

## **3.12 TRANSPORTATION AND TRAFFIC**

### **3.12.1 Background and Methodology**

#### **3.12.1.1 Regulatory Context**

The California Environmental Quality Act (CEQA) requires that project sponsors evaluate a project's potential to cause transportation and traffic impacts to the circulation and transit infrastructure.

#### ***County of Sonoma General Plan Circulation and Transit Element***

Local policies established in the *County of Sonoma General Plan Circulation and Transit Element*<sup>1</sup> establish policies and objectives and goals for the County circulation, transit, public transit, alternative transportation modes, bicycle and pedestrian transportation, the countywide highway system, passenger rail, and phasing and funding improvements.

#### ***Comprehensive Transportation Plan***

The *County of Sonoma Comprehensive Transportation Plan*<sup>2</sup> is a planning document that is updated every four years. The purpose of the Plan is to update old transportation efforts and outline transportation planning efforts throughout Sonoma County for the next 25 years.

#### ***Sonoma County Bicycle and Pedestrian Plan***

The *2010 Sonoma County Bicycle and Pedestrian Plan*<sup>3</sup> is intended to establish goals, objectives, policies, and project priorities for bicycle and pedestrian transportation networks for unincorporated portions of the County.

#### **3.12.1.2 Thresholds of Significance**

According to **Appendix G of CEQA Guidelines**, potential thresholds related to transportation and traffic would be considered significant if any of the following would occur:

1. cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections);
2. exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways;
3. result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks;
4. substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);
5. result in inadequate emergency access;
6. result in inadequate parking capacity; and
7. conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).

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<sup>1</sup> County of Sonoma, *Circulation and Transit Element*, Available at: <http://www.sonoma-county.org/prmd/gp2020/cte.pdf>, Accessed: May 6, 2011.

<sup>2</sup> Sonoma County Transportation Authority, *Comprehensive Transportation Plan*. Available at: [http://www.sctainfo.org/eir\\_draft.htm](http://www.sctainfo.org/eir_draft.htm), Accessed: May 6, 2011.

<sup>3</sup> County of Sonoma, *2010 Bicycle and Pedestrian Plan*, Available at: <http://www.sonoma-county.org/prmd/docs/misc/bikeplandraft.pdf>, Accessed: May 6, 2011.

According to County of Sonoma Traffic Study Guidelines, a project would have a significant impact if:

- *On-site & Frontage Improvements* – Proposed on-site circulation and street frontage would not meet the County's minimum standards for roadway or driveway design, or potentially result in safety hazards, as determined by the County in consultation with a registered traffic engineer.
- *Parking* – Proposed on-site parking supply would not be adequate to accommodate parking demand.
- *Emergency Access* – The project site would have inadequate emergency access.
- *Alternative Transportation* – The project provides inadequate facilities for alternative transportation modes (e.g., bus turnouts, bicycle racks, pedestrian pathways) and/or the project creates potential conflicts with adopted policies, plans, or programs supporting alternative transportation.
- *Road Hazards* – Hazards are increased due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment, heavy pedestrian or truck traffic).
- *Vehicle Queues* – The addition of project traffic causes the 95th percentile queue length to exceed roadway turn lane storage capacity.<sup>4</sup>
- *Signal Warrants* – The addition of the project's vehicle or pedestrian traffic causes an intersection to meet or exceed Caltrans signal warrant criteria. For this project, Base Case (without project) traffic volume levels at an *unsignalized intersection* are increased above Peak Hour Warrant #3 criteria levels with the addition of project traffic – or – Base Case (without project) signalization is already warranted, and there is any increase in traffic due to the project.
- *Turn Lanes* – The addition of project traffic causes an intersection to meet or exceed criteria for provision of a right or left turn lane on an intersection approach.
- *Sight Lines* – The project constructs an unsignalized intersection (including driveways) or adds traffic to an existing unsignalized intersection approach that does not have adequate sight lines based upon Caltrans criteria for state highway intersections and County criteria for County roadway intersections.
- *County Intersections* – A *signalized or all way stop intersection* with Base Case (without project) volumes is operating at LOS A, B, C or D and deteriorates to LOS E operation (or worse) with the addition of project traffic.

A *stop sign controlled turn movement or approach* at an unsignalized side street stop sign controlled intersection is operating with Base Case volumes at LOS A, B, C or D and deteriorates to LOS E or F with the addition of project traffic. This criteria applies to all controlled intersections, except for driveways and minor side street approaches with fewer than 30 vehicle trips per hour per approach or exclusive left turn movement.

The Base Case (without project) LOS for a signalized intersection is already at LOS E or F (or for a stop sign controlled movement at an unsignalized intersection) and there is an increase in delay of 5 seconds or more due to the addition of project traffic.

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<sup>4</sup> Average delay shall be used as defined in the year 2000 Highway Capacity Manual for the signalized and all-way stop intersections and delay for any approach or turning movement shall be used for side street stop sign controlled intersections.

1. *County Roadways* – The traffic added by the project would cause the segment to operate below 1) LOS C or 2) a specific threshold identified explicitly for a given road in the Sonoma County General Plan.
2. *State Highways* – Level of service criteria for state facilities are provided by the Caltrans publication “Guide for the Preparation of Traffic Impact Studies”, as interpreted in the County traffic study guidelines. This states that Caltrans endeavors to maintain a target LOS at the transition between LOS C and LOS D and that if the existing condition is below LOS C, then the existing average travel speed should be maintained.

In addition, for purposes of this impact analysis, the project would have a significant impact if:

3. Project construction traffic would produce significant safety or operational impacts.
4. Sidewalks/walkways or bicycle lanes would not be adequate to provide acceptable pedestrian or bicycle rider safety.

According to Caltrans Guidelines, a project would have a significant impact if:

1. Base Case U.S.101 freeway operation is LOS A, B or C and deteriorates to LOS D operation or worse with the addition of Proposed Project traffic. If Base Case operation is already LOS D or poorer, any addition of Proposed Project traffic and a change in the volume/capacity (v/c) ratio of .01 or greater.

According to Town of Windsor Guidelines, applicable to portions of Shiloh Road and Skylane Boulevard, the project would have a significant impact if:

1. A *signalized or all way stop intersection* with Base Case (without project) volumes is operating at LOS A, B, C or D and deteriorates to LOS E operation (or worse) with the addition of project traffic.
2. Base Case (without project) operation for a signalized intersection is already at LOS E or F and there is any addition of project traffic.

### **3.12.1.3 Methodologies**

A Traffic Study, which is presented in this section of the EIR, was conducted to quantify the anticipated increase in traffic as a result of the Proposed Project.

#### **Volumes**

County of Sonoma and Town of Windsor staff selected 11 intersections for analysis in this study.

- Shiloh Road/Skylane Boulevard (Town of Windsor) – signal;
- Shiloh Road/Conde Lane (Town of Windsor) – Conde Lane stop sign control;
- Shiloh Road/U.S.101 Southbound Off-Ramp (Town of Windsor) – Southbound Off-Ramp stop sign control;
- Shiloh Road/U.S.101 Northbound Ramp (Town of Windsor) – signal;
- Airport Boulevard/North Laughlin Road-Skylane Boulevard (County of Sonoma) – North Laughlin Road-Skylane Boulevard stop sign control;
- Airport Boulevard/Brickway Boulevard (County of Sonoma) – signal;
- Airport Boulevard/Aviation Boulevard (County of Sonoma) – signal;
- Airport Boulevard/U.S.101 Southbound Off-Ramp (County of Sonoma) – Southbound Off-Ramp stop sign control;

- Airport Boulevard/U.S.101 Northbound Off-Ramp to Westbound Airport Boulevard Merge (Existing) and Airport Boulevard/U.S.101 Northbound Off-Ramp/Northbound On-Ramp for Future Conditions (County of Sonoma) – signal;
- River Road/Slusser Road (County of Sonoma) – Slusser Road stop sign control; and
- River Road/Laughlin Road-Woolsey Road (County of Sonoma) – Laughlin Road-Woolsey Road stop sign control.

Weekday AM and PM peak period (7:00-9:00 AM and 4:00-6:00 PM) counts were conducted in September 2009 at the four Town of Windsor intersections as well as at River Road/Laughlin Road and Airport Boulevard/North Laughlin Road-Skylane Boulevard. In addition, September 2009 directional counts were conducted on Airport Boulevard just west of the North Laughlin Road-Skylane Boulevard intersection for a three-day time period. Existing counts at the remaining intersections were obtained from the U.S.101-Airport-Fulton Traffic Operations Report/Technical Memorandum.<sup>5</sup>

### ***Intersection Level of Service***

Transportation engineers and planners commonly use a grading system called level of service (LOS) to measure and describe the operational status of the local roadway network. LOS is a description of the quality of a roadway facility's operation, ranging from LOS A (indicating free-flow traffic conditions with little or no delay) to LOS F (representing oversaturated conditions where traffic flows exceed design capacity, resulting in long queues and delays). Intersections, rather than roadway segments between intersections, are almost always the capacity controlling locations for any circulation system.

