0	78	
7:25 AM	0	0	0	0	7	0	1	0	3	24	0	0	0	30	3	0	68	
7:30 AM	0	0	0	0	6	0	2	0	1	32	0	0	0	25	0	0	66	
7:35 AM	0	0	0	0	7	0	1	0	0	35	0	0	0	25	3	0	71	
7:40 AM	0	0	0	0	15	0	3	0	0	56	0	0	0	20	3	0	97	
7:45 AM	0	0	0	0	14	0	10	0	1	37	0	0	0	30	2	0	94	
7:50 AM	0	0	0	0	11	0	0	0	0	55	0	0	0	31	3	0	100	
7:55 AM	0	0	0	0	18	0	4	0	1	52	0	0	0	40	3	0	118	925
8:00 AM	0	0	0	0	17	0	1	0	3	47	0	0	0	38	3	0	109	965
8:05 AM	0	0	0	0	4	0	2	0	1	32	0	0	0	36	4	0	79	993
8:10 AM	0	0	0	0	8	0	6	0	2	39	0	0	0	39	4	0	98	1042
8:15 AM	0	0	0	0	9	0	1	0	1	43	0	0	0	31	3	0	88	1066
8:20 AM	0	0	0	0	9	0	4	0	0	33	0	0	0	39	2	0	87	1075
8:25 AM	0	0	0	0	9	0	0	0	1	48	0	0	0	27	3	0	88	1095
8:30 AM	0	0	0	0	6	0	4	0	3	34	0	0	0	29	5	0	81	1110
8:35 AM	0	0	0	0	6	0	3	0	1	27	0	0	0	30	3	0	70	1109
8:40 AM	0	0	0	0	9	0	4	1	4	30	0	0	0	32	3	0	83	1095
8:45 AM	0	0	0	0	7	0	4	0	1	24	0	0	0	27	2	0	65	1066
8:50 AM	0	0	0	0	4	0	0	0	3	36	0	0	0	26	3	0	72	1038
8:55 AM	0	0	0	0	9	0	6	0	2	44	0	0	0	33	3	0	97	1017

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	184	0	20	0	16	616	0	0	0	436	36	0	1308
Heavy Trucks	0	0	0		0	0	0		0	28	0		0	48	8		84
Pedestrians		4				12				0				0			16
Bicycles	0	0	0		0	0	1		0	9	0		0	0	0		10
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/9/2015 7:25 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

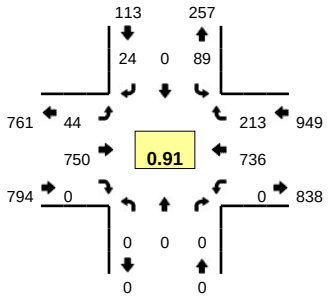
Type of peak hour being reported: System Peak

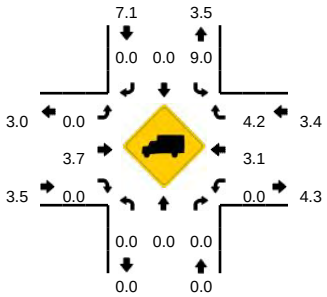
Method for determining peak hour: Total Entering Volume

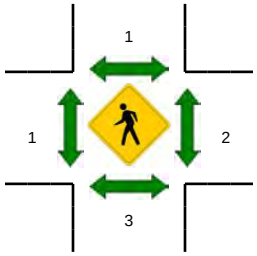
LOCATION: Los Carneros Way -- Hollister Ave
CITY/STATE: Santa Barbara, CA

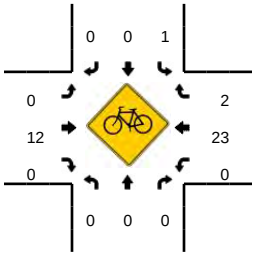
QC JOB #: 13337516
DATE: Thu, Apr 02 2015

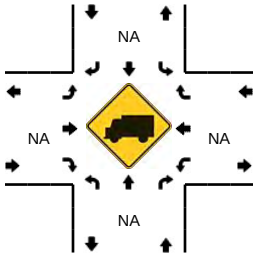
Peak-Hour: 4:55 PM -- 5:55 PM
Peak 15-Min: 5:05 PM -- 5:20 PM

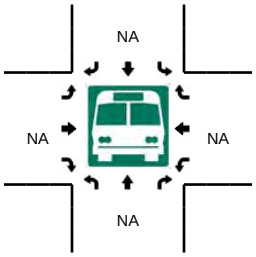












5-Min Count Period Beginning At	Los Carneros Way (Northbound)				Los Carneros Way (Southbound)				Hollister Ave (Eastbound)				Hollister Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	3	0	1	1	3	53	0	0	0	59	13	0	133	
4:05 PM	0	0	0	0	6	0	1	0	3	46	0	0	0	47	15	0	118	
4:10 PM	0	0	0	0	5	0	1	0	3	53	0	0	0	58	18	0	138	
4:15 PM	0	0	0	0	3	0	1	0	5	37	0	0	0	61	16	0	123	
4:20 PM	0	0	0	0	3	0	1	0	0	45	0	0	0	41	15	0	105	
4:25 PM	0	0	0	0	4	0	2	0	4	47	0	0	0	51	15	0	123	
4:30 PM	0	0	0	0	6	0	0	0	1	44	0	0	0	57	17	0	125	
4:35 PM	0	0	0	0	5	0	0	0	1	44	0	0	0	53	15	0	118	
4:40 PM	0	0	0	0	2	0	2	0	0	50	0	0	0	56	13	0	123	
4:45 PM	0	0	0	0	3	0	1	0	0	35	0	0	0	65	22	0	126	
4:50 PM	0	0	0	0	2	0	2	0	3	53	0	0	0	61	11	0	132	
4:55 PM	0	0	0	0	4	0	2	0	1	52	0	0	0	55	13	0	127	1491
5:00 PM	0	0	0	0	6	0	1	0	2	46	0	0	0	40	13	0	108	1466
5:05 PM	0	0	0	0	3	0	3	0	4	64	0	0	0	73	19	0	166	1514
5:10 PM	0	0	0	0	2	0	4	0	5	56	0	0	0	57	31	0	155	1531
5:15 PM	0	0	0	0	5	0	0	0	3	80	0	0	0	85	15	0	188	1596
5:20 PM	0	0	0	0	5	0	1	0	3	50	0	0	0	53	17	0	129	1620
5:25 PM	0	0	0	0	4	0	2	0	9	54	0	0	0	63	16	0	148	1645
5:30 PM	0	0	0	0	8	0	2	0	1	88	0	0	0	67	19	0	185	1705
5:35 PM	0	0	0	0	10	0	7	0	3	70	0	0	0	63	21	0	174	1761
5:40 PM	0	0	0	0	13	0	0	0	4	75	0	0	0	55	18	0	165	1803
5:45 PM	0	0	0	0	15	0	2	0	2	49	0	1	0	66	21	0	156	1833
5:50 PM	0	0	0	0	13	0	0	1	6	66	0	0	0	59	10	0	155	1856
5:55 PM	0	0	0	0	2	0	2	0	0	38	0	0	0	37	13	0	92	1821

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	40	0	28	0	48	800	0	0	0	860	260	0	2036
Heavy Trucks	0	0	0		0	0	0		0	48	0		0	32	8		88
Pedestrians		4				4				4				0			12
Bicycles	0	0	0		0	0	0		0	3	0		0	5	0		8
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/9/2015 7:27 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: System Peak

Method for determining peak hour: Total Entering Volume

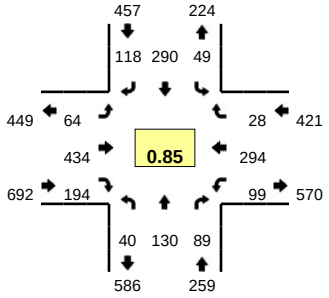
LOCATION: S Los Carneros Rd -- Hollister Ave

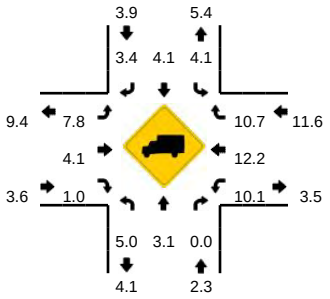
CITY/STATE: Goleta, CA

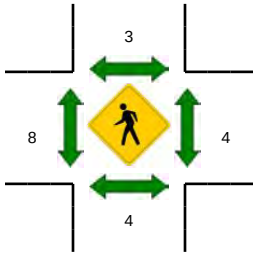
QC JOB #: 13337517

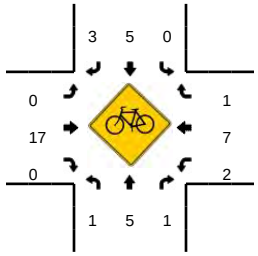
DATE: Thu, Apr 02 2015

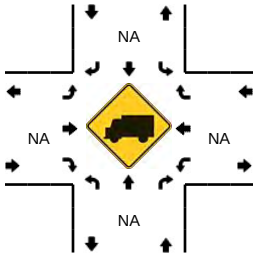
Peak-Hour: 7:35 AM -- 8:35 AM
Peak 15-Min: 7:50 AM -- 8:05 AM

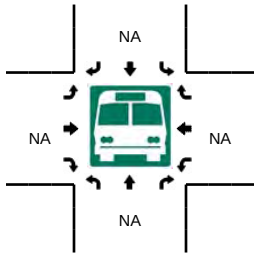












5-Min Count Period Beginning At	S Los Carneros Rd (Northbound)				S Los Carneros Rd (Southbound)				Hollister Ave (Eastbound)				Hollister Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	1	2	6	0	1	5	6	0	3	24	7	0	3	18	2	0	78	
7:05 AM	0	2	1	0	0	3	5	0	1	19	7	0	3	18	3	0	62	
7:10 AM	5	4	2	0	2	8	9	0	6	20	10	0	4	15	3	1	89	
7:15 AM	0	5	3	0	0	17	5	0	6	30	12	0	1	21	2	0	102	
7:20 AM	1	9	8	0	4	14	13	0	3	25	10	0	3	22	4	0	116	
7:25 AM	2	6	5	0	0	21	4	0	1	25	13	0	3	24	2	0	106	
7:30 AM	3	9	2	0	3	13	7	0	6	31	7	0	2	19	2	0	104	
7:35 AM	1	9	8	0	3	14	8	0	6	34	11	0	5	23	2	0	124	
7:40 AM	3	7	4	0	1	18	8	0	6	44	23	0	7	13	0	0	134	
7:45 AM	4	7	8	0	4	26	11	1	3	34	15	0	7	30	4	0	154	
7:50 AM	3	10	8	1	7	23	9	0	8	50	35	0	8	21	4	0	187	
7:55 AM	7	16	11	1	3	19	4	0	11	34	22	0	9	20	4	0	161	1417
8:00 AM	4	11	7	0	4	28	16	0	10	47	19	0	12	31	4	0	193	1532
8:05 AM	3	12	2	0	3	24	9	0	2	38	10	0	11	27	1	0	142	1612
8:10 AM	0	17	5	0	7	34	8	0	4	30	9	0	5	34	1	0	154	1677
8:15 AM	4	9	8	0	6	28	13	0	5	28	5	0	9	25	0	0	140	1715
8:20 AM	4	9	9	1	5	26	11	1	3	32	19	0	13	26	1	0	160	1759
8:25 AM	3	12	10	0	1	26	13	0	3	38	12	0	3	22	3	0	146	1799
8:30 AM	1	11	9	0	3	24	8	0	3	25	14	0	10	22	4	0	134	1829
8:35 AM	5	5	6	1	1	22	9	0	6	20	19	0	5	25	2	0	126	1831
8:40 AM	1	13	13	0	2	27	7	0	4	22	17	0	8	21	0	0	135	1832
8:45 AM	3	10	5	0	0	26	13	0	9	21	10	0	6	26	5	0	134	1812
8:50 AM	3	16	5	1	5	22	10	1	6	28	18	0	5	20	3	0	143	1768
8:55 AM	2	12	13	0	3	24	9	0	7	30	12	0	11	32	2	0	157	1764

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	56	148	104	8	56	280	116	0	116	524	304	0	116	288	48	0	2164
Heavy Trucks	0	4	0		4	8	8		16	20	0		4	40	8		112
Pedestrians		4				4				12				4			24
Bicycles	0	2	0		0	2	1		0	6	0		1	1	1		14
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/9/2015 7:25 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: System Peak

Method for determining peak hour: Total Entering Volume

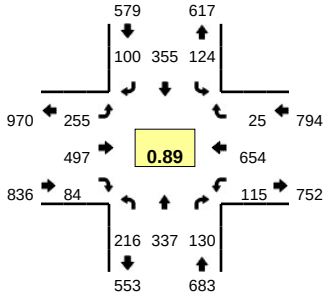
LOCATION: S Los Carneros Rd -- Hollister Ave

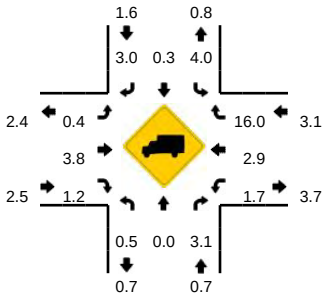
CITY/STATE: Goleta, CA

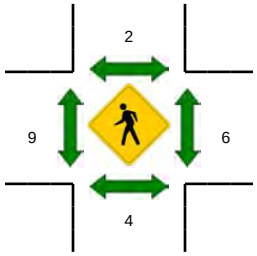
QC JOB #: 13337518

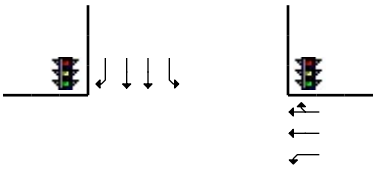
DATE: Thu, Apr 02 2015

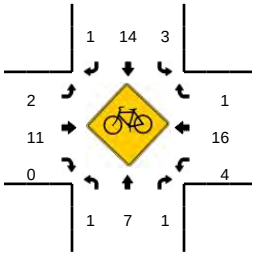
Peak-Hour: 4:55 PM -- 5:55 PM
Peak 15-Min: 5:05 PM -- 5:20 PM

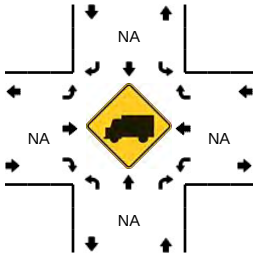


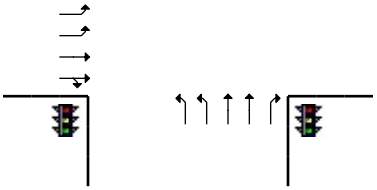


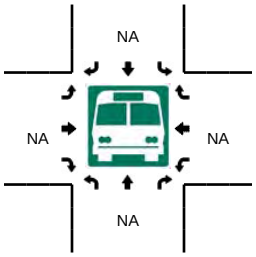












5-Min Count Period Beginning At	S Los Carneros Rd (Northbound)				S Los Carneros Rd (Southbound)				Hollister Ave (Eastbound)				Hollister Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	15	18	8	0	5	21	3	0	8	30	8	0	16	41	4	0	177	
4:05 PM	16	32	18	0	3	23	6	0	22	26	6	0	5	39	3	0	199	
4:10 PM	12	42	13	0	2	25	13	0	11	42	4	0	6	56	3	1	230	
4:15 PM	11	14	11	0	4	30	11	0	16	24	3	0	13	38	2	0	177	
4:20 PM	9	23	11	0	4	15	10	0	12	35	1	0	11	45	3	0	179	
4:25 PM	10	30	10	1	1	20	10	1	18	36	11	0	11	38	3	0	200	
4:30 PM	11	23	6	0	4	27	6	0	17	33	5	0	7	50	2	0	191	
4:35 PM	16	36	10	0	5	34	13	0	22	22	5	0	14	44	3	0	224	
4:40 PM	19	30	10	0	2	29	10	0	7	32	6	0	5	47	2	0	199	
4:45 PM	11	16	10	0	5	19	4	0	21	26	11	1	15	54	1	0	194	
4:50 PM	14	24	14	0	5	23	14	0	7	41	8	0	16	49	6	0	221	
4:55 PM	17	26	10	0	3	28	14	0	15	29	5	0	6	54	2	0	209	2400
5:00 PM	14	16	4	0	9	22	13	0	32	44	5	0	10	36	3	0	208	2431
5:05 PM	29	40	17	0	4	26	9	0	37	46	4	0	13	46	3	0	274	2506
5:10 PM	20	38	15	0	2	34	5	0	29	51	4	0	7	70	1	0	276	2552
5:15 PM	27	37	9	0	6	34	6	0	12	47	10	0	6	66	3	0	263	2638
5:20 PM	15	26	8	0	3	38	10	0	22	52	6	0	11	63	0	0	254	2713
5:25 PM	18	25	10	0	8	31	5	0	12	30	10	0	9	48	3	0	209	2722
5:30 PM	12	27	17	0	20	22	7	0	29	53	12	0	12	58	3	0	272	2803
5:35 PM	20	20	11	0	19	21	4	0	19	42	6	0	10	61	1	0	234	2813
5:40 PM	12	38	8	0	20	42	8	0	13	31	7	0	9	54	3	0	245	2859
5:45 PM	14	20	11	0	9	28	6	0	26	44	7	0	14	56	3	1	239	2904
5:50 PM	18	24	10	0	21	29	13	0	9	28	8	0	7	42	0	0	209	2892
5:55 PM	10	19	12	0	1	16	9	0	13	31	7	0	8	48	1	0	175	2858

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	304	460	164	0	48	376	80	0	312	576	72	0	104	728	28	0	3252
Heavy Trucks	0	0	8		0	0	4		0	40	0		0	12	4		68
Pedestrians		8				0				28				8			44
Bicycles	0	3	0		1	6	0		0	2	0		2	4	0		18
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/9/2015 7:27 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: System Peak

Method for determining peak hour: Total Entering Volume

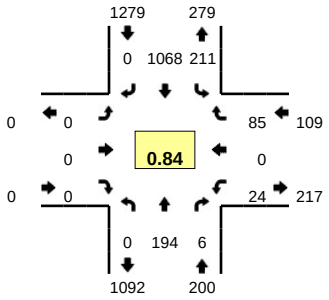
LOCATION: S Los Carneros Rd -- Calle Koral

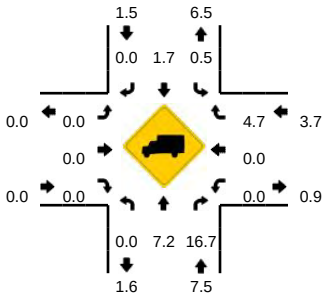
CITY/STATE: Goleta, CA

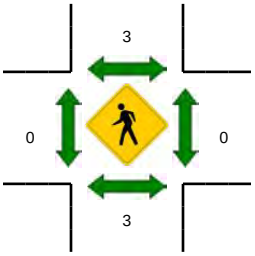
QC JOB #: 13337519

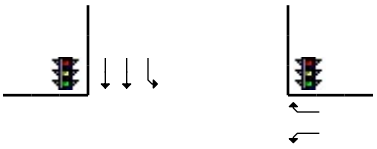
DATE: Thu, Apr 02 2015

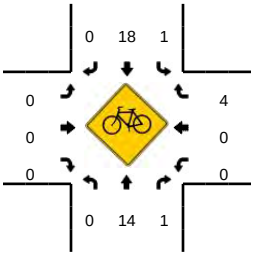
Peak-Hour: 7:35 AM -- 8:35 AM
Peak 15-Min: 7:50 AM -- 8:05 AM

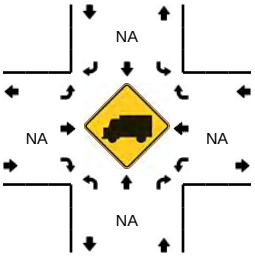


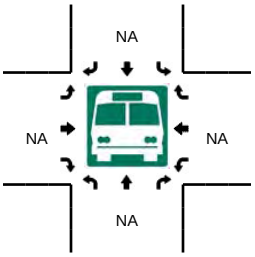












5-Min Count Period Beginning At	S Los Carneros Rd (Northbound)				S Los Carneros Rd (Southbound)				Calle Koral (Eastbound)				Calle Koral (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	7	0	0	14	38	0	0	0	0	0	0	2	0	8	0	69	
7:05 AM	0	6	0	0	10	32	0	0	0	0	0	0	0	0	5	0	53	
7:10 AM	0	9	1	0	9	52	0	0	0	0	0	0	2	0	3	0	76	
7:15 AM	0	9	0	0	15	55	0	0	0	0	0	0	1	0	3	0	83	
7:20 AM	0	13	0	0	13	64	0	0	0	0	0	0	1	0	7	0	98	
7:25 AM	0	9	0	0	8	64	0	0	0	0	0	0	1	0	8	0	90	
7:30 AM	0	9	0	0	14	52	0	0	0	0	0	0	1	0	5	0	81	
7:35 AM	0	19	1	0	12	60	0	0	0	0	0	0	2	0	7	0	101	
7:40 AM	0	10	0	0	25	74	0	0	0	0	0	0	0	0	14	0	123	
7:45 AM	0	11	1	0	18	111	0	0	0	0	0	0	2	0	8	0	151	
7:50 AM	0	18	1	0	17	102	0	0	0	0	0	0	1	0	5	0	144	
7:55 AM	0	20	1	0	32	97	0	0	0	0	0	0	2	0	7	0	159	1228
8:00 AM	0	24	1	0	19	119	0	0	0	0	0	0	3	0	5	0	171	1330
8:05 AM	0	14	0	0	9	103	0	0	0	0	0	0	4	0	6	0	136	1413
8:10 AM	0	23	1	0	12	84	0	0	0	0	0	0	2	0	9	0	131	1468
8:15 AM	0	17	0	0	15	99	0	0	0	0	0	0	1	0	6	0	138	1523
8:20 AM	0	11	0	0	22	76	0	0	0	0	0	0	3	0	9	0	121	1546
8:25 AM	0	14	0	0	19	74	0	0	0	0	0	0	2	0	6	0	115	1571
8:30 AM	0	13	0	0	11	69	0	0	0	0	0	0	2	0	3	0	98	1588
8:35 AM	0	15	2	0	13	58	0	0	0	0	0	0	2	0	5	0	95	1582
8:40 AM	0	14	0	0	14	72	0	0	0	0	0	0	3	0	8	0	111	1570
8:45 AM	0	14	0	0	11	69	0	0	0	0	0	0	3	0	12	0	109	1528
8:50 AM	0	25	1	0	10	69	0	0	0	0	0	0	1	0	4	0	110	1494
8:55 AM	0	14	2	0	21	69	0	0	0	0	0	0	4	0	4	0	114	1449

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	248	12	0	272	1272	0	0	0	0	0	0	24	0	68	0	1896
Heavy Trucks	0	20	0		0	20	0		0	0	0		0	0	4		44
Pedestrians		0				0				0				0			0
Bicycles	0	5	0		0	5	0		0	0	0		0	0	1		11
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/9/2015 7:25 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

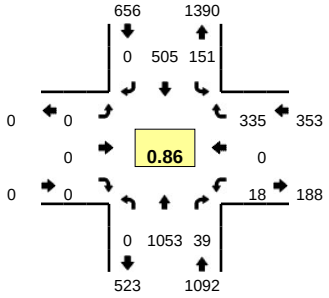
Type of peak hour being reported: System Peak

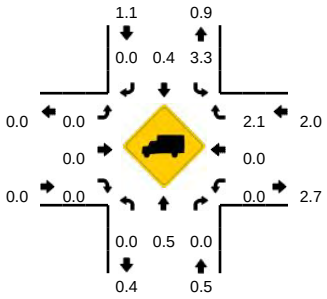
Method for determining peak hour: Total Entering Volume

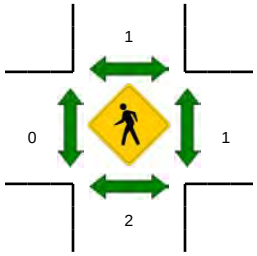
LOCATION: S Los Carneros Rd -- Calle Koral
CITY/STATE: Goleta, CA

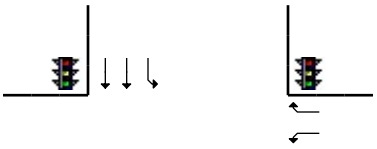
QC JOB #: 13337520
DATE: Thu, Apr 02 2015

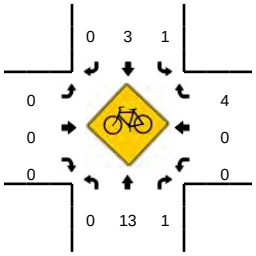
Peak-Hour: 4:55 PM -- 5:55 PM
Peak 15-Min: 5:05 PM -- 5:20 PM

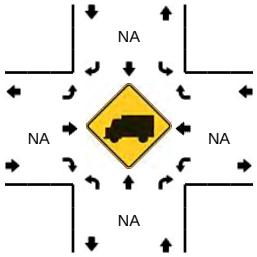


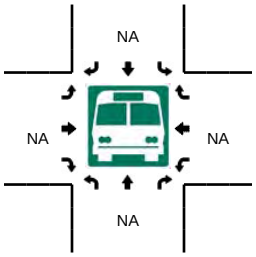












5-Min Count Period Beginning At	S Los Carneros Rd (Northbound)				S Los Carneros Rd (Southbound)				Calle Koral (Eastbound)				Calle Koral (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	55	2	0	9	36	0	0	0	0	0	0	0	0	14	0	116	
4:05 PM	0	77	3	0	9	34	0	0	0	0	0	0	0	0	18	0	141	
4:10 PM	0	51	4	0	8	49	0	0	0	0	0	0	1	0	23	0	136	
4:15 PM	0	55	1	0	6	35	0	0	0	0	0	0	0	0	17	0	114	
4:20 PM	0	39	0	0	7	21	0	0	0	0	0	0	2	0	24	0	93	
4:25 PM	0	66	2	0	8	41	0	0	0	0	0	0	3	0	17	0	137	
4:30 PM	0	80	1	0	8	41	0	0	0	0	0	0	0	0	29	0	159	
4:35 PM	0	91	5	0	5	39	0	1	0	0	0	0	2	0	27	0	170	
4:40 PM	0	97	2	0	2	46	0	0	0	0	0	0	1	0	23	0	171	
4:45 PM	0	75	2	0	11	26	0	0	0	0	0	0	3	0	30	0	147	
4:50 PM	0	71	3	0	9	38	0	0	0	0	0	0	2	0	19	0	142	
4:55 PM	0	73	4	0	14	43	0	0	0	0	0	0	2	0	26	0	162	1688
5:00 PM	0	88	6	0	4	30	0	0	0	0	0	0	3	0	23	0	154	1726
5:05 PM	0	112	1	0	10	32	0	0	0	0	0	0	3	0	33	0	191	1776
5:10 PM	0	148	3	0	3	34	0	0	0	0	0	0	1	0	37	0	226	1866
5:15 PM	0	106	5	0	9	38	0	1	0	0	0	0	2	0	36	0	197	1949
5:20 PM	0	67	3	0	5	46	0	0	0	0	0	0	2	0	28	0	151	2007
5:25 PM	0	80	5	0	17	30	0	0	0	0	0	0	0	0	25	0	157	2027
5:30 PM	0	81	3	0	20	47	0	0	0	0	0	0	0	0	33	0	184	2052
5:35 PM	0	101	3	0	9	51	0	0	0	0	0	0	2	0	28	0	194	2076
5:40 PM	0	68	4	0	19	49	0	1	0	0	0	0	2	0	20	0	163	2068
5:45 PM	0	80	1	0	20	60	0	0	0	0	0	0	0	0	21	0	182	2103
5:50 PM	0	49	1	0	19	45	0	0	0	0	0	0	1	0	25	0	140	2101
5:55 PM	0	55	3	0	8	30	0	0	0	0	0	0	0	0	12	0	108	2047

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	1464	36	0	88	416	0	4	0	0	0	0	24	0	424	0	2456
Heavy Trucks	0	8	0		0	0	0		0	0	0		0	0	12		20
Pedestrians		0				0				0				4			4
Bicycles	0	3	0		0	1	0		0	0	0		0	0	0		4
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/9/2015 7:27 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

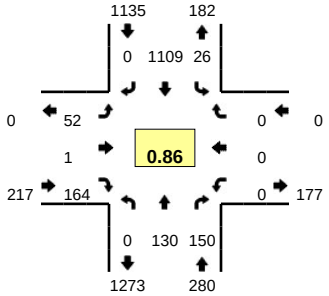
Type of peak hour being reported: System Peak

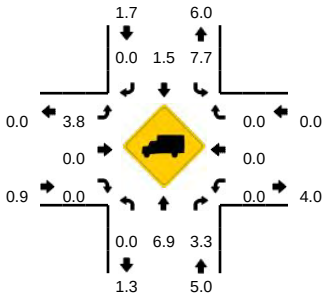
Method for determining peak hour: Total Entering Volume

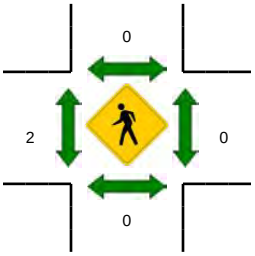
LOCATION: N Los Carneros Rd -- US 101 SB Ramps
CITY/STATE: Goleta, CA

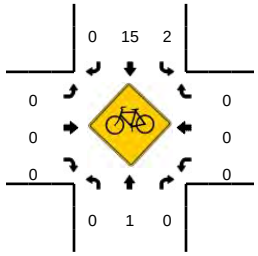
QC JOB #: 13337521
DATE: Thu, Apr 02 2015

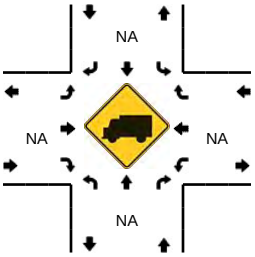
Peak-Hour: 7:35 AM -- 8:35 AM
Peak 15-Min: 7:50 AM -- 8:05 AM

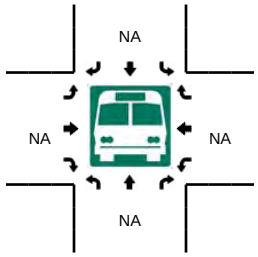












5-Min Count Period Beginning At	N Los Carneros Rd (Northbound)				N Los Carneros Rd (Southbound)				US 101 SB Ramps (Eastbound)				US 101 SB Ramps (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	10	4	0	0	38	0	0	1	0	11	0	0	0	0	0	64	
7:05 AM	0	6	6	0	2	34	0	0	3	0	6	0	0	0	0	0	57	
7:10 AM	0	5	6	0	0	59	0	0	3	0	8	0	0	0	0	0	81	
7:15 AM	0	4	7	0	0	53	0	0	0	0	12	0	0	0	0	0	76	
7:20 AM	0	13	6	0	0	68	0	0	4	0	9	0	0	0	0	0	100	
7:25 AM	0	6	10	0	3	64	0	0	2	0	7	0	0	0	0	0	92	
7:30 AM	0	6	8	0	3	57	0	0	2	0	13	0	0	0	0	0	89	
7:35 AM	0	15	12	0	2	58	0	0	3	0	7	0	0	0	0	0	97	
7:40 AM	0	6	18	0	1	91	0	0	3	0	21	0	0	0	0	0	140	
7:45 AM	0	6	11	0	7	107	0	0	4	0	20	0	0	0	0	0	155	
7:50 AM	0	14	11	0	0	87	0	0	2	0	20	0	0	0	0	0	134	
7:55 AM	0	13	9	0	5	123	0	0	8	0	23	0	0	0	0	0	181	1266
8:00 AM	0	17	13	0	4	116	0	0	3	0	9	0	0	0	0	0	162	1364
8:05 AM	0	11	12	0	2	90	0	0	4	0	10	0	0	0	0	0	129	1436
8:10 AM	0	12	22	0	1	106	0	0	5	0	9	0	0	0	0	0	155	1510
8:15 AM	0	11	12	0	0	91	0	0	6	1	13	0	0	0	0	0	134	1568
8:20 AM	0	9	11	0	1	85	0	0	6	0	15	0	0	0	0	0	127	1595
8:25 AM	0	9	10	0	0	81	0	0	4	0	10	0	0	0	0	0	114	1617
8:30 AM	0	7	9	0	3	74	0	0	4	0	7	0	0	0	0	0	104	1632
8:35 AM	0	14	7	0	2	55	0	0	6	0	10	0	0	0	0	0	94	1629
8:40 AM	0	11	11	0	5	76	0	0	1	0	12	0	0	0	0	0	116	1605
8:45 AM	0	15	10	0	3	71	0	0	4	0	7	0	0	0	0	0	110	1560
8:50 AM	0	18	13	0	2	71	0	0	4	0	3	0	0	0	0	0	111	1537
8:55 AM	0	13	4	0	0	84	0	0	2	0	12	0	0	0	0	0	115	1471

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	176	132	0	36	1304	0	0	52	0	208	0	0	0	0	0	1908
Heavy Trucks	0	20	0		0	20	0		4	0	0		0	0	0		44
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	5	0		0	0	0		0	0	0		5
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/9/2015 7:25 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: System Peak

Method for determining peak hour: Total Entering Volume

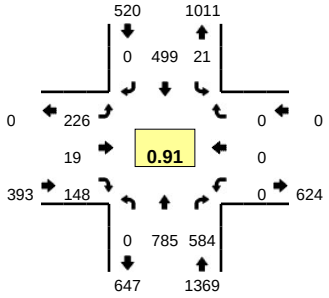
LOCATION: N Los Carneros Rd -- US 101 SB Ramps

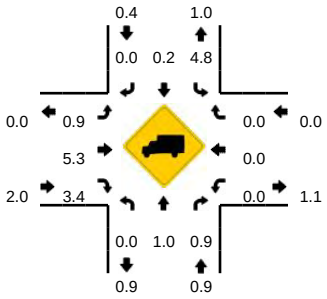
CITY/STATE: Goleta, CA

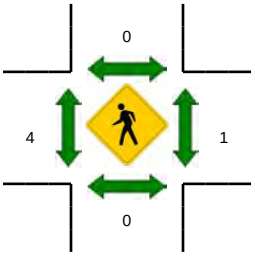
QC JOB #: 13337522

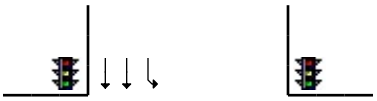
DATE: Thu, Apr 02 2015

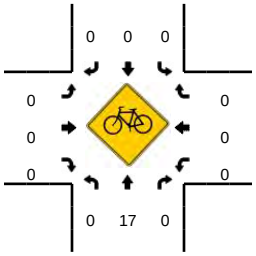
Peak-Hour: 4:55 PM -- 5:55 PM
Peak 15-Min: 5:05 PM -- 5:20 PM

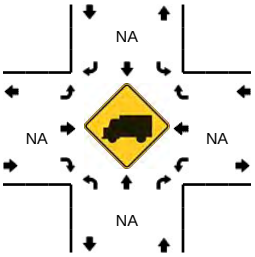


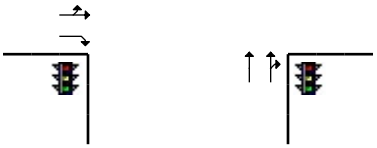


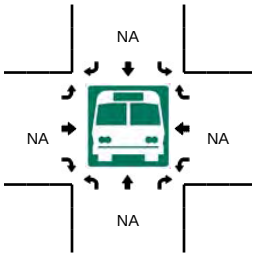












5-Min Count Period Beginning At	N Los Carneros Rd (Northbound)				N Los Carneros Rd (Southbound)				US 101 SB Ramps (Eastbound)				US 101 SB Ramps (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	40	27	0	0	32	0	0	3	0	4	0	0	0	0	0	106	
4:05 PM	0	57	42	0	5	43	0	0	4	0	1	0	0	0	0	0	152	
4:10 PM	0	35	30	0	1	56	0	0	6	0	3	0	0	0	0	0	131	
4:15 PM	0	51	24	0	3	37	0	0	4	0	3	0	0	0	0	0	122	
4:20 PM	0	44	21	0	4	26	0	0	2	0	6	0	0	0	0	0	103	
4:25 PM	0	51	33	0	1	48	0	0	1	0	1	0	0	0	0	0	135	
4:30 PM	0	56	51	0	4	48	0	0	3	0	0	0	0	0	0	0	162	
4:35 PM	0	74	40	0	4	44	0	0	4	0	0	0	0	0	0	0	166	
4:40 PM	0	65	51	0	3	45	0	0	5	0	1	0	0	0	0	0	170	
4:45 PM	0	61	44	0	4	37	0	0	2	0	3	0	0	0	0	0	151	
4:50 PM	0	59	36	0	4	48	0	0	4	1	5	0	0	0	0	0	157	
4:55 PM	0	53	44	0	4	49	0	0	2	2	3	0	0	0	0	0	157	1712
5:00 PM	0	47	63	0	2	32	0	0	5	0	3	0	0	0	0	0	152	1758
5:05 PM	0	77	68	0	2	42	0	0	2	0	0	0	0	0	0	0	191	1797
5:10 PM	0	105	76	0	6	37	0	0	4	0	4	0	0	0	0	0	232	1898
5:15 PM	0	79	69	0	1	47	0	0	6	0	4	0	0	0	0	0	206	1982
5:20 PM	0	53	35	0	1	45	0	0	8	0	3	0	0	0	0	0	145	2024
5:25 PM	0	59	49	0	0	37	0	0	17	1	16	0	0	0	0	0	179	2068
5:30 PM	0	63	42	0	1	47	0	0	37	2	22	0	0	0	0	0	214	2120
5:35 PM	0	74	58	0	0	33	0	0	44	5	20	0	0	0	0	0	234	2188
5:40 PM	0	54	36	0	1	39	0	0	43	2	30	0	0	0	0	0	205	2223
5:45 PM	0	64	24	0	0	49	0	0	35	5	28	0	0	0	0	0	205	2277
5:50 PM	0	57	20	0	3	42	0	0	23	2	15	0	0	0	0	0	162	2282
5:55 PM	0	36	30	0	1	39	0	0	2	0	0	0	0	0	0	0	108	2233

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	1044	852	0	36	504	0	0	48	0	32	0	0	0	0	0	2516
Heavy Trucks	0	12	8		4	0	0		0	0	0		0	0	0		24
Pedestrians		0				0				4				4			8
Bicycles	0	3	0		0	0	0		0	0	0		0	0	0		3
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/9/2015 7:27 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

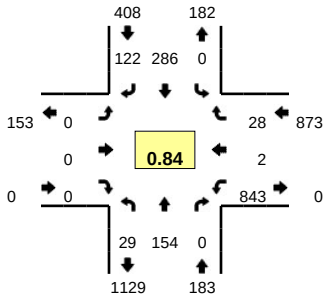
Type of peak hour being reported: System Peak

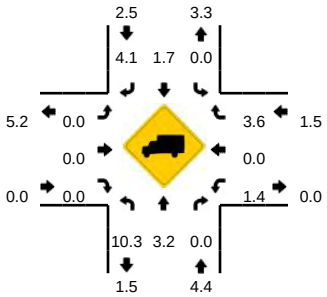
Method for determining peak hour: Total Entering Volume

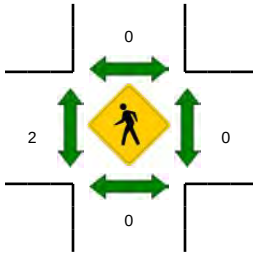
LOCATION: N Los Carneros Rd -- US 101 NB Ramps
CITY/STATE: Goleta, CA

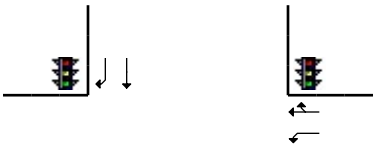
QC JOB #: 13337523
DATE: Thu, Apr 02 2015

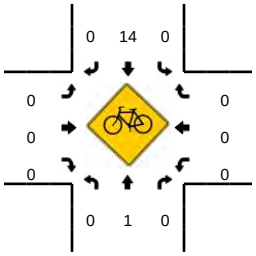
Peak-Hour: 7:35 AM -- 8:35 AM
Peak 15-Min: 7:50 AM -- 8:05 AM

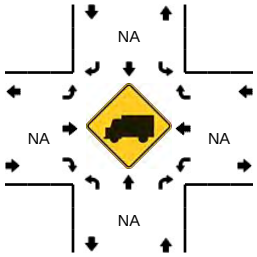


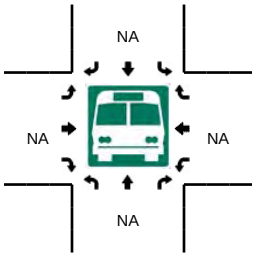












5-Min Count Period Beginning At	N Los Carneros Rd (Northbound)				N Los Carneros Rd (Southbound)				US 101 NB Ramps (Eastbound)				US 101 NB Ramps (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	2	8	0	0	0	8	8	0	0	0	0	0	29	0	3	0	58	
7:05 AM	4	7	0	0	0	12	4	0	0	0	0	0	22	0	1	0	50	
7:10 AM	0	8	0	0	0	17	6	0	0	0	0	0	43	0	3	0	77	
7:15 AM	2	2	0	0	0	12	3	0	0	0	0	0	43	0	2	0	64	
7:20 AM	3	14	0	0	0	25	3	0	0	0	0	0	41	0	3	0	89	
7:25 AM	3	3	0	0	0	23	8	0	0	0	0	0	49	0	1	0	87	
7:30 AM	2	5	0	0	0	17	2	0	0	0	0	0	44	0	4	0	74	
7:35 AM	1	18	0	0	0	22	7	0	0	0	0	0	33	0	4	0	85	
7:40 AM	4	8	0	0	0	24	7	0	0	0	0	0	71	0	1	0	115	
7:45 AM	0	9	0	0	0	32	7	0	0	0	0	0	84	0	3	0	135	
7:50 AM	3	11	0	0	0	26	11	0	0	0	0	0	75	1	5	0	132	
7:55 AM	3	17	0	0	0	27	15	0	0	0	0	0	98	1	1	0	162	1128
8:00 AM	3	21	0	0	0	27	7	0	0	0	0	0	79	0	3	0	140	1210
8:05 AM	2	14	0	0	0	23	4	0	0	0	0	0	78	0	2	0	123	1283
8:10 AM	2	11	0	0	0	21	7	0	0	0	0	0	88	0	1	0	130	1336
8:15 AM	3	15	0	0	0	18	15	0	0	0	0	0	59	0	4	0	114	1386
8:20 AM	1	12	0	0	0	25	11	0	0	0	0	0	65	0	1	0	115	1412
8:25 AM	2	13	0	0	0	21	19	0	0	0	0	0	53	0	1	0	109	1434
8:30 AM	5	5	0	0	0	20	12	0	0	0	0	0	60	0	2	0	104	1464
8:35 AM	5	12	0	0	0	16	14	0	0	0	0	0	43	0	2	0	92	1471
8:40 AM	3	11	0	0	0	22	8	0	0	0	0	0	66	0	4	0	114	1470
8:45 AM	1	18	0	0	0	15	10	0	0	0	0	0	56	0	4	0	104	1439
8:50 AM	3	15	0	0	0	31	15	0	0	0	0	0	48	0	1	0	113	1420
8:55 AM	2	17	0	0	0	20	11	0	0	0	0	0	53	2	6	0	111	1369

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	36	196	0	0	0	320	132	0	0	0	0	0	1008	8	36	0	1736
Heavy Trucks	8	12	0		0	8	8		0	0	0		12	0	0		48
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	4	0		0	0	0		0	0	0		4
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/9/2015 7:25 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

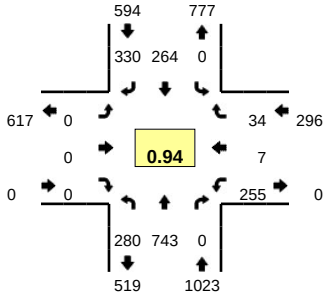
Type of peak hour being reported: System Peak

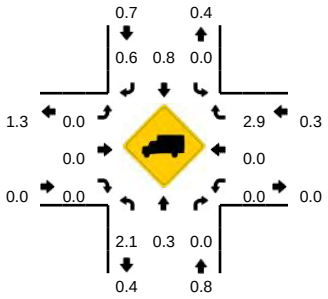
Method for determining peak hour: Total Entering Volume

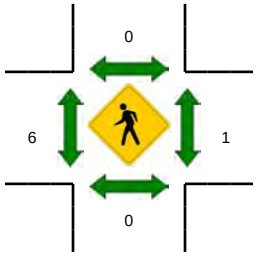
LOCATION: N Los Carneros Rd -- US 101 NB Ramps
CITY/STATE: Goleta, CA

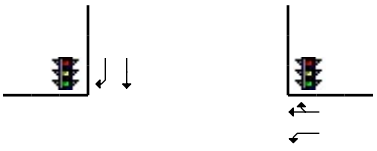
QC JOB #: 13337524
DATE: Thu, Apr 02 2015

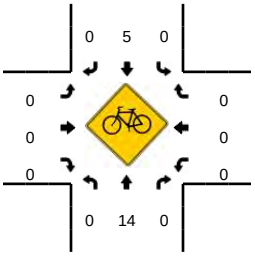
Peak-Hour: 4:55 PM -- 5:55 PM
Peak 15-Min: 5:05 PM -- 5:20 PM

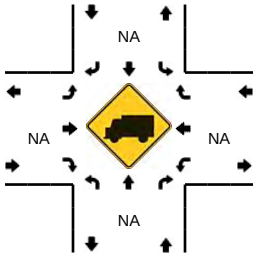


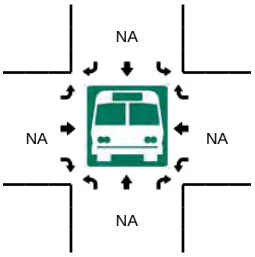












5-Min Count Period Beginning At	N Los Carneros Rd (Northbound)				N Los Carneros Rd (Southbound)				US 101 NB Ramps (Eastbound)				US 101 NB Ramps (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	14	27	0	0	0	25	26	0	0	0	0	0	14	2	1	0	109	
4:05 PM	16	32	0	0	0	18	24	0	0	0	0	0	28	0	1	0	119	
4:10 PM	26	31	0	0	0	24	29	0	0	0	0	0	31	2	4	0	147	
4:15 PM	22	33	0	0	0	18	19	0	0	0	0	0	22	0	0	0	114	
4:20 PM	19	24	0	0	0	12	21	0	0	0	0	0	18	0	4	0	98	
4:25 PM	15	39	0	0	0	20	28	0	0	0	0	0	32	0	8	0	142	
4:30 PM	20	36	0	0	0	25	26	0	0	0	0	0	27	0	3	0	137	
4:35 PM	30	43	0	0	0	24	26	0	0	0	0	0	27	1	11	0	162	
4:40 PM	36	44	0	0	0	24	23	0	0	0	0	0	19	0	6	0	152	
4:45 PM	18	42	0	0	0	20	25	0	0	0	0	0	20	1	4	0	130	
4:50 PM	22	44	0	0	0	27	28	0	0	0	0	0	25	0	6	0	152	
4:55 PM	21	34	0	0	0	26	34	0	0	0	0	0	24	1	2	0	142	1604
5:00 PM	15	32	0	0	0	18	26	0	0	0	0	0	16	1	3	0	111	1606
5:05 PM	25	59	0	0	0	21	38	0	0	0	0	0	25	0	5	0	173	1660
5:10 PM	31	67	0	0	0	22	25	0	0	0	0	0	19	0	4	0	168	1681
5:15 PM	40	44	0	0	0	21	27	0	0	0	0	0	28	1	6	0	167	1734
5:20 PM	25	44	0	0	0	26	27	0	0	0	0	0	16	0	1	0	139	1775
5:25 PM	19	55	0	0	0	18	25	0	0	0	0	0	19	0	0	0	136	1769
5:30 PM	23	81	0	0	0	27	24	0	0	0	0	0	21	0	1	0	177	1809
5:35 PM	21	93	0	0	0	16	17	0	0	0	0	0	20	1	4	0	172	1819
5:40 PM	22	82	0	0	0	20	30	0	0	0	0	0	18	2	2	0	176	1843
5:45 PM	16	89	0	0	0	21	27	0	0	0	0	0	30	0	2	0	185	1898
5:50 PM	22	63	0	0	0	28	30	0	0	0	0	0	19	1	4	0	167	1913
5:55 PM	12	27	0	0	0	15	16	0	0	0	0	0	24	1	3	0	98	1869

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	384	680	0	0	0	256	360	0	0	0	0	0	288	4	60	0	2032
Heavy Trucks	4	4	0		0	4	0		0	0	0		0	0	0		12
Pedestrians		0				0				4				4			8
Bicycles	0	2	0		0	1	0		0	0	0		0	0	0		3
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/9/2015 7:27 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

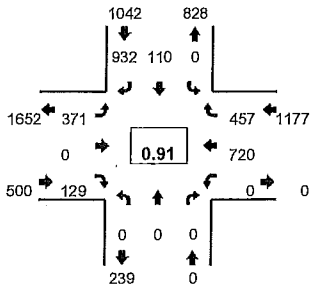
Type of peak hour being reported: Intersection Peak

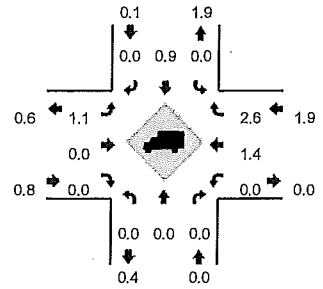
Method for determining peak hour: Total Entering Volume

LOCATION: Fairview Ave -- US 101 NB Ramps
CITY/STATE: Goleta, CA

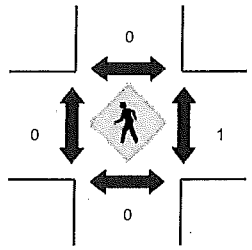
QC JOB #: 10938843
DATE: Wed, Apr 03 2013

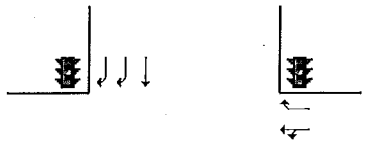
Peak-Hour: 7:35 AM -- 8:35 AM
Peak 15-Min: 7:55 AM -- 8:10 AM

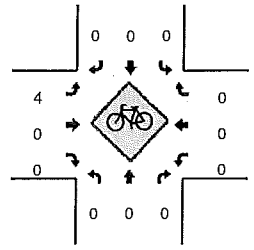


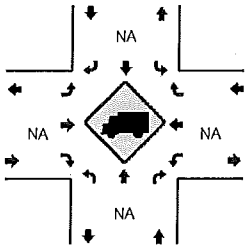


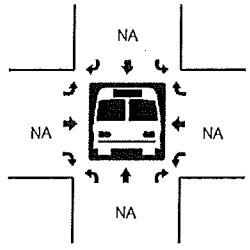
Quality Counts
TRANSPORTATION DATA COLLECTION SERVICES











R* = RTOR

5-Min Count Period Beginning At	Fairview Ave (Northbound)					Fairview Ave (Southbound)					US 101 NB Ramps (Eastbound)					US 101 NB Ramps (Westbound)					Total	Hourly Totals
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
7:00 AM	0	0	0	0	0	0	7	26	0	0	9	0	7	0	0	0	36	19	0	4	108	
7:05 AM	0	0	0	0	0	0	3	30	0	0	17	0	4	0	0	0	36	18	0	3	111	
7:10 AM	0	0	0	0	0	0	4	42	0	0	18	0	7	0	0	0	32	12	0	2	117	
7:15 AM	0	0	0	0	0	0	8	42	0	0	15	0	5	0	0	0	40	20	0	3	133	
7:20 AM	0	0	0	0	0	0	9	60	0	0	20	0	3	0	0	0	48	20	0	2	162	
7:25 AM	0	0	0	0	0	0	7	45	0	0	16	0	8	0	0	0	37	16	0	2	131	
7:30 AM	0	0	0	0	0	0	2	49	0	0	28	0	16	0	0	0	36	19	0	2	152	
7:35 AM	0	0	0	0	0	0	13	69	0	0	5	0	8	0	0	0	50	32	0	3	180	
7:40 AM	0	0	0	0	0	0	5	59	0	0	39	0	14	0	0	0	46	22	0	3	188	
7:45 AM	0	0	0	0	0	0	11	71	0	0	25	0	26	0	0	0	68	26	0	2	229	
7:50 AM	0	0	0	0	0	0	9	73	0	0	39	0	6	0	0	0	60	30	0	6	223	
7:55 AM	0	0	0	0	0	0	9	79	0	0	32	0	27	0	0	0	78	49	0	1	275	2009
8:00 AM	0	0	0	0	0	0	5	74	0	0	40	0	8	0	0	0	62	47	0	1	237	2138
8:05 AM	0	0	0	0	0	0	12	82	0	0	45	0	10	0	0	0	49	29	0	4	231	2258
8:10 AM	0	0	0	0	0	0	6	78	0	0	36	0	3	0	0	0	70	51	0	1	245	2386
8:15 AM	0	0	0	0	0	0	5	84	0	0	25	0	2	0	0	0	69	65	0	3	253	2506
8:20 AM	0	0	0	0	0	0	11	84	0	0	33	0	13	0	0	0	35	24	0	7	207	2551
8:25 AM	0	0	0	0	0	0	13	103	0	0	24	0	9	0	0	0	70	20	0	2	241	2661
8:30 AM	0	0	0	0	0	0	11	76	0	0	28	0	3	0	0	0	63	28	0	1	210	2719
8:35 AM	0	0	0	0	0	0	12	64	0	0	18	0	4	0	0	0	36	24	0	3	161	2700
8:40 AM	0	0	0	0	0	0	11	67	0	0	25	0	5	0	0	0	44	21	0	2	175	2687
8:45 AM	0	0	0	0	0	0	13	57	0	0	25	0	6	0	0	0	48	25	0	4	178	2636
8:50 AM	0	0	0	0	0	0	13	62	0	0	36	0	5	0	0	0	41	28	0	6	191	2604
8:55 AM	0	0	0	0	0	0	13	43	0	0	24	0	6	0	0	0	40	27	0	4	157	2486

Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	
All Vehicles	0	0	0	0	0	0	104	940	0	0	468	0	180	0	0	0	756	500	0	24	2972
Heavy Trucks	0	0	0			0	0	0			0	0	0			0	12	24			36
Pedestrians		0					0					0					4				4
Bicycles	0	0	0			0	0	0			2	0	0			0	0	0			2
Railroad																					
Stopped Buses																					

Comments: N/A

Report generated on 6/5/2013 11:34 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

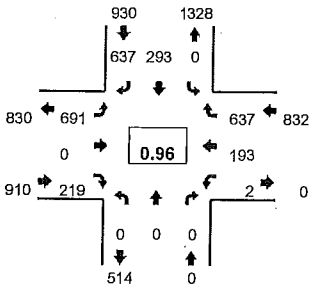
Type of peak hour being reported: Intersection Peak

