

## **4.4 TRANSPORTATION AND CIRCULATION**

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### **INTRODUCTION**

This section addresses the effects of development on traffic operations, transit services, bicycle facilities and airport safety.

### **ENVIRONMENTAL SETTING**

The existing transportation system and services in Fresno County are addressed in Chapter 4 of the *General Plan Background Report (Background Report)*, which is hereby incorporated by reference. That chapter addresses the following:

- The street and roadway system serving the County, including a description of the County's existing functional classification system.
- Existing levels of service (LOS) on rural roadways (i.e., those outside the sphere of influence of cities) in Fresno County. Table 4.4-1, lists those rural roadways that currently operate at LOS "D" or worse conditions. As this table shows, the only rural roadways currently operating at LOS "D" or worse conditions are State highways. All of the county roadways outside of the sphere of influence of cities operate at LOS "C" or better conditions.
- A description of existing truck and freight movements.
- Existing transit services and facilities.
- Bicycle, pedestrian and recreational facilities.
- Airport facilities and services.

### **REGULATORY SETTING**

Several County standards and policies apply to the evaluation of transportation impacts of the Proposed Project.

#### **Level of Service Policy**

Fresno County has not adopted a comprehensive level of service standard. However, it is a well established County practice to maintain level of service "C" as a goal for development mitigation, and

as a threshold for County capacity-enhancing roadway projects. The cities of Fresno and Clovis have a level of service “D” standard for their roadway systems. The Draft General Plan has a proposed level of service policy, which is discussed in the following section under Plan Elements.

Roadway	Segment	Volume	Lanes	LOS
SR 41	Central to American	16,800	2 <sup>1</sup>	D
	American to Lincoln	17,500	2 <sup>1</sup>	F
	Adams to Manning	12,000	2	D
	Manning to Dinuba	12,000	2	D
	Dinuba to Mtn. View	9,500	2	D
	Mtn. View to Kamm	8,700	2	D
SR 43	SR 99 to Mtn. View	12,500	2	D
	Mtn. View to Kamm	12,500	2	D
	Kamm to Elkhorn	8,800	2	D
	Elkhorn to Harlan	11,100	2	D
	Harlan to Mt. Whitney	10,800	2	D
SR 269	Gale to Jayne	10,600	2	D
	Jayne to I-5	10,500	2	D

<sup>1</sup> These roadways were expanded to four lanes in 1998.  
Source: DKS Associates, 1999.

### **Fresno County Roadway Development Standards**

Fresno County’s standard cross-sections and access control policies for each roadway classification are contained in the County’s existing General Plan.

### **Fresno County Road Improvement Program**

Fresno County’s Road Improvement Program (RIP) is a seven-year road construction programming schedule. This document is intended to be a guide to the Board of Supervisors’ road priorities. The RIP is updated as needed and should be viewed as a document which will self-adjust over time to match revenues, and allow the Board to respond to unforeseen needs.

### **The Regional Bikeways System Plan**

The Council of Fresno County Governments (COFCG) originally prepared the Fresno Regional Bikeways Plan in 1974. The Fresno-Clovis Area Bikeways Plan was later adapted from this regional

plan and adopted by the cities of Fresno and Clovis with some modifications. The Fresno-Clovis Area Bikeways Plan is a subsection of the Fresno County General Plan Transportation Element.

The COFCG prepared an unpublished draft update to the Regional Bikeways Plan in 1991. This draft contained input from Fresno County on the rural bikeway system. The Draft General Plan includes a Rural Bikeways System Map and calls for COFCG to update and adopt the Regional Bikeways Plan.

### **Airports**

Information regarding airports and airport safety is contained in Chapter 1.10, Land Use and Population, Airport Land Use Policy Plans and in Chapter 9.5, Safety, Airport Safety in the *General Plan Background Report (Background Report)*, which is hereby incorporated by reference and summarized below.

There are nine public and private airports within Fresno County. These include six public airports (Fresno-Yosemite International Airport, Fresno Chandler Downtown Airport, Coalinga Airport, Firebaugh Municipal Airport, Mendota Municipal Airport, and Reedley Municipal Airport) and three private airports (Harris Ranch Airport, Selma Aerodrome, and Sierra Sky Park Airport). Specific land use policy plans have been developed for Fresno-Yosemite International, Fresno Chandler Downtown, Coalinga, Harris Ranch, and Sierra Sky Park Airports. A single land use policy plan has been prepared for Firebaugh, Mendota, Reedley, and Selma Aerodrome. Land use and safety considerations pertaining to each of these facilities is discussed in more detail in Chapter 1, Land Use, and in Chapter 9, Safety, in the *Background Report*.

Federal Aviation Administration (FAA) regulations codified in Title 14 of the Code of Federal Regulations are administered at the state level by the Caltrans Division of Aeronautics. Neither the FAA nor Caltrans regulate land use adjacent to airports; however, Part 77 of the regulations requires agency notification when there is a change in land use that would involve the development of structures and roadways adjacent to the facility. The criteria for notification depends on the height of proposed structures relative to the location of runways and airport facilities.

Air safety zones, which are established at the end of each runway, are intended to restrict the type and intensity of activities that occur in each zone. The State Airport Land Use Planning Handbook allows jurisdictions flexibility in determining air safety zones. Restrictions correspond to the probability of an accident in each zone, based on data generated by the FAA. Each zone has certain acceptable and unacceptable land uses, which are determined by safety, noise, and airspace issues relative to runways, departure patterns, and overflight (common aircraft traffic). For example, residential, commercial, industrial, institutional, and parks are considered incompatible land uses within clear zones; however, golf courses and agricultural land uses, provided there are no structures, would be considered compatible. Certain types of residential, commercial, and institutional land uses are not allowed within the approach safety zone. General land use compatibility guidelines for air safety are presented in Appendix 9A in the *Background Report*.

The formation of airport land use commissions (ALUCs) was mandated in 1968 for all counties containing at least one public use airport (*Public Utilities Code* Section 21670 *et seq.*). The commissioners represent the county, its cities, and the public. Legislation passed in 1982 established a direct link between ALUCs comprehensive plans and land use plans and regulations prepared by cities and counties (*Public Utilities Code* Section 21676). In accordance with this legislation, ALUCs must review general and specific plans of local jurisdictions for consistency with the county's airport comprehensive land use plan (CLUP). Primary and Secondary Review Areas must be identified for each facility. Projects proposed within the geographic boundaries of the Primary Review Area are referred to the ALUC for review and evaluation. Within the Secondary Review Area, only those projects involving a structure or other object with a height that would exceed that permitted under adopted land use zoning would be referred to the ALUC for review.

## **PLAN ELEMENTS**

Transportation impacts of the Draft General Plan Land Use Diagram were evaluated under the Year 2020 Preferred Growth Scenario, which reflects estimates of 2020 population and employment under the Draft Economic Strategy for Fresno County. Under the Proposed Project, the number of daily vehicle trips in Fresno County would increase by approximately 60 percent between 1995 and 2020. Conditions without the Proposed Project are projected to have the same 2020 population as the Proposed Project, but a smaller increase in employment by 2020. As a result, the Proposed Project would result in 6 percent more daily vehicle trips within the county than would occur without the project.

The “2020 Baseline Transportation System” (described in Table 4.4-2), which was used to evaluate conditions with and without the Proposed Project, includes a number of funded/committed roadway improvements within Fresno County. Even with the improvements identified in Table 4.4-2, the projected increase in travel demand under either of these two 2020 growth scenarios would place a significant burden on the County’s transportation system, especially within the Fresno-Clovis Metropolitan Area (FCMA). The amount of roadway in Fresno County that would operate at level of service (LOS) “D” or worse is projected to increase from about 391 lane-miles in 1995 to about 1,022 lane-miles in 2020 without the project, an increase of 161 percent. The higher level of employment anticipated under the Proposed Project would result in about 1,186 lane-miles that would operate at LOS “D” or worse. This represents an increase of 16 percent over the 2020 without project condition.

The Proposed Project anticipates about 93 percent of the 1996 to 2020 population and employment growth would occur within the spheres of influence of incorporated cities. Most of the projected 2020 traffic congestion would occur within the spheres of the cities of Fresno and Clovis.

<b>TABLE 4.4-2</b>				
<b>ROADWAY IMPROVEMENTS IN THE 2020 BASELINE TRANSPORTATION SYSTEM</b>				
<b>Facility</b>	<b>Limits</b>	<b>Length</b>	<b>Type of Improvement</b>	
<b>Regionally Significant System</b>				
City of Fresno	Herndon	SR 99 to Grantland Diagonal	1.6	2 LU to 4 LD
		Brawley to Palm	2.9	4 LD to 6 LD
		Grantland Diagonal to Milburn	0.7	4 LD to 6 LD
	Shaw	SR 99 to Brawley	1.4	4 LD to 6 LD
		Hayes to SR 99	0.8	2 LU to 6 LD
		Grantland Diagonal to Hayes	0.8	2 LU to 6 LD
		Garfield to Grantland Diagonal	0.7	2 LU to 4 LD
	Ventura/Kings Canyon	Fowler to Temperance	1.0	2 LU to 4 LD
		R Street to Fowler	5.2	4 LD to 6 LD
	Friant	Ft. Washington to Audubon	0.8	4 LD to 6 LD
	Shields	Blythe to SR 99	1.5	2 LU to 6 LD
		Polk to Blythe	1.0	2 LU to 6 LU
		Grantland to Polk	1.5	2 LU to 6 LD
		SR 99 to Weber	0.2	Unconstructed to 6 LD
	Willow	Herndon to Alluvial	0.5	2 LU to 6 LD
		Alluvial to Nees	0.5	4 LU to 6 LD
	Grantland	Ashlan to Shields	1.0	2 LU to 6 LD
	Grantland Diagonal	Bullard Diagonal to Herndon	0.9	Unconstructed to 6 LD
		Shaw to SR 99	1.0	Unconstructed to 6 LD
		SR 99 to Bullard Diagonal	0.5	Unconstructed to 6 LD
		Ashlan to Shaw	1.1	Unconstructed to 6 LD
	Clovis	McKinley to Kings Canyon	2.0	4 LD to 6 LD
	Jensen	SR 99 to Clovis	4.0	4 LD to 6 LD

<b>TABLE 4.4-2</b>				
<b>ROADWAY IMPROVEMENTS IN THE 2020 BASELINE TRANSPORTATION SYSTEM</b>				
<b>Facility</b>		<b>Limits</b>	<b>Length</b>	<b>Type of Improvement</b>
	Chestnut/Willow	Nees to Shepherd	1.0	2 LU to 6 LD
		Shepherd to Copper	2.0	2 LU to 6 LD
	Whitesbridge	Valentine to Fruit	2.0	2 LU to 4 LD
	Bryan	McKinley to Shaw	3.0	2 LU to 4 LU
City of Clovis	Herndon	Willow to Clovis	--	4 L Expwy to 6 L Expwy
Measure C - Urban	SR 41	Jensen to SR 99	1.4	Unconstructed to 4 L Freeway
		Adams to Jensen	4.6	Unconstructed to 4 L Freeway
		Floral to Adams	4.0	Unconstructed to 4 L Expwy
	SR 168	Gettysburg to Bullard	1.9	Unconstructed to 6 L Freeway
		Bullard to Temperance	4.0	Unconstructed to 4 L Freeway
		Temperance to Shepherd	2.1	Unconstructed to 4 L Expwy.
	SR 180	Chestnut to Clovis	2.9	Unconstructed to 6 L Freeway
		Including Peach, SR 180 to Belmont	0.5	2 LU to 4 LD
		Hughes/West to SR 99	1.4	Unconstructed to 2 L Expwy - Hughes/West to Tielman; Unconstructed to 6 L Freeway - Tielman to SR 99
		Clovis to Temperance	2.9	Unconstructed to 4 L Expwy
		Brawley to Hughes/West	1.7	Unconstructed to 2 L Expwy
	Hughes/West	½ mil N and S of SR 180 alignment	0.5	Unconstructed to 4 LD
	Hughes/West Diagonal	Whitesbridge to Nielson	1.2	Unconstructed to 4 LD

<b>TABLE 4.4-2</b>				
<b>ROADWAY IMPROVEMENTS IN THE 2020 BASELINE TRANSPORTATION SYSTEM</b>				
<b>Facility</b>		<b>Limits</b>	<b>Length</b>	<b>Type of Improvement</b>
Measure C - Urban & STIP	SR 41	Audubon O/C to Madera Co. Line	1.1	2 LU to 4 L Freeway
	SR 168	SR 180 to Shields	1.9	Unconstructed to 6 L Freeway
		Shields to Gettysburg	1.5	Unconstructed to 6 L Freeway
	SR 180	SR 41 to Chestnut	2.6	Unconstructed to 6 L Freeway
Measure C - Rural	SR 41	Elkhorn to Floral	6.0	Unconstructed to 2 L Expwy
	SR 43	Nebraska to Arrants St.	1.1	2 LU to 4 LD
	SR 201	SR 99 to Marion	1.3	2 LU to 4 LU
	Academy	SR 180 to Shaw Ave	5.0	2 L to 4 LD
		Shaw to SR 168	4.5	2 L improvements
		SR 99 to Manning	7.0	2 L Expressway
	SR 180	Manning to SR 180	7.0	2 L to 4 L Expressway
		Temperance to Academy	6.0	4 L Expressway
		Academy to Trimmer	3.4	2 L Expressway
Trimmer to Frankwood	3.2	2 L Expressway		
Caltrans	SR 99	0.2 mi South of Jensen to 0.2 mi South of Ventura	--	Add NB Auxiliary Lane
		Jensen to Ventura	--	Add SB Auxiliary Lane
		Mt. View to SR 43	3.4	4 L Freeway to 6 L Freeway
		Tulare Co line to Mt View	3.7	4 L Freeway to 6 L Freeway
		0.3 mi S of S Pacific & Biola Junction Bridge to Madera County line	5.0	4 L Freeway to 6 L Freeway
	SR 41	Kings County line to Adams	--	2 L Expwy to 4 L Expwy
<b>Non-Regionally Significant System</b>				
City of Fresno	Clinton	Brawley to Marks	1.0	2 LU to 4 LU
		Polk to Brawley	1.5	Unconstructed to 4 LU