- *Signalized Intersections.* For signalized intersections, the 2000 *Highway Capacity Manual* (Transportation Research Board, National Research Council) methodology was utilized. This is the industry standard and acceptable practice utilized in County of Sonoma traffic studies. With this methodology, operations are defined by the level of service and average control delay per vehicle (measured in seconds) for the entire intersection. For a signalized intersection, control delay is the portion of the total delay attributed to traffic signal operation. This includes delay associated with deceleration, acceleration, stopping, and moving up in the queue. **Table 3.12-1** summarizes the relationship between delay and LOS for signalized intersections.
- *Unsignalized Intersections.* For unsignalized (all-way stop-controlled and side-street stop-controlled) intersections, the 2000 *Highway Capacity Manual* (Transportation Research Board, National Research Council) methodology for unsignalized intersections was utilized. This is the industry standard and acceptable practice utilized in County of Sonoma traffic studies. For side-street stop-controlled intersections, operations are defined by the level of service and average control delay per vehicle (measured in seconds), with delay reported for the stop sign controlled approaches or turn movements, although overall delay is also typically reported for intersections along state highways. For all-way stop-controlled intersections, operations are defined by the average control delay for the entire intersection (measured in seconds per vehicle). The delay at an unsignalized intersection incorporates delay associated with deceleration, acceleration, stopping, and moving up in the queue. **Table 3.12-2** summarizes the relationship between delay and LOS for unsignalized intersections.

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<sup>5</sup> Dowling Associates, Inc., February 25, 2010.

*Table 3.12-1*  
**SIGNALIZED INTERSECTION LEVEL OF SERVICE CRITERIA**

Level of Service	Description	Average Control Delay (Seconds Per Vehicle)
A	Operations with very low delay occurring with favorable progression and/or short cycle lengths.	≤ 10.0
B	Operations with low delay occurring with good progression and/or short cycle lengths.	10.1 to 20.0
C	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.1 to 35.0
D	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, and/or high volume-to-capacity (V/C) ratios. Many vehicles stop and individual cycle failures are noticeable.	35.1 to 55.0
E	Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	55.1 to 80.0
F	Operation with delays unacceptable to most drivers occurring due to oversaturation, poor progression, or very long cycle lengths.	> 80.0

SOURCE: 2000 Highway Capacity Manual, 2000  
PREPARED BY: Crane Transportation Group, 2010

*Table 3.12-2*  
**UNSIGNALIZED INTERSECTION LEVEL OF SERVICE CRITERIA**

Level of Service	DESCRIPTION	Average Control Delay (Seconds Per Vehicle)
A	Little or no delays	≤ 10.0
B	Short traffic delays	10.1 to 15.0
C	Average traffic delays	15.1 to 25.0
D	Long traffic delays	25.1 to 35.0
E	Very long traffic delays	35.1 to 50.0
F	Extreme traffic delays with intersection capacity exceeded (for an all-way stop), or with approach/turn movement capacity exceeded (for a side street stop controlled intersection)	> 50.0

SOURCE: 2000 Highway Capacity Manual, 2000  
PREPARED BY: Crane Transportation Group, 2010

### ***Intersection Signal Warrant Evaluation***

Traffic signals are used to provide an orderly flow of traffic through an intersection. Many times they are needed to offer side street traffic an opportunity to access a major road where high volumes and/or high vehicle speeds block crossing or turn movements. They do not, however, increase the capacity of an intersection (i.e., increase the overall intersection's ability to accommodate additional vehicles) and, in fact, often slightly reduce the number of total vehicles that can pass through an intersection in a given period of time. Signals can also cause an increase in traffic accidents if installed at inappropriate locations. Existing lane geometrics and the existing use of signals in the Airport vicinity is presented in **Figure 3.12-1**.

There are nine possible tests for determining whether a traffic signal should be considered for installation. These tests, called "warrants", consider criteria such as actual traffic volume, pedestrian volume, presence of school children, and accident history. The intersection volume

data together with the available collision histories were compared to warrants contained in the *Manual on Uniform Traffic Control Devices (MUTCD)*, Federal Highway Administration, 2009, and the *Manual on Unified Traffic Control Devices Federal Highway Administration, 2010 California Supplement*, which has been adopted by the State of California as a replacement for *Caltrans Traffic Manual*. Section 4C of the MUTCD provides guidelines, or warrants, which may indicate need for a traffic signal at an unsignalized intersection. As indicated in the MUTCD, satisfaction of one or more warrants does not necessarily require immediate installation of a traffic signal. It is merely an indication that the local jurisdiction should begin monitoring conditions at that location and that a signal may ultimately be required.

Warrant 3, the peak hour volume warrant, is often used as an initial check of signalization needs since peak hour volume data is typically available and this warrant is usually the first one to be met. Warrant 3 is based on a curve and takes only the hour with the highest volume of the day into account. For intersections in rural locations (with local area population less than 10,000 people or where the posted speed limit or 85th percentile speed on the uncontrolled intersection approaches is greater than 40 miles per hour) a 70 percent warrant is applied. The regular and 70 percent warrants are typically referred to as the urban and rural peak hour warrants.

### ***U.S.101 Freeway Operation***

The U.S.101 freeway contained two mixed-flow travel lanes in each direction during the preparation of the majority of this study. However, third travel lanes in each direction (operating as High Occupancy Vehicle (HOV) lanes) in the freeway median have just opened up between northern Santa Rosa and central Windsor. Freeway operation during the last year and a half between northern Santa Rosa and Windsor has been affected due to construction of these lanes. Due to recent construction-related congestion, year 2008 volumes from Caltrans have been utilized to evaluate existing freeway conditions. However, all future analysis uses a six-lane freeway configuration, and evaluates conditions in the two mixed flow travel lanes in each direction.

Based upon Appendix C of the Caltrans *Guidelines for the Preparation of Traffic Impact Studies*, at 65 miles per hour the maximum flow rate (at LOS E) is 2,350 vehicles per lane per hour. **Table 3.12-3** presents the relationship between freeway level of service, maximum density, minimum speed, volume to capacity ratio and maximum service flow rate. Terms are defined in **Table 3.12-3**.

### **3.12.2 Existing Operating Conditions**

The Airport is accessed via Airport Boulevard, which provides a connection to U.S. Highway 101 about 1.5 miles east of the Airport. Other important roadways in the Airport vicinity include River Road, Shiloh Road, Skylane Boulevard, North Laughlin Road, Laughlin Road, Slusser Road, Mark West Station Road, Windsor Road, Ordinance Road, Flightline Drive, and Becker Boulevard. A map of the Airport area is presented in **Figure 3.12-2** and a map of the Airport access roads is presented in **Figure 3.12-3**.

*Table 3.12-3*  
**BASIC FREEWAY SEGMENTS LEVEL OF SERVICE DEFINITIONS  
 AT 65 MILES PER HOUR**

LEVEL OF SERVICE <sup>/a/</sup>	MAXIMUM DENSITY (pc/mi/ln) <sup>/b/</sup>	MINIMUM SPEED (mph) <sup>/c/</sup>	MAXIMUM V/C RATIO <sup>/d/</sup>	MAXIMUM SERVICE FLOW RATE <sup>/e/</sup>
A	11	65.0	0.30	710
B	18	65.0	0.50	1,170
C	26	64.6	0.71	1,680
D	35	59.7	0.89	2,090
E	45	52.2	1.00	2,350
F	> 45	< 52.2	> 1.00	Undefined

/a/ Level of Service = A quality measure describing operational conditions within a stream of traffic, generally in terms of service measures.

/b/ Maximum Density = Passenger cars per mile per lane.

/c/ Minimum Speed = The minimum travel speed projected for the associated level of service.

/d/ V/C Ratio = Volume to capacity ratio for each direction.

/e/ Maximum Service Flow Rate = Maximum hourly rate at which vehicles reasonably can be expected to traverse a point or uniform segment of a lane during a given period under prevailing roadway traffic and control conditions while maintaining a designated level of service.

SOURCE: Caltrans Guidelines for the Preparation of Traffic Impact Studies, Appendix C  
 PREPARED BY: Crane Transportation Group, 2010

### 3.12.2.1 Intersection Level of Service

The following intersections currently operate at an unacceptable LOS E or LOS F in the AM peak hour (see **Figure 3.12-4** and **Table 3.12-4**):

- Shiloh Road/Conde Lane (Town of Windsor) – Conde Lane stop sign control;
- Shiloh Road/U.S.101 Southbound Off-Ramp (Town of Windsor) – Southbound Off-Ramp stop sign control;
- Airport Boulevard / North Laughlin Road / Skylane Boulevard (County of Sonoma) - North Laughlin Road-Skylane Boulevard stop sign control;
- Airport Boulevard/U.S.101 Southbound Off-Ramp (County of Sonoma) – Southbound Off-Ramp stop sign control;
- Airport Boulevard / U.S. 101 Northbound Off-Ramp (County of Sonoma) – Northbound Off-Ramp Merged Control; and
- River Road/Laughlin Road-Woolsey Road (County of Sonoma) – Laughlin Road-Woolsey Road stop sign control.

The following intersections currently operate at an unacceptable LOS E or LOS F in the PM peak hour (see **Figure 3.12-5** and **Table 3.12-4**):

- Shiloh Road/Conde Lane (Town of Windsor) – Conde Lane stop sign control;
- Shiloh Road/U.S.101 Southbound Off-Ramp (Town of Windsor) – Southbound Off-Ramp stop sign control;
- Airport Boulevard / North Laughlin Road / Skylane Boulevard (County of Sonoma) - North Laughlin Road-Skylane Boulevard stop sign control;
- Airport Boulevard/U.S.101 Southbound Off-Ramp (County of Sonoma) – Southbound Off-Ramp stop sign control; and

- River Road/Laughlin Road-Woolsey Road (County of Sonoma) – Laughlin Road-Woolsey Road stop sign control.

