15. TRAFFIC AND CIRCULATION

This section is based upon and incorporates a traffic analysis report authored by Fehr & Peers Associates, Inc., entitled "City of Manteca – General Plan Transportation Analysis, May 2003."

15.1 EXISTING CONDITIONS

15.1.1 Roadway Segments

The City of Manteca is located at the junction of State Routes 120 (SR 120) and State Routes 99 (SR 99) in San Joaquin County. State Route 99 and Interstate 5 provide regional access to Manteca from the north and the south, and State Route 120 provides regional access to Manteca from the east and west.

Travel through Manteca is handled along several two- and four-lane facilities. Major north-south routes include Airport Way, Union Road, and Manteca Road / Main Street. Major east-west routes include Lathrop Road, Louise Avenue, and Yosemite Avenue. These streets are located with approximately one mile in a square arterial grid.

One major north/south roadway is Airport Way, which extends from Lathrop Road to Woodward Avenue along the western border of the City of Manteca near the City of Lathrop. The daily volumes on Airport Way average around 9,000 vehicles per day. Airport Way is currently a two-lane roadway.

Another major north/ south roadway is Union Road that is west of Main Street. Currently, Union Road is four lanes from Lathrop Road to near State Route 120. The sections near State Route 120 extending south to the City limits are two-lane. Union Road carries an average of 15,000 vehicles per day in the City of Manteca.

Manteca Road / Main Street is one of the major north-south roadways in Manteca. A majority of Main Street has four lanes but a small two-lane segment is located at the intersection of Main Street and Yosemite Avenue in the downtown Manteca Area. The average daily volume on Main Street ranges from 15,000 to 23,000.

Other north-south roadways in the City include McKinley Avenue, Winters Drive, Elm Avenue, Fremont Avenue, and Powers Avenue. These roadways carry volumes that are 3,000 vehicles per day or less.

Yosemite Avenue is one of the major east-west roadways in the City of Manteca, with average daily volumes ranging from 11,000 to 17,000 vehicles. Yosemite Avenue serves as a major through route and provides access to recreational areas to the east of the City, such as the Yosemite National Park. Yosemite Avenue is currently a two-lane roadway.

Another major east-west roadway is Louise Avenue, which is located north of Yosemite Avenue. This roadway is currently four lanes and carries an average of 14,000 vehicles per day in the City.

The final major east-west roadway is Lathrop Road, a two-lane roadway north of Louise Avenue. This road currently carries daily volumes ranging from 10,000 to nearly 12,000.

Other east-west roadways include Northgate Drive, Crom Street, Alameda Street, Center Street, North Street, Wawona Street, and Mission Ridge Drive. These roadways generally carry daily volumes ranging from 1,000 to 2,000 vehicles. However, a daily count of 6,000 was taken on Mission Ridge Drive near Main Street and a count of 5,000 occurred on Center Street near Main Street.

Figure 15-1 illustrates the existing roadway system in the Study Area.

The average daily traffic counts were drawn from traffic counts conducted by City of Manteca Staff in 2001. Freeway traffic volumes were obtained from Caltrans. The key road segments and average daily traffic levels are shown in Table 15-1. Figure 15-2 shows the traffic volume, (the sum of vehicles traveling in both directions), on the designated roadway.

15.1.2 Intersections

Five intersection locations were identified for existing conditions analysis, as shown on Figure 15-3. Intersections were selected based on existing and projected traffic volumes through the intersections and consultation with City staff. The intersections are:

1. Lathrop Road and Airport Way;
2. Louise Avenue and Union Road;
3. Louise Avenue and Main Street;
4. Yosemite Avenue and Union Road; and
5. Yosemite Avenue and Main Street.

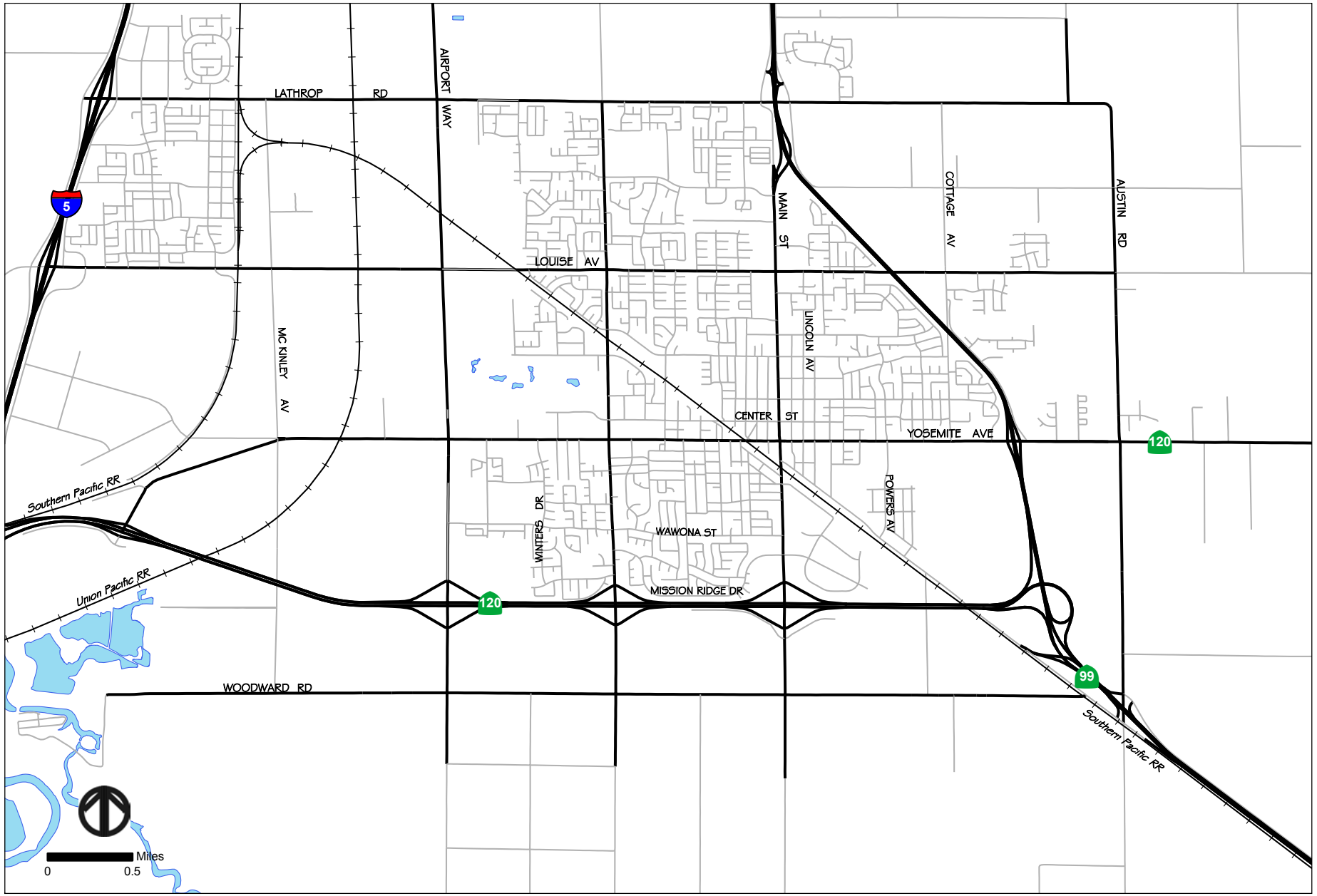
Existing turning movement counts were conducted at the five study intersections during the PM peak period (4:00 to 6:00 p.m.) in 1999 and 2001 by City of Manteca Staff. The PM peak hour period generally has the highest traffic volumes. To present a more conservative analysis, the highest counts (1999 or 2001) were used as the basis for the analysis. For each intersection count period, the one-hour with the highest traffic volumes was identified for the peak hour of analysis.

Table 15-1

Existing Traffic Volumes

Roadway	Between	1999-2001 Traffic Count
Airport Way	Lathrop to Louise	8700
	Louise to Yosemite	8900
	Yosemite to Wawona	9800
	Wawona to SR 120	9300
Union Road	Lathrop to Northgate	9500
	Northgate to Louise	12500
	Louise to Alameda	14300
	Alameda to Crom	16000
	Crom to Center	17600
	Center to Yosemite	15700
	Yosemite to Wawona	15900
	Wawona to Mission Ridge	16400
	Mission Ridge to SR 120	17100
Main Street	Northgate to Louise	20200
	Louise to Alameda	24700
	Alameda to North	18800
	North to Center	23000
	Center to Yosemite	15200
	Yosemite to SR 120	22800
	SR 120 to Woodward	6300
Woodward	Union to Main	3700
Yosemite	McKinley to Airport	11200
	Airport to Winters	14200
	Winters to Union	16800
	Union to Walnut	15400
	Walnut to Main	12200
	Main to Fremont	13200
	Fremont to Powers	16200
	Powers to Cottage Ave.	15700
	Cottage to Austin	17000
Louise Avenue	Airport to Union	10800
	Union to Elm	11800
	Elm to Main	17900
Lathrop Road	Airport to Union	10200
	Union to Main	11900

Source: Fehr & Peers, Inc. May 2003



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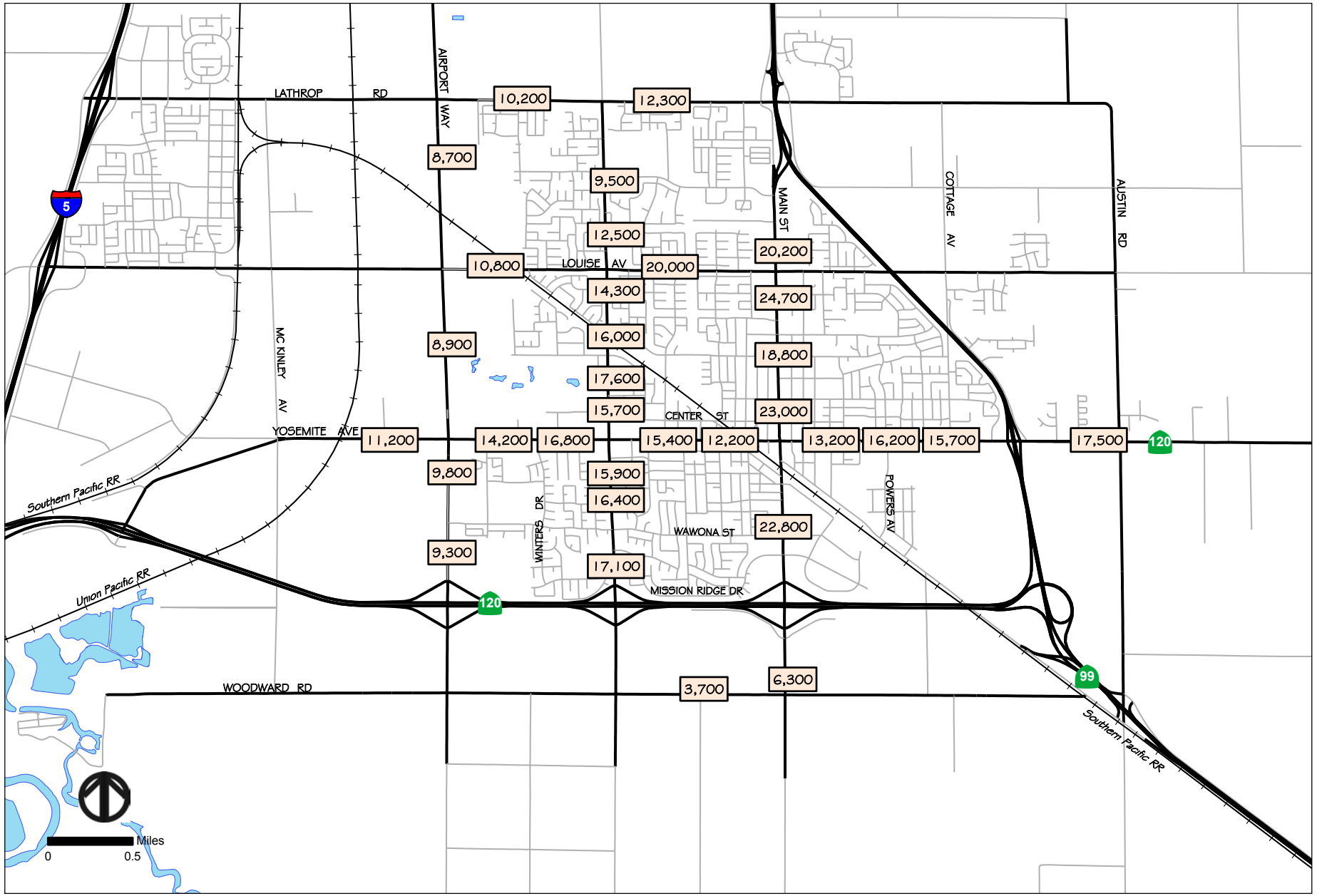
EXISTING ROADWAY NETWORK

