

5.16 TRANSPORTATION AND TRAFFIC

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for implementation of the City of Menifee General Plan to result in transportation and traffic impacts in the City. The analysis in this section is based in part on the following technical report.

- *City of Menifee General Plan Circulation Element Traffic Study, Urban Crossroads, July 22, 2013.*

A complete copy of this study is included in Appendix I of this DEIR.

Traffic Analysis Methodology

The work scope for the traffic study, including the base assumptions, technical methodologies, and geographic coverage, was developed in conjunction with City staff and is in accordance with the Congestion Management Program (CMP) for Riverside County and California Department of Transportation (Caltrans) traffic impact analysis guidelines.

To address Caltrans study requirements, all freeway on/off-ramp intersections with arterials were evaluated by applying the 2000 Highway Capacity Manual (HCM) methodology for calculating levels of service at signalized and unsignalized freeway on/off-ramp intersections with arterials.

The City of Menifee Focused Version of the Riverside Transportation Analysis Model (RivTAM) has been developed to evaluate the trip-making characteristics and resulting travel patterns of the Menifee General Plan. In order to accomplish this, the land uses in the City of Menifee were converted to socioeconomic data, the roadway network was updated, and the model processes were performed. The resulting forecasts were evaluated to determine appropriate circulation system features. Detailed level of service analyses were conducted using the TRAFFIX 8.0 computer program.

Intersection Level of Service

Level of Service (LOS) qualitatively measures the operating conditions within a traffic system and how drivers and passengers perceive these conditions. Level of service ranges from LOS A to LOS F, with A representing the best traffic-flow conditions and F representing poor conditions. LOS A indicates free-flowing traffic and LOS F indicates substantial congestion with stop-and-go traffic and long delays at intersections. LOS D is typically recognized as the minimum satisfactory service level in urban areas.

The HCM methodology was used to determine the LOS for all study area intersections. Based on the HCM method of analysis, LOS for intersections is defined in terms of average control delay per vehicle, which is a measure of driver discomfort, frustration, fuel consumption, and lost travel time. The HCM LOS criteria for signalized intersections are shown in Table 5.16-1. The HCM methodology was also applied in the analysis of unsignalized study area intersections. The HCM stop-control methodology determines the delay and level of service of each approach separately. The vehicle total delay on any approach is primarily a function of the volume on the subject approach, and secondarily a function of the volume on the opposing and conflicting approaches. Level of service definitions for unsignalized intersections per the HCM are described in Table 5.16-2.

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**Table 5.16-1
Level of Service Criteria for Signalized Intersections (HCM)**

| Level of Service | Control Delay Per Vehicle (seconds/vehicle) | Level of Service Description |
|-------------------------|--|--|
| A | 0 to 10.00 | This level of service occurs when progression is extremely favorable and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay. |
| B | 10.01 to 20.00 | This level generally occurs with good progression, short cycle lengths, or both. More vehicles stop than with LOS A, causing higher levels of average delay. |
| C | 20.01 to 35.00 | Average traffic delays. These higher delays may result from fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level, though many still pass through the intersection without stopping. |
| D | 35.01 to 55.00 | Long traffic delays At level D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high v/c ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable. |
| E | 55.01 to 80.00 | Very long traffic delays This level is considered by many agencies to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures are frequent occurrences. |
| F | 80.01 and up | Severe congestion This level, considered to be unacceptable to most drivers, often occurs with over saturation, that is, when arrival flow rates exceed the capacity of the intersection. It may also occur at high v/c ratios below 1.0 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing factors to such delay levels. |

Source: Urban Crossroads, 2013.

**Table 5.16-2
Level of Service Criteria for Unsignalized Intersections (HCM)**

| Level of Service (LOS) | Highway Capacity Manual Delay Value (seconds/vehicle) | Level of Service Description |
|-----------------------------------|--|-------------------------------------|
| A | 0 to 10.00 | Little or no delay |
| B | 10.01 to 15.00 | Short traffic delays |
| C | 15.01 to 25.00 | Average traffic delays |
| D | 25.01 to 35.00 | Long traffic delays |
| E | 35.01 to 50.00 | Very long traffic delays |
| F | > 50.0 | Severe congestion |

Source: Urban Crossroads, 2013.