**Table 3.12-4  
EXISTING INTERSECTION LEVEL OF SERVICE IN AIRPORT VICINITY**

INTERSECTION	AM PEAK HOUR	PM PEAK HOUR
<b>Shiloh Road Corridor – Town of Windsor</b>		
Shiloh Road/Skylane Boulevard (Signal)	D - 47.3 <sup>/a/</sup>	B - 19.6 <sup>/a/</sup>
Shiloh Road/Conde Lane (Conde Lane Stop Sign Control)	<b>F - 335</b> <sup>/b/</sup>	<b>F - 68.9</b> <sup>/b/</sup>
Shiloh Road/U.S.101 Southbound Off-Ramp (Off-Ramp Stop Sign Control)	<b>E - 37.4</b> <sup>/b/</sup>	<b>F - 340</b> <sup>/b/</sup>
Shiloh Road/U.S.101 Northbound Off-Ramp (Signal)	B - 14.8 <sup>/b/</sup>	B - 10.3 <sup>/b/</sup>
<b>Airport Boulevard Corridor – County of Sonoma</b>		
Airport Boulevard/North Laughlin Road-Skylane Boulevard (North Laughlin Road-Skylane Boulevard Stop Sign Control)	B - 14.5 <sup>/b/ /c/</sup> D - 13.8 <sup>/b/ /d/</sup> <b>F - 78.8</b> <sup>/b/ /e/</sup> B - 13.6 <sup>/b/ /f/</sup>	C - 22.7 <sup>/b/ /c/</sup> C - 20.4 <sup>/b/ /d/</sup> <b>F - 54.5</b> <sup>/b/ /e/</sup> C - 22.5 <sup>/b/ /f/</sup>
Airport Boulevard/Brickway Boulevard (Signal)	A - 10.0 <sup>/a/</sup>	B - 11.1 <sup>/a/</sup>
Airport Boulevard/Aviation Boulevard (Signal)	B - 17.5 <sup>/a/</sup>	C - 24.9 <sup>/a/</sup>
Airport Boulevard/U.S. 101 Southbound Off-Ramp (Off-Ramp Stop Sign Control)	<b>F - 141</b> <sup>/b/ /g/</sup> <b>F - 780</b> <sup>/b/ /h/</sup>	<b>E - 35.3</b> <sup>/b/ /g/</sup> C - 15.2 <sup>/b/ /h/</sup>
Airport Boulevard/U.S.101 Northbound Off-Ramp to Airport Boulevard Westbound (Off-Ramp Yield Control)	<b>F - 332</b> <sup>/i/</sup>	B - 11.1 <sup>/i/</sup>
<b>River Road Corridor – County of Sonoma</b>		
River Road/Slusser Road (Slusser Road Stop Sign Control)	C - 21.2 <sup>/b/</sup>	C - 22.6 <sup>/b/</sup>
River Road/Laughlin Road/Woolsey Road (Laughlin Road/Woolsey Road Stop Sign Control)	C - 16.5 <sup>/b/ /j/</sup> <b>E - 37.0</b> <sup>/b/ /k/</sup>	C - 16.3 <sup>/b/ /j/</sup> <b>F - 565</b> <sup>/b/ /k/</sup>

- /a/ Signalized level of service – control delay in seconds.
- /b/ Unsignalized level of service – control delay in seconds.
- /c/ LOS for North Laughlin Road left turn.
- /d/ LOS for North Laughlin Road through / right turn.
- /e/ LOS for Skylane Boulevard left turn.
- /f/ LOS for Skylane Boulevard through – right turn.
- /g/ LOS for U.S. 101 Southbound Off-Ramp left turn.
- /h/ LOS for U.S. 101 Southbound Off-Ramp right turn.
- /i/ LOS for U.S. 101 Northbound Off-Ramp yield control.
- /j/ LOS for Laughlin Road approach.
- /k/ LOS for Woolsey Road approach.

SOURCE: 2000 Highway Capacity Manual Analysis Methodology, 2000  
PREPARED BY: Crane Transportation Group, 2010

### 3.12.2.2 Intersection Signalization Warrants

Of the unsignalized intersections in the Airport vicinity, the following four intersections have existing traffic volumes that exceed the peak-hour signal warrant criteria levels.

- Shiloh Road / Conde Lane (Town of Windsor) - AM peak hour;
- Shiloh Road / U.S. 101 Southbound Off-Ramp (Town of Windsor) - PM peak hour;
- River Road / Laughlin Road / Woolsey Road (County of Sonoma) - PM peak hour; and

- River Road / Slusser Road (County of Sonoma) - PM peak hour.

### **3.12.2.3 U.S.101 Freeway Operation**

U.S. Highway 101 freeway segments north and south of the Airport Boulevard interchange operated at an unacceptable LOS D in the commute directions (i.e., southbound AM peak hour and northbound PM peak hour) and at an acceptable LOS C in the non-peak commute directions before the recent addition of High Occupancy Vehicle (HOV) lanes that were completed during preparation of this study. After widening, operation should be acceptable in both directions during commute peak traffic hours.

### **3.12.3 Existing Pedestrian & Bicycle Facilities**

#### **3.12.3.1 Pedestrian**

Sidewalks are provided along the following roadways in the vicinity of the Airport:

- internal to the Airport along the Airport Boulevard Loop Road adjacent to the long-term parking lot and the 2332 Airport Boulevard building;
- internal to the Airport along Airport Boulevard Loop Road adjacent to (and just east of) the Airport terminal building and adjacent to the rental car pickup/drop off and taxi stand;
- Airport Boulevard east of Skylane Boulevard (east of the Airport), both sides of the street;
- North Laughlin Road east side of the street (across the street from the Airport) southerly from Airport Boulevard to Copperhill Parkway;
- Copperhill Parkway north side of street easterly from Laughlin Road;
- North Laughlin Road west side of street adjacent to the Airport;
- Skylane Boulevard east side of the street north of Airport Boulevard;
- Flightline Drive west side of the street south of Airport Boulevard; and
- Ordinance Road east side of the street starting about 100 feet north of Airport Boulevard.

#### **3.12.3.2 Bicycle**

The *2010 Sonoma County Bicycle and Pedestrian Plan* establishes a goal to provide a safe and supportive environment for bicycle transportation providing standards for bike facilities and identifying improvements. Bikeways are designated according to the physical characteristics of the facility.

Class I bikeways are paved pathways that are separated and generally inaccessible to vehicular traffic. Class II bikeways are those provided along roadways and marked along the edge of the vehicular travel way. Class III bikeways are designated and mapped along streets that satisfy minimum design criteria but where vehicle traffic is otherwise normal.

Bike lanes are provided along the following roadway in the vicinity of the Airport:

- *Airport Boulevard* – Class II striped bike lanes start at the Flightline Drive-Ordinance Road intersection internal to the Airport and extend easterly to just west of the U.S.101 freeway interchange. The bike lanes continue to the east of the interchange.

### **3.12.4 Planned Circulation System Improvements**

#### **3.12.4.1 Roadways**

##### **By 2015**

##### **Town of Windsor<sup>6</sup>**

- Shiloh Road/Conde Lane Intersection
  - Signalization
- Shiloh Road/U.S.101 Southbound Off-Ramp
  - Signalization
  - Provision of a two-lane off-ramp approach to intersection (one left turn lane and one right turn lane).

##### **County of Sonoma<sup>7</sup>**

- Airport Boulevard/U.S.101 Interchange
  - Reconstruction, including 5-lane overpass of freeway. Signalized intersections for both the north and southbound ramps.
- Airport Boulevard from U.S.101 Interchange to just west of the North Laughlin Road-Skylane Boulevard Intersection
  - Widening completed to provide 4 through travel lanes and left-turn lanes at intersections and continuous two-way left-turn lane or raised median between intersections.
- Airport Boulevard/ North Laughlin Road- Skylane Boulevard Intersection
  - Signalization
- Brickway Boulevard
  - Extended southerly across Mark West Creek and connection to Laughlin Road just north of River Road.
- River Road/Laughlin Road (Brickway Boulevard) Intersection
  - Roundabout constructed.

##### **By 2030**

##### **Town of Windsor<sup>8</sup>**

- Shiloh Road/Conde Lane Intersection
  - Addition of 4th (southerly) leg to intersection in conjunction with elimination of left turn movements to/from Caletti Avenue to the east.

#### **3.12.4.2 Pedestrian and Bicycle Routes**

##### **Pedestrian**

Sidewalks will be provided along all sections of Airport Boulevard when widened to its ultimate four through lane cross section width. Timing will be dependent upon available funding and individual development frontage improvements.

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<sup>6</sup> Mr. Allan Tilton, Town of Windsor Consulting Traffic Engineer, December 2010.

<sup>7</sup> County of Sonoma Department of Transportation & Public Works, August 2009.

<sup>8</sup> Mr. Allan Tilton, Town of Windsor Consulting Traffic Engineer, December 2010.

## **Bicycle**

The 2010 Sonoma County Bicycle and Pedestrian Plan lists the following proposed bike route improvements in the Airport area. There are no timelines associated with provision of these routes.

### **Class I Bike Path**

- Along the Northwestern Pacific Railway line north and south of Airport Boulevard (extending north of Shiloh Road)

### **Class II Striped Bike Lanes**

- Brickway Boulevard from Airport Boulevard to River Road
- River Road
- Skylane Boulevard (from Airport Boulevard to Shiloh Road)
- Airport Boulevard (through its reconstructed interchange with the U.S.101 freeway – by 2015)
- Shiloh Road (from Skylane Boulevard to Hembree Lane)

### **Class III Signed Bike Routes**

- Slusser Road
- Mark West Station Road
- Windsor Road (Mark West Station Road to Shiloh Road)

## **3.12.5 Future Year Base Case (without Proposed Project) Circulation System Operation**

### **3.12.5.1 Year 2015**

#### **Base Case 2015 Volumes**

Year 2015 AM and PM peak hour volumes were developed using the most recent traffic modeling available from the Sonoma County Transportation Authority (SCTA). Year 2035 projections have recently been developed, and after discussion with SCTA staff, it was determined that a straight line growth rate between existing and 2035 conditions would be reasonable to estimate future volumes for the Airport Boulevard, River Road, Shiloh Road and U.S.101 corridors evaluated in this study. In addition, for CEQA evaluation purposes, additional growth was considered likely<sup>9</sup> at the Airport that would not be due to the Proposed Project, but beyond that included in the SCTA traffic model. **Table 3.12-5** presents the maximum additional peak hour traffic that would be expected to travel to/from the Airport by 2015 without the improvements identified as part of the Proposed Project. As shown, added traffic would be due to the arrival and departure of one additional 74-seat commercial flight during both the AM and PM peak hours, as well as a result of 15 new general aviation based aircraft. Overall, about 56 new inbound and outbound vehicle trips would be expected during both the AM and PM peak hours due to activities expected at the Airport by 2015 that are not related to the improvements identified in the Airport Master Plan.

