5.16 TRANSPORTATION AND TRAFFIC

This section of the Draft Program Environmental Impact Report (Draft PEIR) evaluates the potential for implementation of the City of Clovis General Plan Update to result in transportation and traffic impacts in the City of Clovis, sphere of influence (SOI), and non-SOI Plan Area. This section presents the existing transportation conditions in the Plan Area, including the roadway network, bicycle and pedestrian network, transit network, aviation facilities, and current intersection and roadway segment operations. This section also discusses the methodology used to evaluate impacts. The analysis in this section is based in part on the following technical report:

- *Clovis General Plan Update Draft Transportation Impact Study*, Fehr and Peers, April 2014

The traffic study analyzed the operation of the roadway system, including roadway segments and intersections. Operations for these facilities are expressed in terms of level of service (LOS), which is a general measure of traffic operating conditions where a letter grade is assigned, from LOS A (no congestion) to F (high levels of congestion). LOS E represents "at capacity" operations. LOS qualitatively measures the operating conditions in a traffic system and how drivers and passengers perceive these conditions. Further, this study identifies significant impacts to traffic operations by comparing roadway LOS analysis results to the LOS policies of the City of Clovis, City of Fresno, County of Fresno, and Caltrans for their respective facilities. A complete copy of this study is included in Appendix L of this Draft PEIR.

5.16.1 Environmental Setting

5.16.1.1 REGULATORY SETTING

The following summarizes the transportation policies, laws, and regulations that would apply to the proposed General Plan Update. These regulations provide the context for the impact discussion related to the project's potentially significant effects.

State of California

SB 375 – Sustainable Communities and Climate Protection Act

On December 11, 2008, the California Air Resources Board (CARB) adopted its proposed Scoping Plan for AB 32, The Global Warming Act. This scoping plan included the approval of SB 375 as the means for achieving regional transportation-related greenhouse gas (GHG) targets. SB 375 provides guidance on how curbing emissions from cars and light trucks can help the state comply with AB 32.

There are five major components to SB 375. First, SB 375 will address regional GHG emission targets. CARB's Regional Targets Advisory Committee will guide the adoption of targets to be met by 2020 and 2035 for each metropolitan planning organization (MPO) in the state. These targets, which MPOs may propose themselves, will be updated every eight years in conjunction with the revision schedule of housing and transportation elements.

Second, MPOs will be required to create a sustainable communities strategy (SCS) that provides a plan for meeting regional targets. The SCS and the regional transportation plan (RTP) must be consistent with each other,

including action items and financing decisions. If the SCS does not meet the regional target, the MPO must produce an Alternative Planning Strategy that details an alternative plan to meet the target.

Third, SB 375 requires that regional housing elements and transportation plans be synchronized on eight-year schedules. In addition, Regional Housing Needs Assessment (RHNA) allocation numbers must conform to the SCS. If local jurisdictions are required to rezone land as a result of changes in the housing element, rezoning must take place within three years.

Fourth, SB 375 provides CEQA streamlining incentives for preferred development types. Residential or mixed-use projects qualify if they conform to the SCS. Transit-oriented developments (TODs) also qualify if they 1) are at least 50 percent residential, 2) meet density requirements, and 3) are within one-half mile of a transit stop. The degree of CEQA streamlining is based on the degree of compliance with these development preferences.

Finally, MPOs must use transportation and air emission modeling techniques consistent with guidelines prepared by the California Transportation Commission (CTC). Regional transportation planning agencies, cities, and counties are encouraged, but not required, to use travel demand models consistent with the CTC guidelines.

AB 1358 – California Complete Streets Act

The California Complete Streets Act of 2008 was signed into law on September 30, 2008. Beginning January 1, 2011, AB 1358 required circulation elements to address the transportation system from a multimodal perspective. The bill states that streets, roads, and highways must "meet the needs of all users…in a manner suitable to the rural, suburban, or urban context of the general plan." Essentially, this bill requires a circulation element to plan for all modes of transportation where appropriate—including walking, biking, car travel, and transit.

The Complete Streets Act also requires circulation elements to consider the multiple users of the transportation system, including children, adults, seniors, and the disabled. For further clarity, the Governor's Office of Planning and Research released guidelines related to this legislation in December 2010.

California Department of Transportation

Caltrans has authority over the state highway system, including freeways, interchanges, and arterial State Routes. Caltrans approves the planning, design, and construction of improvements for all state-controlled facilities, including State Route (SR) 168 and its associated interchanges and intersections in Clovis. Caltrans also provides administrative support for transportation programming decisions made by the CTC for state funding programs. The State Transportation Improvement Program is a multiyear capital improvement program that sets priorities and funds transportation projects envisioned in long-range transportation plans.

Caltrans requirements are described in their *Guide for the Preparation of Traffic Impact Studies* (Caltrans 2001), which covers the information needed for Caltrans to review the impacts on state highway facilities, including freeway segments. The *Guide* for the Preparation of Traffic Impact Studies states that "Caltrans endeavors to maintain a target LOS at the transition between LOS 'C' and LOS 'D' on state highway facilities; however, Caltrans acknowledges that this may not always be feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS." The *Guide* also states that where "an existing State highway facility is

operating at less than the appropriate target LOS, the existing measure of effectiveness (MOE) should be maintained."

Caltrans also prepares comprehensive planning documents, including Corridor System Management Plans (CSMPs) and Transportation Concept Reports (TCRs), which are long-range planning documents that establish a planning concept for state facilities. The CSMPs and TCRs identify a concept LOS, or "target" LOS, for the applicable highway facility. A deficiency or need for improvement is triggered when the actual LOS falls below the concept LOS. Caltrans released the most recent TCR for SR-168 in October 2005. For the study area, the SR-168 TCR identifies LOS D as the route concept LOS.

County of Fresno

The Transportation and Circulation Element of the Fresno County 2000 General Plan provides the framework for Fresno County decisions concerning the countywide transportation system. It also establishes standards that guide the development of the transportation system and management of access to the highway system by new development throughout the unincorporated areas of the county. The Transportation and Circulation Element includes policies that state the county will strive to meet 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.

Adopted in October, 2009, the Fresno County Congestion Management Process identifies and evaluates the performance of the county's transportation system, identifies congestion areas, and evaluates ways to relieve and/or manage congestion within the county. The Fresno County CMP lists several roads in the City of Clovis and its study area as regionally significant roads. These roads include Copper Avenue, Willow Avenue, Temperance Avenue, Shaw Avenue, Nees Avenue, and Fowler Avenue, among others. The adopted LOS thresholds applied by geographical area in the CMP process are consistent with the LOS thresholds adopted by the County of Fresno, City of Fresno, and City of Clovis, according to the area where the facility is located.

1993 City of Clovis General Plan

The 1993 City of Clovis General Plan currently serves as the City's blueprint for future growth and development, providing comprehensive planning for the future. The 1993 General Plan's Circulation Element addresses the movement of people and goods throughout the City of Clovis's transportation network. The Circulation Element evaluates transportation circulation needs within the City and recommends circulation improvements that will accommodate the future demand for transportation service generated by the Land Use Element of the General Plan. The 1993 Clovis General Plan Circulation Element identifies LOS D as the City's targeted LOS standard. The relevant General Plan Policies and Development Code Sections proposed as part of the City's General Plan Update are included in Section 5.16.4.

City of Fresno General Plan

The City of Fresno's current General Plan Public Facilities Element identifies the public facilities, including circulation and public transportation facilities, needed to support the growth and urban development anticipated under the 2025 Fresno General Plan. The Transportation section of the Public Facilities Element describes the current and future transportation needs in Fresno and identifies a preferred circulation plan to accommodate the

future demand for transportation service. It also acknowledges several long-term deficiencies that are expected with the growth of the city. The 2025 Fresno General Plan identifies LOS D as Fresno's acceptable level of traffic on major streets. The City of Fresno will soon adopt a General Plan Update with revised goals and policies.

5.16.1.2 EXISTING SETTING

Existing Roadway Network

Roadways in the City of Clovis are categorized according to the type of service they provide. Roadway functional classifications in Clovis include Freeways, Expressways, Arterials, Collectors, and Local Streets. Two major functions of roadways are to provide mobility for through traffic and provide direct access to adjacent properties. Roadways prioritize these two functions differently. For instance, arterial roadways prioritize the movement of traffic over access to individual adjacent properties, and local streets prioritize access to private properties over through movement. Roadways also provide bicycle and pedestrian access and allow for the circulation of nonvehicular traffic.

Freeways: Freeways are intended to carry traffic efficiently from one end of the city to the other, serve interregional travel, and provide connections from Clovis to other cities and counties. Freeways are access-controlled with two or more lanes in each direction. SR-168 is a freeway in the City of Clovis.

Expressways: Similar to freeways, expressways are intended to carry traffic efficiently over long distances. Access to expressways is typically restricted to signalized intersections with arterial and collector streets. Travel lanes for opposing directions of travel are separated by a raised median. Portions of Temperance Avenue and Herndon Avenue within the City of Clovis operate as expressways.

Arterials: Arterials are designed to move large volumes of traffic and are intended to provide a high level of mobility between freeways, expressways, other arterials, and collector roadways. Arterials also provide nonfreeway/highway connections between major residential, employment, and activity centers. Unlike freeways, they are intended not only for motor vehicles, but also for bicycles and pedestrians. Arterial streets typically have more right-of-way and a higher degree of access control than collector roadways. Most arterials in Clovis have four travel lanes, and opposing traffic may be separated by a median.

Collectors: Collector streets provide for relatively short distance travel between and within neighborhoods. Collectors are not designed to handle long-distance through-traffic. Driveway access to collectors is less limited than on arterials. Speed limits on these streets are typically lower than those found on arterials.

Local Streets: Local streets are designed to provide direct roadway access to abutting land uses and serve short distance trips within neighborhoods. Traffic volumes and speed limits on local streets are low, and these roadways have no more than two travel lanes. (Fehr and Peers 2014)

Figure 5.16-1, *Existing Circulation System*, shows the existing roadway functional classification in Clovis. SR-168 is the backbone of Clovis's regional transportation network and provides access to the City of Fresno for residents of Clovis and eastern Fresno County. Additionally, Herndon Avenue to the west of SR-168 and Temperance Avenue south of SR-168 serve as expressways carrying traffic to and from the freeway. Clovis also has a grid of collector and arterial streets spaced approximately half a mile apart throughout most of the City. These streets collect traffic from the local roadways that make up the remainder of the City's roadway system. SR-168 and the City of Clovis's expressways and arterials accommodate regional and cross-city travel. Collector streets and local roadways generally serve short to medium-length trips. Ashlan Avenue, Bullard Avenue, and Clovis Avenue are examples of arterials that connect neighborhoods in and around Clovis. Collector streets, such as Barstow Avenue, Gettysburg Avenue, and Peach Avenue, are primarily used for travel within Clovis and to connect neighborhood traffic to arterials and expressways.