**TABLE 4.4-2**  
**ROADWAY IMPROVEMENTS**  
**IN THE 2020 BASELINE TRANSPORTATION SYSTEM**

Facility	Limits	Length	Type of Improvement
	Hayes to Polk	0.5	2 LU to 4 LU
Polk	Gettysburg to Shaw	0.5	2 LU to 4 LD
	Bullard to Herndon	1.0	2 LU to 4 LU
	Shields to Gettysburg	1.5	2 LU to 4 LD
	McKinley to Shields	1.0	2 LU to 4 LD
Peach	Lane Ave to Jensen	1.8	2 LU to 4 LD
	SR 168 R/W to Olive	0.5	2 LU to 4 LD
	Belmont to Butler	1.5	2 LU to 4 LD
	Butler to Jensen	1.5	2 LU to 4 LD
Ashlan	Polk to Blythe	1.0	2 LU to 4 LD
	Grantland to Polk	1.5	2 LU to 4 LD
Fresno	P Street to Divisadero	0.4	4 LD to 6 LD
Fresno/Walnut	Fresno to Jensen	1.1	2 LU to 4 LU
Shepherd	Millbrook to Chestnut	1.5	2 LU to 4 LD
	Chestnut to Willow	0.5	2 LU to 4 LD
Maple	Behymer to International	0.5	2 LU to 4 LD
Nees	Maple to Willow	1.0	2 LU to 4 LD
	Palm to Ingram	0.4	Unconstructed to 4 LD
Alluvial	Maple to Willow	1.0	2 LU to 4 LU
	Ingram to Blackstone	0.6	2 LU to 4 LU
Teague	Cedar to Chestnut	1.0	2 LU to 4 LU
	Chestnut to Willow	0.5	2 LU to 4 LU
Cornelia	Dakota to Gettysburg	1.0	2 LU to 4 LU
	Shields to Dakota	0.5	2 LU to 4 LU
	McKinley to Shields	1.0	2 LU to 4 LU
McKinley	Blythe to Marks	1.5	2 LU to 4 LD
	Polk to Blythe	1.0	2 LU to 4 LU
	Grantland to Polk	1.5	2 LU to 4 LD
Marks	McKinley to Parkway	1.0	2 LU to 4 LD
	Belmont to McKinley	1.0	2 LU to 4 LD
Weber	Ashlan to Clinton	2.1	2 LU to 4 LD
Chestnut/Maple	Shepherd to Behymer	1.2	Unconstructed to 4 LD



**TABLE 4.4-2**  
**ROADWAY IMPROVEMENTS**  
**IN THE 2020 BASELINE TRANSPORTATION SYSTEM**

Facility	Limits	Length	Type of Improvement
Church	Peach to Clovis	1.0	Unconstructed to 4 LU
	Clovis to Fowler	1.0	Unconstructed to 4 LU
	West to Golden State	1.2	2 LU to 4 LU
Tulare	Fowler to Armstrong	0.6	Unconstructed to 4 LD
	Clovis to Fowler	1.0	Unconstructed to 4 LU
Chestnut	Shaw to Bullard	1.0	2 LU to 4 LU
	Maple Diagonal to Copper	1.5	Unconstructed to 4 LU
Bullard	Bullard Diagonal to Figarden	0.9	2 LD to 4 LD
Bullard Diagonal	Bullard to Grantland Diagonal	0.5	Unconstructed to 4 LD
	Grantland Diagonal to Herndon	0.7	Unconstructed to 4 LD
Shields	Sunnyside to Fowler	0.4	2 LU to 4 LD
Valentine	Weber to Ashlan	0.3	2 LU to 4 LU
	McKinley to Dakota (Pkwy)	1.4	2 LU to 4 LU
Fowler	Gould Canal to Clinton	1.4	2 LU to 4 LD
	Kings Canyon to Dakota	3.5	2 LU to 4 LD
	Kings Canyon to Clinton	3.5	2 LU to 4 LD
Blythe	McKinley to Ashlan	2.0	2 LU to 4 LD
San Jose	Gates to Bullard	0.6	Unconstructed to 4 LU
Perrin	Maple to Chestnut	0.5	Unconstructed to 4 LU
Geary (s/o California)	Clovis to Fowler	1.0	Unconstructed to 4 LU
Sierra-Dante	Bullard Diagonal to Bullard	1.5	Unconstructed to 4 LU
Santa Fe	Milburn to Figarden	0.5	2 LU to 4 LD
Gettysburg	Polk to Cornelia	0.5	Unconstructed to 2 LU
	Grantland to Polk	1.5	Unconstructed to 2 LU
Ft. Washington	Friant to Stratford	0.4	2 LU to 4 LU
Barstow	Chestnut to Willow	0.5	2 LU to 4 LU

**TABLE 4.4-2**  
**ROADWAY IMPROVEMENTS**  
**IN THE 2020 BASELINE TRANSPORTATION SYSTEM**

Facility	Limits	Length	Type of Improvement
	Maroa to Blackstone	0.5	2 LU to 4 LU
Barstow/Parkway	Grantland Diagonal to Shaw	1.3	2 LU to 4 LU
Olive	Minnewawa to Clovis	0.5	2 LU to 4 LU
	Marks to SR 99	0.8	2 LU to 4 LU
	Hayes to Marks	3.0	2 LU to 4 LU
Butler	East to Peach	3.0	2 LU to 4 LU
Hayes	Shaw to Barstow	0.5	Unconstructed to 4 LU
	Grantland Diagonal to Spruce	0.6	Unconstructed to 4 LU
	Dakota to Shaw	1.5	2 LU to 4 LU
	McKinley to Dakota	1.5	2 LU to 4 LU
Palm	Herndon to Nees	1.1	Unconstructed to 4 LD
Behymer	Maple to Chestnut	0.5	Unconstructed to 4 LD
Brawley	Figarden to Herndon	0.5	2 LU to 4 LD
	Figarden to Herndon	0.5	2 LU to 4 LD
	McKinley to Ashlan	2.0	2 LU to 4 LU
North	Elm to Cedar	2.0	2 LU to 4 LD
	Cedar to Chestnut	1.0	2 LU to 4 LU
Armstrong	Kings Canyon to Church	1.5	2 LU to 4 LU
	Kings Canyon to Church	1.5	2 LU to 4 LU
Palo Alto/Cecilia	Polk to Bullard	1.0	Unconstructed to 4 LU
Bryan	Herndon to Spruce	0.3	Unconstructed to 4 LU
Spruce	Bryan to Herndon (at Polk)	1.0	Unconstructed to 4 LU
Dakota	Polk to Valentine	2.0	2 LU to 4 LU
West/Weber	Olive to Belmont	0.7	2 LU to 4 LU
Belmont	Clovis to Fowler	1.0	2 LD to 4 LD
	Fowler to Temperance	1.0	2 LU to 4 LD
	Brawley to Marks	1.0	2 LU to 4 LD
California	West to Martin Luther King	1.5	2 LU to 4 LD
Cherry	North to Church	1.5	2 LU to 4 LU

<b>TABLE 4.4-2</b>				
<b>ROADWAY IMPROVEMENTS IN THE 2020 BASELINE TRANSPORTATION SYSTEM</b>				
<b>Facility</b>	<b>Limits</b>	<b>Length</b>	<b>Type of Improvement</b>	
	Cedar	Central to Golden State	1.2	2 LU to 4 LD
	Cedar/International	Copper to Chestnut	1.5	Unconstructed to 4 LU
	Chestnut	Maple Diagonal to Copper	1.5	Unconstructed to 4 LU
	Temperance	Belmont to Jensen	3.0	2 LU to 4 LD
		Belmont to Dakota	2.5	2 LU to 4 LD
	Grantland	Ashlan to Herndon	3.0	2 LU to 4 LD
	Orange	Jensen to Ventura	2.0	2 LU to 4 LU
	Copper	Friant to Willow	2.0	2 LU to 4 LD
	Dakota	Hayes to Polk	0.5	2 LU to 4 LU
	Perrin	Chestnut to Willow	0.5	Unconstructed to 4 LU
	Jensen	West to Martin Luther King	1.5	2 LU to 4 LD
Measure C - Rural	Manning	Ormsby to Contra Costa	13.0	Unconstructed to 2 LU
	Academy	SR 180 to SR 168	9.5	2 LU to 4 LU
County of Fresno	Shaw	Temperance to McCall	3.0	2 L to 4 L
		McCall to Academy	3.0	2 L to 4 LD
		Garfield to Dickerson	1.0	2 L to 4 LD
	Manning	Buttonwillow to Alta	2.0	2 L to 4 L
		Buttonwillow to Alta	2.0	2 L to 4 LD
		Alta to Hill	3.0	2 L to 4 LD
	Mt. View	Bethel to Smith	4.0	2 L to 4 L
		Bethel to Smith (Tulare Co. line)	4.0	2 L to 4 LD
	Friant	Fresno County Limits to Millerton Rd	5.0	2 L to 4 L
	Millerton	Friant to Table Mt. Rd.	4.3	2 L to 4 LD
	Academy	Sanger City limit to Manning	5.0	2 L to 4 LD
		Sanger City limit to SR 180	1.0	2 L to 4 LD
	Alta	Manning to Floral	2.0	2 L to 4 LD

**TABLE 4.4-2  
ROADWAY IMPROVEMENTS  
IN THE 2020 BASELINE TRANSPORTATION SYSTEM**

<b>Facility</b>	<b>Limits</b>	<b>Length</b>	<b>Type of Improvement</b>	
	Central	Maple to Golden State	0.25	2 L to 4 LD
	Jensen	West to Brawley	2.0	2 L to 4 LD
	Mt. Whitney	Marks to Brawley (Riverdale)	1.0	2 LD to 4 LD
	Reed	Reedley City limit to Goodfellow	3.0	2 LD to 4 LD
City of San Joaquin	Colorado	Springfield to Manning	0.8	2 L to 4 L
	Manning	Placer to Yuba	0.5	2 L to 4 L
		Sutter to El Dorado	0.5	2 L to 4 L
		Sutter to El Dorado	0.5	2 L to 4 L
	Main	California to Graham	0.5	2 L to 4 L
City of Kerman	Del Norte	Kearney to Whitesbridge	0.5	2 LU to 2 LD
		Kearney to California	0.5	2 L to 4 L
	Vineland	Kearney to E Street	0.3	2 LU to 2 LD
		Stanislaus to Whitesbridge	0.3	2 LU to 2 LD
		E Street to California	0.3	2 LU to 2 LD
	California	Madera to Vineland	0.5	2 LU to 2 LD
		Madera to Del Norte	0.5	2 LU to 2 LD
		Vineland to Goldenrod	0.5	2 LU to 2 LD
	Kearney	Vineland to 0.25 ft E of Vineland	0.3	2 LU to 2 LD
		Goldenrod to 0.25 mil W of Goldenrod	0.25	2 LU to 2 LD
	Siskiyou	Kearney to Stanislaus	0.25	2 LU to 2 LD
		Kearney to California	0.5	2 LU to 2 LD
	Goldenrod	California to Whitesbridge	1.0	2 LU to 2 LD
City of Clovis	Willow	Chennault to Nees	0.7	2 L to 4 L
		Nees to Shepherd	1.0	2 L to 4 L
		Shepherd to Behymer	1.0	2 L to 4 L
		Behymer to Copper	1.0	2 L to 4 L

**TABLE 4.4-2**  
**ROADWAY IMPROVEMENTS**  
**IN THE 2020 BASELINE TRANSPORTATION SYSTEM**

<b>Facility</b>	<b>Limits</b>	<b>Length</b>	<b>Type of Improvement</b>
Peach	Nees to N/O	0.3	2 L to 4 L
	Sierra to Magill	0.4	2 L to 4 L
	Herndon to Magill	0.2	2 L to 4 L
	Teague to Shepherd	0.5	Unconstructed to 2 L
	Shepherd to Copper	2.0	Unconstructed to 4 L
Nees	Willow to Chapel Hill	0.1	2 L to 4 L
	Armstrong to McKelvy	0.3	2 L to 4 L
	Fowler to Armstrong	0.5	2 L to 4 L
	McKelvy to Temperance	0.3	2 L to 4 L
	Temperance to Locan	0.5	2 L to 4 L
	Minnewawa to Fowler	1.5	2 L to 4 L
	Locan to Tollhouse	1.0	Unconstructed to 4 L
Minnewawa	Fir to Decatur	0.6	2 L to 4 L
	Decatur to Nees	0.3	2 L to 4 L
	Teague to Shepherd	0.5	2 L to 4 L
	Shepherd to Behymer	1.0	2 L to 4 L
Copper/Minnewawa Couplet	Increased Minnewawa instead of New Street	1.6	Unconstructed to 4 L
Alluvial	Minnewawa to Dewitt	0.2	2 L to 4 L
	Armstrong to Temperance	0.5	2 L to 4 L
	Willow to Chapel Hill	0.3	2 L to 4 L
	Fowler to Armstrong	0.5	2 L to 4 L
Clovis	Decatur to Nees	0.3	Unconstructed to 4 L
	Shaw to 5 <sup>th</sup>	1.5	4 L to 6 L
Armstrong	Houston to Nees	0.1	2 L to 4 L
	Spruce to Herndon	0.3	2 L to 4 L
	Shaw to Gould Canal	1.1	2 L to 4 L
Temperance	Sierra to Polson	0.3	2 L to 4 L
	Tollhouse to Nees	0.8	2 L to 4 L
	Shepherd to Nees	1.0	2 L to 4 L
	Herndon to Cromwell	0.7	Unconstructed to 4 L

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**ROADWAY IMPROVEMENTS**  
**IN THE 2020 BASELINE TRANSPORTATION SYSTEM**

<b>Facility</b>	<b>Limits</b>	<b>Length</b>	<b>Type of Improvement</b>
	Bullard to Sierra	0.5	2 L to 4 L
Herndon	Tollhouse to Temperance	0.5	2 L to 4 L
	Temperance to Locan	0.5	2 L to 4 L
	Locan to DeWolf	0.5	2 L to 4 L
	DeWolf to McCall	2.0	2 L to 4 L
	Fowler	Tollhouse to Herndon	0.4
Fowler	Houston to Alluvial	--	3 L to 4 L (add final L to E side)
	Houston to Nees	0.1	2 L to 4 L
	Nees to Shepherd	0.5	2 L to 4 L
	Gettysburg	Fowler to Holly	0.6
Gettysburg	Locan to Leonard	1.0	2 L to 4 L
	Leonard to Highland	0.5	Unconstructed to 4 L
	Highland to McCall	1.0	Unconstructed to 4 L
Ashlan	Temperance to Locan	0.5	2 L to 4 L
	Fowler to Cypress	0.4	2 L to 4 L
	Locan to Leonard	1.0	2 L to 4 L
	Leonard to Highland	0.5	2 L to 4 L
	Highland to McCall	1.0	2 L to 4 L
Locan	Holland to Gould Canal	0.7	2 L to 4 L
	Herndon to Finchwood	1.3	2 L to 4 L
	Shaw to Gettysburg	0.5	Unconstructed to 4 L
	Tollhouse to Shepherd	1.4	2 L to 4 L
Shepherd	Armstrong to Temperance	0.5	2 L to 4 L
	Temperance to Tollhouse	2.0	2 L to 4 L
	Tollhouse to Del Rey	1.5	2 L to 4 L
	Willow to Armstrong	3.0	2 L to 4 L
Tollhouse	McKelvy to Medical Cntr Dr	0.5	2 L to 4 L
	Locan to Shepherd	2.5	2 L to 4 L