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<sup>9</sup> RS&H/County of Sonoma.

Table 3.12-5

**INCREASE IN CHARLES M. SCHULZ – SONOMA COUNTY AIRPORT TRIP GENERATION BY 2015 WITHOUT PROPOSED PROJECT**

ACTIVITY	NUMBER	AM PEAK HOUR TRIPS		PM PEAK HOUR TRIPS	
		INBOUND	OUTBOUND	INBOUND	OUTBOUND
<b>NEW PLANE ARRIVALS/DEPARTURES</b>					
<i>AM Peak Hour</i>					
74-Seat Plane	1	55	55		
<b>SUBTOTAL</b>		<b>55<sup>/a/</sup></b>	<b>55<sup>/a/</sup></b>		
<i>PM Peak Hour</i>					
74-Seat Plane	1			55	55
<b>SUBTOTAL</b>				<b>55<sup>/a/</sup></b>	<b>55<sup>/a/</sup></b>
<b>OTHER ACTIVITIES</b>					
NEW BASED AIRCRAFT	15	1 <sup>/b/</sup>	1 <sup>/b/</sup>	1 <sup>/b/</sup>	1 <sup>/b/</sup>
<b>TOTAL</b>		<b>56</b>	<b>56</b>	<b>56</b>	<b>56</b>

/a/ Trip projections based upon Crane Transportation Group October 15, 2010 survey at Sonoma County Airport of traffic activity associated with arrival/departure of two 74-seat aircraft during the mid/late afternoon.

/b/ Trip rates from *Trip Generation*, 8th Edition, by the Institute of Transportation Engineers (ITE) 2008.

Ln = Natural Log, X = Based Aircraft, T = Trips

AM Ln(T) = 1.42 Ln(X)-3.33 (50% in/50% out)

PM Ln(T) = 1.21 Ln(X)-1.93 (55% in/45% out)

SOURCE: Crane Transportation Group, 2010

PREPARED BY: Crane Transportation Group, 2010

**Base Case 2015 Intersection Level of Service**

Table 3.12-6 presents year 2015 Base Case and Base Case + Proposed Project AM and PM peak hour levels of service at analysis intersections. Base Case (without the Proposed Project) estimated operating conditions are detailed below.

**AM Peak Hour**

During the AM peak hour all intersections within the County of Sonoma and Town of Windsor would be operating at acceptable levels of service with increased volumes and planned improvements. 2015 AM peak hour volumes without the Proposed Project are presented in Figure 3.12-6.

**PM Peak Hour**

During the PM peak hour all analysis intersections along Shiloh Road within the Town of Windsor would be operating at acceptable levels of service. During the same time period all intersections within the County of Sonoma would be operating at acceptable levels of service with one exception. At the River Road/Slusser Road intersection, the Slusser Road stop sign controlled approach would be operating at LOS E. 2015 PM peak hour volumes without the Proposed Project are presented in Figure 3.12-7.

Table 3.12-6  
**INTERSECTION LEVEL OF SERVICE – YEAR 2015**

INTERSECTION	AM PEAK HOUR		PM PEAK HOUR	
	BASE CASE	BASE CASE + PROPOSED PROJECT	BASE CASE	BASE CASE + PROPOSED PROJECT
<b>Shiloh Road Corridor – Town of Windsor</b>				
Shiloh Road/Skylane Boulevard (Signal) <sup>/a/</sup>	D - 51.6	D - 52.9	B - 20.0	C - 22.3
Shiloh Road/Conde Lane (Signal) <sup>/a/</sup>	A - 9.9	A - 10.8	A - 6.8	A - 6.9
Shiloh Road/U.S.101 Southbound Off-Ramp (Signal) <sup>/a/</sup>	B - 12.5	B - 12.7	B - 11.5	B - 11.6
Shiloh Road/U.S.101 Northbound Off- Ramp (Signal) <sup>/a/</sup>	B - 15.4	B-16.4	B-13.0	B - 13.0
<b>Airport Boulevard Corridor – County of Sonoma</b>				
Airport Boulevard/North Laughlin Road-Skylane Boulevard (Signal) <sup>/a/</sup>	C - 22.0	C - 22.7	C - 20.6	C- 21.3
Airport Boulevard /Brickway Boulevard (Signal) <sup>/a/</sup>	B - 10.8	B - 10.9	B - 13.8	B - 13.8
Airport Boulevard /Aviation Boulevard (Signal) <sup>/a/</sup>	B - 18.8	B - 18.8	C - 26.8	C - 26.8
Airport Boulevard/U.S. 101 Southbound Off-Ramp (Signal) <sup>/a/</sup>	A - 6.0	A - 6.0	A - 5.2	A - 5.3
Airport Boulevard/U.S.101 Northbound Off-Ramp (Signal) <sup>/a/</sup>	B - 18.9	B - 19.3	B - 12.9	B - 13.2
<b>River Road Corridor – County of Sonoma</b>				
River Road/Slusser Road (Slusser Road Stop Sign Control) <sup>/b/</sup>	C - 23.4	C - 23.5	<b>E - 36.6</b>	<b>E - 37.1</b>
River Road/Laughlin Road (Roundabout) <sup>/c/</sup>	A - 4.0	A - 4.0	A - 6.0	A - 6.1

/a/ Signalized level of service – control delay in seconds.

/b/ Unsignalized level of service – control delay in seconds. Slusser Road stop sign controlled approach.

/c/ Roundabout level of service – control delay in seconds.

SOURCE: 2000 Highway Capacity Manual Analysis Methodology, 2000

PREPARED BY: Crane Transportation Group, 2010

### **Base Case 2015 Signal Warrant Evaluation**

Only one analysis intersection (River Road/Slusser Road in the County of Sonoma) would remain unsignalized by 2015. Estimated 2015 Base Case AM peak hour volumes would be on the borderline of exceeding peak hour signal warrant criteria levels at this location, while PM peak hour volumes would be exceeding peak hour signal warrant criteria levels. Lane geometrics and anticipated intersection controls for year 2015 without the Proposed Project are presented in **Figure 3.12-8**.

### **Base Case 2015 Freeway Operation**

**Table 3.12-7** shows that with 2015 Base Case volumes all mixed flow U.S.101 freeway lanes just north and south of the Airport Boulevard interchange would be operating at acceptable LOS C conditions during the AM peak hour. During the PM peak traffic hour, operation both north and south of the Airport Boulevard interchange would also be an acceptable LOS C with one exception. Northbound mixed flow lanes to the north of the interchange would be operating at LOS D conditions.

Table 3.12-7  
**FREEWAY LEVEL OF SERVICE – YEAR 2015**

	AM PEAK HOUR							
	NORTHBOUND				SOUTHBOUND			
	WITHOUT PROPOSED PROJECT		WITH PROPOSED PROJECT		WITHOUT PROPOSED PROJECT		WITH PROPOSED PROJECT	
	VOLUME	LOS SPEED V/C	VOLUME	LOS SPEED D V/C	VOLUME	LOS SPEED D V/C	VOLUME	LOS SPEED V/C
North of Airport Boulevard interchange	2115	C 65.0 0.45	2117	C 65.0 0.45	2740	C 65.0 0.58	2743	C 65.0 0.58
South of Airport Boulevard interchange	2480	C 65.0 0.53	2516	C 65.0 0.54	2678	C 65.0 0.57	2700	C 65.0 0.57
	PM PEAK HOUR							
	NORTHBOUND				SOUTHBOUND			
	WITHOUT PROPOSED PROJECT		WITH PROPOSED PROJECT		WITHOUT PROPOSED PROJECT		WITH PROPOSED PROJECT	
	VOLUME	LOS SPEED V/C	VOLUME	LOS SPEED D V/C	VOLUME	LOS SPEED D V/C	VOLUME	LOS SPEED V/C
North of Airport Boulevard interchange	3265	D 64.3 0.69	3266	D 64.3 0.69	2455	C 65.0 0.52	2461	C 65.0 0.52
South of Airport Boulevard interchange	2905	C 65.0 0.62	2932	C 64.9 0.62	2843	C 65.0 0.60	2874	C 64.9 0.61

SOURCE: Crane Transportation Group, 2010  
 PREPARED BY: Crane Transportation Group, 2010

**3.12.5.2 Year 2030**

**Base Case 2030 Volumes**

Year 2030 AM and PM peak hour volumes were developed in the same manner as 2015 volumes, using the most recent traffic modeling available from the SCTA and projecting a straight line growth rate between existing and 2030 conditions. In addition, for CEQA evaluation purposes, additional growth was considered likely<sup>10</sup> at the Airport that would not be due to the improvements identified as part of the Proposed Project, but beyond that included in the SCTA traffic model. **Table 3.12-8** presents the maximum additional peak hour traffic that would be expected to travel to/from the Airport by 2030 without the improvements identified as part of the Proposed Project. As shown, added traffic would be due to the arrival and departure of three additional commercial flights during the AM peak hour, four additional commercial flights during the PM peak hour as well as 62 new general aviation based aircraft. Overall, about 175 new inbound and outbound vehicle trips would be expected during the AM peak hour, with about 235 new inbound and outbound vehicle trips expected during the PM peak hour due to activities

<sup>10</sup> RS&H/County of Sonoma.

expected at the Airport by 2030 that are not associated with the improvements identified as part of the Proposed Project.