FIGURE 15-1



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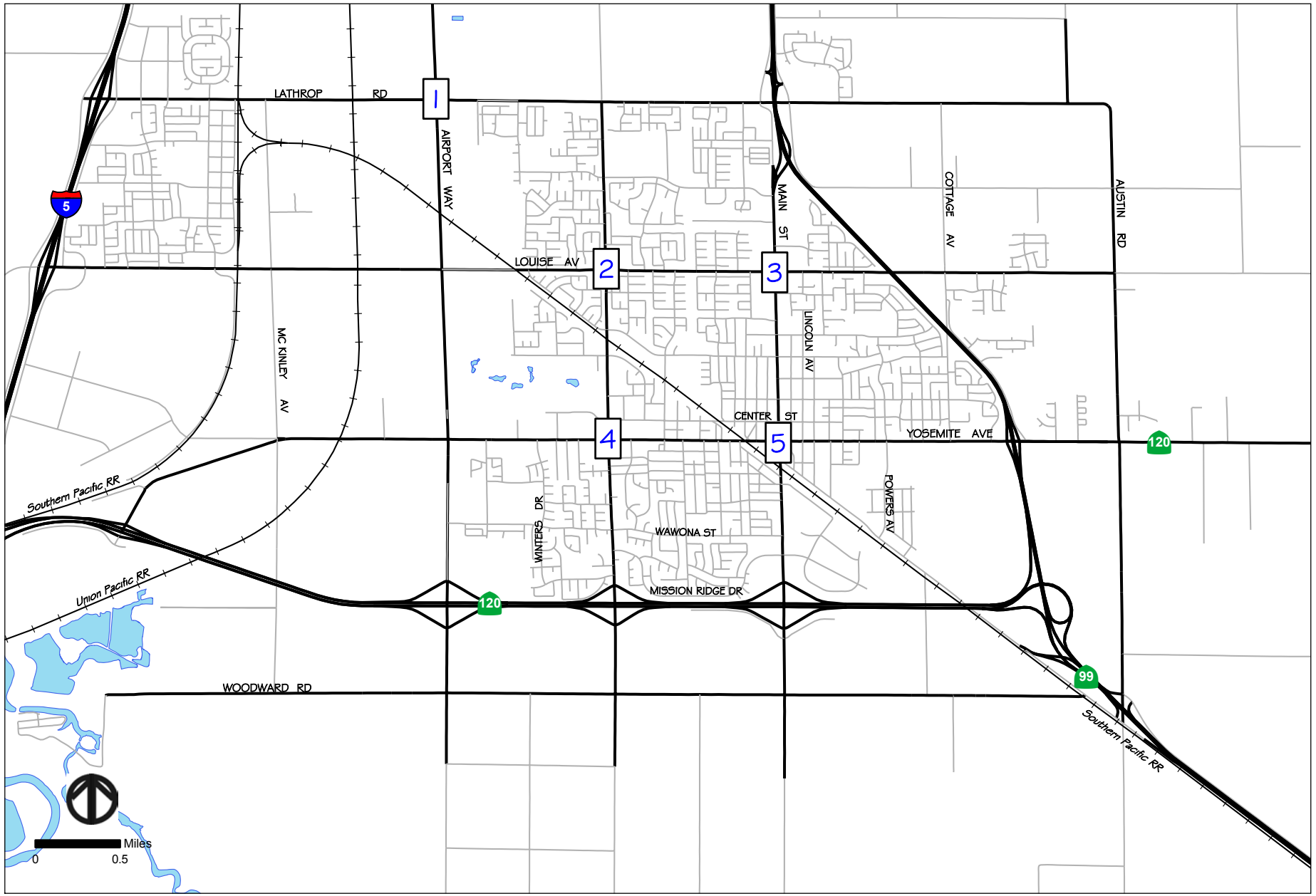
EXISTING DAILY VOLUMES

FIGURE 15-2



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EXISTING STUDY AREA INTERSECTIONS

FIGURE 15-3

15.2 ANALYSIS METHODOLOGY

Operations of the study intersections were evaluated using level of service (LOS) calculations. Level of service criteria is discussed below with an evaluation of existing LOS standards at the four study intersections.

15.2.1 Level of Service Criteria

Transportation engineers and planners commonly use a grading system called level of service (LOS) to measure and describe the operational status of the local roadway network. Level of service is a description of an intersection's operation, ranging from LOS A (indicating free-flow traffic conditions with little or no delay) to LOS F (representing over-saturated conditions where traffic flows exceed design capacity, resulting in long queues and delays). LOS can be reported for both roadway segments and intersections. This analysis reports both the more general roadway segment LOS and the detailed intersection LOS.

Roadway Segments

Roadway segment LOS is based on the comparison of volumes against reference charts. This analysis employs reference tables developed by the authors of the Highway Capacity Manual for the Florida Department of Transportation (FDOT). FDOT reference tables are widely utilized for roadway segment analysis. They are transferable to other states and have been accepted by Caltrans. Please note that these tables provide only a generalized level of service judgment should applied when reviewing results. These tables employ assumptions regarding signal spacing, peak to daily volume ratios, roadway width, presence of turn lanes, and other factors that affect roadway operation. These LOS thresholds used in this study are shown in Table 15-2.

Table 15-2
Arterial Roadway Segment
LOS Standards (Daily Volumes)

Number of Lanes	LOS C	LOS D	LOS E
2	9,100	14,600	15,600
4	21,400	31,100	32,900
6	33,400	46,800	49,300

Source: Florida Department of Transportation, Generalized Level of Service Tables for Urbanized Areas.

The results of the roadway segment LOS analysis are shown on Table 15-3. As indicated in the table, a majority of the roadway segments operate at an acceptable LOS of C. The LOS of each roadway is also shown on Figure 15-4.

However, there are several roadway segments that operate at a deficient level currently. One segment of Yosemite Avenue operates at LOS E (Union to Walnut) and other segments operate at LOS F (Winters to Union, Fremont to Powers, Powers to Cottage, Cottage to Austin). Please note that the volumes typically exceed the thresholds by small amounts (less than 10%). Therefore, roadways may be operating closer to acceptable levels because of the generalized nature of the roadway LOS standards.

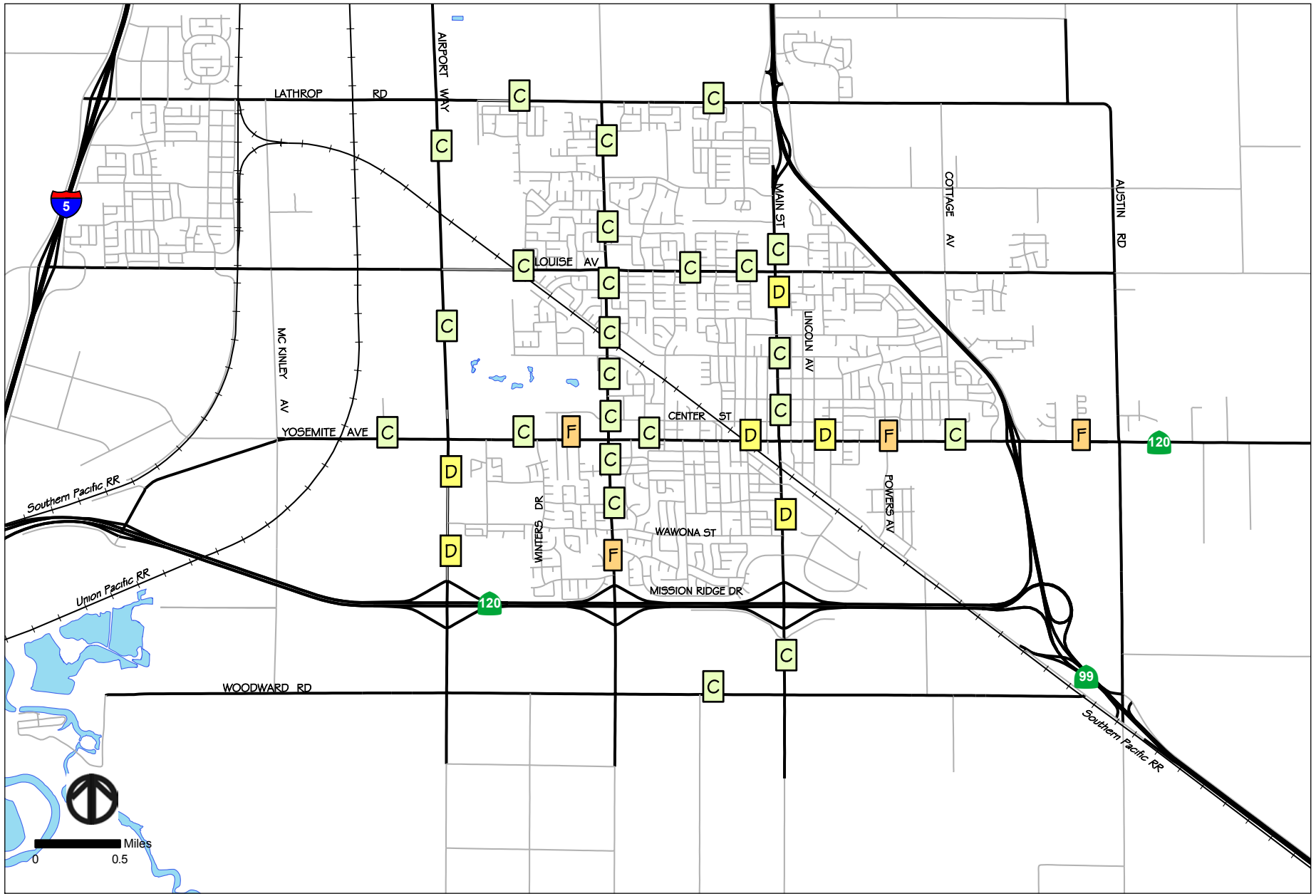
Table 15-3

Existing Traffic Volumes and LOS Results

		Existing	2001	Capacity	Capacity	Capacity		
Roadway	**Between**	**Lanes**	**Traffic Count**	**LOS C**	**LOS D**	**LOS E**	**V/C Ratio**	**LOS**
Airport Way	Lathrop to Louise	2	8700	9100	14600	15600	0.56	C
	Louise to Yosemite	2	8900	9100	14600	15600	0.57	C
	Yosemite to Wawona	2	9800	9100	14600	15600	0.63	D
	Wawona to SR 120	2	9300	9100	14600	15600	0.60	D
Union Road	Lathrop to Northgate	4	9500	21400	31100	32900	0.29	C
	Northgate to Louise	4	12500	21400	31100	32900	0.38	C
	Louise to Alameda	4	14300	21400	31100	32900	0.43	C
	Alameda to Crom	4	16000	21400	31100	32900	0.49	C
	Crom to Center	4	17600	21400	31100	32900	0.53	C
	Center to Yosemite	4	15700	21400	31100	32900	0.48	C
	Yosemite to Wawona	4	15900	21400	31100	32900	0.48	C
	Wawona to Mission Ridge	2	16400	9100	14600	15600	1.05	
	Mission Ridge to SR 120	2	17100	9100	14600	15600	1.10	
Main Street	Northgate to Louise	4	20200	21400	31100	32900	0.61	C
	Louise to Alameda	4	24700	21400	31100	32900	0.75	D
	Alameda to North	4	18800	21400	31100	32900	0.57	C
	North to Center	4	23000	21400	31100	32900	0.70	C

	Center to Yosemite	4	15200	21400	31100	32900	0.46	C
	Yosemite to SR 120	4	22800	21400	31100	32900	0.69	D
	SR 120 to Woodward	2	6300	21400	31100	32900	0.19	C
Woodward	Union to Main	2	3700	9100	14600	15600	0.24	C
Yosemite	McKinley to Airport	2	11200	9100	14600	15600	0.72	C
	Airport to Winters	2	14200	9100	14600	15600	0.91	C
	Winters to Union	2	16800	9100	14600	15600	1.08	
	Union to Walnut	4	15400	21400	31100	32900	0.47	C
	Walnut to Main	2	12200	9100	14600	15600	0.78	D
	Main to Fremont	2	13200	9100	14600	15600	0.85	D
	Fremont to Powers	2	16200	9100	14600	15600	1.04	
	Powers to Cottage Ave.	4	15700	21400	31100	32900	0.48	C
	Cottage to SR 99	4	15700	21400	31100	32900	0.48	C
	Cottage to Austin	2	17000	9100	14600	15600	1.09	
Louise Avenue	Airport to Union	4	10800	21400	31100	32900	0.33	C
	Union to Elm	4	11800	21400	31100	32900	0.36	C
	Elm to Main	4	17900	21400	31100	32900	0.54	C
Lathrop Road	Airport to Union	2	10200	21400	31100	32900	0.31	C
	Union to Main	2	11900	21400	31100	32900	0.36	C

Source: Fehr & Peers Associates, May 2003



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EXISTING ROADWAY SEGMENTS LOS

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FIGURE 15-4

Signalized Intersections

At signalized intersections, traffic conditions are evaluated using the 2000 *Highway Capacity Manual* methodology. The operations analysis uses various intersection characteristics (such as traffic volumes, lane geometry, and signal phasing) to estimate the average delay experienced by motorists traveling through an intersection. Table 15-4 summarizes the relationship between delay and LOS for signalized intersections.

Table 15-4
Signalized Intersection LOS Criteria

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

Source: Transportation Research Board Highway Capacity Manual, 2000.