<b>TABLE 4.4-2</b>				
<b>ROADWAY IMPROVEMENTS IN THE 2020 BASELINE TRANSPORTATION SYSTEM</b>				
<b>Facility</b>	<b>Limits</b>	<b>Length</b>	<b>Type of Improvement</b>	
Villa	Paul to Fir	0.5	2 L to 4 L	
	Bullard to Ellery	0.8	2 L to 4 L	
Bullard	Carson to Locan	0.3	2 L to 4 L	
	Locan to Leonard	1.0	2 L to 4 L	
DeWolf	Gettysburg to Ashlan	0.5	2 L to 4 L	
	Ashlan to Gould Canal	0.5	2 L to 4 L	
	Bullard to Shaw	1.0	2 L to 4 L	
	Shaw to Gettysburg	0.5	2 L to 4 L	
Leonard	Gettysburg to Ashlan	0.5	2 L to 4 L	
	Ashlan to Gould Canal	0.6	2 L to 4 L	
	Shaw to Gettysburg	0.5	2 L to 4 L	
	Shaw to 1.5 mi N of Shaw	1.5	2 L to 4 L	
	1.5 mi N of Shaw to Tollhouse	1.5	Unconstructed to 4 L	
Shaw	Locan to Leonard	1.0	2 L to 4 L	
	Leonard to McCall	1.5	2 L to 4 L	
	Leonard to McCall	1.5	4 L to 6 L	
Teague	Willow to Peach	0.5	Unconstructed to 2 L	
Barstow	Locan to Leonard	1.0	2 L to 4 L	
Highland	Ashlan to Shields	1.0	2 L to 4 L	
	Shaw to Ashlan	1.0	Unconstructed to 4 L	
Dakota	Leonard to Highland	0.05	Unconstructed to 4 L	
McCall	Shaw to Herndon	2.0	2 L to 4 L	
	Herndon to Shepherd	3.0	Unconstructed to 4 L	
	Shaw to Shields	2.0	2 L to 4 L	
Thompson	Shaw to Shields	2.0	Unconstructed to 4 L	
Behymer	Willow to Minnewawa	1.0	Unconstructed to 4 L	
Dockery	Herndon to SR 168	4.2	Unconstructed to 4 L	
City of Reedley	Frankwood	I St. to Floral	1.0	2 L to 4 L
		Manning to North	0.24	2 L to 4 L
	Buttonwillow	Myrtle to Duff	0.7	2 L to 4 L

<b>Facility</b>	<b>Limits</b>	<b>Length</b>	<b>Type of Improvement</b>
	Duff to Floral	1.3	2 L to 4 L
	South to Myrtle	1.1	2 L to 4 L
Columbia	Ponderosa to Parlier	0.4	2 L to 4 L
Springfield	Buttonwillow to East SOI	0.5	Unconstructed to 4 L
I Street	Dinuba to East Avenue	0.1	Unconstructed to 4 L
South	Reed to East SOI	1.8	2 L to 4 L
New Street	n/Floral 900' from Reed to East	0.8	Unconstructed to 4 L
	Herbert Alignment to E. SOI	1.3	Unconstructed to 4 L
Reed	Manning to South	1.0	2 L to 4 L
	Olson to 11 <sup>th</sup> Street	0.5	2 L to 4 L
Manning	I Street to Columbia	1.0	2 L to 4 L

Source: Project list in the 1999 Draft Air Quality Conformity Determination, COFCG, April 1999.

To address traffic congestion impacts, the Draft General Plan establishes a level of service policy (TR-A.3) for all roadways in the County, including a higher standard for rural roadways (i.e., those outside the spheres of influence of the cities of Fresno and Clovis) than urban roadways: LOS “C” versus LOS “D”. This policy allows exceptions where the County finds that improvements required to achieve the desired level of service are unacceptable based on established criteria. The policy is implemented through Implementation Measures TR-A.2 and TR-A.7, which include a Roadway Improvement Program and development of traffic impact fees. Policies also address traffic impacts by requiring new development to identify and construct or fund improvements that mitigate their traffic impacts (Policy TR-A.5), and require the County to pursue other regional, State and federal funding sources for transportation improvements (Policy TR-A.10).

Anticipated growth, with or without the Proposed Project, would increase the need for transit services, especially within the Fresno-Clovis Metropolitan Area (FCMA). The Draft General Plan includes policies to promote the use of transit in areas and corridors where adequate population and employment densities or concentrations exist, or could be achieved, to support the use of transit



services. Within the FCMA, *transit corridors* have been designated since this area has the best potential to achieve population and employment densities that could support “high capacity” transit services, such as express bus service or light rail. Policies call for the preservation of right-of-way and development of land use and design standards in these *transit corridors* to help make high-capacity transit viable. The Draft General Plan calls for transit services in rural areas to focus on the needs of transit dependents (i.e., seniors, disabled and low-income) and on incremental and cost-effective improvements to existing bus services.

The Draft General Plan also includes policies to promote transportation system management (TSM), travel demand management (TDM) within the FCMA and implementation of priority segments of the Regional Bikeways Plan.

The applicable Draft General Plan (December 27, 1999 version) policies that would reduce or eliminate impacts under the Proposed Project are as follows:

### **Street and Highways**

Policy TR-A.1 The County shall plan and construct County-maintained streets and roads according to the County’s Roadway Design Standards. Roadway design standards for County-maintained roads shall be based on the American Association of State Highway and Transportation Officials (AASHTO) standards, and supplemented by California Department of Transportation (Caltrans) design standards and by County Public Works Department Standards. County standards include typical cross sections by roadway classification, consistent with right-of-way widths summarized in Table TR-1.

The County may deviate from the adopted standards in circumstances where conditions warrant special treatment of the roadway. Typical circumstances where exceptions may be warranted may include:

- a. Extraordinary construction costs due to terrain, roadside development, or unusual right-of-way needs; and
- b. Environmental constraints that may otherwise entirely preclude road improvement.

Policy TR-A.2 The County shall plan and design its roadway system in a manner that strives to meet level of service (LOS) D on urban roadways within the spheres of influence of the cities of Fresno and Clovis and LOS C on all other roadways in the county.

Roadway improvements to increase capacity and maintain LOS standards should be planned and programmed based on consideration of the total overall needs of the roadway system, recognizing the priority of maintenance, rehabilitation, and operation of the existing road system.

The County may, in programming capacity-increasing projects, allow exceptions to the level of service policy where it finds that the improvements or other measures required to achieve the LOS policy are unacceptable based on established criteria. In addition to consideration of the total overall needs of the roadway system, the County shall consider the following factors:

- The right-of-way needs and the physical impacts on surrounding properties;
- Construction and right-of-way acquisition costs;
- The number of hours that the roadway would operate at conditions below the standard;
- The ability of the required improvement to significantly reduce delay and improve traffic operations; and
- Environmental impacts upon which the County may base findings to allow an exceedance of the standards.

In no case should the County plan and design for worse than LOS D on rural County roadways, worse than LOS E on urban roadways within the spheres of influence of the cities of Fresno and Clovis, or in cooperation with Caltrans and the Council of Fresno County Governments, plan for worse than LOS E on State highways in the county.

- Policy TR-A.3 The County shall require that new or modified access to property abutting a roadway and to intersecting roads conform to access specifications in the Circulation Diagram and Standards section. Exceptions to the access standards may be permitted in the manner and form prescribed in the Fresno County Zoning and Subdivision Ordinances, provided that the designed safety and operational characteristics of the existing and planned roadway facility will not be substantially diminished.
- Policy TR-A.4 The County shall program road improvements on a countywide priority basis using technical assessment tools such as the Road and Traffic Evaluation (RATE) and Pavement Management System (PMS).
- Policy TR-A.5 The County shall require dedication of right-of-way or dedication and construction of planned road facilities as a condition of land development, and require an analysis of impacts of traffic from all land development projects including impacts from truck traffic. Each such project shall construct or fund improvements necessary to mitigate the effects of traffic from the project. The County may allow a project to fund a fair share of improvements that provide significant benefit to others through traffic impact fees.
- Policy TR-A.6 The County shall continue to participate with the Council of Fresno County Governments, the California Department of Transportation, and other agencies, to maintain a current Regional Transportation Plan, and to identify funding priorities and development expenditure plans for available regional transportation funds, in accordance with regional, State, and Federal transportation planning and programming procedures. Such regional programming may include improvements to State highways, city streets, and County roadways.
- Policy TR-A.7 The County shall assess fees on new development sufficient to cover the fair share portion of that development's impacts on the local and regional transportation system.
- Policy TR-A.8 The County shall ensure that land development that affects roadway use or operation or requires roadway access, plan, dedicate, and construct required improvements consistent with the criteria in the Circulation Diagram and Standards section.
- Policy TR-A.9 The County shall ensure that the funding of capacity-increasing projects on the Inter-regional Highway System (I-5, and rural portions of SR 99 and SR 41) utilizes State and Federal sources intended for improvements to that system. Fresno County and local development shall not be required to participate financially in the upgrading of the Inter-regional Highway System except as may affect local interchanges.
- Policy TR-A.10 The County shall actively seek all possible financial assistance, including grant funds available from regional, State, and Federal agencies for street and highway purposes when compatible with General Plan policies and long-term local funding capabilities.

- Policy TR-A.11 The County shall ensure that funds allocated directly or are otherwise available to the County for road fund uses shall be programmed and expended to maximize the use of Federal and other matching funds, and shall be based on the following sequence of priorities:
- a. Maintenance, rehabilitation, and operation of the existing County-maintained road system;
  - b. Safety improvements where physical modifications or capital improvements would reduce fatalities and the number and/or severity of injuries;
  - c. Capital capacity improvements to expand capacity or reduce congestion on roadways at or below County LOS standards, and to expand the roadway network.
- Policy TR-A.12 The County, where appropriate, shall coordinate the multi-modal use of streets and highways to ensure their maximum efficiency and shall consider the need for transit, bikeway, and recreational trail facilities when establishing the Ultimate Right-of-way Plan and Precise Plans of streets and highways.
- Policy TR-A.13 The County shall develop and maintain a program to construct bikeways and recreation trails in conjunction with roadway projects in accordance with the adopted Regional Bikeways Plan, the adopted Recreation Trails Plan, available dedicated funding for construction and maintenance, and a needs priority system.
- Policy TR-A.14 The County shall work with the cities of Fresno County in establishing a system of designated truck routes through urban areas.
- Policy TR-A.15 The County shall encourage street designs for interior streets within new subdivisions which protect neighborhoods from the intrusion of through traffic.
- Policy TR-A.16 The County shall require that plans for County road improvement projects consider the preservation of unique existing landscaping to the extent that it will be consistent with user safety.
- Policy TR-A.17 The County should utilize road construction methods that minimize the air, water, and noise pollution associated with street and highway development.
- Policy TR-A.18 The County shall accept classified roads, as defined in Figures TR-1a, TR-1b, and TR-1c, into the County-maintained road system following construction in unincorporated area, when constructed to County standards. The County may make exceptions for collector roads in the Millerton Specific or Shaver Lake Community Plan areas. The County shall not add local roads to the existing County-maintained road system. Provision of maintenance for newly constructed local public roads will be through a County Service Area zone of benefit or other means acceptable to the Board of Supervisors.
- Policy TR-A.19 The County may identify locations of needed future road rights-of-way, consistent with adopted functional classifications, through development and adoption of specific plan lines where appropriate. Circumstances where specific plan line development may be considered may include the following:
- a. Where major classified roadways or corridors are expected to require additional through lanes within a 20-year planning horizon;
  - b. Where the future alignment is expected to deviate from the existing alignment, or to be developed asymmetrically about the existing section or center line;
  - c. Where the adjacent properties are substantially undeveloped, so that property owners may benefit from prior knowledge of the location of rights-of-way of planned roadways before constructing improvements or developing property in a way which may ultimately conflict with identified transportation needs; and
  - d. Expressways and associated frontage roads.

**Transit**

- Policy TR-B.1 The County shall work with transit providers to provide transit services within the county that are responsive to existing and future transit demand and which can demonstrate cost-effectiveness by meeting minimum farebox recovery levels required by State and Federal funding programs.
- Policy TR-B.2 The County should promote transit services in designated corridors where population and employment densities are sufficient or could be increased to support those transit services, particularly within the spheres of influence of the cities and along existing transit corridors in the rural areas of the county.
- Policy TR-B.3 The County shall work with the Cities of Fresno and Clovis and other agencies to achieve land use patterns and densities that support transit services, preserve adequate rights-of-way, and enhance transit services in the designated transit corridors shown in Figure TR-3.
- Policy TR-B.4 The County shall work with the Council of Fresno County Governments and transit service providers to pursue all available sources of funding for transit services when consistent with General Plan policies and long-term funding capabilities.
- Policy TR-B.5 The County shall consider the transit needs of senior, disabled, low-income, and transit-dependent persons in making recommendations regarding transit services.
- Policy TR-B.6 The County shall encourage the development of facilities for convenient transfers between different transportation systems (e.g., train-to-bus, bus-to-bus).

**Transportation Systems Management**

- Policy TR-C.1 The County shall support all standards and regulations adopted by the San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD) governing transportation control measures (TCMs).
- Policy TR-C.2 The County shall consider transportation system management (TSM) measures to increase the capacity of the existing roadway network prior to constructing new traffic lanes. Such measures may include traffic signal synchronization and additional turning lanes.
- Policy TR-C.3 The County shall work with the Cities of Fresno and Clovis to encourage new urban development within the FCMA to provide appropriate on-site facilities that encourage employees to use alternative transportation modes as air quality and transportation mitigation measures. The type of facilities may include bicycle parking, shower and locker facilities, and convenient access to transit, depending on the development size and location.