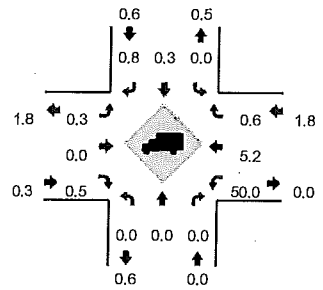
Method for determining peak hour: Total Entering Volume

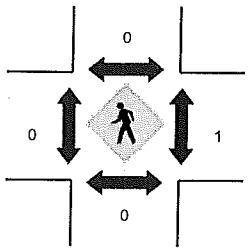
LOCATION: Fairview Ave -- US 101 NB Ramps
CITY/STATE: Goleta, CA

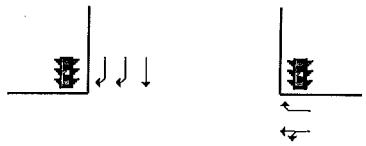
QC JOB #: 10938844
DATE: Wed, Apr 03 2013

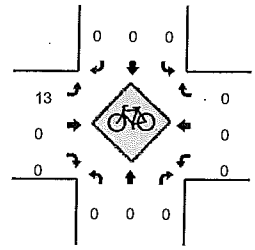
Peak-Hour: 4:40 PM -- 5:40 PM
Peak 15-Min: 5:25 PM -- 5:40 PM

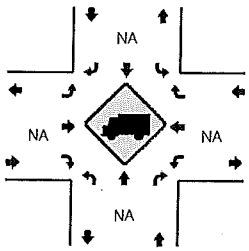


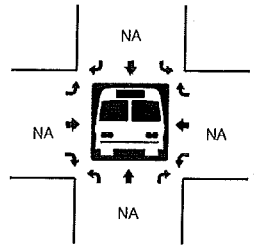












R* = RTOR

5-Min Count Period Beginning At	Fairview Ave (Northbound)					Fairview Ave (Southbound)					US 101 NB Ramps (Eastbound)					US 101 NB Ramps (Westbound)					Total	Hourly Totals
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
4:00 PM	0	0	0	0	0	0	28	50	0	0	25	0	16	0	0	0	17	28	0	17	181	
4:05 PM	0	0	0	0	0	0	20	49	0	0	73	0	15	0	0	0	24	35	0	12	228	
4:10 PM	0	0	0	0	0	0	29	71	0	0	49	0	23	0	0	0	27	21	0	17	237	
4:15 PM	0	0	0	0	0	0	21	51	0	0	49	0	16	0	0	0	20	37	0	21	215	
4:20 PM	0	0	0	0	0	0	33	59	0	0	67	0	16	0	0	0	18	22	0	19	234	
4:25 PM	0	0	0	0	0	0	17	49	0	0	39	0	15	0	0	0	25	28	0	13	186	
4:30 PM	0	0	0	0	0	0	27	56	0	0	55	0	15	0	0	0	20	16	0	24	213	
4:35 PM	0	0	0	0	0	0	28	56	0	0	38	0	8	0	0	0	12	37	0	9	188	
4:40 PM	0	0	0	0	0	0	17	43	0	0	64	0	17	0	0	0	19	50	0	13	223	
4:45 PM	0	0	0	0	0	0	29	65	0	0	45	0	14	0	0	0	15	34	0	19	221	
4:50 PM	0	0	0	0	0	0	11	54	0	0	58	0	12	0	0	1	25	41	0	8	210	
4:55 PM	0	0	0	0	0	0	36	34	0	0	72	0	15	0	0	0	14	28	0	19	218	2554
5:00 PM	0	0	0	0	0	0	26	53	0	0	40	0	14	0	0	0	18	45	0	4	200	2573
5:05 PM	0	0	0	0	0	0	24	42	0	0	78	0	20	0	0	0	16	31	0	21	232	2577
5:10 PM	0	0	0	0	0	0	31	67	0	0	45	0	20	0	0	0	12	40	0	18	233	2573
5:15 PM	0	0	0	0	0	0	23	38	0	0	58	0	28	0	0	0	20	32	0	19	218	2576
5:20 PM	0	0	0	0	0	0	28	55	0	0	77	0	13	0	0	0	11	17	0	23	224	2566
5:25 PM	0	0	0	0	0	0	21	68	0	0	37	0	14	0	0	0	16	59	0	12	227	2607
5:30 PM	0	0	0	0	0	0	26	53	0	0	75	0	21	0	0	0	12	25	0	19	231	2625
5:35 PM	0	0	0	0	0	0	21	65	0	0	42	0	31	0	0	1	15	46	0	14	235	2672
5:40 PM	0	0	0	0	0	0	32	43	0	0	71	0	18	0	0	0	12	19	0	19	214	2663
5:45 PM	0	0	0	0	0	0	18	46	0	0	43	0	5	0	0	1	12	44	0	4	173	2615
5:50 PM	0	0	0	0	0	0	26	43	0	0	78	0	34	0	0	1	5	25	0	25	237	2642
5:55 PM	0	0	0	0	0	0	28	53	0	0	50	0	13	0	0	0	10	27	0	12	193	2617

Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	
All Vehicles	0	0	0	0	0	0	272	744	0	0	616	0	264	0	0	4	172	520	0	180	2772
Heavy Trucks	0	0	0			0	0	12			0	0	0			0	0	4			16
Pedestrians		0					0					0					0				0
Bicycles	0	0	0			0	0	0			4	0	0			0	0	0			4
Railroad																					
Stopped Buses																					

Comments: N/A

Report generated on 6/5/2013 11:34 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

LOCATION: Los Carneros Rd north of US 101 NB ramps
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337525
DIRECTION: NB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				67		67			67	
1:00 AM				34		34			34	
2:00 AM				7		7			7	
3:00 AM				13		13			13	
4:00 AM				24		24			24	
5:00 AM				91		91			91	
6:00 AM				172		172			172	
7:00 AM				324		324			324	
8:00 AM				390		390			390	
9:00 AM				351		351			351	
10:00 AM				398		398			398	
11:00 AM				**413**		**413**			**413**	
12:00 PM				534		534			534	
1:00 PM				**596**		**596**			**596**	
2:00 PM				486		486			486	
3:00 PM				526		526			526	
4:00 PM				565		565			565	
5:00 PM				547		547			547	
6:00 PM				498		498			498	
7:00 PM				394		394			394	
8:00 PM				383		383			383	
9:00 PM				249		249			249	
10:00 PM				165		165			165	
11:00 PM				85		85			85	
Day Total				7312		7312			7312	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				11:00 AM 413		11:00 AM 413			11:00 AM 413	
PM Peak Volume				1:00 PM 596		1:00 PM 596			1:00 PM 596	

Comments:

Report generated on 4/8/2015 11:06 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

LOCATION: Los Carneros Rd north of US 101 NB ramps
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337525
DIRECTION: NB/SB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				90		90			90	
1:00 AM				48		48			48	
2:00 AM				13		13			13	
3:00 AM				22		22			22	
4:00 AM				42		42			42	
5:00 AM				127		127			127	
6:00 AM				251		251			251	
7:00 AM				463		463			463	
8:00 AM				583		583			583	
9:00 AM				538		538			538	
10:00 AM				607		607			607	
11:00 AM				**790**		**790**			**790**	
12:00 PM				937		937			937	
1:00 PM				916		916			916	
2:00 PM				797		797			797	
3:00 PM				894		894			894	
4:00 PM				1034		1034			1034	
5:00 PM				**1280**		**1280**			**1280**	
6:00 PM				881		881			881	
7:00 PM				635		635			635	
8:00 PM				685		685			685	
9:00 PM				396		396			396	
10:00 PM				264		264			264	
11:00 PM				122		122			122	
Day Total				12415		12415			12415	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				11:00 AM 790		11:00 AM 790			11:00 AM 790	
PM Peak Volume				5:00 PM 1280		5:00 PM 1280			5:00 PM 1280	

Comments:

LOCATION: Los Carneros Rd north of US 101 NB ramps
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337525
DIRECTION: SB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				23		23			23	
1:00 AM				14		14			14	
2:00 AM				6		6			6	
3:00 AM				9		9			9	
4:00 AM				18		18			18	
5:00 AM				36		36			36	
6:00 AM				79		79			79	
7:00 AM				139		139			139	
8:00 AM				193		193			193	
9:00 AM				187		187			187	
10:00 AM				209		209			209	
11:00 AM				**377**		**377**			**377**	
12:00 PM				403		403			403	
1:00 PM				320		320			320	
2:00 PM				311		311			311	
3:00 PM				368		368			368	
4:00 PM				469		469			469	
5:00 PM				**733**		**733**			**733**	
6:00 PM				383		383			383	
7:00 PM				241		241			241	
8:00 PM				302		302			302	
9:00 PM				147		147			147	
10:00 PM				99		99			99	
11:00 PM				37		37			37	
Day Total				5103		5103			5103	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				11:00 AM 377		11:00 AM 377			11:00 AM 377	
PM Peak Volume				5:00 PM 733		5:00 PM 733			5:00 PM 733	

Comments:

Report generated on 4/8/2015 11:06 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

LOCATION: Los Carneros Rd btwn US 101 SB ramps and Calle Koral
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337526
DIRECTION: NB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				49		49			49	
1:00 AM				33		33			33	
2:00 AM				17		17			17	
3:00 AM				19		19			19	
4:00 AM				19		19			19	
5:00 AM				47		47			47	
6:00 AM				75		75			75	
7:00 AM				226		226			226	
8:00 AM				292		292			292	
9:00 AM				312		312			312	
10:00 AM				360		360			360	
11:00 AM				**603**		**603**			**603**	
12:00 PM				678		678			678	
1:00 PM				553		553			553	
2:00 PM				568		568			568	
3:00 PM				805		805			805	
4:00 PM				1074		1074			1074	
5:00 PM				**1322**		**1322**			**1322**	
6:00 PM				759		759			759	
7:00 PM				405		405			405	
8:00 PM				287		287			287	
9:00 PM				213		213			213	
10:00 PM				202		202			202	
11:00 PM				123		123			123	
Day Total				9041		9041			9041	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				11:00 AM 603		11:00 AM 603			11:00 AM 603	
PM Peak Volume				5:00 PM 1322		5:00 PM 1322			5:00 PM 1322	

Comments:

LOCATION: Los Carneros Rd btwn US 101 SB ramps and Calle Koral
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337526
DIRECTION: NB/SB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				150		150			150	
1:00 AM				97		97			97	
2:00 AM				36		36			36	
3:00 AM				43		43			43	
4:00 AM				81		81			81	
5:00 AM				241		241			241	
6:00 AM				568		568			568	
7:00 AM				1207		1207			1207	
8:00 AM				**1386**		**1386**			**1386**	
9:00 AM				900		900			900	
10:00 AM				790		790			790	
11:00 AM				1054		1054			1054	
12:00 PM				1302		1302			1302	
1:00 PM				1240		1240			1240	
2:00 PM				1084		1084			1084	
3:00 PM				1336		1336			1336	
4:00 PM				1606		1606			1606	
5:00 PM				**1960**		**1960**			**1960**	
6:00 PM				1267		1267			1267	
7:00 PM				844		844			844	
8:00 PM				797		797			797	
9:00 PM				590		590			590	
10:00 PM				518		518			518	
11:00 PM				299		299			299	
Day Total				19396		19396			19396	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				8:00 AM 1386		8:00 AM 1386			8:00 AM 1386	
PM Peak Volume				5:00 PM 1960		5:00 PM 1960			5:00 PM 1960	

Comments:

Report generated on 4/8/2015 11:06 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

LOCATION: Los Carneros Rd btwn US 101 SB ramps and Calle Koral
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337526
DIRECTION: SB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				101		101			101	
1:00 AM				64		64			64	
2:00 AM				19		19			19	
3:00 AM				24		24			24	
4:00 AM				62		62			62	
5:00 AM				194		194			194	
6:00 AM				493		493			493	
7:00 AM				981		981			981	
8:00 AM				**1094**		**1094**			**1094**	
9:00 AM				588		588			588	
10:00 AM				430		430			430	
11:00 AM				451		451			451	
12:00 PM				624		624			624	
1:00 PM				**687**		**687**			**687**	
2:00 PM				516		516			516	
3:00 PM				531		531			531	
4:00 PM				532		532			532	
5:00 PM				638		638			638	
6:00 PM				508		508			508	
7:00 PM				439		439			439	
8:00 PM				510		510			510	
9:00 PM				377		377			377	
10:00 PM				316		316			316	
11:00 PM				176		176			176	
Day Total				10355		10355			10355	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				8:00 AM 1094		8:00 AM 1094			8:00 AM 1094	
PM Peak Volume				1:00 PM 687		1:00 PM 687			1:00 PM 687	

Comments:

LOCATION: Los Carneros Rd btwn Calle Koral and Hollister Ave
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337527
DIRECTION: EB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				48		48			48	
1:00 AM				28		28			28	
2:00 AM				8		8			8	
3:00 AM				11		11			11	
4:00 AM				13		13			13	
5:00 AM				36		36			36	
6:00 AM				42		42			42	
7:00 AM				150		150			150	
8:00 AM				208		208			208	
9:00 AM				243		243			243	
10:00 AM				283		283			283	
11:00 AM				**450**		**450**			**450**	
12:00 PM				530		530			530	
1:00 PM				428		428			428	
2:00 PM				454		454			454	
3:00 PM				621		621			621	
4:00 PM				804		804			804	
5:00 PM				**1012**		**1012**			**1012**	
6:00 PM				598		598			598	
7:00 PM				336		336			336	
8:00 PM				218		218			218	
9:00 PM				179		179			179	
10:00 PM				192		192			192	
11:00 PM				113		113			113	
Day Total				7005		7005			7005	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				11:00 AM 450		11:00 AM 450			11:00 AM 450	
PM Peak Volume				5:00 PM 1012		5:00 PM 1012			5:00 PM 1012	

Comments:

Report generated on 4/8/2015 11:06 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

LOCATION: Los Carneros Rd btwn Calle Koral and Hollister Ave
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337527
DIRECTION: EB/WB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				144		144			144	
1:00 AM				90		90			90	
2:00 AM				24		24			24	
3:00 AM				29		29			29	
4:00 AM				67		67			67	
5:00 AM				191		191			191	
6:00 AM				427		427			427	
7:00 AM				919		919			919	
8:00 AM				**1150**		**1150**			**1150**	
9:00 AM				744		744			744	
10:00 AM				667		667			667	
11:00 AM				843		843			843	
12:00 PM				1081		1081			1081	
1:00 PM				1028		1028			1028	
2:00 PM				920		920			920	
3:00 PM				1071		1071			1071	
4:00 PM				1258		1258			1258	
5:00 PM				**1528**		**1528**			**1528**	
6:00 PM				1026		1026			1026	
7:00 PM				731		731			731	
8:00 PM				658		658			658	
9:00 PM				524		524			524	
10:00 PM				489		489			489	
11:00 PM				281		281			281	
Day Total				15890		15890			15890	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				8:00 AM 1150		8:00 AM 1150			8:00 AM 1150	
PM Peak Volume				5:00 PM 1528		5:00 PM 1528			5:00 PM 1528	

Comments:

Report generated on 4/8/2015 11:06 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

LOCATION: Los Carneros Rd btwn Calle Koral and Hollister Ave
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337527
DIRECTION: WB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				96		96			96	
1:00 AM				62		62			62	
2:00 AM				16		16			16	
3:00 AM				18		18			18	
4:00 AM				54		54			54	
5:00 AM				155		155			155	
6:00 AM				385		385			385	
7:00 AM				769		769			769	
8:00 AM				**942**		**942**			**942**	
9:00 AM				501		501			501	
10:00 AM				384		384			384	
11:00 AM				393		393			393	
12:00 PM				551		551			551	
1:00 PM				**600**		**600**			**600**	
2:00 PM				466		466			466	
3:00 PM				450		450			450	
4:00 PM				454		454			454	
5:00 PM				516		516			516	
6:00 PM				428		428			428	
7:00 PM				395		395			395	
8:00 PM				440		440			440	
9:00 PM				345		345			345	
10:00 PM				297		297			297	
11:00 PM				168		168			168	
Day Total				8885		8885			8885	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				8:00 AM 942		8:00 AM 942			8:00 AM 942	
PM Peak Volume				1:00 PM 600		1:00 PM 600			1:00 PM 600	

Comments:

Report generated on 4/8/2015 11:06 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

LOCATION: Los Carneros Rd south of Hollister Ave
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337528
DIRECTION: NB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				98		98			98	
1:00 AM				46		46			46	
2:00 AM				10		10			10	
3:00 AM				14		14			14	
4:00 AM				14		14			14	
5:00 AM				40		40			40	
6:00 AM				61		61			61	
7:00 AM				189		189			189	
8:00 AM				270		270			270	
9:00 AM				285		285			285	
10:00 AM				300		300			300	
11:00 AM				**370**		**370**			**370**	
12:00 PM				458		458			458	
1:00 PM				458		458			458	
2:00 PM				452		452			452	
3:00 PM				539		539			539	
4:00 PM				594		594			594	
5:00 PM				**671**		**671**			**671**	
6:00 PM				501		501			501	
7:00 PM				434		434			434	
8:00 PM				245		245			245	
9:00 PM				262		262			262	
10:00 PM				227		227			227	
11:00 PM				129		129			129	
Day Total				6667		6667			6667	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				11:00 AM 370		11:00 AM 370			11:00 AM 370	
PM Peak Volume				5:00 PM 671		5:00 PM 671			5:00 PM 671	

Comments:

LOCATION: Los Carneros Rd south of Hollister Ave
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337528
DIRECTION: NB/SB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				246		246			246	
1:00 AM				148		148			148	
2:00 AM				37		37			37	
3:00 AM				23		23			23	
4:00 AM				39		39			39	
5:00 AM				89		89			89	
6:00 AM				208		208			208	
7:00 AM				599		599			599	
8:00 AM				**843**		**843**			**843**	
9:00 AM				702		702			702	
10:00 AM				677		677			677	
11:00 AM				738		738			738	
12:00 PM				1000		1000			1000	
1:00 PM				1008		1008			1008	
2:00 PM				862		862			862	
3:00 PM				1065		1065			1065	
4:00 PM				1085		1085			1085	
5:00 PM				**1221**		**1221**			**1221**	
6:00 PM				1053		1053			1053	
7:00 PM				910		910			910	
8:00 PM				704		704			704	
9:00 PM				666		666			666	
10:00 PM				572		572			572	
11:00 PM				329		329			329	
Day Total				14824		14824			14824	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				8:00 AM 843		8:00 AM 843			8:00 AM 843	
PM Peak Volume				5:00 PM 1221		5:00 PM 1221			5:00 PM 1221	

Comments:

Report generated on 4/8/2015 11:06 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

LOCATION: Los Carneros Rd south of Hollister Ave
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337528
DIRECTION: SB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				148		148			148	
1:00 AM				102		102			102	
2:00 AM				27		27			27	
3:00 AM				9		9			9	
4:00 AM				25		25			25	
5:00 AM				49		49			49	
6:00 AM				147		147			147	
7:00 AM				410		410			410	
8:00 AM				**573**		**573**			**573**	
9:00 AM				417		417			417	
10:00 AM				377		377			377	
11:00 AM				368		368			368	
12:00 PM				542		542			542	
1:00 PM				550		550			550	
2:00 PM				410		410			410	
3:00 PM				526		526			526	
4:00 PM				491		491			491	
5:00 PM				550		550			550	
6:00 PM				**552**		**552**			**552**	
7:00 PM				476		476			476	
8:00 PM				459		459			459	
9:00 PM				404		404			404	
10:00 PM				345		345			345	
11:00 PM				200		200			200	
Day Total				8157		8157			8157	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				8:00 AM 573		8:00 AM 573			8:00 AM 573	
PM Peak Volume				6:00 PM 552		6:00 PM 552			6:00 PM 552	

Comments:

LOCATION: Hollister Ave west of Los Carneros Rd
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337529
DIRECTION: EB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				44		44			44	
1:00 AM				25		25			25	
2:00 AM				18		18			18	
3:00 AM				21		21			21	
4:00 AM				73		73			73	
5:00 AM				133		133			133	
6:00 AM				315		315			315	
7:00 AM				**692**		**692**			**692**	
8:00 AM				649		649			649	
9:00 AM				526		526			526	
10:00 AM				464		464			464	
11:00 AM				658		658			658	
12:00 PM				**894**		**894**			**894**	
1:00 PM				883		883			883	
2:00 PM				634		634			634	
3:00 PM				721		721			721	
4:00 PM				662		662			662	
5:00 PM				868		868			868	
6:00 PM				613		613			613	
7:00 PM				482		482			482	
8:00 PM				395		395			395	
9:00 PM				253		253			253	
10:00 PM				119		119			119	
11:00 PM				103		103			103	
Day Total				10245		10245			10245	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				7:00 AM 692		7:00 AM 692			7:00 AM 692	
PM Peak Volume				12:00 PM 894		12:00 PM 894			12:00 PM 894	

Comments:

LOCATION: Hollister Ave west of Los Carneros Rd
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337529
DIRECTION: EB/WB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				110		110			110	
1:00 AM				58		58			58	
2:00 AM				33		33			33	
3:00 AM				43		43			43	
4:00 AM				115		115			115	
5:00 AM				204		204			204	
6:00 AM				508		508			508	
7:00 AM				1083		1083			1083	
8:00 AM				1115		1115			1115	
9:00 AM				961		961			961	
10:00 AM				958		958			958	
11:00 AM				**1338**		**1338**			**1338**	
12:00 PM				1799		1799			1799	
1:00 PM				1618		1618			1618	
2:00 PM				1310		1310			1310	
3:00 PM				1445		1445			1445	
4:00 PM				1473		1473			1473	
5:00 PM				**1809**		**1809**			**1809**	
6:00 PM				1258		1258			1258	
7:00 PM				989		989			989	
8:00 PM				757		757			757	
9:00 PM				524		524			524	
10:00 PM				269		269			269	
11:00 PM				199		199			199	
Day Total				19976		19976			19976	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				11:00 AM 1338		11:00 AM 1338			11:00 AM 1338	
PM Peak Volume				5:00 PM 1809		5:00 PM 1809			5:00 PM 1809	

Comments:

LOCATION: Hollister Ave west of Los Carneros Rd
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337529
DIRECTION: WB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				66		66			66	
1:00 AM				33		33			33	
2:00 AM				15		15			15	
3:00 AM				22		22			22	
4:00 AM				42		42			42	
5:00 AM				71		71			71	
6:00 AM				193		193			193	
7:00 AM				391		391			391	
8:00 AM				466		466			466	
9:00 AM				435		435			435	
10:00 AM				494		494			494	
11:00 AM				**680**		**680**			**680**	
12:00 PM				905		905			905	
1:00 PM				735		735			735	
2:00 PM				676		676			676	
3:00 PM				724		724			724	
4:00 PM				811		811			811	
5:00 PM				**941**		**941**			**941**	
6:00 PM				645		645			645	
7:00 PM				507		507			507	
8:00 PM				362		362			362	
9:00 PM				271		271			271	
10:00 PM				150		150			150	
11:00 PM				96		96			96	
Day Total				9731		9731			9731	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				11:00 AM 680		11:00 AM 680			11:00 AM 680	
PM Peak Volume				5:00 PM 941		5:00 PM 941			5:00 PM 941	

Comments:

LOCATION: Hollister Ave btwn Los Carneros Rd and Los Carneros Way
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337530
DIRECTION: EB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				79		79			79	
1:00 AM				30		30			30	
2:00 AM				18		18			18	
3:00 AM				24		24			24	
4:00 AM				58		58			58	
5:00 AM				124		124			124	
6:00 AM				270		270			270	
7:00 AM				477		477			477	
8:00 AM				493		493			493	
9:00 AM				421		421			421	
10:00 AM				380		380			380	
11:00 AM				**534**		**534**			**534**	
12:00 PM				705		705			705	
1:00 PM				**745**		**745**			**745**	
2:00 PM				568		568			568	
3:00 PM				600		600			600	
4:00 PM				558		558			558	
5:00 PM				741		741			741	
6:00 PM				460		460			460	
7:00 PM				402		402			402	
8:00 PM				371		371			371	
9:00 PM				235		235			235	
10:00 PM				116		116			116	
11:00 PM				87		87			87	
Day Total				8496		8496			8496	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				11:00 AM 534		11:00 AM 534			11:00 AM 534	
PM Peak Volume				1:00 PM 745		1:00 PM 745			1:00 PM 745	

Comments:

LOCATION: Hollister Ave btwn Los Carneros Rd and Los Carneros Way
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337530
DIRECTION: EB/WB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				186		186			186	
1:00 AM				89		89			89	
2:00 AM				38		38			38	
3:00 AM				40		40			40	
4:00 AM				100		100			100	
5:00 AM				191		191			191	
6:00 AM				426		426			426	
7:00 AM				833		833			833	
8:00 AM				925		925			925	
9:00 AM				820		820			820	
10:00 AM				824		824			824	
11:00 AM				**1127**		**1127**			**1127**	
12:00 PM				1502		1502			1502	
1:00 PM				1443		1443			1443	
2:00 PM				1176		1176			1176	
3:00 PM				1271		1271			1271	
4:00 PM				1275		1275			1275	
5:00 PM				**1527**		**1527**			**1527**	
6:00 PM				1061		1061			1061	
7:00 PM				827		827			827	
8:00 PM				726		726			726	
9:00 PM				473		473			473	
10:00 PM				270		270			270	
11:00 PM				178		178			178	
Day Total				17328		17328			17328	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				11:00 AM 1127		11:00 AM 1127			11:00 AM 1127	
PM Peak Volume				5:00 PM 1527		5:00 PM 1527			5:00 PM 1527	

Comments:

LOCATION: Hollister Ave btwn Los Carneros Rd and Los Carneros Way
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337530
DIRECTION: WB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				107		107			107	
1:00 AM				59		59			59	
2:00 AM				20		20			20	
3:00 AM				16		16			16	
4:00 AM				42		42			42	
5:00 AM				67		67			67	
6:00 AM				156		156			156	
7:00 AM				356		356			356	
8:00 AM				432		432			432	
9:00 AM				399		399			399	
10:00 AM				444		444			444	
11:00 AM				**593**		**593**			**593**	
12:00 PM				**797**		**797**			**797**	
1:00 PM				698		698			698	
2:00 PM				608		608			608	
3:00 PM				671		671			671	
4:00 PM				717		717			717	
5:00 PM				786		786			786	
6:00 PM				601		601			601	
7:00 PM				425		425			425	
8:00 PM				355		355			355	
9:00 PM				238		238			238	
10:00 PM				154		154			154	
11:00 PM				91		91			91	
Day Total				8832		8832			8832	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				11:00 AM 593		11:00 AM 593			11:00 AM 593	
PM Peak Volume				12:00 PM 797		12:00 PM 797			12:00 PM 797	

Comments:

LOCATION: Los Carneros Way btwn Calle Koral and Hollister Ave
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337531
DIRECTION: NB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				4		4			4	
1:00 AM				6		6			6	
2:00 AM				4		4			4	
3:00 AM				5		5			5	
4:00 AM				8		8			8	
5:00 AM				11		11			11	
6:00 AM				18		18			18	
7:00 AM				34		34			34	
8:00 AM				51		51			51	
9:00 AM				46		46			46	
10:00 AM				61		61			61	
11:00 AM				**99**		**99**			**99**	
12:00 PM				114		114			114	
1:00 PM				105		105			105	
2:00 PM				86		86			86	
3:00 PM				151		151			151	
4:00 PM				226		226			226	
5:00 PM				**296**		**296**			**296**	
6:00 PM				122		122			122	
7:00 PM				74		74			74	
8:00 PM				54		54			54	
9:00 PM				28		28			28	
10:00 PM				15		15			15	
11:00 PM				10		10			10	
Day Total				1628		1628			1628	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				11:00 AM 99		11:00 AM 99			11:00 AM 99	
PM Peak Volume				5:00 PM 296		5:00 PM 296			5:00 PM 296	

Comments:

Report generated on 4/8/2015 11:06 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

LOCATION: Los Carneros Way btwn Calle Koral and Hollister Ave
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337531
DIRECTION: NB/SB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				4		4			4	
1:00 AM				8		8			8	
2:00 AM				7		7			7	
3:00 AM				9		9			9	
4:00 AM				13		13			13	
5:00 AM				38		38			38	
6:00 AM				96		96			96	
7:00 AM				205		205			205	
8:00 AM				**209**		**209**			**209**	
9:00 AM				127		127			127	
10:00 AM				104		104			104	
11:00 AM				151		151			151	
12:00 PM				187		187			187	
1:00 PM				191		191			191	
2:00 PM				133		133			133	
3:00 PM				203		203			203	
4:00 PM				280		280			280	
5:00 PM				**384**		**384**			**384**	
6:00 PM				175		175			175	
7:00 PM				98		98			98	
8:00 PM				98		98			98	
9:00 PM				52		52			52	
10:00 PM				21		21			21	
11:00 PM				17		17			17	
Day Total				2810		2810			2810	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				8:00 AM 209		8:00 AM 209			8:00 AM 209	
PM Peak Volume				5:00 PM 384		5:00 PM 384			5:00 PM 384	

Comments:

Report generated on 4/8/2015 11:06 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

LOCATION: Los Carneros Way btwn Calle Koral and Hollister Ave
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337531
DIRECTION: SB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				0		0			0	
1:00 AM				2		2			2	
2:00 AM				3		3			3	
3:00 AM				4		4			4	
4:00 AM				5		5			5	
5:00 AM				27		27			27	
6:00 AM				78		78			78	
7:00 AM				**171**		**171**			**171**	
8:00 AM				158		158			158	
9:00 AM				81		81			81	
10:00 AM				43		43			43	
11:00 AM				52		52			52	
12:00 PM				73		73			73	
1:00 PM				86		86			86	
2:00 PM				47		47			47	
3:00 PM				52		52			52	
4:00 PM				54		54			54	
5:00 PM				**88**		**88**			**88**	
6:00 PM				53		53			53	
7:00 PM				24		24			24	
8:00 PM				44		44			44	
9:00 PM				24		24			24	
10:00 PM				6		6			6	
11:00 PM				7		7			7	
Day Total				1182		1182			1182	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				7:00 AM 171		7:00 AM 171			7:00 AM 171	
PM Peak Volume				5:00 PM 88		5:00 PM 88			5:00 PM 88	

Comments:

Report generated on 4/8/2015 11:06 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

LOCATION: Hollister Ave east of Los Carneros Way
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337532
DIRECTION: EB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				79		79			79	
1:00 AM				28		28			28	
2:00 AM				18		18			18	
3:00 AM				22		22			22	
4:00 AM				48		48			48	
5:00 AM				125		125			125	
6:00 AM				298		298			298	
7:00 AM				**537**		**537**			**537**	
8:00 AM				524		524			524	
9:00 AM				454		454			454	
10:00 AM				396		396			396	
11:00 AM				524		524			524	
12:00 PM				713		713			713	
1:00 PM				718		718			718	
2:00 PM				569		569			569	
3:00 PM				632		632			632	
4:00 PM				574		574			574	
5:00 PM				**800**		**800**			**800**	
6:00 PM				466		466			466	
7:00 PM				375		375			375	
8:00 PM				380		380			380	
9:00 PM				242		242			242	
10:00 PM				108		108			108	
11:00 PM				91		91			91	
Day Total				8721		8721			8721	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				7:00 AM 537		7:00 AM 537			7:00 AM 537	
PM Peak Volume				5:00 PM 800		5:00 PM 800			5:00 PM 800	

Comments:

LOCATION: Hollister Ave east of Los Carneros Way
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337532
DIRECTION: EB/WB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				187		187			187	
1:00 AM				87		87			87	
2:00 AM				40		40			40	
3:00 AM				45		45			45	
4:00 AM				97		97			97	
5:00 AM				205		205			205	
6:00 AM				455		455			455	
7:00 AM				895		895			895	
8:00 AM				961		961			961	
9:00 AM				871		871			871	
10:00 AM				873		873			873	
11:00 AM				**1124**		**1124**			**1124**	
12:00 PM				1513		1513			1513	
1:00 PM				1473		1473			1473	
2:00 PM				1205		1205			1205	
3:00 PM				1397		1397			1397	
4:00 PM				1400		1400			1400	
5:00 PM				**1710**		**1710**			**1710**	
6:00 PM				1091		1091			1091	
7:00 PM				827		827			827	
8:00 PM				751		751			751	
9:00 PM				490		490			490	
10:00 PM				264		264			264	
11:00 PM				183		183			183	
Day Total				18144		18144			18144	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				11:00 AM 1124		11:00 AM 1124			11:00 AM 1124	
PM Peak Volume				5:00 PM 1710		5:00 PM 1710			5:00 PM 1710	

Comments:

LOCATION: Hollister Ave east of Los Carneros Way
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337532
DIRECTION: WB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				108		108			108	
1:00 AM				59		59			59	
2:00 AM				22		22			22	
3:00 AM				23		23			23	
4:00 AM				49		49			49	
5:00 AM				80		80			80	
6:00 AM				157		157			157	
7:00 AM				358		358			358	
8:00 AM				437		437			437	
9:00 AM				417		417			417	
10:00 AM				477		477			477	
11:00 AM				**600**		**600**			**600**	
12:00 PM				800		800			800	
1:00 PM				755		755			755	
2:00 PM				636		636			636	
3:00 PM				765		765			765	
4:00 PM				826		826			826	
5:00 PM				**910**		**910**			**910**	
6:00 PM				625		625			625	
7:00 PM				452		452			452	
8:00 PM				371		371			371	
9:00 PM				248		248			248	
10:00 PM				156		156			156	
11:00 PM				92		92			92	
Day Total				9423		9423			9423	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				11:00 AM 600		11:00 AM 600			11:00 AM 600	
PM Peak Volume				5:00 PM 910		5:00 PM 910			5:00 PM 910	

Comments:

LOCATION: Fairview Ave north of Calle Real
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337533
DIRECTION: NB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				42		42			42	
1:00 AM				23		23			23	
2:00 AM				9		9			9	
3:00 AM				9		9			9	
4:00 AM				14		14			14	
5:00 AM				34		34			34	
6:00 AM				90		90			90	
7:00 AM				171		171			171	
8:00 AM				286		286			286	
9:00 AM				294		294			294	
10:00 AM				332		332			332	
11:00 AM				**432**		**432**			**432**	
12:00 PM				476		476			476	
1:00 PM				464		464			464	
2:00 PM				447		447			447	
3:00 PM				451		451			451	
4:00 PM				476		476			476	
5:00 PM				**572**		**572**			**572**	
6:00 PM				433		433			433	
7:00 PM				337		337			337	
8:00 PM				269		269			269	
9:00 PM				166		166			166	
10:00 PM				110		110			110	
11:00 PM				49		49			49	
Day Total				5986		5986			5986	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				11:00 AM 432		11:00 AM 432			11:00 AM 432	
PM Peak Volume				5:00 PM 572		5:00 PM 572			5:00 PM 572	

Comments:

LOCATION: Fairview Ave north of Calle Real
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337533
DIRECTION: NB/SB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				55		55			55	
1:00 AM				36		36			36	
2:00 AM				12		12			12	
3:00 AM				14		14			14	
4:00 AM				34		34			34	
5:00 AM				85		85			85	
6:00 AM				192		192			192	
7:00 AM				423		423			423	
8:00 AM				638		638			638	
9:00 AM				646		646			646	
10:00 AM				661		661			661	
11:00 AM				**859**		**859**			**859**	
12:00 PM				926		926			926	
1:00 PM				920		920			920	
2:00 PM				867		867			867	
3:00 PM				859		859			859	
4:00 PM				886		886			886	
5:00 PM				**971**		**971**			**971**	
6:00 PM				779		779			779	
7:00 PM				640		640			640	
8:00 PM				481		481			481	
9:00 PM				302		302			302	
10:00 PM				175		175			175	
11:00 PM				75		75			75	
Day Total				11536		11536			11536	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				11:00 AM 859		11:00 AM 859			11:00 AM 859	
PM Peak Volume				5:00 PM 971		5:00 PM 971			5:00 PM 971	

Comments:

LOCATION: Fairview Ave north of Calle Real
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337533
DIRECTION: SB
DATE: Apr 02 2015 - Apr 02 2015

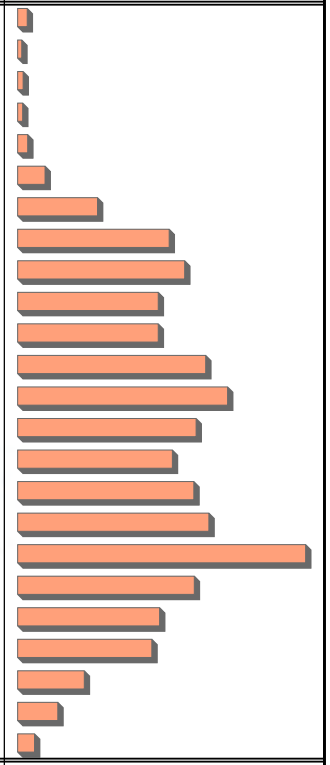
Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				13		13			13	
1:00 AM				13		13			13	
2:00 AM				3		3			3	
3:00 AM				5		5			5	
4:00 AM				20		20			20	
5:00 AM				51		51			51	
6:00 AM				102		102			102	
7:00 AM				252		252			252	
8:00 AM				352		352			352	
9:00 AM				352		352			352	
10:00 AM				329		329			329	
11:00 AM				**427**		**427**			**427**	
12:00 PM				450		450			450	
1:00 PM				**456**		**456**			**456**	
2:00 PM				420		420			420	
3:00 PM				408		408			408	
4:00 PM				410		410			410	
5:00 PM				399		399			399	
6:00 PM				346		346			346	
7:00 PM				303		303			303	
8:00 PM				212		212			212	
9:00 PM				136		136			136	
10:00 PM				65		65			65	
11:00 PM				26		26			26	
Day Total				5550		5550			5550	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				11:00 AM 427		11:00 AM 427			11:00 AM 427	
PM Peak Volume				1:00 PM 456		1:00 PM 456			1:00 PM 456	

Comments:

LOCATION: Calle Real west of Fairview Ave
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337534
DIRECTION: EB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				21		21			21	
1:00 AM				9		9			9	
2:00 AM				12		12			12	
3:00 AM				11		11			11	
4:00 AM				22		22			22	
5:00 AM				60		60			60	
6:00 AM				175		175			175	
7:00 AM				332		332			332	
8:00 AM				366		366			366	
9:00 AM				308		308			308	
10:00 AM				308		308			308	
11:00 AM				**412**		**412**			**412**	
12:00 PM				460		460			460	
1:00 PM				391		391			391	
2:00 PM				339		339			339	
3:00 PM				386		386			386	
4:00 PM				419		419			419	
5:00 PM				**631**		**631**			**631**	
6:00 PM				387		387			387	
7:00 PM				311		311			311	
8:00 PM				294		294			294	
9:00 PM				146		146			146	
10:00 PM				88		88			88	
11:00 PM				37		37			37	
Day Total				5925		5925			5925	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				11:00 AM 412		11:00 AM 412			11:00 AM 412	
PM Peak Volume				5:00 PM 631		5:00 PM 631			5:00 PM 631	



Comments:

LOCATION: Calle Real west of Fairview Ave
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337534
DIRECTION: EB/WB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				106		106			106	
1:00 AM				44		44			44	
2:00 AM				27		27			27	
3:00 AM				25		25			25	
4:00 AM				50		50			50	
5:00 AM				130		130			130	
6:00 AM				301		301			301	
7:00 AM				527		527			527	
8:00 AM				687		687			687	
9:00 AM				663		663			663	
10:00 AM				716		716			716	
11:00 AM				**883**		**883**			**883**	
12:00 PM				1000		1000			1000	
1:00 PM				996		996			996	
2:00 PM				911		911			911	
3:00 PM				940		940			940	
4:00 PM				1118		1118			1118	
5:00 PM				**1380**		**1380**			**1380**	
6:00 PM				946		946			946	
7:00 PM				824		824			824	
8:00 PM				765		765			765	
9:00 PM				473		473			473	
10:00 PM				298		298			298	
11:00 PM				139		139			139	
Day Total				13949		13949			13949	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				11:00 AM 883		11:00 AM 883			11:00 AM 883	
PM Peak Volume				5:00 PM 1380		5:00 PM 1380			5:00 PM 1380	

Comments:

LOCATION: Calle Real west of Fairview Ave
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337534
DIRECTION: WB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				85		85			85	
1:00 AM				35		35			35	
2:00 AM				15		15			15	
3:00 AM				14		14			14	
4:00 AM				28		28			28	
5:00 AM				70		70			70	
6:00 AM				126		126			126	
7:00 AM				195		195			195	
8:00 AM				321		321			321	
9:00 AM				355		355			355	
10:00 AM				408		408			408	
11:00 AM				**471**		**471**			**471**	
12:00 PM				540		540			540	
1:00 PM				605		605			605	
2:00 PM				572		572			572	
3:00 PM				554		554			554	
4:00 PM				699		699			699	
5:00 PM				**749**		**749**			**749**	
6:00 PM				559		559			559	
7:00 PM				513		513			513	
8:00 PM				471		471			471	
9:00 PM				327		327			327	
10:00 PM				210		210			210	
11:00 PM				102		102			102	
Day Total				8024		8024			8024	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				11:00 AM 471		11:00 AM 471			11:00 AM 471	
PM Peak Volume				5:00 PM 749		5:00 PM 749			5:00 PM 749	

Comments:

Report generated on 4/8/2015 11:06 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

LOCATION: Calle Real east of Fairview Ave
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337535
DIRECTION: EB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				52		52			52	
1:00 AM				28		28			28	
2:00 AM				9		9			9	
3:00 AM				9		9			9	
4:00 AM				10		10			10	
5:00 AM				44		44			44	
6:00 AM				101		101			101	
7:00 AM				188		188			188	
8:00 AM				267		267			267	
9:00 AM				376		376			376	
10:00 AM				409		409			409	
11:00 AM				**615**		**615**			**615**	
12:00 PM				706		706			706	
1:00 PM				587		587			587	
2:00 PM				574		574			574	
3:00 PM				585		585			585	
4:00 PM				632		632			632	
5:00 PM				**809**		**809**			**809**	
6:00 PM				604		604			604	
7:00 PM				521		521			521	
8:00 PM				415		415			415	
9:00 PM				244		244			244	
10:00 PM				120		120			120	
11:00 PM				65		65			65	
Day Total				7970		7970			7970	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				11:00 AM 615		11:00 AM 615			11:00 AM 615	
PM Peak Volume				5:00 PM 809		5:00 PM 809			5:00 PM 809	

Comments:

Report generated on 4/8/2015 11:06 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

LOCATION: Calle Real east of Fairview Ave
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337535
DIRECTION: EB/WB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				118		118			118	
1:00 AM				75		75			75	
2:00 AM				30		30			30	
3:00 AM				19		19			19	
4:00 AM				26		26			26	
5:00 AM				94		94			94	
6:00 AM				205		205			205	
7:00 AM				357		357			357	
8:00 AM				538		538			538	
9:00 AM				692		692			692	
10:00 AM				798		798			798	
11:00 AM				**1114**		**1114**			**1114**	
12:00 PM				1326		1326			1326	
1:00 PM				1246		1246			1246	
2:00 PM				1108		1108			1108	
3:00 PM				1075		1075			1075	
4:00 PM				1195		1195			1195	
5:00 PM				**1356**		**1356**			**1356**	
6:00 PM				1108		1108			1108	
7:00 PM				966		966			966	
8:00 PM				838		838			838	
9:00 PM				514		514			514	
10:00 PM				289		289			289	
11:00 PM				155		155			155	
Day Total				15242		15242			15242	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				11:00 AM 1114		11:00 AM 1114			11:00 AM 1114	
PM Peak Volume				5:00 PM 1356		5:00 PM 1356			5:00 PM 1356	

Comments:

Report generated on 4/8/2015 11:06 AM

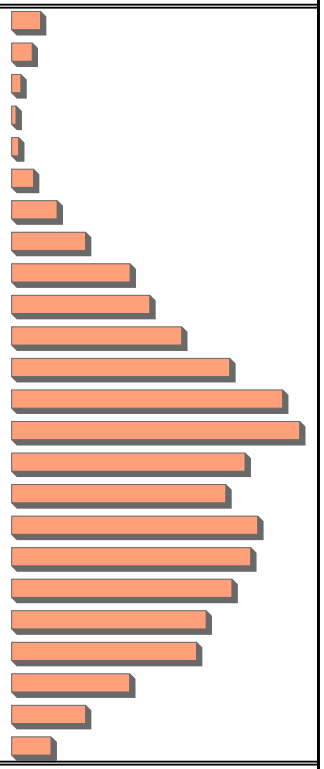
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

LOCATION: Calle Real east of Fairview Ave
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337535
DIRECTION: WB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				66		66			66	
1:00 AM				47		47			47	
2:00 AM				21		21			21	
3:00 AM				10		10			10	
4:00 AM				16		16			16	
5:00 AM				50		50			50	
6:00 AM				104		104			104	
7:00 AM				169		169			169	
8:00 AM				271		271			271	
9:00 AM				316		316			316	
10:00 AM				389		389			389	
11:00 AM				**499**		**499**			**499**	
12:00 PM				620		620			620	
1:00 PM				**659**		**659**			**659**	
2:00 PM				534		534			534	
3:00 PM				490		490			490	
4:00 PM				563		563			563	
5:00 PM				547		547			547	
6:00 PM				504		504			504	
7:00 PM				445		445			445	
8:00 PM				423		423			423	
9:00 PM				270		270			270	
10:00 PM				169		169			169	
11:00 PM				90		90			90	
Day Total				7272		7272			7272	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				11:00 AM 499		11:00 AM 499			11:00 AM 499	
PM Peak Volume				1:00 PM 659		1:00 PM 659			1:00 PM 659	

Comments:



Quality Counts
TRANSPORTATION DATA COLLECTION

Report generated on 4/8/2015 11:06 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

LOCATION: Fairview Ave btwn Calle Real and US 101 NB ramps
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337536
DIRECTION: NB
DATE: Apr 02 2015 - Apr 03 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri 03-Apr-15	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				118	**4**	61			61	
1:00 AM				56		56			56	
2:00 AM				20		20			20	
3:00 AM				24		24			24	
4:00 AM				48		48			48	
5:00 AM				137		137			137	
6:00 AM				284		284			284	
7:00 AM				464		464			464	
8:00 AM				659		659			659	
9:00 AM				736		736			736	
10:00 AM				782		782			782	
11:00 AM				**983**		**983**			**983**	
12:00 PM				1131		1131			1131	
1:00 PM				1021		1021			1021	
2:00 PM				1000		1000			1000	
3:00 PM				1059		1059			1059	
4:00 PM				1160		1160			1160	
5:00 PM				**1264**		**1264**			**1264**	
6:00 PM				1010		1010			1010	
7:00 PM				861		861			861	
8:00 PM				608		608			608	
9:00 PM				417		417			417	
10:00 PM				273		273			273	
11:00 PM				138		138			138	
Day Total				14253	4	14196			14196	
% Weekday Average				100.4%	0.0%					
% Week Average				100.4%	0.0%	100.0%				
AM Peak Volume				11:00 AM 983	12:00 AM 4	11:00 AM 983			11:00 AM 983	
PM Peak Volume				5:00 PM 1264		5:00 PM 1264			5:00 PM 1264	

Comments:

LOCATION: Fairview Ave btwn Calle Real and US 101 NB ramps
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337536
DIRECTION: NB/SB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				168		168			168	
1:00 AM				99		99			99	
2:00 AM				41		41			41	
3:00 AM				40		40			40	
4:00 AM				91		91			91	
5:00 AM				247		247			247	
6:00 AM				583		583			583	
7:00 AM				1080		1080			1080	
8:00 AM				1322		1322			1322	
9:00 AM				1343		1343			1343	
10:00 AM				1378		1378			1378	
11:00 AM				**1649**		**1649**			**1649**	
12:00 PM				**1971**		**1971**			**1971**	
1:00 PM				1872		1872			1872	
2:00 PM				1708		1708			1708	
3:00 PM				1748		1748			1748	
4:00 PM				1839		1839			1839	
5:00 PM				1871		1871			1871	
6:00 PM				1606		1606			1606	
7:00 PM				1387		1387			1387	
8:00 PM				1003		1003			1003	
9:00 PM				681		681			681	
10:00 PM				435		435			435	
11:00 PM				217		217			217	
Day Total				24379		24379			24379	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				11:00 AM 1649		11:00 AM 1649			11:00 AM 1649	
PM Peak Volume				12:00 PM 1971		12:00 PM 1971			12:00 PM 1971	

Comments:

LOCATION: Fairview Ave btwn Calle Real and US 101 NB ramps
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337536
DIRECTION: SB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				50		50			50	
1:00 AM				43		43			43	
2:00 AM				21		21			21	
3:00 AM				16		16			16	
4:00 AM				43		43			43	
5:00 AM				110		110			110	
6:00 AM				299		299			299	
7:00 AM				616		616			616	
8:00 AM				663		663			663	
9:00 AM				607		607			607	
10:00 AM				596		596			596	
11:00 AM				**666**		**666**			**666**	
12:00 PM				840		840			840	
1:00 PM				**851**		**851**			**851**	
2:00 PM				708		708			708	
3:00 PM				689		689			689	
4:00 PM				679		679			679	
5:00 PM				607		607			607	
6:00 PM				596		596			596	
7:00 PM				526		526			526	
8:00 PM				395		395			395	
9:00 PM				264		264			264	
10:00 PM				162		162			162	
11:00 PM				79		79			79	
Day Total				10126		10126			10126	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				11:00 AM 666		11:00 AM 666			11:00 AM 666	
PM Peak Volume				1:00 PM 851		1:00 PM 851			1:00 PM 851	

Comments:

Report generated on 4/8/2015 11:06 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

LOCATION: Fairview Ave btwn US 101 NB ramps and US 101 SB ramps
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337537
DIRECTION: NB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				77		77			77	
1:00 AM				36		36			36	
2:00 AM				6		6			6	
3:00 AM				15		15			15	
4:00 AM				23		23			23	
5:00 AM				53		53			53	
6:00 AM				123		123			123	
7:00 AM				206		206			206	
8:00 AM				315		315			315	
9:00 AM				407		407			407	
10:00 AM				432		432			432	
11:00 AM				**578**		**578**			**578**	
12:00 PM				696		696			696	
1:00 PM				604		604			604	
2:00 PM				563		563			563	
3:00 PM				603		603			603	
4:00 PM				664		664			664	
5:00 PM				**701**		**701**			**701**	
6:00 PM				530		530			530	
7:00 PM				464		464			464	
8:00 PM				311		311			311	
9:00 PM				207		207			207	
10:00 PM				117		117			117	
11:00 PM				69		69			69	
Day Total				7800		7800			7800	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				11:00 AM 578		11:00 AM 578			11:00 AM 578	
PM Peak Volume				5:00 PM 701		5:00 PM 701			5:00 PM 701	

Comments:

Report generated on 4/8/2015 11:06 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

LOCATION: Fairview Ave btwn US 101 NB ramps and US 101 SB ramps
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337537
DIRECTION: NB/SB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				142		142			142	
1:00 AM				94		94			94	
2:00 AM				37		37			37	
3:00 AM				43		43			43	
4:00 AM				84		84			84	
5:00 AM				240		240			240	
6:00 AM				664		664			664	
7:00 AM				1222		1222			1222	
8:00 AM				**1234**		**1234**			**1234**	
9:00 AM				1075		1075			1075	
10:00 AM				884		884			884	
11:00 AM				883		883			883	
12:00 PM				**1501**		**1501**			**1501**	
1:00 PM				1478		1478			1478	
2:00 PM				1035		1035			1035	
3:00 PM				1034		1034			1034	
4:00 PM				1283		1283			1283	
5:00 PM				1313		1313			1313	
6:00 PM				1079		1079			1079	
7:00 PM				948		948			948	
8:00 PM				712		712			712	
9:00 PM				483		483			483	
10:00 PM				286		286			286	
11:00 PM				142		142			142	
Day Total				17896		17896			17896	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				8:00 AM 1234		8:00 AM 1234			8:00 AM 1234	
PM Peak Volume				12:00 PM 1501		12:00 PM 1501			12:00 PM 1501	

Comments:

LOCATION: Fairview Ave btwn US 101 NB ramps and US 101 SB ramps
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337537
DIRECTION: SB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				65		65			65	
1:00 AM				58		58			58	
2:00 AM				31		31			31	
3:00 AM				28		28			28	
4:00 AM				61		61			61	
5:00 AM				187		187			187	
6:00 AM				541		541			541	
7:00 AM				**1016**		**1016**			**1016**	
8:00 AM				919		919			919	
9:00 AM				668		668			668	
10:00 AM				452		452			452	
11:00 AM				305		305			305	
12:00 PM				805		805			805	
1:00 PM				**874**		**874**			**874**	
2:00 PM				472		472			472	
3:00 PM				431		431			431	
4:00 PM				619		619			619	
5:00 PM				612		612			612	
6:00 PM				549		549			549	
7:00 PM				484		484			484	
8:00 PM				401		401			401	
9:00 PM				276		276			276	
10:00 PM				169		169			169	
11:00 PM				73		73			73	
Day Total				10096		10096			10096	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				7:00 AM 1016		7:00 AM 1016			7:00 AM 1016	
PM Peak Volume				1:00 PM 874		1:00 PM 874			1:00 PM 874	

Comments:

LOCATION: Fairview Ave btwn US 101 SB ramps and Hollister Ave
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337538
DIRECTION: NB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				125		125			125	
1:00 AM				56		56			56	
2:00 AM				38		38			38	
3:00 AM				27		27			27	
4:00 AM				29		29			29	
5:00 AM				86		86			86	
6:00 AM				230		230			230	
7:00 AM				485		485			485	
8:00 AM				493		493			493	
9:00 AM				664		664			664	
10:00 AM				615		615			615	
11:00 AM				**808**		**808**			**808**	
12:00 PM				975		975			975	
1:00 PM				860		860			860	
2:00 PM				796		796			796	
3:00 PM				933		933			933	
4:00 PM				**1118**		**1118**			**1118**	
5:00 PM				1117		1117			1117	
6:00 PM				733		733			733	
7:00 PM				580		580			580	
8:00 PM				430		430			430	
9:00 PM				313		313			313	
10:00 PM				189		189			189	
11:00 PM				115		115			115	
Day Total				11815		11815			11815	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				11:00 AM 808		11:00 AM 808			11:00 AM 808	
PM Peak Volume				4:00 PM 1118		4:00 PM 1118			4:00 PM 1118	

Comments:

Report generated on 4/8/2015 11:06 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