Existing Traffic Conditions

Roadway Segments

Table 5.16-1 provides a summary of the roadway LOS results for existing conditions. As noted in the regulatory setting section, the current City of Clovis and City of Fresno General Plans identify LOS D as the lowest acceptable LOS. The County of Fresno allows LOS D conditions in the SOIs of Fresno and Clovis, and strives to maintain LOS C conditions for all other county roadways. The Caltrans TCR for SR-168 identifies LOS D as the concept LOS. Based on these policies, the following study roadway segments—all within unincorporated Fresno County—currently operate worse than the applicable LOS standard (which within the study area are "D" in the SOIs of cities of Fresno and Clovis and "C" outside these areas)during either the AM or PM peak hours:

- **Herndon Avenue:** DeWolf Avenue to McCall Avenue (LOS D in AM and PM peak hours)
- **Shaw Avenue:** DeWolf Avenue to McCall Avenue (LOS D in AM and PM peak hours)
- **Shaw Avenue:** McCall Avenue to Academy Avenue (LOS D in PM peak hour)
- **Ashlan Avenue:** Minnewawa Avenue to Clovis Avenue (LOS F in PM peak hour)

The segments listed above are outside the current SOIs; therefore, LOS C is the standard, and the segments operate worse than acceptable LOS. Other than the segment of Ashlan Avenue between Minnewawa Avenue and Clovis Avenue, all study roadway segments operate at LOS D or better.

Table 5.16-1 Existing Conditions Roadway Segment LOS Summary

	Number of Roadway Segments by Jurisdiction				
Level of Service	City of Clovis	City of Fresno	County of Fresno	Caltrans	Total
AM Peak Hour					
LOS C or better	109	20	28	17	174
LOS D	6	3	11	2	22
LOS E	0	0	0	0	0
LOS F	0	0	0	0	0
PM Peak Hour					
LOS C or better	102	15	29	18	164
LOS D	13	8	9	1	31
LOS E	0	0	0	0	0
LOS F	0	0	1	0	1

Source: Fehr & Peers 2014.

Bicycle and Pedestrian Conditions

Bicycle facilities can be classified into one of the following three categories:

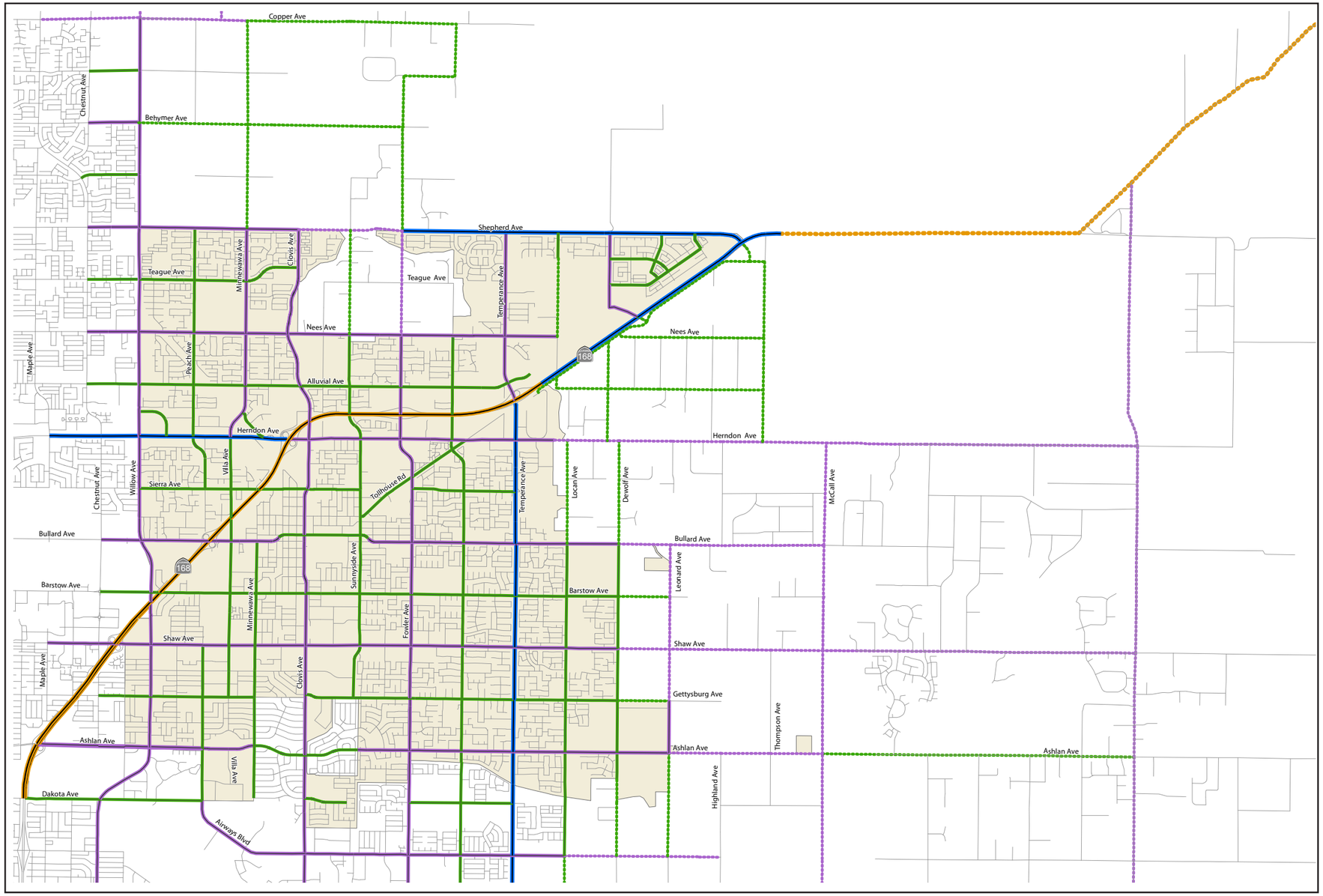
- Class I Bike Path – Off-street bike paths within exclusive right-of-way
- Class II Bike Lane – Striped, stenciled, and signed on-road bike lanes adjacent to the outside travel lane on preferred corridors for biking
- Class III Bike Route – Shared on-road facility, usually delineated by signage

Figure 5.16-2 shows the existing bicycle facilities in Clovis. The City currently has 13.6 miles of Class I bike paths, 41.6 miles of Class II bike lanes, and 1.2 miles of Class III bike routes, a total of 56.4 miles of bike facilities (Fehr and Peers 2011).

The City of Clovis adopted the Clovis Bicycle Transportation Plan in May 2011. The plan identifies existing and planned bicycle facilities within Clovis. The Clovis Bicycle Transportation Plan lays out a system of Class I bikeways along portions of Herndon Avenue, Dry Creek, Gould Canal, Enterprise Canal, and former railroad right-of-way. The system is designed to interconnect with Class I facilities in the City of Fresno and Fresno County. Construction has been completed on the Old Town Trail spanning the entire length of the City from the northwestern corner to the southern border with the City of Fresno. Other completed trails include facilities along Dry Creek and the Enterprise Canal. Existing Class II facilities include bicycle lanes along portions of Alluvial Avenue, Armstrong Avenue, Ashlan Avenue, Barstow Avenue, Bullard Avenue, Gettysburg Avenue, Minnewawa Avenue, Peach Avenue, Sierra Avenue, Teague Avenue, and Willow Avenue.

Figure 5.16-1

Existing Circulation System



Source: Fehr & Peers, 2014

CLOVIS GENERAL PLAN

Environmental Impact Report

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0 0.5 1 Miles

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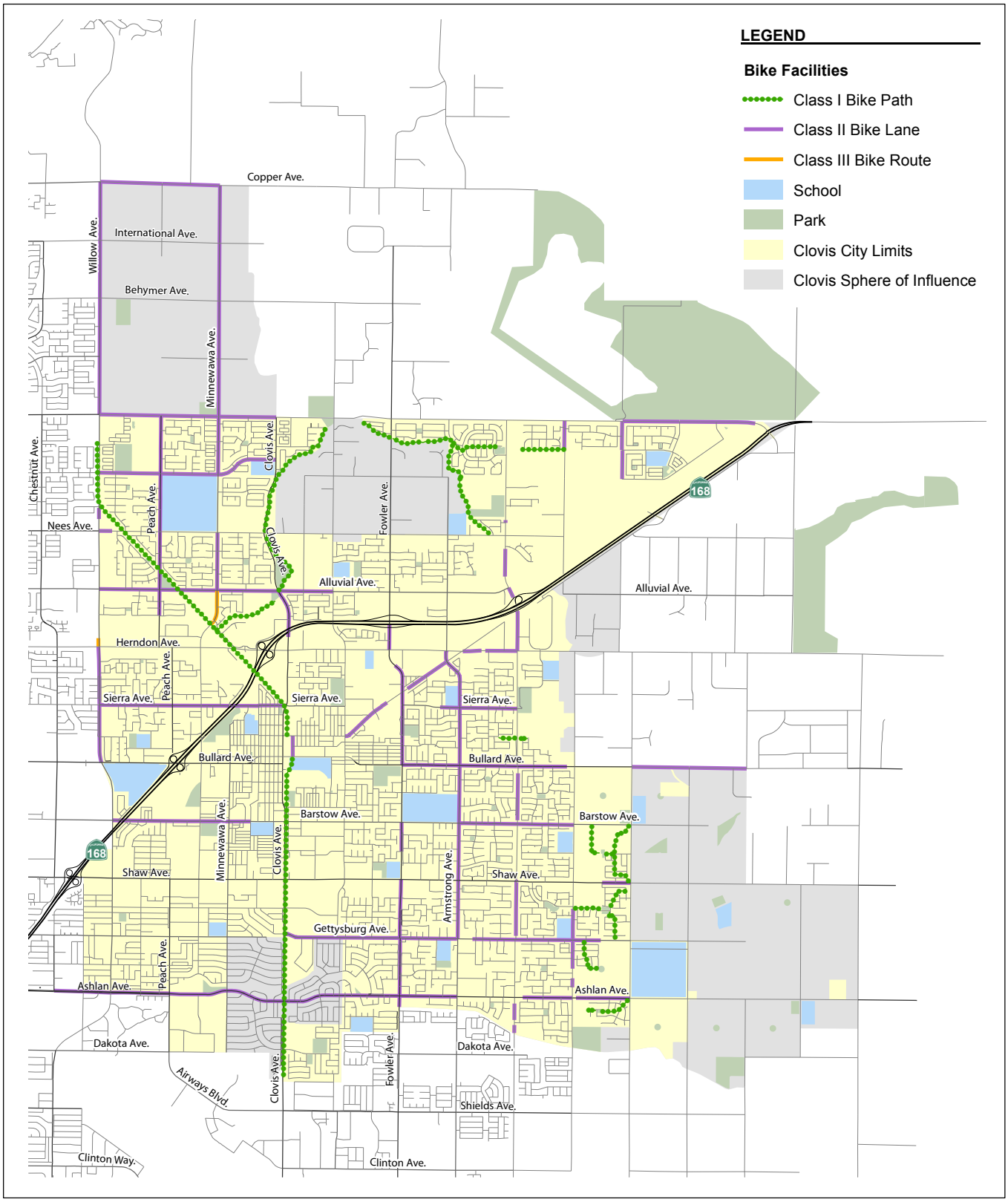
Existing Bicycle Facilities

Figure 5.16-2



Source: Fehr & Peers, 2014

CLOVIS GENERAL PLAN

Environmental Impact Report

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Pedestrian Facilities

Improved pedestrian facilities generally consist of sidewalks and pedestrian crossings at intersections. Most roadways within Clovis have sidewalks; however, gaps do exist within the system. In addition to improved pedestrian facilities, the City of Clovis has numerous trails and pathways, including the Class I bike path facilities discussed above.