Please note that with the update of the Highway Capacity Manual in the Year 2000, the definition of delay was changed from stop delay to control delay and the LOS ranges were recalibrated to reflect this change. Therefore, previously reported delay calculations using previous methodologies cannot be compared to any future calculations. However, the LOS results are comparable. Existing

intersection conditions were evaluated for the weekday evening peak hour at the five study intersections. Table 15-5 summarizes the existing intersection analysis results. The LOS analysis results are shown in Appendix A of the *City of Manteca General Plan Transportation Analysis, Fehr & Peers, May 2003,* available for review at the City of Manteca Community Development Department.

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Table 15-5
Existing (2001) Peak Hour Level of Service

Location	Control [1]	Peak Hour	Delay[2&3]	LOS
Lathrop Road and Airport Way	Signal	PM	26.5	C
Louise Avenue and Union Road	Signal	PM	28.3	C
Louise Avenue and Main Street	Signal	PM	29.6	C
Yosemite Avenue and Union Road	Signal	PM	28.5	C
Yosemite Avenue and Main Street	Signal	PM	23.2	C

1. Signal = Signalized Intersection

2. For signalized intersections, average delay (in seconds per vehicle) calculated using the *2000 Highway Capacity Manual* methodology.

Source: Fehr & Peers Associates, 2002.

As indicated in Table 15-5, all intersections operate at an acceptable LOS C or better during the PM peak hour.

15.2.2 Transit and Park-and-Ride Facilities

The San Joaquin Regional Transit District (SJRTD) provides transit service throughout Manteca with Stockton Metropolitan Area Rapid Transit service (SMART) and County Area Transit (CAT). Manteca is also served by the Altamont Commuter Express (ACE). Figure 15- 5 highlights the corridors currently served by transit. SJRTD also provides a dial-a-ride service for the elderly and handicapped. Manteca has established one park-and-ride location on Northgate Street near the Northgate Church. This location provides access to ACE commuter rail and SMART bus lines.

SMART Route 21 is an intercity route that serves the cities of Stockton, Lodi and Manteca. Weekday service between 6:00 AM and 6:00 PM is provided on this route with headways ranging between one and two hours. In Manteca, the route serves the Doctors Hospital, Main Street and the Manteca Civic Center.

SMART Routes 53, 54 and 55 are interregional routes that serve commuters traveling between Manteca and Tracy to Lawrence Livermore and Sandia Laboratories. Three buses are provided westbound in the morning with three buses returning in the evening.

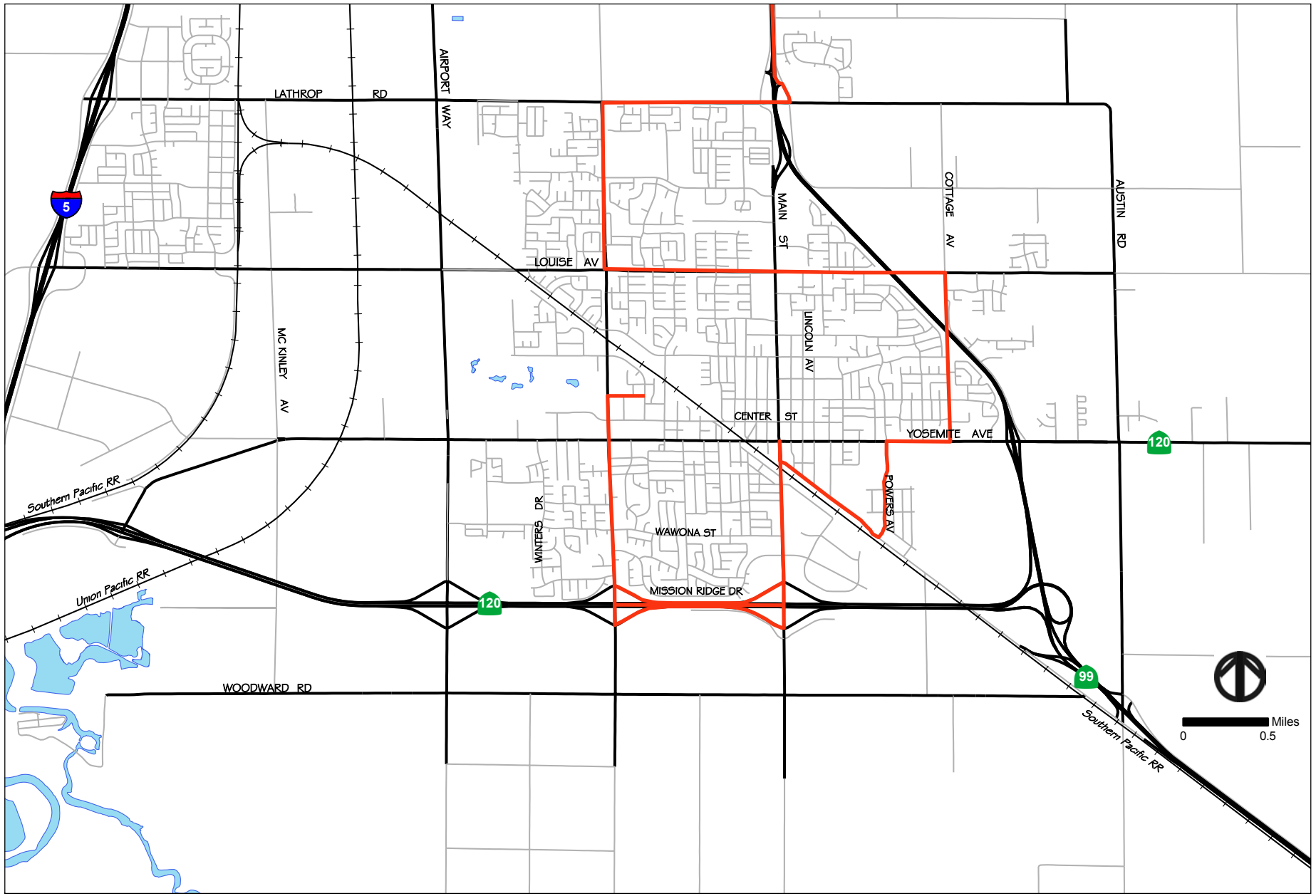
County Area Transit fixed route service provides transit service to French Camp, Lathrop and Manteca. In Manteca, the Civic Center, St. Dominic's Hospital and the Doctors Hospital are served. Connections to SMART Route 21 can be made from the CAT service line.

Altamont Commuter Express (ACE) provides commuter rail service between Stockton and San Jose. A stop is provided in Manteca on Yosemite Avenue at Shideler Parkway. Three trains are provided during the morning commute from Stockton to San Jose and three trains return in the evening.

15.2.3 Bicycles and Pedestrians

The City of Manteca has a number of bicycle facilities, including Class I (bicycle path), Class II (bicycle lane) and Class III (bicycle route) facilities. Figure 15-6 shows the extent of Manteca's bicycle routes. These facilities provide for bicycle travel throughout the city.

With respect to pedestrian circulation, most streets provide sidewalks and crosswalks are provided at major intersections.



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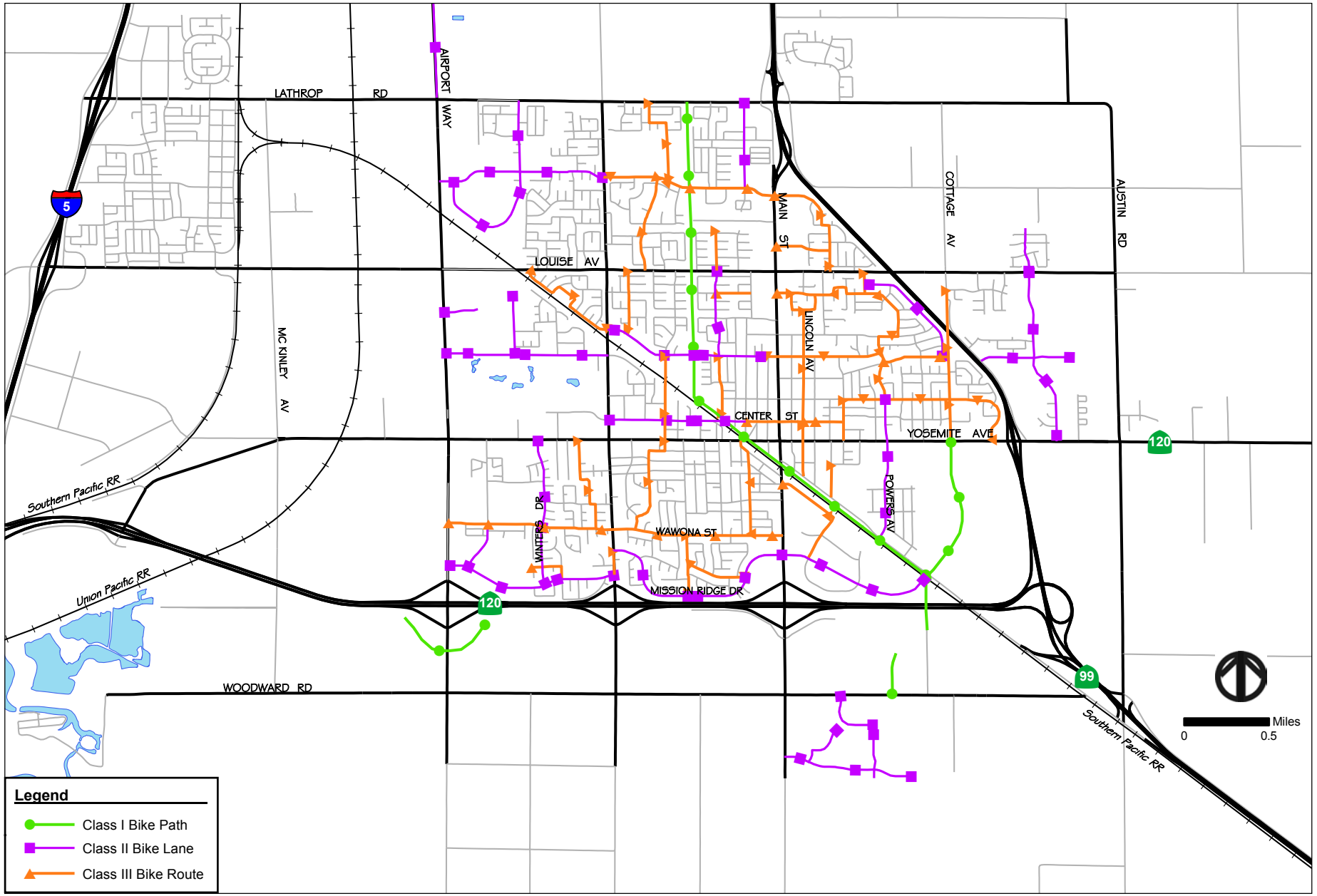
EXISTING TRANSIT ROUTES

FIGURE 15-5



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EXISTING BICYCLE NETWORK

FIGURE 15-6

15.2.4 2000 Census Journey to Work Data

The results of the 2000 Census Journey to Work analysis is presented below. This information details the mode choice for Manteca residents as well as the average travel time for the commuter trip. For comparison purposes, county, state, and national information is presented in Table 15-6.

Table 15-6

2000 Census Journey to Work Results

	Manteca	San Joaquin County	California	United States
Single Occupant Auto	76.5%	74.6%	71.8%	75.7%
Carpool	16.3%	17.0%	14.5%	12.2%
Public Transit	1.5%	1.4%	5.1%	4.7%
Bicyling	0.7%	0.7%	0.8%	0.4%
Walking	1.7%	2.3%	2.9%	2.9%
Other Means	0.6%	1.0%	1.0%	0.8%
Work at Home	2.7%	2.9%	3.8%	3.3%
Average Travel Time to Work	34.2 minutes	29.2 minutes	27.7 minutes	25.5 minutes

Source: 2000 Census, SF-3

The average travel time from home to work for Manteca residents has grown from 26 minutes in 1990 to 34 minutes in 2000, a result that is substantially higher than the average for the county, state, or nation.

One influence on this relatively higher travel time is the percentage of workers who travel one hour (60 minutes) or more. About one-quarter of the employed City residents drive more than 60 minutes to reach their place of employment. For San Joaquin County as a whole, only 15% of the residents required more than 60 minutes to reach their employment location.

The complete Census tables for the Journey to Work data are provided in Appendix B of the *City of Manteca General Plan Transportation Analysis, Fehr & Peers, May 2003,* available for review at the City of Manteca Community Development Department.

15.3 REGULATORY SETTING

This chapter addresses the regulatory setting for the City of Manteca General Plan 2023. From a transportation perspective, the major items that impact the General Plan 2023 development and evaluation include:

- San Joaquin Council of Governments' (SJCOG) Regional Transportation Plan (RTP)
- Measure K Expenditure Plan
- San Joaquin Regional Transportation Impact Fee Study
- 1988 General Plan
- 1993 Public Facilities Infrastructure Plan
- City of Manteca Bicycle Plan

15.3.1 SJCOG Regional Transportation Plan

The Regional Transportation Plan (RTP) is a twenty-year transportation plan that outlines the major transportation improvements to be completed in San Joaquin County. This plan outlines funding for highway projects, transit station and service upgrades, bicycle/pedestrian facilities, and air service enhancements. As a federally designated air quality non-attainment and maintenance area, the San Joaquin County region is required to submit a regional transportation plan every three years.