LOCATION: Fairview Ave btwn US 101 SB ramps and Hollister Ave
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337538
DIRECTION: NB/SB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				185		185			185	
1:00 AM				110		110			110	
2:00 AM				66		66			66	
3:00 AM				56		56			56	
4:00 AM				101		101			101	
5:00 AM				277		277			277	
6:00 AM				784		784			784	
7:00 AM				1441		1441			1441	
8:00 AM				1462		1462			1462	
9:00 AM				1400		1400			1400	
10:00 AM				1224		1224			1224	
11:00 AM				**1529**		**1529**			**1529**	
12:00 PM				1866		1866			1866	
1:00 PM				1701		1701			1701	
2:00 PM				1494		1494			1494	
3:00 PM				1640		1640			1640	
4:00 PM				1815		1815			1815	
5:00 PM				**1921**		**1921**			**1921**	
6:00 PM				1226		1226			1226	
7:00 PM				1046		1046			1046	
8:00 PM				750		750			750	
9:00 PM				565		565			565	
10:00 PM				347		347			347	
11:00 PM				206		206			206	
Day Total				23212		23212			23212	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				11:00 AM 1529		11:00 AM 1529			11:00 AM 1529	
PM Peak Volume				5:00 PM 1921		5:00 PM 1921			5:00 PM 1921	

Comments:

Report generated on 4/8/2015 11:06 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

LOCATION: Fairview Ave btwn US 101 SB ramps and Hollister Ave
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337538
DIRECTION: SB
DATE: Apr 02 2015 - Apr 02 2015

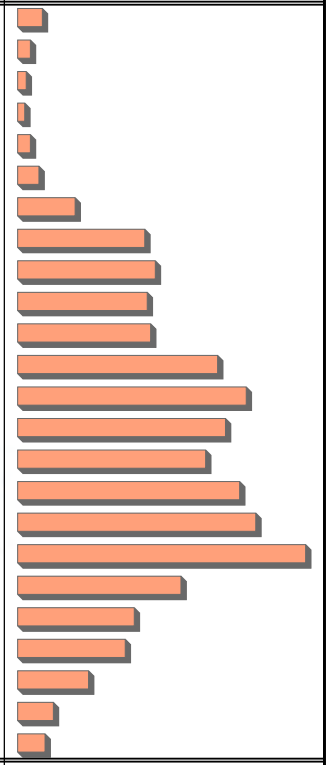
Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				60		60			60	
1:00 AM				54		54			54	
2:00 AM				28		28			28	
3:00 AM				29		29			29	
4:00 AM				72		72			72	
5:00 AM				191		191			191	
6:00 AM				554		554			554	
7:00 AM				956		956			956	
8:00 AM				**969**		**969**			**969**	
9:00 AM				736		736			736	
10:00 AM				609		609			609	
11:00 AM				721		721			721	
12:00 PM				**891**		**891**			**891**	
1:00 PM				841		841			841	
2:00 PM				698		698			698	
3:00 PM				707		707			707	
4:00 PM				697		697			697	
5:00 PM				804		804			804	
6:00 PM				493		493			493	
7:00 PM				466		466			466	
8:00 PM				320		320			320	
9:00 PM				252		252			252	
10:00 PM				158		158			158	
11:00 PM				91		91			91	
Day Total				11397		11397			11397	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				8:00 AM 969		8:00 AM 969			8:00 AM 969	
PM Peak Volume				12:00 PM 891		12:00 PM 891			12:00 PM 891	

Comments:

LOCATION: Hollister Ave west of Fairview Ave
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337539
DIRECTION: EB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				101		101			101	
1:00 AM				52		52			52	
2:00 AM				35		35			35	
3:00 AM				29		29			29	
4:00 AM				52		52			52	
5:00 AM				87		87			87	
6:00 AM				235		235			235	
7:00 AM				520		520			520	
8:00 AM				563		563			563	
9:00 AM				530		530			530	
10:00 AM				544		544			544	
11:00 AM				**818**		**818**			**818**	
12:00 PM				935		935			935	
1:00 PM				850		850			850	
2:00 PM				769		769			769	
3:00 PM				908		908			908	
4:00 PM				974		974			974	
5:00 PM				**1178**		**1178**			**1178**	
6:00 PM				668		668			668	
7:00 PM				477		477			477	
8:00 PM				440		440			440	
9:00 PM				290		290			290	
10:00 PM				146		146			146	
11:00 PM				112		112			112	
Day Total				11313		11313			11313	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				11:00 AM 818		11:00 AM 818			11:00 AM 818	
PM Peak Volume				5:00 PM 1178		5:00 PM 1178			5:00 PM 1178	



Comments:

Report generated on 4/8/2015 11:06 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

LOCATION: Hollister Ave west of Fairview Ave
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337539
DIRECTION: EB/WB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				199		199			199	
1:00 AM				121		121			121	
2:00 AM				60		60			60	
3:00 AM				53		53			53	
4:00 AM				122		122			122	
5:00 AM				274		274			274	
6:00 AM				686		686			686	
7:00 AM				1319		1319			1319	
8:00 AM				1436		1436			1436	
9:00 AM				1184		1184			1184	
10:00 AM				1188		1188			1188	
11:00 AM				**1545**		**1545**			**1545**	
12:00 PM				1981		1981			1981	
1:00 PM				1805		1805			1805	
2:00 PM				1574		1574			1574	
3:00 PM				1756		1756			1756	
4:00 PM				1759		1759			1759	
5:00 PM				**2055**		**2055**			**2055**	
6:00 PM				1233		1233			1233	
7:00 PM				938		938			938	
8:00 PM				826		826			826	
9:00 PM				564		564			564	
10:00 PM				315		315			315	
11:00 PM				201		201			201	
Day Total				23194		23194			23194	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				11:00 AM 1545		11:00 AM 1545			11:00 AM 1545	
PM Peak Volume				5:00 PM 2055		5:00 PM 2055			5:00 PM 2055	

Comments:

Report generated on 4/8/2015 11:06 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

LOCATION: Hollister Ave west of Fairview Ave
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337539
DIRECTION: WB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				98		98			98	
1:00 AM				69		69			69	
2:00 AM				25		25			25	
3:00 AM				24		24			24	
4:00 AM				70		70			70	
5:00 AM				187		187			187	
6:00 AM				451		451			451	
7:00 AM				799		799			799	
8:00 AM				**873**		**873**			**873**	
9:00 AM				654		654			654	
10:00 AM				644		644			644	
11:00 AM				727		727			727	
12:00 PM				**1046**		**1046**			**1046**	
1:00 PM				955		955			955	
2:00 PM				805		805			805	
3:00 PM				848		848			848	
4:00 PM				785		785			785	
5:00 PM				877		877			877	
6:00 PM				565		565			565	
7:00 PM				461		461			461	
8:00 PM				386		386			386	
9:00 PM				274		274			274	
10:00 PM				169		169			169	
11:00 PM				89		89			89	
Day Total				11881		11881			11881	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				8:00 AM 873		8:00 AM 873			8:00 AM 873	
PM Peak Volume				12:00 PM 1046		12:00 PM 1046			12:00 PM 1046	

Comments:

LOCATION: Hollister Ave east of Fairview Ave
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337540
DIRECTION: EB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				73		73			73	
1:00 AM				44		44			44	
2:00 AM				37		37			37	
3:00 AM				22		22			22	
4:00 AM				56		56			56	
5:00 AM				102		102			102	
6:00 AM				246		246			246	
7:00 AM				462		462			462	
8:00 AM				468		468			468	
9:00 AM				426		426			426	
10:00 AM				476		476			476	
11:00 AM				**644**		**644**			**644**	
12:00 PM				739		739			739	
1:00 PM				641		641			641	
2:00 PM				581		581			581	
3:00 PM				687		687			687	
4:00 PM				688		688			688	
5:00 PM				**1076**		**1076**			**1076**	
6:00 PM				594		594			594	
7:00 PM				486		486			486	
8:00 PM				401		401			401	
9:00 PM				236		236			236	
10:00 PM				128		128			128	
11:00 PM				93		93			93	
Day Total				9406		9406			9406	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				11:00 AM 644		11:00 AM 644			11:00 AM 644	
PM Peak Volume				5:00 PM 1076		5:00 PM 1076			5:00 PM 1076	

Comments:

LOCATION: Hollister Ave east of Fairview Ave
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337540
DIRECTION: EB/WB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				186		186			186	
1:00 AM				104		104			104	
2:00 AM				69		69			69	
3:00 AM				48		48			48	
4:00 AM				119		119			119	
5:00 AM				230		230			230	
6:00 AM				514		514			514	
7:00 AM				995		995			995	
8:00 AM				1051		1051			1051	
9:00 AM				981		981			981	
10:00 AM				1074		1074			1074	
11:00 AM				**1354**		**1354**			**1354**	
12:00 PM				1645		1645			1645	
1:00 PM				1494		1494			1494	
2:00 PM				1307		1307			1307	
3:00 PM				1470		1470			1470	
4:00 PM				1475		1475			1475	
5:00 PM				**1939**		**1939**			**1939**	
6:00 PM				1174		1174			1174	
7:00 PM				1005		1005			1005	
8:00 PM				862		862			862	
9:00 PM				502		502			502	
10:00 PM				330		330			330	
11:00 PM				185		185			185	
Day Total				20113		20113			20113	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				11:00 AM 1354		11:00 AM 1354			11:00 AM 1354	
PM Peak Volume				5:00 PM 1939		5:00 PM 1939			5:00 PM 1939	

Comments:

LOCATION: Hollister Ave east of Fairview Ave
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337540
DIRECTION: WB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				113		113			113	
1:00 AM				60		60			60	
2:00 AM				32		32			32	
3:00 AM				26		26			26	
4:00 AM				63		63			63	
5:00 AM				128		128			128	
6:00 AM				268		268			268	
7:00 AM				533		533			533	
8:00 AM				583		583			583	
9:00 AM				555		555			555	
10:00 AM				598		598			598	
11:00 AM				**710**		**710**			**710**	
12:00 PM				**906**		**906**			**906**	
1:00 PM				853		853			853	
2:00 PM				726		726			726	
3:00 PM				783		783			783	
4:00 PM				787		787			787	
5:00 PM				863		863			863	
6:00 PM				580		580			580	
7:00 PM				519		519			519	
8:00 PM				461		461			461	
9:00 PM				266		266			266	
10:00 PM				202		202			202	
11:00 PM				92		92			92	
Day Total				10707		10707			10707	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				11:00 AM 710		11:00 AM 710			11:00 AM 710	
PM Peak Volume				12:00 PM 906		12:00 PM 906			12:00 PM 906	

Comments:

Report generated on 4/8/2015 11:06 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

LOCATION: Fairview Ave south of Hollister Ave
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337541
DIRECTION: NB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				51		51			51	
1:00 AM				21		21			21	
2:00 AM				7		7			7	
3:00 AM				7		7			7	
4:00 AM				12		12			12	
5:00 AM				23		23			23	
6:00 AM				50		50			50	
7:00 AM				154		154			154	
8:00 AM				226		226			226	
9:00 AM				260		260			260	
10:00 AM				218		218			218	
11:00 AM				**367**		**367**			**367**	
12:00 PM				417		417			417	
1:00 PM				369		369			369	
2:00 PM				345		345			345	
3:00 PM				355		355			355	
4:00 PM				466		466			466	
5:00 PM				**500**		**500**			**500**	
6:00 PM				299		299			299	
7:00 PM				178		178			178	
8:00 PM				118		118			118	
9:00 PM				122		122			122	
10:00 PM				51		51			51	
11:00 PM				25		25			25	
Day Total				4641		4641			4641	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				11:00 AM 367		11:00 AM 367			11:00 AM 367	
PM Peak Volume				5:00 PM 500		5:00 PM 500			5:00 PM 500	

Comments:

LOCATION: Fairview Ave south of Hollister Ave
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337541
DIRECTION: NB/SB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				77		77			77	
1:00 AM				33		33			33	
2:00 AM				16		16			16	
3:00 AM				26		26			26	
4:00 AM				51		51			51	
5:00 AM				69		69			69	
6:00 AM				217		217			217	
7:00 AM				546		546			546	
8:00 AM				668		668			668	
9:00 AM				591		591			591	
10:00 AM				466		466			466	
11:00 AM				**711**		**711**			**711**	
12:00 PM				**798**		**798**			**798**	
1:00 PM				766		766			766	
2:00 PM				663		663			663	
3:00 PM				656		656			656	
4:00 PM				765		765			765	
5:00 PM				756		756			756	
6:00 PM				474		474			474	
7:00 PM				294		294			294	
8:00 PM				201		201			201	
9:00 PM				187		187			187	
10:00 PM				84		84			84	
11:00 PM				50		50			50	
Day Total				9165		9165			9165	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				11:00 AM 711		11:00 AM 711			11:00 AM 711	
PM Peak Volume				12:00 PM 798		12:00 PM 798			12:00 PM 798	

Comments:

LOCATION: Fairview Ave south of Hollister Ave
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337541
DIRECTION: SB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				26		26			26	
1:00 AM				12		12			12	
2:00 AM				9		9			9	
3:00 AM				19		19			19	
4:00 AM				39		39			39	
5:00 AM				46		46			46	
6:00 AM				167		167			167	
7:00 AM				392		392			392	
8:00 AM				**442**		**442**			**442**	
9:00 AM				331		331			331	
10:00 AM				248		248			248	
11:00 AM				344		344			344	
12:00 PM				381		381			381	
1:00 PM				**397**		**397**			**397**	
2:00 PM				318		318			318	
3:00 PM				301		301			301	
4:00 PM				299		299			299	
5:00 PM				256		256			256	
6:00 PM				175		175			175	
7:00 PM				116		116			116	
8:00 PM				83		83			83	
9:00 PM				65		65			65	
10:00 PM				33		33			33	
11:00 PM				25		25			25	
Day Total				4524		4524			4524	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				8:00 AM 442		8:00 AM 442			8:00 AM 442	
PM Peak Volume				1:00 PM 397		1:00 PM 397			1:00 PM 397	

Comments:

LOCATION: Fairview Ave south of Matthews St
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337542
DIRECTION: NB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				23		23			23	
1:00 AM				9		9			9	
2:00 AM				6		6			6	
3:00 AM				16		16			16	
4:00 AM				38		38			38	
5:00 AM				39		39			39	
6:00 AM				74		74			74	
7:00 AM				146		146			146	
8:00 AM				214		214			214	
9:00 AM				207		207			207	
10:00 AM				187		187			187	
11:00 AM				**263**		**263**			**263**	
12:00 PM				**289**		**289**			**289**	
1:00 PM				260		260			260	
2:00 PM				222		222			222	
3:00 PM				220		220			220	
4:00 PM				208		208			208	
5:00 PM				212		212			212	
6:00 PM				155		155			155	
7:00 PM				97		97			97	
8:00 PM				74		74			74	
9:00 PM				47		47			47	
10:00 PM				25		25			25	
11:00 PM				21		21			21	
Day Total				3052		3052			3052	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				11:00 AM 263		11:00 AM 263			11:00 AM 263	
PM Peak Volume				12:00 PM 289		12:00 PM 289			12:00 PM 289	

Comments:

LOCATION: Fairview Ave south of Matthews St
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337542
DIRECTION: NB/SB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				62		62			62	
1:00 AM				21		21			21	
2:00 AM				10		10			10	
3:00 AM				20		20			20	
4:00 AM				48		48			48	
5:00 AM				63		63			63	
6:00 AM				115		115			115	
7:00 AM				256		256			256	
8:00 AM				395		395			395	
9:00 AM				367		367			367	
10:00 AM				335		335			335	
11:00 AM				**471**		**471**			**471**	
12:00 PM				**547**		**547**			**547**	
1:00 PM				507		507			507	
2:00 PM				456		456			456	
3:00 PM				460		460			460	
4:00 PM				456		456			456	
5:00 PM				394		394			394	
6:00 PM				340		340			340	
7:00 PM				215		215			215	
8:00 PM				176		176			176	
9:00 PM				140		140			140	
10:00 PM				69		69			69	
11:00 PM				36		36			36	
Day Total				5959		5959			5959	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				11:00 AM 471		11:00 AM 471			11:00 AM 471	
PM Peak Volume				12:00 PM 547		12:00 PM 547			12:00 PM 547	

Comments:

LOCATION: Fairview Ave south of Matthews St
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337542
DIRECTION: SB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				39		39			39	
1:00 AM				12		12			12	
2:00 AM				4		4			4	
3:00 AM				4		4			4	
4:00 AM				10		10			10	
5:00 AM				24		24			24	
6:00 AM				41		41			41	
7:00 AM				110		110			110	
8:00 AM				181		181			181	
9:00 AM				160		160			160	
10:00 AM				148		148			148	
11:00 AM				**208**		**208**			**208**	
12:00 PM				**258**		**258**			**258**	
1:00 PM				247		247			247	
2:00 PM				234		234			234	
3:00 PM				240		240			240	
4:00 PM				248		248			248	
5:00 PM				182		182			182	
6:00 PM				185		185			185	
7:00 PM				118		118			118	
8:00 PM				102		102			102	
9:00 PM				93		93			93	
10:00 PM				44		44			44	
11:00 PM				15		15			15	
Day Total				2907		2907			2907	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				11:00 AM 208		11:00 AM 208			11:00 AM 208	
PM Peak Volume				12:00 PM 258		12:00 PM 258			12:00 PM 258	

Comments:

LOCATION: Matthews St west of Fairview Ave
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337543
DIRECTION: EB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				0		0			0	
1:00 AM				1		1			1	
2:00 AM				1		1			1	
3:00 AM				0		0			0	
4:00 AM				0		0			0	
5:00 AM				0		0			0	
6:00 AM				2		2			2	
7:00 AM				6		6			6	
8:00 AM				19		19			19	
9:00 AM				**63**		**63**			**63**	
10:00 AM				20		20			20	
11:00 AM				21		21			21	
12:00 PM				40		40			40	
1:00 PM				27		27			27	
2:00 PM				14		14			14	
3:00 PM				29		29			29	
4:00 PM				56		56			56	
5:00 PM				**70**		**70**			**70**	
6:00 PM				30		30			30	
7:00 PM				4		4			4	
8:00 PM				1		1			1	
9:00 PM				5		5			5	
10:00 PM				3		3			3	
11:00 PM				2		2			2	
Day Total				414		414			414	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				9:00 AM 63		9:00 AM 63			9:00 AM 63	
PM Peak Volume				5:00 PM 70		5:00 PM 70			5:00 PM 70	

Comments:

Report generated on 4/8/2015 11:06 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

LOCATION: Matthews St west of Fairview Ave
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337543
DIRECTION: EB/WB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				0		0			0	
1:00 AM				3		3			3	
2:00 AM				2		2			2	
3:00 AM				0		0			0	
4:00 AM				1		1			1	
5:00 AM				2		2			2	
6:00 AM				9		9			9	
7:00 AM				48		48			48	
8:00 AM				32		32			32	
9:00 AM				**90**		**90**			**90**	
10:00 AM				43		43			43	
11:00 AM				46		46			46	
12:00 PM				77		77			77	
1:00 PM				52		52			52	
2:00 PM				33		33			33	
3:00 PM				67		67			67	
4:00 PM				**120**		**120**			**120**	
5:00 PM				105		105			105	
6:00 PM				42		42			42	
7:00 PM				6		6			6	
8:00 PM				2		2			2	
9:00 PM				5		5			5	
10:00 PM				4		4			4	
11:00 PM				2		2			2	
Day Total				791		791			791	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				9:00 AM 90		9:00 AM 90			9:00 AM 90	
PM Peak Volume				4:00 PM 120		4:00 PM 120			4:00 PM 120	

Comments:

Report generated on 4/8/2015 11:06 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

LOCATION: Matthews St west of Fairview Ave
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337543
DIRECTION: WB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				0		0			0	
1:00 AM				2		2			2	
2:00 AM				1		1			1	
3:00 AM				0		0			0	
4:00 AM				1		1			1	
5:00 AM				2		2			2	
6:00 AM				7		7			7	
7:00 AM				**42**		**42**			**42**	
8:00 AM				13		13			13	
9:00 AM				27		27			27	
10:00 AM				23		23			23	
11:00 AM				25		25			25	
12:00 PM				37		37			37	
1:00 PM				25		25			25	
2:00 PM				19		19			19	
3:00 PM				38		38			38	
4:00 PM				**64**		**64**			**64**	
5:00 PM				35		35			35	
6:00 PM				12		12			12	
7:00 PM				2		2			2	
8:00 PM				1		1			1	
9:00 PM				0		0			0	
10:00 PM				1		1			1	
11:00 PM				0		0			0	
Day Total				377		377			377	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				7:00 AM 42		7:00 AM 42			7:00 AM 42	
PM Peak Volume				4:00 PM 64		4:00 PM 64			4:00 PM 64	

Comments:

LOCATION: Kellogg Ave north of Hollister Ave
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337544
DIRECTION: NB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				9		9			9	
1:00 AM				4		4			4	
2:00 AM				3		3			3	
3:00 AM				1		1			1	
4:00 AM				3		3			3	
5:00 AM				20		20			20	
6:00 AM				56		56			56	
7:00 AM				136		136			136	
8:00 AM				128		128			128	
9:00 AM				122		122			122	
10:00 AM				**157**		**157**			**157**	
11:00 AM				124		124			124	
12:00 PM				134		134			134	
1:00 PM				122		122			122	
2:00 PM				132		132			132	
3:00 PM				**174**		**174**			**174**	
4:00 PM				165		165			165	
5:00 PM				107		107			107	
6:00 PM				86		86			86	
7:00 PM				80		80			80	
8:00 PM				52		52			52	
9:00 PM				38		38			38	
10:00 PM				30		30			30	
11:00 PM				25		25			25	
Day Total				1908		1908			1908	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				10:00 AM 157		10:00 AM 157			10:00 AM 157	
PM Peak Volume				3:00 PM 174		3:00 PM 174			3:00 PM 174	

Comments:

LOCATION: Kellogg Ave north of Hollister Ave
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337544
DIRECTION: NB/SB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				18		18			18	
1:00 AM				6		6			6	
2:00 AM				3		3			3	
3:00 AM				4		4			4	
4:00 AM				6		6			6	
5:00 AM				40		40			40	
6:00 AM				123		123			123	
7:00 AM				262		262			262	
8:00 AM				269		269			269	
9:00 AM				245		245			245	
10:00 AM				**280**		**280**			**280**	
11:00 AM				274		274			274	
12:00 PM				288		288			288	
1:00 PM				245		245			245	
2:00 PM				269		269			269	
3:00 PM				343		343			343	
4:00 PM				**348**		**348**			**348**	
5:00 PM				238		238			238	
6:00 PM				179		179			179	
7:00 PM				172		172			172	
8:00 PM				102		102			102	
9:00 PM				75		75			75	
10:00 PM				61		61			61	
11:00 PM				41		41			41	
Day Total				3891		3891			3891	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				10:00 AM 280		10:00 AM 280			10:00 AM 280	
PM Peak Volume				4:00 PM 348		4:00 PM 348			4:00 PM 348	

Comments:

LOCATION: Kellogg Ave north of Hollister Ave
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337544
DIRECTION: SB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				9		9			9	
1:00 AM				2		2			2	
2:00 AM				0		0			0	
3:00 AM				3		3			3	
4:00 AM				3		3			3	
5:00 AM				20		20			20	
6:00 AM				67		67			67	
7:00 AM				126		126			126	
8:00 AM				141		141			141	
9:00 AM				123		123			123	
10:00 AM				123		123			123	
11:00 AM				**150**		**150**			**150**	
12:00 PM				154		154			154	
1:00 PM				123		123			123	
2:00 PM				137		137			137	
3:00 PM				169		169			169	
4:00 PM				**183**		**183**			**183**	
5:00 PM				131		131			131	
6:00 PM				93		93			93	
7:00 PM				92		92			92	
8:00 PM				50		50			50	
9:00 PM				37		37			37	
10:00 PM				31		31			31	
11:00 PM				16		16			16	
Day Total				1983		1983			1983	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				11:00 AM 150		11:00 AM 150			11:00 AM 150	
PM Peak Volume				4:00 PM 183		4:00 PM 183			4:00 PM 183	

Comments:

Quality Counts
TRANSPORTATION DATA COLLECTION

LOCATION: Hollister Ave west of Kellogg Ave
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337545
DIRECTION: EB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				46		46			46	
1:00 AM				38		38			38	
2:00 AM				24		24			24	
3:00 AM				20		20			20	
4:00 AM				37		37			37	
5:00 AM				87		87			87	
6:00 AM				207		207			207	
7:00 AM				509		509			509	
8:00 AM				494		494			494	
9:00 AM				490		490			490	
10:00 AM				453		453			453	
11:00 AM				**644**		**644**			**644**	
12:00 PM				769		769			769	
1:00 PM				692		692			692	
2:00 PM				620		620			620	
3:00 PM				761		761			761	
4:00 PM				746		746			746	
5:00 PM				**1130**		**1130**			**1130**	
6:00 PM				666		666			666	
7:00 PM				445		445			445	
8:00 PM				386		386			386	
9:00 PM				250		250			250	
10:00 PM				147		147			147	
11:00 PM				95		95			95	
Day Total				9756		9756			9756	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				11:00 AM 644		11:00 AM 644			11:00 AM 644	
PM Peak Volume				5:00 PM 1130		5:00 PM 1130			5:00 PM 1130	

Comments:

LOCATION: Hollister Ave west of Kellogg Ave
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337545
DIRECTION: EB/WB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				127		127			127	
1:00 AM				73		73			73	
2:00 AM				45		45			45	
3:00 AM				50		50			50	
4:00 AM				109		109			109	
5:00 AM				206		206			206	
6:00 AM				526		526			526	
7:00 AM				1160		1160			1160	
8:00 AM				1226		1226			1226	
9:00 AM				1078		1078			1078	
10:00 AM				1082		1082			1082	
11:00 AM				**1376**		**1376**			**1376**	
12:00 PM				1640		1640			1640	
1:00 PM				1484		1484			1484	
2:00 PM				1326		1326			1326	
3:00 PM				1505		1505			1505	
4:00 PM				1492		1492			1492	
5:00 PM				**1875**		**1875**			**1875**	
6:00 PM				1248		1248			1248	
7:00 PM				890		890			890	
8:00 PM				787		787			787	
9:00 PM				502		502			502	
10:00 PM				355		355			355	
11:00 PM				201		201			201	
Day Total				20363		20363			20363	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				11:00 AM 1376		11:00 AM 1376			11:00 AM 1376	
PM Peak Volume				5:00 PM 1875		5:00 PM 1875			5:00 PM 1875	

Comments:

LOCATION: Hollister Ave west of Kellogg Ave
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337545
DIRECTION: WB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				81		81			81	
1:00 AM				35		35			35	
2:00 AM				21		21			21	
3:00 AM				30		30			30	
4:00 AM				72		72			72	
5:00 AM				119		119			119	
6:00 AM				319		319			319	
7:00 AM				651		651			651	
8:00 AM				**732**		**732**			**732**	
9:00 AM				588		588			588	
10:00 AM				629		629			629	
11:00 AM				732		732			732	
12:00 PM				**871**		**871**			**871**	
1:00 PM				792		792			792	
2:00 PM				706		706			706	
3:00 PM				744		744			744	
4:00 PM				746		746			746	
5:00 PM				745		745			745	
6:00 PM				582		582			582	
7:00 PM				445		445			445	
8:00 PM				401		401			401	
9:00 PM				252		252			252	
10:00 PM				208		208			208	
11:00 PM				106		106			106	
Day Total				10607		10607			10607	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				8:00 AM 732		8:00 AM 732			8:00 AM 732	
PM Peak Volume				12:00 PM 871		12:00 PM 871			12:00 PM 871	

Comments:

LOCATION: Hollister Ave east of Kellogg Ave
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337546
DIRECTION: EB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				99		99			99	
1:00 AM				53		53			53	
2:00 AM				32		32			32	
3:00 AM				36		36			36	
4:00 AM				52		52			52	
5:00 AM				97		97			97	
6:00 AM				289		289			289	
7:00 AM				628		628			628	
8:00 AM				654		654			654	
9:00 AM				613		613			613	
10:00 AM				558		558			558	
11:00 AM				**751**		**751**			**751**	
12:00 PM				954		954			954	
1:00 PM				863		863			863	
2:00 PM				752		752			752	
3:00 PM				980		980			980	
4:00 PM				1016		1016			1016	
5:00 PM				**1407**		**1407**			**1407**	
6:00 PM				809		809			809	
7:00 PM				545		545			545	
8:00 PM				443		443			443	
9:00 PM				300		300			300	
10:00 PM				268		268			268	
11:00 PM				116		116			116	
Day Total				12315		12315			12315	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				11:00 AM 751		11:00 AM 751			11:00 AM 751	
PM Peak Volume				5:00 PM 1407		5:00 PM 1407			5:00 PM 1407	

Comments:

Report generated on 4/8/2015 11:07 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

LOCATION: Hollister Ave east of Kellogg Ave
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337546
DIRECTION: EB/WB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				179		179			179	
1:00 AM				105		105			105	
2:00 AM				65		65			65	
3:00 AM				69		69			69	
4:00 AM				143		143			143	
5:00 AM				248		248			248	
6:00 AM				753		753			753	
7:00 AM				1501		1501			1501	
8:00 AM				**1669**		**1669**			**1669**	
9:00 AM				1358		1358			1358	
10:00 AM				1328		1328			1328	
11:00 AM				1585		1585			1585	
12:00 PM				1973		1973			1973	
1:00 PM				1844		1844			1844	
2:00 PM				1622		1622			1622	
3:00 PM				1913		1913			1913	
4:00 PM				1918		1918			1918	
5:00 PM				**2288**		**2288**			**2288**	
6:00 PM				1470		1470			1470	
7:00 PM				1118		1118			1118	
8:00 PM				886		886			886	
9:00 PM				614		614			614	
10:00 PM				520		520			520	
11:00 PM				233		233			233	
Day Total				25402		25402			25402	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				8:00 AM 1669		8:00 AM 1669			8:00 AM 1669	
PM Peak Volume				5:00 PM 2288		5:00 PM 2288			5:00 PM 2288	

Comments:

LOCATION: Hollister Ave east of Kellogg Ave
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337546
DIRECTION: WB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				80		80			80	
1:00 AM				52		52			52	
2:00 AM				33		33			33	
3:00 AM				33		33			33	
4:00 AM				91		91			91	
5:00 AM				151		151			151	
6:00 AM				464		464			464	
7:00 AM				873		873			873	
8:00 AM				**1015**		**1015**			**1015**	
9:00 AM				745		745			745	
10:00 AM				770		770			770	
11:00 AM				834		834			834	
12:00 PM				**1019**		**1019**			**1019**	
1:00 PM				981		981			981	
2:00 PM				870		870			870	
3:00 PM				933		933			933	
4:00 PM				902		902			902	
5:00 PM				881		881			881	
6:00 PM				661		661			661	
7:00 PM				573		573			573	
8:00 PM				443		443			443	
9:00 PM				314		314			314	
10:00 PM				252		252			252	
11:00 PM				117		117			117	
Day Total				13087		13087			13087	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				8:00 AM 1015		8:00 AM 1015			8:00 AM 1015	
PM Peak Volume				12:00 PM 1019		12:00 PM 1019			12:00 PM 1019	

Comments:

LOCATION: Kellogg Ave south of Hollister Ave
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337547
DIRECTION: NB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				69		69			69	
1:00 AM				12		12			12	
2:00 AM				20		20			20	
3:00 AM				21		21			21	
4:00 AM				22		22			22	
5:00 AM				9		9			9	
6:00 AM				37		37			37	
7:00 AM				70		70			70	
8:00 AM				144		144			144	
9:00 AM				153		153			153	
10:00 AM				126		126			126	
11:00 AM				**187**		**187**			**187**	
12:00 PM				166		166			166	
1:00 PM				169		169			169	
2:00 PM				171		171			171	
3:00 PM				**267**		**267**			**267**	
4:00 PM				235		235			235	
5:00 PM				200		200			200	
6:00 PM				92		92			92	
7:00 PM				69		69			69	
8:00 PM				30		30			30	
9:00 PM				32		32			32	
10:00 PM				138		138			138	
11:00 PM				23		23			23	
Day Total				2462		2462			2462	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				11:00 AM 187		11:00 AM 187			11:00 AM 187	
PM Peak Volume				3:00 PM 267		3:00 PM 267			3:00 PM 267	

Comments:

Report generated on 4/8/2015 11:07 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

LOCATION: Kellogg Ave south of Hollister Ave
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337547
DIRECTION: NB/SB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				82		82			82	
1:00 AM				30		30			30	
2:00 AM				40		40			40	
3:00 AM				34		34			34	
4:00 AM				53		53			53	
5:00 AM				37		37			37	
6:00 AM				149		149			149	
7:00 AM				245		245			245	
8:00 AM				**388**		**388**			**388**	
9:00 AM				322		322			322	
10:00 AM				277		277			277	
11:00 AM				364		364			364	
12:00 PM				327		327			327	
1:00 PM				366		366			366	
2:00 PM				350		350			350	
3:00 PM				**456**		**456**			**456**	
4:00 PM				387		387			387	
5:00 PM				312		312			312	
6:00 PM				180		180			180	
7:00 PM				192		192			192	
8:00 PM				61		61			61	
9:00 PM				77		77			77	
10:00 PM				224		224			224	
11:00 PM				41		41			41	
Day Total				4994		4994			4994	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				8:00 AM 388		8:00 AM 388			8:00 AM 388	
PM Peak Volume				3:00 PM 456		3:00 PM 456			3:00 PM 456	

Comments:

Report generated on 4/8/2015 11:07 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

LOCATION: Kellogg Ave south of Hollister Ave
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337547
DIRECTION: SB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				13		13			13	
1:00 AM				18		18			18	
2:00 AM				20		20			20	
3:00 AM				13		13			13	
4:00 AM				31		31			31	
5:00 AM				28		28			28	
6:00 AM				112		112			112	
7:00 AM				175		175			175	
8:00 AM				**244**		**244**			**244**	
9:00 AM				169		169			169	
10:00 AM				151		151			151	
11:00 AM				177		177			177	
12:00 PM				161		161			161	
1:00 PM				**197**		**197**			**197**	
2:00 PM				179		179			179	
3:00 PM				189		189			189	
4:00 PM				152		152			152	
5:00 PM				112		112			112	
6:00 PM				88		88			88	
7:00 PM				123		123			123	
8:00 PM				31		31			31	
9:00 PM				45		45			45	
10:00 PM				86		86			86	
11:00 PM				18		18			18	
Day Total				2532		2532			2532	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				8:00 AM 244		8:00 AM 244			8:00 AM 244	
PM Peak Volume				1:00 PM 197		1:00 PM 197			1:00 PM 197	

Comments:

LOCATION: Hollister Ave east of US 217 EB ramps
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337548
DIRECTION: EB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				43		43			43	
1:00 AM				20		20			20	
2:00 AM				17		17			17	
3:00 AM				12		12			12	
4:00 AM				25		25			25	
5:00 AM				55		55			55	
6:00 AM				150		150			150	
7:00 AM				320		320			320	
8:00 AM				331		331			331	
9:00 AM				343		343			343	
10:00 AM				333		333			333	
11:00 AM				**504**		**504**			**504**	
12:00 PM				594		594			594	
1:00 PM				540		540			540	
2:00 PM				469		469			469	
3:00 PM				591		591			591	
4:00 PM				670		670			670	
5:00 PM				**1182**		**1182**			**1182**	
6:00 PM				581		581			581	
7:00 PM				361		361			361	
8:00 PM				289		289			289	
9:00 PM				197		197			197	
10:00 PM				130		130			130	
11:00 PM				63		63			63	
Day Total				7820		7820			7820	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				11:00 AM 504		11:00 AM 504			11:00 AM 504	
PM Peak Volume				5:00 PM 1182		5:00 PM 1182			5:00 PM 1182	

Comments:

Report generated on 4/8/2015 11:07 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

LOCATION: Hollister Ave east of US 217 EB ramps
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337548
DIRECTION: EB/WB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				81		81			81	
1:00 AM				47		47			47	
2:00 AM				28		28			28	
3:00 AM				26		26			26	
4:00 AM				67		67			67	
5:00 AM				118		118			118	
6:00 AM				368		368			368	
7:00 AM				830		830			830	
8:00 AM				899		899			899	
9:00 AM				801		801			801	
10:00 AM				775		775			775	
11:00 AM				**1054**		**1054**			**1054**	
12:00 PM				1327		1327			1327	
1:00 PM				1128		1128			1128	
2:00 PM				1018		1018			1018	
3:00 PM				1147		1147			1147	
4:00 PM				1202		1202			1202	
5:00 PM				**1736**		**1736**			**1736**	
6:00 PM				972		972			972	
7:00 PM				707		707			707	
8:00 PM				667		667			667	
9:00 PM				359		359			359	
10:00 PM				267		267			267	
11:00 PM				123		123			123	
Day Total				15747		15747			15747	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				11:00 AM 1054		11:00 AM 1054			11:00 AM 1054	
PM Peak Volume				5:00 PM 1736		5:00 PM 1736			5:00 PM 1736	

Comments:

LOCATION: Hollister Ave east of US 217 EB ramps
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337548
DIRECTION: WB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				38		38			38	
1:00 AM				27		27			27	
2:00 AM				11		11			11	
3:00 AM				14		14			14	
4:00 AM				42		42			42	
5:00 AM				63		63			63	
6:00 AM				218		218			218	
7:00 AM				510		510			510	
8:00 AM				**568**		**568**			**568**	
9:00 AM				458		458			458	
10:00 AM				442		442			442	
11:00 AM				550		550			550	
12:00 PM				**733**		**733**			**733**	
1:00 PM				588		588			588	
2:00 PM				549		549			549	
3:00 PM				556		556			556	
4:00 PM				532		532			532	
5:00 PM				554		554			554	
6:00 PM				391		391			391	
7:00 PM				346		346			346	
8:00 PM				378		378			378	
9:00 PM				162		162			162	
10:00 PM				137		137			137	
11:00 PM				60		60			60	
Day Total				7927		7927			7927	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				8:00 AM 568		8:00 AM 568			8:00 AM 568	
PM Peak Volume				12:00 PM 733		12:00 PM 733			12:00 PM 733	

Comments:

LOCATION: East Long Term Parking Dwy north of James Fowler Rd
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337549
DIRECTION: NB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				26		26			26	
1:00 AM				7		7			7	
2:00 AM				2		2			2	
3:00 AM				18		18			18	
4:00 AM				23		23			23	
5:00 AM				12		12			12	
6:00 AM				13		13			13	
7:00 AM				19		19			19	
8:00 AM				**35**		**35**			**35**	
9:00 AM				25		25			25	
10:00 AM				16		16			16	
11:00 AM				31		31			31	
12:00 PM				50		50			50	
1:00 PM				**63**		**63**			**63**	
2:00 PM				40		40			40	
3:00 PM				31		31			31	
4:00 PM				29		29			29	
5:00 PM				22		22			22	
6:00 PM				40		40			40	
7:00 PM				15		15			15	
8:00 PM				32		32			32	
9:00 PM				35		35			35	
10:00 PM				10		10			10	
11:00 PM				7		7			7	
Day Total				601		601			601	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				8:00 AM 35		8:00 AM 35			8:00 AM 35	
PM Peak Volume				1:00 PM 63		1:00 PM 63			1:00 PM 63	

Comments:

Report generated on 4/8/2015 11:07 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

LOCATION: East Long Term Parking Dwy north of James Fowler Rd
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337549
DIRECTION: NB/SB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				**58**		**58**			**58**	
1:00 AM				15		15			15	
2:00 AM				4		4			4	
3:00 AM				18		18			18	
4:00 AM				23		23			23	
5:00 AM				19		19			19	
6:00 AM				23		23			23	
7:00 AM				22		22			22	
8:00 AM				48		48			48	
9:00 AM				37		37			37	
10:00 AM				25		25			25	
11:00 AM				45		45			45	
12:00 PM				79		79			79	
1:00 PM				**111**		**111**			**111**	
2:00 PM				71		71			71	
3:00 PM				64		64			64	
4:00 PM				46		46			46	
5:00 PM				35		35			35	
6:00 PM				70		70			70	
7:00 PM				26		26			26	
8:00 PM				56		56			56	
9:00 PM				68		68			68	
10:00 PM				20		20			20	
11:00 PM				12		12			12	
Day Total				995		995			995	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				12:00 AM 58		12:00 AM 58			12:00 AM 58	
PM Peak Volume				1:00 PM 111		1:00 PM 111			1:00 PM 111	

Comments:

LOCATION: East Long Term Parking Dwy north of James Fowler Rd
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337549
DIRECTION: SB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				**32**		**32**			**32**	
1:00 AM				8		8			8	
2:00 AM				2		2			2	
3:00 AM				0		0			0	
4:00 AM				0		0			0	
5:00 AM				7		7			7	
6:00 AM				10		10			10	
7:00 AM				3		3			3	
8:00 AM				13		13			13	
9:00 AM				12		12			12	
10:00 AM				9		9			9	
11:00 AM				14		14			14	
12:00 PM				29		29			29	
1:00 PM				**48**		**48**			**48**	
2:00 PM				31		31			31	
3:00 PM				33		33			33	
4:00 PM				17		17			17	
5:00 PM				13		13			13	
6:00 PM				30		30			30	
7:00 PM				11		11			11	
8:00 PM				24		24			24	
9:00 PM				33		33			33	
10:00 PM				10		10			10	
11:00 PM				5		5			5	
Day Total				394		394			394	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				12:00 AM 32		12:00 AM 32			12:00 AM 32	
PM Peak Volume				1:00 PM 48		1:00 PM 48			1:00 PM 48	

Comments:

Quality Counts
TRANSPORTATION DATA COLLECTION

Report generated on 4/8/2015 11:07 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

LOCATION: West Long Term Parking Dwy
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337550
DIRECTION: EB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				0		0			0	
1:00 AM				1		1			1	
2:00 AM				0		0			0	
3:00 AM				1		1			1	
4:00 AM				6		6			6	
5:00 AM				3		3			3	
6:00 AM				0		0			0	
7:00 AM				**10**		**10**			**10**	
8:00 AM				4		4			4	
9:00 AM				1		1			1	
10:00 AM				5		5			5	
11:00 AM				7		7			7	
12:00 PM				**10**		**10**			**10**	
1:00 PM				4		4			4	
2:00 PM				2		2			2	
3:00 PM				5		5			5	
4:00 PM				4		4			4	
5:00 PM				10		10			10	
6:00 PM				3		3			3	
7:00 PM				2		2			2	
8:00 PM				6		6			6	
9:00 PM				0		0			0	
10:00 PM				0		0			0	
11:00 PM				0		0			0	
Day Total				84		84			84	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				7:00 AM 10		7:00 AM 10			7:00 AM 10	
PM Peak Volume				12:00 PM 10		12:00 PM 10			12:00 PM 10	

Comments:

Quality Counts
TRANSPORTATION DATA COLLECTION

LOCATION: Terminal Entrance north of James Fowler Rd
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337551
DIRECTION: NB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				41		41			41	
1:00 AM				2		2			2	
2:00 AM				3		3			3	
3:00 AM				8		8			8	
4:00 AM				51		51			51	
5:00 AM				58		58			58	
6:00 AM				7		7			7	
7:00 AM				53		53			53	
8:00 AM				98		98			98	
9:00 AM				81		81			81	
10:00 AM				71		71			71	
11:00 AM				**103**		**103**			**103**	
12:00 PM				**102**		**102**			**102**	
1:00 PM				86		86			86	
2:00 PM				91		91			91	
3:00 PM				86		86			86	
4:00 PM				64		64			64	
5:00 PM				66		66			66	
6:00 PM				96		96			96	
7:00 PM				28		28			28	
8:00 PM				80		80			80	
9:00 PM				89		89			89	
10:00 PM				13		13			13	
11:00 PM				49		49			49	
Day Total				1426		1426			1426	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				11:00 AM 103		11:00 AM 103			11:00 AM 103	
PM Peak Volume				12:00 PM 102		12:00 PM 102			12:00 PM 102	

Comments:

LOCATION: Short Term Parking Entrance
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337552
DIRECTION: WB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				1		1			1	
1:00 AM				1		1			1	
2:00 AM				2		2			2	
3:00 AM				1		1			1	
4:00 AM				11		11			11	
5:00 AM				7		7			7	
6:00 AM				1		1			1	
7:00 AM				4		4			4	
8:00 AM				11		11			11	
9:00 AM				17		17			17	
10:00 AM				21		21			21	
11:00 AM				**39**		**39**			**39**	
12:00 PM				**33**		**33**			**33**	
1:00 PM				28		28			28	
2:00 PM				25		25			25	
3:00 PM				19		19			19	
4:00 PM				16		16			16	
5:00 PM				15		15			15	
6:00 PM				15		15			15	
7:00 PM				8		8			8	
8:00 PM				17		17			17	
9:00 PM				16		16			16	
10:00 PM				0		0			0	
11:00 PM				10		10			10	
Day Total				318		318			318	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				11:00 AM 39		11:00 AM 39			11:00 AM 39	
PM Peak Volume				12:00 PM 33		12:00 PM 33			12:00 PM 33	

Comments:

LOCATION: Short Term Parking Exit
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337553
DIRECTION: WB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				10		10			10	
1:00 AM				1		1			1	
2:00 AM				0		0			0	
3:00 AM				0		0			0	
4:00 AM				4		4			4	
5:00 AM				4		4			4	
6:00 AM				0		0			0	
7:00 AM				1		1			1	
8:00 AM				6		6			6	
9:00 AM				15		15			15	
10:00 AM				13		13			13	
11:00 AM				**17**		**17**			**17**	
12:00 PM				28		28			28	
1:00 PM				**37**		**37**			**37**	
2:00 PM				31		31			31	
3:00 PM				30		30			30	
4:00 PM				21		21			21	
5:00 PM				12		12			12	
6:00 PM				28		28			28	
7:00 PM				3		3			3	
8:00 PM				18		18			18	
9:00 PM				19		19			19	
10:00 PM				8		8			8	
11:00 PM				4		4			4	
Day Total				310		310			310	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				11:00 AM 17		11:00 AM 17			11:00 AM 17	
PM Peak Volume				1:00 PM 37		1:00 PM 37			1:00 PM 37	

Comments:

Quality Counts
TRANSPORTATION DATA COLLECTION

Report generated on 4/8/2015 11:07 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

LOCATION: Terminal Exit west of Moffett Pl
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337554
DIRECTION: EB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				57		57			57	
1:00 AM				1		1			1	
2:00 AM				0		0			0	
3:00 AM				2		2			2	
4:00 AM				30		30			30	
5:00 AM				41		41			41	
6:00 AM				6		6			6	
7:00 AM				44		44			44	
8:00 AM				100		100			100	
9:00 AM				**102**		**102**			**102**	
10:00 AM				68		68			68	
11:00 AM				99		99			99	
12:00 PM				105		105			105	
1:00 PM				114		114			114	
2:00 PM				90		90			90	
3:00 PM				112		112			112	
4:00 PM				85		85			85	
5:00 PM				61		61			61	
6:00 PM				**117**		**117**			**117**	
7:00 PM				30		30			30	
8:00 PM				61		61			61	
9:00 PM				97		97			97	
10:00 PM				33		33			33	
11:00 PM				18		18			18	
Day Total				1473		1473			1473	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				9:00 AM 102		9:00 AM 102			9:00 AM 102	
PM Peak Volume				6:00 PM 117		6:00 PM 117			6:00 PM 117	

Comments:

Report generated on 4/8/2015 11:07 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

LOCATION: North Rental Car Dwy
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337555
DIRECTION: EB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				4		4			4	
1:00 AM				0		0			0	
2:00 AM				0		0			0	
3:00 AM				2		2			2	
4:00 AM				1		1			1	
5:00 AM				0		0			0	
6:00 AM				1		1			1	
7:00 AM				24		24			24	
8:00 AM				**46**		**46**			**46**	
9:00 AM				38		38			38	
10:00 AM				38		38			38	
11:00 AM				38		38			38	
12:00 PM				37		37			37	
1:00 PM				**46**		**46**			**46**	
2:00 PM				29		29			29	
3:00 PM				31		31			31	
4:00 PM				30		30			30	
5:00 PM				33		33			33	
6:00 PM				32		32			32	
7:00 PM				17		17			17	
8:00 PM				8		8			8	
9:00 PM				20		20			20	
10:00 PM				8		8			8	
11:00 PM				4		4			4	
Day Total				487		487			487	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				8:00 AM 46		8:00 AM 46			8:00 AM 46	
PM Peak Volume				1:00 PM 46		1:00 PM 46			1:00 PM 46	

Comments:

Report generated on 4/8/2015 11:07 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

LOCATION: North Rental Car Dwy
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337555
DIRECTION: EB/WB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				5		5			5	
1:00 AM				0		0			0	
2:00 AM				1		1			1	
3:00 AM				4		4			4	
4:00 AM				5		5			5	
5:00 AM				1		1			1	
6:00 AM				1		1			1	
7:00 AM				25		25			25	
8:00 AM				**48**		**48**			**48**	
9:00 AM				43		43			43	
10:00 AM				42		42			42	
11:00 AM				43		43			43	
12:00 PM				42		42			42	
1:00 PM				**56**		**56**			**56**	
2:00 PM				35		35			35	
3:00 PM				36		36			36	
4:00 PM				37		37			37	
5:00 PM				41		41			41	
6:00 PM				40		40			40	
7:00 PM				19		19			19	
8:00 PM				9		9			9	
9:00 PM				22		22			22	
10:00 PM				9		9			9	
11:00 PM				5		5			5	
Day Total				569		569			569	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				8:00 AM 48		8:00 AM 48			8:00 AM 48	
PM Peak Volume				1:00 PM 56		1:00 PM 56			1:00 PM 56	

Comments:

LOCATION: North Rental Car Dwy
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337555
DIRECTION: WB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				1		1			1	
1:00 AM				0		0			0	
2:00 AM				1		1			1	
3:00 AM				2		2			2	
4:00 AM				4		4			4	
5:00 AM				1		1			1	
6:00 AM				0		0			0	
7:00 AM				1		1			1	
8:00 AM				2		2			2	
9:00 AM				**5**		**5**			**5**	
10:00 AM				4		4			4	
11:00 AM				5		5			5	
12:00 PM				5		5			5	
1:00 PM				**10**		**10**			**10**	
2:00 PM				6		6			6	
3:00 PM				5		5			5	
4:00 PM				7		7			7	
5:00 PM				8		8			8	
6:00 PM				8		8			8	
7:00 PM				2		2			2	
8:00 PM				1		1			1	
9:00 PM				2		2			2	
10:00 PM				1		1			1	
11:00 PM				1		1			1	
Day Total				82		82			82	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				9:00 AM 5		9:00 AM 5			9:00 AM 5	
PM Peak Volume				1:00 PM 10		1:00 PM 10			1:00 PM 10	

Comments:

LOCATION: South Rental Car Dwy west of Moffett Pl
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337556
DIRECTION: EB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				4		4			4	
1:00 AM				5		5			5	
2:00 AM				0		0			0	
3:00 AM				2		2			2	
4:00 AM				0		0			0	
5:00 AM				0		0			0	
6:00 AM				1		1			1	
7:00 AM				8		8			8	
8:00 AM				48		48			48	
9:00 AM				32		32			32	
10:00 AM				**52**		**52**			**52**	
11:00 AM				48		48			48	
12:00 PM				42		42			42	
1:00 PM				41		41			41	
2:00 PM				**56**		**56**			**56**	
3:00 PM				50		50			50	
4:00 PM				41		41			41	
5:00 PM				43		43			43	
6:00 PM				35		35			35	
7:00 PM				16		16			16	
8:00 PM				9		9			9	
9:00 PM				6		6			6	
10:00 PM				21		21			21	
11:00 PM				4		4			4	
Day Total				564		564			564	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				10:00 AM 52		10:00 AM 52			10:00 AM 52	
PM Peak Volume				2:00 PM 56		2:00 PM 56			2:00 PM 56	

Comments:

LOCATION: South Rental Car Dwy west of Moffett Pl
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337556
DIRECTION: EB/WB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				4		4			4	
1:00 AM				9		9			9	
2:00 AM				1		1			1	
3:00 AM				3		3			3	
4:00 AM				11		11			11	
5:00 AM				9		9			9	
6:00 AM				4		4			4	
7:00 AM				43		43			43	
8:00 AM				107		107			107	
9:00 AM				75		75			75	
10:00 AM				**108**		**108**			**108**	
11:00 AM				96		96			96	
12:00 PM				88		88			88	
1:00 PM				103		103			103	
2:00 PM				**124**		**124**			**124**	
3:00 PM				99		99			99	
4:00 PM				93		93			93	
5:00 PM				93		93			93	
6:00 PM				78		78			78	
7:00 PM				36		36			36	
8:00 PM				28		28			28	
9:00 PM				19		19			19	
10:00 PM				25		25			25	
11:00 PM				5		5			5	
Day Total				1261		1261			1261	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				10:00 AM 108		10:00 AM 108			10:00 AM 108	
PM Peak Volume				2:00 PM 124		2:00 PM 124			2:00 PM 124	

Comments:

LOCATION: South Rental Car Dwy west of Moffett Pl
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337556
DIRECTION: WB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				0		0			0	
1:00 AM				4		4			4	
2:00 AM				1		1			1	
3:00 AM				1		1			1	
4:00 AM				11		11			11	
5:00 AM				9		9			9	
6:00 AM				3		3			3	
7:00 AM				35		35			35	
8:00 AM				**59**		**59**			**59**	
9:00 AM				43		43			43	
10:00 AM				56		56			56	
11:00 AM				48		48			48	
12:00 PM				46		46			46	
1:00 PM				62		62			62	
2:00 PM				**68**		**68**			**68**	
3:00 PM				49		49			49	
4:00 PM				52		52			52	
5:00 PM				50		50			50	
6:00 PM				43		43			43	
7:00 PM				20		20			20	
8:00 PM				19		19			19	
9:00 PM				13		13			13	
10:00 PM				4		4			4	
11:00 PM				1		1			1	
Day Total				697		697			697	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				8:00 AM 59		8:00 AM 59			8:00 AM 59	
PM Peak Volume				2:00 PM 68		2:00 PM 68			2:00 PM 68	

Comments:

LOCATION: North Atlantic Aviation Dwy west of Moffett Pl
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337557
DIRECTION: EB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				4		4			4	
1:00 AM				0		0			0	
2:00 AM				0		0			0	
3:00 AM				0		0			0	
4:00 AM				2		2			2	
5:00 AM				2		2			2	
6:00 AM				3		3			3	
7:00 AM				7		7			7	
8:00 AM				**12**		**12**			**12**	
9:00 AM				10		10			10	
10:00 AM				3		3			3	
11:00 AM				9		9			9	
12:00 PM				12		12			12	
1:00 PM				20		20			20	
2:00 PM				5		5			5	
3:00 PM				12		12			12	
4:00 PM				**23**		**23**			**23**	
5:00 PM				10		10			10	
6:00 PM				22		22			22	
7:00 PM				12		12			12	
8:00 PM				8		8			8	
9:00 PM				11		11			11	
10:00 PM				5		5			5	
11:00 PM				4		4			4	
Day Total				196		196			196	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				8:00 AM 12		8:00 AM 12			8:00 AM 12	
PM Peak Volume				4:00 PM 23		4:00 PM 23			4:00 PM 23	