**Bicycle Facilities**

- Policy TR-D.1 The County shall implement a system of recreational, commuter, and inter-community bicycle routes in accordance with the Regional Bikeway System Plan described in the Circulation Diagram and Standards section and depicted in Figure TR-2. The plan designates bikeways between cities and unincorporated communities, to and near major traffic generators such as recreational areas, parks of regional significance, and other major public facilities, and along recreational routes.

- Policy TR-D.2 The County shall give priority to bikeways that will serve the most cyclists and destinations of greatest demand and to bikeways that close gaps in the existing system.
- Policy TR-D.3 The County shall implement Regional Bikeways Plan routes as Class II facilities unless otherwise designated.
- Policy TR-D.4 The County shall develop bikeways in conjunction with street improvement projects occurring along streets and roads designated on the Regional Bikeways Plan map.
- Policy TR-D.5 The County shall require that adequate rights-of-way or easements are provided for designated bikeways or trails as a condition of land development.
- Policy TR-D.6 The County should promote bicycle safety programs through education and awareness programs aimed at both cyclists and motorists.
- Policy TR-D.7 The County shall construct and maintain bikeways to minimize conflict between bicyclists and motorists.
- Policy TR-D.8 The County shall support development of facilities that help link bicycling with other modes of transportation.

**Rail Transportation**

- Policy TR-E.1 The County supports consolidation of the Burlington Northern Santa Fe main line traffic onto the Union Pacific right-of-way from Calwa to the San Joaquin River.
- Policy TR-E.2 The County shall support improvements to at-grade crossings on the Burlington Northern Santa Fe and Union Pacific mainline and spur or branch line tracks within the county.
- Policy TR-E.3 The County shall support acquisition by local agencies of railroad rights-of-way that are: 1) in the designated transit corridors in Figure TR-3; and 2) required for public health, safety, and welfare.
- Policy TR-E.4 The County shall work cooperatively with the railroads on the long-term protection of railroad rights-of-way.
- Policy TR-E.5 The County shall support multi-modal stations at appropriate locations to integrate rail transportation with other transportation modes.
- Policy TR-E.6 The County shall support the development of a State-wide high-speed rail service through the Central Valley that serves downtown Fresno and that parallels the Burlington Northern/Santa Fe corridor south of the City of Fresno, the Union Pacific corridor through the City of Fresno, and is capable of accommodating the rapid movement of freight during nighttime, non-passenger usage hours.

**Air Transportation**

- Policy TR-F.1 The County shall continue to support Federal and State regulations governing operations and land use restrictions related to airports in the county.
- Policy TR-F.2 The County shall continue its membership on and support of the Fresno County Airport Land Use Commission.

Policy TR-F.3 The County shall support the concept of a regional cargo airport on the County's west side to serve the growing needs of agricultural commerce.

Implementation of the Draft General Plan would also increase the number of people in existing incorporated areas, primarily Fresno, Clovis, and their spheres of influence. Development in western Fresno County and other unincorporated areas would be limited. The General Plan would result in residential, commercial, industrial, and public uses being constructed in areas subject to the potential aircraft crash hazards described above. The General Plan contains the following policies that address airport safety.

Policy HS-E.1 The County shall review the Fresno County Airport Land Use Commission's Airport Land Use Policy Plans (CLUPP) to determine the appropriate land uses around airports. The County shall limit land uses in airport safety zones to those uses listed in the applicable CLUPPs as compatible uses. Exceptions shall be made only as provided for in the CLUPPs. Such uses shall also be regulated to ensure compatibility in terms of location, height, and noise.

Policy HS-E.2 The County shall ensure that new development, including public infrastructure projects, does not create safety hazards such as glare from direct or reflective sources, smoke, electrical interference, hazardous chemicals, or fuel storage in violation of adopted safety standards.

Policy HS-E.3 The County shall ensure that development, including public infrastructure projects, within the airport approach and departure zones complies with Part 77 of the Federal Aviation Administration Regulations (Objects Affecting Navigable Airspace).

## **IMPACTS AND MITIGATION MEASURES**

### **Method of Analysis**

The identification of future transportation system needs and impacts is based on the Fresno County Peak Period Travel Model that was used by the Council of Fresno County Governments (COFCG) to prepare the 1998 Regional Transportation Plan for Fresno County. The model translates land use and development information into traffic volume projections. The land use development inputs to the model are estimates of the amount and location of existing and future housing units and employment by type, as well as detailed descriptions of the existing and planned roadway systems. The model covers all of Fresno County, including its cities and unincorporated areas.

The transportation impact analysis focuses on year 2020 travel demand and needs. The projected 2020 population and employment used to estimate future travel demand under the Proposed Project is described in Chapter 2, Project Description and Demographic Information, of this Draft EIR.

The 1996 to 2020 development estimates for each city sphere of influence and each major rural area of the county were then allocated to about 1,300 "traffic analysis zones" (TAZs) used in COFCG's travel demand model. This allocation was based on COFCG's development estimates by TAZ for 1995, 2000, 2005, 2010, 2015 and 2020.

The evaluation of transportation problems and needs for 2020 began with the development of a 2020 Baseline Transportation System which includes existing facilities and only those roadway improvements contained in the "financially constrained project list" in the 1998 Regional Transportation Plan (RTP)

and the COFCG's 1999 Air Quality Conformity Determination. This list of projects includes only funded/committed regional and local improvement projects. Table 4.4-2 outlines the roadway improvement projects that are included in the 2020 Baseline Transportation System.

### Level of Service

Roadway needs under 2020 conditions were identified through a "level of service" analysis. Level of service is a qualitative assessment that measures the effect of a number of transportation related factors, including speed and travel time, interruptions, freedom to maneuver, safety, driving comfort and convenience, and operation costs. Level of service cover the entire range of traffic operations that are designated from "A" (best conditions) to "F" (worst conditions). Level of service "E" describes conditions approaching or at maximum capacity.

This analysis of the Fresno County's roadway system employs a level of service methodology developed by the Transportation Research Board's *1994 Highway Capacity Manual*. The specific version used was developed by the Florida Department of Transportation (FDOT), called the "Florida Tables". FDOT's methodology provides level of service and volume thresholds for freeway, arterial, and highway facilities using speed, saturation flow, signalization, and a number of other variables.

For the evaluation of this EIR, roadways were grouped by the development characteristics in either urbanized, or rural areas based on the urban/rural boundary defined in COFCG's 1998 Regional Transportation Plan. Table 4.4-3 describes the facility types that are found in the Florida Tables, including a correlation between these facility types and the functional classification system employed by Fresno County.

Tables 4.4-4 through 4.4-6 summarize the level of service definitions for each of the functional classification categories. A review of these tables indicate that traffic operations start to deteriorate (i.e., level of service "D") at a volume-to-capacity ratio of 0.72 and 0.80 for freeways and arterial roadways, respectively. On two-lane rural highways, however, level of service "D" begins at a much lower volume-to-capacity ratio (0.36). This level of service distinction recognizes that two-lane rural highways are used for long-distance travel and that drivers must frequently pass slower vehicles in order to maintain high travel speeds. Driver frustration grows since frequent passing on two-lane highways becomes increasingly difficult at relatively low volume-to-capacity ratios.

To determine roadway level of service, relationships have been developed between daily traffic volumes and level of service based on facility type, number of lanes, temporal distribution of traffic, regional setting, and volume-to-capacity ratio. Table 4.4-7 summarizes approximate maximum daily traffic volumes for each facility/level of service combination that were used to evaluate the Fresno County roadway system. Note that level of service represents peak hour conditions although it is based on daily traffic and capacity estimates.

The qualitative analysis of airport safety issues was performed by comparing areas with potential aircraft crash hazards with areas that would be developed under the General Plan.

TABLE 4.4-3			
FDOT FACILITY TYPES			
Area Type	Facility Type	Description	Fresno County Facility
Urbanized	Freeway	within urbanized area over 500,000 population or near CBD <sup>1</sup>	Freeway
	Arterials		
	Type A	fewer than 0.50 signals/mile	Expressway/Arterial
	Type B	0.50 to 2.49 signals/mile	Expressway/Arterial/Collector
Rural	Freeway	within Rural Undeveloped Area	Freeway
	Highway	more than 1 lane per direction	Expressway/Arterial
	2-lane Highway	no more than 1 lane per direction	Expressway/Arterial/Collector
1. CBD = Central Business District			
Source: Florida DOT and DKS Associates, 1999.			

TABLE 4.4-4		
FREEWAY LEVEL OF SERVICE DESCRIPTIONS		
RURAL OR URBAN		
LOS	V/C Ratio	Description
A	0.00-0.30	Free Flow: Vehicles completely unimpeded to maneuver in traffic stream. Average speeds near 60 mph.
B	0.31-0.48	Free Flow: Ability to maneuver in traffic stream only slightly restricted. Average speeds over 57 mph.
C	0.49-0.71	Stable Flow: Freedom to maneuver in traffic stream noticeably restricted. Average speeds over 54 mph.
D	0.72-0.87	Approaching Unstable Flow: Freedom to maneuver in traffic stream is severely limited. Average speeds over 46 mph.
E	0.88-1.00	Unstable Flow: Volumes at or near capacity. Maneuvering is extremely limited. Average speeds over 30 mph.
F	>1.00	Forced Flow: Queues form behind breakdown points. Average speeds less than 30 mph.
Source: <i>Highway Capacity Manual</i> , Transportation Research Board, 1994.		



<b>TABLE 4.4-5</b>						
<b>ARTERIAL LEVEL OF SERVICE DESCRIPTIONS</b>						
<b>URBANIZED AREAS</b>						
LOS	V/C Ratio By Arterial Type <sup>1</sup>					Description
	A	B	C	D	E	
A	0.00 to 0.33	n/a	n/a	n/a	n/a	Free Flow/Insignificant Delays: No approach phase at a signalized intersection is fully utilized by traffic and no vehicle waits longer than one red signal indication.
B	0.34 to 0.55	0.00 to 0.70	n/a	n/a	n/a	Stable Operation/Minimal Delays: An occasional approach phase is fully utilized. Many drivers begin to feel somewhat restricted within platoons of vehicles.
C	0.56 to 0.75	0.71 to 0.89	0.00 to 0.36	n/a	n/a	Stable Operation/Acceptable Delays: Major approach phases fully utilized. Most drivers feel somewhat restricted.
D	0.76 to 0.89	0.90 to 0.97	0.37 to 0.82	0.00 to 0.61	0.00 to 0.76	Approach Unstable/Tolerable Delays: Drivers may have to wait through more than one red signal indication. Queues may develop but dissipate rapidly, without excessive delays.
E	0.90 to 1.00	0.98 to 1.00	0.83 to 0.93	0.62 to 0.87	0.77 to 0.87	Unstable Operation/Significant Delays: Volumes at or near capacity. Vehicles may wait through several signal cycles. Long queues form upstream from intersection.
F	more than 1.00	more than 1.00	more than 0.93	more than 0.88	more than 0.88	Forced Flow/Excessive Delays: Represents jammed conditions. Intersection operates below capacity with low volumes. Queues may block upstream intersections.

1. Level of service is not achievable where "n/a" is shown.  
Source: *Highway Capacity Manual*, Transportation Research Board, 1994.

<b>TABLE 4.4-6</b>		
<b>2-LANE HIGHWAY LEVEL OF SERVICE DESCRIPTIONS</b>		
<b>RURAL AREAS</b>		
LOS	V/C Ratio	Description
A	0.00-0.11	Free Flow: Almost no platoons of three or more cars. Drivers delayed no more than 30% by slow moving vehicles.
B	0.12-0.24	Free Flow: Some platoons form. Drivers delayed no more than 45% by slow moving vehicles.
C	0.25-0.39	Stable Flow: Noticeable increase in platoon formation and size. Drivers delayed no more than 60% by slow moving vehicles.
D	0.40-0.62	Approaching Unstable Flow: Heavy platooning. Passing becomes difficult. Drivers delayed no more than 75% by slow moving vehicles.
E	0.63-1.00	Unstable Flow: Intense platooning. Passing is virtually impossible. Drivers delayed more than 75% by slow moving vehicles.
F	>1.00	Forced Flow: Queues form behind breakdown points.

Note: Assumed conditions include 60/40 directional split, 5% heavy vehicles, and 20%, 40%, and 60% no passing zones for level, rolling, and mountainous terrain, respectively.  
Source: *Highway Capacity Manual*, Transportation Research Board, 1994.

No.	Description	Approximate Maximum Daily Traffic Volume Per Lane by LOS Category				
		A	B	C	D	E
1	Rural Freeway	4,500	7,250	10,650	13,050	14,900
2	Rural Multi-lane Highway	4,200	7,050	9,800	11,700	13,550
3	Rural 2-lane Highway	1,300	2,650	4,300	6,800	11,000
4	Urban Freeway	5,600	9,000	13,250	16,200	18,525
5	Urban Arterial	n/a	6,375	7,900	8,475	8,550

Source: DKS Associates, 1999.

### **Standards of Significance**

The Proposed Project is considered to have a significant impact if one or more of the following could occur:

- projected 2020 traffic volumes under the Proposed Project would result in a roadway segment exceeding the thresholds in the proposed level of service policy (TR-A.3). This policy states that the County shall strive to meet level of service (LOS) “D” on urban roadways (i.e., within the spheres of influence of the cities of Fresno and Clovis) and LOS “C” on all other roadways in the County. The proposed policy allows exceptions where the County finds that improvements or other measures required to achieve the LOS policy are unacceptable based on established criteria;
- the County would be unable to adequately maintain pavement conditions on the rural roadway system to meet projected growth in traffic, especially truck traffic;
- transit service providers would be unable to provide adequate transit services to meet projected demand;
- implementation of planned bikeways would not adequately meet the demand for bicycling;
- result in a substantial public safety hazard for aircraft operations or for people and property on the ground; or
- conflict with adopted airport land use plans.

## **Impacts and Mitigation Measures**

### **4.4-1 Development under the Draft General Plan would increase traffic volumes on rural Fresno County roadways outside the spheres of influence of the cities, causing some of these roadway segments to operate at an unacceptable level of service.**

Table A-1 in Appendix C provides daily traffic volumes and levels of service on the major urban and rural roadways throughout Fresno County for 1995 and for 2020 conditions with and without the Proposed Project, assuming the “2020 Baseline Transportation System” (described in Table 4.4-2).