Public Transportation System

Fixed route transit service in Clovis is operated by Clovis Transit Stageline and Fresno Area Express (FAX). Figure 5.16-3 shows the fixed-route bus service routes in the City of Clovis. Stageline operates from approximately 6:00 AM to 6:40 PM Monday through Saturday on 30-minute headways. The service has two regular routes and one express route (runs on school days only). Additionally, FAX Route 9 operates in Clovis along Shaw Avenue weekdays 6:40 AM to 7:30 PM and weekends 8:15 AM to 3:30 PM on 30-minute headways. FAX Route 28 also provides service along Shaw Avenue west of Willow Avenue and on Willow Avenue south of Shaw Avenue weekdays 6:15 AM to 9:30 PM and weekends 6:55 AM to 6:50 PM. Fax Route 28 operates on 15- to 20-minute headways on weekdays and 30-minute headways on weekends. Clovis Stageline Route 10 intersects FAX Routes 9 and 28 on Shaw Avenue to allow for transfers into the City of Fresno. Clovis Stageline Route 50 also intersects FAX Route 9 near the Sierra Vista Mall on Shaw Avenue for transfers.

All Clovis Stageline and FAX buses are equipped with front-mounted bike racks that accommodate two bicycles.

Truck Routes

State Route 168 within Clovis has been designated as a truck route by Caltrans. Clovis has not designated additional truck routes within the City.

5.16.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project could:

T-1 Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.

T-2 Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.

T-3 Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.

T-4 Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

T-5 Result in inadequate emergency access.

T-6 Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

As noted in the regulatory setting section, the current City of Clovis and City of Fresno General Plans identify LOS D as the lowest acceptable LOS. The County of Fresno allows LOS D conditions within the sphere of influence (SOI) of Fresno and Clovis, and strives to maintain LOS C conditions for all other county roadways. The Caltrans (TCR) for SR-168 identifies LOS D as the Concept LOS. These thresholds are used to evaluate traffic-related impacts to study-area roadway segments.

The analyses related to other modes of transportation, safety, and emergency access are discussed qualitatively and mostly rely on compatibility with the General Plan policies and regulations.

5.16.3 Environmental Impacts

5.16.3.1 METHODOLOGY

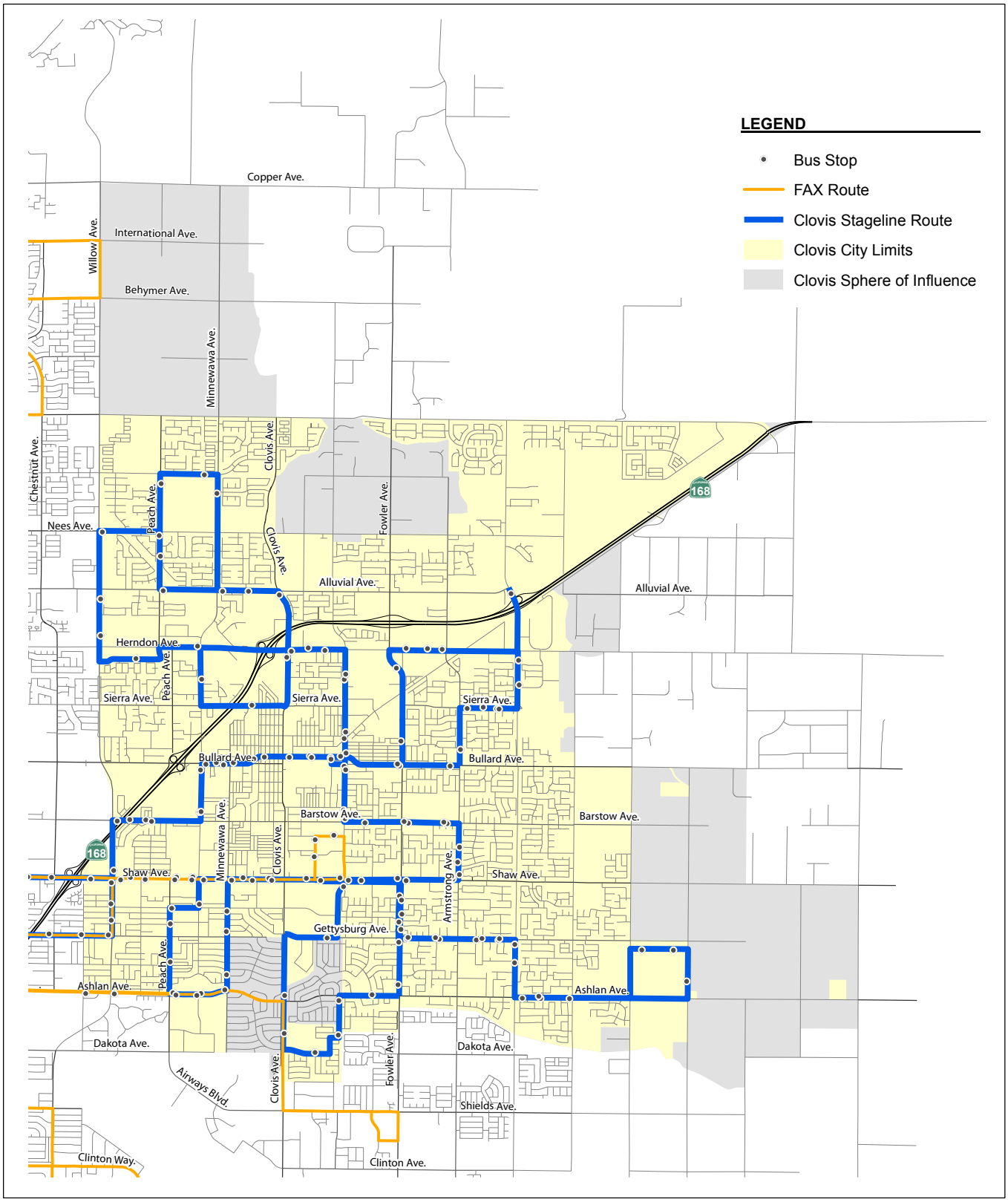
The technical analysis prepared for the General Plan Update addresses traffic operations for roadway and freeway segments within the Clovis Planning Area. Following are key assumptions and methods to evaluate traffic operations for existing, 2035, and post-2035 (Full Buildout) conditions within the study area, which includes the City of Clovis, Fresno County, and the City of Fresno.

Traffic Counts

Traffic count data were compiled from a variety of sources. The City of Clovis and City of Fresno provided databases of traffic count data for roadways within their respective cities. Traffic counts for SR-168 were compiled from a combination of data obtained from Caltrans staff and from Caltrans Performance Management System (PeMS). Traffic count data used in the transportation study were collected between 2009 and 2012. In addition, several new traffic counts were collected in October 2012 to supplement the other traffic count data.

Existing Transit Service

Figure 5.16-3



Source: Fehr & Peers, 2014

CLOVIS GENERAL PLAN

Environmental Impact Report

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0 0.5 1 Miles

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Traffic Operations and LOS Methodology

Traffic operations are evaluated using level of service (LOS) as the primary measure of performance. Roadway LOS is a qualitative description of traffic flow from the perspective of motorists. The *Highway Capacity Manual* (HCM) by the Transportation Research Board defines six levels of service from LOS A to LOS F. These grades represent the perspective of drivers only and are an indication of the comfort and convenience associated with driving, as well as speed, travel time, traffic interruptions, and freedom to maneuver. Table 5.16-2 presents a general description of each LOS.

Table 5.16-2 Level of Service Description

Level of Service	Description
A	Free-flow operations. Drivers are almost completely unimpeded in their ability to maneuver within the traffic stream.
B	Free-flow speeds are maintained. The ability to maneuver within the traffic stream is only slightly restricted.
C	Traffic flow with speeds at or near free-flow speed. The freedom to maneuver within the traffic steam is noticeably restricted, and lane changes require more care and vigilance on the part of the driver.
D	Speeds begin to decline slightly with increasing flows. Freedom to maneuver within the traffic stream is noticeably limited.
E	Operations at or near capacity. There are virtually no useable gaps within the traffic stream, leaving little room to maneuver.
F	Breakdown in vehicular flow. Vehicular demand exceeds capacity.

Source: Fehr and Peers 2014.

The roadway segment operations analysis uses the peak hour traffic volume thresholds shown in Table 5.16-3 to determine the LOS for study roadway segments. These thresholds are based on the planning level methodologies identified in the HCM and were developed using inputs that specifically match the typical roadway conditions seen in Clovis.

Table 5.16-3 Level of Service Criteria for Roadway Segments

Classification	Median Type	# of Lanes	Peak Hour LOS Volume Thresholds				
			LOS A	LOS B	LOS C	LOS D	LOS E
Freeway	N/A	4	2,720	4,460	6,630	7,720	8,630
		3+Aux	2,360	3,860	5,640	6,730	7,530
		3	2,000	3,270	4,660	5,740	6,430
		2+Aux	1,650	2,700	3,850	4,760	5,340
		2	1,300	2,130	3,050	3,790	4,260
Expressway (Caltrans)	Divided	6	2,280	3,750	5,400	7,030	7,980
		4	1,510	2,500	3,600	4,680	5,310
Expressway (City)	Raised Median	6	-	-	3,290	6,120	6,400
		5	-	-	2,685	5,090	5,330
		4	-	-	2,080	4,060	4,260
		3	-	-	1,475	3,030	3,190
Arterial	Raised Median	8	-	-	4,180	7,210	7,580
		6	-	-	3,060	5,390	5,680
		5	-	-	2,500	4,480	4,730
		4	-	-	1,950	3,580	3,780
		3	-	-	1,400	2,670	2,830
		2	-	-	860	1,770	1,880
	TWLTL	4	-	-	1,840	3,400	3,590
		2	-	-	810	1,680	1,790
	Undivided	4	-	-	1,320	2,500	2,640
		2	-	-	570	1,230	1,310
Collector	TWLTL	4	-	-	1,840	3,400	3,590
		3	-	-	1,325	2,540	2,690
		2	-	-	810	1,680	1,790
	Undivided	4	-	-	1,320	2,500	2,640
		2	-	-	570	1,230	1,310
State Highway	Undivided	2	310	570	1,020	1,730	2,470
Rural Arterial	Divided	4	-	-	1,950	3,580	3,780
	Undivided	2	-	-	570	1,230	1,310
Rural Collector/Local	Undivided	2	-	-	570	930	1,000

Source: Fehr and Peers 2014.
Notes: Aux = Auxiliary lane; TWLTL= two way left turn lane median; N/A= not applicable.

Travel Demand Modeling

Traffic volume forecasts were based on a travel demand model that was derived from the most recently adopted Fresno Council of Governments (COG) travel demand forecast (TDF) model released in 2010. The model was modified within the study area to reflect the transportation network and land uses associated with the proposed General Plan Update for 2035 and Full Buildout conditions.

The 2035 Fresno COG TDF model uses land use and transportation inputs for year 2035 conditions. This includes land use projections for Fresno County based on existing general plans and 2035 population and employment forecasts. Additional study roadways were analyzed with the circulation plan for 2035 conditions. The model also includes funded transportation improvements that are expected to be complete by 2035 based on the list of projects and funding identified in the 2011 Fresno COG RTP. Specific land use and roadway network assumptions for the 2035 scenario are discussed in pages 31 and 32 of the transportation study prepared by Fehr and Peers.

Buildout of the proposed Clovis General Plan Update is not expected to occur until well beyond 2050 based on the proposed land use plan and current population and employment forecasts for the City of Clovis. Like the 2035 analysis, the Full Buildout traffic evaluation uses a modified version of the Fresno COG TDF model. Since the horizon year of the 2011 Fresno COG RTP is 2035, Fresno COG has not developed a TDF model with land use and transportation inputs that correspond with the timing of buildout of the proposed Clovis General Plan Update. Although the Fresno COG TDF model is the best tool available to forecast future traffic conditions, it is important to note that the model develops traffic forecasts based on current travel behavior, which may no longer be applicable for long-term future conditions. Changes in technology, demographics, and economic conditions—particularly over a long time-frame (e.g., 40+ years)—may affect people's travel behavior in ways that are not captured by the model and would be speculative to predict at this time. Given the limitations to forecast travel patterns for a long-range scenario that would occur approximately in 2080, the Full Buildout evaluation is not a detailed analysis of future traffic operations, but an assessment of the potential changes in traffic patterns and estimate of traffic growth associated with buildout of the proposed General Plan. Specific land use and roadway network assumptions for the Full Buildout scenario are discussed in pages 39 and 40 of the transportation study prepared by Fehr and Peers.