*Table 3.12-8*  
**INCREASE IN CHARLES M. SCHULZ-SONOMA COUNTY AIRPORT TRIP GENERATION BY 2030 WITHOUT PROPOSED PROJECT**

ACTIVITY	NUMBER	AM PEAK HOUR TRIPS		PM PEAK HOUR TRIPS	
		INBOUND	OUTBOUND	INBOUND	OUTBOUND
<b>NEW PLANE ARRIVALS/DEPARTURES</b>					
<i>AM Peak Hour</i>					
66-Seat Plane	1	49	49		
74-Seat Plane	1	55	55		
86-Seat Plane	1	64	64		
<i>PM Peak Hour</i>					
66-Seat Plane	1			49	49
74-Seat Plane	2			110	110
86-Seat Plane	1			64	64
<b>COMMERCIAL PLANE SUBTOTAL</b>		<b>168<sup>/a/</sup></b>	<b>168<sup>/a/</sup></b>	<b>223<sup>/a/</sup></b>	<b>223<sup>/a/</sup></b>
<b>NEW BASED AIRCRAFT</b>					
East Side of Field	32	3 <sup>/b/</sup>	2 <sup>/b/</sup>	5 <sup>/b/</sup>	5 <sup>/b/</sup>
South Side of Field	24	2 <sup>/b/</sup>	2 <sup>/b/</sup>	4 <sup>/b/</sup>	3 <sup>/b/</sup>
West Side of Field	6	1 <sup>/b/</sup>	0 <sup>/b/</sup>	1 <sup>/b/</sup>	1 <sup>/b/</sup>
<b>BASED AIRCRAFT SUBTOTAL</b>	<b>62</b>	<b>6</b>	<b>4</b>	<b>10</b>	<b>9</b>
<b>GRAND TOTAL</b>		<b>174</b>	<b>172</b>	<b>233</b>	<b>232</b>

- /a/ Trip projections based upon Crane Transportation Group October 15, 2010 survey at Sonoma County Airport of traffic activity associated with arrival/departure of two 74-seat aircraft during the mid/late afternoon.
- /b/ Trip rates from *Trip Generation*, 8th Edition, by the Institute of Transportation Engineers (ITE) 2008.  
 Ln = Natural Log, X = Based Aircraft, T = Trips  
 AM Ln(T) = 1.42 Ln(X)-3.33 (50% in/50% out)  
 PM Ln(T) = 1.21 Ln(X)-1.93 (55% in/45% out)

SOURCE: Crane Transportation Group, 2010  
 PREPARED BY: Crane Transportation Group, 2010

**Base Case 2030 Intersection Level of Service**

Table 3.12-9 presents year 2030 Base Case and Base Case + Proposed Project AM and PM peak hour levels of service at analysis intersections. Base Case (without the improvements identified as part of the Proposed Project) projected operating conditions are detailed below.

**AM Peak Hour**

During the AM peak hour all analysis intersections within the County of Sonoma would be operating at acceptable levels of service. In the Town of Windsor all analysis intersections along Shiloh Road within the Town of Windsor would be operating at acceptable levels of service, with one exception. The Shiloh Road/Skylane Boulevard signalized intersection would be operating at LOS E. 2030 AM peak hour volumes without the Proposed Project are presented in Figure 3.12-9.

Table 3.12-9  
**INTERSECTION LEVEL OF SERVICE – YEAR 2030**

INTERSECTION	AM PEAK HOUR		PM PEAK HOUR	
	BASE CASE	BASE CASE + PROPOSED PROJECT	BASE CASE	BASE CASE + PROPOSED PROJECT
<b>Shiloh Road Corridor – Town of Windsor</b>				
Shiloh Road/Skylane Boulevard (Signal) <sup>/a/</sup>	E - 62.7	E - 68.2	C - 23.5	C - 23.9
Shiloh Road/Conde Lane (Signal) <sup>/a/</sup>	D - 44.8	D - 46.9	D - 44.9	D - 49.6
Shiloh Road/U.S.101 Southbound Off-Ramp (Signal) <sup>/a/</sup>	B - 14.1	B - 14.4	B - 12.7	B - 12.8
Shiloh Road/U.S.101 Northbound Off- Ramp (Signal) <sup>/a/</sup>	C - 20.6	C - 20.9	B - 15.4	B - 15.4
<b>Airport Boulevard Corridor – County of Sonoma</b>				
Airport Boulevard/North Laughlin Road-Skylane Boulevard (Signal) <sup>/a/</sup>	C - 24.2	C - 30.6	C - 22.3	C - 27.8
Airport Boulevard /Brickway Boulevard (Signal) <sup>/a/</sup>	B - 12.8	B - 14.9	B - 14.5	B - 15.3
Airport Boulevard /Aviation Boulevard (Signal) <sup>/a/</sup>	B - 19.1	B - 19.1	C - 27.7	C - 28.9
Airport Boulevard/U.S. 101 Southbound Off-Ramp (Signal) <sup>/a/</sup>	B - 10.4	B - 10.4	A - 5.7	A - 5.7
Airport Boulevard/U.S.101 Northbound Off-Ramp (Signal) <sup>/a/</sup>	C - 23.8	C - 29.1	B - 15.5	B - 16.2
<b>River Road Corridor – County of Sonoma</b>				
River Road/Slusser Road (Slusser Road Stop Sign Control) <sup>/b/</sup>	D - 27.1	D - 27.9	<b>E - 48.1</b>	<b>F - 50.9</b>
River Road/Laughlin Road (Roundabout) <sup>/c/</sup>	A - 4.2	A - 4.3	A - 7.1	A - 7.8

<sup>/a/</sup> Signalized level of service – control delay in seconds.

<sup>/b/</sup> Unsignalized level of service – control delay in seconds. Slusser Road stop sign controlled approach.

<sup>/c/</sup> Roundabout level of service – control delay in seconds.

SOURCE: Year 2000 Highway Capacity Manual Analysis Methodology, 2000

PREPARED BY: Crane Transportation Group, 2010

**PM Peak Hour**

During the PM peak hour all analysis intersections along Shiloh Road within the Town of Windsor would be operating at acceptable levels of service. During the same time period all intersections within the County of Sonoma would be operating at acceptable levels of service with one exception. At the *River Road/Slusser Road* intersection, the Slusser Road stop sign controlled approach would be operating at LOS E. 2030 PM peak hour volumes without the Proposed Project are presented in **Figure 3.12-10**.

**Base Case 2030 Signal Warrant Evaluation**

Only one analysis intersection would remain unsignalized by 2030 (River Road/Slusser Road in the County of Sonoma). Estimated 2030 Base Case AM and PM peak hour volumes would both exceed peak hour signal warrant criteria levels at the River Road/Slusser Road intersection.

Lane geometrics and anticipated intersection controls for year 2030 without the Proposed Project is presented in **Figure 3.12-11**.

**Base Case 2030 Freeway Operation**

**Table 3.12-10** presents 2030 Base Case operation of all mixed flow U.S.101 freeway lanes just north and south of the Airport Boulevard interchange. During the AM peak hour the freeway would be experiencing unacceptable LOS D southbound operation and acceptable LOS C northbound operation both north and south of Airport Boulevard. During the PM peak hour the freeway would be experiencing unacceptable LOS D operation in the northbound direction both north and south of Airport Boulevard and in the southbound direction south of Airport Boulevard. Acceptable LOS C operation would be experienced in the southbound direction to the north of Airport Boulevard.

Table 3.12-10  
**FREEWAY LEVEL OF SERVICE – YEAR 2030**

	AM PEAK HOUR							
	NORTHBOUND				SOUTHBOUND			
	WITHOUT PROPOSED PROJECT		WITH PROPOSED PROJECT		WITHOUT PROPOSED PROJECT		WITH PROPOSED PROJECT	
	VOLUME	LOS SPEED V/C	VOLUME	LOS SPEE D V/C	VOLUME	LOS SPEE D V/C	VOLUM E	LOS SPEED V/C
North of Airport Boulevard interchange	2270	C 65.0 0.48	2273	C 65.0 0.48	3345	D 64.2 0.71	3357	D 64.1 0.71
South of Airport Boulevard interchange	2703	C 65.0 0.58	2834	C 65.0 0.60	3425	D 63.8 0.73	3458	D 63.7 0.74
	PM PEAK HOUR							
	NORTHBOUND				SOUTHBOUND			
	WITHOUT PROPOSED PROJECT		WITH PROPOSED PROJECT		WITHOUT PROPOSED PROJECT		WITH PROPOSED PROJECT	
	VOLUME	LOS SPEED V/C	VOLUME	LOS SPEE D V/C	VOLUME	LOS SPEE D V/C	VOLUM E	LOS SPEED V/C
North of Airport Boulevard interchange	3765	D 61.6 0.80	3770	D 61.6 0.80	2985	C 64.9 0.64	3001	C 64.8 0.64
South of Airport Boulevard interchange	3455	D 63.7 0.74	3522	D 63.3 0.75	3520	D 62.9 0.75	3673	D 61.8 0.78