The rural Fresno County roadways that would not achieve the proposed level of service policy in the Draft General Plan (i.e., those projected to operate at LOS “D” or worse) are shown in Table 4.4-8. With the Proposed Project, 12 rural Fresno County roadway segments would operate at unacceptable levels of service in 2020 if only funded/committed roadway improvements (those included in the “2020 Baseline Transportation System”) are implemented. However, 2020 traffic volumes under the Proposed Project would be only marginally greater than without the project on most of the Fresno County roadway system. Even without project traffic, nine roadways would operate at LOS “D” or worse. That is, only a few rural roadway segments that would operate at acceptable levels of service in 2020 if the Draft General Plan is **not** adopted would operate at unacceptable levels under the Proposed Project.

Two of the rural roadway segments that would not meet the proposed level of service policy under the Proposed Project already have four travel lanes: Clovis Avenue and Jensen Avenue. The County design policies do not provide for six-lane roadways in rural areas. The proposed level of service policy would allow an exception if the required roadway improvement would result in more than four through travel lanes and the roadway would operate at LOS “D” conditions. Jensen Avenue from Temperance Avenue to Highland Avenue would operate at LOS “D” conditions. Clovis Avenue would operate at LOS “F” conditions from Jensen Avenue to North Avenue and at LOS “D” conditions from North Avenue to Central Avenue. While the County could consider an exception to its level of service policy on segments of Jensen Avenue and Clovis Avenue that would operate at LOS “D” conditions, it could also consider an exception to its design policy that would allow the rural portion of Clovis Avenue that would operate at LOS “F” conditions to be widened to six lanes. Exceptions to the proposed level of service policy would likely not apply to the other rural Fresno County roadways shown in Table 4.4-8.

The number of rural Fresno County roadways that would not meet the County’s proposed level of service policy is limited and would be reduced by policies contained in the Draft General Plan. The Draft General Plan requires new development to identify and construct or fund improvements that mitigate their traffic impacts (Policies TR-A.5 and TR-A.7), and calls for the development of traffic impact fees for areas outside the spheres of influence of cities in the County (Implementation Measure TR-A.B). The Draft General Plan also requires the County to pursue other regional, State and federal funding sources for transportation improvements (Policies TR-A.6 and TR-A.10). These measures may or may not provide adequate funding by 2020 to improve all the rural Fresno County roadways that would not meet the proposed level of service policy. Therefore, this impact is considered **significant**.

Roadway Segment	1995 Base			2020 Without Project			2020 with Proposed Project		
	Volume	Lanes	LOS	Volume	Lanes	LOS	Volume	Lanes	LOS
Auberry (Millerton to Copper)	2,300	2	A	11,000	2	<b>D</b>	11,500	2	<b>D</b>
Bethel (SR 180 to California)	5,500	2	C	9,500	2	<b>D</b>	10,100	2	<b>D</b>
Clovis (Jensen to North)	23,600	4	B	39,800	4	<b>F</b>	44,300	4	<b>F</b>
Clovis (North to Central)	17,000	4	B	29,500	4	C	32,500	4	<b>D</b>
Dinuba (Pederson to Alta)	7,200	2	C	10,500	2	<b>D</b>	11,900	2	<b>D</b>
Elm (American to Jefferson)	17,500	2	<b>F</b>	16,600	2	<b>E</b>	17,100	2	<b>F</b>
Jensen (Temperance to Highland)	12,800	4	B	31,000	4	C	31,800	4	<b>D</b>
Mt. Whitney (Marks to Fruit)	3,900	2	B	8,000	2	C	8,700	2	<b>D</b>
Mt. Whitney (Valentine to Marks)	6,700	2	C	8,800	2	<b>D</b>	9,100	2	<b>D</b>

1. Represents Fresno County roadways (including expressways, super arterials, arterials and collectors, but not roadways classified as outside the spheres of influence of cities and excludes State routes).x

Source: DKS Associates, 1999.

### Mitigation Measure

4.4-1 *None available beyond Draft General Plan Policies TR-A.5 through TR-A.7 and TR-A.10.*

The number of rural Fresno County roadways that would not meet the County's proposed level of service policy is limited and would be reduced by policies and implementation measures in the Draft General Plan. Nonetheless, even with the implementation of General Plan policies, funding for roadway improvements may not always be available before deficiencies occur. Therefore, the impact is considered significant and unavoidable.

### **4.4-2 Development under the Draft General Plan would increase traffic volumes on rural State highways outside the spheres of influence of the cities in Fresno County, causing some of these roadway segments to operate at an unacceptable level of service.**

Table A-1 in Appendix C provides daily traffic volumes and levels of service on the major urban and rural roadways throughout Fresno County for 1995 and for 2020 conditions with and without the Proposed Project assuming the "2020 Baseline Transportation System" (described in Table 4.4-2).

The rural State highways that would not achieve the proposed level of service policy in the Draft General Plan (i.e., those projected to operate at LOS “D” or worse) are shown in Table 4.4-9. Of the roadway segments analyzed, 13 would operate at LOS “D” or worse under existing conditions. Funded and/or committed roadway improvements (those included in the “2020 Baseline Transportation System”) would mitigate congestion on some State highways that were operating at unacceptable levels of service in 1995. Nonetheless, by 2020, 28 of the analyzed segments are expected to operate at LOS “D” or worse. Growth under the Proposed Project would cause one additional rural State highway segment to operate at unacceptable levels of service in 2020, and would increase congestion along most other segments. About 93 percent of the 1996 to 2020 population and employment growth in Fresno County would occur within the spheres of influence of incorporated cities. Thus, most of the traffic increase on rural State highway would be due either to (1) travel between these growing cities and the State highway “gateways” to Fresno County, or (2) growth in “through” travel that does not have an origin or destination in the County (especially on SR 99 and SR 41).

Policy TR-A.9 states that funding for capacity-increasing projects on the Inter-regional Highway System in Fresno County (I-5, SR 41 and SR 99) shall rely on State and federal sources intended for that system. It also states that Fresno County and local development shall not be required to participate financially in the upgrading of the Inter-regional Highway System. Under the Proposed Project, development in the rural areas (outside the spheres of influence of the cities) of Fresno County would contribute a very small portion of the growth in traffic volumes on the Inter-regional Highway System.

The analysis shown in Table 4.4-9 assumes that only those funded/committed roadway improvements contained in the 2020 Baseline Transportation System would be implemented by 2020. Improvements to the regional roadway system in this baseline system reflect the 1998 Regional Transportation Plan (RTP), which includes only programmed improvements. The majority of State regional funding in the 1998 Fresno County RTP is allocated to the State highway system. State and regional funding programs generally cover only a seven-year period (1997 to 2004 in the latest funding cycle). A major source of funding regional projects in the RTP is the Measure “C” program, the half-cent sales tax that is dedicated for transportation improvements in Fresno County. The RTP reflects the Measure “C” Expenditure Plan, which extends through fiscal year 2006/2007.

Additional funding for regional transportation improvements would likely be available from regional, State and federal sources for the 2005 to 2020 time frame. If a significant amount of funding were available and allocated to the rural State highway system, then the traffic congestion levels shown in Table 4.4-9 would be reduced. However, the level of funding for regional improvements beyond 2004 is uncertain, and the Council of Fresno County Governments (COFCG) Policy Board would allocate such funding. Both State highways and other regionally significant roadways in the urban and rural areas of Fresno County would be eligible for regional funds. Funding may not be available to mitigate all of the level of service impacts on the rural State highway shown in Table 4.4-9. Therefore, this impact is considered **significant**.

Roadway Segment		1995 Base			2020 Without Project			2020 with Proposed Project		
		Volume	Lanes	LOS	Volume	Lanes	LOS	Volume	Lanes	LOS
SR 33	Coalinga to Jayne	7,300	2	C	9,900	2	D	10,600	2	D
SR 41	Central to American	16,800	2	D	39,600	4	F	40,600	4	F
	Dinuba to Mtn. View	9,500	2	D	18,300	4	D	19,800	4	D
	Elkhorn to Mt. Whitney	8,400	2	C	17,000	4	C	18,900	4	D
SR 43	SR 99 to Mtn. View	12,500	2	D	20,000	2	E	21,300	2	E
	Mtn. View to Kamm	12,500	2	D	20,500	2	E	22,000	2	E
	Kamm to Elkhorn	8,800	2	D	16,400	2	E	18,000	2	E
	Elkhorn to Harlan	11,100	2	D	21,400	2	E	23,000	2	F
	Harlan to Mt. Whitney	10,800	2	D	21,100	2	E	22,900	2	F
SR 99	Fresno/Madera Co Line to Herndon	51,400	4	C	159,600	6	F	186,800	6	F
	Cedar to Central	62,000	6	C	107,300	6	E	111,700	6	E
	Central to Chestnut	49,000	6	B	91,000	6	D	94,900	6	D
	Chestnut to American	57,000	6	C	105,500	6	E	112,100	6	E
	SR-201 to Fresno/ Tulare Co Ln.	37,900	4	C	100,400	6	F	114,800	6	F
SR 145	Fresno/Madera Co Line to Shaw	4,800	2	B	13,100	2	D	14,900	2	E
	Shaw to Ashlan	6,400	2	C	14,600	2	E	16,000	2	E
	Ashlan to Shields	5,200	2	B	12,000	2	D	13,300	2	D
	Shields to McKinley	7,000	2	C	12,600	2	D	14,000	2	E
	McKinley to SR 180	8,500	2	C	16,700	2	E	17,400	2	E
SR 180	Belmont to Panoche	3,600	2	B	11,700	2	D	12,100	2	D
	Panoche to San Mateo	2,400	2	A	10,300	2	D	10,200	2	D
	San Mateo to James	4,100	2	B	13,300	2	D	13,300	2	D
	James to Lake	5,900	2	C	15,100	2	E	15,200	2	E
	Lake to Kerman SOI	3,200	2	B	9,600	2	D	9,700	2	D
	Kerman SOI to Howard	7,300	2	C	15,100	2	E	15,400	2	E
	Howard to Dickenson	6,900	2	C	14,300	2	E	14,300	2	E
	Dickenson to Chateau Fresno	7,500	2	C	13,500	2	D	13,400	2	D
SR 269	Gale to Jayne	10,600	2	D	18,600	2	E	20,300	2	E
	Jayne to I-5	10,500	2	D	18,100	2	E	19,900	2	E

1. Represents State Routes outside the spheres of influence of cities.  
Note: The per-lane capacities for freeway segments vary depending on whether they are classified as urban or rural. For example, some segments of SR99 in Fresno County were classified as urban while others were classified as rural.  
Source: DKS Associates, 1999.

### Mitigation Measure

#### 4.4-2 *None available beyond TR-A.9.*

The recommended measure would provide some funding for rural State highways and would thereby help reduce the level of service impacts identified in Table 4.4-9. However, under the Proposed Project, development in areas outside the spheres of influence of the cities in Fresno County would contribute a small portion of the growth in traffic volumes on most of the rural State highways. Therefore, most of the funding for improvements to the rural State highways must come from other sources, which may or may not be available. Policy TR-A.9 states that Fresno County and local development shall not be required to participate financially in the upgrading of the Inter-regional Highway System. Caltrans must implement improvements to State highways and the County cannot guarantee that they would be implemented. There are no reasonable mitigation measures available for the County alone to implement that would reduce this impact to a less than significant level. Therefore, this impact would remain significant and unavoidable.

#### **4.4-3 Development under the Draft General Plan would increase traffic volumes on local urban roadways inside the spheres of influence of the cities in Fresno County, causing some of these roadway segments to operate at an unacceptable level of service.**

Table A-1 in Appendix C provides daily traffic volumes and levels of service on the major urban and rural roadways throughout Fresno County for 1995 and for 2020 conditions with and without the Proposed Project assuming the “2020 Baseline Transportation System” (described in Table 4.4-2).

The roadways that are inside the spheres of influence of the cities in Fresno County that would not achieve the proposed level of service policy in the Draft General Plan are shown in Table 4.4-10. This includes roadways projected to operate at LOS “E” or worse within the spheres of influence of the cities of Fresno and Clovis and LOS “D” or worse in the spheres of influence of other cities in the county. This table indicates that the cities of Clovis, Fresno and Reedley currently have roadways operating at unacceptable service levels (LOS “E” or worse). Funded and/or committed roadway improvements (those included in the “2020 Baseline Transportation System”) would mitigate congestion on some roadways that were operating at unacceptable levels of service, but most of the roadway segments analyzed would operate at LOS “F” by 2020, and both Sanger and Selma would have roadways operating at LOS “E”. Growth under the Proposed Project would cause additional urban roadway segments to operate at unacceptable levels of service in 2020.

Draft General Plan Implementation Program TR-A.B states that the County would require new development within an unincorporated area of a city sphere of influence to pay the traffic impact fees of that city. It would be the responsibility of the cities to develop and maintain their roadway capital improvement programs and adequate funding mechanisms to maintain their adopted level of service programs for the entire sphere of influence. It is uncertain whether the cities would fund and implement improvements that would mitigate the level of service deficiencies identified in Table 4.4-10. Therefore, this impact is considered **significant**.