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

Impact 5.16-1: Project-related trip generation would impact levels of service for the existing area roadway system. [Threshold T-1]

Impact Analysis:

2035 Scenario

The traffic generated by the proposed General Plan Update would be caused by future development anticipated to occur by 2035 in the Plan Area. Traffic forecasts were based on the results of the travel demand model assumptions discussed previously in the methodology section. Figure 5.16-4 presents the roadway circulation network and roadway classifications for 2035 conditions.

LOS for study area roadways were analyzed based on volume per capacity ratios for AM and PM peak hours. The AM and PM peak hour volumes are presented in Appendix A of the transportation study. As noted in the regulatory setting section, the current City of Clovis and City of Fresno General Plans identify LOS D as the lowest acceptable LOS. The County of Fresno allows LOS D conditions within the SOIs of Fresno and Clovis,

and strives to maintain LOS C conditions for all other county roadways. Caltrans TCR for SR-168 identifies LOS D as the concept LOS.

Table 5.16-4 provides a summary of the roadway LOS results for the 2035 Scenario. Based on the LOS requirements identified above, the majority of the study roadway segments would operate at LOS D or better during the AM and PM peak hours. However, the following study roadway segments would operate below the applicable LOS standard during either the AM or PM peak hours:

City of Clovis Roadways

- Minnewawa Avenue: Shaw Avenue to Ashlan Avenue (LOS F in PM peak hour)

County of Fresno Roadways

- Copper Avenue: Willow Avenue to Auberry Road (LOS E in AM peak hour)
- Copper Avenue: Auberry Road to Minnewawa Avenue (LOS F in AM and PM peak hours)
- Behymer Avenue: Clovis Avenue to Fowler Avenue (LOS D in PM peak hour)
- Herndon Avenue: McCall Avenue to Academy Avenue (LOS D in PM peak hour)
- Ashlan Avenue: Minnewawa Avenue to Clovis Avenue (LOS F in AM and PM peak hours)
- Ashlan Avenue: McCall Avenue to Academy Avenue (LOS D in PM peak hour)
- Minnewawa Avenue: Copper Avenue to Behymer Avenue (LOS F in AM and PM peak hours)
- Fowler Avenue: Behymer Avenue to Shepherd Avenue (LOS E in PM peak hour)
- DeWolf Avenue: Herndon Avenue to Bullard Avenue (LOS D in AM and PM peak hour)
- McCall Avenue: Herndon Avenue to Shaw Avenue (LOS F in AM and PM peak hours)
- Academy Avenue: Herndon Avenue to Shaw Avenue (LOS D in PM peak hour)

Caltrans Facilities

- SR 168 Eastbound: McKinley Avenue to Shields Avenue (LOS E in AM and PM peak hours)
- SR 168 Eastbound: Shields Avenue to Ashlan Avenue (LOS E in AM and PM peak hours)
- SR 168 Westbound: Ashlan Avenue to Shields Avenue (LOS E in AM peak hour)
- SR 168 Eastbound: Herndon Avenue to Fowler Avenue (LOS E in PM peak hour)
- SR 168 Westbound: Fowler Avenue to Herndon Avenue (LOS F in AM peak hour; LOS E in PM peak hour)
- SR 168 Westbound: Temperance Avenue to Fowler Avenue (LOS E in AM peak hour)
- SR 168: Temperance Avenue to Owens Mountain Parkway (LOS F in PM peak hour)

Table 5.16-4 2035 Conditions Roadway Segment LOS Summary

Level of Service	Number of Roadway Segments by Jurisdiction				Total
	City of Clovis	City of Fresno	County of Fresno	Caltrans	
AM Peak Hour					
LOS C or better	74	8	17	7	106
LOS D	71	17	6	7	101
LOS E	0	0	1	4	5
LOS F	0	0	4	1	5
PM Peak Hour					
LOS C or better	40	8	11	6	65
LOS D	104	17	12	8	141
LOS E	0	0	1	4	5
LOS F	1	0	4	1	6

Source: Fehr & Peers 2014.

It should be noted that the proposed General Plan is a regulatory document that lays down the framework for future growth and development and does not directly result in development. However, implementation of the land use and circulation plans anticipated under the proposed General Plan Update would cause several roadway segments in the City of Clovis and County of Fresno to operate at unacceptable LOS. This would be a significant impact to City of Clovis and County of Fresno roadway segments.

Implementation of the General Plan Update would increase the traffic volumes on City of Fresno roadways. However, all City of Fresno roadway segments in this study would continue to operate at an acceptable LOS D or better during the AM and PM peak hours. Therefore, impacts to City of Fresno roadway segments would be less than significant.

Full Buildout

Buildout of the proposed Clovis General Plan Update is not expected to occur until well beyond 2050. Since available tools and projections cannot analyze traffic beyond 2035, this buildout evaluation is an assessment of the potential changes in traffic patterns and estimate of traffic growth from buildout of the proposed General Plan Update. Figure 5.16-5 presents the roadway circulation network and roadway classifications for Full Buildout conditions.

Based on traffic growth from this additional development, several deficiencies at study roadways were identified. The following segments were identified to need improvements, including segment extensions and lane expansions:

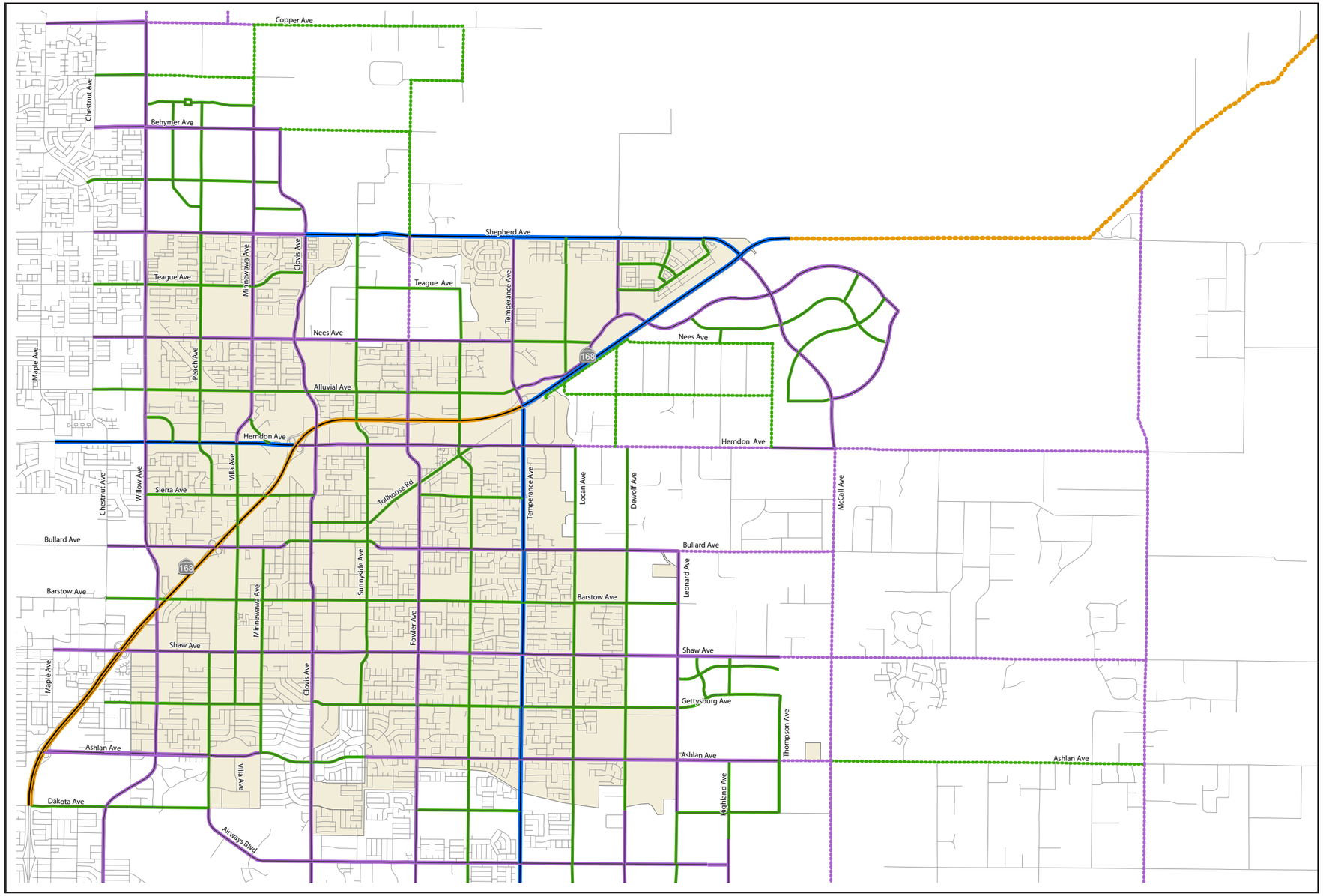
City of Clovis Roadways

- Copper Avenue: Willow Avenue to Auberry Road
- Copper Avenue: Auberry Road to Clovis Avenue

- Behymer Avenue: Willow Avenue to Clovis Avenue
- Minnewawa Avenue: Shepherd Avenue to Behymer Avenue
- Clovis Avenue: extended north from Behymer Avenue to Copper Avenue as a 4-lane arterial
- Clovis Avenue: Shepherd Avenue to Perrin Avenue
- Owens Mountain Parkway: DeWolf Avenue to "Muncie Avenue" (east-west collector street east of SR 168)
- Owens Mountain Parkway: McCall Avenue to "Dockery Avenue" (north-south arterial street east of McCall Avenue in Northeast Urban Center)
- Herndon Avenue: McCall Avenue to "Del Rey Avenue" (north-south collector street west of Academy Avenue in Northeast Urban Center)
- McCall Avenue: SR 168 to Owens Mountain Parkway
- McCall Avenue: north of Herndon Avenue
- Ashlan Avenue: Thompson Avenue to McCall Avenue
- DeWolf Avenue: Bullard Avenue south to City Limits
- Leonard Avenue: Bullard Avenue south to City Limits
- Shepherd Avenue: Willow Avenue to Temperance Road
- Alluvial Avenue: Clovis Avenue to Temperance Avenue
- Herndon Avenue: Temperance Avenue to DeWolf Avenue
- Gettysburg Avenue: Clovis Avenue to Sierra Vista Parkway
- Willow Avenue: Herndon Avenue to Escalon Avenue
- Sunnyside Avenue: Alluvial Avenue to Fifth Street
- Fowler Avenue: Enterprise Canal to Nees Avenue
- Armstrong Avenue: Alluvial Avenue to Herndon Avenue

Figure 5.16-4

2035 Circulation System and Roadway Classification



LEGEND

Roadway Classification

- Freeway
- State Highway
- Expressway
- Arterial
- Rural Arterial
- Collector
- Rural Collector/Local
- Local
- Clovis City Limits