SOURCE: Crane Transportation Group, 2010  
PREPARED BY: Crane Transportation Group, 2010

### 3.12.6 Environmental Impacts and Mitigation Measures

#### 3.12.6.1 Project Trip Generation and Distribution

Project trip generation projections were developed with the assistance of the County of Sonoma Permit and Resource Management Department (PRMD) and County of Sonoma Department of Transportation, Airport Division staff in consultation with Reynolds, Smith & Hills (RS&H). Proposed Project components resulting in additional traffic are as follows;

##### Year 2015

- One new 74-seat commercial plane arrival/departure during both the AM and PM peak hours

##### Year 2030

- One new 74-seat commercial plane arrival/departure during the AM peak hour
- One new 66-seat commercial plane and one new 86-seat commercial plane arrival/departure during the PM peak hour
- 49 new based general aviation aircraft
- Two new office buildings: (1) a 98,000-square-foot office building north of Airport Boulevard adjacent to the west side of Ordinance Road and (2) a 51,000-square-foot office building south of Airport Boulevard along the west side of North Laughlin Road<sup>11</sup>
- A new air cargo facility (with ± 50 new inbound and 50 new outbound trips per day)

**Tables 3.12-11** and **3.12-12** present the increase in new Airport AM and PM peak hour trip generation from existing conditions to years 2015 and 2030, respectively, with the implementation of the Proposed Project. **Table 3.12-13** presents a summary of the trip generation associated with the Proposed Project. **Figures 3.12-12** and **3.12-13** respectively present the 2015 AM and PM peak hour volumes associated with the Proposed Project. **Figures 3.12-14** and **3.12-15** respectively present the 2030 AM and PM peak hour volumes associated with the Proposed Project. Specific development plans for the long-term project elements have not been prepared at this time. For the purposes of developing the project trip generation projections for 2030, it is assumed that all long-term project elements identified in the Master Plan will be fully implemented. For 2015 conditions, the Proposed Project would result in approximately 55 more inbound and outbound vehicles during both the AM (see **Figure 3.12-16**) and PM (see **Figure 3.12-17**) peak traffic hours. For 2030 conditions, the Proposed Project would result in approximately 260 more inbound and 100 more outbound trips during the AM (see **Figure 3.12-18**) peak hour and about 165 more inbound and 300 more outbound vehicles during the PM peak hour (see **Figure 3.12-19**).

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<sup>11</sup> The two office buildings are not part of the proposed project and may be fully built under existing zoning. However, they would be located on property owned by the Airport, and were included for purposes of fully studying potential future traffic impacts associated with any Airport activities.

Table 3.12-11

**INCREASE IN CHARLES M. SCHULZ – SONOMA COUNTY AIRPORT TRIP GENERATION BY 2015 WITH PROPOSED PROJECT**

ACTIVITY	NUMBER	AM PEAK HOUR TRIPS		PM PEAK HOUR TRIPS	
		INBOUND	OUTBOUND	INBOUND	OUTBOUND
<b>NEW PLANE ARRIVALS/DEPARTURES</b>					
<i>AM Peak Hour</i>					
74-Seat Plane	2	110 <sup>/a/</sup>	110 <sup>/a/</sup>		
<b>SUBTOTAL</b>		<b>110</b>	<b>110</b>		
<i>PM Peak Hour</i>					
74-Seat Plane	2			110 <sup>/a/</sup>	110 <sup>/a/</sup>
<b>SUBTOTAL</b>				<b>110</b>	<b>110</b>
<b>OTHER ACTIVITIES</b>					
NEW BASED AIRCRAFT	15	1 <sup>/b/</sup>	1 <sup>/b/</sup>	1 <sup>/b/</sup>	1 <sup>/b/</sup>
East Side of Field					
<b>TOTAL</b>		<b>111</b>	<b>111</b>	<b>111</b>	<b>111</b>

/a/ Trip projections based upon Crane Transportation Group October 15, 2010 survey at Sonoma County Airport of traffic activity associated with arrival/departure of two 74-seat aircraft during the mid/late afternoon.

/b/ Trip rates from *Trip Generation*, 8th Edition, by the Institute of Transportation Engineers (ITE) 2008.

Ln = Natural Log, X = Based Aircraft, T = Trips

AM Ln(T) = 1.42 Ln(X)-3.33 (50% in/50% out)

PM Ln(T) = 1.21 Ln(X)-1.93 (55% in/45% out)

SOURCE: Crane Transportation Group, 2010

PREPARED BY: Crane Transportation Group, 2010

Table 3.12-12

**INCREASE IN CHARLES M. SCHULZ – SONOMA COUNTY AIRPORT TRIP GENERATION BY 2030 WITH PROPOSED PROJECT<sup>12</sup>**

ACTIVITY	NUMBER	AM PEAK HOUR TRIPS		PM PEAK HOUR TRIPS	
		INBOUND	OUTBOUND	INBOUND	OUTBOUND
<b>NEW PLANE ARRIVALS/DEPARTURES</b>					
<b>AM Peak Hour</b>					
66-Seat Plane	1	49 <sup>/a/</sup>	49 <sup>/a/</sup>		
74-Seat Plane	2	110 <sup>/a/</sup>	110 <sup>/a/</sup>		
86-Seat Plane	1	64 <sup>/a/</sup>	64 <sup>/a/</sup>		
<b>PM Peak Hour</b>					
66-Seat Plane	2			98 <sup>/a/</sup>	98 <sup>/a/</sup>
74-Seat Plane	2			110 <sup>/a/</sup>	110 <sup>/a/</sup>
86-Seat Plane	2			128 <sup>/a/</sup>	128 <sup>/a/</sup>
<b>COMMERCIAL PLANE SUBTOTAL</b>		<b>223</b>	<b>223</b>	<b>336</b>	<b>336</b>
<b>NEW BASED AIRCRAFT</b>					
East Side of Field	34	3 <sup>/b/</sup>	3 <sup>/b/</sup>	6 <sup>/b/</sup>	5 <sup>/b/</sup>
South Side of Field	24	2 <sup>/b/</sup>	2 <sup>/b/</sup>	4 <sup>/b/</sup>	3 <sup>/b/</sup>
West Side of Field	6	1 <sup>/b/</sup>	0 <sup>/b/</sup>	1 <sup>/b/</sup>	1 <sup>/b/</sup>
<b>BASED AIRCRAFT SUBTOTAL</b>	<b>64</b>	<b>6</b>	<b>5</b>	<b>11</b>	<b>9</b>
<b>OTHER ACTIVITIES</b>					
Office					
North of Airport Boulevard	98,000 sq ft	133 <sup>/c/</sup>	19 <sup>/c/</sup>	24 <sup>/c/</sup>	122 <sup>/c/</sup>
South of Airport Boulevard	51,000 sq ft	69 <sup>/c/</sup>	10 <sup>/c/</sup>	13 <sup>/c/</sup>	63 <sup>/c/</sup>
Cargo Facility (Laughlin Road Access)		2 <sup>/d/</sup>	15 <sup>/d/</sup>	15 <sup>/d/</sup>	2 <sup>/d/</sup>
<b>OTHER ACTIVITY SUBTOTAL</b>		<b>204</b>	<b>44</b>	<b>52</b>	<b>187</b>
<b>GRAND TOTAL</b>		<b>433</b>	<b>272</b>	<b>399</b>	<b>532</b>

/a/ Trip projections based upon Crane Transportation Group October 15, 2010 survey at Sonoma County Airport of traffic activity associated with arrival/departure of two 74-seat aircraft during the mid/late afternoon.

/b/ Trip rates from *Trip Generation*, 8th Edition, by the Institute of Transportation Engineers (ITE) 2008.  
 Ln = Natural Log, X = Based Aircraft, T = Trips  
 AM Ln(T) = 1.42 Ln(X)-3.33 (50% in/50% out)  
 PM Ln(T) = 1.21 Ln(X)-1.93 (55% in/45% out)

/c/ Trip rates from *Trip Generation*, 8th Edition, by the Institute of Transportation Engineers (ITE) 2008.  
 AM 1.36 in/.19 out  
 PM .25 in/1.24 out

/d/ RS&H/Crane Transportation Group

SOURCE: Crane Transportation Group, 2010  
 PREPARED BY: Crane Transportation Group, 2010

<sup>12</sup> The two office buildings are not part of the proposed project and may be fully built under existing zoning. However, they would be located on property owned by the Airport, and were included for purposes of fully studying potential future traffic impacts associated with any Airport activities.

Table 3.12-13

**CHARLES M. SCHULZ-SONOMA COUNTY AIRPORT  
TRIP GENERATION SUMMARY FOR PROPOSED PROJECT**

	YEAR 2015			
	AM PEAK HOUR TRIPS		PM PEAK HOUR TRIPS	
	IN	OUT	IN	OUT
Existing	175	85	130	225
Existing to 2015 without Proposed Project	56	56	56	56
2015 Total without Proposed Project	231	141	186	281
Existing to 2015 with Proposed Project	55	55	55	55
2015 Total with Proposed Project	286	196	241	336
	YEAR 2030			
	AM PEAK HOUR TRIPS		PM PEAK HOUR TRIPS	
	IN	OUT	IN	OUT
Existing	175	85	130	225
Existing to 2030 without Proposed Project	174	172	233	232
2030 Total without Proposed Project	349	257	363	457
Existing to 2030 with Proposed Project	259	100	166	300
2030 Total with Proposed Project	608	357	529	757

SOURCE: Crane Transportation Group  
PREPARED BY: Crane Transportation Group

Trip generation projections for new based aircraft and offices were based upon trip rates from the traffic engineering profession's standard source of trip rate data, *Trip Generation*, 8th Edition, by the Institute of Transportation Engineers (ITE) 2008. Cargo facility trip generation was based upon projections from RS&H. Trip generation projections for new commercial airline flights were based upon detailed surveys conducted at the Airport in October 2010 during an afternoon with two 74-seat aircraft arrivals and departures. Traffic counts were conducted of drop offs and pickups at the terminal building; in and outbound flow to short and long term parking; taxi, rent-a-car, hotel van, Sonoma Airporter and public bus arrivals and departures as well as bicycle arrivals and departures. Survey findings indicated that with a 95 percent load factor and 100 percent of passengers either deplaning or enplaning at the Airport, each 74-seat aircraft resulted in about 55 inbound and 55 outbound trips. Surface street trip generation to be associated with proposed 66- and 86-seat planes using the Airport in the future was estimated to be in proportion to the number of seats on the plane.