The RTP relates to the proposed General Plan 2023 in two ways. First, the RTP contains goals and policies related to transportation planning in San Joaquin County. Second, the RTP describes planned improvements affecting local and regional facilities.

Relevant RTP policies include:

- Design a transportation system that meet the travel needs of both citizens and businesses
- Design a transportation system that will improve the environment or minimize environmental impacts
- Design an efficient, safe, and economical transportation system
- Effectively implement the transportation system

The RTP also presents lists of future transportation projects prioritized based on the need, benefit, cost and available funds over the 20 year horizon. According to the RTP, expected revenues are $3.9 billion with total needs of $7 billion. Therefore, there is a funding gap of over $3 billion. This gap represents the disparity between the transportation needs of San Joaquin County and the available resources to fund transportation. Based on insufficient funds for all of the transportation needs, the potential projects are segregated into two groups. The first group, Tier 1, represents projects that can be funded within the existing revenues. The second group, Tier 2, includes projects that cannot be

funded within the current revenue projections; these projects are needed and will move onto the Tier 1 list as additional revenues are identified.

The Tier 1 transportation projects in and around the City of Manteca include:

- Widening of State Route 99 to six lanes
- Widening of State Route 120 to six lanes
- State Route 99 / State Route 120 Interchange improvements
- Route 120 / McKinley Avenue Interchange construction
- Widening of Lathrop Road to four lanes
- Widening of Louise Avenue to four lanes
- Widening of Airport Way to four lanes
- Manteca Multi-modal station

The RTP also includes funding for continued bus and Altamont Commuter Express (ACE) services that benefit City of Manteca residents as well as other residents of San Joaquin County.

15.3.2 Measure K Expenditure Plan

Measure K refers to the one-half cent sales tax measure that funds transportation projects in San Joaquin County. Measure K funds are expended on a variety of projects that include congestion relief projects (major roadway improvements), railroad crossing safety improvements, rail and bus projects, bicycle/pedestrian projects, and local street repair. As part of this last element, Measure K funds are distributed to local jurisdictions to pay for local street repair based on relative population. According to reports from SJCOG, the City of Manteca receives approximately $400,00 each year for local street repair from Measure K.

One Manteca project that was partially funded by Measure K was the Tidewater Bikeway, a 3.4-mile bicycle facility that runs along an abandoned railroad right of way. This project was completed with Measure K funds along with funding from local, state, and federal sources.

15.3.3 San Joaquin Regional Transportation Improvement Fee Study

Under the authority granted by Assembly Bill 1600, SJCOG is conducting a regional transportation fee study. As part of this study, SJCOG is conducting a nexus analysis (as required by statute) to relate the costs of future transportation improvements to the demand generated by future development. This study has not been completed as of May 2003. If completed and implemented, the regional fee program would increase the funding available for transportation projects. These regional fees would be in addition to traffic impact fees assessed by jurisdictions such as the City of Manteca.

15.3.4 1998 General Plan & General Plan Environmental Assessment

The last update to the City of Manteca General Plan was completed in 1988. As part of this update, the Goals and Policies were updated. Additionally, the Circulation Element presented the projected roadway network for the City of Manteca. This General Plan anticipated significant growth in the City of Manteca with a total of 826,600 daily trips estimated at the buildout of the General Plan.

15.3.5 1993 Public Facilities Implementation Plan and South Manteca Area General Plan Amendment

In 1993, the City of Manteca completed a Public Facilities Implementation Plan (PFIP) and a General Plan Amendment regarding the South Manteca Area. The PFIP addressed the future infrastructure needs related to the City including water, wastewater, and transportation. The General Plan Amendment for the South Manteca Area Plan outlined future development in the area south of State Route 120.

The main purpose of the PFIP was the identification of future infrastructure needs and the calculation of fees that would fund future infrastructure. Since the completion of the PFIP, the City of Manteca has collected fees from development projects, which has funded a variety of improvements in the City.

As stated previously, the City adopted a General Plan Amendment related to the South Manteca Area Plan. This Amendment modified the 1988 General Plan to allow development in the area south of State Route 120. This General Plan Amendment envisioned significant growth in this area south of Manteca. With this General Plan Amendment, the total number of daily trips anticipated for the City of Manteca was 709,800, a reduction of approximately 10-15% from the 1988 General Plan. Of this 700,000 total daily trips, nearly one-third (246,400) was anticipated to occur as a result of development south of State Route 120.

For purposes of the General Plan 2023 EIR, the *No Project Alternative* is the 1988 General Plan as modified by the 1993 General Plan Amendment.

15.4 MODEL CALIBRATION / VALIDATION

The model calibration / validation effort is detailed in the *City of Manteca General Plan Focused Model Calibration / Validation* report (August 2002) by Fehr & Peers Associates. This report in its entirety is provided as Appendix C of the *City of Manteca General Plan Transportation Analysis, Fehr & Peers, May 2003*, available for review at the City of Manteca Community Development Department.

15.5 ROADWAY IMPROVEMENTS

15.5.1 Manteca Roadways

There are two main funding sources for roadway improvements in the City of Manteca. The first funding source is SJCOG, which allocates regional transportation funds for projects throughout San Joaquin County. The second source is development fees collected through the 1993 PFIP.

The San Joaquin Council of Governments Regional Transportation Plan (SJCOG RTP) outlines projects that are funded through regional funds. These projects include Tier 1 projects (can be funded with projected revenues) and Tier 2 projects (cannot be funded with projected revenues). This analysis assumes that Tier 1 projects are implemented.

As mentioned in Chapter III, the City of Manteca finances local infrastructure needs (water, sewer, and transportation) through a fee system that was codified in the 1993 PFIP. This plan established a future infrastructure network that would be funded through fees paid by residential and commercial development. This infrastructure plan includes a future roadway network.

The improvements assumed for the roadways in Manteca are indicated in Table 15-7. For each roadway improvement, documentation is provided indicating whether that improvement is referenced in the PFIP, the RTP Tier 1 project list or both documents.

Table 15-7

2025 Assumed Roadway Improvements

Roadway	Segment	Improvement	Included in PFIP?	Included in RTP Tier 1?
McKinley Avenue	Yosemite to SR 120	Widen to four lanes	Yes	No
McKinley Avenue	SR 120 to Atherton	Widen to six lanes	Yes	No
McKinley Avenue	Atherton to Woodward	Widen to four lanes	Yes	No
Airport Way	Lathrop to Woodward Road	Widen to six lanes	Yes	Yes (four lanes only)
Union Road	Mission Ridge to SR 120	Widen to four lanes	Yes	No
Union Road	SR 120 to Atherton	Widen to six lanes	Yes	No
Union Road	Atherton to south of Woodward Road	Widen to four lanes	Yes	No
Lathrop Road	Airport to Main	Widen to four lanes	Yes [1]	Yes
Main Street	Northgate to Alameda	Widen to six lanes	Yes	No
Main Street	Alameda to North	Widen to four lanes	Yes	No
Main Street	Yosemite to Woodward	Widen to six lanes	Yes	No
Yosemite Avenue	McKinley to Union	Widen to six lanes	Yes	No
Yosemite Avenue	Union to Walnut	Widen to four lanes	Yes	No
Yosemite Avenue	Freemont to Austin	Widen to four lanes	Yes	No
Atherton (SR 120 Frontage Road)	Airport to Austin	New 4 Lane roadway (arterial)	Yes	No
Woodward Road	McKinley to Main Street	Widen to Four Lane	No	Yes
Woodward Road	Main Street to Austin	Widen to Four Lane	Yes	No
New Collector Roadway	McKinley to Austin	New 2 Lane roadway (collector)	No	No

Notes: 1- Based on personal communication with Dave Vickers (City of Manteca) regarding feasibility of improvement.

Source: Fehr & Peers Associates, May 2003

15.5.2 Regional Roadway and Interchange Improvements

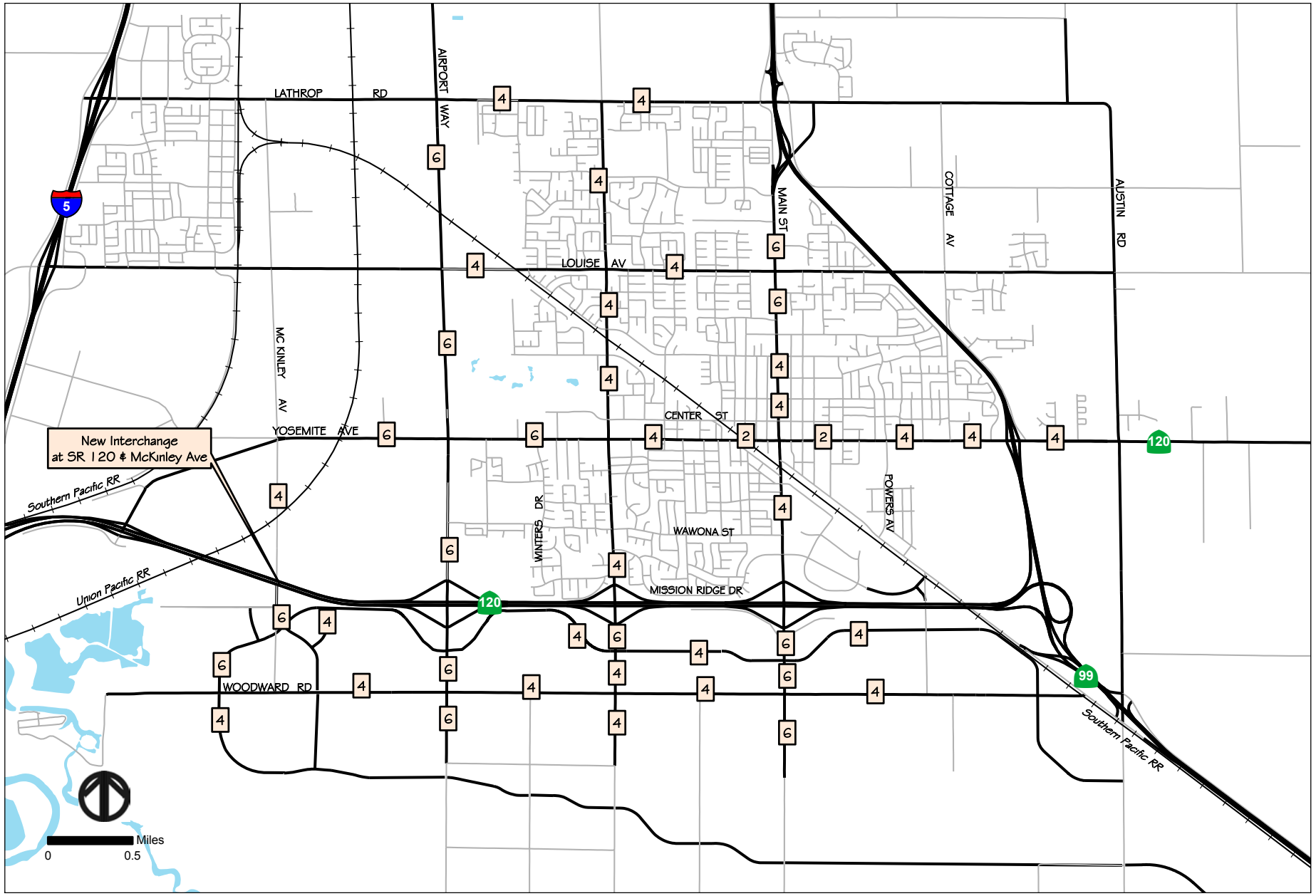
San Joaquin County has an extensive network of regional freeways and limited access facilities including Interstate 5, State Route 99, and State Route 120. State Route 99 and State Route 120 are particularly important to the City of Manteca given that these facilities border on the City and City residents and employees utilize these roadways on a daily basis. Several of the major roadways in Manteca have existing interchanges with either State Route 99 or State Route 120. As stated previously, the SJCOG regional travel demand model was utilized as the basis for the City of Manteca travel demand model. A comprehensive update of the regional transportation model was completed in 2001. For the areas outside of Manteca, no changes were made in the roadway network. For instance, it was assumed that the roadway network or improvements in Stockton and Tracy was correct.

Inside the project Study Area, the lane configurations and project improvements for State Route 99 and State Route 120 were reviewed based on the information contained in the 2001 SJCOG RTP. This review indicated the following:

- The widening of State Route 99 adjacent to the City of Manteca is included on the Tier 1 project list. This widening would widen SR 99 from the existing four lanes to six lanes through widening in the median. Please note that the Tier 2 project list includes the widening of SR 99 to 8 lanes south of the SR 99 / SR 120 interchange.
- The widening of State Route 120 adjacent to the City of Manteca is on the Tier 1 project list. This widening would extend from I-5 to State Route 99 with the widening occurring in the median.
- Improvements to the interchange at SR 99 / SR 120 are included in the Tier 1 project list.
- A new interchange would be constructed at SR 120 / McKinley Avenue.