Table 4.4-10, p.1

TABLE 4.4-10										
URBAN ARTERIALS AND EXPRESSWAYS <sup>1</sup>										
THAT WOULD NOT MEET THE DRAFT LEVEL OF SERVICE POLICY (LOS E or Worse)										
Roadway Segment	1995 Base			2020 Without Project			2020 With Proposed Project			
	Volume	Lanes	LOS	Volume	Lanes	LOS	Volume	Lanes	LOS	
<b>Clovis SOI</b>										
Ashlan	east of Clovis	17,400	2	F	18,500	2	F	19,300	2	F
	west of Clovis	18,600	2	F	17,500	2	F	17,700	2	F
Clovis	south of Ashlan	50,300	6	D	56,000	6	F	60,500	6	F
	north of Bullard	19,700	4	B	32,100	4	D	36,800	4	F
Fifth	east of Clovis	11,200	2	B	18,200	2	F	18,200	2	F
	west of Clovis	13,100	2	C	18,600	2	F	19,000	2	F
Fowlers	south of Ashlan	15,600	2	C	22,000	2	F	22,400	2	F
Herndon	east of Clovis	22,400	4	B	44,500	4	F	47,500	4	F
	west of Clovis	25,700	4	C	65,100	6	F	71,900	6	F
	east of Minnewawa	25,700	4	C	49,300	6	D	55,500	6	F
	west of Minnewawa	34,700	4	F	50,300	6	D	55,800	6	F
	east of Peach	35,500	4	F	51,500	6	F	57,300	6	F
	west of Peach	36,500	4	F	49,300	6	D	54,400	6	F
	east of Temperance	5,000	2	B	15,500	2	C	17,100	2	F
Shaw	west of Clovis	46,200	6	C	59,500	6	F	62,400	6	F
	east of Peach	57,900	6	F	64,600	6	F	66,300	6	F
	west of Peach	54,700	6	F	72,000	6	F	75,000	6	F
	east of Willow	58,000	6	F	75,700	6	F	77,800	6	F
	west of Willow	53,400	6	F	69,900	6	F	71,700	6	F
Willow	north of Shaw	34,500	6	B	55,200	6	F	59,200	6	F
<b>Fowler SOI</b>										
Temperance	north of Adams	6,100	2	C	12,800	2	D	13,800	2	E
	south of Adams	4,400	2	B	10,100	2	D	11,000	2	D
<b>Fresno SOI</b>										
Ashlan	east of Blackstone	28,200	4	C	33,600	4	D	34,100	4	E
	east of Brawley	18,700	2	F	38,700	4	F	40,700	4	F
	east of Cedar	33,800	4	D	54,300	4	F	54,100	4	F
	west of Cedar	33,800	4	D	39,700	4	F	41,400	4	F
	east of Palm	19,200	2	F	23,500	2	F	23,200	2	F



<b>TABLE 4.4-10</b>										
<b>URBAN ARTERIALS AND EXPRESSWAYS<sup>1</sup></b>										
<b>THAT WOULD NOT MEET THE DRAFT LEVEL OF SERVICE POLICY (LOS E or Worse)</b>										
<b>Roadway Segment</b>	<b>1995 Base</b>			<b>2020 Without Project</b>			<b>2020 With Proposed Project</b>			
	<b>Volume</b>	<b>Lanes</b>	<b>LOS</b>	<b>Volume</b>	<b>Lanes</b>	<b>LOS</b>	<b>Volume</b>	<b>Lanes</b>	<b>LOS</b>	
	west of Palm	18,900	2	F	23,300	2	F	21,900	2	F
	west of SR 41	40,400	4	F	45,800	4	F	45,600	4	F
	east of Willow	48,300	4	F	40,100	4	F	41,300	4	F
Blackstone	north of Herndon	39,000	6	C	63,500	6	F	70,100	6	F
	south of Herndon	28,600	6	B	48,100	6	D	56,100	6	F
	north of Nees	18,500	6	B	54,400	6	F	73,200	6	F
	north of Shaw	39,400	6	C	49,100	6	D	54,700	6	F
Brawley	north of Shaw	14,700	2	C	18,000	2	F	19,300	2	F
Bullard	east of Blackstone	38,400	4	F	45,500	4	F	48,600	4	F
	west of Blackstone	30,200	4	C	34,800	4	F	36,700	4	F
	east of Cedar	25,900	4	C	29,700	4	C	34,400	4	F
	west of Cedar	29,600	4	C	33,900	4	D	37,600	4	F
	east of First	30,800	4	C	36,400	4	F	40,500	4	F
	west of First	34,600	4	F	39,800	4	F	43,200	4	F
	east of Fresno	32,800	4	D	37,800	4	F	40,900	4	F
	west of Fresno	37,900	4	F	44,500	4	F	48,200	4	F
	west of Marks	16,400	4	B	31,300	4	C	35,300	4	F
	east of Palm	25,800	4	C	34,600	4	F	37,500	4	F
	west of Palm	24,500	4	B	36,000	4	F	40,100	4	F
	west of SR 41	38,900	4	F	46,800	4	F	50,200	4	F
	east of West	24,400	4	B	36,400	4	F	40,500	4	F
Cedar	south of Alluvial	10,000	2	B	15,700	2	C	17,700	2	F
	north of Ashlan	34,000	4	E	40,100	4	F	43,200	4	F
	south of Ashlan	35,200	4	F	29,900	4	C	33,900	4	D
	north of Belmont	23,700	4	B	35,000	4	F	36,500	4	F
	north of Bullard	30,600	4	C	36,800	4	F	39,400	4	F
	south of Bullard	28,800	4	C	35,200	4	F	36,500	4	F
	south of Central	9,000	2	B	14,600	2	C	18,200	2	F
	south of Herndon	27,600	4	C	35,400	4	F	39,100	4	F
	north of Shaw	33,000	4	D	34,900	4	F	38,500	4	F

<b>TABLE 4.4-10</b>										
<b>URBAN ARTERIALS AND EXPRESSWAYS<sup>1</sup></b>										
<b>THAT WOULD NOT MEET THE DRAFT LEVEL OF SERVICE POLICY (LOS E or Worse)</b>										
<b>Roadway Segment</b>	<b>1995 Base</b>			<b>2020 Without Project</b>			<b>2020 With Proposed Project</b>			
	<b>Volume</b>	<b>Lanes</b>	<b>LOS</b>	<b>Volume</b>	<b>Lanes</b>	<b>LOS</b>	<b>Volume</b>	<b>Lanes</b>	<b>LOS</b>	
Chestnut	south of Shaw	34,100	4	E	36,500	4	F	39,400	4	F
	south of Ashlan	40,400	4	F	29,700	4	C	31,700	4	D
	south of Alluvial	10,300	2	B	19,100	2	F	19,500	2	F
	north of Belmont	25,200	4	B	42,300	4	F	45,600	4	F
	south of Belmont	22,900	4	B	33,000	4	D	35,200	4	F
	south of Nees	8,900	2	B	16,900	2	D	17,300	2	F
	north of SR 180	36,000	4	F	37,300	4	F	39,000	4	F
	south of SR 180	26,800	4	C	31,000	4	C	34,500	4	F
Clovis	north of Belmont	46,100	4	F	67,100	6	F	70,500	6	F
	south of Belmont	39,500	4	F	56,900	6	F	60,000	6	F
	north of Church	28,200	4	C	44,700	4	F	47,700	4	F
	south of Church	28,200	4	C	39,300	4	F	42,400	4	F
	north of Geary	28,200	4	C	44,900	4	F	47,800	4	F
	north of McKinley	43,700	6	C	52,200	6	F	58,800	6	F
	south of McKinley	46,500	4	F	67,600	6	F	72,800	6	F
	north of Olive	43,800	4	F	63,100	6	F	67,600	6	F
	south of Olive	47,200	4	F	65,100	6	F	71,300	6	F
	north of Shields	50,800	6	D	58,100	6	F	62,200	6	F
	south of Shields	55,500	6	F	59,100	6	F	62,400	6	F
	north of SR 180	32,000	4	D	48,100	6	D	51,800	6	F
south of SR 180	34,800	4	F	50,000	4	F	52,600	4	F	
north of Tulare	39,900	4	F	55,500	6	F	58,600	6	F	
south of Tulare	37,700	4	F	48,100	6	D	51,800	6	F	
First	north of Ashlan	29,800	4	C	32,600	4	D	35,800	4	F
	north of Bullard	30,500	4	C	34,900	4	F	38,600	4	F
	north of Herndon	19,800	4	B	31,500	4	C	38,500	4	F
	south of Herndon	17,400	4	B	29,300	4	C	35,000	4	F
	south of Shaw	26,600	4	C	32,000	4	D	35,800	4	F
	south of Shields	31,900	4	D	36,000	4	F	38,600	4	F

<b>TABLE 4.4-10</b>										
<b>URBAN ARTERIALS AND EXPRESSWAYS<sup>1</sup></b>										
<b>THAT WOULD NOT MEET THE DRAFT LEVEL OF SERVICE POLICY (LOS E or Worse)</b>										
<b>Roadway Segment</b>		<b>1995 Base</b>			<b>2020 Without Project</b>			<b>2020 With Proposed Project</b>		
		<b>Volume</b>	<b>Lanes</b>	<b>LOS</b>	<b>Volume</b>	<b>Lanes</b>	<b>LOS</b>	<b>Volume</b>	<b>Lanes</b>	<b>LOS</b>
Fowler	north of McKinley	0	0	0	47,900	4	F	51,200	4	F
	south of McKinley	0	0	0	44,400	4	F	46,600	4	F
	south of Shields	15,000	2	C	40,200	4	F	42,800	4	F
	north of Tulare	17,100	2	F	31,700	4	D	34,000	4	E
	south of Tulare	17,100	2	F	26,100	4	C	28,100	4	C
Fresno	north of Bullard	22,100	4	B	29,700	4	C	34,400	4	F
	north of Herndon	22,700	4	B	39,100	4	F	44,100	4	F
	south of Nees	18,600	4	B	31,300	4	C	36,600	4	F
Friant	north of Audubon	36,200	4	F	68,800	6	F	72,400	6	F
	south of Audubon	37,500	6	B	66,700	6	F	69,500	6	F
	south of Shepherd	15,700	4	B	48,300	6	D	51,900	6	F
H St.	north of Fresno	17,800	2	F	20,300	2	F	20,700	2	F
Herndon	east of Blackstone	50,200	6	D	75,400	6	F	79,100	6	F
	west of Blackstone	41,800	6	C	58,300	6	F	61,400	6	F
	east of Cedar	45,300	4	F	56,000	4	F	59,300	4	F
	west of Cedar	60,300	6	F	72,300	6	F	75,500	6	F
	east of Chestnut	53,600	4	F	63,700	4	F	64,900	4	F
	west of Chestnut	45,200	4	F	57,300	4	F	58,900	4	F
	east of First	47,800	6	D	61,600	6	F	67,400	6	F
	west of First	53,000	6	F	68,500	6	F	74,400	6	F
	east of Fresno	53,000	6	F	68,500	6	F	74,400	6	F
	west of Fresno	57,800	6	F	77,000	6	F	85,300	6	F
	east of Maple	45,200	4	F	57,300	4	F	58,900	4	F
	west of Maple	46,000	4	F	56,700	4	F	60,000	4	F
	east of Marks	36,100	4	F	72,700	6	F	75,500	6	F
	west of Marks	34,500	4	F	74,200	6	F	78,400	6	F
	east of Palm	66,600	6	F	81,500	6	F	85,200	6	F
	west of Palm	43,700	4	F	81,600	6	F	85,300	6	F
	east of West	40,800	4	F	79,100	6	F	81,700	6	F
west of West	43,500	4	F	80,900	6	F	83,700	6	F	

<b>TABLE 4.4-10</b>										
<b>URBAN ARTERIALS AND EXPRESSWAYS<sup>1</sup></b>										
<b>THAT WOULD NOT MEET THE DRAFT LEVEL OF SERVICE POLICY (LOS E or Worse)</b>										
<b>Roadway Segment</b>	<b>1995 Base</b>			<b>2020 Without Project</b>			<b>2020 With Proposed Project</b>			
	<b>Volume</b>	<b>Lanes</b>	<b>LOS</b>	<b>Volume</b>	<b>Lanes</b>	<b>LOS</b>	<b>Volume</b>	<b>Lanes</b>	<b>LOS</b>	
Jensen	west of Willow	40,000	4	F	50,100	4	F	51,300	4	F
	east of Cedar	38,600	4	F	54,800	6	F	58,400	6	F
	west of Cedar	41,000	4	F	57,200	6	F	61,000	6	F
	east of Clovis	37,500	4	F	54,300	4	F	56,700	4	F
	west of Clovis	32,300	4	D	50,200	6	D	53,200	6	F
	east of Fowler	32,200	4	D	41,600	4	F	43,400	4	F
	west of Fowler	33,600	4	D	41,200	4	F	43,400	4	F
	west of SR 41	6,700	4	B	32,300	4	D	34,000	4	E
McKinley	east of Blackstone	30,500	4	C	36,700	4	F	38,900	4	F
	west of Blackstone	29,300	4	C	34,500	4	F	35,500	4	F
	east of Cedar	31,700	4	D	40,900	4	F	43,900	4	F
	east of Chestnut	34,600	4	F	28,900	4	C	31,500	4	C
	west of First	53,500	4	F	46,200	4	F	49,000	4	F
	west of SR 41	28,000	4	C	40,200	4	F	44,900	4	F
	west of West	29,700	4	C	39,400	4	F	41,800	4	F
N Motel	Dr north of Bullard	8,900	2	B	18,400	2	F	19,000	2	F
	Dr south of Bullard	9,500	2	B	16,800	2	D	18,500	2	F
	Dr north of Herndon	20,900	2	F	35,000	2	F	46,000	2	F
	Dr north of Shaw	10,000	2	B	16,700	2	D	18,500	2	F
	Dr south of Shaw	13,200	2	C	17,700	2	F	19,300	2	F
Nees	east of Blackstone	8,500	4	B	34,600	4	F	43,600	4	F
	west of Blackstone	11,800	4	B	37,600	4	F	39,300	4	F
	west of Cedar	12,200	4	B	34,200	4	F	38,300	4	F
	east of First	16,300	4	B	41,700	4	F	45,700	4	F
	west of First	12,900	4	B	33,500	4	D	39,700	4	F
	east of Fresno	14,700	4	B	35,500	4	F	41,600	4	F
	west of Fresno	8,500	4	B	36,100	4	F	44,400	4	F
Palm	north of Herndon	0	0	0	34,500	4	F	37,700	4	F
Peach	north of Belmont	11,400	2	B	32,100	4	D	35,000	4	F
	north of SR 180	7,700	2	B	17,200	2	F	18,100	2	F