Comments:

Quality Counts
TRANSPORTATION DATA COLLECTION

LOCATION: North Atlantic Aviation Dwy west of Moffett Pl
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337557
DIRECTION: EB/WB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				5		5			5	
1:00 AM				0		0			0	
2:00 AM				0		0			0	
3:00 AM				0		0			0	
4:00 AM				3		3			3	
5:00 AM				6		6			6	
6:00 AM				8		8			8	
7:00 AM				25		25			25	
8:00 AM				**34**		**34**			**34**	
9:00 AM				27		27			27	
10:00 AM				7		7			7	
11:00 AM				28		28			28	
12:00 PM				29		29			29	
1:00 PM				40		40			40	
2:00 PM				14		14			14	
3:00 PM				25		25			25	
4:00 PM				**41**		**41**			**41**	
5:00 PM				24		24			24	
6:00 PM				30		30			30	
7:00 PM				23		23			23	
8:00 PM				12		12			12	
9:00 PM				17		17			17	
10:00 PM				8		8			8	
11:00 PM				7		7			7	
Day Total				413		413			413	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				8:00 AM 34		8:00 AM 34			8:00 AM 34	
PM Peak Volume				4:00 PM 41		4:00 PM 41			4:00 PM 41	

Comments:

LOCATION: North Atlantic Aviation Dwy west of Moffett Pl
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337557
DIRECTION: WB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				1		1			1	
1:00 AM				0		0			0	
2:00 AM				0		0			0	
3:00 AM				0		0			0	
4:00 AM				1		1			1	
5:00 AM				4		4			4	
6:00 AM				5		5			5	
7:00 AM				18		18			18	
8:00 AM				**22**		**22**			**22**	
9:00 AM				17		17			17	
10:00 AM				4		4			4	
11:00 AM				19		19			19	
12:00 PM				17		17			17	
1:00 PM				**20**		**20**			**20**	
2:00 PM				9		9			9	
3:00 PM				13		13			13	
4:00 PM				18		18			18	
5:00 PM				14		14			14	
6:00 PM				8		8			8	
7:00 PM				11		11			11	
8:00 PM				4		4			4	
9:00 PM				6		6			6	
10:00 PM				3		3			3	
11:00 PM				3		3			3	
Day Total				217		217			217	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				8:00 AM 22		8:00 AM 22			8:00 AM 22	
PM Peak Volume				1:00 PM 20		1:00 PM 20			1:00 PM 20	

Comments:

Report generated on 4/8/2015 11:07 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

LOCATION: South Atlantic Aviation Dwy west of Moffett Pl
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337558
DIRECTION: EB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				0		0			0	
1:00 AM				0		0			0	
2:00 AM				0		0			0	
3:00 AM				0		0			0	
4:00 AM				0		0			0	
5:00 AM				0		0			0	
6:00 AM				0		0			0	
7:00 AM				3		3			3	
8:00 AM				10		10			10	
9:00 AM				**20**		**20**			**20**	
10:00 AM				2		2			2	
11:00 AM				13		13			13	
12:00 PM				12		12			12	
1:00 PM				**25**		**25**			**25**	
2:00 PM				5		5			5	
3:00 PM				12		12			12	
4:00 PM				14		14			14	
5:00 PM				14		14			14	
6:00 PM				14		14			14	
7:00 PM				6		6			6	
8:00 PM				3		3			3	
9:00 PM				9		9			9	
10:00 PM				5		5			5	
11:00 PM				4		4			4	
Day Total				171		171			171	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				9:00 AM 20		9:00 AM 20			9:00 AM 20	
PM Peak Volume				1:00 PM 25		1:00 PM 25			1:00 PM 25	

Comments:

Report generated on 4/8/2015 11:07 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

LOCATION: South Atlantic Aviation Dwy west of Moffett Pl
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337558
DIRECTION: EB/WB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				0		0			0	
1:00 AM				0		0			0	
2:00 AM				0		0			0	
3:00 AM				0		0			0	
4:00 AM				1		1			1	
5:00 AM				6		6			6	
6:00 AM				0		0			0	
7:00 AM				7		7			7	
8:00 AM				17		17			17	
9:00 AM				**24**		**24**			**24**	
10:00 AM				3		3			3	
11:00 AM				13		13			13	
12:00 PM				20		20			20	
1:00 PM				**41**		**41**			**41**	
2:00 PM				8		8			8	
3:00 PM				19		19			19	
4:00 PM				18		18			18	
5:00 PM				27		27			27	
6:00 PM				19		19			19	
7:00 PM				11		11			11	
8:00 PM				5		5			5	
9:00 PM				11		11			11	
10:00 PM				7		7			7	
11:00 PM				6		6			6	
Day Total				263		263			263	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				9:00 AM 24		9:00 AM 24			9:00 AM 24	
PM Peak Volume				1:00 PM 41		1:00 PM 41			1:00 PM 41	

Comments:

LOCATION: South Atlantic Aviation Dwy west of Moffett Pl
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337558
DIRECTION: WB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				0		0			0	
1:00 AM				0		0			0	
2:00 AM				0		0			0	
3:00 AM				0		0			0	
4:00 AM				1		1			1	
5:00 AM				6		6			6	
6:00 AM				0		0			0	
7:00 AM				4		4			4	
8:00 AM				**7**		**7**			**7**	
9:00 AM				4		4			4	
10:00 AM				1		1			1	
11:00 AM				0		0			0	
12:00 PM				8		8			8	
1:00 PM				**16**		**16**			**16**	
2:00 PM				3		3			3	
3:00 PM				7		7			7	
4:00 PM				4		4			4	
5:00 PM				13		13			13	
6:00 PM				5		5			5	
7:00 PM				5		5			5	
8:00 PM				2		2			2	
9:00 PM				2		2			2	
10:00 PM				2		2			2	
11:00 PM				2		2			2	
Day Total				92		92			92	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				8:00 AM 7		8:00 AM 7			8:00 AM 7	
PM Peak Volume				1:00 PM 16		1:00 PM 16			1:00 PM 16	

Comments:

Quality Counts
TRANSPORTATION DATA COLLECTION

LOCATION: Moffett Pl btwn Atlantic Aviation Dwy and US 217 WB ramps
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337559
DIRECTION: NB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				10		10			10	
1:00 AM				6		6			6	
2:00 AM				4		4			4	
3:00 AM				9		9			9	
4:00 AM				47		47			47	
5:00 AM				49		49			49	
6:00 AM				26		26			26	
7:00 AM				113		113			113	
8:00 AM				144		144			144	
9:00 AM				119		119			119	
10:00 AM				115		115			115	
11:00 AM				**175**		**175**			**175**	
12:00 PM				**245**		**245**			**245**	
1:00 PM				196		196			196	
2:00 PM				167		167			167	
3:00 PM				177		177			177	
4:00 PM				198		198			198	
5:00 PM				168		168			168	
6:00 PM				175		175			175	
7:00 PM				100		100			100	
8:00 PM				109		109			109	
9:00 PM				93		93			93	
10:00 PM				29		29			29	
11:00 PM				35		35			35	
Day Total				2509		2509			2509	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				11:00 AM 175		11:00 AM 175			11:00 AM 175	
PM Peak Volume				12:00 PM 245		12:00 PM 245			12:00 PM 245	

Comments:

LOCATION: Moffett Pl btwn Atlantic Aviation Dwy and US 217 WB ramps
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Goleta, CA

QC JOB #: 13337559
DIRECTION: NB/SB
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				59		59			59	
1:00 AM				14		14			14	
2:00 AM				8		8			8	
3:00 AM				11		11			11	
4:00 AM				73		73			73	
5:00 AM				81		81			81	
6:00 AM				74		74			74	
7:00 AM				198		198			198	
8:00 AM				283		283			283	
9:00 AM				286		286			286	
10:00 AM				244		244			244	
11:00 AM				**365**		**365**			**365**	
12:00 PM				**486**		**486**			**486**	
1:00 PM				412		412			412	
2:00 PM				330		330			330	
3:00 PM				354		354			354	
4:00 PM				383		383			383	
5:00 PM				348		348			348	
6:00 PM				356		356			356	
7:00 PM				190		190			190	
8:00 PM				176		176			176	
9:00 PM				187		187			187	
10:00 PM				80		80			80	
11:00 PM				49		49			49	
Day Total				5047		5047			5047	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				11:00 AM 365		11:00 AM 365			11:00 AM 365	
PM Peak Volume				12:00 PM 486		12:00 PM 486			12:00 PM 486	

Comments:

Report generated on 4/8/2015 11:07 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

LOCATION: Moffett Pl btwn Atlantic Aviation Dwy and US 217 WB ramps
QC JOB #: 13337559
SPECIFIC LOCATION: 0 ft from
DIRECTION: SB
CITY/STATE: Goleta, CA
DATE: Apr 02 2015 - Apr 02 2015

Start Time	Mon	Tue	Wed	Thu 02-Apr-15	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				49		49			49	
1:00 AM				8		8			8	
2:00 AM				4		4			4	
3:00 AM				2		2			2	
4:00 AM				26		26			26	
5:00 AM				32		32			32	
6:00 AM				48		48			48	
7:00 AM				85		85			85	
8:00 AM				139		139			139	
9:00 AM				167		167			167	
10:00 AM				129		129			129	
11:00 AM				**190**		**190**			**190**	
12:00 PM				**241**		**241**			**241**	
1:00 PM				216		216			216	
2:00 PM				163		163			163	
3:00 PM				177		177			177	
4:00 PM				185		185			185	
5:00 PM				180		180			180	
6:00 PM				181		181			181	
7:00 PM				90		90			90	
8:00 PM				67		67			67	
9:00 PM				94		94			94	
10:00 PM				51		51			51	
11:00 PM				14		14			14	
Day Total				2538		2538			2538	
% Weekday Average				100.0%						
% Week Average				100.0%		100.0%				
AM Peak Volume				11:00 AM 190		11:00 AM 190			11:00 AM 190	
PM Peak Volume				12:00 PM 241		12:00 PM 241			12:00 PM 241	

Comments:

APPENDIX C

TRAFFIX AND SIDRA INTERSECTION ANALYSIS SHEETS

SANTA BARBARA AIRPORT MASTER PLAN
EXISTING CONDITIONS

Scenario Report

Scenario:	Existing AM
Command:	Default Command
Volume:	Existing AM
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

SANTA BARBARA AIRPORT MASTER PLAN
EXISTING CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Los Carneros Rd/US-101 NB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.522
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	35	Level Of Service:	A

Street Name:	Los Carneros Rd						US 101 NB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	0	0 0	1 1	0	0 0	0 0	0	1 0	1! 0	0
Volume Module:												
Base Vol:	32	151	0	0	278	130	0	0	0	848	2	29
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	32	151	0	0	278	130	0	0	0	848	2	29
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	32	151	0	0	278	130	0	0	0	848	2	29
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	32	151	0	0	278	130	0	0	0	848	2	29
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	32	151	0	0	278	130	0	0	0	848	2	29
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.36	0.64	0.00	0.00	0.00	1.93	0.01	0.06
Final Sat.:	1600	3200	0	0	2180	1020	0	0	0	3087	7	106
Capacity Analysis Module:												
Vol/Sat:	0.02	0.05	0.00	0.00	0.13	0.13	0.00	0.00	0.00	0.27	0.27	0.27
Crit Moves:	****				****						****	

SANTA BARBARA AIRPORT MASTER PLAN
EXISTING CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Los Carneros Rd/US 101 SB Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.540
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 39 Level Of Service: A

Street Name:	Los Carneros Rd						US 101 SB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	2	0	1	1	0	2	0	0	0	1
Volume Module:												
Base Vol:	0	134	138	30	1091	0	53	1	158	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	134	138	30	1091	0	53	1	158	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	134	138	30	1091	0	53	1	158	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	134	138	30	1091	0	53	1	158	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	134	138	30	1091	0	53	1	158	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	1.00	2.00	0.00	0.98	0.02	1.00	0.00	0.00	0.00
Final Sat.:	0	3200	1600	1600	3200	0	1570	30	1600	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.04	0.09	0.02	0.34	0.00	0.03	0.03	0.10	0.00	0.00	0.00
Crit Moves:					****				****			

SANTA BARBARA AIRPORT MASTER PLAN
EXISTING CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Los Carneros Rd/Calle Koral

Cycle (sec): 100 Critical Vol./Cap.(X): 0.481
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 35 Level Of Service: A

Street Name:	Los Carneros Rd						Calle Koral					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	2	1	0	1	0	2	0	0	0	1
Volume Module:												
Base Vol:	0	194	7	201	1064	0	0	0	0	27	0	77
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	194	7	201	1064	0	0	0	0	27	0	77
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	194	7	201	1064	0	0	0	0	27	0	77
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	194	7	201	1064	0	0	0	0	27	0	77
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	194	7	201	1064	0	0	0	0	27	0	77
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.90	0.10	1.00	2.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	4633	167	1600	3200	0	0	0	0	1600	0	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.04	0.04	0.13	0.33	0.00	0.00	0.00	0.00	0.02	0.00	0.05
Crit Moves:					****							****

SANTA BARBARA AIRPORT MASTER PLAN
EXISTING CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Los Carneros Rd/Hollister Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.458
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 31 Level Of Service: A

Street Name:	Los Carneros Rd						Hollister Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0 2	0 1	1	0 2	0 1	2	0 1	1 0	1	0 1	1 0
Volume Module:												
Base Vol:	43	132	96	48	307	118	62	398	196	100	304	28
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	43	132	96	48	307	118	62	398	196	100	304	28
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	43	132	96	48	307	118	62	398	196	100	304	28
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	43	132	96	48	307	118	62	398	196	100	304	28
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	43	132	96	48	307	118	62	398	196	100	304	28
OvlAdjVol:						87						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	2.00	1.00	1.00	2.00	1.00	2.00	1.34	0.66	1.00	1.83	0.17
Final Sat.:	3200	3200	1600	1600	3200	1600	3200	2144	1056	1600	2930	270
Capacity Analysis Module:												
Vol/Sat:	0.01	0.04	0.06	0.03	0.10	0.07	0.02	0.19	0.19	0.06	0.10	0.10
OvlAdjV/S:						0.05						
Crit Moves:	****				****			****		****		

SANTA BARBARA AIRPORT MASTER PLAN
EXISTING CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Los Carneros Wy/Hollister Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.287
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 25 Level Of Service: A

Street Name:	Los Carneros Wy						Hollister Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0 0	0 0	1	0 1!	0 1	1	0 2	0 0	0	0 1	1 0
Volume Module:												
Base Vol:	0	0	0	121	0	39	18	477	0	0	402	38
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	121	0	39	18	477	0	0	402	38
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	121	0	39	18	477	0	0	402	38
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	121	0	39	18	477	0	0	402	38
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	121	0	39	18	477	0	0	402	38
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	2.00	0.00	0.00	1.83	0.17
Final Sat.:	0	0	0	3200	0	1600	1600	3200	0	0	2924	276
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.04	0.00	0.02	0.01	0.15	0.00	0.00	0.14	0.14
Crit Moves:				****			****				****	

SANTA BARBARA AIRPORT MASTER PLAN
EXISTING CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 Fairview Ave/Calle Real

Cycle (sec):	100	Critical Vol./Cap.(X):	0.617
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	41	Level Of Service:	B

Street Name:	Fairview Ave						Calle Real					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	1 1	0 1	1	0 1	1 0	1	0 1	0 1	2	0 0	1 0
Volume Module:												
Base Vol:	218	229	130	31	317	44	21	83	358	129	133	23
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	218	229	130	31	317	44	21	83	358	129	133	23
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	218	229	130	31	317	44	21	83	358	129	133	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	218	229	130	31	317	44	21	83	358	129	133	23
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	218	229	130	31	317	44	21	83	358	129	133	23
OvlAdjVol:			66									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.98	1.02	1.00	1.00	1.76	0.24	1.00	1.00	1.00	2.00	0.85	0.15
Final Sat.:	1561	1639	1600	1600	2810	390	1600	1600	1600	3200	1364	236
Capacity Analysis Module:												
Vol/Sat:	0.14	0.14	0.08	0.02	0.11	0.11	0.01	0.05	0.22	0.04	0.10	0.10
OvlAdjV/S:			0.04									
Crit Moves:		****				****			****	****		

SANTA BARBARA AIRPORT MASTER PLAN
EXISTING CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 Fairview Ave/US-101 NB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.627
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	42	Level Of Service:	B

Street Name:	Fairview Ave						US-101 NB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Include			Ignore			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0 0	0 0	0	0 1	0 2	1	0 1!	0 0	0	0 1	0 1
Volume Module:												
Base Vol:	0	0	0	0	110	705	270	0	129	0	534	298
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	110	705	270	0	129	0	534	298
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	110	0	270	0	129	0	534	298
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	0	110	0	270	0	129	0	534	298
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	0	110	0	270	0	129	0	534	298
OvlAdjVol:												188
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.00	1.00	2.00	1.35	0.00	0.65	0.00	1.00	1.00
Final Sat.:	0	0	0	0	1600	3200	2165	0	1035	0	1600	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.00	0.07	0.00	0.12	0.00	0.12	0.00	0.33	0.19
OvlAdjV/S:												0.12
Crit Moves:					****		****				****	

SANTA BARBARA AIRPORT MASTER PLAN
EXISTING CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Fairview Ave/US-101 SB Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.489
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 39 Level Of Service: A

Street Name:	Fairview Ave						US-101 SB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	2	0	1	2	0	2	0	0	0	1
Volume Module:												
Base Vol:	0	322	283	346	870	0	87	0	187	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	322	283	346	870	0	87	0	187	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	322	283	346	870	0	87	0	187	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	322	283	346	870	0	87	0	187	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	322	283	346	870	0	87	0	187	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	2.00	2.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	3200	1600	3200	3200	0	1600	0	1600	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.10	0.18	0.11	0.27	0.00	0.05	0.00	0.12	0.00	0.00	0.00
Crit Moves:					****				****			

SANTA BARBARA AIRPORT MASTER PLAN
EXISTING CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #9 Fairview Ave/Hollister Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.575
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 38 Level Of Service: A

Street Name:	Fairview Ave						Hollister Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ovl			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	2	0	2	0	1	0	2
Volume Module:												
Base Vol:	68	136	27	175	277	484	220	332	182	41	416	271
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	68	136	27	175	277	484	220	332	182	41	416	271
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	68	136	27	175	277	484	220	332	182	41	416	271
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	68	136	27	175	277	484	220	332	182	41	416	271
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	68	136	27	175	277	484	220	332	182	41	416	271
OvlAdjVol:						374						184
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.67	0.33	2.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	2670	530	3200	3200	1600	3200	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.04	0.05	0.05	0.05	0.09	0.30	0.07	0.10	0.11	0.03	0.13	0.17
OvlAdjV/S:						0.23						0.11
Crit Moves:	****					****	****				****	

SANTA BARBARA AIRPORT MASTER PLAN
EXISTING CONDITIONS

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #10 SR 217 WB Ramps/Hollister Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.537
Loss Time (sec): 10 Average Delay (sec/veh): 22.9
Optimal Cycle: 39 Level Of Service: C

Street Name:	SR 217 WB Ramps						Hollister Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0	0 0	1! 0	1	0 0	1	1 0	1 0	2 0	0
Volume Module:												
Base Vol:	0	0	0	154	0	519	0	601	47	96	426	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	154	0	519	0	601	47	96	426	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	154	0	519	0	601	47	96	426	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	154	0	519	0	601	47	96	426	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	154	0	519	0	601	47	96	426	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.87	1.00	0.87	1.00	0.94	0.94	0.95	0.95	1.00
Lanes:	0.00	0.00	0.00	0.37	0.00	1.63	0.00	1.85	0.15	1.00	2.00	0.00
Final Sat.:	0	0	0	619	0	2704	0	3311	259	1805	3610	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.25	0.00	0.19	0.00	0.18	0.18	0.05	0.12	0.00
Crit Moves:				****				****		****		
Green/Cycle:	0.00	0.00	0.00	0.46	0.00	0.46	0.00	0.34	0.34	0.10	0.44	0.00
Volume/Cap:	0.00	0.00	0.00	0.54	0.00	0.41	0.00	0.54	0.54	0.54	0.27	0.00
Delay/Veh:	0.0	0.0	0.0	19.6	0.0	18.0	0.0	27.3	27.3	46.1	18.1	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	19.6	0.0	18.0	0.0	27.3	27.3	46.1	18.1	0.0
LOS by Move:	A	A	A	B	A	B	A	C	C	D	B	A
HCM2kAvgQ:	0	0	0	9	0	7	0	8	8	3	4	0

Note: Queue reported is the number of cars per lane.

SANTA BARBARA AIRPORT MASTER PLAN
EXISTING CONDITIONS

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #11 SR 217 EB Ramps/Hollister Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.312
Loss Time (sec): 10 Average Delay (sec/veh): 20.9
Optimal Cycle: 28 Level Of Service: C

Street Name:	SR 217 EB Ramps						Hollister Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 1	0 0	0	0 0	2 0	1	1 0	1 0	2 0	1
Volume Module:												
Base Vol:	48	53	44	0	0	0	317	310	135	70	486	83
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	48	53	44	0	0	0	317	310	135	70	486	83
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	48	53	44	0	0	0	317	310	135	70	486	83
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	48	53	44	0	0	0	317	310	135	70	486	83
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	48	53	44	0	0	0	317	310	135	70	486	83
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.85	1.00	1.00	1.00	0.92	0.91	0.91	0.95	0.95	0.85
Lanes:	0.48	0.52	1.00	0.00	0.00	0.00	2.00	1.39	0.61	1.00	2.00	1.00
Final Sat.:	858	947	1615	0	0	0	3502	2402	1046	1805	3610	1615
Capacity Analysis Module:												
Vol/Sat:	0.06	0.06	0.03	0.00	0.00	0.00	0.09	0.13	0.13	0.04	0.13	0.05
Crit Moves:	****						****				****	
Green/Cycle:	0.18	0.18	0.18	0.00	0.00	0.00	0.29	0.55	0.55	0.17	0.43	0.43
Volume/Cap:	0.31	0.31	0.15	0.00	0.00	0.00	0.31	0.23	0.23	0.23	0.31	0.12
Delay/Veh:	36.2	36.2	34.9	0.0	0.0	0.0	27.9	11.5	11.5	36.5	18.8	17.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	36.2	36.2	34.9	0.0	0.0	0.0	27.9	11.5	11.5	36.5	18.8	17.1
LOS by Move:	D	D	C	A	A	A	C	B	B	D	B	B
HCM2kAvgQ:	3	3	1	0	0	0	4	4	4	2	5	2

Note: Queue reported is the number of cars per lane.

SANTA BARBARA AIRPORT MASTER PLAN
EXISTING CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #12 Kellogg Ave/Hollister Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.502
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	33	Level Of Service:	A

Street Name:	Kellogg Ave							Hollister Ave							
Approach:	North Bound				South Bound				East Bound				West Bound		
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Permitted				Permitted				Protected				Protected		
Rights:	Include				Include				Include				Include		
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0
Lanes:	0	1	0	0	1	0	1	0	0	1	1	0	1	1	0	1	0	1	1	0
Volume Module:															
Base Vol:	23	9	52		81	10	25		46	413	68		269	747	80
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00
Initial Bse:	23	9	52		81	10	25		46	413	68		269	747	80
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00
PHF Volume:	23	9	52		81	10	25		46	413	68		269	747	80
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0
Reduced Vol:	23	9	52		81	10	25		46	413	68		269	747	80
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00
FinalVolume:	23	9	52		81	10	25		46	413	68		269	747	80
Saturation Flow Module:															
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00
Lanes:	0.72	0.28	1.00		0.89	0.11	1.00		1.00	1.72	0.28		1.00	1.81	0.19
Final Sat.:	1150	450	1600		1424	176	1600		1600	2748	452		1600	2890	310
Capacity Analysis Module:															
Vol/Sat:	0.01	0.02	0.03		0.05	0.06	0.02		0.03	0.15	0.15		0.17	0.26	0.26
Crit Moves:			****		****					****			****		

SANTA BARBARA AIRPORT MASTER PLAN
EXISTING CONDITIONS

Scenario Report

Scenario:	Existing PM
Command:	Default Command
Volume:	Existing PM
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

SANTA BARBARA AIRPORT MASTER PLAN
EXISTING CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Los Carneros Rd/US-101 NB Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.506
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 34 Level Of Service: A

Street Name:	Los Carneros Rd						US 101 NB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	0	0	0	1	1	0	0	0
Volume Module:												
Base Vol:	271	736	0	0	253	312	0	0	0	255	7	35
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	271	736	0	0	253	312	0	0	0	255	7	35
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	271	736	0	0	253	312	0	0	0	255	7	35
Reduct Vol:	0	0	0	0	0	94	0	0	0	0	0	11
Reduced Vol:	271	736	0	0	253	218	0	0	0	255	7	24
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	271	736	0	0	253	218	0	0	0	255	7	24
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.07	0.93	0.00	0.00	0.00	1.78	0.05	0.17
Final Sat.:	1600	3200	0	0	1719	1481	0	0	0	2853	78	269
Capacity Analysis Module:												
Vol/Sat:	0.17	0.23	0.00	0.00	0.15	0.15	0.00	0.00	0.00	0.09	0.09	0.09
Crit Moves:	****				****					****		

SANTA BARBARA AIRPORT MASTER PLAN
EXISTING CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Los Carneros Rd/US 101 SB Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.513
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 34 Level Of Service: A

Street Name:	Los Carneros Rd						US 101 SB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	2	0	1	1	0	2	0	0	0	1
Volume Module:												
Base Vol:	0	768	570	18	489	0	226	17	145	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	768	570	18	489	0	226	17	145	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	768	570	18	489	0	226	17	145	0	0	0
Reduct Vol:	0	0	171	0	0	0	0	0	44	0	0	0
Reduced Vol:	0	768	399	18	489	0	226	17	101	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	768	399	18	489	0	226	17	101	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	1.00	2.00	0.00	0.93	0.07	1.00	0.00	0.00	0.00
Final Sat.:	0	3200	1600	1600	3200	0	1488	112	1600	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.24	0.25	0.01	0.15	0.00	0.15	0.15	0.06	0.00	0.00	0.00
Crit Moves:			****	****			****					

SANTA BARBARA AIRPORT MASTER PLAN
EXISTING CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Los Carneros Rd/Calle Koral

Cycle (sec): 100 Critical Vol./Cap.(X): 0.553
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 37 Level Of Service: A

Street Name:	Los Carneros Rd						Calle Koral					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	2 1	0	1	0 2	0 0	0	0 0	0 0	1 0	0 1
Volume Module:												
Base Vol:	0	1035	38	145	492	0	0	0	0	16	0	321
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1035	38	145	492	0	0	0	0	16	0	321
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1035	38	145	492	0	0	0	0	16	0	321
Reduct Vol:	0	0	11	0	0	0	0	0	0	0	0	96
Reduced Vol:	0	1035	27	145	492	0	0	0	0	16	0	225
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1035	27	145	492	0	0	0	0	16	0	225
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.92	0.08	1.00	2.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	4678	122	1600	3200	0	0	0	0	1600	0	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.22	0.22	0.09	0.15	0.00	0.00	0.00	0.00	0.01	0.00	0.14
Crit Moves:		****		****								****

SANTA BARBARA AIRPORT MASTER PLAN
EXISTING CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Los Carneros Rd/Hollister Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.566
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 37 Level Of Service: A

Street Name:	Los Carneros Rd						Hollister Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	2 0	1	1	0 2	0 1	2	0 1	1 0	1	0 1
Volume Module:												
Base Vol:	209	330	132	122	343	95	253	499	86	117	648	24
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	209	330	132	122	343	95	253	499	86	117	648	24
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	209	330	132	122	343	95	253	499	86	117	648	24
Reduct Vol:	0	0	40	0	0	29	0	0	26	0	0	7
Reduced Vol:	209	330	92	122	343	66	253	499	60	117	648	17
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	209	330	92	122	343	66	253	499	60	117	648	17
OvlAdjVol:						0						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	2.00	1.00	1.00	2.00	1.00	2.00	1.79	0.21	1.00	1.95	0.05
Final Sat.:	3200	3200	1600	1600	3200	1600	3200	2857	343	1600	3118	82
Capacity Analysis Module:												
Vol/Sat:	0.07	0.10	0.06	0.08	0.11	0.04	0.08	0.17	0.17	0.07	0.21	0.21
OvlAdjV/S:						0.00						
Crit Moves:		****		****				****			****	

SANTA BARBARA AIRPORT MASTER PLAN
EXISTING CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Los Carneros Wy/Hollister Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.425
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 30 Level Of Service: A

Street Name:	Los Carneros Wy						Hollister Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	1	0	1! 0	1	0	2	0	0	0
Volume Module:												
Base Vol:	0	0	0	87	0	24	43	736	0	0	718	213
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	87	0	24	43	736	0	0	718	213
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	87	0	24	43	736	0	0	718	213
Reduct Vol:	0	0	0	0	0	7	0	0	0	0	0	64
Reduced Vol:	0	0	0	87	0	17	43	736	0	0	718	149
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	87	0	17	43	736	0	0	718	149
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	2.00	0.00	0.00	1.66	0.34
Final Sat.:	0	0	0	3200	0	1600	1600	3200	0	0	2650	550
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.03	0.00	0.01	0.03	0.23	0.00	0.00	0.27	0.27
Crit Moves:				****			****				****	

SANTA BARBARA AIRPORT MASTER PLAN
EXISTING CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 Fairview Ave/Calle Real

Cycle (sec): 100 Critical Vol./Cap.(X): 0.747
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 57 Level Of Service: C

Street Name:	Fairview Ave						Calle Real					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	1	1	0	1	1	0	1	1	0	1	0
Volume Module:												
Base Vol:	428	438	395	114	328	62	62	304	323	224	305	52
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	428	438	395	114	328	62	62	304	323	224	305	52
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	428	438	395	114	328	62	62	304	323	224	305	52
Reduct Vol:	0	0	119	0	0	19	0	0	97	0	0	16
Reduced Vol:	428	438	276	114	328	43	62	304	226	224	305	36
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	428	438	276	114	328	43	62	304	226	224	305	36
OvlAdjVol:			164									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.99	1.01	1.00	1.00	1.77	0.23	1.00	1.00	1.00	2.00	0.89	0.11
Final Sat.:	1582	1618	1600	1600	2829	371	1600	1600	1600	3200	1431	169
Capacity Analysis Module:												
Vol/Sat:	0.27	0.27	0.17	0.07	0.12	0.12	0.04	0.19	0.14	0.07	0.21	0.21
OvlAdjV/S:			0.10									
Crit Moves:		****			****			****			****	

SANTA BARBARA AIRPORT MASTER PLAN
EXISTING CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 Fairview Ave/US-101 NB Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.670
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 46 Level Of Service: B

Street Name:	Fairview Ave						US-101 NB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Include			Ignore			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	0	0	0	0	1	0	2	1	0
	1!	0	0	0	0	1	0	1				
Volume Module:												
Base Vol:	0	0	0	0	293	585	702	0	219	0	191	535
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	293	585	702	0	219	0	191	535
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	293	0	702	0	219	0	191	535
Reduct Vol:	0	0	0	0	0	176	0	0	66	0	0	161
Reduced Vol:	0	0	0	0	293	0	702	0	153	0	191	374
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	0	293	0	702	0	153	0	191	374
OvlAdjVol:												81
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.00	1.00	2.00	1.64	0.00	0.36	0.00	1.00	1.00
Final Sat.:	0	0	0	0	1600	3200	2627	0	573	0	1600	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.00	0.18	0.00	0.27	0.00	0.27	0.00	0.12	0.23
OvlAdjV/S:												0.05
Crit Moves:					****		****				****	

SANTA BARBARA AIRPORT MASTER PLAN
EXISTING CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Fairview Ave/US-101 SB Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.552
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 36 Level Of Service: A

Street Name:	Fairview Ave						US-101 SB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	2	0	1	2	0	2	0	0	0	1
	0	1	0	0	1	0	0	0	0	0		
Volume Module:												
Base Vol:	0	751	573	222	563	0	192	19	224	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	751	573	222	563	0	192	19	224	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	751	573	222	563	0	192	19	224	0	0	0
Reduct Vol:	0	0	172	0	0	0	0	0	67	0	0	0
Reduced Vol:	0	751	401	222	563	0	192	19	157	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	751	401	222	563	0	192	19	157	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	2.00	2.00	0.00	0.91	0.09	1.00	0.00	0.00	0.00
Final Sat.:	0	3200	1600	3200	3200	0	1456	144	1600	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.23	0.25	0.07	0.18	0.00	0.13	0.13	0.10	0.00	0.00	0.00
Crit Moves:			****	****			****					

SANTA BARBARA AIRPORT MASTER PLAN
EXISTING CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #9 Fairview Ave/Hollister Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.661
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	46	Level Of Service:	B

Street Name:	Fairview Ave						Hollister Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ovl			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1	1 0	2	0 2	0 1	2	0 2	0 1	1	0 2	0 1
Volume Module:												
Base Vol:	162	377	70	365	137	240	517	631	91	42	487	383
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	162	377	70	365	137	240	517	631	91	42	487	383
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	162	377	70	365	137	240	517	631	91	42	487	383
Reduct Vol:	0	0	21	0	0	72	0	0	27	0	0	115
Reduced Vol:	162	377	49	365	137	168	517	631	64	42	487	268
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	162	377	49	365	137	168	517	631	64	42	487	268
OvlAdjVol:						0						86
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.77	0.23	2.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	2832	368	3200	3200	1600	3200	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.10	0.13	0.13	0.11	0.04	0.11	0.16	0.20	0.04	0.03	0.15	0.17
OvlAdjV/S:						0.00						0.05
Crit Moves:		****		****			****				****	

SANTA BARBARA AIRPORT MASTER PLAN
EXISTING CONDITIONS

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #10 SR 217 WB Ramps/Hollister Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.662
Loss Time (sec):	10	Average Delay (sec/veh):	18.0
Optimal Cycle:	49	Level Of Service:	B

Street Name:	SR 217 WB Ramps						Hollister Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R
Control:	Split Phase			Split Phase			Permitted			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0 0	0 0	0	0 1!	0 1	0	0 1	1 0	1	0 2	0 0
Volume Module:												
Base Vol:	0	0	0	48	0	433	0	1402	31	70	512	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	48	0	433	0	1402	31	70	512	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	48	0	433	0	1402	31	70	512	0
Reduct Vol:	0	0	0	0	0	0	0	0	9	0	0	0
Reduced Vol:	0	0	0	48	0	433	0	1402	22	70	512	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	48	0	433	0	1402	22	70	512	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.86	1.00	0.86	1.00	0.95	0.95	0.95	0.95	1.00
Lanes:	0.00	0.00	0.00	0.18	0.00	1.82	0.00	1.97	0.03	1.00	2.00	0.00
Final Sat.:	0	0	0	297	0	2974	0	3547	56	1805	3610	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.16	0.00	0.15	0.00	0.40	0.40	0.04	0.14	0.00
Crit Moves:				****				****		****		
Green/Cycle:	0.00	0.00	0.00	0.24	0.00	0.24	0.00	0.60	0.60	0.06	0.66	0.00
Volume/Cap:	0.00	0.00	0.00	0.66	0.00	0.60	0.00	0.66	0.66	0.66	0.22	0.00
Delay/Veh:	0.0	0.0	0.0	36.4	0.0	34.6	0.0	14.2	14.2	60.7	7.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	36.4	0.0	34.6	0.0	14.2	14.2	60.7	7.0	0.0
LOS by Move:	A	A	A	D	A	C	A	B	B	E	A	A
HCM2kAvgQ:	0	0	0	8	0	7	0	15	15	2	3	0

Note: Queue reported is the number of cars per lane.

SANTA BARBARA AIRPORT MASTER PLAN
EXISTING CONDITIONS

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #11 SR 217 EB Ramps/Hollister Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.496
Loss Time (sec):	10	Average Delay (sec/veh):	22.0
Optimal Cycle:	36	Level Of Service:	C

Street Name:	SR 217 EB Ramps						Hollister Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 1	0 0	0	0 0	2 0	1	1 0	1 0	2 0	1
Volume Module:												
Base Vol:	113	94	235	0	0	0	428	960	65	26	461	63
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	113	94	235	0	0	0	428	960	65	26	461	63
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	113	94	235	0	0	0	428	960	65	26	461	63
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	113	94	235	0	0	0	428	960	65	26	461	63
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	113	94	235	0	0	0	428	960	65	26	461	63
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.96	0.96	0.85	1.00	1.00	1.00	0.92	0.94	0.94	0.95	0.95	0.85
Lanes:	0.55	0.45	1.00	0.00	0.00	0.00	2.00	1.87	0.13	1.00	2.00	1.00
Final Sat.:	998	830	1615	0	0	0	3502	3351	227	1805	3610	1615
Capacity Analysis Module:												
Vol/Sat:	0.11	0.11	0.15	0.00	0.00	0.00	0.12	0.29	0.29	0.01	0.13	0.04
Crit Moves:			****					****		****		
Green/Cycle:	0.29	0.29	0.29	0.00	0.00	0.00	0.30	0.58	0.58	0.03	0.31	0.31
Volume/Cap:	0.39	0.39	0.50	0.00	0.00	0.00	0.41	0.50	0.50	0.50	0.41	0.13
Delay/Veh:	28.6	28.6	30.0	0.0	0.0	0.0	28.4	12.7	12.7	55.0	27.5	24.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	28.6	28.6	30.0	0.0	0.0	0.0	28.4	12.7	12.7	55.0	27.5	24.9
LOS by Move:	C	C	C	A	A	A	C	B	B	E	C	C
HCM2kAvgQ:	5	5	6	0	0	0	5	9	9	2	6	1

Note: Queue reported is the number of cars per lane.

SANTA BARBARA AIRPORT MASTER PLAN
EXISTING CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #12 Kellogg Ave/Hollister Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.706
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	51	Level Of Service:	C

Street Name:	Kellogg Ave						Hollister Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 1	0 1	0	0 1	1 0	1	0	1 0	1	1 0
Volume Module:												
Base Vol:	57	13	161	116	10	30	29	1076	36	136	663	89
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	57	13	161	116	10	30	29	1076	36	136	663	89
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	57	13	161	116	10	30	29	1076	36	136	663	89
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	57	13	161	116	10	30	29	1076	36	136	663	89
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	57	13	161	116	10	30	29	1076	36	136	663	89
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.81	0.19	1.00	0.92	0.08	1.00	1.00	1.94	0.06	1.00	1.76	0.24
Final Sat.:	1303	297	1600	1473	127	1600	1600	3096	104	1600	2821	379
Capacity Analysis Module:												
Vol/Sat:	0.04	0.04	0.10	0.07	0.08	0.02	0.02	0.35	0.35	0.09	0.23	0.24
Crit Moves:			****	****				****		****		

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Scenario Report

Scenario:	2022 AM
Command:	Default Command
Volume:	2022 AM
Geometry:	2022
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Los Carneros Rd/US-101 NB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.621
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	42	Level Of Service:	B

Street Name:	Los Carneros Rd						US 101 NB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	0	0 0	1 1	0	0 0	0 0	0	1 0	1! 0	0
Volume Module:												
Base Vol:	98	165	0	0	324	131	0	0	0	1031	2	30
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	98	165	0	0	324	131	0	0	0	1031	2	30
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	98	165	0	0	324	131	0	0	0	1031	2	30
Reduct Vol:	0	0	0	0	0	39	0	0	0	0	0	9
Reduced Vol:	98	165	0	0	324	92	0	0	0	1031	2	21
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	98	165	0	0	324	92	0	0	0	1031	2	21
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.56	0.44	0.00	0.00	0.00	1.95	0.01	0.04
Final Sat.:	1600	3200	0	0	2492	708	0	0	0	3130	6	64
Capacity Analysis Module:												
Vol/Sat:	0.06	0.05	0.00	0.00	0.13	0.13	0.00	0.00	0.00	0.33	0.33	0.33
Crit Moves:	****				****					****		

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Los Carneros Rd/US 101 SB Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.595
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 46 Level Of Service: A

Street Name:	Los Carneros Rd						US 101 SB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	2	0	1	1	0	2	0	0	1	0	0	1	0	0	0	0
Volume Module:												
Base Vol:	0	217	304	34	1313	0	54	4	195	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	217	304	34	1313	0	54	4	195	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	217	304	34	1313	0	54	4	195	0	0	0
Reduct Vol:	0	0	91	0	0	0	0	0	59	0	0	0
Reduced Vol:	0	217	213	34	1313	0	54	4	136	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	217	213	34	1313	0	54	4	136	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	1.00	2.00	0.00	0.93	0.07	1.00	0.00	0.00	0.00
Final Sat.:	0	3200	1600	1600	3200	0	1490	110	1600	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.07	0.13	0.02	0.41	0.00	0.04	0.04	0.09	0.00	0.00	0.00
Crit Moves:					****				****			

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Los Carneros Rd/Calle Koral

Cycle (sec): 100 Critical Vol./Cap.(X): 0.637
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 43 Level Of Service: B

Street Name:	Los Carneros Rd						Calle Koral					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	1	0	1	0	1	1	0	1	0	0	1	0	0	1	0
Volume Module:												
Base Vol:	4	405	7	211	1351	20	85	33	15	23	10	112
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	4	405	7	211	1351	20	85	33	15	23	10	112
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	4	405	7	211	1351	20	85	33	15	23	10	112
Reduct Vol:	0	0	2	0	0	6	0	0	5	0	0	34
Reduced Vol:	4	405	5	211	1351	14	85	33	10	23	10	78
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	4	405	5	211	1351	14	85	33	10	23	10	78
OvlAdjVol:												0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.96	0.04	1.00	1.98	0.02	1.00	0.77	0.23	1.00	0.11	0.89
Final Sat.:	1600	4741	59	1600	3167	33	1600	1228	372	1600	182	1418
Capacity Analysis Module:												
Vol/Sat:	0.00	0.09	0.09	0.13	0.43	0.43	0.05	0.03	0.03	0.01	0.06	0.05
OvlAdjV/S:												0.00
Crit Moves:	****				****		****				****	

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Los Carneros Rd/Hollister Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.503
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 33 Level Of Service: A

Street Name:	Los Carneros Rd						Hollister Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	2	0	1	1	0	2	0	1	1	0
Volume Module:												
Base Vol:	64	141	120	77	402	235	73	456	216	108	381	37
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	64	141	120	77	402	235	73	456	216	108	381	37
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	64	141	120	77	402	235	73	456	216	108	381	37
Reduct Vol:	0	0	36	0	0	71	0	0	65	0	0	11
Reduced Vol:	64	141	84	77	402	164	73	456	151	108	381	26
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	64	141	84	77	402	164	73	456	151	108	381	26
OvlAdjVol:						127						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	2.00	1.00	1.00	2.00	1.00	2.00	1.50	0.50	1.00	1.87	0.13
Final Sat.:	3200	3200	1600	1600	3200	1600	3200	2404	796	1600	2996	204
Capacity Analysis Module:												
Vol/Sat:	0.02	0.04	0.05	0.05	0.13	0.10	0.02	0.19	0.19	0.07	0.13	0.13
OvlAdjV/S:						0.08						
Crit Moves:	****				****			****		****		

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Los Carneros Wy/Hollister Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.330
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 26 Level Of Service: A

Street Name:	Los Carneros Wy						Hollister Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	0	0	1	0	1!	0	1	0	2
Volume Module:												
Base Vol:	0	0	0	131	0	64	49	590	0	0	471	51
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	131	0	64	49	590	0	0	471	51
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	131	0	64	49	590	0	0	471	51
Reduct Vol:	0	0	0	0	0	19	0	0	0	0	0	15
Reduced Vol:	0	0	0	131	0	45	49	590	0	0	471	36
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	131	0	45	49	590	0	0	471	36
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	2.00	0.00	0.00	1.86	0.14
Final Sat.:	0	0	0	3200	0	1600	1600	3200	0	0	2973	227
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.04	0.00	0.03	0.03	0.18	0.00	0.00	0.16	0.16
Crit Moves:				****			****				****	

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 Fairview Ave/Calle Real

Cycle (sec): 100 Critical Vol./Cap.(X): 0.555
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 37 Level Of Service: A

Street Name:	Fairview Ave						Calle Real					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	1	1	0	1	1	0	1	1	0	1	0
Volume Module:												
Base Vol:	222	235	133	31	333	44	21	83	360	132	133	23
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	222	235	133	31	333	44	21	83	360	132	133	23
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	222	235	133	31	333	44	21	83	360	132	133	23
Reduct Vol:	0	0	40	0	0	13	0	0	108	0	0	7
Reduced Vol:	222	235	93	31	333	31	21	83	252	132	133	16
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	222	235	93	31	333	31	21	83	252	132	133	16
OvlAdjVol:			27									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.97	1.03	1.00	1.00	1.83	0.17	1.00	1.00	1.00	2.00	0.89	0.11
Final Sat.:	1554	1646	1600	1600	2927	273	1600	1600	1600	3200	1428	172
Capacity Analysis Module:												
Vol/Sat:	0.14	0.14	0.06	0.02	0.11	0.11	0.01	0.05	0.16	0.04	0.09	0.09
OvlAdjV/S:			0.02									
Crit Moves:	****					****			****	****		

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 Fairview Ave/US-101 NB Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.703
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 50 Level Of Service: C

Street Name:	Fairview Ave						US-101 NB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Include			Ignore			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	0	0	0	0	1	0	2	1	0
Volume Module:												
Base Vol:	0	0	0	0	115	739	282	0	154	0	654	301
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	115	739	282	0	154	0	654	301
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	115	0	282	0	154	0	654	301
Reduct Vol:	0	0	0	0	0	0	0	0	46	0	0	90
Reduced Vol:	0	0	0	0	115	0	282	0	108	0	654	211
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	0	115	0	282	0	108	0	654	211
OvlAdjVol:												96
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.00	1.00	2.00	1.45	0.00	0.55	0.00	1.00	1.00
Final Sat.:	0	0	0	0	1600	3200	2314	0	886	0	1600	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.00	0.07	0.00	0.12	0.00	0.12	0.00	0.41	0.13
OvlAdjV/S:												0.06
Crit Moves:					****		****				****	

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Fairview Ave/US-101 SB Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.533
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 44 Level Of Service: A

Street Name:	Fairview Ave						US-101 SB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	2	0	1	2	0	2	0	0	0	1
Volume Module:												
Base Vol:	0	346	350	347	1022	0	95	0	259	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	346	350	347	1022	0	95	0	259	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	346	350	347	1022	0	95	0	259	0	0	0
Reduct Vol:	0	0	105	0	0	0	0	0	78	0	0	0
Reduced Vol:	0	346	245	347	1022	0	95	0	181	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	346	245	347	1022	0	95	0	181	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	2.00	2.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	3200	1600	3200	3200	0	1600	0	1600	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.11	0.15	0.11	0.32	0.00	0.06	0.00	0.11	0.00	0.00	0.00
Crit Moves:					****				****			

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #9 Fairview Ave/Hollister Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.590
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 39 Level Of Service: A

Street Name:	Fairview Ave						Hollister Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ovl			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	2	0	2	0	1	0	2
Volume Module:												
Base Vol:	103	179	33	200	341	635	274	361	233	46	473	291
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	103	179	33	200	341	635	274	361	233	46	473	291
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	103	179	33	200	341	635	274	361	233	46	473	291
Reduct Vol:	0	0	10	0	0	191	0	0	70	0	0	87
Reduced Vol:	103	179	23	200	341	444	274	361	163	46	473	204
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	103	179	23	200	341	444	274	361	163	46	473	204
OvlAdjVol:						307						104
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.77	0.23	2.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	2836	364	3200	3200	1600	3200	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.06	0.06	0.06	0.06	0.11	0.28	0.09	0.11	0.10	0.03	0.15	0.13
OvlAdjV/S:						0.19						0.07
Crit Moves:	****					****	****				****	

MOVEMENT SUMMARY

Site: SR 217 WB Ramps &Hollister Ave_IT_AM

New Site
Roundabout

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
East: Hollister Ave											
1	L2	139	2.0	0.225	10.1	LOS B	1.5	38.2	0.09	0.51	37.0
6	T1	490	2.0	0.225	4.0	LOS A	1.5	38.6	0.09	0.41	37.7
16	R2	21	2.0	0.225	4.0	LOS A	1.5	38.6	0.09	0.35	36.8
Approach		650	2.0	0.225	5.3	LOS A	1.5	38.6	0.09	0.43	37.5
NorthEast: SR 217 WB Off-Ramp											
1bx	L3	203	2.0	0.489	15.2	LOS B	2.6	66.4	0.63	0.89	35.1
1ax	L1	1	2.0	0.489	12.6	LOS B	2.6	66.4	0.63	0.89	34.1
16ax	R1	582	2.0	0.489	7.4	LOS A	2.6	66.4	0.63	0.84	35.2
16bx	R3	25	2.0	0.489	8.0	LOS A	2.6	66.4	0.63	0.81	34.5
Approach		811	2.0	0.489	9.4	LOS A	2.6	66.4	0.63	0.85	35.2
North: Dearborn Pl											
7	L2	10	2.0	0.458	18.4	LOS B	2.2	55.8	0.78	0.94	34.1
4	T1	10	2.0	0.458	12.1	LOS B	2.2	55.8	0.78	0.94	33.8
14	R2	187	2.0	0.458	12.0	LOS B	2.2	55.8	0.78	0.94	32.7
Approach		207	2.0	0.458	12.3	LOS B	2.2	55.8	0.78	0.94	32.8
West: Hollister Ave											
5	L2	10	2.0	0.353	12.4	LOS B	2.3	58.0	0.61	0.59	36.3
2	T1	682	2.0	0.353	6.1	LOS A	2.4	60.0	0.60	0.57	36.3
12	R2	56	2.0	0.353	5.9	LOS A	2.4	60.0	0.60	0.56	35.1
Approach		748	2.0	0.353	6.1	LOS A	2.4	60.0	0.60	0.57	36.2
All Vehicles		2416	2.0	0.489	7.5	LOS A	2.6	66.4	0.49	0.66	35.9

Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

Site: SR 217 EB Ramps & Hollister Ave_IT_AM

New Site
Roundabout

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South: SR 217 EB Off-Ramp											
3	L2	64	2.0	0.175	12.5	LOS B	0.7	18.0	0.57	0.76	34.6
8	T1	66	2.0	0.175	7.1	LOS A	0.7	18.0	0.57	0.76	34.5
18	R2	58	2.0	0.106	8.2	LOS A	0.4	10.0	0.58	0.77	34.3
Approach		188	2.0	0.175	9.3	LOS A	0.7	18.0	0.57	0.77	34.5
East: Hollister Ave											
1	L2	80	2.0	0.378	13.3	LOS B	2.4	61.1	0.69	0.76	34.7
6	T1	599	2.0	0.378	7.7	LOS A	2.5	63.0	0.69	0.72	35.0
16	R2	96	2.0	0.058	4.5	LOS A	0.0	0.0	0.00	0.49	36.4
Approach		775	2.0	0.378	7.9	LOS A	2.5	63.0	0.60	0.70	35.2
West: Hollister Ave											
5	L2	363	2.0	0.346	10.3	LOS B	2.6	65.2	0.34	0.59	34.5
2	T1	378	2.0	0.346	4.8	LOS A	2.6	65.7	0.33	0.47	36.3
12	R2	139	2.0	0.346	4.7	LOS A	2.6	65.7	0.33	0.44	35.5
Approach		880	2.0	0.346	7.0	LOS A	2.6	65.7	0.33	0.52	35.4
All Vehicles		1843	2.0	0.378	7.6	LOS A	2.6	65.7	0.47	0.62	35.2

Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #12 Kellogg Ave/Hollister Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.561
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	37	Level Of Service:	A

Street Name:	Kellogg Ave						Hollister Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 1	0 1	0	0 1	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	30	18	109	104	14	33	63	447	72	309	792	131
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	30	18	109	104	14	33	63	447	72	309	792	131
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	30	18	109	104	14	33	63	447	72	309	792	131
Reduct Vol:	0	0	33	0	0	10	0	0	22	0	0	39
Reduced Vol:	30	18	76	104	14	23	63	447	50	309	792	92
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	30	18	76	104	14	23	63	447	50	309	792	92
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.62	0.38	1.00	0.88	0.12	1.00	1.00	1.80	0.20	1.00	1.79	0.21
Final Sat.:	1000	600	1600	1410	190	1600	1600	2878	322	1600	2867	333
Capacity Analysis Module:												
Vol/Sat:	0.02	0.03	0.05	0.07	0.07	0.01	0.04	0.16	0.16	0.19	0.28	0.28
Crit Moves:			****	****				****		****		

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Scenario Report

Scenario:	2022 PM
Command:	Default Command
Volume:	2022 PM
Geometry:	2022
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Los Carneros Rd/US-101 NB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.603
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	40	Level Of Service:	B

Street Name:	Los Carneros Rd						US 101 NB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	0	0 0	1 1	0	0 0	0 0	0	1 0	1! 0	0
Volume Module:												
Base Vol:	315	780	0	0	259	324	0	0	0	447	11	49
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	315	780	0	0	259	324	0	0	0	447	11	49
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	315	780	0	0	259	324	0	0	0	447	11	49
Reduct Vol:	0	0	0	0	0	97	0	0	0	0	0	15
Reduced Vol:	315	780	0	0	259	227	0	0	0	447	11	34
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	315	780	0	0	259	227	0	0	0	447	11	34
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.07	0.93	0.00	0.00	0.00	1.82	0.04	0.14
Final Sat.:	1600	3200	0	0	1705	1495	0	0	0	2907	72	221
Capacity Analysis Module:												
Vol/Sat:	0.20	0.24	0.00	0.00	0.15	0.15	0.00	0.00	0.00	0.15	0.15	0.15
Crit Moves:	****				****							****

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Los Carneros Rd/US 101 SB Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.592
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 39 Level Of Service: A

Street Name:	Los Carneros Rd						US 101 SB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	2	0	1	1	0	2	0	0	0	1
Volume Module:												
Base Vol:	0	867	737	23	684	0	230	18	217	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	867	737	23	684	0	230	18	217	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	867	737	23	684	0	230	18	217	0	0	0
Reduct Vol:	0	0	221	0	0	0	0	0	65	0	0	0
Reduced Vol:	0	867	516	23	684	0	230	18	152	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	867	516	23	684	0	230	18	152	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	1.00	2.00	0.00	0.93	0.07	1.00	0.00	0.00	0.00
Final Sat.:	0	3200	1600	1600	3200	0	1484	116	1600	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.27	0.32	0.01	0.21	0.00	0.15	0.16	0.10	0.00	0.00	0.00
Crit Moves:			****	****				****				