15.5.3 Future Roadway Network

The future laneage is shown on Figure 15-7. Intersection configurations for selected intersections are provided. A map of these selected locations is included as Figure 15-8. The default roadway configuration is that there are single left turn and right turn lanes on four lane roadways with dual left turn lanes and single right turn lanes on six lane and eight lane roadways. These conceptual configurations mirror the assumed configurations developed during the 1993 PFIP.



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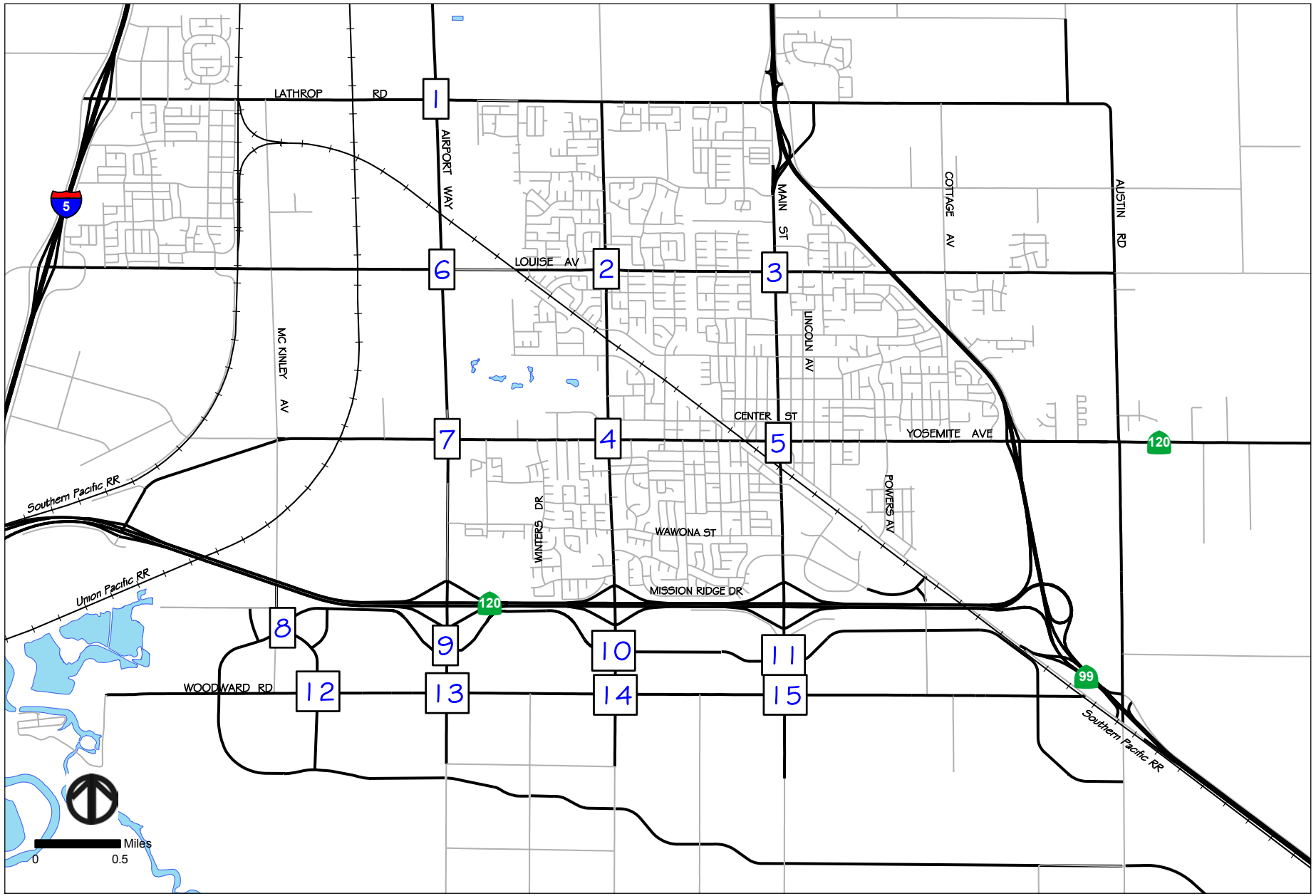
FUTURE ROADWAY LANES

FIGURE 15-7



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FUTURE STUDY AREA INTERSECTIONS

FIGURE 15-8

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15.6 FUTURE TRAFFIC FORECASTS

This chapter discusses the project traffic volumes found on Manteca area roadways with the build-out of the General Plan 2023. This build-out scenario incorporates the land use and roadway network data contained in Section 15.5.

This sections presents the total daily trips, roadway segment volumes and the afternoon peak hour turning movements.

15.6.1 Total Daily Trips

With the proposed General Plan 2023, the total number of daily trips generated in the City of Manteca would be 1,107,208 at project buildout. This total represents an increase of 390,000 trips over the previous total under the No Project Alternative (1993 General Plan Amendment).

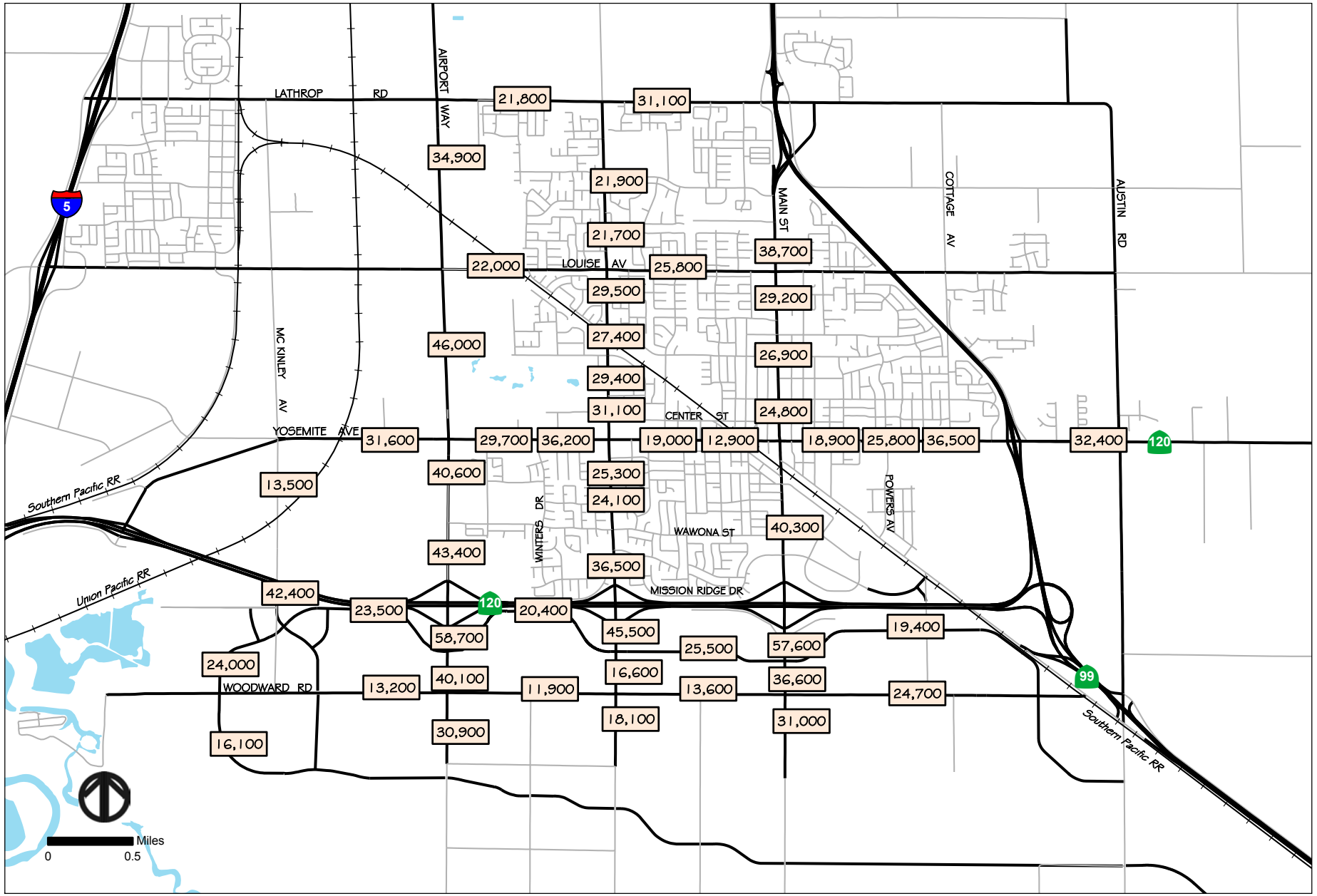
Future Segment Volumes

Figure 15-9 shows the future traffic volumes by road segment. Table 15-8 presents the future roadway segment volumes for the build out of the General Plan 2023. As shown in this table, there is significant growth in traffic volumes with the land uses included in the General Plan 2023.

Table 15-9 compares the traffic volumes to the existing traffic counts. The average increase per link is 138%, which indicates at least a doubling of traffic on City roadways by build-out of the General Plan 2023. This table also includes traffic volumes from the 1993 PFIP and South Manteca Area Plan General Plan Amendment. The average increase in these volumes is 36%. Therefore, the average roadway volume is approximately one-third more than the traffic volumes with the No Project Alternative.

Future Turn Volumes

Future turn volumes intersection locations were selected based on the five intersections analyzed under existing conditions as well as other intersections that might be impacted by future development. These volumes were developed using a variety of methods. For existing intersections for which existing turn movements are available, the furnessing process is employed which proportions the turning movements based on projected growth in traffic entering the entering on the street for which the movement begins and the growth in traffic existing on the street to which the movement is directed. When existing turning movements are not available, such as with the construction of a new roadway (Atherton), the future turning movements are directly extracted from the travel demand model.



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FUTURE DAILY VOLUMES

FIGURE 15-9

Table 15-8

Future Daily Volumes

Roadway	Between	Key Number	2025 Forecast
McKinley Avenue	Yosemite to 120	1	12400
	120 to Atherton	2	41400
	Atherton to Woodward	3	23600
	Woodward South	4	15700
Airport Way	Lathrop to Louise	5	39700
	Louise to Yosemite	6	45800
	Yosemite to Wawona	7	44700
	Wawona to SR 120	8	44700
	SR 120 to Atherton	9	59200
	Atherton to Woodward	10	39700
	Woodward South	11	29300
Union Road	Lathrop to Northgate	12	21300
	Northgate to Louise	13	21400
	Louise to Alameda	14	28800
	Alameda to Crom	15	26900
	Crom to Center	16	28900
	Center to Yosemite	17	31200
	Yosemite to Wawona	18	25100
	Wawona to Mission Ridge	19	24400
	Mission Ridge to SR 120	20	37500
	SR 120 to Atherton	21	46500
	Atherton to Woodward	22	16700
	Woodward South	23	17000
Main Street	Northgate to Louise	24	36400
	Louise to Alameda	25	27100
	Alameda to North	26	25300
	North to Center	27	22900
	Center to Yosemite	28	23600

	Yosemite to SR 120	29	42500
	SR 120 to Atherton	30	57400
	Atherton to Woodward	31	34800
	Woodward South	32	30800
Woodward	McKinley to Airport	33	16300
	Airport to Union	34	15600
	Union to Main	35	18000
	Main to Austin	36	24700
Atherton	McKinley to Airport	37	21300
	Airport to Union	38	17800
	Union to Main	39	23200
	Main to Woodward	40	20200
Yosemite	McKinley to Airport	41	26400
	Airport to Winters	42	30500
	Winters to Union	43	26700
	Union to Walnut	44	16700
	Walnut to Main	45	11700
	Main to Fremont	46	17000
	Fremont to Powers	47	23600
	Powers to Cottage Ave.	48	32400
	Cottage ro SR 99	49	36100
	SR 99 to Austin	50	31800
Louise Avenue	Airport to Union	51	21400
	Union to Elm	52	29400
	Elm to Main	53	30300
Lathrop Road	Airport to Union	54	23400
	Union to Main	55	21400

Source: Fehr & Peers Associates, May 2003

Table 15-9

Comparison of Existing to Forecast Traffic Volumes

Roadway	Between	2001 Traffic Counts	Forecasted Growth	Current General Plan	New General Plan	Percent Change
Airport Way	Lathrop to Louise	8700	359%	23000	39700	73%
	Louise to Yosemite	8900	417%	30300	45800	51%
	Yosemite to Wawona	9800	314%	22300	44700	100%
	Wawona to SR 120	9300	367%	24800	44700	80%
Union Road	Lathrop to Northgate	9500	131%	18800	21300	13%
	Northgate to Louise	12500	74%	18800	21400	14%
	Louise to Alameda	14300	106%	22600	28800	27%
	Alameda to Crom	16000	71%	22600	26900	19%
	Crom to Center	17600	67%	22600	28900	28%
	Center to Yosemite	15700	98%	22600	31200	38%
	Yosemite to Wawona	15900	59%	22600	25100	11%
	Wawona to Mission Ridge	16400	47%	22600	24400	8%
	Mission Ridge to SR 120	17100	113%	22600	37500	66%
Main Street	Northgate to Louise	20200	92%	20300	36400	79%
	Louise to Alameda	24700	18%	20300	27100	33%
	Alameda to North	18800	43%	21000	25300	20%
	North to Center	23000	8%	21000	22900	9%
	Center to Yosemite	15200	66%	21000	23600	12%
	Yosemite to SR 120	22800	77%	41920	42500	1%
	SR 120 to Woodward	6300	814%	47200	57400	22%
Woodward	Union to Main	3700	268%	6900	18000	161%
Yosemite	McKinley to Airport	11200	182%	29600	26400	-11%
	Airport to Winters	14200	109%	29300	30500	4%
	Winters to Union	16800	115%	28100	26700	-5%

	Union to Walnut	15400	23%	12900	16700	29%
	Walnut to Main	12200	6%	12600	11700	-7%
	Main to Fremont	13200	36%	10400	17000	63%
	Fremont to Powers	16200	48%	14700	23600	61%
	Powers to Cottage Ave.	15700	64%	14700	32400	120%
	Cottage to Austin	17000	115%	30000	36100	20%
Louise Avenue	Airport to Union	10800	104%	17800	21400	20%
	Union to Elm	11800	89%	18800	29400	56%
	Elm to Main	17900	44%	26200	30300	16%
Lathrop Road	Airport to Union	10200	114%	20100	23400	16%
	Union to Main	11900	161%	20900	21400	2%
Average Change Per Roadway Segment			138%			36%

Source: Fehr & Peers Associates, February 2003

15.7 IMPACT EVALUATION CRITERIA

The following specific criteria are used in conjunction with the CEQA Guidelines, Appendix G, for determining any significant adverse impacts from the project upon the environment.