CLOVIS GENERAL PLAN

Environmental Impact Report

CLO-14.4L 5.16.14

0 0.5 1 Miles

PLACEWORKS

Source: Fehr & Peers, 2014

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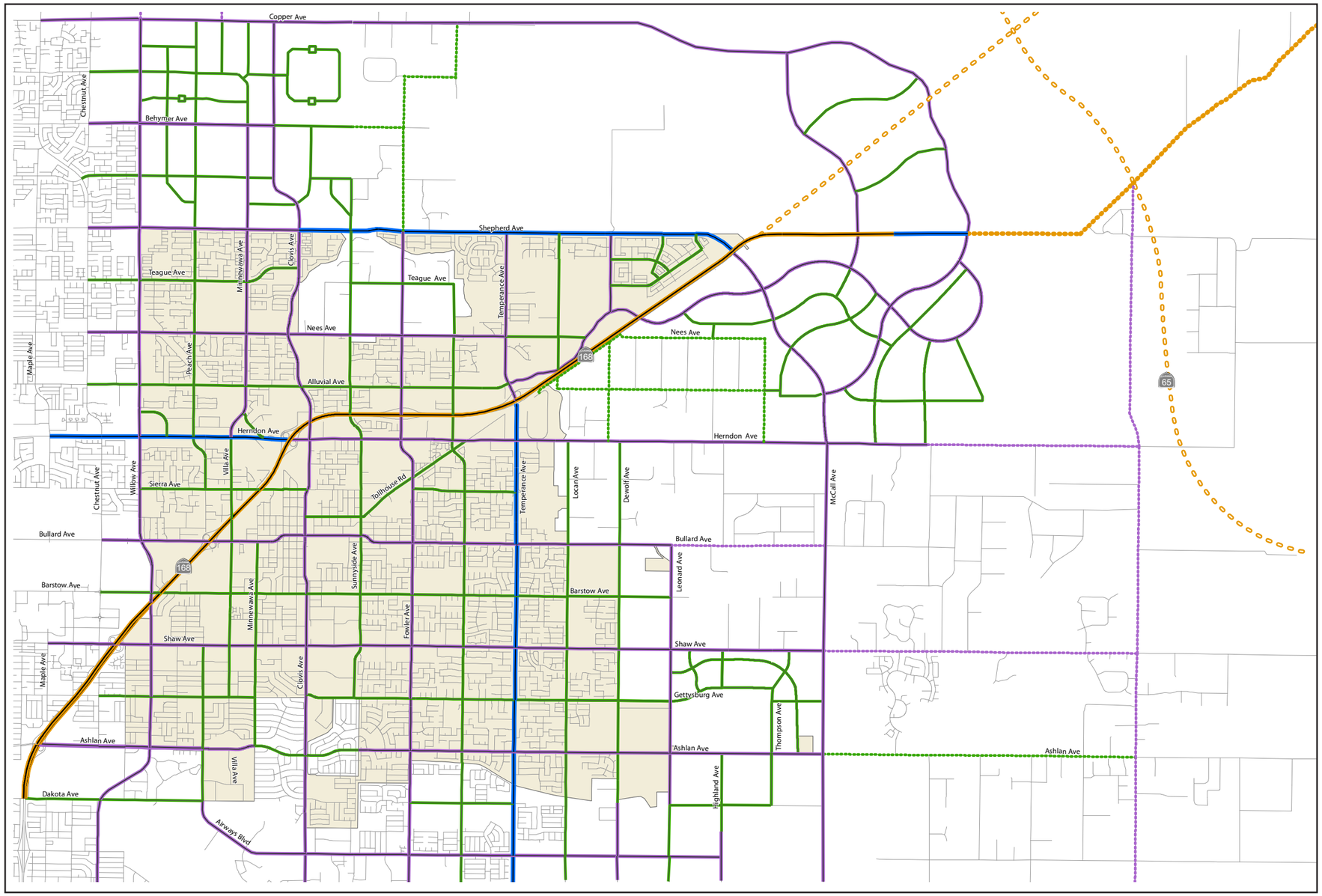
Figure 5.16-5

Full Buildout Circulation System and Roadway Classification



LEGEND

Roadway Classification

- Freeway
- Conceptual 2-4 Lane State Highway
- State Highway
- Expressway
- Arterial
- Rural County Arterial
- Collector
- Rural County Collector
- Local
- Clovis City Limits

CLOVIS GENERAL PLAN

Environmental Impact Report

CLO-14.4L 5.16.14

0 0.5 1 Miles

PLACEWORKS

Source: Fehr & Peers, 2014

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County of Fresno Roadways

- McCall Avenue: Herndon Avenue to SR 180
- Academy Avenue: Herndon Avenue to Shaw Avenue

Caltrans Facilities

- SR 168: Herndon Avenue to Temperance Avenue
- SR 168: Temperance Avenue to Shepherd Avenue/McCall Avenue
- SR 168: Shepherd Avenue/McCall Avenue to "Dockery Avenue"
- SR 168: east of "Dockery Avenue" to east of "Indianola Avenue" (north-south arterial west of Academy Avenue in Northeast Urban Center)

In addition, Caltrans has long-term plans to potentially construct an extension of SR-65 from Tulare County to Madera County traveling east of Clovis. Though this new facility is not funded and does not have a projected opening date, Figure 5.16-5 shows a potential alignment through the northeastern section of the Clovis Planning Area. The actual alignment of SR-65 would be determined and refined through future planning studies.

Implementation of the land use and circulation plans anticipated under Full Buildout would cause several roadway segments in the Cities of Clovis and Fresno and County of Fresno to operate at unacceptable LOS. Changes in technology, demographics, and economic conditions, particularly over a long time-frame (e.g., 40+ years), may affect people's travel behavior in ways that are not captured by the model and would be speculative to predict at this time. Because the full buildout of the General Plan is not expected to occur until approximately 2080, and given the limitations to predicting traffic, it is not possible to reasonably predict future traffic volumes on roadways and the required capacity to meet applicable LOS standards.

As presented above, several segments would need to be expanded and extended. At the time of the preparation of this analysis, no funding sources have been identified to implement the required improvements. Therefore, this would be a significant impact.

Impact 5.16-2:	Project-related trip generation in combination with existing and proposed cumulative development would not result in designated road and/or highways exceeding county congestion management program service standards. [Threshold T-2]

Impact Analysis:

2035 Scenario and Full Buildout

California Government Code Section 65089(b) requires the Congestion Management Program to include specific elements and performance measures, such as traffic level of service standards. The passage of California Assembly Bill 2419 in 1996 allowed counties to "opt out" of the California Congestion Management Program

without the risk of losing state transportation funding if a majority of local governments elected to exempt themselves. On September 25, 1997, the Fresno COG Policy Board rescinded the Fresno County Congestion Management Program at the request of the local member agencies.

Fresno County Congestion Management Process is updated periodically; it was last updated and adopted in 2009 and lists several roads in the City of Clovis and its study area as regionally significant. These include Copper Avenue, Willow Avenue, Temperance Avenue, Shaw Avenue, Nees Avenue, and Fowler Avenue. The adopted LOS thresholds applied by geographical area in the CMP process are consistent with the County of Fresno, City of Fresno, or City of Clovis, depending on where the facility is located. The impact on CMP facilities was already evaluated under Impact Statement 5.16.-1 in terms of the LOS thresholds that are consistent with the CMP.

The current Fresno County Congestion Management Process is designed to meet the federal requirement under 23 CFR 500.109 and 450.320. The Fresno County Congestion Management Process was developed to fulfill the legislative requirement that a CMP should be an integrated part of an MPO's planning process. Based on the "Interim Guidebook on the Congestion Management Process in Metropolitan Transportation Planning" issued by the Federal Highway Administration (FHWA) in 2008, the Fresno County CMP is designed to be a systematic process with regional approaches, and its results are integrated and reflected in the Regional Transportation Plan (RTP) and the Transportation Improvement Program (TIP) process. Because the county opted out of the congestion management program requirement, the congestion management process is only relevant for federal requirements and funding, but not at the state, regional, and local levels. Therefore, the congestion management program or congestion management agency standards do not apply for the City of Clovis. This impact is less than significant.

IMPACT 5.16-3: The project would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. [Threshold T-6]

Impact Analysis:

2035 Scenario and Full Buildout

The City's transportation network is composed of pedestrian, bicycle, and public transit facilities to support alternative (not personal automobile) modes of transportation. The proposed General Plan Update would support plans and programs for alternative transportation. Goal 1 of the Circulation Element calls for a context-sensitive transportation network to accommodate a range of mobility needs for pedestrians, bicyclists, transit riders, freight, and motorists. Policies 1.1 to 1.8 provide for efficient and safe travel to all users. Policy 2.1, Level of service, allows exemptions on a case-by-case basis where lower levels of service would result in other benefits, including preserving a pedestrian-friendly environment in Old Town or mixed-use village districts and avoiding adverse impacts to pedestrian, cyclists, and mass transit riders. Policy 3.4 encourages minimized roadway widths as feasible to serve adjacent neighborhoods. Policy 3.11 encourages street design to improve the community's appearance and encourage nonmotorized transportation. Policy 3.12 calls for residential development to improve the community's appearance and encourage nonmotorized transportation.

The Clovis Bicycle Transportation Master Plan (BTMP) was adopted by the City Council on May 16, 2011. The BTMP establishes goals, policies, implementation actions, and priorities for the development of bicycle facilities in the City of Clovis as envisioned by the General Plan. The plan is intended to be cohesive and integrated with the pedestrian and transit system. Future bike routes and bike lanes are proposed on major arterials and collectors throughout the City of Clovis according to the BTMP. Figure 5.16-6 presents the existing and proposed bicycle network in the 2011 BTMP. The City proposes to enhance the bicycle network by upgrading several existing bike routes to bike lanes and by implementing new bike paths, lanes, and routes to provide connectivity between key uses and destinations. The proposed bicycle network would be expanded from the existing total of 56.4 miles to 187.6 miles.

As discussed previously, public transportation in the City of Clovis consists of public bus service operated by Clovis Transit Stageline and Fresno Area Express. Implementation of the proposed General Plan would promote the use of alternative transportation modes. Goal 4 includes several policies to promote a bicycle and transit system that serves as a functional alternative to commuting by car.

In summary, implementation of the City of Clovis General Plan Update would increase demand for public transit, bicycle, and pedestrian facilities, which would require the improvement and expansion of the circulation system. The Circulation Element policies support public transit, bicycle improvements, and improvements to pedestrian facilities by expanding the network and encouraging development patterns and design. They are also consistent with the recently adopted BTMP. Additionally, General Plan policies support implementation of Complete Streets through a layered network approach, consistent with the state's Complete Streets Act. They are consistent with the existing adopted policies, plans, and programs regarding public transit, bicycle, and pedestrian facilities. A review of the City of Clovis General Plan Update revealed no potential policy inconsistencies or conflicts with policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities or the performance or safety of those facilities.

Therefore, this impact is less than significant.

Impact 5.16-4:	Circulation improvements associated with future development that would be accommodated by the General Plan would be designed to adequately address potentially hazardous conditions (sharp curves, etc.), potential conflicting uses, and emergency access. [Thresholds T-4 and T-5]

Impact Analysis:

2035 Scenario and Full Buildout

All future roadway system improvements associated with development and redevelopment activities under the proposed General Plan Update would be designed in accordance with the established roadway design standards. These improvements would be subject to review and future consideration by the City of Clovis engineering staff. An evaluation of the roadway alignments, intersection geometrics, and traffic control features would be needed. Roadway improvements would have to be made in accordance with the City's Circulation Plan and roadway design guidelines, and meet design guidelines in the California Manual of Uniform Traffic Control Devices and the Caltrans Roadway Design Manual. In addition, the draft Circulation Element includes policies (1.2, Transportation

Decisions; 1.7, Narrow Streets; 3.1, Traffic Calming; 3.7, Conflict Points; 3.8, Access Management; 3.12, Residential Orientation; and 5.1, Complete Street Amenities) to improve the safety of all users of the transportation system in the City of Clovis. Implementation of the General Plan Update would not result in hazardous conditions, create conflicting uses, or cause a detriment to emergency vehicle access. Therefore, this impact is less than significant.