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Los Carneros Rd/Calle Koral

Cycle (sec): 100 Critical Vol./Cap.(X): 0.665
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 46 Level Of Service: B

Street Name:	Los Carneros Rd						Calle Koral					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	1	0	1	0	1	1	1	0	0
Volume Module:												
Base Vol:	14	1253	46	149	746	60	54	21	9	21	31	344
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	14	1253	46	149	746	60	54	21	9	21	31	344
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	14	1253	46	149	746	60	54	21	9	21	31	344
Reduct Vol:	0	0	14	0	0	18	0	0	3	0	0	103
Reduced Vol:	14	1253	32	149	746	42	54	21	6	21	31	241
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	14	1253	32	149	746	42	54	21	6	21	31	241
OvlAdjVol:												109
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.93	0.07	1.00	1.89	0.11	1.00	0.78	0.22	1.00	0.11	0.89
Final Sat.:	1600	4680	120	1600	3029	171	1600	1244	356	1600	182	1418
Capacity Analysis Module:												
Vol/Sat:	0.01	0.27	0.27	0.09	0.25	0.25	0.03	0.02	0.02	0.01	0.17	0.17
OvlAdjV/S:												0.08
Crit Moves:		****		****			****				****	

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Los Carneros Rd/Hollister Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.645
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 44 Level Of Service: B

Street Name:	Los Carneros Rd						Hollister Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	2	0	1	1	0	2	0	1	1	0
Volume Module:												
Base Vol:	231	400	163	152	389	115	328	587	100	139	681	43
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	231	400	163	152	389	115	328	587	100	139	681	43
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	231	400	163	152	389	115	328	587	100	139	681	43
Reduct Vol:	0	0	49	0	0	35	0	0	30	0	0	13
Reduced Vol:	231	400	114	152	389	80	328	587	70	139	681	30
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	231	400	114	152	389	80	328	587	70	139	681	30
OvlAdjVol:						0						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	2.00	1.00	1.00	2.00	1.00	2.00	1.79	0.21	1.00	1.92	0.08
Final Sat.:	3200	3200	1600	1600	3200	1600	3200	2859	341	1600	3065	135
Capacity Analysis Module:												
Vol/Sat:	0.07	0.13	0.07	0.10	0.12	0.05	0.10	0.21	0.21	0.09	0.22	0.22
OvlAdjV/S:						0.00						
Crit Moves:		****		****				****			****	

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Los Carneros Wy/Hollister Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.464
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 31 Level Of Service: A

Street Name:	Los Carneros Wy						Hollister Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	0	0	1	0	1!	0	1	1	0
Volume Module:												
Base Vol:	0	0	0	91	0	30	67	819	0	0	777	231
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	91	0	30	67	819	0	0	777	231
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	91	0	30	67	819	0	0	777	231
Reduct Vol:	0	0	0	0	0	9	0	0	0	0	0	69
Reduced Vol:	0	0	0	91	0	21	67	819	0	0	777	162
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	91	0	21	67	819	0	0	777	162
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	2.00	0.00	0.00	1.65	0.35
Final Sat.:	0	0	0	3200	0	1600	1600	3200	0	0	2648	552
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.03	0.00	0.01	0.04	0.26	0.00	0.00	0.29	0.29
Crit Moves:				****			****				****	

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 Fairview Ave/Calle Real

Cycle (sec): 100 Critical Vol./Cap.(X): 0.760
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 59 Level Of Service: C

Street Name:	Fairview Ave						Calle Real					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	1 1	0 1	1	0 1	1 0	1	0 1	0 1	2	0 0	1 0
Volume Module:												
Base Vol:	431	453	407	114	333	62	65	312	333	228	305	54
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	431	453	407	114	333	62	65	312	333	228	305	54
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	431	453	407	114	333	62	65	312	333	228	305	54
Reduct Vol:	0	0	122	0	0	19	0	0	100	0	0	16
Reduced Vol:	431	453	285	114	333	43	65	312	233	228	305	38
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	431	453	285	114	333	43	65	312	233	228	305	38
OvlAdjVol:			171									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.98	1.02	1.00	1.00	1.77	0.23	1.00	1.00	1.00	2.00	0.89	0.11
Final Sat.:	1560	1640	1600	1600	2834	366	1600	1600	1600	3200	1423	177
Capacity Analysis Module:												
Vol/Sat:	0.28	0.28	0.18	0.07	0.12	0.12	0.04	0.20	0.15	0.07	0.21	0.21
OvlAdjV/S:			0.11									
Crit Moves:	****			****				****		****		

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 Fairview Ave/US-101 NB Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.733
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 55 Level Of Service: C

Street Name:	Fairview Ave						US-101 NB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Include			Ignore			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0 0	0 0	0	0 1	0 2	1	0 1!	0 0	0	0 1	0 1
Volume Module:												
Base Vol:	0	0	0	0	325	593	726	0	241	0	241	559
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	325	593	726	0	241	0	241	559
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	325	0	726	0	241	0	241	559
Reduct Vol:	0	0	0	0	0	0	0	0	72	0	0	168
Reduced Vol:	0	0	0	0	325	0	726	0	169	0	241	391
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	0	325	0	726	0	169	0	241	391
OvlAdjVol:												66
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.00	1.00	2.00	1.62	0.00	0.38	0.00	1.00	1.00
Final Sat.:	0	0	0	0	1600	3200	2596	0	604	0	1600	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.00	0.20	0.00	0.28	0.00	0.28	0.00	0.15	0.24
OvlAdjV/S:												0.04
Crit Moves:					****		****				****	

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Fairview Ave/US-101 SB Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.608
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 41 Level Of Service: B

Street Name:	Fairview Ave						US-101 SB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	2	0	1	2	0	2	0	0	0	1
Volume Module:												
Base Vol:	0	812	698	223	632	0	192	20	261	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	812	698	223	632	0	192	20	261	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	812	698	223	632	0	192	20	261	0	0	0
Reduct Vol:	0	0	209	0	0	0	0	0	78	0	0	0
Reduced Vol:	0	812	489	223	632	0	192	20	183	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	812	489	223	632	0	192	20	183	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	2.00	2.00	0.00	0.91	0.09	1.00	0.00	0.00	0.00
Final Sat.:	0	3200	1600	3200	3200	0	1449	151	1600	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.25	0.31	0.07	0.20	0.00	0.13	0.13	0.11	0.00	0.00	0.00
Crit Moves:			****	****			****					

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #9 Fairview Ave/Hollister Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.728
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 54 Level Of Service: C

Street Name:	Fairview Ave						Hollister Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ovl			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	2	0	2	0	1	0	2
Volume Module:												
Base Vol:	204	418	82	358	153	291	640	713	120	50	535	388
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	204	418	82	358	153	291	640	713	120	50	535	388
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	204	418	82	358	153	291	640	713	120	50	535	388
Reduct Vol:	0	0	25	0	0	87	0	0	36	0	0	116
Reduced Vol:	204	418	57	358	153	204	640	713	84	50	535	272
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	204	418	57	358	153	204	640	713	84	50	535	272
OvlAdjVol:						0						93
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.76	0.24	2.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	2816	384	3200	3200	1600	3200	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.13	0.15	0.15	0.11	0.05	0.13	0.20	0.22	0.05	0.03	0.17	0.17
OvlAdjV/S:						0.00						0.06
Crit Moves:		****		****			****				****	

MOVEMENT SUMMARY

Site: SR 217 WB Ramps &Hollister Ave_IT_PM

New Site
Roundabout

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
East: Hollister Ave											
1	L2	77	2.0	0.240	10.1	LOS B	1.6	41.3	0.09	0.44	37.7
6	T1	554	2.0	0.240	4.0	LOS A	1.6	41.7	0.09	0.40	37.8
16	R2	63	2.0	0.240	4.0	LOS A	1.6	41.7	0.09	0.36	36.8
Approach		694	2.0	0.240	4.6	LOS A	1.6	41.7	0.09	0.40	37.7
NorthEast: SR 217 WB Off-Ramp											
1bx	L3	62	2.0	0.395	14.7	LOS B	1.8	46.0	0.60	0.79	36.6
1ax	L1	1	2.0	0.395	12.1	LOS B	1.8	46.0	0.60	0.79	35.5
16ax	R1	507	2.0	0.395	6.9	LOS A	1.8	46.1	0.60	0.77	35.7
16bx	R3	71	2.0	0.395	7.4	LOS A	1.8	46.1	0.60	0.76	34.6
Approach		641	2.0	0.395	7.7	LOS A	1.8	46.1	0.60	0.77	35.7
North: Dearborn Pl											
7	L2	10	2.0	0.220	15.4	LOS B	0.9	21.9	0.67	0.82	35.5
4	T1	10	2.0	0.220	9.2	LOS A	0.9	21.9	0.67	0.82	35.3
14	R2	92	2.0	0.220	9.0	LOS A	0.9	21.9	0.67	0.82	34.1
Approach		112	2.0	0.220	9.6	LOS A	0.9	21.9	0.67	0.82	34.3
West: Hollister Ave											
5	L2	10	2.0	0.641	11.7	LOS B	6.1	154.0	0.60	0.51	36.4
2	T1	1573	2.0	0.641	5.4	LOS A	6.1	155.8	0.59	0.50	36.3
12	R2	36	2.0	0.641	5.3	LOS A	6.1	155.8	0.58	0.49	35.1
Approach		1619	2.0	0.641	5.4	LOS A	6.1	155.8	0.59	0.50	36.3
All Vehicles		3066	2.0	0.641	5.9	LOS A	6.1	155.8	0.48	0.55	36.4

Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

Site: SR 217 EB Ramps & Hollister Ave_IT_PM

New Site
Roundabout

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South: SR 217 EB Off-Ramp											
3	L2	125	2.0	0.492	18.8	LOS B	2.5	62.5	0.80	0.99	31.6
8	T1	100	2.0	0.492	13.4	LOS B	2.5	62.5	0.80	0.99	31.6
18	R2	275	2.0	0.519	12.5	LOS B	2.8	70.9	0.79	0.97	32.2
Approach		500	2.0	0.519	14.3	LOS B	2.8	70.9	0.80	0.98	31.9
East: Hollister Ave											
1	L2	32	2.0	0.350	15.0	LOS B	2.2	56.3	0.77	0.82	34.5
6	T1	498	2.0	0.350	9.2	LOS A	2.3	59.0	0.77	0.80	34.8
16	R2	90	2.0	0.055	4.5	LOS A	0.0	0.0	0.00	0.49	36.4
Approach		620	2.0	0.350	8.8	LOS A	2.3	59.0	0.66	0.76	35.0
West: Hollister Ave											
5	L2	452	2.0	0.596	10.1	LOS B	6.9	176.4	0.31	0.52	35.3
2	T1	1071	2.0	0.596	4.6	LOS A	7.0	177.0	0.31	0.43	36.2
12	R2	75	2.0	0.596	4.6	LOS A	7.0	177.0	0.30	0.39	35.6
Approach		1598	2.0	0.596	6.2	LOS A	7.0	177.0	0.31	0.45	35.9
All Vehicles		2718	2.0	0.596	8.3	LOS A	7.0	177.0	0.48	0.62	34.9

Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #12 Kellogg Ave/Hollister Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.800
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	67	Level Of Service:	D

Street Name:	Kellogg Ave						Hollister Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 1	0 1	0	0 1	1	0	1 1	1	0	1 1	0
Volume Module:													
Base Vol:	81	25	293	167	15	36	31	1069	38	200	692	110
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	81	25	293	167	15	36	31	1069	38	200	692	110
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	81	25	293	167	15	36	31	1069	38	200	692	110
Reduct Vol:	0	0	88	0	0	11	0	0	11	0	0	33
Reduced Vol:	81	25	205	167	15	25	31	1069	27	200	692	77
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	81	25	205	167	15	25	31	1069	27	200	692	77
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.76	0.24	1.00	0.92	0.08	1.00	1.00	1.95	0.05	1.00	1.80	0.20
Final Sat.:	1223	377	1600	1468	132	1600	1600	3121	79	1600	2880	320
Capacity Analysis Module:												
Vol/Sat:	0.05	0.07	0.13	0.10	0.11	0.02	0.02	0.34	0.34	0.13	0.24	0.24
Crit Moves:			****	****				****		****		

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Scenario Report

Scenario:	2022 AMWP
Command:	Default Command
Volume:	2022 AMWP
Geometry:	2022
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Los Carneros Rd/US-101 NB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.621
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	42	Level Of Service:	B

Street Name:	Los Carneros Rd						US 101 NB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	0	0 0	1 1	0	0 0	0 0	0	1 0	1! 0	0
Volume Module:												
Base Vol:	98	165	0	0	324	131	0	0	0	1031	2	30
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	98	165	0	0	324	131	0	0	0	1031	2	30
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	98	165	0	0	324	131	0	0	0	1031	2	30
Reduct Vol:	0	0	0	0	0	39	0	0	0	0	0	9
Reduced Vol:	98	165	0	0	324	92	0	0	0	1031	2	21
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	98	165	0	0	324	92	0	0	0	1031	2	21
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.56	0.44	0.00	0.00	0.00	1.95	0.01	0.04
Final Sat.:	1600	3200	0	0	2492	708	0	0	0	3130	6	64
Capacity Analysis Module:												
Vol/Sat:	0.06	0.05	0.00	0.00	0.13	0.13	0.00	0.00	0.00	0.33	0.33	0.33
Crit Moves:	****				****					****		

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Los Carneros Rd/US 101 SB Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.595
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 46 Level Of Service: A

Street Name:	Los Carneros Rd						US 101 SB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	2	0	1	1	0	2	0	0	1	0
Volume Module:												
Base Vol:	0	217	304	34	1313	0	54	4	195	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	217	304	34	1313	0	54	4	195	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	217	304	34	1313	0	54	4	195	0	0	0
Reduct Vol:	0	0	91	0	0	0	0	0	59	0	0	0
Reduced Vol:	0	217	213	34	1313	0	54	4	136	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	217	213	34	1313	0	54	4	136	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	1.00	2.00	0.00	0.93	0.07	1.00	0.00	0.00	0.00
Final Sat.:	0	3200	1600	1600	3200	0	1490	110	1600	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.07	0.13	0.02	0.41	0.00	0.04	0.04	0.09	0.00	0.00	0.00
Crit Moves:					****				****			

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Los Carneros Rd/Calle Koral

Cycle (sec): 100 Critical Vol./Cap.(X): 0.637
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 43 Level Of Service: B

Street Name:	Los Carneros Rd						Calle Koral					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	1	0	1	0	1	1	0	1	0
Volume Module:												
Base Vol:	4	405	7	211	1351	20	85	33	15	23	10	112
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	4	405	7	211	1351	20	85	33	15	23	10	112
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	4	405	7	211	1351	20	85	33	15	23	10	112
Reduct Vol:	0	0	2	0	0	6	0	0	5	0	0	34
Reduced Vol:	4	405	5	211	1351	14	85	33	10	23	10	78
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	4	405	5	211	1351	14	85	33	10	23	10	78
OvlAdjVol:												0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.96	0.04	1.00	1.98	0.02	1.00	0.77	0.23	1.00	0.11	0.89
Final Sat.:	1600	4741	59	1600	3167	33	1600	1228	372	1600	182	1418
Capacity Analysis Module:												
Vol/Sat:	0.00	0.09	0.09	0.13	0.43	0.43	0.05	0.03	0.03	0.01	0.06	0.05
OvlAdjV/S:												0.00
Crit Moves:	****				****		****				****	

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Los Carneros Rd/Hollister Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.503
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 34 Level Of Service: A

Street Name:	Los Carneros Rd						Hollister Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	2	0	1	1	0	2	0	1	1	0
Volume Module:												
Base Vol:	64	141	122	77	402	235	73	456	216	109	381	37
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	64	141	122	77	402	235	73	456	216	109	381	37
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	64	141	122	77	402	235	73	456	216	109	381	37
Reduct Vol:	0	0	37	0	0	71	0	0	65	0	0	11
Reduced Vol:	64	141	85	77	402	164	73	456	151	109	381	26
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	64	141	85	77	402	164	73	456	151	109	381	26
OvlAdjVol:						127						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	2.00	1.00	1.00	2.00	1.00	2.00	1.50	0.50	1.00	1.87	0.13
Final Sat.:	3200	3200	1600	1600	3200	1600	3200	2404	796	1600	2996	204
Capacity Analysis Module:												
Vol/Sat:	0.02	0.04	0.05	0.05	0.13	0.10	0.02	0.19	0.19	0.07	0.13	0.13
OvlAdjV/S:						0.08						
Crit Moves:	****				****			****		****		

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Los Carneros Wy/Hollister Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.331
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 26 Level Of Service: A

Street Name:	Los Carneros Wy						Hollister Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	0	0	1	0	1!	0	1	0	2
Volume Module:												
Base Vol:	0	0	0	131	0	64	49	592	0	0	473	51
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	131	0	64	49	592	0	0	473	51
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	131	0	64	49	592	0	0	473	51
Reduct Vol:	0	0	0	0	0	19	0	0	0	0	0	15
Reduced Vol:	0	0	0	131	0	45	49	592	0	0	473	36
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	131	0	45	49	592	0	0	473	36
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	2.00	0.00	0.00	1.86	0.14
Final Sat.:	0	0	0	3200	0	1600	1600	3200	0	0	2974	226
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.04	0.00	0.03	0.03	0.19	0.00	0.00	0.16	0.16
Crit Moves:				****			****				****	

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 Fairview Ave/Calle Real

Cycle (sec): 100 Critical Vol./Cap.(X): 0.555
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 37 Level Of Service: A

Street Name:	Fairview Ave						Calle Real					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	1	1	0	1	1	0	1	1	0	1	0
Volume Module:												
Base Vol:	222	235	133	31	333	44	21	83	360	132	133	23
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	222	235	133	31	333	44	21	83	360	132	133	23
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	222	235	133	31	333	44	21	83	360	132	133	23
Reduct Vol:	0	0	40	0	0	13	0	0	108	0	0	7
Reduced Vol:	222	235	93	31	333	31	21	83	252	132	133	16
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	222	235	93	31	333	31	21	83	252	132	133	16
OvlAdjVol:			27									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.97	1.03	1.00	1.00	1.83	0.17	1.00	1.00	1.00	2.00	0.89	0.11
Final Sat.:	1554	1646	1600	1600	2927	273	1600	1600	1600	3200	1428	172
Capacity Analysis Module:												
Vol/Sat:	0.14	0.14	0.06	0.02	0.11	0.11	0.01	0.05	0.16	0.04	0.09	0.09
OvlAdjV/S:			0.02									
Crit Moves:	****					****			****	****		

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 Fairview Ave/US-101 NB Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.710
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 51 Level Of Service: C

Street Name:	Fairview Ave						US-101 NB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Include			Ignore			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	0	0	0	0	1	0	2	1	0
Volume Module:												
Base Vol:	0	0	0	0	115	739	282	0	154	0	666	301
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	115	739	282	0	154	0	666	301
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	115	0	282	0	154	0	666	301
Reduct Vol:	0	0	0	0	0	0	0	0	46	0	0	90
Reduced Vol:	0	0	0	0	115	0	282	0	108	0	666	211
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	0	115	0	282	0	108	0	666	211
OvlAdjVol:												96
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.00	1.00	2.00	1.45	0.00	0.55	0.00	1.00	1.00
Final Sat.:	0	0	0	0	1600	3200	2314	0	886	0	1600	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.00	0.07	0.00	0.12	0.00	0.12	0.00	0.42	0.13
OvlAdjV/S:												0.06
Crit Moves:					****		****				****	

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Fairview Ave/US-101 SB Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.536
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 44 Level Of Service: A

Street Name:	Fairview Ave						US-101 SB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	2	0	1	2	0	2	0	0	0	1
Volume Module:												
Base Vol:	0	346	360	347	1034	0	95	0	259	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	346	360	347	1034	0	95	0	259	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	346	360	347	1034	0	95	0	259	0	0	0
Reduct Vol:	0	0	108	0	0	0	0	0	78	0	0	0
Reduced Vol:	0	346	252	347	1034	0	95	0	181	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	346	252	347	1034	0	95	0	181	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	2.00	2.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	3200	1600	3200	3200	0	1600	0	1600	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.11	0.16	0.11	0.32	0.00	0.06	0.00	0.11	0.00	0.00	0.00
Crit Moves:					****				****			

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #9 Fairview Ave/Hollister Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.599
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 40 Level Of Service: A

Street Name:	Fairview Ave						Hollister Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ovl			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	2	0	2	0	1	0	2
Volume Module:												
Base Vol:	101	177	32	200	338	651	286	369	230	44	484	291
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	101	177	32	200	338	651	286	369	230	44	484	291
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	101	177	32	200	338	651	286	369	230	44	484	291
Reduct Vol:	0	0	10	0	0	195	0	0	69	0	0	87
Reduced Vol:	101	177	22	200	338	456	286	369	161	44	484	204
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	101	177	22	200	338	456	286	369	161	44	484	204
OvlAdjVol:						313						104
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.78	0.22	2.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	2846	354	3200	3200	1600	3200	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.06	0.06	0.06	0.06	0.11	0.28	0.09	0.12	0.10	0.03	0.15	0.13
OvlAdjV/S:						0.20						0.07
Crit Moves:	****					****	****				****	

MOVEMENT SUMMARY

Site: SR 217 WB Ramps &Hollister Ave_ITWP_AM

New Site
Roundabout

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
East: Hollister Ave											
1	L2	137	2.0	0.225	10.1	LOS B	1.6	39.4	0.09	0.50	37.0
6	T1	491	2.0	0.225	4.0	LOS A	1.6	39.9	0.09	0.41	37.7
16	R2	21	2.0	0.225	4.0	LOS A	1.6	39.9	0.09	0.35	36.8
Approach		649	2.0	0.225	5.3	LOS A	1.6	39.9	0.09	0.43	37.5
NorthEast: SR 217 WB Off-Ramp											
1bx	L3	203	2.0	0.493	15.3	LOS B	2.7	67.3	0.63	0.89	35.1
1ax	L1	1	2.0	0.493	12.6	LOS B	2.7	67.3	0.63	0.89	34.1
16ax	R1	588	2.0	0.493	7.5	LOS A	2.7	67.4	0.63	0.84	35.2
16bx	R3	25	2.0	0.493	8.0	LOS A	2.7	67.4	0.63	0.81	34.5
Approach		817	2.0	0.493	9.4	LOS A	2.7	67.4	0.63	0.85	35.2
North: Dearborn Pl											
7	L2	187	2.0	0.460	18.4	LOS B	2.2	56.1	0.78	0.98	31.8
4	T1	10	2.0	0.460	12.2	LOS B	2.2	56.1	0.78	0.98	31.6
14	R2	10	2.0	0.460	12.0	LOS B	2.2	56.1	0.78	0.98	30.7
Approach		207	2.0	0.460	17.8	LOS B	2.2	56.1	0.78	0.98	31.7
West: Hollister Ave											
5	L2	10	2.0	0.409	14.0	LOS B	2.7	68.9	0.73	0.73	35.8
2	T1	688	2.0	0.409	7.5	LOS A	2.9	72.6	0.73	0.70	35.8
12	R2	56	2.0	0.409	7.2	LOS A	2.9	72.6	0.72	0.68	34.6
Approach		754	2.0	0.409	7.5	LOS A	2.9	72.6	0.73	0.70	35.7
All Vehicles		2427	2.0	0.493	8.4	LOS A	2.9	72.6	0.53	0.70	35.6

Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

Site: SR 217 EB Ramps & Hollister Ave_ITWP_AM

New Site
Roundabout

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South: SR 217 EB Off-Ramp											
3	L2	64	2.0	0.176	12.6	LOS B	0.7	18.1	0.57	0.77	34.6
8	T1	66	2.0	0.176	7.1	LOS A	0.7	18.1	0.57	0.77	34.5
18	R2	57	2.0	0.106	8.3	LOS A	0.4	9.9	0.58	0.77	34.3
Approach		187	2.0	0.176	9.4	LOS A	0.7	18.1	0.58	0.77	34.5
East: Hollister Ave											
1	L2	80	2.0	0.380	13.4	LOS B	2.4	61.5	0.70	0.76	34.7
6	T1	599	2.0	0.380	7.7	LOS A	2.5	63.4	0.69	0.73	35.0
16	R2	96	2.0	0.058	4.5	LOS A	0.0	0.0	0.00	0.49	36.4
Approach		775	2.0	0.380	7.9	LOS A	2.5	63.4	0.61	0.70	35.2
West: Hollister Ave											
5	L2	368	2.0	0.349	10.3	LOS B	2.6	65.9	0.34	0.59	34.5
2	T1	379	2.0	0.349	4.8	LOS A	2.6	66.4	0.33	0.47	36.3
12	R2	139	2.0	0.349	4.8	LOS A	2.6	66.4	0.33	0.44	35.5
Approach		886	2.0	0.349	7.1	LOS A	2.6	66.4	0.33	0.52	35.4
All Vehicles		1848	2.0	0.380	7.6	LOS A	2.6	66.4	0.47	0.62	35.2

Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #12 Kellogg Ave/Hollister Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.562
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	37	Level Of Service:	A

Street Name:	Kellogg Ave						Hollister Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 1	0 1	0	0 1	1	0	1 1 0	1	0	1 1 0
Volume Module:												
Base Vol:	30	18	108	104	14	33	63	454	72	307	801	131
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	30	18	108	104	14	33	63	454	72	307	801	131
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	30	18	108	104	14	33	63	454	72	307	801	131
Reduct Vol:	0	0	32	0	0	10	0	0	22	0	0	39
Reduced Vol:	30	18	76	104	14	23	63	454	50	307	801	92
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	30	18	76	104	14	23	63	454	50	307	801	92
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.62	0.38	1.00	0.88	0.12	1.00	1.00	1.80	0.20	1.00	1.79	0.21
Final Sat.:	1000	600	1600	1410	190	1600	1600	2883	317	1600	2870	330
Capacity Analysis Module:												
Vol/Sat:	0.02	0.03	0.05	0.07	0.07	0.01	0.04	0.16	0.16	0.19	0.28	0.28
Crit Moves:			****	****				****		****		

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Scenario Report

Scenario:	2022 PMWP
Command:	Default Command
Volume:	2022 PMWP
Geometry:	2022
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Los Carneros Rd/US-101 NB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.603
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	40	Level Of Service:	B

Street Name:	Los Carneros Rd						US 101 NB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	0	0 0	1 1	0	0 0	0 0	0	1 0	1! 0	0
Volume Module:												
Base Vol:	315	780	0	0	259	324	0	0	0	447	11	49
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	315	780	0	0	259	324	0	0	0	447	11	49
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	315	780	0	0	259	324	0	0	0	447	11	49
Reduct Vol:	0	0	0	0	0	97	0	0	0	0	0	15
Reduced Vol:	315	780	0	0	259	227	0	0	0	447	11	34
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	315	780	0	0	259	227	0	0	0	447	11	34
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.07	0.93	0.00	0.00	0.00	1.82	0.04	0.14
Final Sat.:	1600	3200	0	0	1705	1495	0	0	0	2907	72	221
Capacity Analysis Module:												
Vol/Sat:	0.20	0.24	0.00	0.00	0.15	0.15	0.00	0.00	0.00	0.15	0.15	0.15
Crit Moves:	****				****							****

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Los Carneros Rd/US 101 SB Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.592
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 39 Level Of Service: A

Street Name:	Los Carneros Rd						US 101 SB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	2	0	1	1	0	2	0	0	1	0	0	1	0	0	0	0
Volume Module:												
Base Vol:	0	867	737	23	684	0	230	18	217	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	867	737	23	684	0	230	18	217	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	867	737	23	684	0	230	18	217	0	0	0
Reduct Vol:	0	0	221	0	0	0	0	0	65	0	0	0
Reduced Vol:	0	867	516	23	684	0	230	18	152	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	867	516	23	684	0	230	18	152	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	1.00	2.00	0.00	0.93	0.07	1.00	0.00	0.00	0.00
Final Sat.:	0	3200	1600	1600	3200	0	1484	116	1600	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.27	0.32	0.01	0.21	0.00	0.15	0.16	0.10	0.00	0.00	0.00
Crit Moves:			****	****				****				

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Los Carneros Rd/Calle Koral

Cycle (sec): 100 Critical Vol./Cap.(X): 0.665
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 46 Level Of Service: B

Street Name:	Los Carneros Rd						Calle Koral					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	1	0	1	0	1	1	0	1	0	0	1	0	0	1	0
Volume Module:												
Base Vol:	14	1253	46	149	746	60	54	21	9	21	31	344
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	14	1253	46	149	746	60	54	21	9	21	31	344
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	14	1253	46	149	746	60	54	21	9	21	31	344
Reduct Vol:	0	0	14	0	0	18	0	0	3	0	0	103
Reduced Vol:	14	1253	32	149	746	42	54	21	6	21	31	241
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	14	1253	32	149	746	42	54	21	6	21	31	241
OvlAdjVol:												109
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.93	0.07	1.00	1.89	0.11	1.00	0.78	0.22	1.00	0.11	0.89
Final Sat.:	1600	4680	120	1600	3029	171	1600	1244	356	1600	182	1418
Capacity Analysis Module:												
Vol/Sat:	0.01	0.27	0.27	0.09	0.25	0.25	0.03	0.02	0.02	0.01	0.17	0.17
OvlAdjV/S:												0.08
Crit Moves:		****		****			****				****	

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Los Carneros Rd/Hollister Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.645
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 44 Level Of Service: B

Street Name:	Los Carneros Rd						Hollister Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0 2	0 1	1	0 2	0 1	2	0 1	1 0	1	0 1	1 0
Volume Module:												
Base Vol:	231	400	164	152	389	115	328	587	100	140	681	43
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	231	400	164	152	389	115	328	587	100	140	681	43
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	231	400	164	152	389	115	328	587	100	140	681	43
Reduct Vol:	0	0	49	0	0	35	0	0	30	0	0	13
Reduced Vol:	231	400	115	152	389	80	328	587	70	140	681	30
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	231	400	115	152	389	80	328	587	70	140	681	30
OvlAdjVol:						0						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	2.00	1.00	1.00	2.00	1.00	2.00	1.79	0.21	1.00	1.92	0.08
Final Sat.:	3200	3200	1600	1600	3200	1600	3200	2859	341	1600	3065	135
Capacity Analysis Module:												
Vol/Sat:	0.07	0.13	0.07	0.10	0.12	0.05	0.10	0.21	0.21	0.09	0.22	0.22
OvlAdjV/S:						0.00						
Crit Moves:		****		****				****			****	

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Los Carneros Wy/Hollister Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.464
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 31 Level Of Service: A

Street Name:	Los Carneros Wy						Hollister Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0 0	0 0	1	0 1!	0 1	1	0 2	0 0	0	0 1	1 0
Volume Module:												
Base Vol:	0	0	0	91	0	30	67	820	0	0	778	231
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	91	0	30	67	820	0	0	778	231
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	91	0	30	67	820	0	0	778	231
Reduct Vol:	0	0	0	0	0	9	0	0	0	0	0	69
Reduced Vol:	0	0	0	91	0	21	67	820	0	0	778	162
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	91	0	21	67	820	0	0	778	162
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	2.00	0.00	0.00	1.66	0.34
Final Sat.:	0	0	0	3200	0	1600	1600	3200	0	0	2649	551
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.03	0.00	0.01	0.04	0.26	0.00	0.00	0.29	0.29
Crit Moves:				****			****				****	

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 Fairview Ave/Calle Real

Cycle (sec): 100 Critical Vol./Cap.(X): 0.760
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 59 Level Of Service: C

Street Name:	Fairview Ave						Calle Real					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	1	1	0	1	1	0	1	1	0	1	0
Volume Module:												
Base Vol:	431	453	407	114	333	62	65	312	333	228	305	54
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	431	453	407	114	333	62	65	312	333	228	305	54
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	431	453	407	114	333	62	65	312	333	228	305	54
Reduct Vol:	0	0	122	0	0	19	0	0	100	0	0	16
Reduced Vol:	431	453	285	114	333	43	65	312	233	228	305	38
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	431	453	285	114	333	43	65	312	233	228	305	38
OvlAdjVol:			171									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.98	1.02	1.00	1.00	1.77	0.23	1.00	1.00	1.00	2.00	0.89	0.11
Final Sat.:	1560	1640	1600	1600	2834	366	1600	1600	1600	3200	1423	177
Capacity Analysis Module:												
Vol/Sat:	0.28	0.28	0.18	0.07	0.12	0.12	0.04	0.20	0.15	0.07	0.21	0.21
OvlAdjV/S:			0.11									
Crit Moves:		****			****			****			****	

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 Fairview Ave/US-101 NB Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.740
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 56 Level Of Service: C

Street Name:	Fairview Ave						US-101 NB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Include			Ignore			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	0	0	0	1	0	1!	0	0	1
Volume Module:												
Base Vol:	0	0	0	0	325	593	726	0	241	0	252	559
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	325	593	726	0	241	0	252	559
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	325	0	726	0	241	0	252	559
Reduct Vol:	0	0	0	0	0	0	0	0	72	0	0	168
Reduced Vol:	0	0	0	0	325	0	726	0	169	0	252	391
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	0	325	0	726	0	169	0	252	391
OvlAdjVol:												66
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.00	1.00	2.00	1.62	0.00	0.38	0.00	1.00	1.00
Final Sat.:	0	0	0	0	1600	3200	2596	0	604	0	1600	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.00	0.20	0.00	0.28	0.00	0.28	0.00	0.16	0.24
OvlAdjV/S:												0.04
Crit Moves:					****		****				****	

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Fairview Ave/US-101 SB Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.612
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 41 Level Of Service: B

Street Name:	Fairview Ave						US-101 SB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	2	0	1	2	0	2	0	0	0	1
Volume Module:												
Base Vol:	0	812	708	223	643	0	192	20	261	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	812	708	223	643	0	192	20	261	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	812	708	223	643	0	192	20	261	0	0	0
Reduct Vol:	0	0	212	0	0	0	0	0	78	0	0	0
Reduced Vol:	0	812	496	223	643	0	192	20	183	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	812	496	223	643	0	192	20	183	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	2.00	2.00	0.00	0.91	0.09	1.00	0.00	0.00	0.00
Final Sat.:	0	3200	1600	3200	3200	0	1449	151	1600	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.25	0.31	0.07	0.20	0.00	0.13	0.13	0.11	0.00	0.00	0.00
Crit Moves:			****	****			****					

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #9 Fairview Ave/Hollister Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.733
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 55 Level Of Service: C

Street Name:	Fairview Ave						Hollister Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ovl			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	2	0	2	0	1	0	2
Volume Module:												
Base Vol:	201	415	81	358	150	305	653	722	117	49	544	388
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	201	415	81	358	150	305	653	722	117	49	544	388
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	201	415	81	358	150	305	653	722	117	49	544	388
Reduct Vol:	0	0	24	0	0	92	0	0	35	0	0	116
Reduced Vol:	201	415	57	358	150	213	653	722	82	49	544	272
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	201	415	57	358	150	213	653	722	82	49	544	272
OvlAdjVol:						0						93
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.76	0.24	2.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	2814	386	3200	3200	1600	3200	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.13	0.15	0.15	0.11	0.05	0.13	0.20	0.23	0.05	0.03	0.17	0.17
OvlAdjV/S:						0.00						0.06
Crit Moves:		****		****			****				****	

MOVEMENT SUMMARY

Site: SR 217 WB Ramps &Hollister Ave_ITWP_PM

New Site
Roundabout

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
East: Hollister Ave											
1	L2	76	2.0	0.240	10.1	LOS B	1.6	41.4	0.09	0.44	37.7
6	T1	556	2.0	0.240	4.0	LOS A	1.6	41.8	0.09	0.40	37.9
16	R2	63	2.0	0.240	4.0	LOS A	1.6	41.8	0.09	0.36	36.8
Approach		695	2.0	0.240	4.6	LOS A	1.6	41.8	0.09	0.40	37.7
NorthEast: SR 217 WB Off-Ramp											
1bx	L3	62	2.0	0.398	14.8	LOS B	1.8	46.6	0.60	0.79	36.6
1ax	L1	1	2.0	0.398	12.1	LOS B	1.8	46.6	0.60	0.79	35.5
16ax	R1	512	2.0	0.398	6.9	LOS A	1.8	46.7	0.60	0.78	35.7
16bx	R3	71	2.0	0.398	7.4	LOS A	1.8	46.7	0.60	0.76	34.6
Approach		646	2.0	0.398	7.8	LOS A	1.8	46.7	0.60	0.78	35.6
North: Dearborn Pl											
7	L2	10	2.0	0.220	15.4	LOS B	0.9	22.0	0.68	0.82	35.5
4	T1	10	2.0	0.220	9.2	LOS A	0.9	22.0	0.68	0.82	35.3
14	R2	92	2.0	0.220	9.0	LOS A	0.9	22.0	0.68	0.82	34.1
Approach		112	2.0	0.220	9.6	LOS A	0.9	22.0	0.68	0.82	34.3
West: Hollister Ave											
5	L2	10	2.0	0.643	11.7	LOS B	6.1	155.3	0.60	0.51	36.4
2	T1	1580	2.0	0.643	5.4	LOS A	6.2	157.1	0.59	0.50	36.3
12	R2	36	2.0	0.643	5.3	LOS A	6.2	157.1	0.58	0.49	35.1
Approach		1626	2.0	0.643	5.4	LOS A	6.2	157.1	0.59	0.50	36.3
All Vehicles		3079	2.0	0.643	5.9	LOS A	6.2	157.1	0.48	0.55	36.4

Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

Site: SR 217 EB Ramps & Hollister Ave_ITWP_PM

New Site
Roundabout

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South: SR 217 EB Off-Ramp											
3	L2	125	2.0	0.494	18.9	LOS B	2.5	62.9	0.80	0.99	31.6
8	T1	100	2.0	0.494	13.5	LOS B	2.5	62.9	0.80	0.99	31.6
18	R2	274	2.0	0.519	12.6	LOS B	2.8	71.0	0.80	0.97	32.2
Approach		499	2.0	0.519	14.3	LOS B	2.8	71.0	0.80	0.98	31.9
East: Hollister Ave											
1	L2	32	2.0	0.352	15.1	LOS B	2.2	56.6	0.77	0.83	34.5
6	T1	498	2.0	0.352	9.3	LOS A	2.3	59.4	0.77	0.81	34.7
16	R2	90	2.0	0.055	4.5	LOS A	0.0	0.0	0.00	0.49	36.4
Approach		620	2.0	0.352	8.9	LOS A	2.3	59.4	0.66	0.76	34.9
West: Hollister Ave											
5	L2	457	2.0	0.599	10.1	LOS B	7.0	178.2	0.31	0.52	35.3
2	T1	1073	2.0	0.599	4.6	LOS A	7.0	178.8	0.31	0.43	36.2
12	R2	75	2.0	0.599	4.6	LOS A	7.0	178.8	0.31	0.39	35.5
Approach		1605	2.0	0.599	6.2	LOS A	7.0	178.8	0.31	0.45	35.9
All Vehicles		2724	2.0	0.599	8.3	LOS A	7.0	178.8	0.48	0.62	34.9

Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #12 Kellogg Ave/Hollister Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.801
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	67	Level Of Service:	D

Street Name:	Kellogg Ave						Hollister Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 1	0 1	0	0 1	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	81	25	292	167	15	36	31	1077	38	199	700	110
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	81	25	292	167	15	36	31	1077	38	199	700	110
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	81	25	292	167	15	36	31	1077	38	199	700	110
Reduct Vol:	0	0	88	0	0	11	0	0	11	0	0	33
Reduced Vol:	81	25	204	167	15	25	31	1077	27	199	700	77
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	81	25	204	167	15	25	31	1077	27	199	700	77
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.76	0.24	1.00	0.92	0.08	1.00	1.00	1.95	0.05	1.00	1.80	0.20
Final Sat.:	1223	377	1600	1468	132	1600	1600	3122	78	1600	2883	317
Capacity Analysis Module:												
Vol/Sat:	0.05	0.07	0.13	0.10	0.11	0.02	0.02	0.35	0.34	0.12	0.24	0.24
Crit Moves:			****	****				****		****		

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Scenario Report

Scenario:	2022 AMWP MIT
Command:	Default Command
Volume:	2022 AMWP
Geometry:	2032 MIT
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #12 Kellogg Ave/Hollister Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.426
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	32	Level Of Service:	A

Street Name:	Kellogg Ave						Hollister Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 1	0 1	0	0 1	1 0	2	0 1	1 0	1	1 0
Volume Module:												
Base Vol:	30	18	108	104	14	33	63	454	72	307	801	131
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	30	18	108	104	14	33	63	454	72	307	801	131
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	30	18	108	104	14	33	63	454	72	307	801	131
Reduct Vol:	0	0	32	0	0	10	0	0	22	0	0	39
Reduced Vol:	30	18	76	104	14	23	63	454	50	307	801	92
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	30	18	76	104	14	23	63	454	50	307	801	92
OvlAdjVol:			0									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.62	0.38	1.00	0.88	0.12	1.00	1.00	2.00	1.00	1.00	1.79	0.21
Final Sat.:	1000	600	1600	1410	190	1600	1600	3200	1600	1600	2870	330
Capacity Analysis Module:												
Vol/Sat:	0.02	0.03	0.05	0.07	0.07	0.01	0.04	0.14	0.03	0.19	0.28	0.28
OvlAdjV/S:			0.00									
Crit Moves:	****				****			****			****	

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Scenario Report

Scenario:	2022 PMWP MIT
Command:	Default Command
Volume:	2022 PMWP
Geometry:	2032 MIT
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #12 Kellogg Ave/Hollister Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.632
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	50	Level Of Service:	B

Street Name:	Kellogg Ave						Hollister Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 1	0 1	0	0 1	1 0	2	0 1	1 0	1	1 0
Volume Module:												
Base Vol:	81	25	292	167	15	36	31	1077	38	199	700	110
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	81	25	292	167	15	36	31	1077	38	199	700	110
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	81	25	292	167	15	36	31	1077	38	199	700	110
Reduct Vol:	0	0	88	0	0	11	0	0	11	0	0	33
Reduced Vol:	81	25	204	167	15	25	31	1077	27	199	700	77
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	81	25	204	167	15	25	31	1077	27	199	700	77
OvlAdjVol:			5									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.76	0.24	1.00	0.92	0.08	1.00	1.00	2.00	1.00	1.00	1.80	0.20
Final Sat.:	1223	377	1600	1468	132	1600	1600	3200	1600	1600	2883	317
Capacity Analysis Module:												
Vol/Sat:	0.05	0.07	0.13	0.10	0.11	0.02	0.02	0.34	0.02	0.12	0.24	0.24
OvlAdjV/S:			0.00									
Crit Moves:	****			****				****		****		

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Scenario Report

Scenario:	2032 AM
Command:	Default Command
Volume:	2032 AM
Geometry:	2032
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Los Carneros Rd/US-101 NB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.625
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	42	Level Of Service:	B

Street Name:	Los Carneros Rd						US 101 NB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	0	0 0	1 1	0	0 0	0 0	0	1 0	1! 0	0
Volume Module:												
Base Vol:	46	171	0	0	362	130	0	0	0	1112	2	29
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	46	171	0	0	362	130	0	0	0	1112	2	29
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	46	171	0	0	362	130	0	0	0	1112	2	29
Reduct Vol:	0	0	0	0	0	39	0	0	0	0	0	9
Reduced Vol:	46	171	0	0	362	91	0	0	0	1112	2	20
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	46	171	0	0	362	91	0	0	0	1112	2	20
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.60	0.40	0.00	0.00	0.00	1.96	0.01	0.03
Final Sat.:	1600	3200	0	0	2557	643	0	0	0	3138	6	56
Capacity Analysis Module:												
Vol/Sat:	0.03	0.05	0.00	0.00	0.14	0.14	0.00	0.00	0.00	0.35	0.35	0.35
Crit Moves:	****				****					****		

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Los Carneros Rd/US 101 SB Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.628
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 47 Level Of Service: B

Street Name:	Los Carneros Rd						US 101 SB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	2	0	1	1	0	2	0	0	0	1
Volume Module:												
Base Vol:	0	162	250	37	1422	0	53	8	190	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	162	250	37	1422	0	53	8	190	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	162	250	37	1422	0	53	8	190	0	0	0
Reduct Vol:	0	0	75	0	0	0	0	0	57	0	0	0
Reduced Vol:	0	162	175	37	1422	0	53	8	133	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	162	175	37	1422	0	53	8	133	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	1.00	2.00	0.00	0.87	0.13	1.00	0.00	0.00	0.00
Final Sat.:	0	3200	1600	1600	3200	0	1390	210	1600	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.05	0.11	0.02	0.44	0.00	0.04	0.04	0.08	0.00	0.00	0.00
Crit Moves:					****				****			

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Los Carneros Rd/Calle Koral

Cycle (sec): 100 Critical Vol./Cap.(X): 0.701
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 50 Level Of Service: C

Street Name:	Los Carneros Rd						Calle Koral					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	1	0	1	0	1	1	0	0	1
Volume Module:												
Base Vol:	4	280	7	201	1512	20	85	33	15	17	10	142
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	4	280	7	201	1512	20	85	33	15	17	10	142
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	4	280	7	201	1512	20	85	33	15	17	10	142
Reduct Vol:	0	0	2	0	0	6	0	0	5	0	0	43
Reduced Vol:	4	280	5	201	1512	14	85	33	10	17	10	99
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	4	280	5	201	1512	14	85	33	10	17	10	99
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.95	0.05	1.00	1.98	0.02	1.00	0.77	0.23	1.00	0.09	0.91
Final Sat.:	1600	4716	84	1600	3171	29	1600	1228	372	1600	147	1453
Capacity Analysis Module:												
Vol/Sat:	0.00	0.06	0.06	0.13	0.48	0.48	0.05	0.03	0.03	0.01	0.07	0.07
Crit Moves:	****				****		****				****	

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Los Carneros Rd/Hollister Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.536
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 35 Level Of Service: A

Street Name:	Los Carneros Rd						Hollister Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	2	0	1	1	0	2	0	1	1	0
Volume Module:												
Base Vol:	91	141	123	74	480	289	64	457	240	100	445	28
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	91	141	123	74	480	289	64	457	240	100	445	28
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	91	141	123	74	480	289	64	457	240	100	445	28
Reduct Vol:	0	0	37	0	0	87	0	0	72	0	0	8
Reduced Vol:	91	141	86	74	480	202	64	457	168	100	445	20
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	91	141	86	74	480	202	64	457	168	100	445	20
OvlAdjVol:						170						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	2.00	1.00	1.00	2.00	1.00	2.00	1.46	0.54	1.00	1.91	0.09
Final Sat.:	3200	3200	1600	1600	3200	1600	3200	2340	860	1600	3062	138
Capacity Analysis Module:												
Vol/Sat:	0.03	0.04	0.05	0.05	0.15	0.13	0.02	0.20	0.20	0.06	0.15	0.15
OvlAdjV/S:						0.11						
Crit Moves:	****				****			****		****		

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Los Carneros Wy/Hollister Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.355
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 27 Level Of Service: A

Street Name:	Los Carneros Wy						Hollister Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	0	0	1	0	1!	0	1	0	2
Volume Module:												
Base Vol:	0	0	0	121	0	96	88	604	0	0	478	54
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	121	0	96	88	604	0	0	478	54
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	121	0	96	88	604	0	0	478	54
Reduct Vol:	0	0	0	0	0	29	0	0	0	0	0	16
Reduced Vol:	0	0	0	121	0	67	88	604	0	0	478	38
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	121	0	67	88	604	0	0	478	38
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	1.93	xxxx	1.07	1.00	2.00	0.00	0.00	1.85	0.15
Final Sat.:	0	0	0	3089	0	1711	1600	3200	0	0	2964	236
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.04	0.00	0.04	0.06	0.19	0.00	0.00	0.16	0.16
Crit Moves:				****			****				****	

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 Fairview Ave/Calle Real

Cycle (sec): 100 Critical Vol./Cap.(X): 0.549
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 36 Level Of Service: A

Street Name:	Fairview Ave						Calle Real					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	1	0 1	1 0	1	1 0	1 0	1	0 1	2 0	0	1 0
Volume Module:												
Base Vol:	225	229	130	31	321	45	21	83	358	129	133	23
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	225	229	130	31	321	45	21	83	358	129	133	23
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	225	229	130	31	321	45	21	83	358	129	133	23
Reduct Vol:	0	0	39	0	0	14	0	0	107	0	0	7
Reduced Vol:	225	229	91	31	321	31	21	83	251	129	133	16
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	225	229	91	31	321	31	21	83	251	129	133	16
OvlAdjVol:			27									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.99	1.01	1.00	1.00	1.82	0.18	1.00	1.00	1.00	2.00	0.89	0.11
Final Sat.:	1586	1614	1600	1600	2918	282	1600	1600	1600	3200	1428	172
Capacity Analysis Module:												
Vol/Sat:	0.14	0.14	0.06	0.02	0.11	0.11	0.01	0.05	0.16	0.04	0.09	0.09
OvlAdjV/S:			0.02									
Crit Moves:	****					****			****	****		

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 Fairview Ave/US-101 NB Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.645
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 44 Level Of Service: B

Street Name:	Fairview Ave						US-101 NB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Ignore			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	0 0	1	0 2	1 0	1!	0 0	0 0	1	0 1
Volume Module:												
Base Vol:	0	0	0	0	122	734	277	0	142	0	562	304
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	122	734	277	0	142	0	562	304
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	122	0	277	0	142	0	562	304
Reduct Vol:	0	0	0	0	0	0	0	0	43	0	0	91
Reduced Vol:	0	0	0	0	122	0	277	0	99	0	562	213
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	0	122	0	277	0	99	0	562	213
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.00	1.00	2.00	1.47	0.00	0.53	0.00	1.00	1.00
Final Sat.:	0	0	0	0	1600	3200	2357	0	843	0	1600	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.00	0.08	0.00	0.12	0.00	0.12	0.00	0.35	0.13
Crit Moves:					****				****		****	

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Fairview Ave/US-101 SB Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.521
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 42 Level Of Service: A

Street Name:	Fairview Ave						US-101 SB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	2	0	1	2	0	2	0	0	0	1
Volume Module:												
Base Vol:	0	322	340	346	926	0	106	0	300	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	322	340	346	926	0	106	0	300	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	322	340	346	926	0	106	0	300	0	0	0
Reduct Vol:	0	0	102	0	0	0	0	0	90	0	0	0
Reduced Vol:	0	322	238	346	926	0	106	0	210	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	322	238	346	926	0	106	0	210	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	2.00	2.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	3200	1600	3200	3200	0	1600	0	1600	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.10	0.15	0.11	0.29	0.00	0.07	0.00	0.13	0.00	0.00	0.00
Crit Moves:					****				****			

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #9 Fairview Ave/Hollister Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.552
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 36 Level Of Service: A

Street Name:	Fairview Ave						Hollister Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ovl			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	2	0	2	0	1	0	2
Volume Module:												
Base Vol:	123	212	33	175	412	560	237	332	289	51	416	271
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	123	212	33	175	412	560	237	332	289	51	416	271
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	123	212	33	175	412	560	237	332	289	51	416	271
Reduct Vol:	0	0	10	0	0	168	0	0	87	0	0	81
Reduced Vol:	123	212	23	175	412	392	237	332	202	51	416	190
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	123	212	23	175	412	392	237	332	202	51	416	190
OvlAdjVol:						274						102
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.80	0.20	2.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	2887	313	3200	3200	1600	3200	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.08	0.07	0.07	0.05	0.13	0.25	0.07	0.10	0.13	0.03	0.13	0.12
OvlAdjV/S:						0.17						0.06
Crit Moves:	****					****	****				****	

MOVEMENT SUMMARY

Site: SR 217 WB Ramps &Hollister Ave_LT_AM

New Site
Roundabout

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
East: Hollister Ave											
1	L2	192	2.0	0.245	10.1	LOS B	1.7	43.0	0.09	0.54	36.6
6	T1	495	2.0	0.245	4.0	LOS A	1.7	43.4	0.09	0.41	37.6
16	R2	21	2.0	0.245	4.0	LOS A	1.7	43.4	0.09	0.35	36.8
Approach		708	2.0	0.245	5.6	LOS A	1.7	43.4	0.09	0.44	37.3
NorthEast: SR 217 WB Off-Ramp											
1bx	L3	220	2.0	0.523	15.8	LOS B	2.9	74.3	0.66	0.91	34.7
1ax	L1	1	2.0	0.523	13.2	LOS B	2.9	74.3	0.66	0.91	33.8
16ax	R1	597	2.0	0.523	8.0	LOS A	2.9	74.4	0.66	0.86	34.9
16bx	R3	25	2.0	0.523	8.5	LOS A	2.9	74.4	0.66	0.84	34.2
Approach		843	2.0	0.523	10.1	LOS B	2.9	74.4	0.66	0.88	34.8
North: Dearborn Pl											
7	L2	10	2.0	0.481	19.2	LOS B	2.3	59.5	0.80	0.96	33.6
4	T1	10	2.0	0.481	13.0	LOS B	2.3	59.5	0.80	0.96	33.4
14	R2	187	2.0	0.481	12.8	LOS B	2.3	59.5	0.80	0.96	32.3
Approach		207	2.0	0.481	13.1	LOS B	2.3	59.5	0.80	0.96	32.4
West: Hollister Ave											
5	L2	10	2.0	0.339	12.9	LOS B	2.2	54.8	0.65	0.63	36.2
2	T1	601	2.0	0.339	6.5	LOS A	2.2	57.1	0.64	0.62	36.1
12	R2	67	2.0	0.339	6.3	LOS A	2.2	57.1	0.63	0.60	34.9
Approach		678	2.0	0.339	6.6	LOS A	2.2	57.1	0.64	0.61	36.0
All Vehicles		2436	2.0	0.523	8.1	LOS A	2.9	74.4	0.50	0.68	35.6

Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

Site: SR 217 EB Ramps & Hollister Ave_LT_AM

New Site
Roundabout

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South: SR 217 EB Off-Ramp											
3	L2	84	2.0	0.216	12.4	LOS B	0.9	22.9	0.57	0.76	34.6
8	T1	83	2.0	0.216	7.0	LOS A	0.9	22.9	0.57	0.76	34.6
18	R2	76	2.0	0.131	7.9	LOS A	0.5	12.6	0.57	0.76	34.5
Approach		243	2.0	0.216	9.1	LOS A	0.9	22.9	0.57	0.76	34.6
East: Hollister Ave											
1	L2	92	2.0	0.418	13.4	LOS B	2.7	69.2	0.70	0.77	34.7
6	T1	666	2.0	0.418	7.7	LOS A	2.8	71.3	0.70	0.73	35.0
16	R2	101	2.0	0.062	4.5	LOS A	0.0	0.0	0.00	0.49	36.4
Approach		859	2.0	0.418	8.0	LOS A	2.8	71.3	0.62	0.71	35.1
West: Hollister Ave											
5	L2	317	2.0	0.319	10.3	LOS B	2.3	57.9	0.35	0.59	34.6
2	T1	338	2.0	0.319	4.9	LOS A	2.3	58.4	0.35	0.48	36.2
12	R2	145	2.0	0.319	4.8	LOS A	2.3	58.4	0.34	0.45	35.5
Approach		800	2.0	0.319	7.0	LOS A	2.3	58.4	0.35	0.52	35.4
All Vehicles		1902	2.0	0.418	7.7	LOS A	2.8	71.3	0.50	0.63	35.2

Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #12 Kellogg Ave/Hollister Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.576
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	38	Level Of Service:	A

Street Name:	Kellogg Ave						Hollister Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 1	0 1	0	0 1	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	38	29	83	124	20	42	85	413	76	338	760	165
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	38	29	83	124	20	42	85	413	76	338	760	165
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	38	29	83	124	20	42	85	413	76	338	760	165
Reduct Vol:	0	0	25	0	0	13	0	0	23	0	0	50
Reduced Vol:	38	29	58	124	20	29	85	413	53	338	760	115
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	38	29	58	124	20	29	85	413	53	338	760	115
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.57	0.43	1.00	0.86	0.14	1.00	1.00	1.77	0.23	1.00	1.74	0.26
Final Sat.:	907	693	1600	1378	222	1600	1600	2836	364	1600	2779	421
Capacity Analysis Module:												
Vol/Sat:	0.02	0.04	0.04	0.08	0.09	0.02	0.05	0.15	0.15	0.21	0.27	0.27
Crit Moves:		****		****				****		****		

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Scenario Report

Scenario:	2032 PM
Command:	Default Command
Volume:	2032 PM
Geometry:	2032
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Los Carneros Rd/US-101 NB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.583
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	39	Level Of Service:	A

Street Name:	Los Carneros Rd						US 101 NB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	0	0 0	1 1	0	0 0	0 0	0	1 0	1! 0	0
Volume Module:												
Base Vol:	290	805	0	0	255	335	0	0	0	415	16	65
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	290	805	0	0	255	335	0	0	0	415	16	65
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	290	805	0	0	255	335	0	0	0	415	16	65
Reduct Vol:	0	0	0	0	0	101	0	0	0	0	0	20
Reduced Vol:	290	805	0	0	255	234	0	0	0	415	16	45
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	290	805	0	0	255	234	0	0	0	415	16	45
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.04	0.96	0.00	0.00	0.00	1.74	0.07	0.19
Final Sat.:	1600	3200	0	0	1669	1531	0	0	0	2790	108	303
Capacity Analysis Module:												
Vol/Sat:	0.18	0.25	0.00	0.00	0.15	0.15	0.00	0.00	0.00	0.15	0.15	0.15
Crit Moves:	****				****					****		

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Los Carneros Rd/US 101 SB Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.594
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 40 Level Of Service: A

Street Name:	Los Carneros Rd						US 101 SB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	2	0	1	1	0	2	0	0	0	1
Volume Module:												
Base Vol:	0	862	735	26	647	0	231	20	171	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	862	735	26	647	0	231	20	171	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	862	735	26	647	0	231	20	171	0	0	0
Reduct Vol:	0	0	221	0	0	0	0	0	51	0	0	0
Reduced Vol:	0	862	514	26	647	0	231	20	120	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	862	514	26	647	0	231	20	120	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	1.00	2.00	0.00	0.92	0.08	1.00	0.00	0.00	0.00
Final Sat.:	0	3200	1600	1600	3200	0	1473	127	1600	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.27	0.32	0.02	0.20	0.00	0.16	0.16	0.08	0.00	0.00	0.00
Crit Moves:			****	****			****					

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Los Carneros Rd/Calle Koral

Cycle (sec): 100 Critical Vol./Cap.(X): 0.661
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 46 Level Of Service: B

Street Name:	Los Carneros Rd						Calle Koral					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	1	0	1	0	1	1	0	0	1
Volume Module:												
Base Vol:	14	1229	55	145	657	60	54	21	9	28	31	352
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	14	1229	55	145	657	60	54	21	9	28	31	352
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	14	1229	55	145	657	60	54	21	9	28	31	352
Reduct Vol:	0	0	17	0	0	18	0	0	3	0	0	106
Reduced Vol:	14	1229	38	145	657	42	54	21	6	28	31	246
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	14	1229	38	145	657	42	54	21	6	28	31	246
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.91	0.09	1.00	1.88	0.12	1.00	0.78	0.22	1.00	0.11	0.89
Final Sat.:	1600	4656	144	1600	3008	192	1600	1244	356	1600	179	1421
Capacity Analysis Module:												
Vol/Sat:	0.01	0.26	0.26	0.09	0.22	0.22	0.03	0.02	0.02	0.02	0.17	0.17
Crit Moves:		****		****			****				****	

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Los Carneros Rd/Hollister Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.658
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 45 Level Of Service: B

Street Name:	Los Carneros Rd						Hollister Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	2	0	1	1	0	2	0	1	1	0
Volume Module:												
Base Vol:	259	448	189	155	425	105	328	663	117	141	665	30
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	259	448	189	155	425	105	328	663	117	141	665	30
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	259	448	189	155	425	105	328	663	117	141	665	30
Reduct Vol:	0	0	57	0	0	32	0	0	35	0	0	9
Reduced Vol:	259	448	132	155	425	73	328	663	82	141	665	21
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	259	448	132	155	425	73	328	663	82	141	665	21
OvlAdjVol:						0						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	2.00	1.00	1.00	2.00	1.00	2.00	1.78	0.22	1.00	1.94	0.06
Final Sat.:	3200	3200	1600	1600	3200	1600	3200	2848	352	1600	3102	98
Capacity Analysis Module:												
Vol/Sat:	0.08	0.14	0.08	0.10	0.13	0.05	0.10	0.23	0.23	0.09	0.21	0.21
OvlAdjV/S:						0.00						
Crit Moves:		****		****				****		****		

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Los Carneros Wy/Hollister Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.470
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 32 Level Of Service: A

Street Name:	Los Carneros Wy						Hollister Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	0	0	1	0	1!	0	1	1	0
Volume Module:												
Base Vol:	0	0	0	87	0	37	97	848	0	0	741	233
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	87	0	37	97	848	0	0	741	233
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	87	0	37	97	848	0	0	741	233
Reduct Vol:	0	0	0	0	0	11	0	0	0	0	0	70
Reduced Vol:	0	0	0	87	0	26	97	848	0	0	741	163
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	87	0	26	97	848	0	0	741	163
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	2.00	0.00	0.00	1.64	0.36
Final Sat.:	0	0	0	3200	0	1600	1600	3200	0	0	2623	577
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.03	0.00	0.02	0.06	0.27	0.00	0.00	0.28	0.28
Crit Moves:				****			****				****	

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 Fairview Ave/Calle Real

Cycle (sec): 100 Critical Vol./Cap.(X): 0.761
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 59 Level Of Service: C

Street Name:	Fairview Ave						Calle Real					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	1	0 1	1 0	1	1 0	1 0	1	0 1	2 0	0	1 0
Volume Module:												
Base Vol:	433	439	410	114	328	62	68	321	342	229	305	56
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	433	439	410	114	328	62	68	321	342	229	305	56
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	433	439	410	114	328	62	68	321	342	229	305	56
Reduct Vol:	0	0	123	0	0	19	0	0	103	0	0	17
Reduced Vol:	433	439	287	114	328	43	68	321	239	229	305	39
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	433	439	287	114	328	43	68	321	239	229	305	39
OvlAdjVol:			173									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.99	1.01	1.00	1.00	1.77	0.23	1.00	1.00	1.00	2.00	0.89	0.11
Final Sat.:	1589	1611	1600	1600	2829	371	1600	1600	1600	3200	1419	181
Capacity Analysis Module:												
Vol/Sat:	0.27	0.27	0.18	0.07	0.12	0.12	0.04	0.20	0.15	0.07	0.22	0.21
OvlAdjV/S:			0.11									
Crit Moves:	****			****			****			****		

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 Fairview Ave/US-101 NB Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.855
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 82 Level Of Service: D

Street Name:	Fairview Ave						US-101 NB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Ignore			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	0 0	1	0 2	1 0	1!	0 0	0 0	1	0 1
Volume Module:												
Base Vol:	0	0	0	0	364	585	716	0	219	0	191	584
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	364	585	716	0	219	0	191	584
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	364	0	716	0	219	0	191	584
Reduct Vol:	0	0	0	0	0	0	0	0	66	0	0	175
Reduced Vol:	0	0	0	0	364	0	716	0	153	0	191	409
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	0	364	0	716	0	153	0	191	409
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.00	1.00	2.00	1.65	0.00	0.35	0.00	1.00	1.00
Final Sat.:	0	0	0	0	1600	3200	2637	0	563	0	1600	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.00	0.23	0.00	0.27	0.00	0.27	0.00	0.12	0.26
Crit Moves:					****				****			****

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Fairview Ave/US-101 SB Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.579
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 38 Level Of Service: A

Street Name:	Fairview Ave						US-101 SB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	2	0	1	2	0	2	0	0	0	1
Volume Module:												
Base Vol:	0	804	631	222	589	0	193	21	258	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	804	631	222	589	0	193	21	258	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	804	631	222	589	0	193	21	258	0	0	0
Reduct Vol:	0	0	189	0	0	0	0	0	77	0	0	0
Reduced Vol:	0	804	442	222	589	0	193	21	181	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	804	442	222	589	0	193	21	181	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	2.00	2.00	0.00	0.90	0.10	1.00	0.00	0.00	0.00
Final Sat.:	0	3200	1600	3200	3200	0	1443	157	1600	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.25	0.28	0.07	0.18	0.00	0.13	0.13	0.11	0.00	0.00	0.00
Crit Moves:			****	****			****					

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #9 Fairview Ave/Hollister Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.692
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 49 Level Of Service: B

Street Name:	Fairview Ave						Hollister Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ovl			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	2	0	2	0	1	0	2
Volume Module:												
Base Vol:	243	460	95	304	155	232	555	691	137	53	508	333
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	243	460	95	304	155	232	555	691	137	53	508	333
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	243	460	95	304	155	232	555	691	137	53	508	333
Reduct Vol:	0	0	29	0	0	70	0	0	41	0	0	100
Reduced Vol:	243	460	66	304	155	162	555	691	96	53	508	233
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	243	460	66	304	155	162	555	691	96	53	508	233
OvlAdjVol:						0						81
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.75	0.25	2.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	2798	402	3200	3200	1600	3200	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.15	0.16	0.16	0.10	0.05	0.10	0.17	0.22	0.06	0.03	0.16	0.15
OvlAdjV/S:						0.00						0.05
Crit Moves:		****		****			****				****	

MOVEMENT SUMMARY

Site: SR 217 WB Ramps &Hollister Ave_LT_PM

New Site
Roundabout

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
East: Hollister Ave											
1	L2	85	2.0	0.227	10.1	LOS B	1.5	38.8	0.09	0.45	37.6
6	T1	509	2.0	0.227	4.0	LOS A	1.5	39.2	0.09	0.40	37.8
16	R2	63	2.0	0.227	4.0	LOS A	1.5	39.2	0.09	0.36	36.8
Approach		657	2.0	0.227	4.8	LOS A	1.5	39.2	0.09	0.41	37.7
NorthEast: SR 217 WB Off-Ramp											
1bx	L3	58	2.0	0.374	14.4	LOS B	1.7	42.3	0.58	0.75	36.7
1ax	L1	1	2.0	0.374	11.8	LOS B	1.7	42.3	0.58	0.75	35.6
16ax	R1	489	2.0	0.374	6.6	LOS A	1.7	42.3	0.58	0.74	35.8
16bx	R3	71	2.0	0.374	7.1	LOS A	1.7	42.3	0.58	0.73	34.7
Approach		619	2.0	0.374	7.4	LOS A	1.7	42.3	0.58	0.74	35.7
North: Dearborn Pl											
7	L2	10	2.0	0.213	15.1	LOS B	0.8	21.2	0.66	0.82	35.7
4	T1	10	2.0	0.213	8.9	LOS A	0.8	21.2	0.66	0.82	35.4
14	R2	92	2.0	0.213	8.7	LOS A	0.8	21.2	0.66	0.82	34.2
Approach		112	2.0	0.213	9.3	LOS A	0.8	21.2	0.66	0.82	34.4
West: Hollister Ave											
5	L2	10	2.0	0.665	11.8	LOS B	6.5	164.4	0.62	0.52	36.3
2	T1	1622	2.0	0.665	5.5	LOS A	6.5	166.3	0.61	0.51	36.2
12	R2	43	2.0	0.665	5.4	LOS A	6.5	166.3	0.60	0.50	35.0
Approach		1675	2.0	0.665	5.5	LOS A	6.5	166.3	0.61	0.51	36.2
All Vehicles		3063	2.0	0.665	5.9	LOS A	6.5	166.3	0.50	0.55	36.3

Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

Site: SR 217 EB Ramps & Hollister Ave_LT_PM

New Site
Roundabout

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South: SR 217 EB Off-Ramp											
3	L2	140	2.0	0.558	19.9	LOS B	3.0	75.6	0.82	1.02	31.1
8	T1	108	2.0	0.558	14.5	LOS B	3.0	75.6	0.82	1.02	31.1
18	R2	324	2.0	0.620	14.0	LOS B	3.7	94.9	0.83	1.03	31.5
Approach		572	2.0	0.620	15.6	LOS B	3.7	94.9	0.83	1.02	31.3
East: Hollister Ave											
1	L2	40	2.0	0.318	14.6	LOS B	2.0	50.5	0.75	0.81	34.6
6	T1	447	2.0	0.318	8.9	LOS A	2.1	52.8	0.75	0.78	34.8
16	R2	61	2.0	0.037	4.5	LOS A	0.0	0.0	0.00	0.49	36.4
Approach		548	2.0	0.318	8.8	LOS A	2.1	52.8	0.67	0.75	35.0
West: Hollister Ave											
5	L2	404	2.0	0.600	10.1	LOS B	6.9	175.3	0.35	0.51	35.3
2	T1	1101	2.0	0.600	4.7	LOS A	6.9	175.9	0.34	0.44	36.1
12	R2	88	2.0	0.600	4.7	LOS A	6.9	175.9	0.34	0.40	35.4
Approach		1593	2.0	0.600	6.1	LOS A	6.9	175.9	0.34	0.46	35.9
All Vehicles		2713	2.0	0.620	8.6	LOS A	6.9	175.9	0.51	0.64	34.7

Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #12 Kellogg Ave/Hollister Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.835
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	76	Level Of Service:	D

Street Name:	Kellogg Ave						Hollister Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 1	0 1	0	0 1	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	111	40	412	200	22	43	33	972	41	188	626	125
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	111	40	412	200	22	43	33	972	41	188	626	125
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	111	40	412	200	22	43	33	972	41	188	626	125
Reduct Vol:	0	0	124	0	0	13	0	0	12	0	0	38
Reduced Vol:	111	40	288	200	22	30	33	972	29	188	626	87
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	111	40	288	200	22	30	33	972	29	188	626	87
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.74	0.26	1.00	0.90	0.10	1.00	1.00	1.94	0.06	1.00	1.76	0.24
Final Sat.:	1176	424	1600	1441	159	1600	1600	3107	93	1600	2810	390
Capacity Analysis Module:												
Vol/Sat:	0.07	0.09	0.18	0.13	0.14	0.02	0.02	0.31	0.31	0.12	0.22	0.22
Crit Moves:			****	****				****		****		

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Scenario Report

Scenario:	2032 AMWP
Command:	Default Command
Volume:	2032 AMWP
Geometry:	2032
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Los Carneros Rd/US-101 NB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.625
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	42	Level Of Service:	B

Street Name:	Los Carneros Rd						US 101 NB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	0	0 0	1 1	0	0 0	0 0	0	1 0	1! 0	0
Volume Module:												
Base Vol:	46	171	0	0	362	130	0	0	0	1112	2	29
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	46	171	0	0	362	130	0	0	0	1112	2	29
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	46	171	0	0	362	130	0	0	0	1112	2	29
Reduct Vol:	0	0	0	0	0	39	0	0	0	0	0	9
Reduced Vol:	46	171	0	0	362	91	0	0	0	1112	2	20
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	46	171	0	0	362	91	0	0	0	1112	2	20
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.60	0.40	0.00	0.00	0.00	1.96	0.01	0.03
Final Sat.:	1600	3200	0	0	2557	643	0	0	0	3138	6	56
Capacity Analysis Module:												
Vol/Sat:	0.03	0.05	0.00	0.00	0.14	0.14	0.00	0.00	0.00	0.35	0.35	0.35
Crit Moves:	****				****					****		

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Los Carneros Rd/US 101 SB Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.628
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 47 Level Of Service: B

Street Name:	Los Carneros Rd						US 101 SB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	2	0	1	1	0	2	0	0	0	0
Volume Module:												
Base Vol:	0	162	250	37	1422	0	53	8	190	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	162	250	37	1422	0	53	8	190	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	162	250	37	1422	0	53	8	190	0	0	0
Reduct Vol:	0	0	75	0	0	0	0	0	57	0	0	0
Reduced Vol:	0	162	175	37	1422	0	53	8	133	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	162	175	37	1422	0	53	8	133	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	1.00	2.00	0.00	0.87	0.13	1.00	0.00	0.00	0.00
Final Sat.:	0	3200	1600	1600	3200	0	1390	210	1600	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.05	0.11	0.02	0.44	0.00	0.04	0.04	0.08	0.00	0.00	0.00
Crit Moves:					****				****			

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Los Carneros Rd/Calle Koral

Cycle (sec): 100 Critical Vol./Cap.(X): 0.701
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 50 Level Of Service: C

Street Name:	Los Carneros Rd						Calle Koral					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	1	0	1	0	1	1	0	0	0
Volume Module:												
Base Vol:	4	280	7	201	1512	20	85	33	15	17	10	142
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	4	280	7	201	1512	20	85	33	15	17	10	142
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	4	280	7	201	1512	20	85	33	15	17	10	142
Reduct Vol:	0	0	2	0	0	6	0	0	5	0	0	43
Reduced Vol:	4	280	5	201	1512	14	85	33	10	17	10	99
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	4	280	5	201	1512	14	85	33	10	17	10	99
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.95	0.05	1.00	1.98	0.02	1.00	0.77	0.23	1.00	0.09	0.91
Final Sat.:	1600	4716	84	1600	3171	29	1600	1228	372	1600	147	1453
Capacity Analysis Module:												
Vol/Sat:	0.00	0.06	0.06	0.13	0.48	0.48	0.05	0.03	0.03	0.01	0.07	0.07
Crit Moves:	****				****		****				****	

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Los Carneros Rd/Hollister Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.537
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	36	Level Of Service:	A

Street Name:	Los Carneros Rd						Hollister Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0 2	0 1	1	0 2	0 1	2	0 1	1 0	1	0 1	1 0
Volume Module:												
Base Vol:	91	141	125	74	480	289	64	457	240	101	445	28
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	91	141	125	74	480	289	64	457	240	101	445	28
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	91	141	125	74	480	289	64	457	240	101	445	28
Reduct Vol:	0	0	38	0	0	87	0	0	72	0	0	8
Reduced Vol:	91	141	87	74	480	202	64	457	168	101	445	20
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	91	141	87	74	480	202	64	457	168	101	445	20
OvlAdjVol:						170						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	2.00	1.00	1.00	2.00	1.00	2.00	1.46	0.54	1.00	1.91	0.09
Final Sat.:	3200	3200	1600	1600	3200	1600	3200	2340	860	1600	3062	138
Capacity Analysis Module:												
Vol/Sat:	0.03	0.04	0.05	0.05	0.15	0.13	0.02	0.20	0.20	0.06	0.15	0.15
OvlAdjV/S:						0.11						
Crit Moves:	****				****			****		****		

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Los Carneros Wy/Hollister Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.356
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	27	Level Of Service:	A

Street Name:	Los Carneros Wy						Hollister Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0 0	0 0	1	0 1!	0 1	1	0 2	0 0	0	0 1	1 0
Volume Module:												
Base Vol:	0	0	0	121	0	96	88	606	0	0	479	54
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	121	0	96	88	606	0	0	479	54
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	121	0	96	88	606	0	0	479	54
Reduct Vol:	0	0	0	0	0	29	0	0	0	0	0	16
Reduced Vol:	0	0	0	121	0	67	88	606	0	0	479	38
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	121	0	67	88	606	0	0	479	38
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	1.93	xxxx	1.07	1.00	2.00	0.00	0.00	1.85	0.15
Final Sat.:	0	0	0	3089	0	1711	1600	3200	0	0	2965	235
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.04	0.00	0.04	0.06	0.19	0.00	0.00	0.16	0.16
Crit Moves:				****			****				****	

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 Fairview Ave/Calle Real

Cycle (sec): 100 Critical Vol./Cap.(X): 0.549
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 36 Level Of Service: A

Street Name:	Fairview Ave						Calle Real					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	1	0 1	1 0	1	1 0	1 0	1	0 1	2 0	0	1 0
Volume Module:												
Base Vol:	225	229	130	31	321	45	21	83	358	129	133	23
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	225	229	130	31	321	45	21	83	358	129	133	23
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	225	229	130	31	321	45	21	83	358	129	133	23
Reduct Vol:	0	0	39	0	0	14	0	0	107	0	0	7
Reduced Vol:	225	229	91	31	321	31	21	83	251	129	133	16
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	225	229	91	31	321	31	21	83	251	129	133	16
OvlAdjVol:			27									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.99	1.01	1.00	1.00	1.82	0.18	1.00	1.00	1.00	2.00	0.89	0.11
Final Sat.:	1586	1614	1600	1600	2918	282	1600	1600	1600	3200	1428	172
Capacity Analysis Module:												
Vol/Sat:	0.14	0.14	0.06	0.02	0.11	0.11	0.01	0.05	0.16	0.04	0.09	0.09
OvlAdjV/S:			0.02									
Crit Moves:	****					****			****	****		

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 Fairview Ave/US-101 NB Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.654
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 45 Level Of Service: B

Street Name:	Fairview Ave						US-101 NB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Ignore			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	0 0	1	0 2	1 0	1!	0 0	0 0	1	0 1
Volume Module:												
Base Vol:	0	0	0	0	122	734	277	0	142	0	576	304
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	122	734	277	0	142	0	576	304
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	122	0	277	0	142	0	576	304
Reduct Vol:	0	0	0	0	0	0	0	0	43	0	0	91
Reduced Vol:	0	0	0	0	122	0	277	0	99	0	576	213
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	0	122	0	277	0	99	0	576	213
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.00	1.00	2.00	1.47	0.00	0.53	0.00	1.00	1.00
Final Sat.:	0	0	0	0	1600	3200	2357	0	843	0	1600	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.00	0.08	0.00	0.12	0.00	0.12	0.00	0.36	0.13
Crit Moves:					****				****		****	

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Fairview Ave/US-101 SB Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.525
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 42 Level Of Service: A

Street Name:	Fairview Ave						US-101 SB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	2	0	1	2	0	2	0	0	0	1
Volume Module:												
Base Vol:	0	322	350	346	940	0	106	0	300	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	322	350	346	940	0	106	0	300	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	322	350	346	940	0	106	0	300	0	0	0
Reduct Vol:	0	0	105	0	0	0	0	0	90	0	0	0
Reduced Vol:	0	322	245	346	940	0	106	0	210	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	322	245	346	940	0	106	0	210	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	2.00	2.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	3200	1600	3200	3200	0	1600	0	1600	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.10	0.15	0.11	0.29	0.00	0.07	0.00	0.13	0.00	0.00	0.00
Crit Moves:					****				****			

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #9 Fairview Ave/Hollister Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.561
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 37 Level Of Service: A

Street Name:	Fairview Ave						Hollister Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ovl			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	2	0	2	0	1	0	2
Volume Module:												
Base Vol:	120	209	32	175	409	577	250	341	286	49	428	271
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	120	209	32	175	409	577	250	341	286	49	428	271
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	120	209	32	175	409	577	250	341	286	49	428	271
Reduct Vol:	0	0	10	0	0	173	0	0	86	0	0	81
Reduced Vol:	120	209	22	175	409	404	250	341	200	49	428	190
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	120	209	22	175	409	404	250	341	200	49	428	190
OvlAdjVol:						279						102
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.81	0.19	2.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	2895	305	3200	3200	1600	3200	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.08	0.07	0.07	0.05	0.13	0.25	0.08	0.11	0.13	0.03	0.13	0.12
OvlAdjV/S:						0.17						0.06
Crit Moves:	****					****	****				****	

MOVEMENT SUMMARY

Site: SR 217 WB Ramps & Hollister Ave_LTWP_AM

New Site
Roundabout

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
East: Hollister Ave											
1	L2	190	2.0	0.245	10.1	LOS B	1.7	42.9	0.09	0.54	36.6
6	T1	496	2.0	0.245	4.0	LOS A	1.7	43.4	0.09	0.41	37.6
16	R2	21	2.0	0.245	4.0	LOS A	1.7	43.4	0.09	0.35	36.8
Approach		707	2.0	0.245	5.6	LOS A	1.7	43.4	0.09	0.44	37.3
NorthEast: SR 217 WB Off-Ramp											
1bx	L3	220	2.0	0.527	15.9	LOS B	3.0	75.4	0.66	0.91	34.7
1ax	L1	1	2.0	0.527	13.2	LOS B	3.0	75.4	0.66	0.91	33.8
16ax	R1	604	2.0	0.527	8.0	LOS A	3.0	75.5	0.66	0.87	34.9
16bx	R3	25	2.0	0.527	8.5	LOS A	3.0	75.5	0.66	0.84	34.2
Approach		850	2.0	0.527	10.1	LOS B	3.0	75.5	0.66	0.88	34.8
North: Dearborn Pl											
7	L2	10	2.0	0.483	19.3	LOS B	2.4	59.9	0.81	0.96	33.6
4	T1	10	2.0	0.483	13.0	LOS B	2.4	59.9	0.81	0.96	33.4
14	R2	187	2.0	0.483	12.9	LOS B	2.4	59.9	0.81	0.96	32.3
Approach		207	2.0	0.483	13.2	LOS B	2.4	59.9	0.81	0.96	32.4
West: Hollister Ave											
5	L2	10	2.0	0.342	12.9	LOS B	2.2	55.4	0.65	0.63	36.1
2	T1	608	2.0	0.342	6.5	LOS A	2.3	57.7	0.64	0.61	36.1
12	R2	67	2.0	0.342	6.3	LOS A	2.3	57.7	0.64	0.60	34.9
Approach		685	2.0	0.342	6.6	LOS A	2.3	57.7	0.64	0.61	36.0
All Vehicles		2449	2.0	0.527	8.1	LOS A	3.0	75.5	0.50	0.69	35.6

Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

Site: SR 217 EB Ramps & Hollister Ave_LTWP_AM

New Site
Roundabout

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South: SR 217 EB Off-Ramp											
3	L2	84	2.0	0.217	12.4	LOS B	0.9	23.0	0.57	0.76	34.6
8	T1	83	2.0	0.217	7.0	LOS A	0.9	23.0	0.57	0.76	34.6
18	R2	75	2.0	0.131	7.9	LOS A	0.5	12.6	0.57	0.76	34.5
Approach		242	2.0	0.217	9.2	LOS A	0.9	23.0	0.57	0.76	34.5
East: Hollister Ave											
1	L2	92	2.0	0.420	13.4	LOS B	2.7	69.7	0.71	0.77	34.6
6	T1	666	2.0	0.420	7.8	LOS A	2.8	71.8	0.70	0.73	35.0
16	R2	101	2.0	0.062	4.5	LOS A	0.0	0.0	0.00	0.49	36.4
Approach		859	2.0	0.420	8.0	LOS A	2.8	71.8	0.62	0.71	35.1
West: Hollister Ave											
5	L2	322	2.0	0.322	10.3	LOS B	2.3	58.7	0.35	0.59	34.6
2	T1	340	2.0	0.322	4.9	LOS A	2.3	59.1	0.35	0.48	36.2
12	R2	145	2.0	0.322	4.8	LOS A	2.3	59.1	0.35	0.45	35.5
Approach		807	2.0	0.322	7.0	LOS A	2.3	59.1	0.35	0.52	35.4
All Vehicles		1908	2.0	0.420	7.7	LOS A	2.8	71.8	0.50	0.64	35.1

Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #12 Kellogg Ave/Hollister Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.578
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	38	Level Of Service:	A

Street Name:	Kellogg Ave						Hollister Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 1	0 1	0	0 1	1	0	1 1 0	1	0	1 1 0
Volume Module:												
Base Vol:	38	29	82	124	20	42	85	421	76	336	770	165
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	38	29	82	124	20	42	85	421	76	336	770	165
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	38	29	82	124	20	42	85	421	76	336	770	165
Reduct Vol:	0	0	25	0	0	13	0	0	23	0	0	50
Reduced Vol:	38	29	57	124	20	29	85	421	53	336	770	115
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	38	29	57	124	20	29	85	421	53	336	770	115
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.57	0.43	1.00	0.86	0.14	1.00	1.00	1.78	0.22	1.00	1.74	0.26
Final Sat.:	907	693	1600	1378	222	1600	1600	2842	358	1600	2784	416
Capacity Analysis Module:												
Vol/Sat:	0.02	0.04	0.04	0.08	0.09	0.02	0.05	0.15	0.15	0.21	0.28	0.28
Crit Moves:		****		****				****		****		

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Scenario Report

Scenario:	2032 PMWP
Command:	Default Command
Volume:	2032 PMWP
Geometry:	2032
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Los Carneros Rd/US-101 NB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.583
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	39	Level Of Service:	A

Street Name:	Los Carneros Rd						US 101 NB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	0	0 0	1 1	0	0 0	0 0	0	1 0	1! 0	0
Volume Module:												
Base Vol:	290	805	0	0	255	335	0	0	0	415	16	65
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	290	805	0	0	255	335	0	0	0	415	16	65
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	290	805	0	0	255	335	0	0	0	415	16	65
Reduct Vol:	0	0	0	0	0	101	0	0	0	0	0	20
Reduced Vol:	290	805	0	0	255	234	0	0	0	415	16	45
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	290	805	0	0	255	234	0	0	0	415	16	45
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.04	0.96	0.00	0.00	0.00	1.74	0.07	0.19
Final Sat.:	1600	3200	0	0	1669	1531	0	0	0	2790	108	303
Capacity Analysis Module:												
Vol/Sat:	0.18	0.25	0.00	0.00	0.15	0.15	0.00	0.00	0.00	0.15	0.15	0.15
Crit Moves:	****				****					****		

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Los Carneros Rd/US 101 SB Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.594
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 40 Level Of Service: A

Street Name:	Los Carneros Rd						US 101 SB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	2	0	1	1	0	2	0	0	0	1
Volume Module:												
Base Vol:	0	862	735	26	647	0	231	20	171	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	862	735	26	647	0	231	20	171	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	862	735	26	647	0	231	20	171	0	0	0
Reduct Vol:	0	0	221	0	0	0	0	0	51	0	0	0
Reduced Vol:	0	862	514	26	647	0	231	20	120	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	862	514	26	647	0	231	20	120	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	1.00	2.00	0.00	0.92	0.08	1.00	0.00	0.00	0.00
Final Sat.:	0	3200	1600	1600	3200	0	1473	127	1600	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.27	0.32	0.02	0.20	0.00	0.16	0.16	0.08	0.00	0.00	0.00
Crit Moves:			****	****			****					

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Los Carneros Rd/Calle Koral

Cycle (sec): 100 Critical Vol./Cap.(X): 0.661
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 46 Level Of Service: B

Street Name:	Los Carneros Rd						Calle Koral					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	1	0	1	0	1	1	0	0	1
Volume Module:												
Base Vol:	14	1229	55	145	657	60	54	21	9	28	31	352
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	14	1229	55	145	657	60	54	21	9	28	31	352
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	14	1229	55	145	657	60	54	21	9	28	31	352
Reduct Vol:	0	0	17	0	0	18	0	0	3	0	0	106
Reduced Vol:	14	1229	38	145	657	42	54	21	6	28	31	246
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	14	1229	38	145	657	42	54	21	6	28	31	246
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.91	0.09	1.00	1.88	0.12	1.00	0.78	0.22	1.00	0.11	0.89
Final Sat.:	1600	4656	144	1600	3008	192	1600	1244	356	1600	179	1421
Capacity Analysis Module:												
Vol/Sat:	0.01	0.26	0.26	0.09	0.22	0.22	0.03	0.02	0.02	0.02	0.17	0.17
Crit Moves:	****			****			****				****	

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Los Carneros Rd/Hollister Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.658
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 45 Level Of Service: B

Street Name:	Los Carneros Rd						Hollister Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0 2	0 1	1	0 2	0 1	2	0 1	1 0	1	0 1	1 0
Volume Module:												
Base Vol:	259	448	191	155	425	105	328	663	117	142	665	30
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	259	448	191	155	425	105	328	663	117	142	665	30
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	259	448	191	155	425	105	328	663	117	142	665	30
Reduct Vol:	0	0	57	0	0	32	0	0	35	0	0	9
Reduced Vol:	259	448	134	155	425	73	328	663	82	142	665	21
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	259	448	134	155	425	73	328	663	82	142	665	21
OvlAdjVol:						0						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	2.00	1.00	1.00	2.00	1.00	2.00	1.78	0.22	1.00	1.94	0.06
Final Sat.:	3200	3200	1600	1600	3200	1600	3200	2848	352	1600	3102	98
Capacity Analysis Module:												
Vol/Sat:	0.08	0.14	0.08	0.10	0.13	0.05	0.10	0.23	0.23	0.09	0.21	0.21
OvlAdjV/S:						0.00						
Crit Moves:		****		****				****		****		

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Los Carneros Wy/Hollister Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.471
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 32 Level Of Service: A

Street Name:	Los Carneros Wy						Hollister Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0 0	0 0	1	0 1!	0 1	1	0 2	0 0	0	0 1	1 0
Volume Module:												
Base Vol:	0	0	0	87	0	37	97	850	0	0	742	233
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	87	0	37	97	850	0	0	742	233
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	87	0	37	97	850	0	0	742	233
Reduct Vol:	0	0	0	0	0	11	0	0	0	0	0	70
Reduced Vol:	0	0	0	87	0	26	97	850	0	0	742	163
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	87	0	26	97	850	0	0	742	163
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	2.00	0.00	0.00	1.64	0.36
Final Sat.:	0	0	0	3200	0	1600	1600	3200	0	0	2624	576
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.03	0.00	0.02	0.06	0.27	0.00	0.00	0.28	0.28
Crit Moves:				****			****				****	

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 Fairview Ave/Calle Real

Cycle (sec): 100 Critical Vol./Cap.(X): 0.761
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 59 Level Of Service: C

Street Name:	Fairview Ave						Calle Real					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	1	0 1	1 0	1	1 0	1 0	1	0 1	2 0	0	1 0
Volume Module:												
Base Vol:	433	439	410	114	328	62	68	321	342	229	305	56
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	433	439	410	114	328	62	68	321	342	229	305	56
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	433	439	410	114	328	62	68	321	342	229	305	56
Reduct Vol:	0	0	123	0	0	19	0	0	103	0	0	17
Reduced Vol:	433	439	287	114	328	43	68	321	239	229	305	39
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	433	439	287	114	328	43	68	321	239	229	305	39
OvlAdjVol:			173									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.99	1.01	1.00	1.00	1.77	0.23	1.00	1.00	1.00	2.00	0.89	0.11
Final Sat.:	1589	1611	1600	1600	2829	371	1600	1600	1600	3200	1419	181
Capacity Analysis Module:												
Vol/Sat:	0.27	0.27	0.18	0.07	0.12	0.12	0.04	0.20	0.15	0.07	0.22	0.21
OvlAdjV/S:			0.11									
Crit Moves:	****			****			****			****		

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 Fairview Ave/US-101 NB Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.855
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 82 Level Of Service: D

Street Name:	Fairview Ave						US-101 NB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Ignore			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	0 0	1	0 2	1 0	1!	0 0	0 0	1	0 1
Volume Module:												
Base Vol:	0	0	0	0	364	585	716	0	219	0	203	584
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	364	585	716	0	219	0	203	584
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	364	0	716	0	219	0	203	584
Reduct Vol:	0	0	0	0	0	0	0	0	66	0	0	175
Reduced Vol:	0	0	0	0	364	0	716	0	153	0	203	409
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	0	364	0	716	0	153	0	203	409
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.00	1.00	2.00	1.65	0.00	0.35	0.00	1.00	1.00
Final Sat.:	0	0	0	0	1600	3200	2637	0	563	0	1600	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.00	0.23	0.00	0.27	0.00	0.27	0.00	0.13	0.26
Crit Moves:					****				****			****

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Fairview Ave/US-101 SB Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.584
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 39 Level Of Service: A

Street Name:	Fairview Ave						US-101 SB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	2	0	1	2	0	2	0	0	0	1
Volume Module:												
Base Vol:	0	804	643	222	601	0	193	21	258	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	804	643	222	601	0	193	21	258	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	804	643	222	601	0	193	21	258	0	0	0
Reduct Vol:	0	0	193	0	0	0	0	0	77	0	0	0
Reduced Vol:	0	804	450	222	601	0	193	21	181	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	804	450	222	601	0	193	21	181	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	2.00	2.00	0.00	0.90	0.10	1.00	0.00	0.00	0.00
Final Sat.:	0	3200	1600	3200	3200	0	1443	157	1600	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.25	0.28	0.07	0.19	0.00	0.13	0.13	0.11	0.00	0.00	0.00
Crit Moves:			****	****			****					

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #9 Fairview Ave/Hollister Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.699
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 50 Level Of Service: B

Street Name:	Fairview Ave						Hollister Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ovl			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	2	0	2	0	1	0	2
Volume Module:												
Base Vol:	240	457	94	304	152	247	570	701	134	51	519	333
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	240	457	94	304	152	247	570	701	134	51	519	333
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	240	457	94	304	152	247	570	701	134	51	519	333
Reduct Vol:	0	0	28	0	0	74	0	0	40	0	0	100
Reduced Vol:	240	457	66	304	152	173	570	701	94	51	519	233
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	240	457	66	304	152	173	570	701	94	51	519	233
OvlAdjVol:						0						81
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.75	0.25	2.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	2796	404	3200	3200	1600	3200	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.15	0.16	0.16	0.10	0.05	0.11	0.18	0.22	0.06	0.03	0.16	0.15
OvlAdjV/S:						0.00						0.05
Crit Moves:		****		****			****				****	

MOVEMENT SUMMARY

Site: SR 217 WB Ramps & Hollister Ave_LTWP_PM

New Site
Roundabout

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
East: Hollister Ave											
1	L2	83	2.0	0.227	10.1	LOS B	1.5	38.7	0.09	0.45	37.6
6	T1	510	2.0	0.227	4.0	LOS A	1.5	39.2	0.09	0.40	37.8
16	R2	63	2.0	0.227	4.0	LOS A	1.5	39.2	0.09	0.36	36.8
Approach		656	2.0	0.227	4.7	LOS A	1.5	39.2	0.09	0.41	37.7
NorthEast: SR 217 WB Off-Ramp											
1bx	L3	58	2.0	0.378	14.4	LOS B	1.7	42.9	0.59	0.75	36.7
1ax	L1	1	2.0	0.378	11.8	LOS B	1.7	42.9	0.59	0.75	35.6
16ax	R1	495	2.0	0.378	6.6	LOS A	1.7	42.9	0.59	0.74	35.8
16bx	R3	71	2.0	0.378	7.1	LOS A	1.7	42.9	0.59	0.73	34.7
Approach		625	2.0	0.378	7.4	LOS A	1.7	42.9	0.59	0.74	35.7
North: Dearborn Pl											
7	L2	10	2.0	0.214	15.2	LOS B	0.8	21.3	0.66	0.82	35.7
4	T1	10	2.0	0.214	8.9	LOS A	0.8	21.3	0.66	0.82	35.4
14	R2	92	2.0	0.214	8.8	LOS A	0.8	21.3	0.66	0.82	34.2
Approach		112	2.0	0.214	9.4	LOS A	0.8	21.3	0.66	0.82	34.4
West: Hollister Ave											
5	L2	10	2.0	0.667	11.8	LOS B	6.5	166.0	0.62	0.52	36.3
2	T1	1630	2.0	0.667	5.5	LOS A	6.6	167.9	0.61	0.51	36.2
12	R2	43	2.0	0.667	5.4	LOS A	6.6	167.9	0.60	0.50	35.0
Approach		1683	2.0	0.667	5.5	LOS A	6.6	167.9	0.61	0.51	36.2
All Vehicles		3076	2.0	0.667	5.9	LOS A	6.6	167.9	0.50	0.55	36.3

Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

Site: SR 217 EB Ramps & Hollister Ave_LTWP_PM

New Site
Roundabout

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South: SR 217 EB Off-Ramp											
3	L2	140	2.0	0.561	20.0	LOS C	3.0	76.2	0.83	1.02	31.1
8	T1	108	2.0	0.561	14.6	LOS B	3.0	76.2	0.83	1.02	31.1
18	R2	323	2.0	0.621	14.1	LOS B	3.7	95.1	0.83	1.03	31.5
Approach		571	2.0	0.621	15.7	LOS B	3.7	95.1	0.83	1.03	31.3
East: Hollister Ave											
1	L2	40	2.0	0.319	14.7	LOS B	2.0	50.8	0.76	0.81	34.5
6	T1	447	2.0	0.319	8.9	LOS A	2.1	53.2	0.76	0.79	34.8
16	R2	61	2.0	0.037	3.9	LOS A	0.0	0.0	0.00	0.46	36.9
Approach		548	2.0	0.319	8.8	LOS A	2.1	53.2	0.67	0.75	35.0
West: Hollister Ave											
5	L2	410	2.0	0.603	10.2	LOS B	7.0	177.3	0.35	0.51	35.3
2	T1	1103	2.0	0.603	4.7	LOS A	7.0	178.0	0.35	0.44	36.1
12	R2	88	2.0	0.603	4.7	LOS A	7.0	178.0	0.34	0.40	35.4
Approach		1601	2.0	0.603	6.1	LOS A	7.0	178.0	0.35	0.46	35.9
All Vehicles		2720	2.0	0.621	8.6	LOS A	7.0	178.0	0.51	0.64	34.7

Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #12 Kellogg Ave/Hollister Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.837
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	76	Level Of Service:	D

Street Name:	Kellogg Ave						Hollister Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 1	0 1	0	0 1	1	0	1 1 0	1	0	1 1 0
Volume Module:												
Base Vol:	111	40	411	200	22	43	33	981	41	186	635	125
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	111	40	411	200	22	43	33	981	41	186	635	125
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	111	40	411	200	22	43	33	981	41	186	635	125
Reduct Vol:	0	0	123	0	0	13	0	0	12	0	0	38
Reduced Vol:	111	40	288	200	22	30	33	981	29	186	635	87
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	111	40	288	200	22	30	33	981	29	186	635	87
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.74	0.26	1.00	0.90	0.10	1.00	1.00	1.94	0.06	1.00	1.76	0.24
Final Sat.:	1176	424	1600	1441	159	1600	1600	3108	92	1600	2814	386
Capacity Analysis Module:												
Vol/Sat:	0.07	0.09	0.18	0.13	0.14	0.02	0.02	0.32	0.32	0.12	0.23	0.23
Crit Moves:			****	****				****		****		

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Scenario Report

Scenario:	2032 AMWP MIT
Command:	Default Command
Volume:	2032 AMWP
Geometry:	2032 MIT
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 Fairview Ave/US-101 NB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.474
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	32	Level Of Service:	A

Street Name:	Fairview Ave						US-101 NB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Split Phase			Split Phase		
Rights:	Include			Ignore			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	0 0	1	0 2	1 0	1!	0 0	0 0	2	0 1
Volume Module:												
Base Vol:	0	0	0	0	122	734	277	0	142	0	576	304
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	122	734	277	0	142	0	576	304
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	122	0	277	0	142	0	576	304
Reduct Vol:	0	0	0	0	0	0	0	0	43	0	0	91
Reduced Vol:	0	0	0	0	122	0	277	0	99	0	576	213
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	0	122	0	277	0	99	0	576	213
OvlAdjVol:												91
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.00	1.00	2.00	1.47	0.00	0.53	0.00	2.00	1.00
Final Sat.:	0	0	0	0	1600	3200	2357	0	843	0	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.00	0.08	0.00	0.12	0.00	0.12	0.00	0.18	0.13
OvlAdjV/S:												0.06
Crit Moves:					****				****		****	

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #12 Kellogg Ave/Hollister Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.461
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	35	Level Of Service:	A

Street Name:	Kellogg Ave						Hollister Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 1	0 1	0	0 1	1	0 2	0 1	1	0 1	1 0
Volume Module:												
Base Vol:	38	29	82	124	20	42	85	421	76	336	770	165
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	38	29	82	124	20	42	85	421	76	336	770	165
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	38	29	82	124	20	42	85	421	76	336	770	165
Reduct Vol:	0	0	25	0	0	13	0	0	23	0	0	50
Reduced Vol:	38	29	57	124	20	29	85	421	53	336	770	115
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	38	29	57	124	20	29	85	421	53	336	770	115
OvlAdjVol:			0									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.57	0.43	1.00	0.86	0.14	1.00	1.00	2.00	1.00	1.00	1.74	0.26
Final Sat.:	907	693	1600	1378	222	1600	1600	3200	1600	1600	2784	416
Capacity Analysis Module:												
Vol/Sat:	0.02	0.04	0.04	0.08	0.09	0.02	0.05	0.13	0.03	0.21	0.28	0.28
OvlAdjV/S:			0.00									
Crit Moves:		****		****				****		****		

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Scenario Report

Scenario:	2032 PMWP MIT
Command:	Default Command
Volume:	2032 PMWP
Geometry:	2032 MIT
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 Fairview Ave/US-101 NB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.663
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	46	Level Of Service:	B

Street Name:	Fairview Ave						US-101 NB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Split Phase			Split Phase		
Rights:	Include			Ignore			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	0 0	1	0 2	1 0	1!	0 0	0 0	2	0 1
Volume Module:												
Base Vol:	0	0	0	0	364	585	716	0	219	0	203	584
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	364	585	716	0	219	0	203	584
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	364	0	716	0	219	0	203	584
Reduct Vol:	0	0	0	0	0	0	0	0	66	0	0	175
Reduced Vol:	0	0	0	0	364	0	716	0	153	0	203	409
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	0	364	0	716	0	153	0	203	409
OvlAdjVol:												45
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.00	1.00	2.00	1.65	0.00	0.35	0.00	2.00	1.00
Final Sat.:	0	0	0	0	1600	3200	2637	0	563	0	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.00	0.23	0.00	0.27	0.00	0.27	0.00	0.06	0.26
OvlAdjV/S:												0.03
Crit Moves:					****				****		****	

SANTA BARBARA AIRPORT MASTER PLAN
FUTURE YEAR CONDITIONS

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #12 Kellogg Ave/Hollister Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.631
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	50	Level Of Service:	B

Street Name:	Kellogg Ave						Hollister Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 1	0 1	0	0 1	1	0 2	0 1	1	0 1	1 0
Volume Module:												
Base Vol:	111	40	411	200	22	43	33	981	41	186	635	125
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	111	40	411	200	22	43	33	981	41	186	635	125
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	111	40	411	200	22	43	33	981	41	186	635	125
Reduct Vol:	0	0	123	0	0	13	0	0	12	0	0	38
Reduced Vol:	111	40	288	200	22	30	33	981	29	186	635	87
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	111	40	288	200	22	30	33	981	29	186	635	87
OvlAdjVol:			102									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.74	0.26	1.00	0.90	0.10	1.00	1.00	2.00	1.00	1.00	1.76	0.24
Final Sat.:	1176	424	1600	1441	159	1600	1600	3200	1600	1600	2814	386
Capacity Analysis Module:												
Vol/Sat:	0.07	0.09	0.18	0.13	0.14	0.02	0.02	0.31	0.02	0.12	0.23	0.23
OvlAdjV/S:			0.06									
Crit Moves:	****			****			****			****		

APPENDIX D

CUMULATIVE PROJECT INFORMATION

City of Goleta

Cumulative Projects List

Updated 3/10/16

Project	Address	APN	Land Use	Acreage	Project Description	Status
PROJECTS UNDER CONSTRUCTION						
Westar (Hollister Village)	7000 Hollister Avenue (N/E corner of Glen Annie Road and Hollister)	073-030-020; -021	Residential and Commercial	23.55	266 residential units; Approx. 86,000 sf of commercial	Under construction
Goleta Valley Cottage Hospital Medical Office Building Reconstruction with parking lot and landscaping changes	5333 Hollister Avenue	065-090-023	Commercial	2.17	Medical Office Building Demo Existing 41,224 sf; 52,000 sf Approved; 10,776 sf Net New	Under construction
Village at Los Carneros	Adjacent to 71 South Los Carneros Road	073-330-024, -026, -027, -028, -029	Residential	43.14	465 units on 43.14 acres	Under construction
Rincon Palms Hotel (Hilton Garden Inn)	6868/6878 Hollister Avenue	073-140-004	Commercial	3.05	95,678 sf hotel; 138 rooms with meeting space	Under construction
Harvest Hill Ranch	880 Cambridge Drive	069-620-044	Residential	4.73	7 lot subdivision with net of 6 homes	Under construction
Investec (Discovery Storage Center) at Cabrillo Business Park	350 Coromar Drive and 6640 Discovery Drive	073-610-015, -016	Commercial	6.02	111,100 sf self-storage facility	Under construction
Pacific Beverage at Cabrillo Business Park	SW Corner of Coromar Drive and Discovery Road	073-610-022, -023, -027, -029	Industrial	7.6	among 4 lots. On newly adjusted Lot 19, 2 new buildings will be constructed: a 93,780 sf office/warehouse building and a 3,200 sf truck maintenance/storage building.	Under construction

City of Goleta

Cumulative Projects List

Updated 3/10/16

Project	Address	APN	Land Use	Acreage	Project Description	Status
APPROVED PROJECTS (NOT CONSTRUCTED)						
Fairview Commercial Center	151 S. Fairview Avenue	073-080-019	Commercial	0.8	16,216 sf mixed use building (8,757 sf retail space, 6,206 sf office space and 2 units(1,253 sf))	Approved
Islamic Society of SB	N/E Corner of Los Carneros and Calle Real	077-160-035	Commercial	0.59	6,183 sf building with prayer room, meeting area and 1 caretaker unit	Approved
Citrus Village	7388 Calle Real	077-490-043	Residential	1.02	10 residential units	Approved
Mariposa at Ellwood Shores	7760 Hollister Avenue	079-210-057	Commercial	2.95	60,909 sf assisted living (90 residents)	Approved
Schwann Self Storage	10 S. Kellogg Avenue	071-090-082	Industrial	2.06	111,730 sf self-storage facility	Approved
Marriott Residence Inn	6300 Hollister Avenue	073-050-020	Commercial	10.57	80,989 sf hotel (118 rooms)	Approved
Cortona Apartments	6830 Cortona Drive	073-140-016	Residential	8.82	176 residential units	Approved
Somera Medical Office Building	454 S. Patterson Avenue	065-090-013	Commercial	8	20,000 sf net new medical/dental office building	Approved
Old Town Village	South Kellogg Avenue	071-130-023	Residential and Commercial	12.31	Mixed Use of 175 townhomes with shopkeeper and livework units	Approved

City of Goleta

Cumulative Projects List

Updated 3/10/16

Project	Address	APN	Land Use	Acreage	Project Description	Status
PENDING PROJECTS						
Shelby	7400 Cathedral Oaks Road	077-530-019	Residential	15.8 (gross); 14.88 (net)	60 residential units	Pending
Kenwood Village	Calle Real w/o Calaveras Avenue	077-130-066, -019; 077-141-049	Residential	10	60 residential units	Pending
Fairview Gardens	598 North Fairview Avenue	069-090-052	Agriculture	11.65	Master Use Permit and Special Events	Pending
Fuel Depot with Car Washes	370 Storke Road	073-100-008	Commercial	1	1,667 sf new drive-in carwash, self-serve car wash, gas fueling dispensers and manager's residence; Zizzo's Coffee building to remain	Pending
Old Town Industrial Center	891 S. Kellogg Avenue	071-170-074, -080, -083	Industrial	14.76	186,770 sf new Light Industrial with outdoor storage and 5,100 sf office building	Pending
Heritage Ridge	North of Calle Koral and West of Los Carneros	073-060-031 thru -043	Residential	16.2	228 residential apartments and 132 senior apartments	Pending
Fuel Depot	180 N. Fairview Avenue	069-110-054	Commercial	0.28	Reconstruction of convenience store/auto-service building (2,396 sf); No changes to existing fueling stations or canopy.	Pending
Westar Final Phase (Hollister Village)	7000 Hollister	073-030-026, -027, -028, -033	Residential	1.84	33 studio apartments	Pending

1	GVCH Medical Office	10,776 sf
2	Village at Los Carneros	465 du
3	Harvest Hill Ranch	6 du
4	Investec	111.1 ksf
5	Pacific Beverage	97 ksf
6	DRI	130.3 ksf warehouse, 27.9 ksf office
7	Airport Industrial	42 ksf, 6 ksf retail, 2 ksf coffee
8	Chrysler Auto Dealership	49.3 ksf
9	Fairview Commercial Ctr	8.8 ksf retail, 6.2 ksf office, 2 du
10	Islamic Society	6.2 ksf
11	Schwann Self Storage	111.7 ksf
12	Marriott Residence Inn	118 rm
13	Somera Medical Office	20 ksf
14	Old Town Village	175 du
15	Old Town Industrial Ctr	187 ksf, 5.1 ksf office
16	Heritage Ridge	228 du, 132 senior du

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Cumulative Projects

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APPENDIX D
CUMULATIVE PROJECTS
TRIP GENERATION SUMMARY

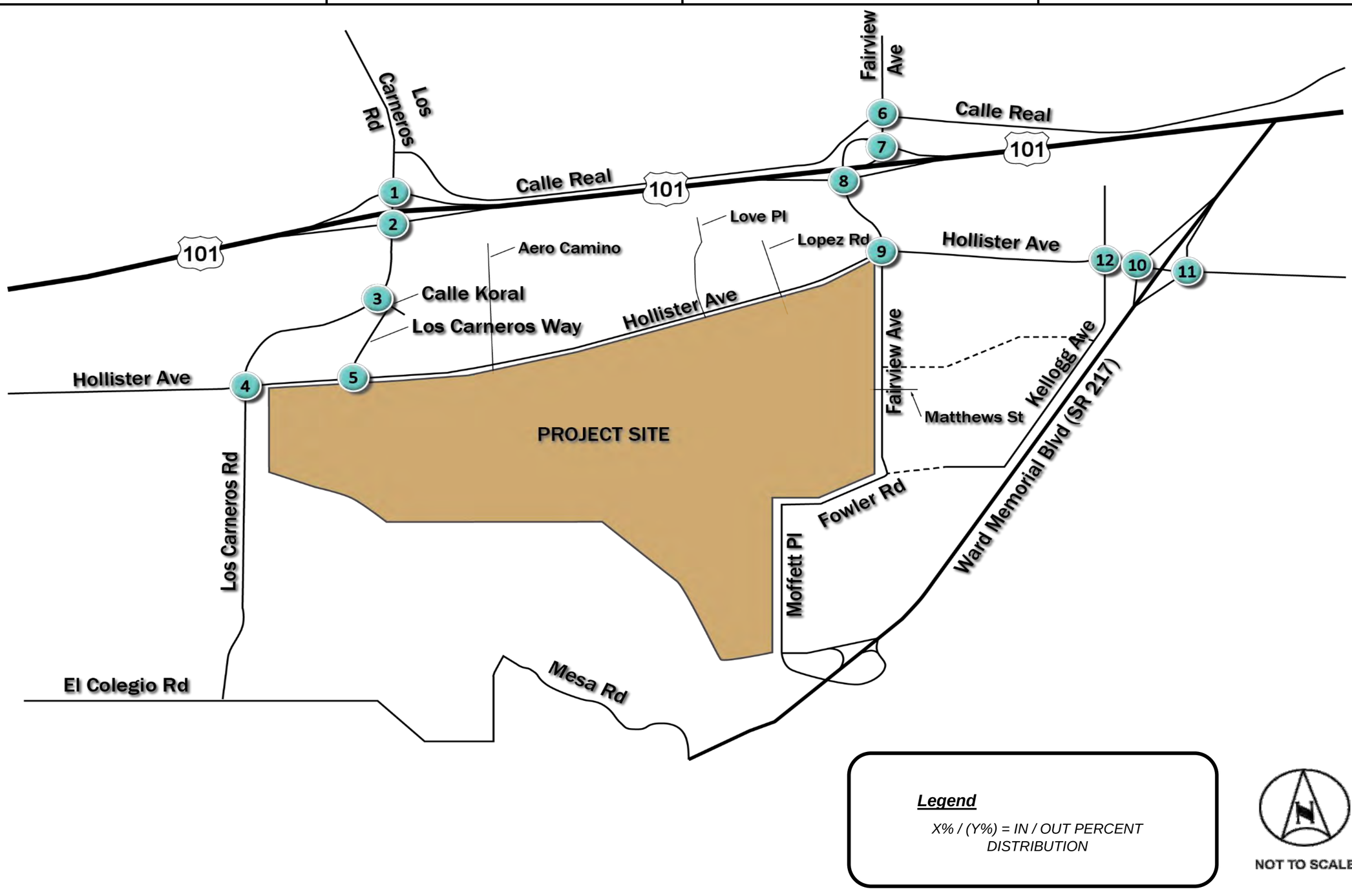
Land Use	Land Use as listed in ITE	Units[1]	Trip Rate[2]	Daily Trips	AM Peak-Hour % of ADT[2]	AM Peak-Hour In:Out Ratio[2]	AM Peak-Hour In	AM Peak-Hour Out	AM Peak-Hour Total	PM Peak-Hour % of ADT[2]	PM Peak-Hour In:Out Ratio[2]	PM Peak-Hour In	PM Peak-Hour Out	PM Peak-Hour Total
Cumulative Trips[3]														
GVCH Medical Office Building	Medical-Dental Office Building	10.8 ksf	32.5 / ksf	350	6%	0.79 : 0.21	18	4	22	10%	0.27 : 0.73	9	25	34
Villages at Los Carneros	Apartment	465.0 du	6.5 / du	2,999	8%	0.20 : 0.80	46	184	230	9%	0.65 : 0.35	182	98	280
Harvest Hill Ranch	Single-Family Detached Housing	6.0 du	9.3 / du	56	8%	0.25 : 0.75	1	3	4	11%	0.63 : 0.37	4	2	6
Investec	Warehousing	111.1 ksf	3.6 / ksf	396	8%	0.79 : 0.21	26	7	33	9%	0.25 : 0.75	9	27	36
Pacific Beverage	Warehousing	97.0 ksf	3.6 / ksf	345	8%	0.79 : 0.21	23	6	29	9%	0.25 : 0.75	8	23	31
Direct Relief HQ + Warehouse	Warehousing	130.3 ksf	3.6 / ksf	464	8%	0.79 : 0.21	31	8	39	9%	0.25 : 0.75	10	32	42
	Single Tenant Office Building (1)	27.9 ksf	11.7 / ksf	325	15%	0.89 : 0.11	45	5	50	15%	0.15 : 0.85	7	41	48
Airport Industrial Project	General Light Industrial	42.0 ksf	6.8 / ksf	287	13%	0.88 : 0.12	33	5	38	14%	0.12 : 0.88	5	35	40
	Specialty Retail Center	6.0 ksf	39.9 / ksf	241	15%	0.48 : 0.52	18	19	37	6%	0.44 : 0.56	6	9	15
	Fast-Food Restaurant w/o D.T - Coffee/Donut	2.0 ksf	470.2 / ksf	941	14%	0.51 : 0.49	66	64	130	5%	0.50 : 0.50	24	25	49
Chrysler Auto Dealership	New Car Sales	49.3 ksf	32.3 / ksf	1,593	6%	0.74 : 0.26	70	25	95	8%	0.39 : 0.61	50	79	129
Fairview Commercial Center	Specialty Retail Center	8.8 ksf	39.9 / ksf	349	15%	0.48 : 0.52	26	28	54	6%	0.44 : 0.56	9	12	21
	General Office Building (1)	6.2 ksf	10.6 / ksf	66	14%	0.88 : 0.12	8	1	9	14%	0.17 : 0.83	2	7	9
	Apartment	2.0 du	6.5 / du	13	8%	0.20 : 0.80	0	1	1	9%	0.65 : 0.35	1	0	1
Islamic Society of Santa Barbara	Church	6.2 ksf	8.1 / ksf	50	6%	0.62 : 0.38	2	1	3	6%	0.48 : 0.52	1	2	3
Schwann Self Storage	Warehousing	111.7 ksf	3.6 / ksf	398	8%	0.79 : 0.21	26	8	34	9%	0.25 : 0.75	9	27	36
Marriott Residence Inn	Hotel	118.0 rm	7.8 / rm	925	7%	0.61 : 0.39	39	24	63	7%	0.53 : 0.47	35	32	67
Somera Medical Office Building	Medical-Dental Office Building	20.0 ksf	32.5 / ksf	650	6%	0.79 : 0.21	33	8	41	10%	0.27 : 0.73	17	45	62
Old Town Village	Residential Condominium/Townhouse	175.0 du	5.6 / du	987	8%	0.17 : 0.83	13	62	75	9%	0.67 : 0.33	59	29	88
Old Town Industrial Center	General Light Industrial	186.8 ksf	6.8 / ksf	1,276	13%	0.88 : 0.12	148	20	168	14%	0.12 : 0.88	21	157	178
	General Office Building (1)	5.1 ksf	10.6 / ksf	54	14%	0.88 : 0.12	7	1	8	14%	0.17 : 0.83	1	6	7
Heritage Ridge	Apartment	228.0 du	6.5 / du	1,471	8%	0.20 : 0.80	23	90	113	9%	0.65 : 0.35	89	48	137
	Senior Adult Housing-Attached	132.0 Occ. du	3.4 / Occ. du	446	4%	0.36 : 0.64	6	11	17	5%	0.60 : 0.40	12	9	21
NET TRIP GENERATION =				**14,681**			**708**	**585**	**1,293**			**570**	**770**	**1,340**

Note:
1. ksf = Thousand Square Feet
2. Trip rates references from ITE Trip Generation, 9th Edition. Pass-by trips excluded from trip rates.
3. Cumulative trips are the total trips generated by the site exclusive of pass-by trips already on the roadway.