1. Does the proposed General Plan 2023 meet City of Manteca LOS standards for local roadways?

For the local roadways, LOS will be assessed using a two-tier approach based on the language from the General Plan 2023 policies. First, every roadway segment must meet LOS D at a minimum. Second, one-half of the Study Area roadway segments must operate at LOS C or better in order to achieve the "LOS C Average" policy. If these two criteria are not met, then a significant impact is judged to occur.

2. Does the proposed General Plan 2023 meet City of Manteca LOS standards for intersections?

Intersection operations will be assessed using the approach outlined above. Each intersection must operate at LOS D or better. Also, one-half of the Study Area intersections must operate at LOS C or better.

3. Does the proposed General Plan 2023 meet SJCOG LOS standards for regional roadways?

LOS D is the standard for regional roadways. In terms of this analysis, regional roadways are defined to be the three freeway facilities directly adjacent to the City of Manteca (Interstate 5, State Route 99, and State Route 120). If the incremental growth in traffic from the proposed General Plan 2023

causes the traffic volumes to exceed LOS D, then a significant impact will be identified. Impacts are not identified when the roadway would exceed LOS D under the No Project condition.

4. Does the proposed General Plan 2023 conflict with regionally adopted transportation goals or policies?

A significant impact will be assessed if an element of the proposed General Plan 2023 conflicts with regional goals and policies related to transportation.

5. Does the proposed General Plan 2023 impede the operations of alternate travel modes including transit, bicycles, and pedestrians?

A significant impact will be identified if the proposed General Plan 2023 negatively impacts non-automotive modes including transit, bicycles, and pedestrians.

15.8 IMPACTS AND MITIGATION

This section presents the results of the impact analysis. This impact analysis addresses the extent to which the proposed General Plan 2023 creates significant impacts on both the local and regional roadway and transportation network. This section also addresses the extent to which the proposed General Plan 2023 may create impacts on other modes of transportation including transit, bicycles, and pedestrians.

POTENTIAL IMPACT TC-1: Planned development in the General Plan 2023 may not meet City of Manteca LOS standards for local roadways.

For analysis purposes, these roadways are limited to the major arterials within the City of Manteca. The LOS daily volume thresholds from Table 15-2 were applied to the future volumes. The results of this application are shown in Table 15-10. Figure 15-10 shows the LOS results by location.

Level of Significance: Potentially Significant

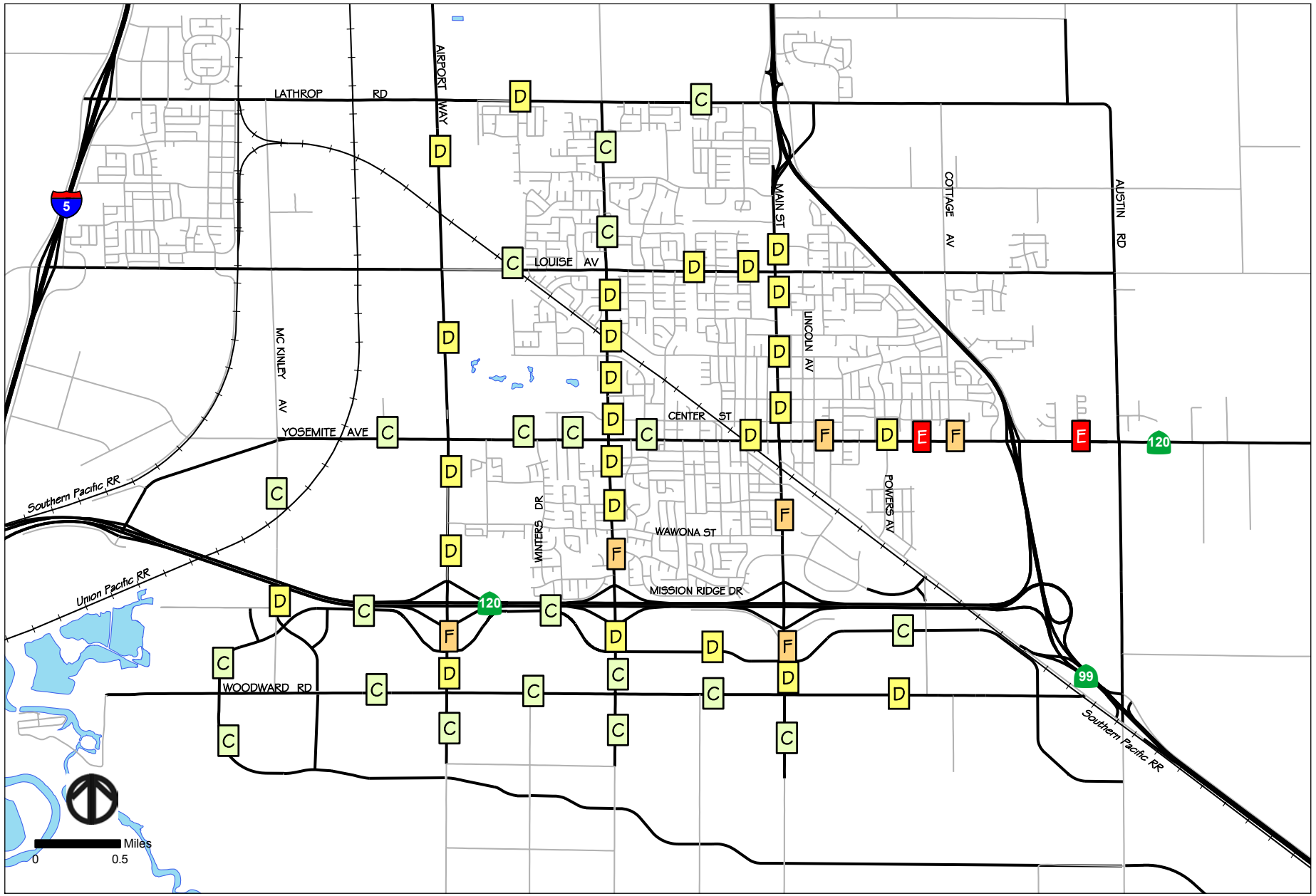
Table 15-10

Future Roadway LOS

Roadway	Between	Existing Lanes	Future Lanes	2025 Forecast	V/C Ratio	New LOS
McKinley Avenue	Yosemite to 120	2	4	12400	0.38	C
	120 to Atherton	2	6	41400	0.84	D
	Atherton to Woodward	2	6	23600	0.48	C
	Woodward South	2	4	15700	0.48	C
Airport Way	Lathrop to Louise	2	6	39700	0.81	D
	Louise to Yosemite	2	6	45800	0.93	D
	Yosemite to Wawona	2	6	44700	0.91	C
	Wawona to SR 120	2	6	44700	0.91	D
	SR 120 to Atherton	2	6	59200	1.20	F
	Atherton to Woodward	2	6	39700	0.81	D
	Woodward South	2	6	29300	0.59	C
Union Road	Lathrop to Northgate	4	4	21300	0.65	C
	Northgate to Louise	4	4	21400	0.65	C
	Louise to Alameda	4	4	28800	0.88	D
	Alameda to Crom	4	4	26900	0.82	D
	Crom to Center	4	4	28900	0.88	D
	Center to Yosemite	4	4	31200	0.95	D
	Yosemite to Wawona	4	4	25100	0.76	D
	Wawona to Mission Ridge	4	4	24400	0.74	D
	Mission Ridge to SR 120	2	4	37500	1.14	F
	SR 120 to Atherton	2	6	46500	0.94	D
	Atherton to Woodward	2	4	16700	0.51	C
	Woodward South	2	4	17000	0.52	C
Main Street	Northgate to Louise	4	6	36400	0.74	D
	Louise to Alameda	4	6	27100	0.82	D
	Alameda to North	4	4	25300	0.77	D
	North to Center	2	4	22900	0.70	D

	Center to Yosemite	4	4	23600	0.72	D
	Yosemite to SR 120	4	4	42500	1.29	F
	SR 120 to Atherton	4	6	57400	1.16	F
	Atherton to Woodward	4	6	34800	0.71	D
	Woodward South	2	6	30800	0.62	C
Woodward	McKinley to Airport	2	4	16300	0.50	C
	Airport to Union	2	4	15600	0.47	C
	Union to Main	2	4	18000	0.55	C
	Main to Austin	2	4	24700	0.75	D
Atherton	McKinley to Airport	N/A	4	21300	0.65	C
	Airport to Union	N/A	4	17800	0.54	C
	Union to Main	N/A	4	23200	0.71	D
	Main to Woodward	N/A	4	20200	0.61	C
Yosemite	McKinley to Airport	2	6	26400	0.54	C
	Airport to Winters	2	6	30500	0.62	C
	Winters to Union	2	6	26700	0.54	C
	Union to Walnut	4	4	16700	0.51	C
	Walnut to Main	2	2	11700	0.75	D
	Main to Fremont	2	2	17000	1.09	F
	Fremont to Powers	2	4	23600	0.72	D
	Powers to Cottage Ave.	4	4	32400	0.98	E
	Cottage ro SR 99	4	4	36100	1.10	F
	SR 99 to Austin	2	4	31800	0.97	E
Louise Avenue	Airport to Union	4	4	21400	0.65	C
	Union to Elm	4	4	29400	0.89	D
	Elm to Main	4	4	30300	0.92	D
Lathrop Road	Airport to Union	2	4	23400	0.71	D
	Union to Main	2	4	21400	0.65	C

Source: Fehr & Peers Associates, May 2003



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FUTURE ROADWAY LOS RESULTS

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FIGURE 15-10

Mitigation Measures:

TC-1.1: The Circulation Element (Section 4) of the General Plan 2023 includes, among others, the following policies (P) to meet the standards for local roadways:

C-P-1: The City shall strive to attain the highest possible traffic levels of service (LOS) consistent with the financial resources available and the limits of technical feasibility. The impact of new development and land use proposals on LOS should be considered in the review process.

C-P-2 Manteca's target for transportation LOS is to provide **("citywide average" removed)** LOS of C or better, and a minimum of LOS D at any individual location. LOS C, LOS D and the other Level of Service ratings as defined in current traffic engineering standards. This "LOS C average, LOS D minimum" shall be accomplished by attempting to provide LOS C at all locations, but accepting LOS D under the following circumstances:

- Where constructing facilities with enough capacity to provide LOS C is found to be unreasonably expensive. This applies to facilities, for example, on which it would cost significantly more per dwelling unit equivalent (DUE) to provide LOS C than to provide LOS D.
- Where it is difficult or impossible to maintain LOS C because surrounding facilities in other jurisdictions operate at LOS D or worse.
- Where free-flowing roadways or interchange ramps would discourage use of alternate travel modes.
- Where maintaining LOS C will be a disincentive to use of existing alternative modes or to the implementation of new transportation modes that would reduce vehicle travel.

As stated previously, the daily LOS standards are general guidelines and are not as accurate as more detailed intersection analyses. However, many of the segments exceed the LOS C threshold by 30-40%; therefore it is not likely that these impacts are within the normal tolerances of the LOS thresholds.