Impact 5.16-5: The project would not result in a change in air traffic patterns, including no significant increase in traffic levels or a change in location. [Threshold T-3]

Impact Analysis:

2035 Scenario and Full Buildout

There are no aviation facilities in the City of Clovis. The population and employment growth in the City of Clovis attributable to the General Plan Update may result in an increase in demand for aviation facilities or services, but is not expected to result in a substantial change to air traffic patterns, a change to the location of airports, or a substantial safety risk. Therefore, this impact is less than significant.

5.16.4 Relevant General Plan Policies and Development Code Sections

The following are relevant policies of the proposed Clovis General Plan and Development Code Update that would reduce potential transportation impacts of future development in the Plan Area.

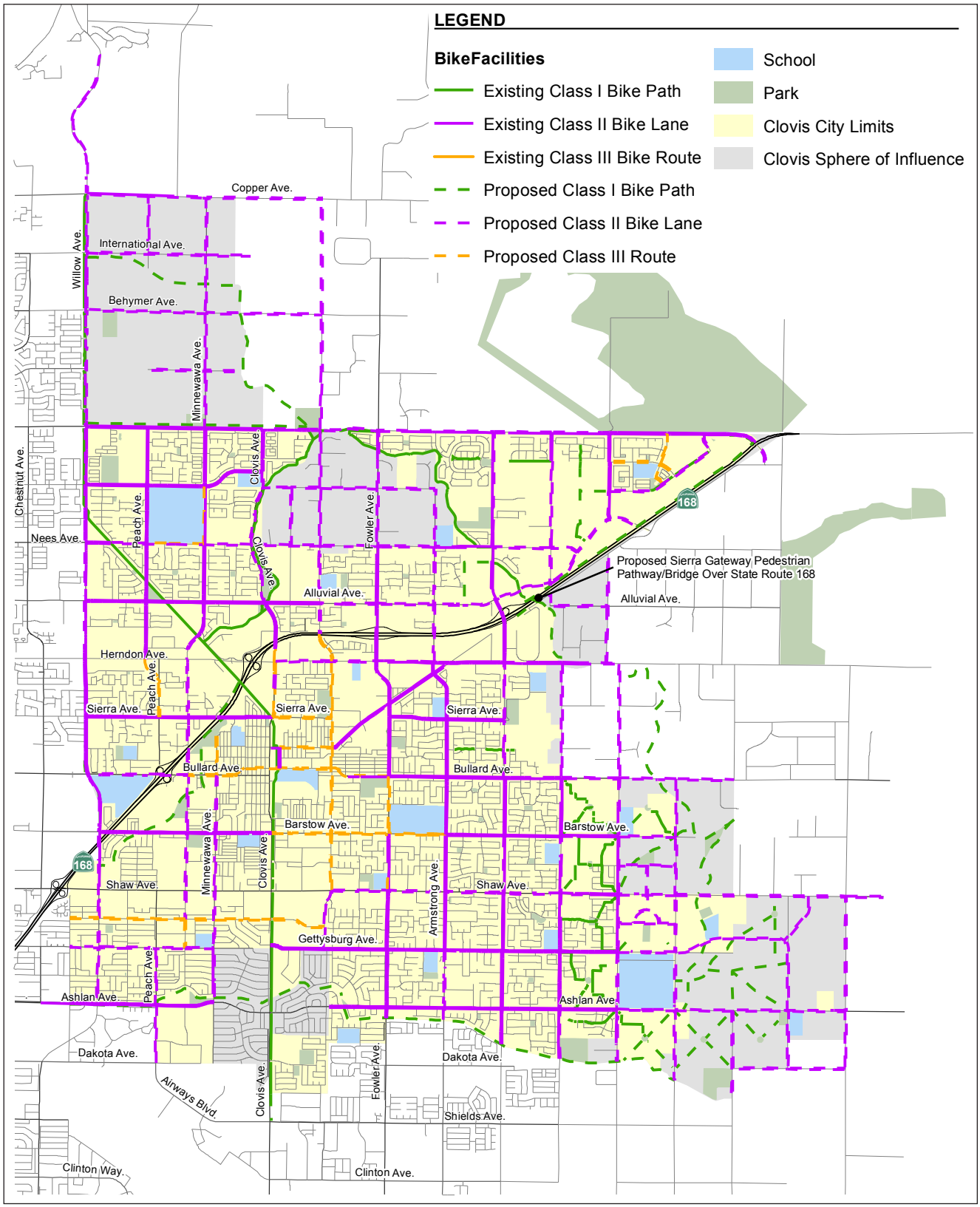
5.16.4.1 GENERAL PLAN

Circulation Element

Goal 1: A context-sensitive and "complete streets" transportation network that prioritizes effective connectivity and accommodates a comprehensive range of mobility needs.

- **Policy 1.1 Multimodal network -** The City shall plan, design, operate, and maintain the transportation network to promote safe and convenient travel for all users: pedestrian, bicyclists, transit riders, freight, and motorists.
- **Policy 1.2 Transportation decisions -** Decisions should balance the comfort, convenience, and safety of pedestrians, bicyclists, and motorists.
- **Policy 1.3 Age and mobility -** The design of roadways shall consider all potential users, including children, seniors, and persons with disabilities.
- **Policy 1.4 Jobs and housing -** Encourage infill development that would provide jobs and services closer to housing, and vice versa, to reduce citywide vehicle miles traveled and effectively utilize the existing transportation infrastructure.

Figure 5.16-6



Source: Fehr & Peers, 2014

CLO-14.4L 5.16.14

0 0.5 1 Miles

PLACEWORKS

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- **Policy 1.5 Neighborhood connectivity -** The transportation network shall provide multimodal access between neighborhoods and neighborhood-serving uses (educational, recreational, or neighborhood commercial uses.

- **Policy 1.6 Internal circulation -** New development shall utilize a grid or modified-grid street pattern. Areas designated for residential and mixed-use village developments should feature short block lengths of 200 to 600 feet.

- **Policy 1.7 Narrow Streets --** The City may permit curb-to-curb dimensions that are narrower than current standards on local streets to promote pedestrian and bicycle connectivity and enhance safety.

- **Policy 1.8 Network completion -** New development shall complete the extension of stub streets planned to connect to adjacent streets.

Goal 2: A roadway network that is well planned, funded, and maintained.

- **Policy 2.1 Level of service -** The following is the City's level of service (LOS) standards:

  A. Achieve LOS D vehicle traffic operations during the a.m. and p.m. peak hours

  B. Allow exceptions on a case-by-case basis where lower levels of service would result in other public benefits, such as:

     i. Preserving agriculture or open space land
     ii. Preserving the rural/historic character of a neighborhood
     iii. Preserving or creating a pedestrian-friendly environment in Old Town or mixed-use village districts
     iv. Avoiding adverse impacts to pedestrians, cyclists, and mass transit riders
     v. Where right-of-way constraints would make capacity expansion infeasible

- **Policy 2.2 Multimodal LOS -** Monitor the evolution of multimodal level of service (MMLOS) standards. The city may adopt MMLOS standards when appropriate

- **Policy 2.3 Fair share costs -** New development shall pay its fair share of the cost for circulation improvements in accordance with the city's traffic fee mitigation program.

- **Policy 2.4 Right-of-way dedication -** The city may require right-of-way dedication essential to the circulation system in conjunction with any development or annexation. The City shall request the County of Fresno to apply the same requirements in the Clovis planning area.

- **Policy 2.5 Regional and state roadway funding -** Coordinate with the County of Fresno, City of Fresno, Fresno Council of Governments, and Caltrans to fund roadway improvements adjacent to and within the City's Planning Area.

Goal 3: A multimodal transportation network that is safe and comfortable in the context of adjacent neighborhoods.

- **Policy 3.1 Traffic calming -** Employ traffic-calming measures in new developments and existing neighborhoods to control traffic speeds and maintain safety.
- **Policy 3.2 Neighborhood compatibility -** Periodically review and update design standards to ensure that new and redesigned streets are compatible with the context of adjacent neighborhoods.
- **Policy 3.3 Old Town and Mixed Use Village Centers -** Transportation decisions on local streets in Old Town and mixed-use village centers shall prioritize pedestrians, then bicyclists, then mass transit, then motorists.
- **Policy 3.4 Road diets -** Minimize roadway width as feasible to serve adjacent neighborhoods.
- **Policy 3.5 Roadway widening -** Only consider street widening or intersection expansions after considering multimodal alternative improvements to non-automotive facilities.
- **Policy 3.6 Soundwalls -** Design roadway networks to disperse traffic to minimize traffic levels. Discourage soundwalls along new collector and local streets when feasible.
- **Policy 3.7 Conflict points -** Minimize the number of and enhance safety at vehicular, pedestrian, and bicycle conflict points.
- **Policy 3.8 Access management -** Minimize access points and curb cuts along arterials and prohibit them within 200 feet of an intersection. Eliminate and/or consolidate driveways when new development occurs or when traffic operation or safety warrants.
- **Policy 3.9 Park-once -** Encourage "park-once" designs where convenient, centralized public parking areas are accompanied by safe, visible, and well-marked access to sidewalks and businesses.
- **Policy 3.10 Pedestrian access and circulation -** Entrances at signalized intersections should provide sidewalks on both sides of the entrance that connect to an internal pedestrian pathway to businesses and throughout nonresidential parking lots larger than 50 spaces.
- **Policy 3.11 Right-of-way design -** Design landscaped parkways, medians, and right-of-ways as aesthetic buffers to improve the community's appearance and encourage non-motorized transportation.
- **Policy 3.12 Residential orientation -** Where feasible, residential development should face local and collector streets to increase visibility and safety of travelers along the streets, and encourage pedestrian and bicycle access.

Goal 4: A bicycle and transit system that services as a functional alternative to commuting by car.

- **Policy 4.1 Bike and transit backbone -** The bicycle and transit system should connect Shaw Avenue, Old Town, the Medical Center/R&T Park, and the three Urban Centers.

- **Policy 4.2 Priority for new bicycle facilities -** Prioritize investments in the backbone system over other bicycle improvements.

- **Policy 4.3 Freeway crossings -** Require separate bicycle and pedestrian crossings for new freeway extensions and encourage separate crossings where Class I facilities are planned to cross existing freeways.

- **Policy 4.4 Bicycles and transit -** Coordinate with transit agencies to integrate bicycle access and storage into transit vehicles, bus stops, and activity centers.

- **Policy 4.5 Transit stops -** Improve and maintain safe, clean, comfortable, well-lit, and rider-friendly transit stops that are well marked and visible to motorists.

- **Policy 4.6 Transit priority corridors -** Prioritize investments for, and transit services and facilities along the transit priority corridors.

- **Policy 4.7 Bus rapid transit -** Plan for bus rapid transit and transit-only lanes on transit priority corridors as future ridership levels increase.

Goal 5: A complete system of trails and pathways accessible to all residents.

- **Policy 5.1 Complete street amenities -** Upgrade existing streets and design new streets to include complete street amenities, prioritizing improvements to bicycle and pedestrian connectivity or safety (consistent with the Bicycle Transportation Master Plan and other master plans).