K:\SND_TPTO\095966000 - SB Airport\Excel\[966000TG01.xlsm]Summary (New)

Santa Barbara Airport

1 Los Carneros Rd ⇩ 5% US 101 NB Ramps ⇨ 60% ⇧ (5%)	**2** Los Carneros Rd ⇩ 65% US 101 SB Ramps ⇧ (5%) ⇨ (60%)	**3** Los Carneros Rd ⇩ 65% Calle Koral ⇧ (65%)	**4** Los Carneros Rd ⇨ 65% Hollister Ave ⇨ (65%)
5 Los Carneros Wy Hollister Ave	**6** Fairview Ave Calle Real	**7** Fairview Ave Fairview Ave US 101 NB Ramps US 101 NB Ramps	**8** Fairview Ave US 101 SB Ramps
9 Fairview Ave Hollister Ave	**10** SR 217 WB Ramp Hollister Ave	**11** SR 217 EB Ramp Hollister Ave	**12** Kellogg Ave Hollister Ave



Legend

X% / (Y%) = IN / OUT PERCENT DISTRIBUTION

NOT TO SCALE

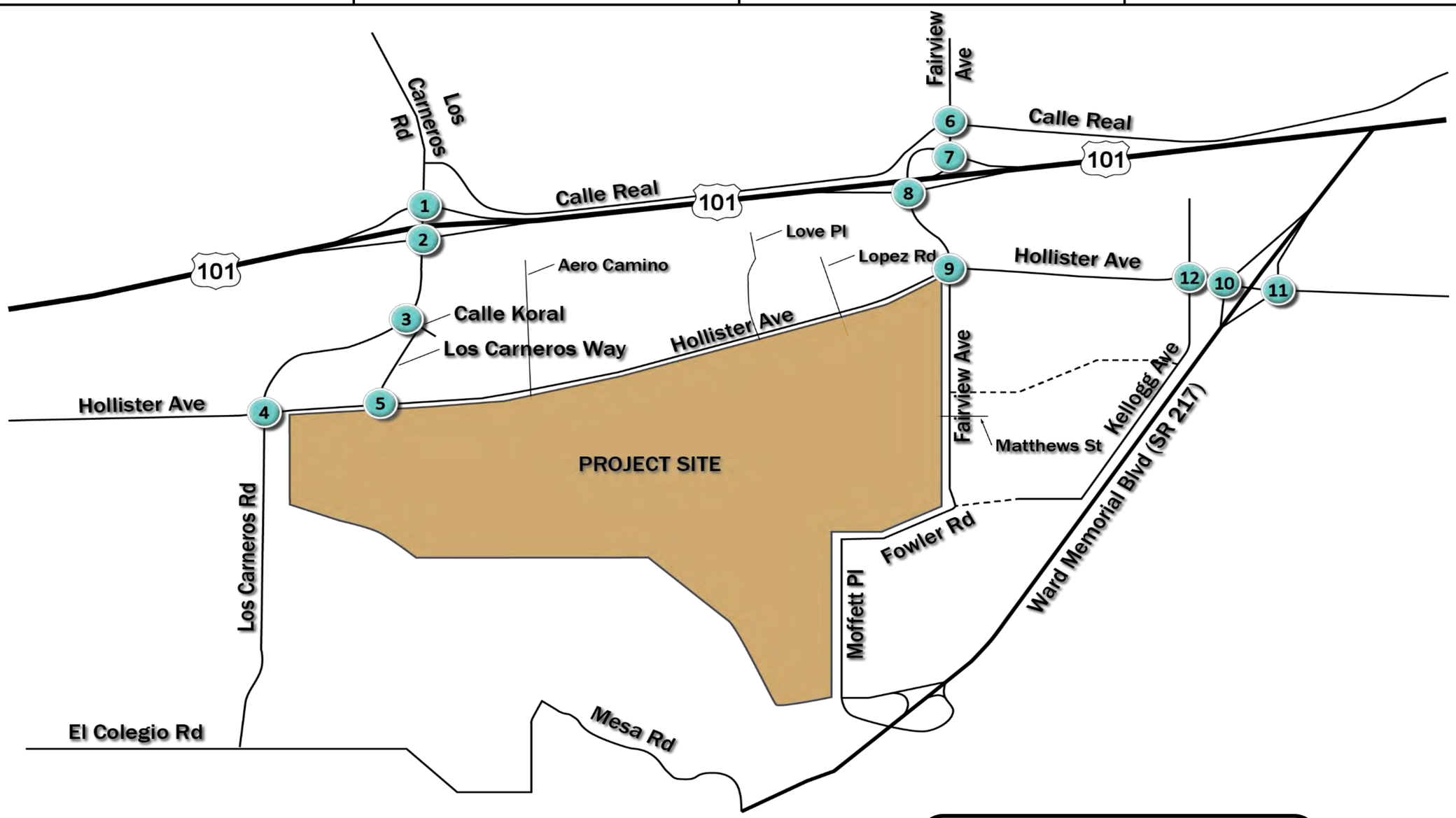
Kimley»Horn

Appendix D

Area-1 Project Trip Distribution

K:\SND_TPTO\095966000 - SB Airport\Excel\[Airport ADT.xlsx]Area1 Dist Figure 1-16

1 Los Carneros Rd ⇦ (30%) ⇩ (65%) US 101 NB Ramps ⇨ 60% ⇧ 35%	**2** Los Carneros Rd ⇩ (5%) ⇨ (60%) US 101 SB Ramps 30% ⇨ ⇧ 5%	**3** Los Carneros Rd ⇩ (5%) Calle Koral ⇧ 5%	**4** Los Carneros Rd ⇩ (5%) Hollister Ave ⇧ 5%
5 Los Carneros Wy Hollister Ave	**6** Fairview Ave Calle Real	**7** Fairview Ave Fairview Ave US 101 NB Ramps US 101 NB Ramps	**8** Fairview Ave US 101 SB Ramps
9 Fairview Ave Hollister Ave	**10** SR 217 WB Ramp Hollister Ave	**11** SR 217 EB Ramp Hollister Ave	**12** Kellogg Ave Hollister Ave



Legend

X% / (Y%) = IN / OUT PERCENT DISTRIBUTION

NOT TO SCALE

Kimley»Horn

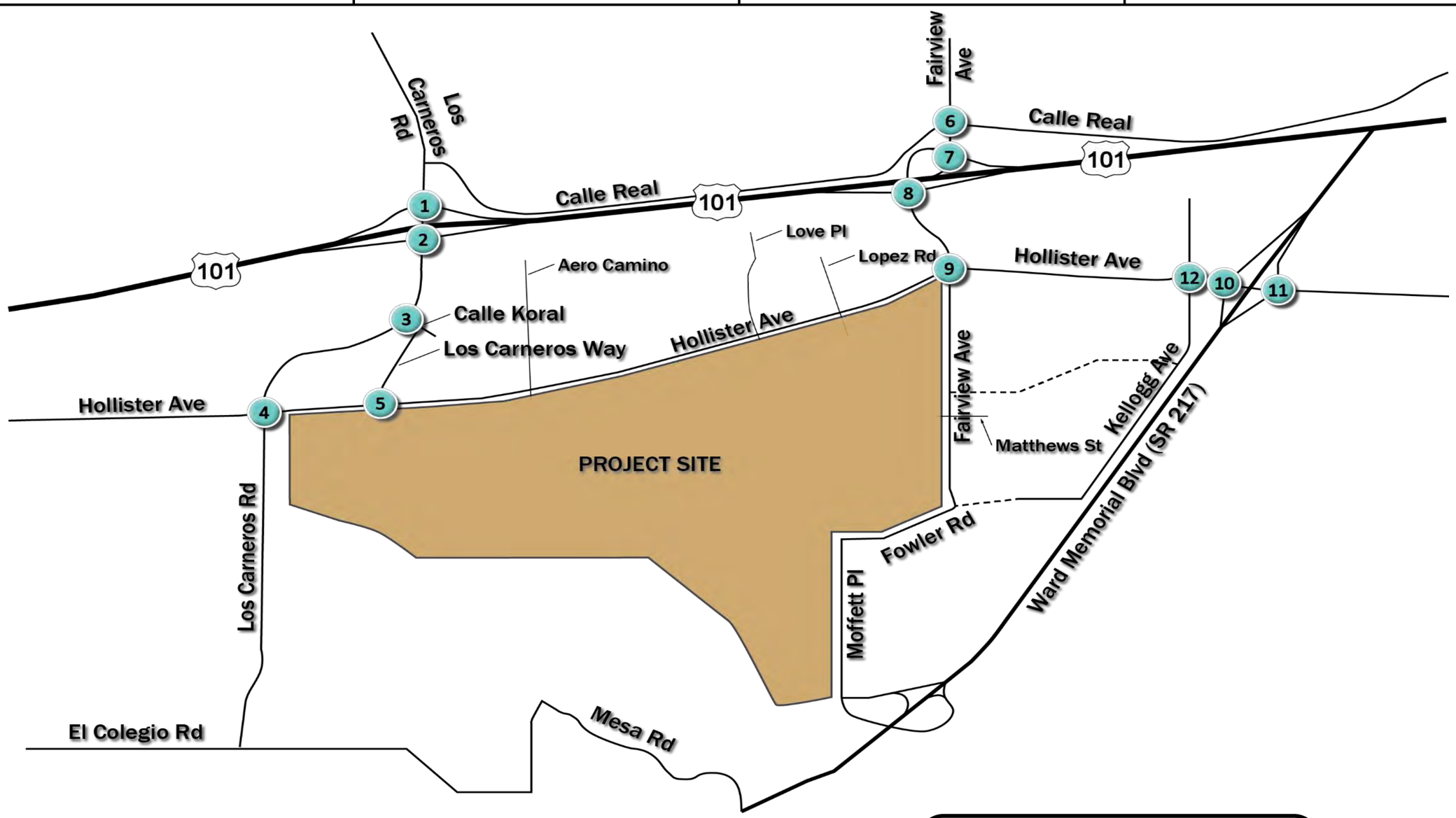
Appendix D

Area-2 Project Trip Distribution

K:\SND_TPTO\095966000 - SB Airport\Excel\[Airport ADT.xlsx]Area2 Dist Figure 1-16

Santa Barbara Airport

1 Los Carneros Rd / US 101 NB Ramps: 55%	**2** Los Carneros Rd / US 101 SB Ramps: 55%	**3** Los Carneros Rd / Calle Koral: 85%	**4** Los Carneros Rd / Hollister Ave: (5%) (10%)
(30%)	30%	(85%)	5% / 10%
5 Los Carneros Wy / Hollister Ave	**6** Fairview Ave / Calle Real	**7** Fairview Ave / US 101 NB Ramps; Fairview Ave / US 101 NB Ramps	**8** Fairview Ave / US 101 SB Ramps
9 Fairview Ave / Hollister Ave	**10** SR 217 WB Ramp / Hollister Ave	**11** SR 217 EB Ramp / Hollister Ave	**12** Kellogg Ave / Hollister Ave



Legend

X% / (Y%) = IN / OUT PERCENT DISTRIBUTION

NOT TO SCALE

Kimley»Horn

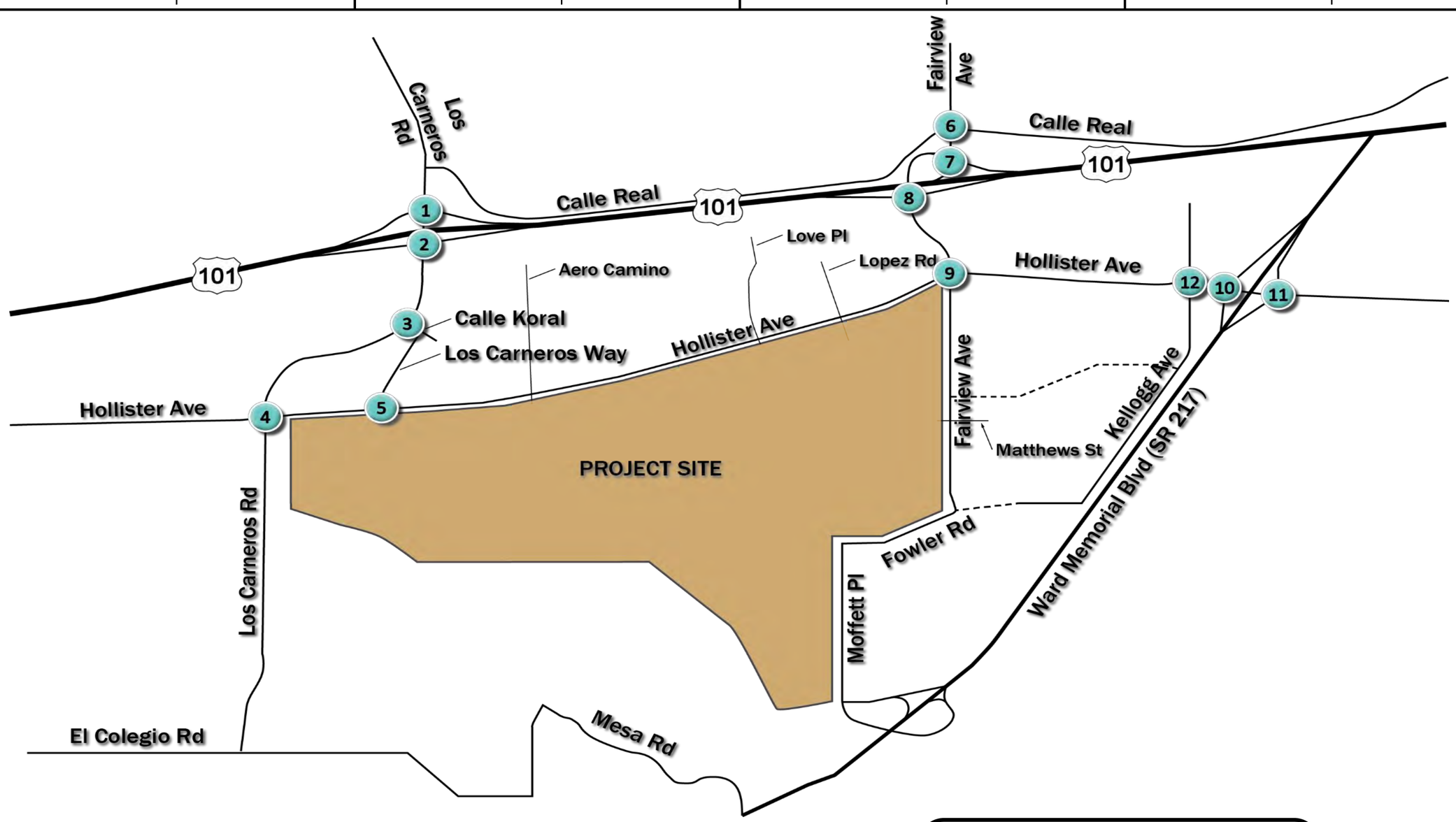
Appendix D

Area-3 Project Trip Distribution

K:\SND_TPTO\095966000 - SB Airport\Excel\[Airport ADT.xlsx]Area3 Dist Figure 1-16

Santa Barbara Airport

1 Los Carneros Rd: ⇩ 5%	US 101 NB Ramps: ⇨ 20%		US 101 NB Ramps: (20%) ⇨, (5%) ⇧
2 Los Carneros Rd: ⇩ 25%	US 101 SB Ramps	Los Carneros Rd: 20% ⇨	US 101 SB Ramps: (25%) ⇧, (20%) ⇨
3 Los Carneros Rd: ⇦ 20%, ⇨ 25%	Calle Koral: ⇨ (25%)	Los Carneros Rd: (20%) ⇧	Calle Koral
4 Los Carneros Rd: ⇨ 20%	Hollister Ave: ⇨ (20%), ⇦ (5%), ⇨ (5%)	Los Carneros Rd: 5% ⇨	Hollister Ave: ⇨ 5%
5 Los Carneros Wy: ⇨ 25%	Hollister Ave: ⇨ (25%), ⇦ (30%)	Los Carneros Wy: 30% ⇨	Hollister Ave
6 Fairview Ave	Calle Real	Fairview Ave	Calle Real
7 Fairview Ave	US 101 NB Ramps: ⇦ 20%	Fairview Ave	US 101 NB Ramps
8 Fairview Ave: ⇩ 20%	US 101 SB Ramps	Fairview Ave	US 101 SB Ramps: (20%) ⇨
9 Fairview Ave: ⇨ 20%	Hollister Ave: ⇦ 25%	Fairview Ave: (20%) ⇨, (25%) ⇨	Hollister Ave
10 SR 217 WB Ramp	Hollister Ave: ⇦ 25%	SR 217 WB Ramp: (25%) ⇨	Hollister Ave
11 SR 217 EB Ramp	Hollister Ave: ⇦ 25%	SR 217 EB Ramp: (25%) ⇨	Hollister Ave
12 Kellogg Ave	Hollister Ave: ⇦ 25%	Kellogg Ave: (25%) ⇨	Hollister Ave



Legend

X% / (Y%) = IN / OUT PERCENT DISTRIBUTION

NOT TO SCALE

Kimley»Horn

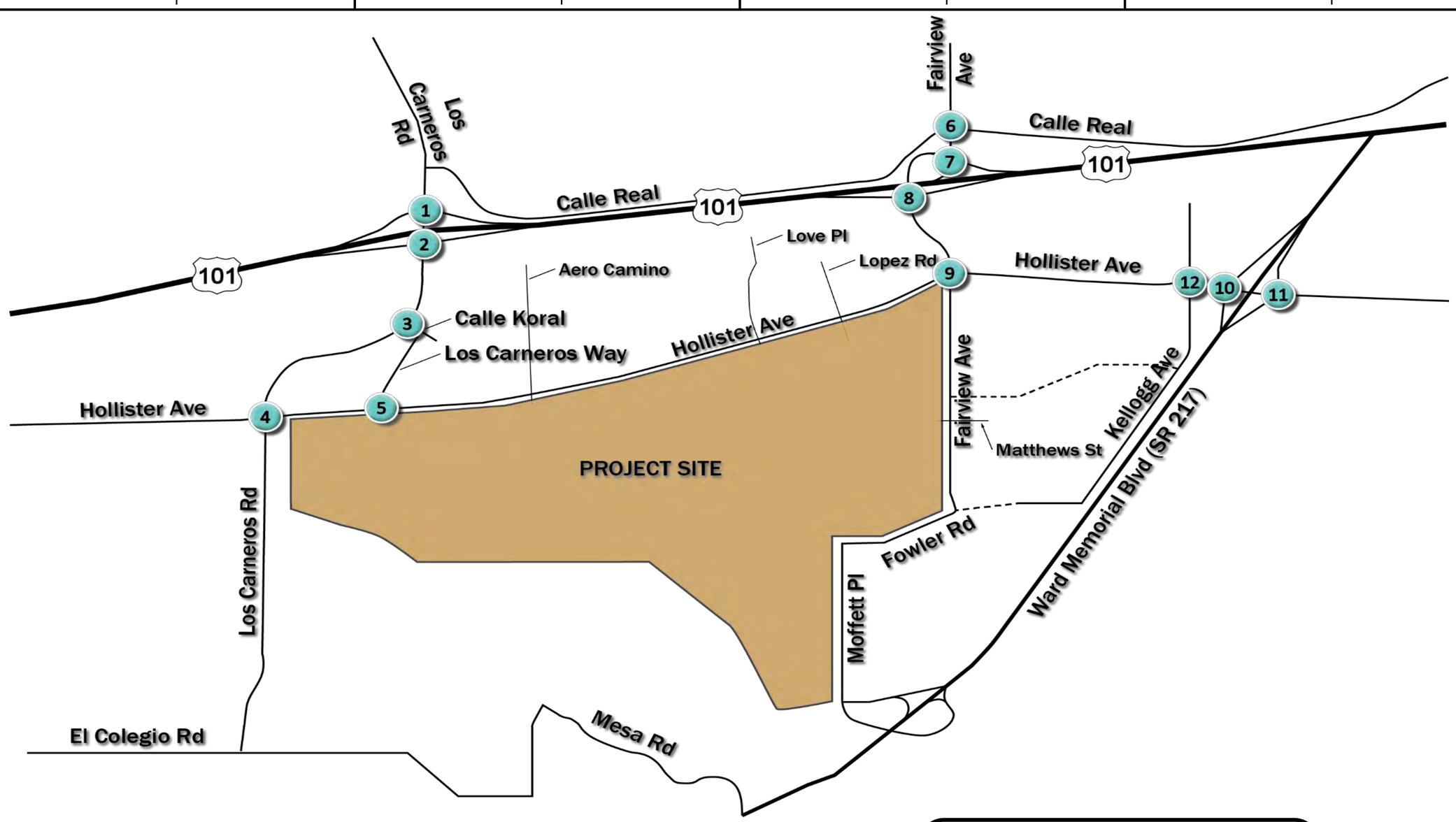
Appendix D

Area-4 Project Trip Distribution

K:\SND_TPTO\095966000 - SB Airport\Excel\[Airport ADT.xlsx]Area4 Dist Figure 1-16

Santa Barbara Airport

1 Los Carneros Rd ⇨ 30% US 101 NB Ramps	**2** ⇩ 30% Los Carneros Rd US 101 SB Ramps (30%) ⇧ (30%) ⇨	**3** ⇩ 30% Los Carneros Rd Calle Koral (30%) ⇧	**4** ⇧ 30% Los Carneros Rd ⇨ (30%) ⇨ (5%) Hollister Ave ⇨ 5%
5 Los Carneros Wy ⇦ (35%) Hollister Ave 35% ⇨	**6** Fairview Ave Calle Real	**7** Fairview Ave Fairview Ave ⇦ 30% US 101 NB Ramps US 101 NB Ramps	**8** ⇩ 30% Fairview Ave US 101 SB Ramps (30%) ⇨
9 ⇨ 30% Fairview Ave ⇦ 35% Hollister Ave (30%) ⇨ (35%) ⇨	**10** ⇨ 30% SR 217 WB Ramp ⇦ 5% Hollister Ave (35%) ⇨	**11** SR 217 EB Ramp ⇦ 5% Hollister Ave (30%) ⇨ (5%) ⇨	**12** Kellogg Ave ⇦ 35% Hollister Ave (35%) ⇨



Legend

X% / (Y%) = IN / OUT PERCENT DISTRIBUTION

NOT TO SCALE

Kimley»Horn

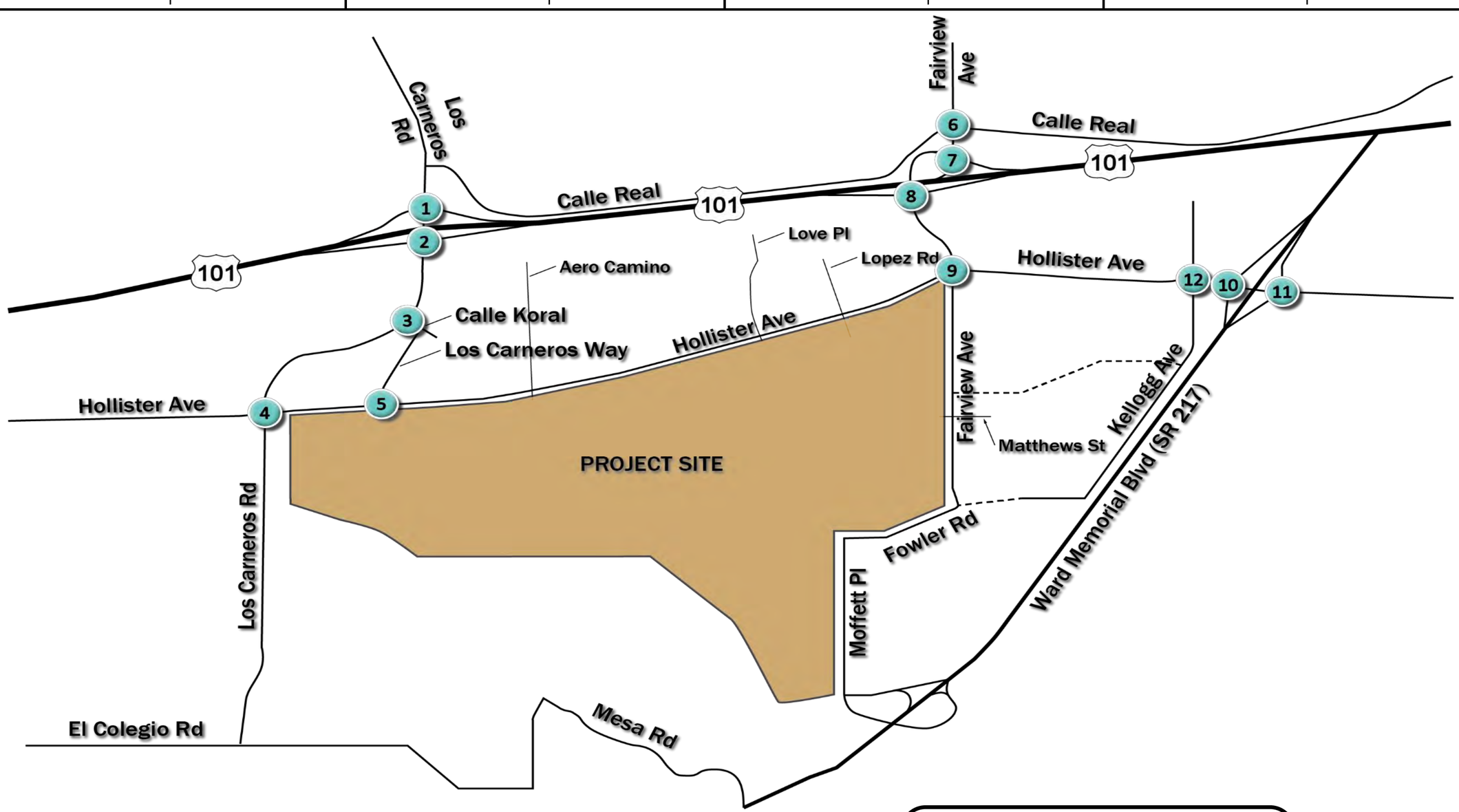
Appendix D

Area-5 Project Trip Distribution

K:\SND_TPTO\095966000 - SB Airport\Excel\[Airport ADT.xlsx]Area5 Dist Figure 1-16

Santa Barbara Airport

1 Los Carneros Rd US 101 NB Ramps	**2** Los Carneros Rd US 101 SB Ramps	**3** Los Carneros Rd Calle Koral	**4** Los Carneros Rd Hollister Ave 5% ⇨
5 Los Carneros Wy ⇦ (5%) Hollister Ave 5% ⇨	**6** Fairview Ave Calle Real	**7** Fairview Ave Fairview Ave US 101 NB Ramps (25%) ⬁	**8** Fairview Ave US 101 SB Ramps 25% ⬁ (25%) ⇧
9 ⇩ 10% ⬀ 15% Fairview Ave ⬀ (15%) ⇦ (5%) Hollister Ave 5% ⇨ (10%) ⇧	**10** ⬁ 60% SR 217 WB Ramp ⇦ 10% Hollister Ave (70%) ⇨	**11** SR 217 EB Ramp ⇦ 10% Hollister Ave (60%) ⬀ (10%) ⇨	**12** Kellogg Ave ⬁ 70% Hollister Ave (70%) ⬀



Legend

X% / (Y%) = IN / OUT PERCENT DISTRIBUTION

NOT TO SCALE

Kimley»Horn

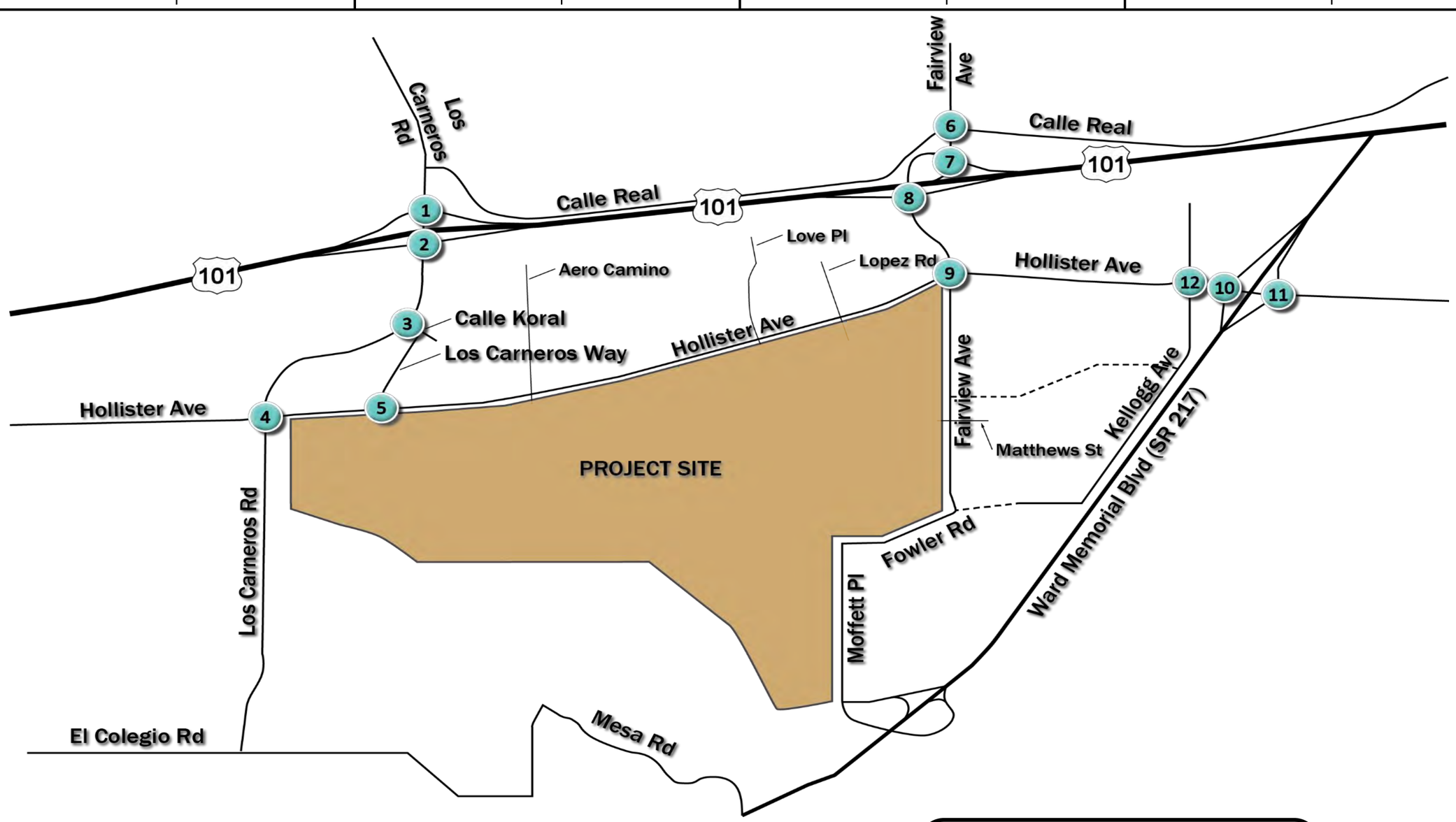
Appendix D

Area-6 Project Trip Distribution

K:\SND_TPTO\095966000 - SB Airport\Excel\[Airport ADT.xlsx]Area6 Dist Figure 1-16

Santa Barbara Airport

1 ⇩ 5% Los Carneros Rd US 101 NB Ramps ⇧ (5%)	**2** ⇩ 5% Los Carneros Rd US 101 SB Ramps ⇧ (5%)	**3** ⇨ 5% Los Carneros Rd ⇦ (5%) Calle Koral	**4** Los Carneros Rd Hollister Ave 5% ⇨
5 ⇨ 5% Los Carneros Wy ⇦ (5%) ⇦ (5%) Hollister Ave 5% ⇨	**6** ⇩ 5% Fairview Ave Calle Real ⇧ (5%)	**7** ⇨ 5% Fairview Ave Fairview Ave US 101 NB Ramps ⇦ (5%) ⇨ (15%) US 101 NB Ramps	**8** ⇩ 5% Fairview Ave US 101 SB Ramps 15% ⇨ ⇧ (20%)
9 ⇨ 20% Fairview Ave ⇦ (20%) ⇦ (10%) Hollister Ave 10% ⇨	**10** ⇨ 40% SR 217 WB Ramp ⇦ (30%) Hollister Ave 30% ⇨	**11** SR 217 EB Ramp ⇦ (40%) ⇦ (30%) Hollister Ave 70% ⇨	**12** Kellogg Ave ⇦ (30%) Hollister Ave 30% ⇨



Legend

X% / (Y%) = IN / OUT PERCENT DISTRIBUTION

NOT TO SCALE

Kimley»Horn

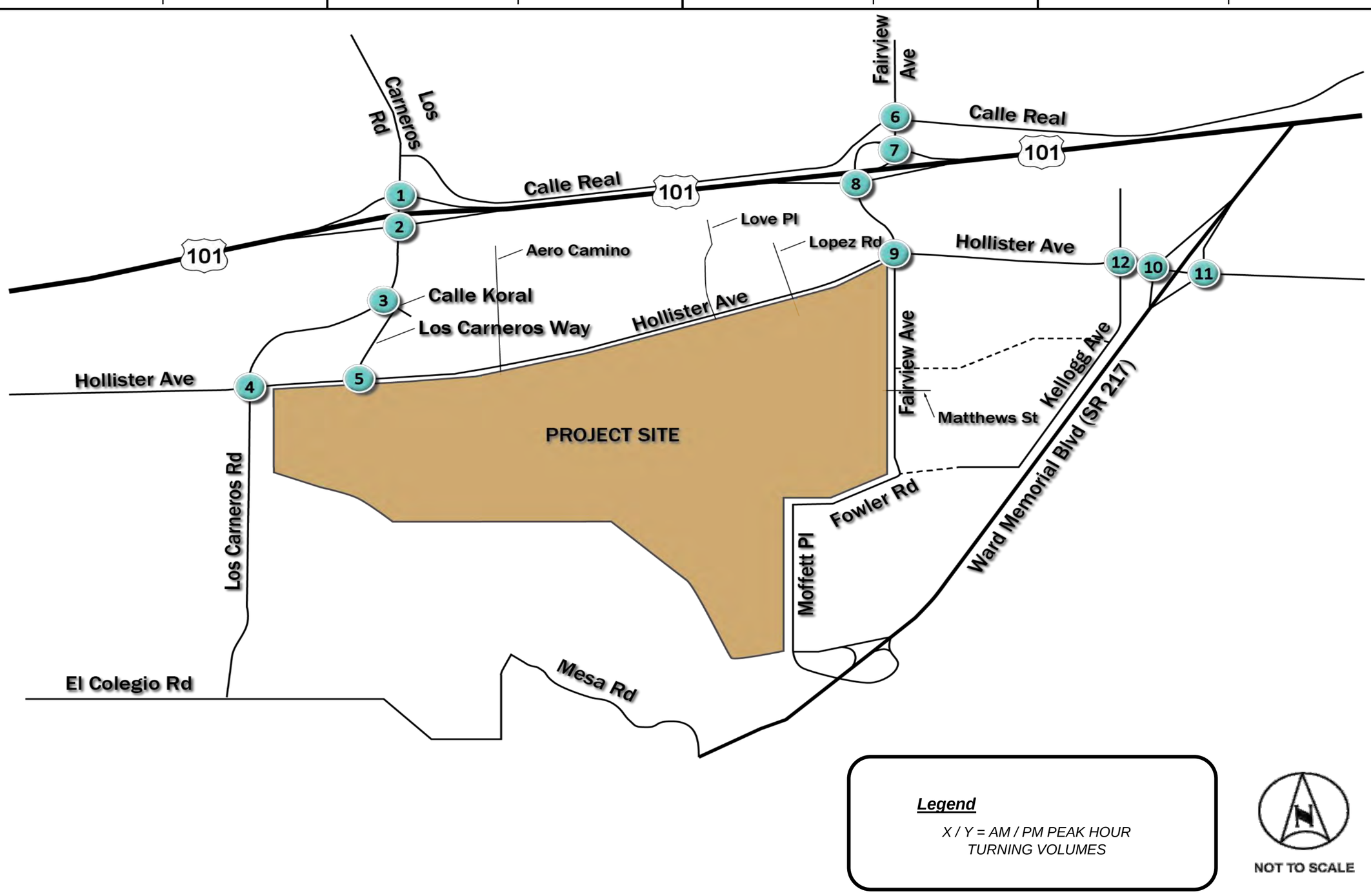
Appendix D

Area-7 Project Trip Distribution

K:\SND_TPTO\095966000 - SB Airport\Excel\[Airport ADT.xlsx]Area7 Dist Figure 1-16

Santa Barbara Airport

1	Los Carneros Rd: 4 / 2	US 101 NB Ramps: 1 / 1; 11 / 3	US 101 NB Ramps: 2 / 5
2	Los Carneros Rd: 14 / 4; 1 / 1	US 101 SB Ramps	Los Carneros Rd: 1 / 1
		US 101 SB Ramps: 1 / 4; 2 / 10	
3	Los Carneros Rd: 12 / 3; 2 / 1	Calle Koral: 1 / 3	Los Carneros Rd: 2 / 10
4	Los Carneros Rd: 12 / 3	Hollister Ave	Los Carneros Rd: 2 / 10; 2 / 1
5	Los Carneros Wy: 2 / 1	Hollister Ave: 1 / 3; 1 / 3	Los Carneros Wy: 2 / 1
6	Fairview Ave: 2 / 1	Calle Real	Fairview Ave
		Calle Real: 1 / 3	
7	Fairview Ave: 2 / 1	US 101 NB Ramps	Fairview Ave: 1 / 3; 2 / 8
			US 101 NB Ramps
8	Fairview Ave: 2 / 1	US 101 SB Ramps	Fairview Ave: 5 / 3
		US 101 SB Ramps: 2 / 10	
9	Fairview Ave: 7 / 4	Hollister Ave: 2 / 10; 1 / 5	Fairview Ave: 4 / 2
10	SR 217 WB Ramp: 14 / 8	Hollister Ave: 3 / 15	SR 217 WB Ramp: 11 / 6
11	SR 217 EB Ramp	Hollister Ave: 4 / 20; 3 / 15	SR 217 EB Ramp: 25 / 13
12	Kellogg Ave	Hollister Ave: 1 / 0	Kellogg Ave: 0 / 1



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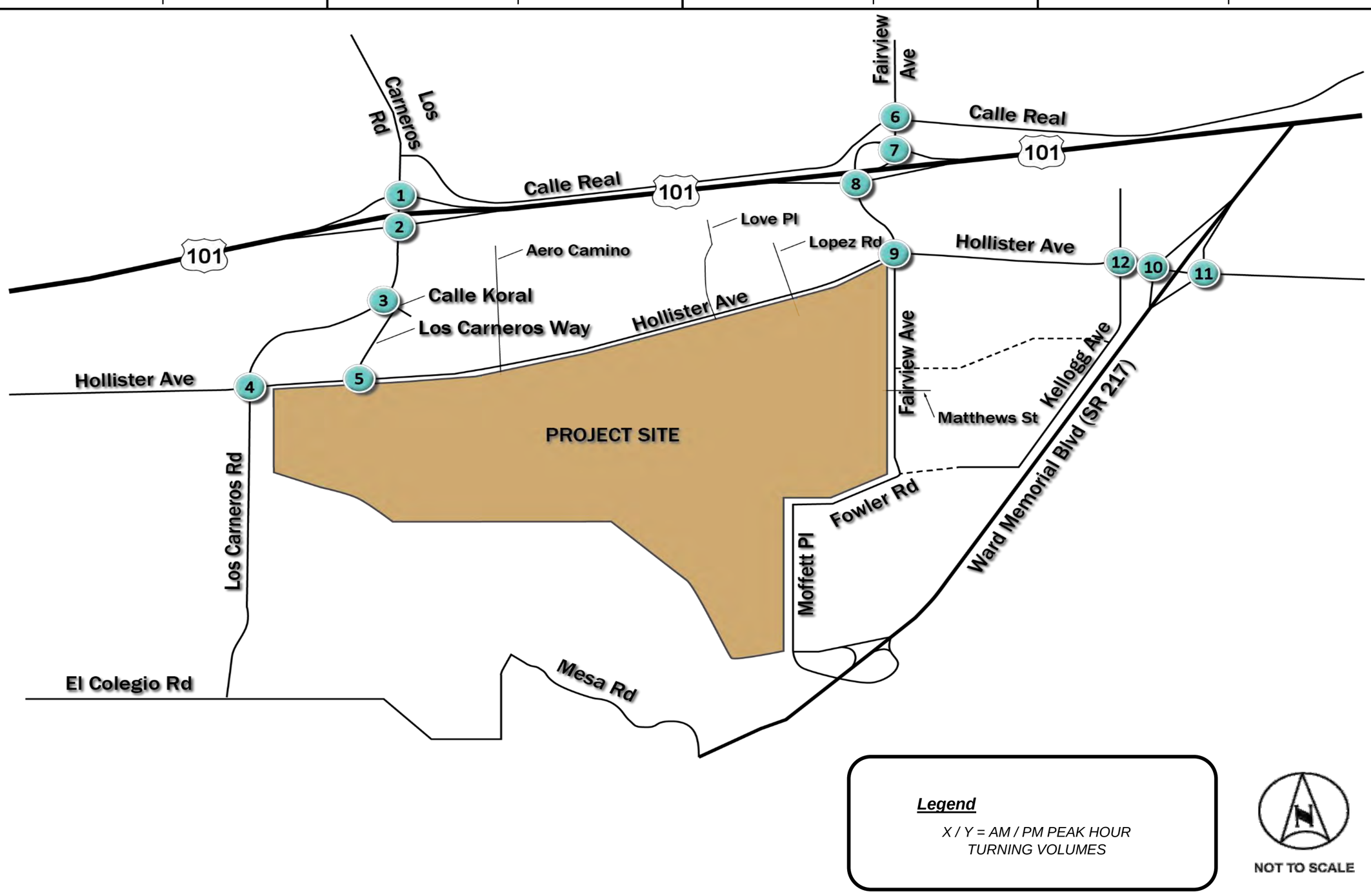
Appendix D

Intermediate Term (2022) Cumulative Projects - Trip Assignment

K:\SND_TPTO\095966000 - SB Airport\Excel\[Airport ADT.xlsx]IT Cumulative Figure 1-16

Santa Barbara Airport

1	Los Carneros Rd: ⇦ 1 / 5, ⇩ 2 / 10	US 101 NB Ramps: ⇦ 7 / 4, ⇦ 47 / 146	⇦ 57 / 30, ⇧ 4 / 2
2	Los Carneros Rd: ⇩ 47 / 147, ⇦ 2 / 9	US 101 SB Ramps	3 / 2, ⇦; 14 / 56, ⇦; ⇧ 97 / 57, ⇦ 144 / 83
3	Los Carneros Rd: ⇩ 61 / 203	Calle Koral	⇧ 202 / 113
4	Los Carneros Rd: ⇦ 10 / 5, ⇩ 19 / 11, ⇦ 21 / 43	Hollister Ave: ⇦ 39 / 27, ⇦ 7 / 5	2 / 9, ⇦; 9 / 4, ⇨; ⇧ 6 / 19, ⇦ 3 / 7
5	Los Carneros Wy	Hollister Ave: ⇦ 50 / 42	33 / 54, ⇨
6	Fairview Ave	Calle Real	
7	Fairview Ave	US 101 NB Ramps: ⇦ 21 / 43	22 / 49, ⇦ US 101 NB Ramps
8	Fairview Ave: ⇩ 21 / 43	US 101 SB Ramps	43 / 21, ⇦; ⇧ 22 / 49, ⇦ 39 / 27
9	Fairview Ave: ⇦ 21 / 43, ⇩ 17 / 8, ⇦ 26 / 13	Hollister Ave: ⇦ 13 / 29, ⇦ 28 / 60	39 / 27, ⇦; 55 / 36, ⇨; ⇧ 9 / 20
10	SR 217 WB Ramp: ⇦ 124 / 93	Hollister Ave: ⇦ 20 / 15	106 / 169, ⇨
11	SR 217 EB Ramp	Hollister Ave: ⇦ 20 / 15	91 / 145, ⇦; 16 / 25, ⇨
12	Kellogg Ave	Hollister Ave	



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Appendix D

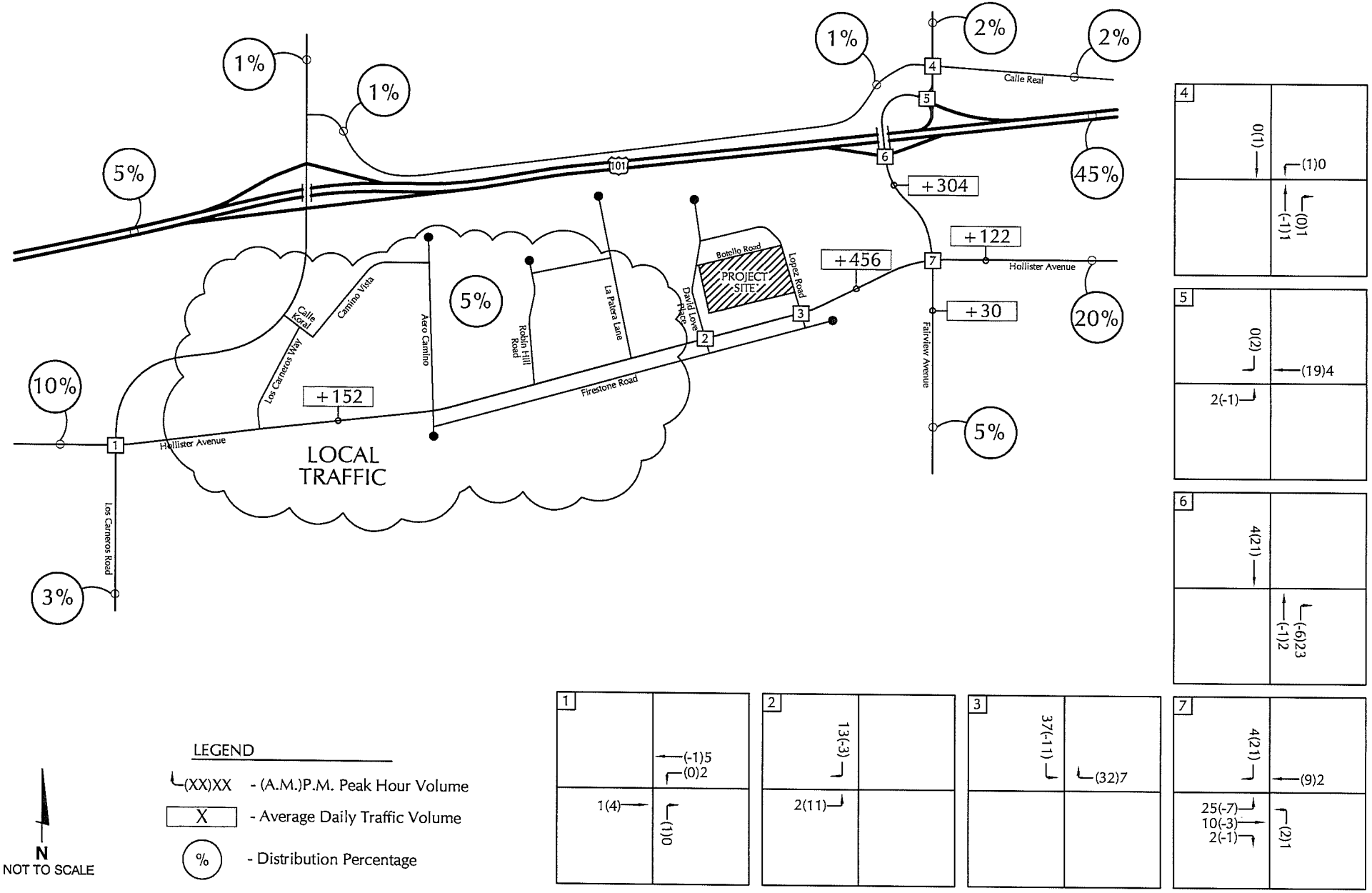
Long Term (2032) Cumulative Projects - Trip Assignment