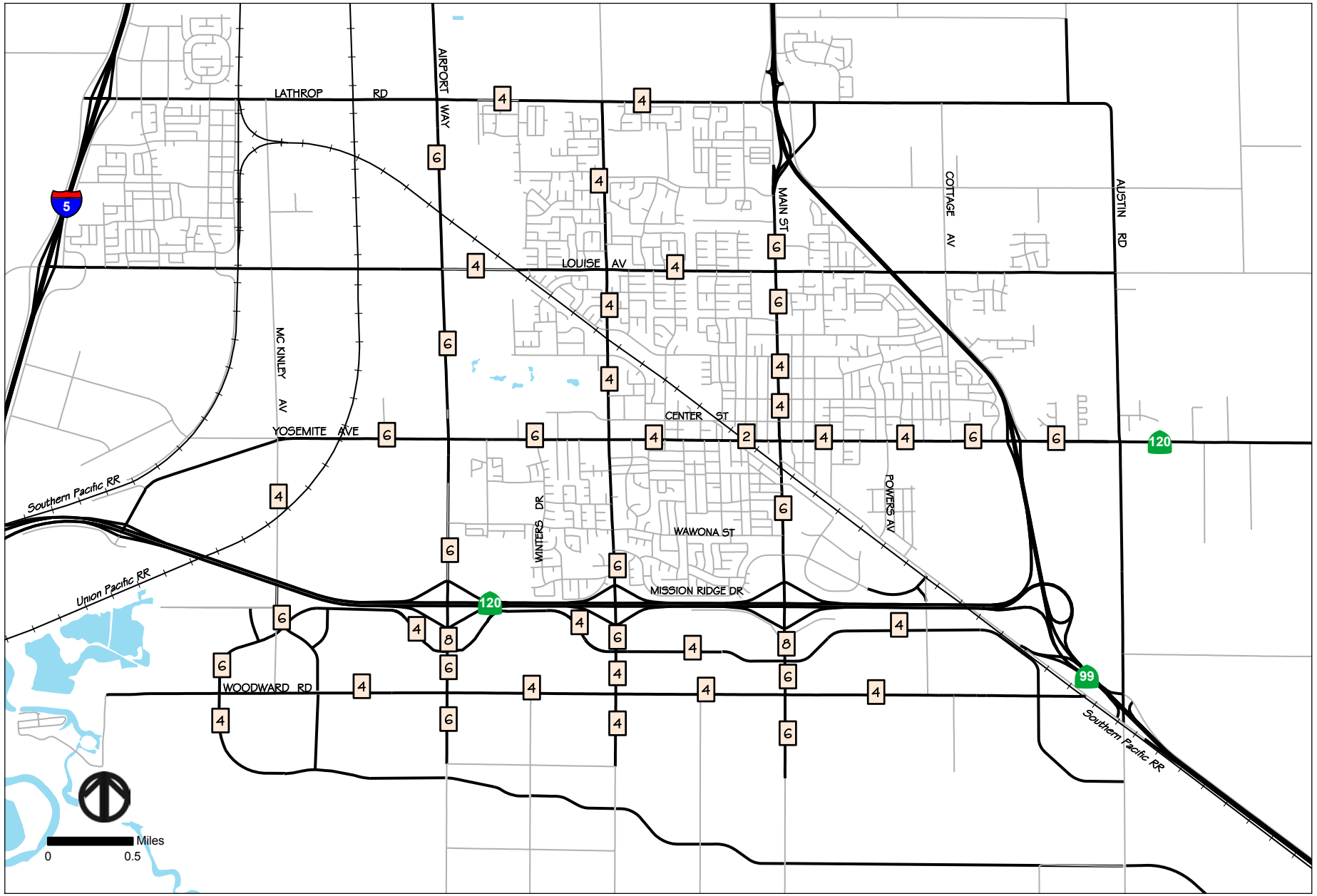
Based on the significance criteria above and the comparison to the existing 1988 General Plan, the proposed General Plan 2023 is inconsistent with the adopted goals and policies because several

segments do not meet the LOS D minimum and a majority of the roadways do not operate at LOS C (only 17 of 55 segments operate at LOS C). A total of eight segments do not meet LOS D standards.

Each of these deficient segments could be mitigated through widening each segment from its existing or projected laneage. The widening required improving the roadway segment LOS from E or F to D is listed below:

- Airport Way (SR 120 to Atherton)- Widen from six to eight lanes
- Union Road (Mission Ridge to 120)- Widen from four to six lanes
- Main Street (Yosemite to SR 120)- Widen from four to six lanes
- Main Street (SR 120 to Atherton)- Widen from six to eight lanes
- Yosemite (Main to Fremont)- Widen to 4 lanes
- Yosemite (Powers to Cottage)- Widen to 6 lanes
- Yosemite (Cottage to SR 99)- Widen to 6 lanes
- Yosemite (SR 99 to Austin)- Widen to 6 lanes

In most cases, these improvements occur in areas yet to be developed (south of State Route 120) or along roadways that will be widened (Yosemite Avenue). The one improvement that would be difficult to implement would be the widening of Yosemite to the east of Main Street. These improvements are shown on Figure 15-11.



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LANEAGE AFTER LOS D MITIGATIONS

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FIGURE 15-11

Widening the following three roadway segments will enable the proposed General Plan 2023 to meet the LOS C average on half of the roadway segments. These improvements include:

- McKinley Avenue (SR 120 to Atherton)- Widen to 8 lanes
- Airport Way (Atherton to Woodward)- Widen to 8 lanes
- Main Street (Atherton to Woodward)- Widen to 8 lanes

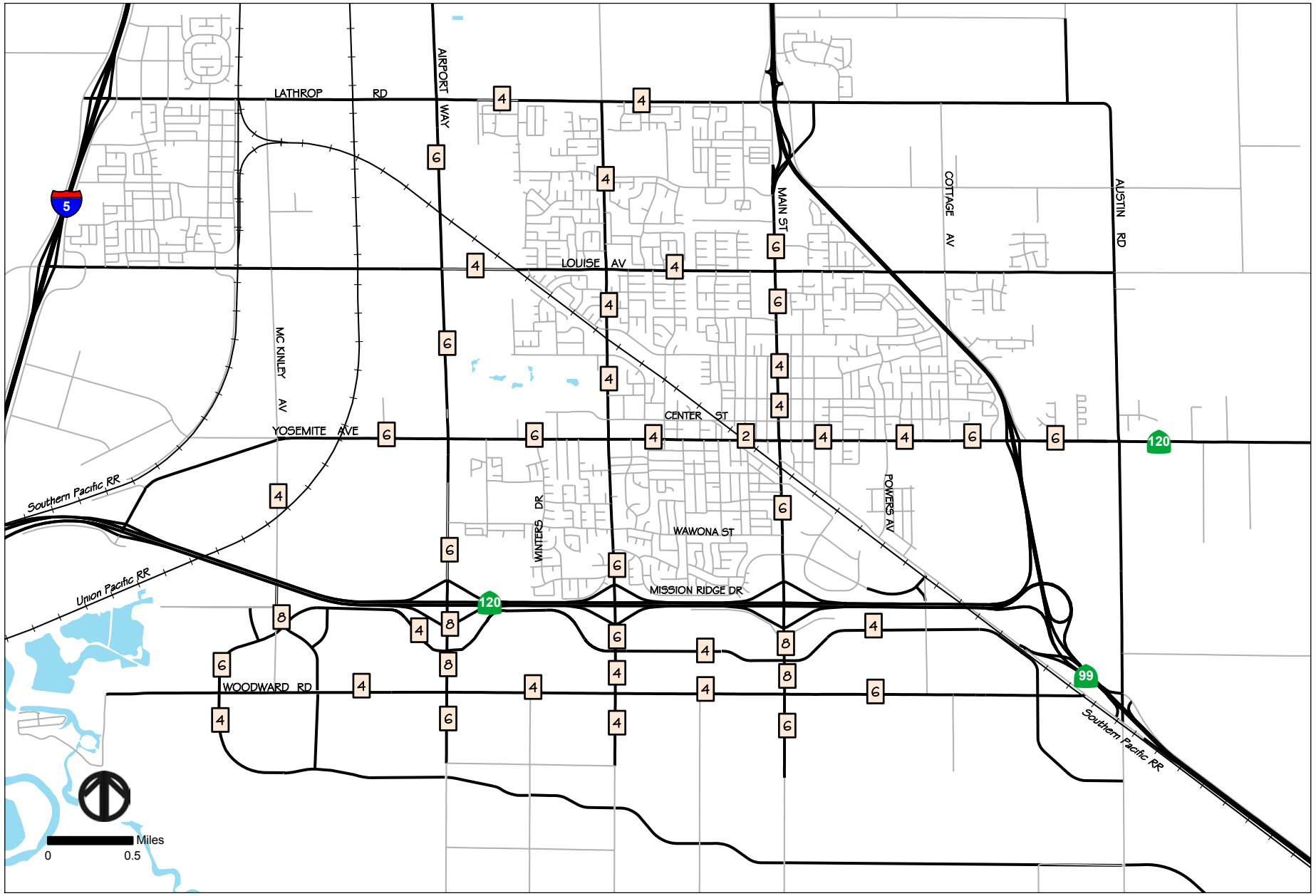
The three improvements can be considered feasible given that these roadways will be widening concurrent with the projected development of SR 120. There are no right-of-way considerations given that this land is currently unoccupied.

With this last set of roadway improvements, the proposed General Plan 2023 achieves internal consistency by having a roadway system to that matches the LOS policy in the General Plan 2023. These improvements are shown on Figure 15- 12. The LOS for these segments is shown on Table 21 in the *City of Manteca General Plan Transportation Analysis, Fehr & Peers, May 2003,* available for review at the City of Manteca Community Development Department.

Revising the LOS policy in the Circulation Element can obviate these last three roadway improvements. By removing the phrase "city-wide average", the policy would still indicate that LOS C is the target and LOS D is the minimum. Such a change in the policy would also remove any ambiguities regarding the LOS policy of the City.

Residual Level of Significance: Less Than Significant With Mitigation

Implementation of the General Plan 2023 policies, together with the traffic improvements detailed above, will help ensure that the General Plan 2023 will meet the standards for local roadways.



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LANEAGE AFTER LOS C MITIGATIONS

FIGURE 15-12

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POTENTIAL IMPACT TC-2: **Planned development in the General Plan 2023 may not meet City of Manteca LOS standards for local intersections.**

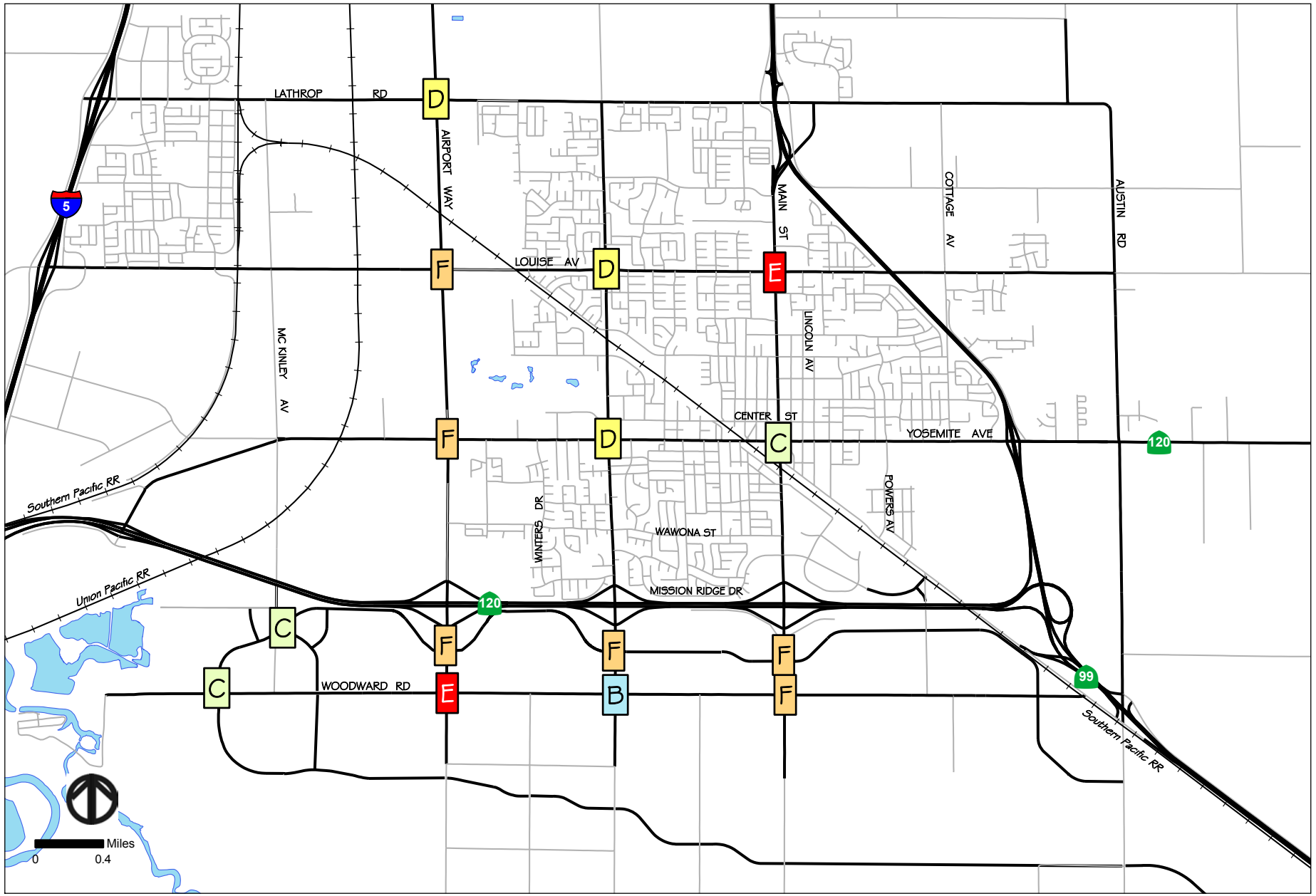
As shown in Table 15-11, eight of the fifteen Study Area intersections operate at LOS D or worse with the incremental traffic from the General Plan 2023. Mitigation includes potential changes to the operations of these intersections.