- **Policy 5.2 Development-funded facilities -** Require development to fund and construct facilities as shown in the Bicycle Transportation Plan when facilities are in or adjacent to the development.

- **Policy 5.3 Pathways -** Encourage pathways and other pedestrian amenities in Urban Centers and new development 10 acres or larger.

- **Policy 5.4 Homeowner associations -** The city may require homeowner associations to maintain pathways and other bicycle and pedestrian facilities within the homeowner association area.

- **Policy 5.5 Pedestrian access -** Require sidewalks, paths, and crosswalks to provide access to schools, parks, and other activity centers and to provide general pedestrian connectivity throughout the city.

Goal 6: Safe and efficient goods movement with minimal impacts on local roads and neighborhoods.

- **Policy 6.1 Truck routes -** Plan and designate truck routes that minimize truck traffic through or near residential areas.

- **Policy 6.2 Land use -** Place industrial and warehousing businesses near freeways and truck routes to minimize truck traffic through or near residential areas.

Goal 7: A regional transportation system that connects Clovis to the San Joaquin Valley region.

- **Policy 7.1 Clovis Avenue extension** - Invest in the extension of Clovis Avenue north to Copper Avenue as funding is available.

- **Policy 7.2 Right-of-way for future extensions -** Coordinate with Fresno County, the Fresno Council of Governments, and Caltrans to preserve future right-of-way for extending Clovis Avenue north of Copper Avenue to Auberry Road and future State Route 65.

- **Policy 7.3 San Joaquin River crossing -** Collaborate with the Fresno Council of Governments and appropriate agencies to secure a San Joaquin River crossing between State Route 41 and North Fork Road.

5.16.4.2 DEVELOPMENT CODE

- **Title 9 –** Development Code.

- **Division 9.32 –** Parking and Loading Standards

5.16.5 Existing Regulations

5.16.5.1 STATE AND REGIONAL REGULATIONS

- The California Complete Streets Act (Assembly Bill 1358)
- SB 375 Sustainable Communities and Climate Protection Act
- County of Fresno Congestion Management Plan

5.16.5.2 CITY OF CLOVIS MUNICIPAL CODE

- Title 4 Public Safety, Chapter 4.5 - Traffic.
- Title 7 Public Works, Chapter 7.7 – Major Street Development

5.16.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant for both the 2035 Scenario and Full Buildout: 5.16-2, 5.16-3, 5.16-4, and 5.16-5.

Without mitigation, the following impacts would be **potentially significant** for the 2035 Scenario and Full Buildout:

- **Impact 5.16-1** Upon implementation of the land uses and circulation element included in the General Plan, several roadway segments in the City of Clovis and County of Fresno are projected to operate at unacceptable LOS.

5.16.7 Mitigation Measures

Impact 5.16-1

2035 Scenario

City of Clovis

In the City of Clovis, to achieve LOS D, the segment of Minnewawa Avenue from Shaw Avenue to Ashlan Avenue would have to be widened from 2 to 4 lanes. The City of Clovis General Plan Update includes a new policy that allows lower LOS values than the current 1993 General Plan under certain circumstances. This reflects a change in policy for the City of Clovis to acknowledge that transportation planning based solely on roadway LOS may conflict with other community values. Widening Minnewawa Avenue from 2 to 4 lanes to address the LOS F condition:

- Would result in adverse impacts to pedestrians and cyclists in the Tarpey neighborhood, particularly school children traveling to and from the adjacent Tarpey Elementary School.
- Would result in adverse impacts to the character of the adjacent Tarpey neighborhood.
- Available right-of-way constraints make capacity expansion infeasible; adjacent residential properties would need to be acquired and existing residential structures removed.

Given the constraints above, discussions with City of Clovis staff indicated that this segment of Minnewawa Avenue would be a location where an exception to the City's LOS standard would apply. Based on Policy 2.1 of the General Plan Update, an exception of the LOS D requirement would result in benefits to pedestrians and cyclists, would preserve the rural/historic character of a nearby neighborhood, and there are right-of-way constraints that would make capacity expansion infeasible. Therefore, LOS D would not be required at this segment, and this impact would be less than significant in the context of the General Plan Update Policy 2.1.

County of Fresno

In the County of Fresno, a combination of capacity expansion and policy measures is proposed as mitigation to address the significant impacts to County of Fresno roadways. The improvements necessary for County of Fresno segments to operate at acceptable LOS are listed in Table 5.16-5 below:

Table 5.16-5 County of Fresno Roadway Improvements Required

Roadway	Segment	LOS before Mitigation		Improvement Option	LOS with Mitigation	
		AM	PM		AM	PM
Copper Ave.	Willow Ave. to Auberry Rd.	E	D	Widen to 4 lanes	C	C
Copper Ave.	Auberry Rd. to Minnewawa Ave.	F	F	Widen to 4 lanes to Clovis Ave. (see Minnewawa Ave.)	C	C
Behymer Ave.	Clovis Ave. to Fowler Ave.	D	D	Improve to 2-lane urban collector with TWLTL (infeasible)	C	C
Herndon Ave.	McCall Ave. to Academy Ave.	C	D	Improve to 2-lane urban arterial with TWLTL	C	C
Ashlan Ave.	Minnewawa Ave. to Clovis Ave.	F	F	Widen to 4 lanes (infeasible)	D	D
Ashlan Ave.	McCall Ave. to Academy Ave.	D	D	Improve to 2-lane urban collector with TWLTL (infeasible)	C	C
Minnewawa Ave.	Copper Ave. to Behymer Ave.	F	F	Extend Clovis Avenue to Copper Avenue (see Policy 7.1)	C	C
Fowler Ave.	Behymer Ave. to Shepherd Ave.	C	E	Widen to 4 lanes (infeasible)	C	C
DeWolf Ave.	Herndon Ave. to Bullard Ave.	D	D	Widen to 4 lanes (infeasible)	C	C
McCall Ave.	Herndon Ave. to Shaw Ave.	F	F	Widen to 4 lanes	C	C
Academy Ave.	Herndon Ave. to Shaw Ave.	C	D	Widen to 4 lanes	C	C

Source: Fehr & Peers 2014.
Notes: **BOLD** text indicates unacceptable LOS based on the County of Fresno LOS policy in its *2000 General Plan*.

Below is a discussion for each segment that is projected to operate at unacceptable LOS and the improvements that would be necessary to improve the LOS to acceptable levels.

Copper Avenue

For the segments of Copper Avenue from Willow Avenue to Auberry Road and Auberry Road to Minnewawa Avenue, the following aspects were considered to address LOS F conditions:

- Widening the roadway from two lanes to four lanes would mitigate the project's LOS impact and improve operations to an acceptable LOS.

- These improvements are listed as City of Clovis projects in the Fresno COG RTP and are consistent with the proposed General Plan Update Mobility Plan.

Copper Avenue is beyond the 2035 development area. Therefore, it is analyzed as a County of Fresno facility, and it is anticipated the City of Clovis would not have jurisdiction to implement these improvements by 2035. However, when the City expands north to Copper Avenue, the City would have jurisdiction to either implement these improvements or, if preserving agricultural land is a higher priority, use the proposed General Plan Update policy to allow a more congested LOS. Because this roadway is currently listed as a funded project in the COG RTP and is consistent with the proposed General Plan Mobility Plan, the necessary improvements would be constructed and impacts would be mitigated. This impact would be less than significant.

Behymer Avenue

For Behymer Avenue from Clovis Avenue to Fowler Avenue, expanding the capacity of this two-lane roadway to an urban collector with two lanes and a two-way left-turn lane would mitigate the project's impact and improve operations to an acceptable LOS. However, these capacity enhancements are not included in the Fresno COG RTP or any other funding program for roadway improvements. Furthermore, improving this roadway to urban collector standards would conflict with county standards for local roadways, and right-of-way constraints would make widening potentially infeasible. Because the capacity enhancements to meet acceptable LOS (1) would conflict with county standards for local roadways, (2) are not included in the Fresno COG RTP or any other funding program for roadway improvements, and (3) entail right-of-way constraints, the impact would remain **significant and unavoidable**.

Herndon Avenue

Herndon Avenue between McCall Avenue and Academy Avenue is projected to operate at LOS D during the PM peak hour for the 2035 Scenario. Since this segment of Herndon Avenue is outside the City of Clovis's current SOI, LOS D operations are considered unacceptable. Upgrading this segment of Herndon Avenue to a two-lane urban arterial with a two-way left-turn lane would mitigate the project's impact and improve operations to an acceptable LOS. However, this capacity enhancement project is not included in the Fresno COG RTP or any other funding program for roadway improvements. Furthermore, this roadway is not within the City's jurisdiction. Since this project is not funded and outside the City's jurisdiction to implement, this impact would remain **significant and unavoidable**.

Ashlan Avenue

Ashlan Avenue between Minnewawa Avenue and Clovis Avenue is projected to operate at LOS F. Widening Ashlan Avenue to a four-lane roadway would mitigate the project's impact and improve operations to LOS D. However, this roadway widening is not included in the Fresno COG RTP or any other funding program for roadway improvements. Furthermore, right-of-way constraints may make widening Ashlan Avenue infeasible. This segment of Ashlan Avenue is in the City of Clovis's SOI, in the same area as the Minnewawa Avenue segment that operates at LOS F. If annexed in the future, the proposed Policy 2.1 could also apply to this segment given the existing residences along Ashlan Avenue and the right-of-way constraints. Overall, since funding is not identified and widening may be infeasible, this impact would remain **significant and unavoidable**.

Ashlan Avenue between McCall Avenue and Academy Avenue is projected to operate at LOS D. Since this segment of Ashlan Avenue is outside the City of Clovis's current SOI, LOS D operations are considered unacceptable. Improving this segment by converting it to an urban collector with a center two-way left-turn lane would mitigate the project's impact and improve operations to an acceptable LOS. However, this capacity enhancement project is not included in the Fresno COG RTP or any other funding program for roadway improvements. Furthermore, this roadway is not within the City's jurisdiction. Since this project is not funded and outside the City's jurisdiction to implement, this impact would remain **significant and unavoidable**.

Minnewawa Avenue

Minnewawa Avenue between Behymer and Copper Avenue is projected to operate at LOS F. This segment of Minnewawa is ultimately planned to become a collector and local street, with regional traffic shifting to a proposed extension of Clovis Avenue. Since the General Plan Update proposes converting Minnewawa Avenue to a more local facility with regional traffic on Clovis Avenue, the preferred mitigation option is to extend Clovis Avenue north of Behymer Avenue to Copper Avenue to reduce the amount of traffic on Minnewawa Avenue by providing a parallel facility to carry traffic to and from Copper Avenue. This is further emphasized in Policy 7.1 in the proposed Circulation Element, which states that the City will invest in the extension of Clovis Avenue north to Copper Avenue as funding is available. This improvement is listed as a City of Clovis project in the Fresno COG RTP and is consistent with the proposed General Plan Mobility Plan. Since this improvement is outside the 2035 growth area, this improvement would be outside the City's jurisdiction. However, when the City expands north along Clovis Avenue from Behymer Avenue to Copper Avenue, the City would have jurisdiction to implement these improvements. Because this roadway is currently listed as a funded project in the COG RTP and is consistent with the proposed General Plan Mobility Plan, the necessary improvements would be constructed and impacts would be mitigated. This impact would be less than significant.