<b>TABLE 4.4-10</b>										
<b>URBAN ARTERIALS AND EXPRESSWAYS<sup>1</sup></b>										
<b>THAT WOULD NOT MEET THE DRAFT LEVEL OF SERVICE POLICY (LOS E or Worse)</b>										
<b>Roadway Segment</b>	<b>1995 Base</b>			<b>2020 Without Project</b>			<b>2020 With Proposed Project</b>			
	<b>Volume</b>	<b>Lanes</b>	<b>LOS</b>	<b>Volume</b>	<b>Lanes</b>	<b>LOS</b>	<b>Volume</b>	<b>Lanes</b>	<b>LOS</b>	
Shaw	south of SR 180	13,100	2	C	23,900	2	F	24,800	2	F
	east of Cedar	49,600	6	D	52,000	6	F	55,300	6	F
	east of Chestnut	54,500	6	F	80,000	6	F	83,900	6	F
	west of Chestnut	54,600	6	F	67,500	6	F	69,200	6	F
	east of First	50,200	6	D	53,900	6	F	57,600	6	F
	west of First	60,000	6	F	64,100	6	F	69,500	6	F
	east of Marks	48,800	6	D	68,100	6	F	73,000	6	F
	west of Marks	46,100	6	C	70,400	6	F	76,100	6	F
	east of Palm	49,700	6	D	61,100	6	F	64,100	6	F
	west of Palm	44,900	6	C	56,300	6	F	62,000	6	F
	east of Polk	21,400	2	F	50,500	6	D	54,100	6	F
	west of SR 41	70,600	6	F	80,300	6	F	84,000	6	F
	west of West	32,000	6	B	47,300	6	C	51,500	6	F
Shields	east of Blackstone	37,100	4	F	46,000	4	F	47,600	4	F
	west of Blackstone	39,000	4	F	47,200	4	F	49,100	4	F
	west of Clovis	10,800	4	B	30,700	4	C	35,400	4	F
	east of First	31,100	4	C	35,600	4	F	38,000	4	F
	west of First	30,500	4	C	32,800	4	D	36,000	4	F
	east of Fowler	13,600	2	C	15,900	2	D	17,400	2	F
	east of Marks	0	0	0	57,300	6	F	59,200	6	F
	east of Palm	30,900	4	C	39,900	4	F	42,100	4	F
	west of Palm	28,200	4	C	38,700	4	F	40,800	4	F
	west of SR 41	50,700	4	F	59,500	4	F	61,000	4	F
west of West	11,300	4	B	33,500	4	D	35,700	4	F	
Temperance	north of McKinley	24,500	4	B	36,200	4	F	40,500	4	F
	south of McKinley	21,900	2	F	32,500	4	D	37,400	4	F
	north of Shields	18,500	4	B	31,400	4	C	35,500	4	F
	south of Shields	24,300	4	B	33,500	4	D	36,200	4	F
Weber	north of Shields	22,000	2	F	44,300	4	F	48,100	4	F
West	north of Ashlan	31,600	4	C	35,100	4	F	38,800	4	F

<b>TABLE 4.4-10</b>										
<b>URBAN ARTERIALS AND EXPRESSWAYS<sup>1</sup></b>										
<b>THAT WOULD NOT MEET THE DRAFT LEVEL OF SERVICE POLICY (LOS E or Worse)</b>										
<b>Roadway Segment</b>		<b>1995 Base</b>			<b>2020 Without Project</b>			<b>2020 With Proposed Project</b>		
		<b>Volume</b>	<b>Lanes</b>	<b>LOS</b>	<b>Volume</b>	<b>Lanes</b>	<b>LOS</b>	<b>Volume</b>	<b>Lanes</b>	<b>LOS</b>
Willow	south of Alluvial	11,100	6	B	43,500	6	C	50,900	6	E
	north of Herndon	15,900	6	B	50,700	6	D	58,500	6	F
<b>Reedley SOI</b>										
North	east of Reed	15,000	2	E	19,700	2	E	20,500	2	E
Bridge	Hwy of Reed	14,500	2	E	20,800	2	E	22,000	2	E
<b>Sanger SOI</b>										
9th	east of Bethel	6,400	2	C	9,400	2	D	9,300	2	D
Academy	north of North	8,800	2	D	15,600	4	A	16,800	4	A
Annadale	east of Academy	7,600	2	C	8,800	2	D	8,600	2	C
Bethel	north of Jensen	6,300	2	C	10,300	2	D	10,900	2	D
	south of Jensen	11,400	2	D	15,300	2	E	15,600	2	E
<b>Selma SOI</b>										
2nd St.	west of McCall	9,200	2	D	14,100	2	E	15,200	2	E
Floral	west of McCall	8,600	2	C	10,100	2	D	10,000	2	D
McCall	south of Manning	10,800	2	D	15,400	2	E	16,300	2	E
<sup>1</sup> Represents arterials, super arterials and expressways inside the spheres of influence of cities and excludes State routes.										
Source: DKS Associates 1999										

### Mitigation Measure

#### 4.4-3 *None available beyond Draft General Plan Implementation Program TR-A.B.*

Improvements to roadways within the sphere of influence of a city must be implemented by that city. The County's policies would place most future development within city spheres, and the level of service impacts shown in Table 4.4-10 would stem from this growth. Aside from the policy in the Draft General Plan that requires new development within an unincorporated area of a city sphere of influence to pay the traffic impact fees of that city, there are no reasonable mitigation measures available for the County alone to implement that would reduce this impact to a less-than-significant level. Therefore, this impact would remain significant and unavoidable.

#### **4.4.4 Development under the Draft General Plan would increase traffic volumes on State highways inside the spheres of influence of cities in Fresno County, and cause some of these roadway segments to operate at an unacceptable level of service.**

Table A-1 in Appendix C provides daily traffic volumes and levels of service on the major urban and rural roadways throughout Fresno County for 1995 and for 2020 conditions with and without the Proposed Project assuming the "2020 Baseline Transportation System" (described in Table 4.4-2).

The State highways that are inside the spheres of influence of the cities and would not achieve the proposed level of service policy in the Draft General Plan are shown in Table 4.4-11. This includes roadways projected to operate at LOS "E" or worse within the spheres of influence of the cities of Fresno and Clovis and LOS "D" or worse in the spheres of influence of other cities in the County. As shown in Table 4.4-11, most analyzed segments of SR 33, SR 41 and, in the City of Fresno, SR 99 currently operate at acceptable service levels. SR 99 outside the City of Fresno, and SR 145, SR 180 and SR 201 generally operate at unacceptable service levels. While funded/committed roadway improvements (those included in the "2020 Baseline Transportation System") would mitigate congestion on some State highways that were operating at unacceptable levels of service in 1995, the Proposed Project would increase congestion and cause additional rural State highways segments to operate at unacceptable levels of service. About 93 percent of the 1996 to 2020 population and employment growth in Fresno County would occur within the spheres of influence of incorporated cities, so most of the traffic increase on urban State highway would be due either to (1) travel within or between these growing cities or (2) growth in "through" travel that does not have an origin or destination in the County (especially on SR 99 and SR 41).

Policy TR-A.9 states that funding for capacity-increasing projects on the Inter-regional Highway System in Fresno County (I-5, SR 41 and SR 99) shall rely on State and federal sources intended for that system. It also states that Fresno County and local development shall not be required to participate financially in the upgrading of the Inter-regional Highway System. Under the Proposed Project, development in the rural areas (outside the spheres of influence of the cities) of Fresno County would contribute a very small portion of the growth in traffic volumes on the Inter-regional Highway System, especially within the spheres of influence in the cities.

**TABLE 4.4-11**  
**URBAN STATE ROUTES<sup>1</sup>**

Roadway Segment		Sphere of Influence	1995 Base			2020 Without Project			2020 With Proposed Project		
			Volume	Lanes	LOS	Volume	Lanes	LOS	Volumes	Lanes	LOS
SR 33	north of 12th	Firebaugh	12,400	2	D	16,900	2	E	17,400	2	D
	south of 12th		7,700	2	C	12,200	2	D	12,800	2	D
	north of SR 180	Mendota	5,000	2	B	8,500	2	C	8,900	2	D
SR 41	Fresno/Madera Co Line to Friant	Fresno	12,300	1	B	132,300	4	F	178,900	4	F
	Friant to Herndon		47,500	6	B	134,800	6	F	149,000	6	F
	Herndon to Bullard		75,000	6	C	143,600	6	F	150,900	6	F
	Bullard to SR-168		98,000	6	E	148,700	6	F	155,600	6	F
	SR-168 to McKinley		118,000	6	F	138,800	6	F	142,100	6	F
	McKinley to Divisadero		107,000	8	D	157,500	8	F	165,700	8	F
	Divisadero to M		73,500	6	C	134,500	6	F	144,300	6	F
	North to Central		16,100	2	D	12,000	4	B	13,900	4	B
SR 99	Herndon to Shaw		39,000	4	C	102,500	4	F	112,000	4	F
	Shaw to Ashlan		41,000	4	C	99,900	4	F	110,400	4	F
	Ashlan to Shields		57,600	6	C	117,100	6	F	128,100	6	F
	Shields to Clinton		56,000	6	C	100,300	6	D	109,000	6	E
	Clinton to McKinley		61,000	6	C	115,100	6	F	124,100	6	F
	McKinley to Olive		68,000	6	C	132,900	6	F	142,600	6	F
	Olive to Belmont		71,000	6	C	140,700	6	F	149,500	6	F
	Belmont to SR-180		63,000	6	C	129,300	6	F	138,300	6	F
	SR-180 to Fresno		64,100	6	C	112,700	6	F	122,000	6	F
	Fresno to Ventura		64,000	6	C	116,600	6	F	126,200	6	F
	Ventura to SR-41	92,000	6	D	127,800	4	F	133,700	4	F	
	SR-41 to North	66,000	6	C	117,000	6	F	125,900	6	F	
	North to Cedar	59,000	6	C	100,300	6	E	102,300	6	E	
American to Clovis	Fowler	56,000	6	C	103,600	6	F	109,300	6	F	
Clovis to Adams		66,000	6	D	123,400	6	F	130,800	6	F	



**TABLE 4.4-11**  
**URBAN STATE ROUTES<sup>1</sup>**

Roadway Segment		Sphere of Influence	1995 Base			2020 Without Project			2020 With Proposed Project			
			Volume	Lanes	LOS	Volume	Lanes	LOS	Volumes	Lanes	LOS	
	Adams to Merced	Selma	67,100	6	D	123,600	6	F	130,800	6	F	
	Merced to Manning		61,000	6	C	116,500	6	F	123,700	6	F	
	Manning to SR-43		65,900	6	D	109,700	6	F	118,200	6	F	
	SR-43 to 2nd	Kingsburg	44,000	4	D	97,800	6	F	107,800	6	F	
	2nd to Mountain		43,000	4	D	100,600	6	F	111,900	6	F	
	Mountain to Bethel		41,500	4	C	96,900	6	F	107,300	6	F	
	Bethel to SR-201		40,500	4	C	97,500	6	F	110,200	6	F	
SR 145	north of SR 180	Kerman	10,300	2	D	17,800	2	E	18,600	2	E	
	south of SR 180	Fresno	14,000	2	E	21,800	2	E	22,300	2	F	
	SR180 to McKinley		0	0	N/A	106,200	6	E	108,400	6	E	
SR 168	McKinley to Shields	Fresno	0	0	N/A	133,500	6	F	138,700	6	F	
	Shields to Ashlan		0	0	N/A	147,200	6	F	153,400	6	F	
	Ashlan to Shaw		0	0	N/A	138,200	6	F	144,200	6	F	
	Shaw to Bullard	Clovis	0	0	N/A	100,100	6	D	109,200	6	E	
	Bullard to Herndon		0	0	N/A	71,300	4	E	79,900	4	F	
	Herndon to Fowler		0	0	N/A	43,500	4	C	49,500	4	D	
SR 180	west of Cedar	Fresno	45,500	4	F	40,400	6	C	41,500	6	C	
	east of Chestnut		37,500	4	F	43,700	6	C	45,300	6	C	
	west of Chestnut		36,000	4	F	31,600	6	B	33,600	6	B	
	east of First		44,000	4	F	38,300	6	C	39,500	6	C	
	west of First		39,500	4	F	35,600	6	B	36,800	6	B	
	east of Fowler		17,000	2	D	23,600	4	B	24,000	4	B	
	east of Peach		36,300	4	F	40,400	6	C	41,500	6	C	
	west of Peach		32,800	4	D	37,000	6	B	39,200	6	C	
	east of SR 145		Kerman	8,700	2	D	16,700	2	E	17,300	2	E
	west of SR 145			7,300	2	C	15,200	2	E	15,500	2	E
	Brawley to Marks	Fresno	0	0	N/A	20,600	2	F	22,100	2	F	

**TABLE 4.4-11**  
**URBAN STATE ROUTES<sup>1</sup>**

Roadway Segment	Sphere of Influence	1995 Base			2020 Without Project			2020 With Proposed Project		
		Volume	Lanes	LOS	Volume	Lanes	LOS	Volumes	Lanes	LOS
Marks to Teilman		0	0	N/A	26,500	2	F	27,300	2	F
SR 99 to Fulton		41,300	6	B	97,700	6	D	104,400	6	D
Fulton to Blackstone		42,200	6	B	100,400	6	D	105,800	6	D
Blackstone to SR 41		35,700	6	B	107,900	6	E	112,300	6	E
SR 41 to Cedar		0	0	N/A	194,300	6	F	198,500	6	F
Cedar to Chestnut		0	0	N/A	109,700	6	F	112,800	6	F
Chestnut to Peach		0	0	N/A	118,600	4	F	122,100	4	F
Clovis to Fowler		0	0	N/A	61,300	4	F	62,300	4	F
Fowler to Temperanec		0	0	N/A	50,600	4	F	51,400	4	F
SR 201		Kingsburg	9,500	2	D	15,900	4	C	17,100	4
	west of Academy		11,800	2	D	19,800	4	D	21,200	4

1. Represents  
 Note: The per-lane capacities  
 Source: DKS

The analysis used to generate Table 4.4-11 assumes that only those funded/committed roadway improvements contained in the 2020 Baseline Transportation System would be implemented by 2020. Improvements to the regional roadway system in this baseline system reflect the 1998 Regional Transportation Plan (RTP), which only includes programmed improvements. The majority of State regional funding in the 1998 Fresno County RTP is allocated to the State highway system. State and regional funding programs generally do not cover the lifetime (2020) of the Proposed Project. A major source of funding regional projects in the RTP is the Measure “C” program, the half-cent sales tax that is dedicated for transportation improvements in Fresno County. The RTP reflects the Measure “C” Expenditure Plan, which extends through fiscal year 2006/2007.

Additional funding for regional transportation improvements would likely be available from regional, State and federal sources for the 2005 to 2020 time frame. If a significant amount of funding were available and allocated to the urban State highway system, than the impacts shown in Table 4.4-11 would be reduced. However, the level of funding for regional improvements beyond 2004 is uncertain, and the Council of Fresno County Governments (COFCG) Policy Board would allocate such funding. Both State highways and other “regionally significant” roadways in the urban and rural areas of Fresno County would be eligible for regional funds. Funding may not be available to mitigate all of the level of service impacts on the urban State highways shown in Table 4.4-11. Therefore, this impact is considered **significant**.

#### Mitigation Measure

4.4-4 *None available beyond Draft General Plan Policy TR-A.9.*

Caltrans must implement improvements to urban State highways. The County’s policies would place most future development within city spheres, and the level of service impacts on urban State highways shown in Table 4.4-11 would not stem from growth in the rural areas of the County. There are no reasonable mitigation measures available for the County alone to implement that would reduce this impact to a less than significant level. Therefore, this impact would remain significant and unavoidable.