Table 15-11

2025 PM Levels of Service

Intersection	Control	PM LOS
1. Airport Way / Lathrop Road	Signalized	D
2. Union Road / Louise Avenue	Signalized	D
3. Main Street / Louise Avenue	Signalized	E
4. Union Road / Yosemite Avenue	Signalized	D
5. Main Street / Yosemite Avenue	Signalized	C
6. Airport Way / Louise Avenue	Signalized	F
7. Airport Way / Yosemite Avenue	Signalized	F
8. McKinley Avenue / Atherton	Signalized	C
9. Airport Way / Atherton	Signalized	F
10. Union Road / Atherton	Signalized	F
11. Main Street / Atherton	Signalized	F
12. McKinley Avenue / Woodward Avenue	Signalized	C
13. Airport Avenue / Woodward Avenue	Signalized	E
14. Union Road / Woodward Avenue	Signalized	B
15. Main Street / Woodward Avenue	Signalized	F

Source: Fehr & Peers Associates, May 2003



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FUTURE ROADWAY LOS RESULTS

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FIGURE 15-13

Level of Significance: Potentially Significant

Mitigation Measures:

TC-2.1: The Circulation Element policies (P) listed above in Potential Impact TC-1 address LOC standards, which also apply to local intersections.

TC-2.2: Improvements to the impacted intersections can allow LOS D operations or better.

As shown in Table 15-12, the fifteen Study Area intersections can be improved to allow LOS D operations or better. These improvements include any widening of the main-line segments as proposed to bring the roadway segments to LOS D and specific intersection improvements that will improve the operations of the intersection. These specific improvements include:

- Adding dual-left turn lanes on Lathrop Road at Airport Way / Lathrop Road
- Adding dual-left turn lanes on Louise Avenue at Main Street / Louise Avenue
- Adding dual-left turn lanes on Union Road and Yosemite Avenue at Union Road / Yosemite Avenue
- Adding dual-left turn lanes and dual right-turn lanes on Louise Avenue at Airport Way / Louise Avenue
- Adding dual-left turn lanes on Atherton at Airport Way / Atherton Road
- Adding dual-left turn lanes on Union Road and Atherton Road at Union Road / Atherton
- Adding dual-left turn lanes on Atherton at Main Street / Atherton Road
- Adding dual-left turn lanes on Woodward Avenue at Airport Way / Woodward Avenue
- Adding dual-left turn lanes on Woodward Avenue at Main Street / Woodward Avenue

Using the estimated turn volumes, City LOS requirements for both individual intersections and the citywide area can be satisfied with these intersection improvements. In general, these improvements are feasible given that many of the proposed roadways will be widened as part of future roadway projects envisioned by the PFIP and the RTP.

Table 15-12

2025 PM Intersection Levels of Service

Intersection	Control	PM LOS
1. Airport Way / Lathrop Road	Signalized	C
2. Union Road / Louise Avenue	Signalized	D
3. Main Street / Louise Avenue	Signalized	D
4. Union Road / Yosemite Avenue	Signalized	C
5. Main Street / Yosemite Avenue	Signalized	C
6. Airport Way / Louise Avenue	Signalized	C
7. Airport Way / Yosemite Avenue	Signalized	D
8. McKinley Avenue / Atherton	Signalized	D
9. Airport Way / Atherton	Signalized	D
10. Union Road / Atherton	Signalized	B
11. Main Street / Atherton	Signalized	D
12. McKinley Avenue / Woodward Avenue	Signalized	D
13. Airport Avenue / Woodward Avenue	Signalized	C
14. Union Road / Woodward Avenue	Signalized	B
15. Main Street / Woodward Avenue	Signalized	C

Source: Fehr & Peers Associates, May 2003

Residual Level of Significance: Less Than Significant With Mitigation

Implementation of the General Plan 2023 policies, together with the intersection improvements detailed above, the General Plan 2023 will meet the standards for local intersection.

POTENTIAL IMPACT TC-3: Planned development in the General Plan 2023 may not meet SJCOG LOS standards for regional roadways.

As stated previously, the LOS standard for regional roadways are LOS D. Generally, a majority of the regional roadway segments adjacent to the City of Manteca will operate at that level or above. Only four of the fourteen regional roadway segments will operate at LOS D or better. The future volumes for both the No Project and With Project condition are shown in Table 15-13.

Table 15-13

2025 Freeway Operations

			2025 Volumes		Capacity	Capacity	Capacity	LOS	
Freeway	**Segment**	**Lanes**	**No Project**	**With Project**	**LOS C**	**LOS D**	**LOS E**	**No Project**	**With Project**
I-5	I-205 to SR 120	8	238,000	279,000	115,300	140,200	156,000	F	F
	SR 120 to Louise	6	157,000	154,800	81,700	105,000	120,200	F	F
	Louise to Lathrop	6	152,000	153,500	81,700	105,000	120,200	F	F
	North of Lathrop	6	159,000	148,000	81,700	105,000	120,200	F	F
SR-120	I-5 to Yosemite	6	119,000	148,100	81,700	105,000	120,200	E	F
	Yosemite to McKinley	6	113,000	107,000	81,700	105,000	120,200	E	E
	McKinley to Airport	6	95,000	113,900	81,700	105,000	120,200	D	E
	Airport to Union	6	114,000	114,000	81,700	105,000	120,200	E	E
	Union to Main	6	118,000	115,000	81,700	105,000	120,200	E	E
	Main to SR 99	6	98,000	99,100	81,700	105,000	120,200	D	D
SR-99	North of Lathrop	6	92,000	100,800	81,700	105,000	120,200	D	D
	Lathrop to Yosemite	6	76,000	81,600	81,700	105,000	120,200	C	C
	Yosemite to SR 120	6	98,000	108,900	81,700	105,000	120,200	E	E
	South of SR 120	6	111,000	147,600	81,700	105,000	120,200	E	F

Source: Fehr & Peers Associates, May 2003

Level of Significance: Potentially Significant

The freeway volumes with the proposed land use in the proposed General Plan 2023 are generally equal to or higher than the volumes associated with the previous (1988) General Plan. Large differences in volumes are attributable to traffic associated with large projects included in Manteca (business park south of McKinley) and other projects included in the background. For instance, these projections include traffic from the Landmark Logistic Center (LLC), a large mixed-use project approved in the City of Lathrop.

However, many of these roadway segments will operate at deficient levels of service under both the No Project and Project Condition. However, one segment of SR-120 will operate at a worse level than the No Project Condition. This segment, McKinley to Airport, will operate at LOS E under the Project Condition (LOS D under the No Project Condition). Therefore, there is a significant impact at this location.

This is one significant impact identified on regional roadways. This impact was identified on State Route 120, for the segment from McKinley Avenue to Airport Road. One factor contributing to this impact is the access provided to a proposed business park south of McKinley Avenue. Another factor contributing to these traffic volumes are the region-wide population and employment growth. This roadway segment exceeds the LOS D threshold by approximately 8%. Please note that this impact occurs with the buildout of the General Plan 2023, which represents significant population and employment growth in the City of Manteca. This buildout scenario incorporates a worst-case significant population and employment growth, which vastly exceeds the regional forecasts. These impacts are therefore conservative and will only occur if the City meets its anticipated growth forecasts.

Given that the City lacks the resources and authority to widen State Route 120 directly, other mitigations measures are needed. Mitigations for this impact include:

Mitigation Measures:

TC-3.1: **Travel Demand Management:** The Circulation Element includes several policies (P) and implementation measures (I) aimed at encouraging alternate modes. These include:

C-I-15 The City shall establish a requirement for a transportation demand management program in any business park, industrial or commercial land use that employs more than 50 full time equivalent employees.

Transit Use: The Circulation Element encourages transit use, including the following policies (P):

C-P-49 The City shall encourage the use of local transportation services, such as jitneys, local shuttles and commuter buses.

C-P-52 The City shall promote the development of park-and-ride facilities near I-5, SR 120, and SR 99.

Bicycle/Pedestrian Use- The Circulation Element encourages bicycle/pedestrian use, including the following policy (P):

C-P-33 The City <u>shall</u> ~~should~~ establish a safe and convenient network of identified bicycle routes connecting residential areas with recreation, shopping, and employment areas within the city". By establishing

this network, the City of Manteca is encouraging bicycle use in the City. This policy is currently being implemented through ~~the update of~~ the City's Bicycle Master Plan.

Participation Regional Cost-Sharing Program: SJCOG is conducting a study regarding the implementation of a region wide traffic fee. The City of Manteca has supported this effort by participating in the study regarding this fee. The City should continue to support similar efforts to develop a mechanism to share the cost of regional transportation improvements when such an effort fairly allocates the costs and benefits of projects through an appropriate nexus-based study. These cost-sharing efforts could be addressed through both region-wide efforts and sub-regional efforts. A sub-regional cost sharing approach could consist of a program to allocate improvement costs to only a limited number of adjacent cities (Tracy, Lathrop, Manteca only) or cities utilizing a particular corridor (I-205).

Several factors contribute to this impact and other impacts on the roadways. These factors include regional population growth and a continuing travel outside of the regional for employment. By allocating significant lands for population, the City of Manteca is providing jobs for the residents of San Joaquin County, including Manteca residents.

While the proposed General Plan 2023 is increasing traffic volumes on regional roadways, the inclusion of significant employment opportunities is addressing one of the region's key transportation issues; namely the ever increasing commute required for San Joaquin County residents.

Residual Level of Significance: Less Than Significant With Mitigation

Implementation of the Circulation Element policies and implementation measures, together with continued participation in the SJCOG Regional Cost-Sharing Program, will help ensure that the General Plan 2023 will meet SJCOG LOS standards for regional roadways.

POTENTIAL IMPACT TC-4: Planned development in the General Plan 2023 could conflict with regionally adopted transportation goals and policies.

Level of Significance: Less Than Significant

As judged by the four major policies contained in the SJCOG RTP, the proposed General Plan 2023 does not conflict with the regional transportation goals and policies.

The first policy states, "Design a transportation system that meet the travel needs of both citizens and businesses". The future transportation plan contains goals and policies oriented towards all travel

modes. The proposed General Plan 2023 includes significant improvements to roadways and bicycle and pedestrian facilities. With the circulation network in the General Plan 2023, the City provides LOS D or better on all roadway segments. Therefore, the proposed General Plan 2023 generally meets the travel needs of citizens and businesses.

The second SJCOG RTP policy states, "Design a transportation system that will improve the environment or minimize environmental impacts". A majority of the proposed roadway improvements occur to existing roadways. There are minimal new roadways proposed in the General Plan 2023. These roads include Atherton (a new 4-lane arterial between SR 120 and Woodward Avenue) and an unnamed collector roadway south of Woodward Avenue. Because a majority of the road improvements occur to existing roadways, these improvements will have minimal environmental impacts.

The third major policy in the RTP states, "Design an efficient, safe, and economical transportation system". The transportation outlined in the proposed General Plan 2023 can be considered to be efficient and safe. Delay is minimized even with significant population and employment growth. Therefore, the proposed circulation plan can be considered to efficient, safe, and economical.

The final major policy in the RTP states, "Effectively implement the transportation system". The key to effectively implementing the transportation system is the City's Public Facilities Implementation Plan that assesses fees on develops. Portions of these fees are allocated to roadway improvements. Consequently, the City of Manteca has the ability to effectively implement the construction of its transportation system.

Based on the above factors, there are no contradictions between the proposed General Plan 2023 and the adopted policies of the SJCOG RTP.

Therefore, there is no significant impact.

POTENTIAL IMPACT TC-5: Planned development in the General Plan 2023 could impede the operations of alternate travel modes including transit, bicycles, and pedestrians.

Level of Significance: Less Than Significant

The General Plan 2023 Circulation Element addresses alternate modes through a variety of statements. These statements support the development and use of alternative modes include transit, bicycling, and walking. For the purposes of the EIR analysis, a significant impact is assumed to occur if the goals and policies of the General Plan 2023 impede the use of an alternate mode.

The use of transit is addressed through several goals and policies in the Proposed Circulation Element. In general, these policies encourage the use of a variety of transit systems, such as ACE and regional transit given that the establishment of a local transit system would be beyond the ability of the City

of Manteca. Please note that there is a regional study underway regarding unmet transit needs in Manteca. The San Joaquin Regional Transit District is performing this study. Because these goals and policies do not impede the use of transit, there is no significant impact.

Therefore, the Goals and Policies indicate a preference for off-street bicycle facilities as opposed to in-street bicycle lanes. These Goals and Policies conflict with statements made in the description of arterial facilities in the Circulation Element. This description states, "All new arterial streets shall be designed to provide both bike and pedestrian facilities on both sides of the street". This discrepancy is minor but should be resolved prior to publication of the General Plan 2023.

A review of the goals, policies, and implementation measures indicates that the General Plan 2023 promotes the use of bicycles and walking to the extent possible; therefore there is no significant impact.