### **Project Trip Distribution**

The increase in traffic as a result of the Proposed Project was distributed to the local roadway network based upon results from SCTA modeling conducted both with and without the Proposed Project. Estimated project traffic distribution is presented in **Table 3.12-14**. Overall, about two thirds of all traffic associated with the Proposed Project is estimated to access the U.S.101 freeway via Airport Boulevard, with a somewhat even split of the remaining traffic to the Shiloh Road and River Road corridors.

Table 3.12-14  
**TRIP DISTRIBUTION FOR THE PROPOSED PROJECT**

DIRECTION	AM PEAK HOUR		PM PEAK HOUR	
	IN	OUT	IN	OUT
Airport Boulevard to/from the East	64%	59%	68%	67%
Skylane Boulevard to/from the North and the Shiloh Road Corridor	18%	27%	16%	17%
North Laughlin Road and Brickway Boulevard to/from the South and the River Road Corridor	18%	14%	16%	16%

SOURCE: Crane Transportation Group/SCTA Traffic Model Projections, 2010  
 PREPARED BY: Crane Transportation Group, 2010

### 3.12.6.2 Impacts and Mitigation Measures

#### Impact 3.12.1: Construction Traffic as a Result of Short-Term Project Elements

The construction of the short-term project elements would occur in two phases over a two-year period. Phase I would occur for about 110 working days in 2012 (from about the beginning of June to the end of October). Phase II would occur for about 73 working days in 2013 (from about the middle of April to the end of July). The two phases would have the following construction-related workers and truck trips.

#### PHASE I

- work force would vary from 10 up to about 60
- maximum delivery truck round trips/day would be 70

#### PHASE II

- work force would vary from 10 up to 40
- maximum delivery truck round trips/day would be 35

Construction workers generally would work from 7:00 AM to 3:30 PM and would not be traveling during the normal commute periods. Truck deliveries would typically occur between 7:00 AM and 3:00 PM. Therefore, trucks would be on the local roadway system during the AM commute period. Project truck traffic would either use Airport Boulevard or Shiloh Road in order to travel between the Airport and U.S.101.

#### **Airport Boulevard Corridor**

The addition of 5 to 9 truck trips per hour in each direction on Airport Boulevard during the AM commute period would only slightly degrade operation at signalized intersections between the U.S.101 interchange and the Airport. All major intersections along Airport Boulevard to and including the reconstructed U.S.101 interchange are programmed for signalization before 2015. However, the Airport Boulevard interchange is programmed to be undergoing reconstruction during the 2012 and 2013 Master Plan construction seasons, and signalization of off-ramp intersections may not be in place by 2012 and/or 2013. The addition of up to 18 AM peak hour trucks through the interchange area during reconstruction could potentially result in significant delays for all drivers. The resultant impact would depend upon the temporary control measures in place at the interchange ramp intersections as well as any shift in regular Airport area commuters to alternate access routes (River Road/Shiloh Road) to avoid the construction. Significant AM peak hour delay impacts could also occur at the *Airport Boulevard/Skylane-North*

*Laughlin Road* intersection if not signalized by the time of project constructions. This would result in a potentially significant impact.

### **Shiloh Road Corridor**

Shiloh Road may be experiencing some additional background traffic growth during the course of the Airport Boulevard interchange reconstruction in 2012 and 2013. The addition of 5 to 9 project construction truck trips per hour in each direction on Shiloh Road during the AM commute period would only slightly degrade operation at the existing signalized intersections between the U.S.101 interchange and the Airport. All major intersections along Shiloh Road are programmed for signalization before 2015: The U.S.101 southbound off-ramp intersection is scheduled for signalization during the winter of 2011, while the Conde Lane intersection is scheduled for signalization by the end of 2012/early 2013.<sup>13</sup> The addition of up to 18 AM peak hour truck trips through either intersection, if remaining unsignalized, could potentially result in significant delay increases for drivers on the intersection's stop sign controlled approaches. Therefore, the Town of Windsor would not be in favor of allowing Airport construction truck traffic on Shiloh Road through either the Conde Lane at U.S.101 southbound off-ramp intersections until both are signalized.<sup>14</sup>

This would result in a potentially significant impact.

All construction worker parking would take place internal to the Airport (on 5 acres in the north section of the project site and/or on 5 acres in the southwest section of the project site).

A construction traffic management plan has not yet been prepared for the Master Plan. Lack of such a plan could lead to construction worker traffic occurring during peak commute periods

### **Mitigation Measure 3.12.1**

The County shall prepare a construction traffic management plan to ensure that construction worker traffic occurs outside normal commute hours (7:00-9:00 AM and 4:00-6:00 PM) and that there are no inbound and no more than 4 outbound construction truck trips during the AM peak traffic period; and no outbound and no more than 4 inbound construction truck trips during the PM peak traffic period. If Airport Master Plan construction truck traffic is routed to Shiloh Road and Skylane Boulevard, it may also be necessary to provide all-way stop control at the *Airport Boulevard/Skylane-North Laughlin Road* intersection until signalization is in place. All-way stop control at this location may also be required to mitigate extended delay on the Skylane Boulevard approach even if construction trucks are using Airport Boulevard for freeway access. No construction truck traffic should use Shiloh Road between Skylane Boulevard and the U.S.101 freeway until the Conde Lane and U.S.101 southbound ramp intersections are signalized. This would reduce the impact to a less-than-significant level.

### **Impact 3.12.2: Intersection Level of Service for 2015**

**Table 3.12-6** shows that traffic associated with the Proposed Project would produce no significant level of service impacts during the AM peak hour or PM peak hour at any analyzed location. No intersection would have acceptable Base Case operation degraded to an unacceptable operation. In addition, at the one intersection with unacceptable Base Case operation (River Road/Slusser Road – PM peak hour), the impact due to traffic associated with

<sup>13</sup> Mr. Allan Tilton, Town of Windsor Consulting Traffic Engineer, personal conversation, July 18, 2011.

<sup>14</sup> Ibid.

the Proposed Project would be less than significant (less than a 5-second increase in delay on the stop sign controlled Slusser Road intersection approach with Base Case LOS E operation).

**Mitigation Measure 3.12.2**

No mitigation is warranted.

**Impact 3.12.3: Intersection Signal Warrant Evaluation for 2015**

Only the River Road/Slusser Road intersection would be unsignalized by 2015. The Proposed Project would add four vehicles (on River Road) to this intersection during both the AM and PM peak hours (but none on Slusser Road). Base Case volumes at this intersection are on the borderline of meeting peak hour signal warrant criteria levels during the AM peak hour and exceed warrant criteria levels during the PM peak hour. Based upon County of Sonoma Significance Criteria 7, any increase in traffic at an unsignalized intersection already meeting signal warrant criteria levels is considered a significant impact.

**Mitigation Measure 3.12.3**

The County is not planning to signalize this intersection. Therefore, the County shall provide a fair share contribution towards installation of a dedicated right-turn lane on the Slusser Road intersection approach to River Road in order to mitigate the significant impact of the Proposed Project. The installation of the dedicated right-turn lane would result in a LOS of C in both the AM and PM peak hours. This would reduce the impact to a less-than-significant level (see **Figure 3.12-20**).

**Impact 3.12.4: U.S. 101 Freeway Operation for 2015**

**Table 3.12-7** shows that all but one direction of mixed flow travel lanes on the U.S.101 freeway north and south of the Airport Boulevard interchange would be operating at acceptable levels of service during the AM and PM peak traffic hours after the addition of traffic associated with the Proposed Project. The exception is the northbound direction north of the Airport Boulevard interchange during the PM peak hour, where operation would be LOS D. However, the addition of traffic associated with the Proposed Project would produce no change in the v/c ratio for this segment of freeway. Therefore, this would not meet Caltrans criteria for a significant impact. This would be a less-than-significant impact.

**Mitigation Measure 3.12.4**

No mitigation is warranted.

**Impact 3.12.5: Impacts to Pedestrian and Bicycle Facilities in 2015**

No change in pedestrian or bicycle traffic in the Airport vicinity is anticipated as a result of the increase in based general aviation aircraft or the increase in passengers using the Airport. In general, there are very few, if any, persons who access the Airport in a pedestrian mode or via bicycle. Thus, no change in pedestrian or bicycle activity in the Airport is anticipated as a result of the Proposed Project. This would be a less-than-significant impact.

**Mitigation Measure 3.12.5**

No mitigation is warranted.