#### **4.4-5 Development under the Draft General Plan would increase truck traffic on rural Fresno County roadways outside the spheres of influence of the cities, reducing the County’s ability to maintain pavement conditions on the rural roadway system.**

Pavement conditions are already deficient on a significant portion of the rural roadway system and the County’s funds for rehabilitation and reconstruction have not been adequate to repair these existing deficiencies. A survey (State Resolution 8) performed by all cities and counties state-wide shows that Fresno County’s annual shortfall to maintain roads in their current conditions would require \$31.1 million. Fresno County estimates that the current shortfall to provide preventative maintenance service to the County’s road system is approximately \$31 million annually. Preventative maintenance expenditures are essential for the efficient use of available roadway funding in order to avoid more costly repairs or reconstruction if pavement is allowed to deteriorate beyond a maintainable level. Studies show that reconstruction costs are approximately five times the cost per mile of preventative maintenance.

Trucks have a much greater impact on the deterioration of roadway pavement than automobiles. Engineering studies show that typical 18-wheel semi-trailer trucks have the equivalent loading effect of between 3,000 and 6,000 passenger vehicles. The number of truck trips from Fresno County's existing agricultural industries is expected to grow. As many of the rural, less structurally sound roads are exposed to increases in heavy truck traffic, significant damage to the rural roadway system would occur.

The Proposed Project would result in higher employment levels, especially within the spheres of influence of the cities in the County. Some of the higher employment levels in the rural areas under the Proposed Project would result from new agricultural processing centers and other high truck generators. Thus, these new rural employment areas would not only increase the need for traffic capacity improvements, but also increase the need for roadway maintenance and rehabilitation.

The Draft General Plan has policies that would reduce the project affect on roadway maintenance. These include a policy that requires each land development project to analyze their traffic impacts, including truck-related impacts, and construct or fund improvements necessary to mitigate the effects of traffic from the project (TR-A.5). This policies would reduce the impacts that trucks from new development would have on the rural roadway system. The Plan also requires that maintenance, rehabilitation and reconstruction of existing roadways be considered as important priorities in the County's Road Improvement Program (TR-A.4). However, due to existing deficiencies and deferred maintenance, pavement conditions on a significant portion of the County's rural roadway system would likely be deficient during the life of this Plan (2020). Therefore, this impact is considered **significant**.

#### Mitigation Measure

4.4-5 *None available beyond Draft General Plan Policies TR-A.4 and TR-A.5.*

#### **4.4-6 Development under the Draft General Plan would increase transit demand throughout Fresno County, especially inside the spheres of influence of cities.**

Under the Proposed Project the number of daily person trips generated in Fresno County would increase from 3.4 million to 5.5 million between 1995 and 2020, a 62 percent increase. About 93 percent of this increase in daily person trips would occur inside the spheres of influence of cities. With the projected increase in person trips there would be an equivalent increase in the demand for transit services. It should be noted that a substantial majority of the increase in transit demand would occur even if the Proposed Project is not adopted.

The primary provider of rural general public transportation is the Fresno County Rural Transit Agency (FCRTA). This Joint Powers Agency was formed in 1979 to address transit needs of the rural areas and includes the rural incorporated cities (all of the cities in the county except the cities of Fresno and Clovis) and Fresno County. The Rural Consolidated Transportation Service Agency (CTSA) coordinates transportation provided by social service agencies in rural Fresno County. The assessment of transit need in the rural areas of the County is a function of the Council of Fresno County

Government's (COFCG) annual "unmet needs" process. Plans for improving transit services in rural areas are contained in the Rural Short Range Transit Plan (SRTP) and the Regional Transportation Plan (RTP), both of which must be approved by the COFCG Policy Board. Thus, Fresno County's role in implementing transit services in the rural areas of the county is only as a participant in FCRTA and COFCG.

The providers of urban public transportation in Fresno County are Fresno Area Express (FAX), a department of the City of Fresno, and Clovis Transit. The County's role in implementing transit services in the Fresno-Clovis Metropolitan Area is only through its participation in COFCG, which must adopt the SRTP for the Fresno-Clovis Metropolitan Area (FCMA) and the RTP.

The 1998-2003 Rural SRTP, adopted in June 1998, calls for a continuation of public transportation services within and between incorporated cities reflective of service levels. Under this plan, expansion may include increased service hours and weekend services on existing routes, while requests for expansion to new areas should be accommodated within existing available operations. The Rural SRTP calls for special attention to be exercised to ensure that existing transit services are not diluted or jeopardized as service expansion requests to new areas are received. Those subsystems exhibiting the weakest performance will continue to be monitored under the Plan for possible adjustments in service. The adjustments may take the form of service revisions, new service or service extension, consolidation through new institutional arrangements or termination of service.

The impact of increased transit demand in the rural areas of the County would be reduced by policies contained in the Draft General Plan. The Plan calls for the County to work with transit providers to implement transit services that are responsive to existing and future transit demand and which can demonstrate cost-effectiveness by meeting minimum farebox recovery levels required by State and federal funding programs (TR-B.1). Another policy emphasizes transit services in existing transit corridors in the rural areas of the County (TR-B.2). These policies would be implemented through the County's participation in the Short Range Transit Plan process and are generally consistent with the current SRTP. The Plan also calls for the County to work with transit providers and the COFCG to pursue all available sources of funding for transit services (TR-B.4).

The County's proposed land use policies would place most of the 1996 to 2020 development in urban areas where transit service could be much more cost-effective than in rural areas. These land use policies would make more efficient the provision of transit services in the County. The Draft General Plan contains other policies that would also reduce the impacts of increased transit demand in urban areas, including the designation of transit corridors in the Fresno-Clovis Metropolitan Area (TR-B.3). Transit corridors were designated within the FCMA since this area has the best potential to achieve population and employment densities to support "high-capacity" transit services (i.e., light rail or express bus service). The Plan calls for the County to support development of land use and design standards in these transit corridors.

The land use and transportation policies in the Draft General Plan represent a substantial contribution by the County to reducing impacts of increased transit demand in both the rural and urban areas of the

County. However, it is uncertain whether the funding for transit services would be able to keep pace with increases in transit demand through the year 2020, especially within urban areas. Therefore, this impact is considered **significant**.

#### Mitigation Measure

4.4-6 *None available beyond Draft General Plan Policies TR-B.1, TR-B.2, TR-B.3, and TR-B.4.*

Transit providers together with the COFCG must implement improvements to transit service. There are no reasonable mitigation measures available for the County alone to implement that would reduce this impact to a less than significant level. Therefore, this impact would remain significant and unavoidable.

#### **4.4-7 Development under the Draft General Plan would increase the demand for bicycle facilities throughout Fresno County, especially inside the spheres of influence of cities.**

Under the Proposed Project the population of Fresno County would increase by about 46 percent between 1996 and 2020, which would substantially increase the number of people using bicycles and the associated demand for bicycle facilities. Except for recreational trips and exercise, bicycling is best suited for short-distance travel. About 93 percent of population growth would occur within the spheres of influence of incorporated cities. With higher densities and shorter travel distances, the average number of daily bicycle trips per household would be a much greater in the urban areas than in the rural areas of the County. Therefore, development under the Proposed Project would increase the demand for bicycling in the urban areas far more than the rural areas. It should be noted that most of the increase in demand for bicycle facilities would occur with or without approval of the Proposed Project.

The Draft Regional Bikeways Plan prepared by the Council of Fresno County Governments (COFCG) defines a planned bikeway system for Fresno County. The Regional Bikeways Plan needs to be updated and adopted. Fresno County has provided COFCG with its proposed roadway-related bikeway system (Class I and Class II) for the rural area of the county. This proposed system is shown on the Rural Bikeways System Map in the Draft General Plan, and the Recreation Trails Map in the Open Space Element of the Draft General Plan. The Rural Bikeways System Map is intended to guide bikeway planning and to ensure that a bike lane, or a parallel bike path, is included in any right-of-way dedication or improvement of the roadways contained on this map. The Regional Bikeways Plan is a long-range plan, and it may be unrealistic to fund and construct all of the urban and rural bikeways on the Plan during the life of the Fresno County General Plan (2020). However, it would be important to implement those bikeways that would serve significant numbers of cyclists.

The Rural Bikeways System Map focuses on connecting communities and thus includes on-street (Class II) bike lanes on long stretches of rural roads. Few of these bike lanes currently exist. The primary use of most of the rural bikeway facilities would be recreational trips. The limited amount of population

growth in the rural areas of the county would likely not create a substantial increase in the demand for bicycling on the rural roadway system. However, growing recreational bicycling in the eastern foothill area could increase demand for bicycle facilities in this area. Yet the lack of an existing inter-community bikeway system does not meet current demands.

Bicycling would be a more important form of transportation within urban areas than the rural areas due to higher demand for commute, shopping and school trips. Other than school trips, bicycling would not represent a large share of the travel demand in urban areas. Yet with higher densities and shorter travel distances, there would be a much greater potential for bicycling to have some impact on reducing vehicle trips, and thereby reducing air quality impacts, in the urban areas than in the rural areas.

The Draft General Plan has policies that would reduce the impacts caused by new development in the rural areas of the county. Policies TR-A.13 and TR-D.4 require the County to develop bikeways in conjunction with any improvement project occurring along roadways designated on the Regional Bikeways Plan. Policy TR-D.5 requires adequate right-of-way or easements be provided for designated bikeways or trails as a condition of development. Other policies give priority to bikeways that would serve the most cyclists and destinations of greatest demand (TR-D.2).

Many of the designate bikeways on the Rural Bikeways System Map are located on State highways. Some of these bikeways will be constructed as part of programmed improvements to the State highway system, including designated bikeways on portions of SR 41, SR 43 and SR 180. In urban areas, the cities of Fresno and Clovis have included bike lanes in their design standards for collectors and arterials in newly developing areas. Between 1990 and 1996, local agencies have added over 40 miles of bikeways to the 78 miles created since 1979, for a total of 118 miles. The Transportation Development Act requires that 2 percent of the Local Transportation Fund be set aside each year for bicycle and pedestrian purposes.

The above measures should provide for a substantial amount of the bikeways on the Regional Bikeways Plan by 2020. However, it is uncertain whether the funding and implementation of planned bikeways through the year 2020 would adequately meet the demand for bicycling in the county, especially within urban areas. Therefore, this impact is considered **significant**.

#### Mitigation Measure

4.4-7 *None available beyond Draft General Plan Policies TR-A.13, TR-D.1, TR-D.2, TR-D.4 and TR-D.5.*

Most of the designate bikeways on the Rural Bikeways System Map are located on State highways and must be implemented by Caltrans. Bikeways within spheres of influence would be the responsibility of cities. There are no reasonable mitigation measures available for the County alone to implement that would reduce this impact to a less-than-significant level. Therefore, this impact would remain significant and unavoidable.

**4.4-8 Development under the Draft General Plan would increase the number of people and amount of property that could be exposed to aircraft crash hazards.**

Safety issues associated with airports and airstrips are primarily concerned with hazards posed to departing and landing aircraft and hazards to people on the ground. Hazards to aircraft may be physical, such as tall structures that would obstruct airspace; visual, such as the glare caused by lights; or electronic, which could include any electronic uses that interfere with aircraft instruments or communication systems.

Airport operations increase with urban growth, and this increased activity creates an increased risk of aircraft crash hazards that could affect people on the ground. However, these risks can be reduced through proper land use planning, as required by Draft General Plan Policies TR-F.1 and HS-E.1 through HS-E.3, and adherence to applicable federal and State aviation regulations. These policies and regulations are intended to minimize or avoid incompatible land uses in the vicinity of airports so that the number of people and structures that could be affected would be limited.

The increase in population that could be exposed to aircraft hazards on the ground would be identical with or without adoption of the Proposed Project. Although the locations of development could vary, only development allowed under applicable federal, State, and local airport safety regulations would occur within the Airport Safety Zones delineated in the land use plan of each airport. These regulations would apply regardless of whether the development is within incorporated areas subject to local (city) policies or within unincorporated areas of the county. Implementation of the Draft General Plan would, therefore, not conflict with the adopted land use plans or local policies for each airport, and safety hazards to people and property would not be substantially greater than existing conditions. Therefore, impacts related to air traffic safety and hazards to people on the ground would be ***less than significant***.

Mitigation Measures

4.4-8 *None required.*

**Cumulative Impacts**

The cumulative context is regional transportation network as defined by the Baseline Transportation System of the FCMA through the year 2020. Project and non-project development in Fresno County would contribute to increased traffic volumes elsewhere in the Central Valley and Sierra Nevada foothills, particularly in Madera and Merced Counties. The impacts discussed above take into consideration cumulative development, because the traffic model accounts for regional development beyond Fresno County.

**4.4-9 Development under the Draft General Plan, in combination with cumulative development, would increase traffic volumes on State and local roadways within the spheres of influence, on rural Fresno County roadways outside the spheres of influence, including increased truck traffic, and on roadways that provide access to and from Fresno County, causing some of these roadway segments to operate at an unacceptable level of service.**



As indicated in Impacts 4.4-1 through 4.4-6, the Proposed Project by itself (i.e., the growth attributable directly to the Economic Development Strategy and the Draft General Plan policies) represents a relatively small portion of the growth projected to occur in the County by 2020, and an even smaller increment of growth in the greater Central Valley, because the population growth would be unchanged by the project. Nonetheless, the increase in traffic could be considered cumulatively considerable, because it would add to demand on facilities that are at or near capacity.

As discussed above, the project would contribute considerably to cumulative impacts on local roadways.

Ambient and project-specific traffic volume increases would be partially offset by roadway widening (see Table 4.4-2), and other improvements such as roadway geometrics and traffic signal coordination programs that will be implemented during the planning horizon. As discussed in Impacts 4.4-1 through 4.4-6, Draft General Plan Policies would also reduce the effects of project traffic. However, the net result would be increasing congestion on specific roadways in the region. Therefore, these cumulative impacts are considered **significant**.

4.4-9 *None available beyond Draft General Plan Policies TR-A.4, TR-A.5, TR-A.7, TR-A.9, TR-A.13, TR-B.1 through TR-B.4, and TR-D.1, TR-D.2, TR-D.4, and TR-D.5 and Implementing Program TR-A.B.*

Implementation of the Draft General Policies listed above would reduce the project's contribution to this significant cumulative impact, but not to less-than-significant levels, and such measures would not reduce the cumulative effect to less-than-significant levels. Therefore, the cumulative impact would remain significant and unavoidable.