Fowler Avenue

For Fowler Avenue from Behymer Avenue to Shepherd Avenue, widening this two-lane roadway to four lanes would mitigate the project's impact and improve operations to an acceptable LOS. However, these capacity enhancements are not included in the Fresno COG RTP or any other funding program for roadway improvements. Furthermore, widening this roadway would conflict with county standards for local roadways, and right-of-way constraints would make widening potentially infeasible. Therefore, the impact would remain **significant and unavoidable**.

De Wolf Avenue

For De Wolf Avenue from Herndon Avenue to Bullard Avenue, widening this two-lane roadway to four lanes would mitigate the project's impact and improve operations to an acceptable LOS. However, these capacity enhancements are not included in the Fresno COG RTP or any other funding program for roadway improvements. Furthermore, there may be right-of-way constraints since this road is currently classified as a two-lane road, which would make widening potentially infeasible. Therefore, the impact would remain **significant and unavoidable**.

McCall Avenue

For McCall Avenue between Herndon Avenue and Shaw Avenue, the following aspects were considered to address LOS F conditions:

- Widening the roadway from two lanes to four lanes would mitigate the project's LOS impact and improve operations to an acceptable LOS.
- Widening McCall from two to six lanes is listed as a City of Clovis project in the Fresno COG RTP.
- This segment of McCall Avenue between Herndon and Shaw Avenues is outside the City of Clovis's current SOI, and beyond the 2035 and buildout Plan Area. Therefore, it is analyzed as a County of Fresno facility, and it is anticipated the City of Clovis would not have jurisdiction to implement these improvements by 2035.

Because this roadway is currently listed as a funded project in the COG RTP and is consistent with the proposed General Plan Mobility Plan, the necessary improvements would be constructed and impacts would be mitigated. This impact would be less than significant. As the City expands east, it would need to work with the County of Fresno to widen this segment of McCall Avenue to sufficiently serve traffic demand between Northeast Clovis and Loma Vista.

Academy Avenue

Academy Avenue between Herndon Avenue and Shaw Avenue is projected to operate at LOS D. Since this segment of Academy Avenue is outside the City of Clovis's current SOI, LOS D operations are considered unacceptable. Widening this two-lane roadway to four lanes would mitigate the project's impact and improve operations to an acceptable LOS. However, these capacity enhancements are not included in the Fresno COG RTP or any other funding program for roadway improvements. Furthermore, this roadway is not within the City's jurisdiction. Since this project is not funded and outside the City's jurisdiction to implement, this impact would remain **significant and unavoidable**.

Caltrans Facilities

Development of land uses allowed by the General Plan Update would increase the traffic volumes on state highways. The following segments would operate at an unacceptable LOS during the AM and/or PM peak hours:

- SR 168 Eastbound: McKinley Avenue to Shields Avenue
- SR 168 Eastbound: Shields Avenue to Ashlan Avenue
- SR 168 Westbound: Ashlan Avenue to Shields Avenue
- SR 168 Eastbound: Herndon Avenue to Fowler Avenue
- SR 168 Westbound: Fowler Avenue to Herndon Avenue
- SR 168 Westbound: Temperance Avenue to Fowler Avenue
- SR 168: Temperance Avenue to Owens Mountain Parkway

Capacity expansion projects are proposed as mitigation to address the significant impacts to Caltrans facilities. These are discussed in further detail below. While these mitigation measures would address the conflicts with the Caltrans LOS policies, these improvements would require action on the part of the Caltrans. Since the City of Clovis does not have control over the implementation of these mitigation measures, this impact would remain **significant and unavoidable**.

State Route 168 Eastbound: McKinley Avenue to Ashlan Avenue

For the segments of SR-168 eastbound from McKinley Avenue to Shields Avenue and Shields Avenue to Ashlan Avenue, the proposed mitigation option includes increasing the capacity of the highway to address the LOS E conditions. This would include converting the existing three lanes plus auxiliary lane segments from SR-180 to McKinley Avenue and McKinley Avenue to Shields Avenue to four lanes. This would be accomplished by connecting the existing auxiliary lanes between the off-ramps and on-ramps at McKinley Avenue and converting this new outside travel lane to a mixed-flow lane. The existing auxiliary lane between McKinley Avenue to Shields Avenue would also be extended through the Shields Avenue interchange north as an outside mixed-flow travel lane, becoming an auxiliary trap exit-only lane at the Ashlan Avenue off-ramp.

This capacity enhancement would mitigate the project's impact and improve operations to an acceptable LOS. However, this capacity enhancement project is not included in the Fresno COG RTP or any other funding program for roadway improvements. Furthermore, this roadway is not within the City's jurisdiction. Since this project is not funded and outside the City's jurisdiction to implement, this impact would remain **significant and unavoidable**.

State Route 168 Westbound: Ashlan Avenue to Shields Avenue

Adding an auxiliary lane between the Ashlan Avenue on-ramp and the Shields Avenue off-ramp to SR-168 Westbound would mitigate the project's impact and improve operations to an acceptable LOS. However, this capacity enhancement project is not included in the Fresno COG RTP or any other funding program for roadway improvements. Furthermore, this roadway is not within the City's jurisdiction. Since this project is not funded and is outside the City's jurisdiction to implement, this impact would remain **significant and unavoidable**.

State Route 168 Eastbound: Herndon Avenue to Fowler Avenue

Adding an auxiliary lane between the Herndon Avenue on-ramp and the Fowler Avenue off-ramp to SR-168 eastbound would mitigate the project's impact and improve operations to an acceptable LOS. However, this capacity enhancement project is not included in the Fresno COG RTP or any other funding program for roadway improvements. Furthermore, this roadway is not within the City's jurisdiction. Since this project is not funded and outside the City's jurisdiction to implement, this impact would remain **significant and unavoidable**.

State Route 168 Westbound: Temperance Avenue to Herndon Avenue

For the segments of SR-168 westbound from Temperance Avenue to Fowler Avenue and Fowler Avenue to Herndon Avenue, the proposed mitigation option includes increasing the capacity of the highway to address the LOS E and LOS F conditions. This would include adding an auxiliary lane from the Temperance Avenue on-ramp to the Fowler Avenue off-ramp. Given the larger amount of traffic entering SR-168 westbound at Fowler Avenue

and traveling west through the Herndon Avenue interchange, a mixed-flow lane would be added at the Fowler Avenue on-ramp and travel through the Herndon Avenue interchange.

This capacity enhancement would mitigate the project's impact and improve operations to an acceptable LOS. However, these capacity enhancement projects are not included in the Fresno COG RTP or any other funding program for roadway improvements. Furthermore, this roadway is not within the City's jurisdiction. Since these projects are not funded and outside the City's jurisdiction to implement, this impact would remain **significant and unavoidable**.

State Route 168: Temperance Avenue to Owens Mountain Parkway

The current expressway configuration of SR 168 with a signalized at-grade intersection with Owens Mountain Parkway would operate at an unacceptable LOS F conditions with the proposed General Plan Update. To improve the traffic operations, a grade-separated interchange with Owens Mountain Parkway would need to be constructed, converting the existing expressway to an access-controlled freeway. The Owens Mountain Parkway interchange would serve future planned development along this section of the SR-168 corridor in the Sierra Gateway Commerce Center, and would likely be triggered when that development occurs.

Summary of 2035 Impacts

The following segments in the County of Fresno and Caltrans jurisdictions were identified as significantly impacted:

County of Fresno

- Behymer Avenue from Clovis Avenue to Fowler Avenue
- Herndon Avenue between McCall Avenue and Academy Avenue
- Ashlan Avenue between Minnewawa Avenue and Clovis Avenue
- Fowler Avenue from Behymer Avenue to Shepherd Avenue
- De Wolf Avenue from Herndon Avenue to Bullard Avenue
- Academy Avenue between Herndon Avenue and Shaw Avenue

Caltrans

- SR 168 Eastbound: McKinley Avenue to Shields Avenue
- SR 168 Eastbound: Shields Avenue to Ashlan Avenue
- SR 168 Westbound: Ashlan Avenue to Shields Avenue
- SR 168 Eastbound: Herndon Avenue to Fowler Avenue
- SR 168 Westbound: Fowler Avenue to Herndon Avenue
- SR 168 Westbound: Temperance Avenue to Fowler Avenue
- SR 168: Temperance Avenue to Owens Mountain Parkway

These segments are outside the City's jurisdiction and are not included in the RTP. Policy 2.5, "Regional and State Roadway Funding." The City of Clovis would need to coordinate with the County of Fresno, City of Fresno, Fresno COG, and Caltrans to fund roadway improvements adjacent to and within the City's Planning Area. Fresno COG—through the Fresno County Transportation Authority—manages the Regional Transportation Mitigation Fee (RTMF), which is part of Measure C to ensure that future development contributes to its fair share of the cost of infrastructure to mitigate cumulative, indirect regional transportation impacts of new growth. Measure C is a half-cent tax to fund transportation improvements and applies to the county and all 15 cities in the county. An extension until 2027 was approved in 2006. The RTMF imposes fees for new development based on the number of residential dwelling units or the square feet of commercial, office, and industrial projects. There is an annual and 20-year allocation table for each city. A steering committee chooses which projects will be funded, including Caltrans freeways, ramps, roads, transit, para-transit, repairing potholes, etc. Each city and the county has the flexibility to prioritize its own needs and decide how it will spend the local portion of Measure C money.

The City's Municipal Code Section 7.7.07 implements fees for most types of development projects including residential, retail, office to provide funding for major street improvements. All fees are due as a condition of final tract map approval. In addition, the City of Clovis is in the process of adopting traffic study impact guidelines, which would be required for development projects. The traffic impact guidelines would include specific thresholds to evaluate project impacts to the roadway system and identify locations where the project would be responsible to provide mitigation or contribute to fair share fees to mitigate its impacts to the roadway system.

The City of Clovis may have the ability to fund some of the projects listed above through funds available from the RTMF and fair share fees. However, it cannot be guaranteed that funding would be sufficient or that the City would be able to provide enough funding through its fee program included in its Municipal Code, the RTMF, and implementation of Policy 2.5 to implement all necessary projects listed above.

Full Buildout

As discussed in Impact 5.16-1, implementation of the land use and circulation plans anticipated under Full Buildout of the General Plan Update would result in several roadway segments in the Cities of Clovis and Fresno and County of Fresno to operate at unacceptable LOS. Several segments would need to be expanded and extended in areas that are currently under the County of Fresno, the City of Clovis, and Caltrans's jurisdictions. At the time of the preparation of this analysis, no funding sources have been identified to implement the required improvements. In addition, several segments identified for improvements are outside the City of Clovis jurisdiction. Therefore, this impact would remain **significant and unavoidable**.

5.16.8 Level of Significance After Mitigation

Impact 5.16-1

2035 Scenario and Full Buildout

As discussed previously, several segments listed in Section 5.16-7 above are anticipated to operate at unacceptable LOS in the Cities of Clovis and Fresno and the County of Fresno. At the time of the preparation of this analysis, no funding sources have been identified to implement the required improvements. There are no other mitigation

measures recommended or feasible other than the funding resources identified. In addition, several segments identified for improvements are outside the City of Clovis jurisdiction. It cannot be guaranteed that funding would be sufficient or that the City would be able to provide enough funding through the RTMF and implementation of Policy 2.5 to implement all necessary projects listed above. Therefore, even with implementation of Policy 2.5 and the City's fee program, and the RTMF, this impact would remain **significant and unavoidable**

5.16.9 References

Clovis, City of. 1993. General Plan Circulation Element.

Fehr and Peers. 2014, April 1. City of Clovis General Plan Update Transportation Study.

Fehr and Peers. 2011, May. Clovis Bicycle Transportation Master Plan.

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