### **Impact 3.12.6: Construction Traffic Associated with Long-Term Project Elements**

Long-term project elements would result in an increase in construction traffic during the period in which construction would occur. These long-term project elements include the development of a new terminal building and other landside facilities on the eastern portion of the Airport. It is likely that most construction traffic associated with these long-term projects would access the Airport via Airport Boulevard. Depending on the timing associated with each long-term project element, it is possible that traffic associated with construction activities (including construction workers, delivery of materials and supplies, etc.) could have an adverse effect on the LOS of intersections along Airport Boulevard. However, the timing of and haul routes for construction of the long-term project elements has not been established. All long-term project elements are still conceptual and dependent upon funding availability. Until the precise scope, design, and timing for each long-term project element is more clearly defined, any attempt to quantify construction-related traffic impacts would be purely speculative. Each long-term project element will be studied in a focused project-level environmental analysis before it is approved or implemented. To reduce any potentially significant impacts related to construction traffic, the following mitigation measure shall be implemented during construction for each long-term project element.

#### **Mitigation Measure 3.12.6**

As each new long-term project element is proposed for implementation, the County shall implement all feasible mitigation to ensure that construction-related traffic does not adversely affect the LOS at intersections in the Airport vicinity. At a minimum, the County shall prepare and implement a construction traffic management plan that includes measures, such as restrictions on construction worker traffic and construction truck trip traffic during peak traffic hours, sufficient to reduce the impact to adjacent roadways to a less-than-significant level.

### **Impact 3.12.7: Intersection Level of Service for 2030**

**Table 3.12-9** shows that traffic associated with full implementation of the Proposed Project would produce a significant impact at one Town of Windsor intersection, but at no County of Sonoma intersections. No intersection would have acceptable Base Case operation degraded to unacceptable operation. However, the Shiloh Road/Skylane Boulevard intersection in the Town of Windsor would have AM peak hour unacceptable Base Case LOS E delay increased from 62.7 up to 68.2 seconds of control delay. Based on Town of Windsor Significance Criteria 2, the addition of any traffic to an intersection with unacceptable Base Case operation is a significant impact. However, this impact assumes that all long-term project elements will be implemented. As previously noted, the designs of long-term project elements are conceptual and based on very limited engineering and environmental investigation. The actual environmental impact associated with these long-term elements will depend on the ultimate design and location of the particular long-term element. Therefore, additional investigation and analysis would be required to fully determine the environmental impacts, if any, associated with long-term project elements and identify appropriate mitigation to reduce any impact to less-than-significant levels.

At the one intersection with unacceptable Base Case operation in the County of Sonoma (River Road/Slusser Road – PM peak hour), traffic associated with the Proposed Project would change the level of service from LOS E to LOS F and result in an increase in delay of 2.8 seconds. Based on County of Sonoma Significance Criteria 10, this impact would be less-than-significant as there would be less than a 5-second increase in delay on the stop sign controlled Slusser Road intersection approach.

### **Mitigation Measure 3.12.7**

As each new long-term project element with the potential to generate traffic is proposed, the County shall comply with Sonoma County Traffic Study Guidelines and, if required, prepare a project-level traffic study to assess the potential traffic impacts associated with that long-term project element. If the traffic study identifies an impact to the *Shiloh Road/ Skylane Boulevard* intersection in Windsor, the County shall provide a fair share contribution to the construction of a dedicated right-turn lane on the eastbound Shiloh Road intersection approach. The construction of a right-turn lane would result in an AM peak hour intersection LOS of D. This would reduce the impact to a less-than-significant level. No mitigation is warranted at any other intersection.

### **Impact 3.12.8: Intersection Signal Warrant Evaluation for 2030**

By 2030, only the River Road/Slusser Road intersection would be unsignalized. Build out of the Proposed Project would add 14 vehicles to this intersection during the AM peak hour and 12 vehicles during the PM peak hour. One to two vehicles would be on the Slusser Road approach. Base Case volumes at this intersection would exceed peak hour signal warrant criteria levels during both the AM and PM peak hours. Based on County of Sonoma Significance Criteria 7, any increase in traffic at an unsignalized intersection already meeting signal warrant criteria levels is considered a significant impact. This impact assumes that all long-term project elements will be implemented. However, as previously discussed in Chapter 2, whether individual project elements are implemented will depend on need and available funding. The designs of long-term project elements are conceptual and based on very limited engineering and environmental investigation. The actual environmental impact associated with these long-term elements will depend on the ultimate design and location of the particular long-term element. Moreover, while the County has no plans to improve this intersection at this time, growth unrelated to the Proposed Project may alter those plans in the future. Therefore, additional investigation and analysis would be required to fully determine the environmental impacts, if any, associated with long-term project elements and identify appropriate mitigation to reduce any potentially significant impact to less-than-significant levels.

### **Mitigation Measure 3.12.8**

As each new long-term project element with the potential to generate traffic is proposed, the County shall comply with Sonoma County Traffic Study Guidelines and, if required, prepare a project-level traffic study to assess the potential traffic impacts associated with that long-term project element. If the traffic study identifies an impact to the River Road/Slusser Road intersection, the County shall provide a fair share contribution to the mitigation measure outlined in Mitigation Measure 3.12.4. This would result in LOS D for both the AM and PM peak hours. This would reduce the impact to a less-than-significant level (see **Figure 3.12-21**).

### **Impact 3.12.9: U.S. 101 Freeway Operation for 2030**

**Table 3.12-10** shows that the addition of traffic associated with build out of the Proposed Project would not change the Base Case level of service for any segment of freeway during any time period. However, traffic associated with the Proposed Project would change the v/c ratio of several freeway segments projected to be operating at Base Case LOS D conditions. Southbound U.S. 101 would experience v/c changes from 0.73 to 0.74. For the AM peak hour, northbound U.S. 101 south of Airport Boulevard would experience v/c changes from 0.74 to 0.75 and southbound U.S. 101 south of Airport Boulevard would experience a v/c change from 0.75 to 0.78. Based on Caltrans Significance Criteria 1 and County of Sonoma Significance Criteria 12, this would be a significant impact. This impact assumes full build out of all long-term project elements. However, as previously discussed in Chapter 2, whether individual project elements are implemented will depend on need and available funding. The designs of long-term

project elements are conceptual and based on very limited engineering and environmental investigation. The potential environmental impact on U.S. 101 associated with these long-term project elements will depend on the ultimate design and location of the particular long-term element. Therefore, additional investigation and analysis would be required to fully determine the environmental impacts, if any, associated with long-term project elements and identify appropriate mitigation to reduce any potentially significant impact to less-than-significant levels.

#### **Mitigation Measure 3.12.9**

While there are no feasible capacity measures to mitigate the impact of the Proposed Project on the U.S.101 mainline to a less-than-significant level, as each new long-term project element with the potential to generate traffic is proposed, the County shall comply with Sonoma County Traffic Study Guidelines and, if required, prepare a project-level traffic study to assess the potential traffic impacts associated with that long-term project element. If the traffic study identifies a volume-to-capacity ratio impact, the County shall implement all feasible traffic reduction strategies to minimize the identified impact. These strategies could include providing incentives to the use of public transportation or encourage commute alternatives.

#### **Impact 3.12.10: Impacts to Pedestrian Facilities for 2030**

Roadways adjacent to the Airport lack sidewalks in many locations. While there is little observed or expected pedestrian traffic along the Laughlin Road, Slusser Road, Mark West Station Road and Windsor Road frontages, there is the possibility of moderate pedestrian levels along Airport Boulevard. The lack of sidewalks along Airport Boulevard adjacent to the Airport may result in a significant pedestrian safety concern. In addition, the lack of pedestrian crossing signals at the Airport Boulevard/North Laughlin Road-Skylane Boulevard intersection (when signalized) may result in a pedestrian safety concern. This impact is considered significant according to Policy 1.07 of the *2010 Sonoma County Bicycle and Pedestrian Plan* which states that impacts to planned or existing pedestrian facilities must be identified and mitigated. Based on County of Sonoma Significance Criteria 14, this would be a significant impact. However, not all long-term project elements have the same potential to affect pedestrian safety. Replacement of the existing passenger terminal does carry the potential to generate additional traffic that could affect pedestrians along streets adjacent to the Airport. The two office buildings also would have the potential to affect pedestrians. However, the two office buildings are not part of the Proposed Project, and any impacts associated with the construction of these two buildings would be evaluated during the review process for these projects.

#### **Mitigation Measure 3.12.10**

Prior to the issuance of occupancy permits a new terminal building, the County shall provide a fair share contribution for sidewalks on Airport Boulevard where needed between the Airport terminal and the North Laughlin Road-Skylane Boulevard intersection. Implementation of this mitigation measure will reduce the impact to a less than significant level.

#### **Impact 3.12.11: Impact to Bicycle Facilities for 2030**

Class II bike lanes already exist along Airport Boulevard internal to the Airport (ending just west of the Flightline Drive-Ordinance Road intersection). There are no other bicycle lanes in the immediate project vicinity. Based upon surveys at the Airport terminal, there is minimal bicycle traffic to/from the Airport. Class III bike routes are planned along the Airport's Slusser Road, Mark West Station Road and Windsor Road frontages. However, there would only be minimal traffic along any of these routes that is associated with the Proposed Project; therefore, any impact along these roads would be less than significant. Class II bike lanes are planned along Skylane Boulevard between Airport Boulevard and Shiloh Road, where there would be a greater

increase in project traffic. There are currently no bicycle facilities along Skylane Boulevard. Project traffic increases along Skylane Boulevard would potentially increase safety concerns for bike riders along this route. This impact is considered significant according to Policy 1.07 of the *2010 Sonoma County Bicycle and Pedestrian Plan* which states that impacts to planned or existing bicycle facilities must be identified and mitigated. Based on County of Sonoma Significance Criteria 14, this would be a significant impact.

**Mitigation Measure 3.12.11**

Prior to the issuance of occupancy permits for the terminal, the County shall provide a fair share contribution toward provision of Class II bicycle lanes along Skylane Boulevard. This would reduce the impact to a less-than-significant level.