K:\SND_TPTO\095966000 - SB Airport\Excel\[Airport ADT.xlsx]LT Cumulative Figure 1-16

Associated Transportation Engineers
Trip Generation Worksheet - With In/Out Splits

DIRECT RELIEF INTERNATIONAL PROJECT (#15046)																
Land-Use	Size	Multi-Trip	ADT		A.M.						P.M.					
			Rate	Trips	Rate	Trips	In %	Trips	Out %	Trips	Rate	Trips	In %	Trips	Out %	Trips
OFFICE (SINGLE TENANT)	27,904	1.00	11.65	325	1.800	50	89%	45	11%	5	1.74	49	15%	7	85%	42
WAREHOUSE	130,279	1.00	3.46	451	0.300	39	79%	31	21%	8	0.32	42	25%	11	75%	31
TOTAL PROJECT TRIPS:				**776**		**89**		**76**		**13**		**91**		**18**		**73**
-EXISTING SITE TRIPS:				*-168*		*-60*		*-33*		*-27*		*-32*		*-9*		*-23*
NET PROJECT TRIPS:				***608***		***29***		***43***		***-14***		***59***		***9***		***50***

- Existing ADT assumes P.M. peak hour factor of 19% (per ITE Manufacturing rates)



ASSOCIATED TRANSPORTATION ENGINEERS

PROJECT TRIP DISTRIBUTION AND ASSIGNMENT

FIGURE 5

MMF - #15046

Associated Transportation Engineers
Trip Generation Worksheet - With In/Out Splits

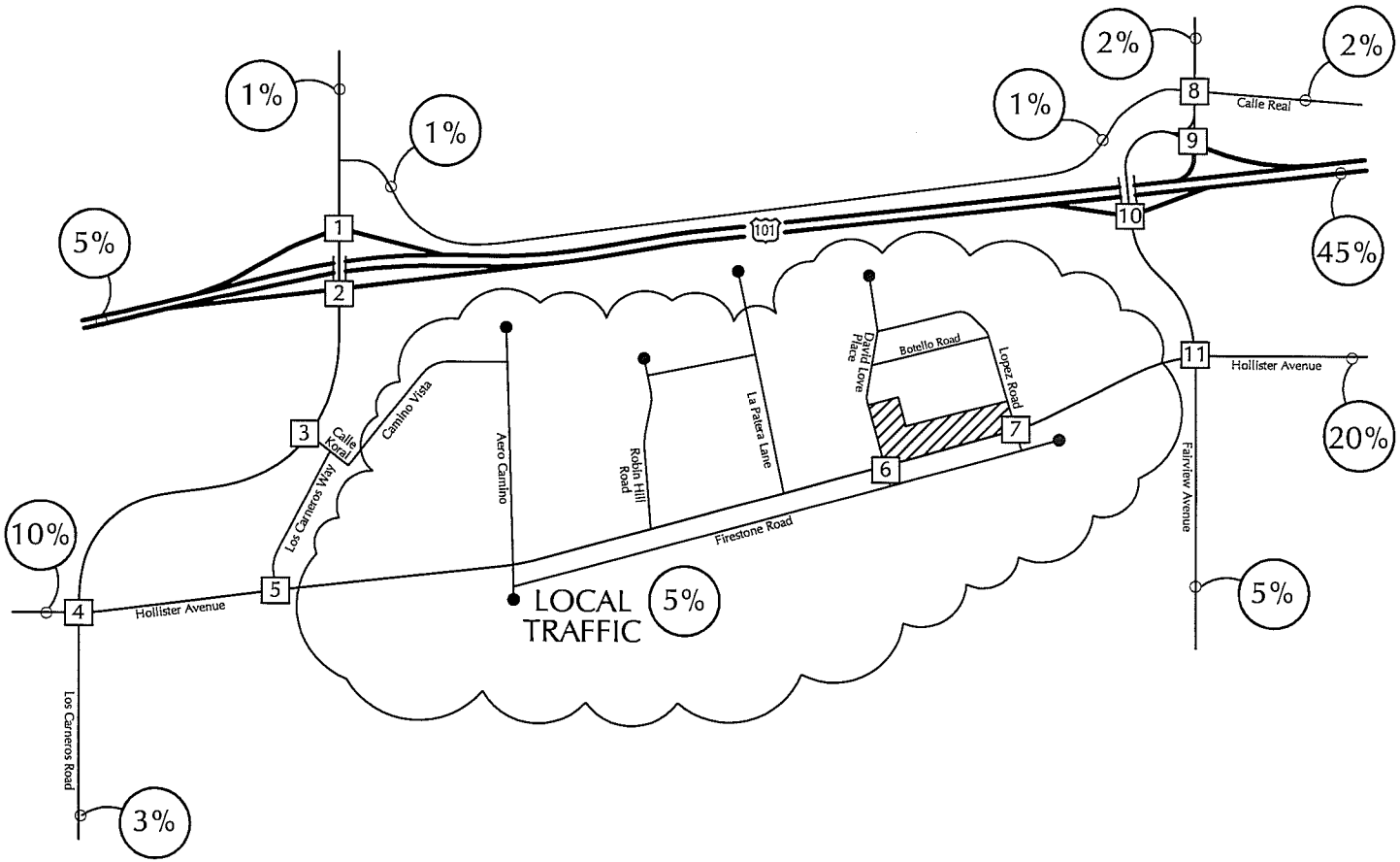
PHASE I & II SANTA BARBARA AIRPORT PARCEL (#16010)																	
Land-Use	Size	Multi-Trip	ADT		A.M.						P.M.						
			Rate	Trips	Rate	Trips	In %	Trips	Out %	Trips	Rate	Trips	In %	Trips	Out %	Trips
LIGHT INDUSTRIAL	42,004	1.00	6.97	293	0.92	39	88%	34	12%	5	0.97	41	12%	5	88%	36
SPECIALTY RETAIL (b)	6,040	1.00	44.32	268	1.33	8	48%	4	52%	4	2.71	16	44%	7	56%	9
COFFEE SHOP NO DRIVE-THROUGH (c)	2,002	1.00	783.65	1,569	108.38	217	51%	111	49%	106	40.75	82	50%	41	50%	41
TOTAL PROJECT TRIPS:				**2,130**		**264**		**149**		**115**		**139**		**53**		**86**

(a) ADT estimated based on Light Industrial peak hour factor (14%)
(b) No A.M. peak rate available. A.M. trips estimated based on SANDAG trip rates (3% of ADT)
(c) No ADT rate available. ADT based on ITE rates for coffee shop with drive-through

TRIP TYPE BREAKDOWN

		ADT	AM	AM In	AM out	PM	PM In	PM Out
INTERNAL								
COFFEE SHOP NO DRIVE-THROUGH		56 (a)	10 (b)	5 (b)	5 (b)	6 (c)	3 (c)	3 (c)
EXTERNAL TRIPS (REMAINDER)								
SPECIALTY RETAIL		268	8	4	4	16	7	9
COFFEE SHOP NO DRIVE-THROUGH		1,513	207	106	101	76	38	38
LIGHT INDUSTRIAL		293	39	34	5	41	5	36
TOTAL EXTERNAL TRIPS		**2,074**	**254**	**144**	**110**	**133**	**50**	**83**
PASS-BY (SANDAG)								
SPECIALTY RETAIL	10%	27	0	0	0	2	1	1
COFFEE SHOP NO DRIVE-THROUGH	40%	605	82	41	41	30	15	15
TOTAL PASS BY		**632**	**82**	**41**	**41**	**32**	**16**	**16**
PRIMARY								
LIGHT INDUSTRIAL		293	39	34	5	41	5	36
SPECIALTY RETAIL		241	8	4	4	14	6	8
COFFEE SHOP - NO DRIVE-THROUGH		908	125	65	60	46	23	23
TOTAL		**1,442**	**172**	**103**	**69**	**101**	**34**	**67**

(a) ADT for Light Industrial + Retail = 561 x 5% = 28 Trips. 28 Inbound + 28 Outbound = 56 ADT internal to site.
(b) A.M. for Light Industrial + Retail = 47 x 10% = 5 Trips. 5 Inbound + 5 Outbound = 10 A.M. trips internal to site.
(c) P.M. for Light Industrial + Retail = 57 x 5% = 3 Trips. 3 Inbound + 3 Outbound = 6 P.M. trips internal to site.



LEGEND

X - Average Daily Traffic Volume

% - Distribution Percentage

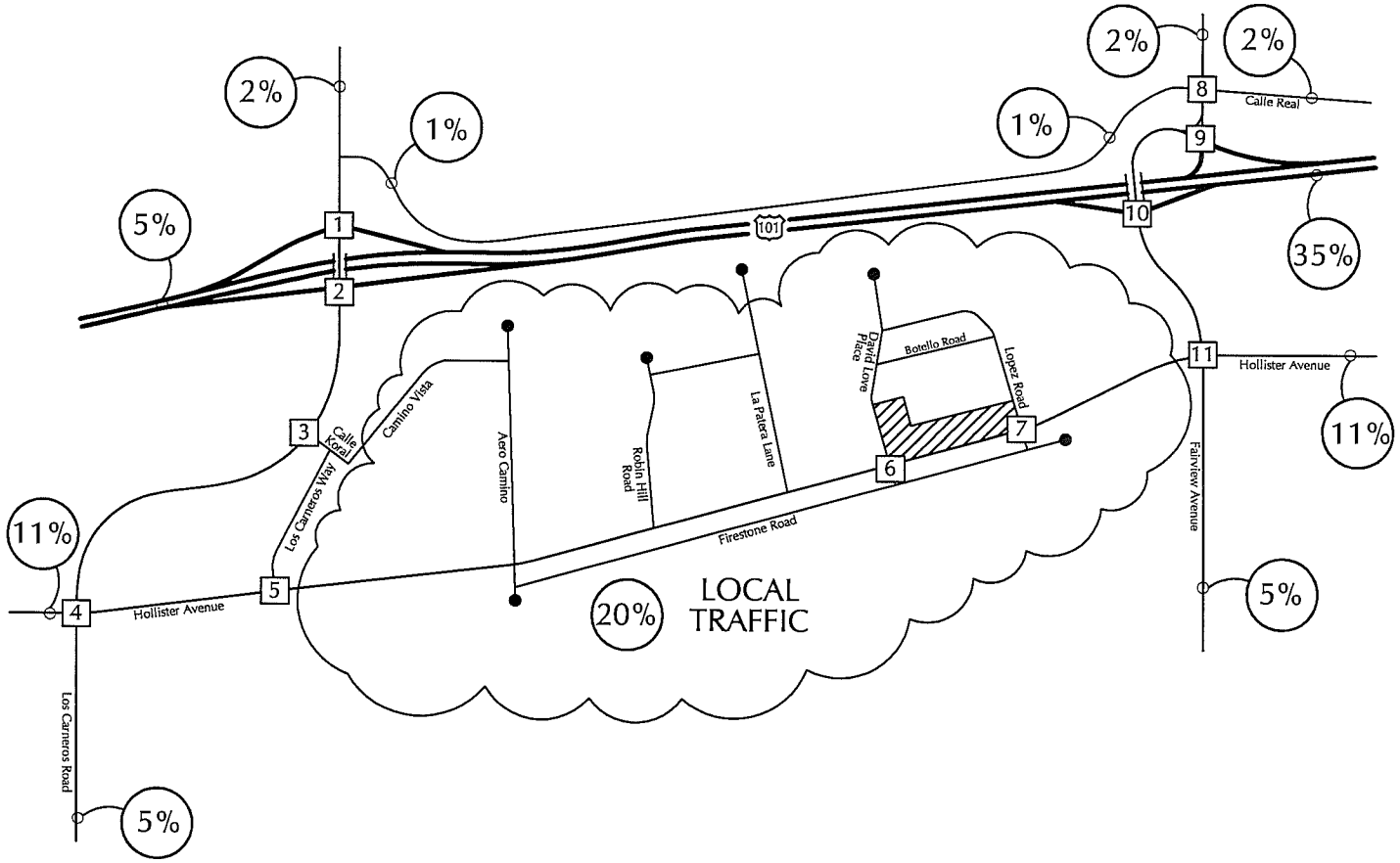
N
NOT TO SCALE

ASSOCIATED
TRANSPORTATION
ENGINEERS

PROJECT TRIP DISTRIBUTION - LIGHT INDUSTRIAL & RETAIL

FIGURE 5

EKM - #16010



LEGEND

X - Average Daily Traffic Volume

% - Distribution Percentage

N
NOT TO SCALE

ASSOCIATED
TRANSPORTATION
ENGINEERS

PROJECT TRIP DISTRIBUTION - COFFEE SHOP

FIGURE 6

EKM - #16010

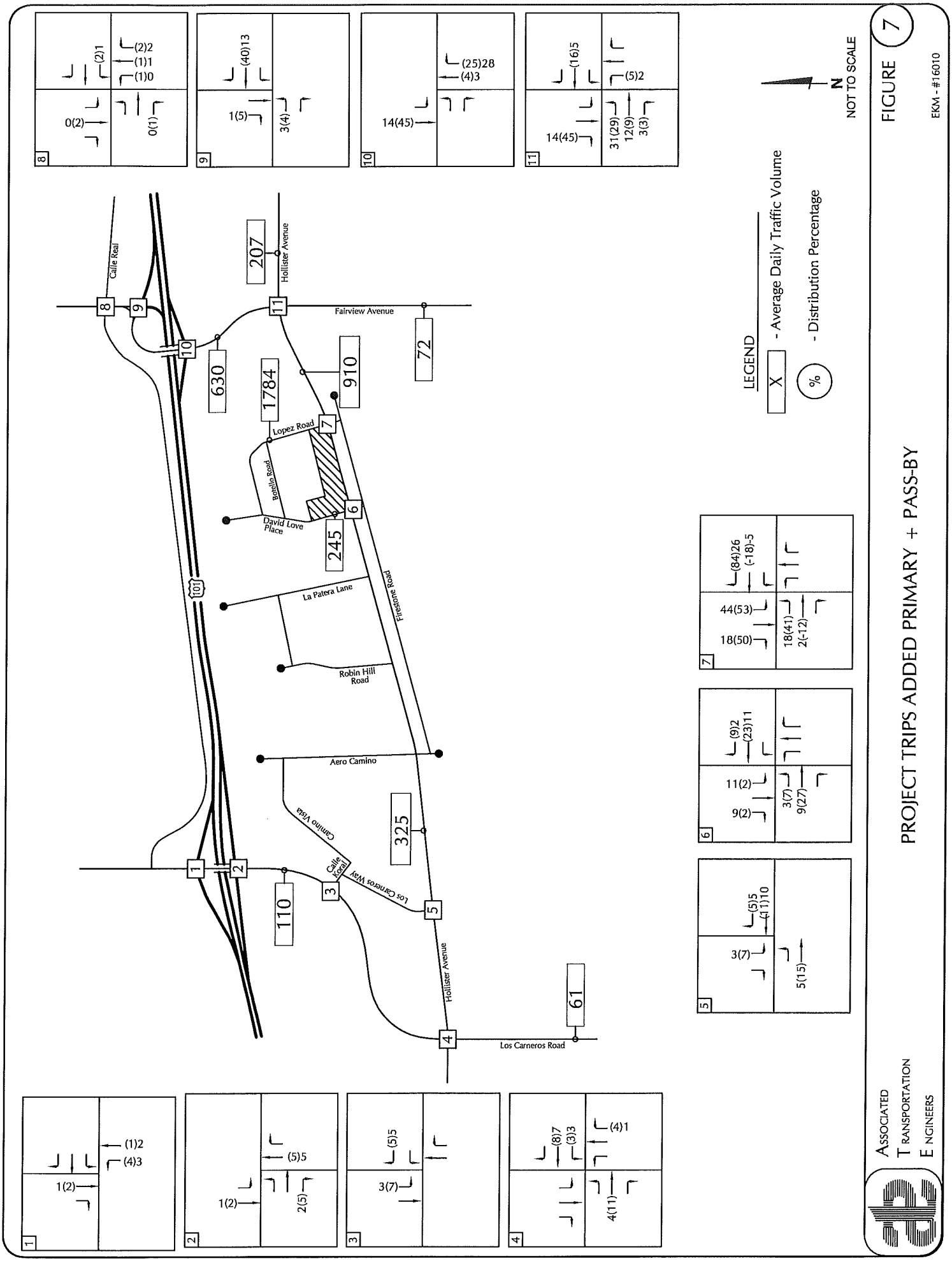


FIGURE 7
EKM - #16010
PROJECT TRIPS ADDED PRIMARY + PASS-BY
NOT TO SCALE
N
LEGEND
X - Average Daily Traffic Volume
% - Distribution Percentage
Hollister Avenue
Fairview Avenue
Calle Real
Lopez Road
Botello Road
David Love Place
La Patera Lane
Robin Hill Road
Firestone Road
Aero Camino
Camino Vista
Calle Koral
Los Carneros Way
Los Carneros Road
101
207
630
1784
910
72
245
325
110
61
(1)2
(4)3
1(2)
(5)5
1(2)
2(5)
(5)5
3(7)
(8)7
(3)3
(4)1
4(11)
(5)5
(11)10
3(7)
5(15)
(9)2
(23)11
11(2)
9(2)
3(7)
9(27)
(84)26
(-18)-5
44(53)
18(50)
18(41)
2(-12)
(2)1
(2)2
(1)1
(1)0
0(2)
0(1)
(40)13
1(5)
3(4)
(25)28
(4)3
14(45)
(16)5
(5)2
14(45)
31(29)
12(9)
3(3)
ASSOCIATED TRANSPORTATION ENGINEERS

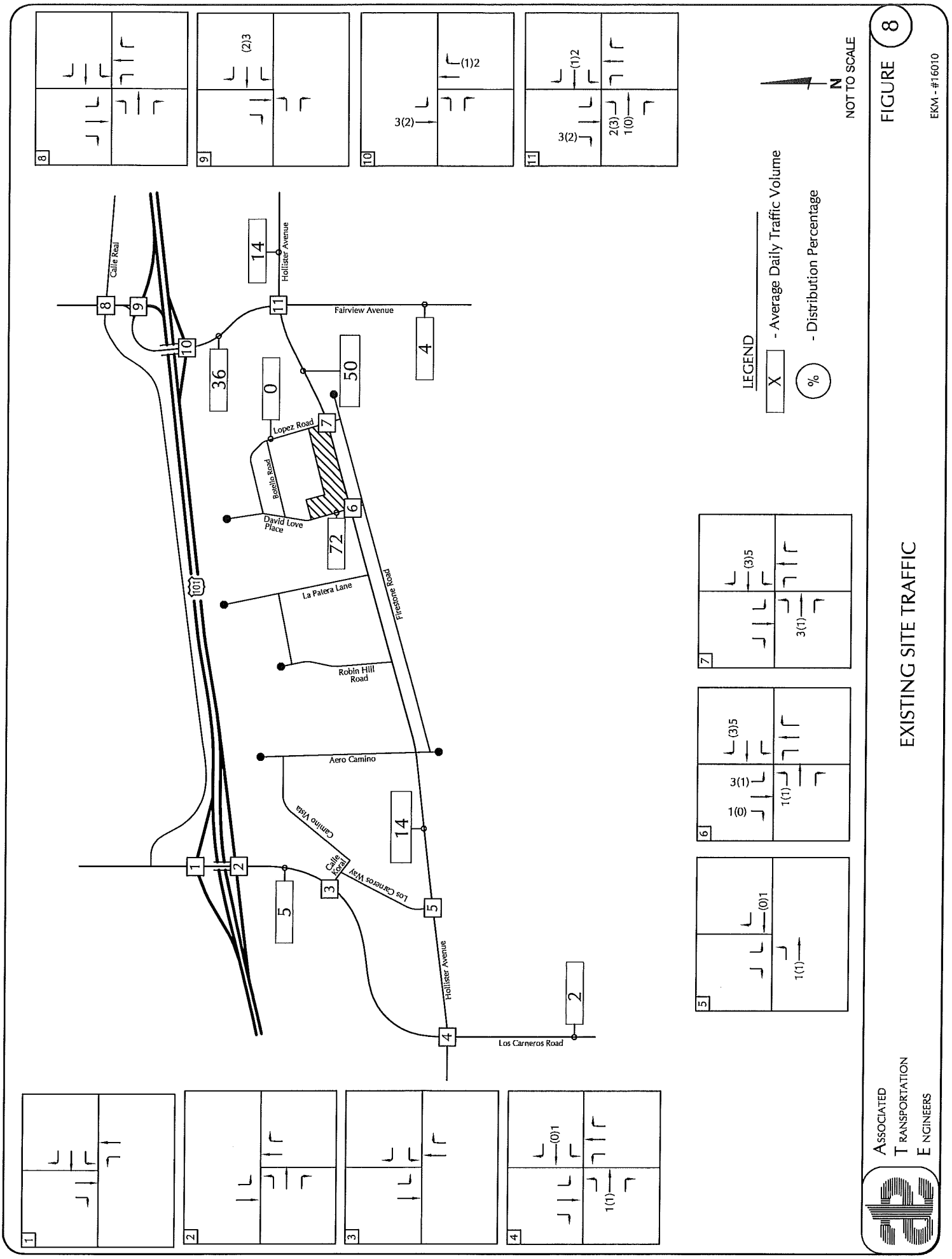
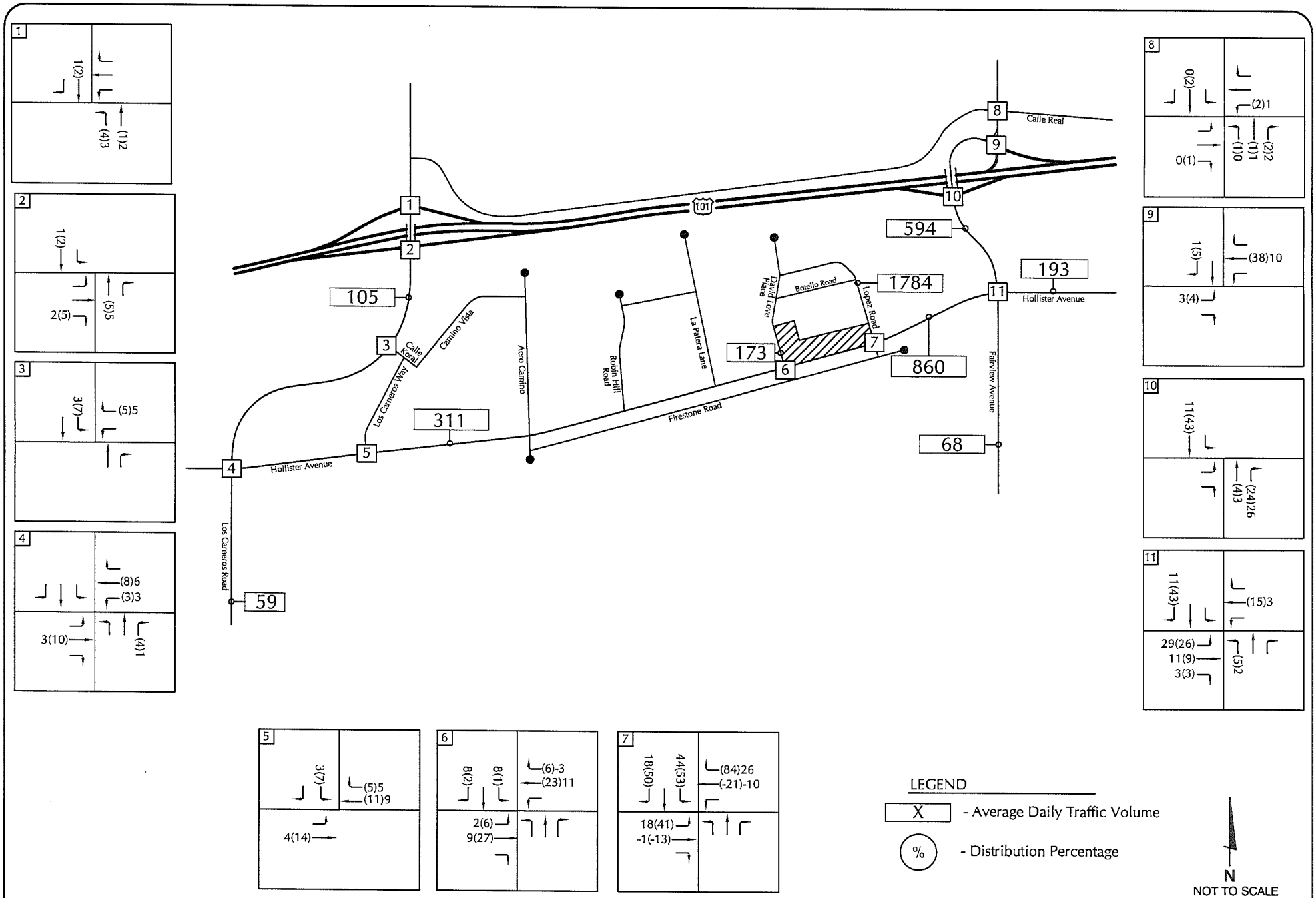


FIGURE 8
EXISTING SITE TRAFFIC
EKM - #16010
ASSOCIATED TRANSPORTATION ENGINEERS
N
NOT TO SCALE
LEGEND
X - Average Daily Traffic Volume
% - Distribution Percentage
Calle Real
Hollister Avenue
Fairview Avenue
Lopez Road
Botello Road
David Love Place
La Patera Lane
Firestone Road
Robin Hill Road
Aero Camino
Camino Vista
Calle Koral
Los Carneros Way
Los Carneros Road
101
14
36
0
50
4
72
14
5
2
(2)3
(1)2
3(2)
(1)2
3(2)
2(3)
1(0)
(3)5
3(1)
(3)5
3(1)
1(0)
1(1)
(0)1
1(1)
(0)1
1(1)

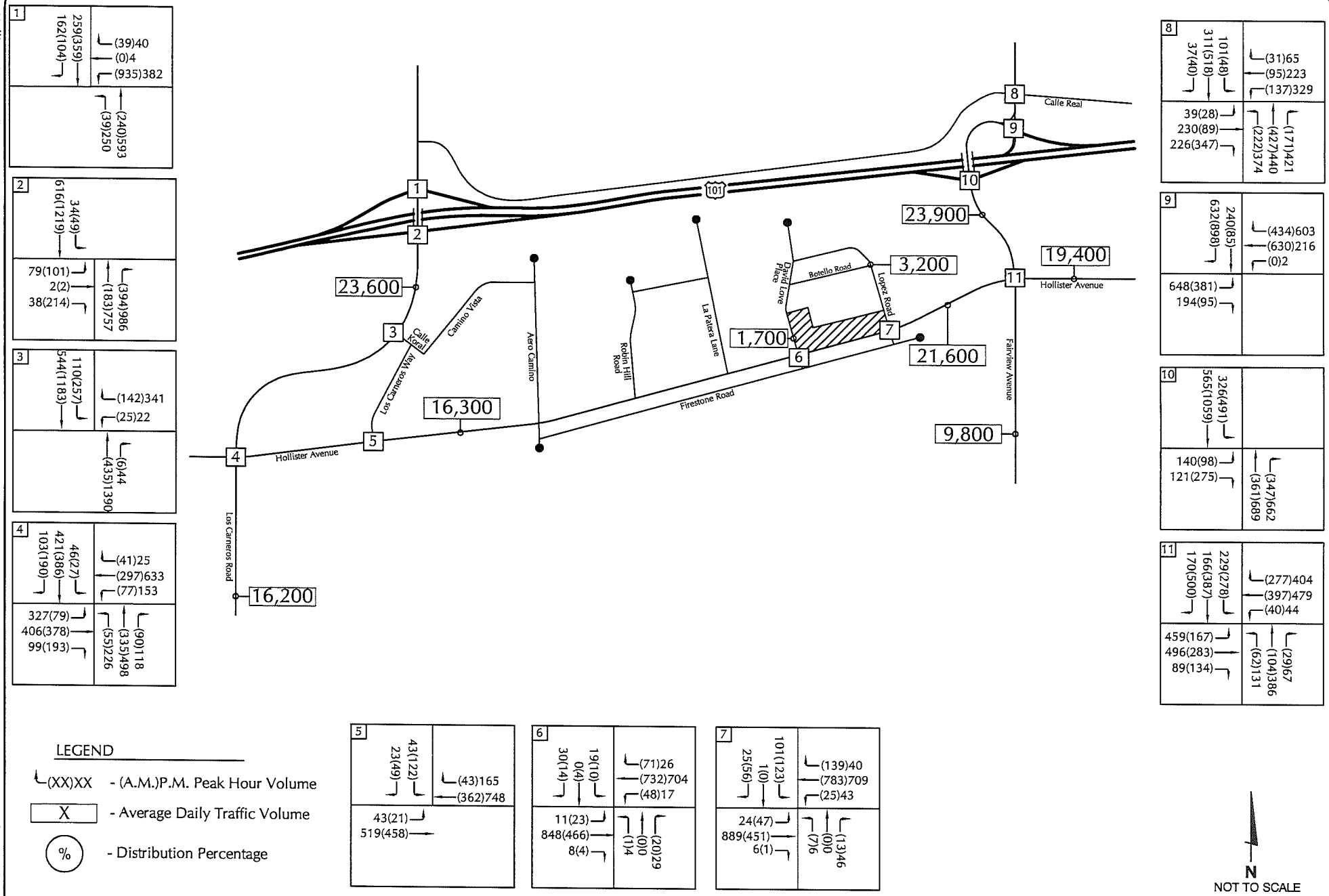


ASSOCIATED TRANSPORTATION ENGINEERS

NET PROJECT TRIPS ADDED PRIMARY + PASS-BY

FIGURE 9

EKM - #16010



LEGEND

(XX)XX - (A.M.)P.M. Peak Hour Volume

X - Average Daily Traffic Volume

% - Distribution Percentage

ASSOCIATED TRANSPORTATION ENGINEERS

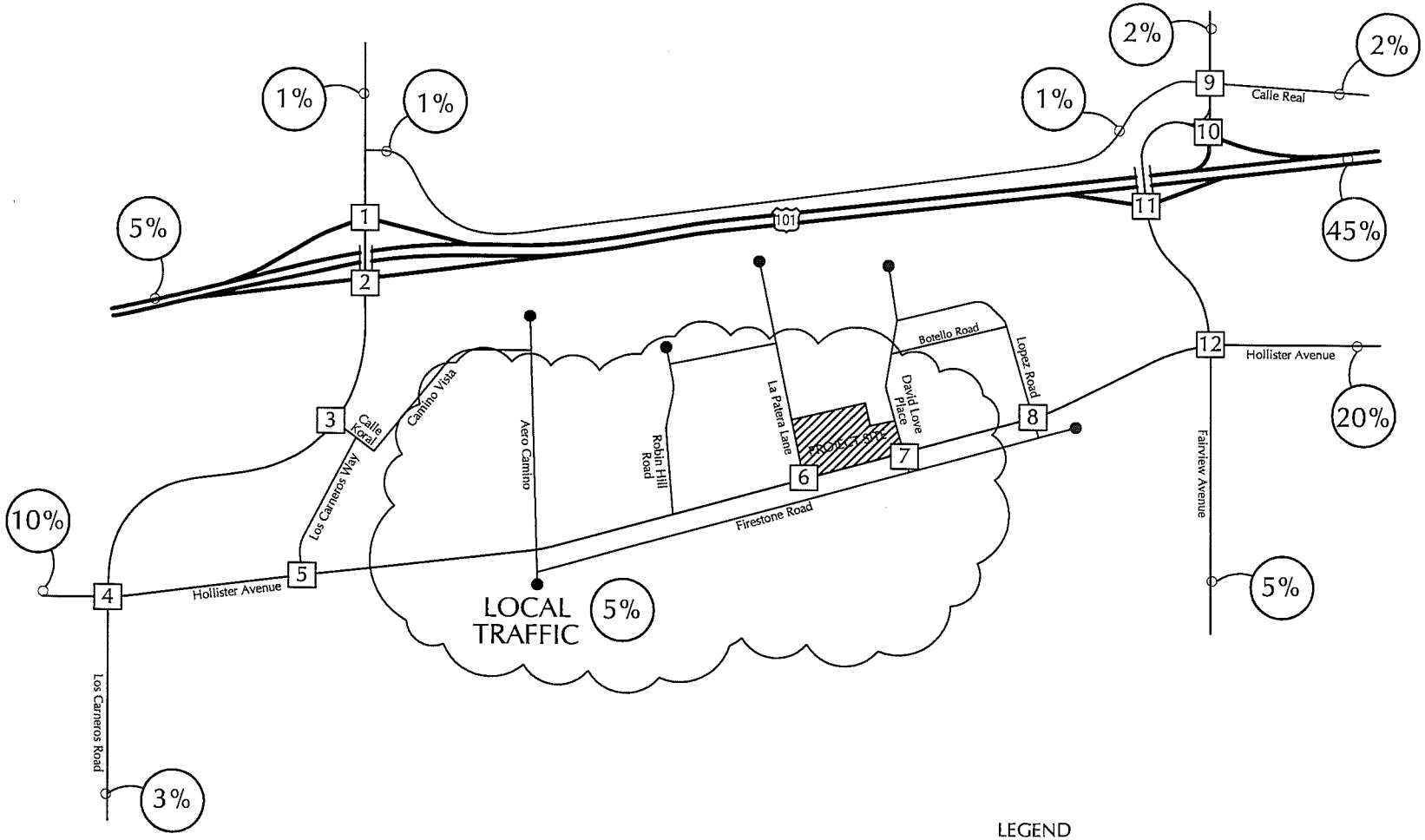
EXISTING + NET PROJECT TRAFFIC VOLUMES

FIGURE 10

EKM - #16010

Associated Transportation Engineers
Trip Generation Worksheet - With In/Out Splits

6210 HOLLISTEER AVENUE (#16022)																
Land-Use	Size	Multi-Trip	ADT		A.M.						P.M.					
			Rate	Trips	Rate	Trips	In %	Trips	Out %	Trips	Rate	Trips	In %	Trips	Out %	Trips
CAR SALES	49,310	1.00	32.30	1,593	1.920	95	75%	71	25%	24	2.62	129	40%	52	60%	77



LEGEND

X - Average Daily Traffic Volume

% - Distribution Percentage

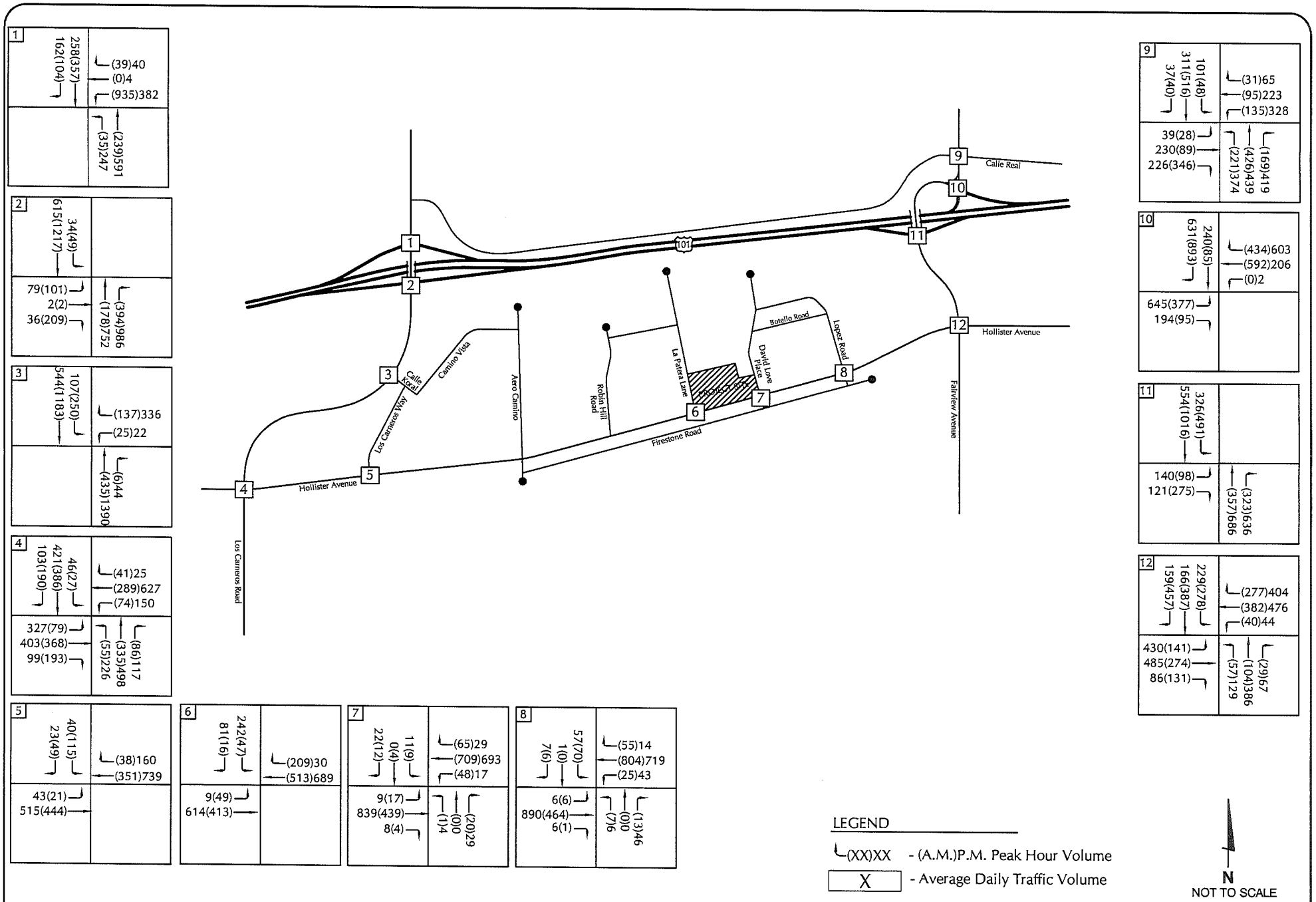
N
NOT TO SCALE

ASSOCIATED TRANSPORTATION ENGINEERS

PROJECT TRIP DISTRIBUTION AND ASSIGNMENT

FIGURE 4

EKM - #16022



ASSOCIATED TRANSPORTATION ENGINEERS

PROJECT TRIP DISTRIBUTION AND ASSIGNMENT

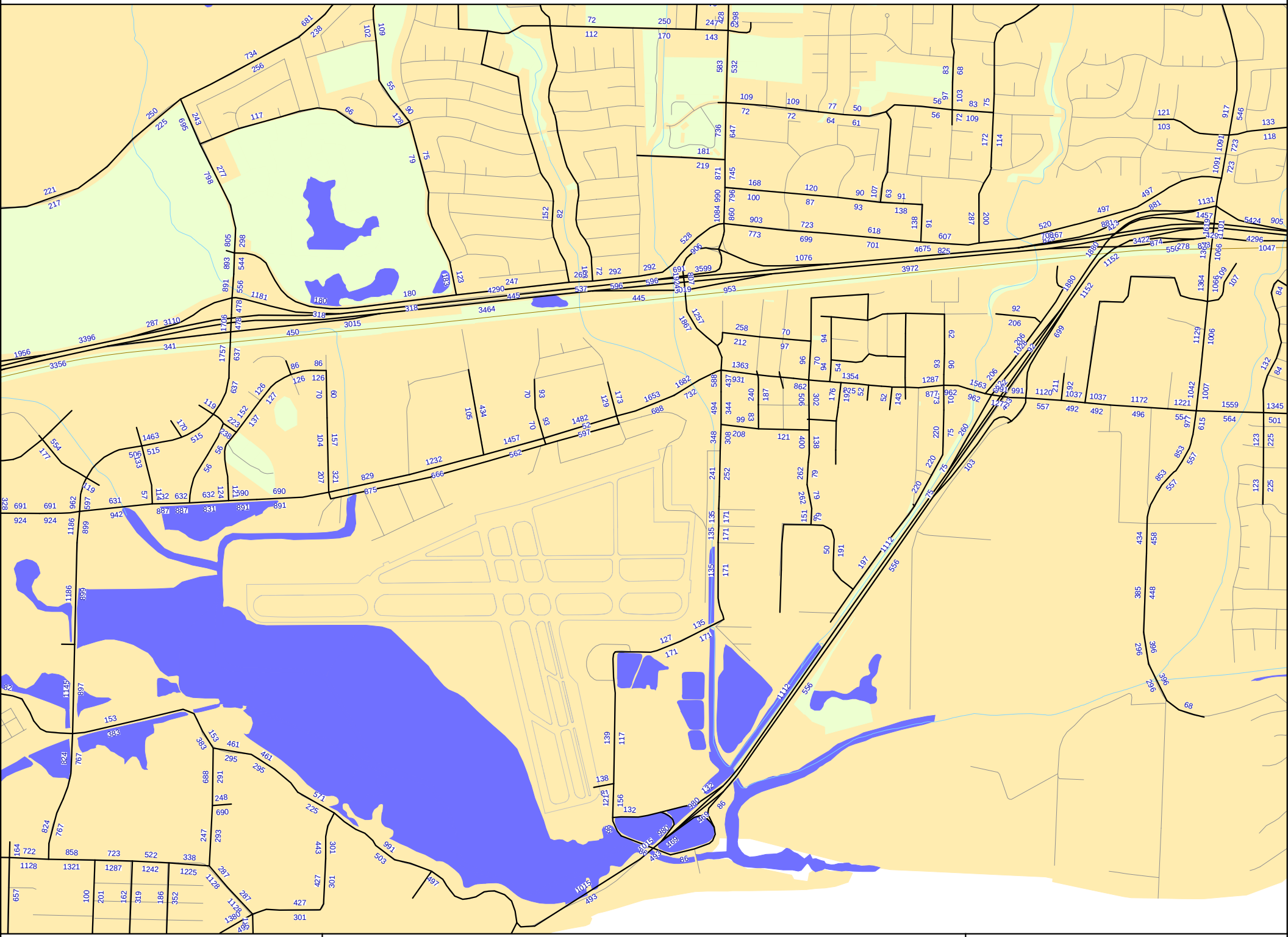
FIGURE 4

EKM - #16022

APPENDIX E

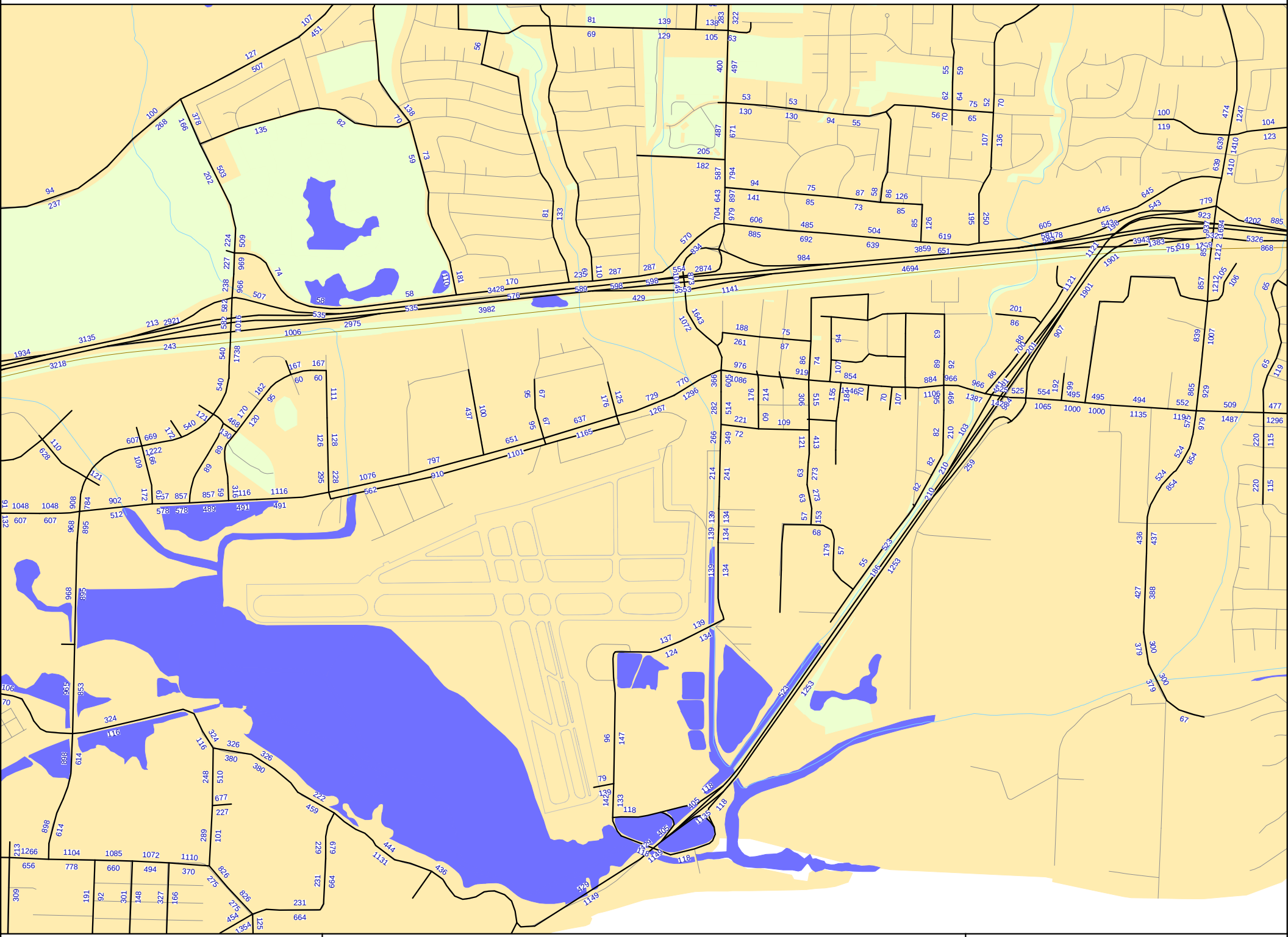
GOLETA TRAVEL DEMAND MODEL PLOTS

Baseline AM Peak Hour Model Volumes



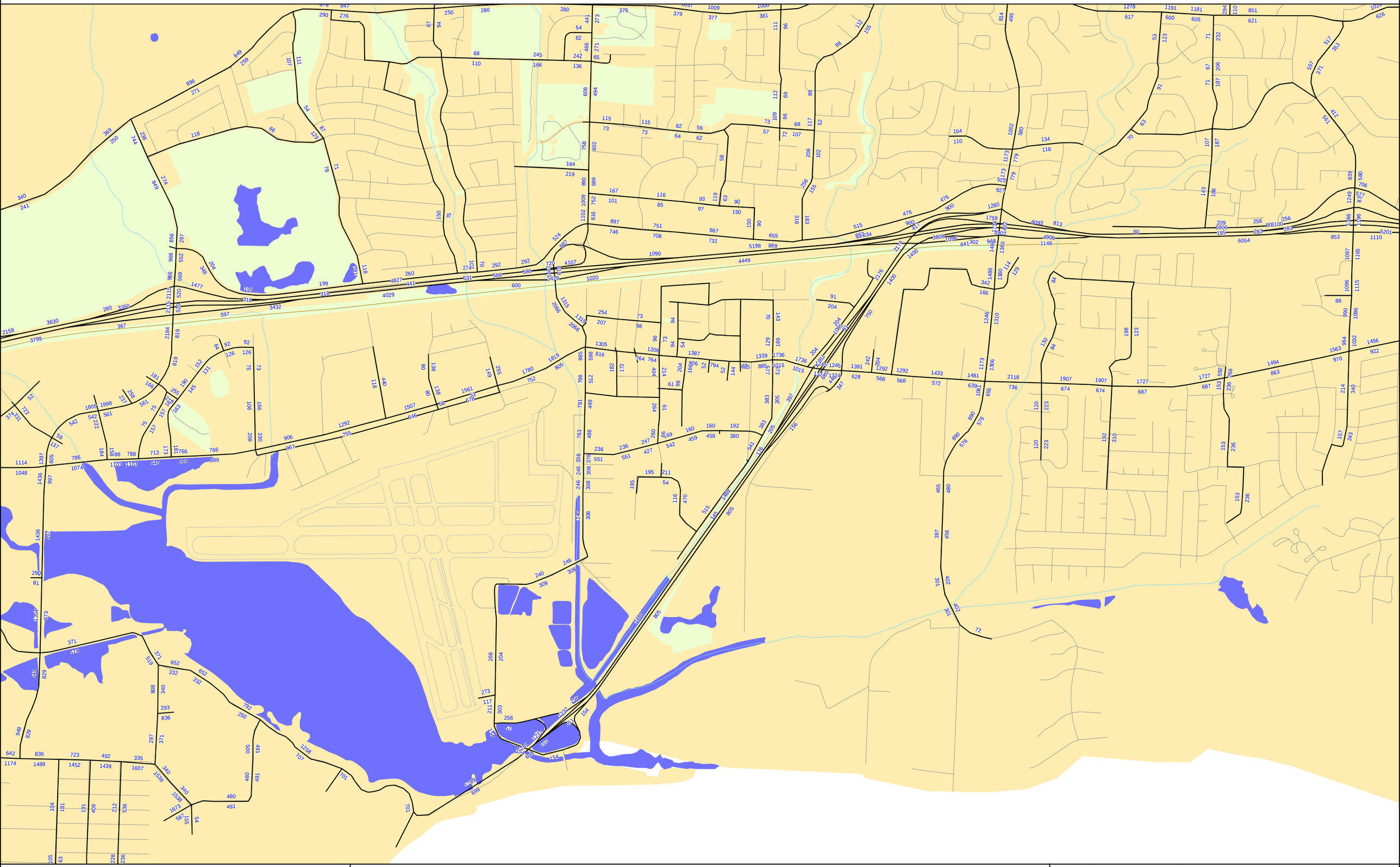
City of Goleta	Kittelson & Associates Inc.	C-300	APBaseline_June15_EnplaneAssign_AM.ver
02.07.2015	Vol <= 50 Not Displayed		1:19222

Baseline PM Peak Hour Model Volumes



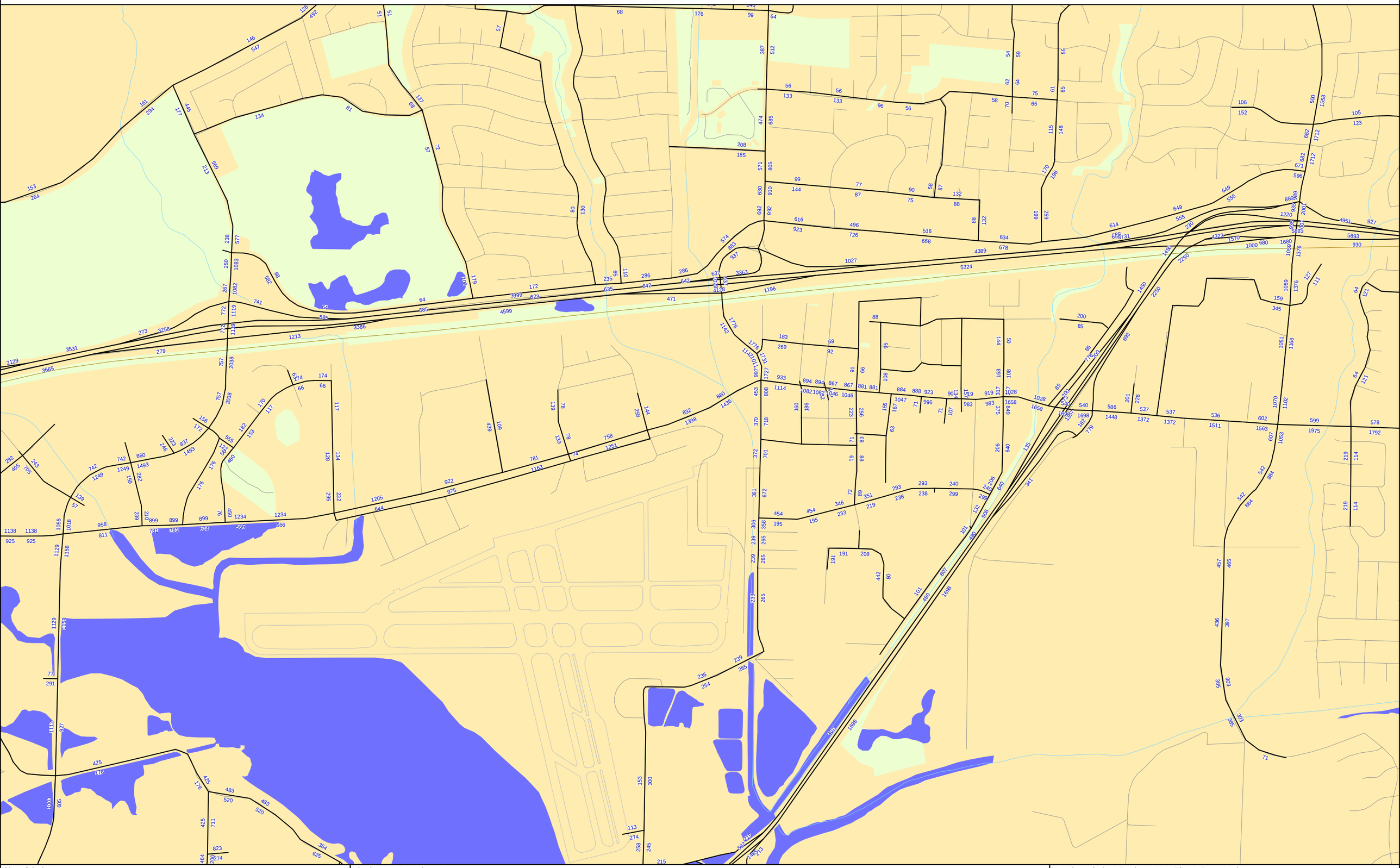
City of Goleta	Kittelson & Associates Inc.	C-301	APBaseline_June15_EnplaneAssign.ver
02.07.2015	Vol <= 50 Not Displayed		1:19222

Cumulative AM Peak Hour Model Volumes Without Fowler Extension



City of Goleta	Kittelson & Associates Inc.		NewCumulative_Enplane_NewEk_NoFow_AMAssign.ver
07.02.2016	Vol <= 50 Not Displayed		1:16079

Cumulative PM Peak Hour Model Volumes Without Fowler Extension



City of Goleta	Kittelson & Associates Inc.	NewCumulative_Enplane_NewEk_NoFow_Assign.ver
07.02.2016	Vol <= 50 Not Displayed	1:12428

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