Roadways Segments and Freeway Mainlines Volumes and Capacities

For roadway segments and freeway mainlines, LOS analysis are based on daily roadway capacities. The roadway segment analysis compares the average daily traffic (ADT) volume with the capacity to arrive at a volume to capacity or V/C ratio. Table 5.16-3 presents the City of Menifee roadway segment capacities and LOS thresholds for each facility type. The roadway segment vehicle capacity thresholds represent the maximum two-way average daily traffic volume for LOS “E” conditions and are based on the 2001 County of Riverside General Plan Circulation Element Link Volume Capacities. Based on the V/C ratio, each study area roadway segment is classified into one of four categories: Acceptable (V/C 0.00–0.79), Approaching Capacity (V/C 0.80–1.00), Potentially Exceeds Capacity (V/C 1.01–1.25), and Exceeds Capacity (V/C > 1.26).

**Table 5.16-3
Roadways Segment Vehicle Capacity Thresholds**

| Roadway Classification | Number of Through Lanes | Right-of-Way Width (feet) | Roadway Capacity (Average Daily Traffic) |
|-------------------------------|--------------------------------|----------------------------------|---|
| Collector | 2 | 74 | 13,000 |
| Secondary | 4 | 100 | 25,900 |
| Major | 4 | 118 | 34,100 |
| Arterial | 4 | 128 | 35,900 |
| Mountain Arterial | 4 | 110 | 37,200 |
| Urban Arterial | 6 | 152 | 53,900 |
| Expressway | 6 | 184 | 61,300 |
| Expressway | 8 | 184 | 81,700 |
| Freeway | 4 | Caltrans | 76,500 |
| Freeway | 6 | Caltrans | 117,500 |

Source: Urban Crossroads, 2013.

Significant Traffic Impact Criteria

Roadway Segments

The roadway segment analysis compares the ADT volume with the capacity to arrive at a volume to capacity or V/C ratio. There are no established City of Menifee, County of Riverside, or Caltrans thresholds for roadway segment operations.

The roadway segment analysis is presented as a planning tool to assess the adequacy of the existing and proposed General Plan Circulation Element functional roadway classifications. This information is used in combination with a review of the expected traffic demands, access restrictions, and physical constraints. Since the LOS for each roadway segment is largely a function of the adjacent intersection operations, it is important to consider the intersection LOS in combination with the roadway segment V/C ratios. If the adjacent intersections are operating at an acceptable LOS during peak hour conditions, then it is likely that the roadway segment will also operate at an acceptable LOS even if the V/C ratio indicates that the ADT may approach or exceed the roadway capacity. Moreover, if the roadway segment is experiencing capacity constraints and the adjacent intersections are operating at unacceptable LOS, additional through lane capacity is likely required for the roadway segment and the adjacent intersection locations.

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However, CMP facilities are required to meet the minimum LOS E. For the purpose of this analysis, a CMP roadway segment or freeway mainline segment is considered to have a deficiency if the V/C ratio is greater than 0.9, which is the threshold for LOS E.

Intersections

In order to provide a quantitative basis for determining the significant traffic impact at a specific location, it was necessary to establish the criteria to be used in the traffic impact analysis (TIA). As outlined in the TIA, LOS "D" is generally considered acceptable at intersections within the City of Menifee. Caltrans has worked with the County of Riverside to establish a local threshold for freeway-to-arterial interchange intersections of LOS "D", consistent with the County's stated threshold. LOS "D" is considered to be the limit of acceptable traffic operations during the peak hour at the freeway-to-arterial interchange intersections maintained by Caltrans. In summary, an intersection or roadway segment is considered to have an area-wide deficiency or impact if the LOS is E or F.

Analysis Scenarios

The following scenarios were analyzed as part of the TIA:

- **Existing (Year 2012).** The analysis under this scenario is intended to provide a base of analysis for the remainder of the traffic impact analysis. The Existing Year 2012 Condition analysis includes an assessment of the existing streets in the area, current traffic volumes, and operating conditions.
- **2035 RCIP.** The analysis under this scenario reflects the current County of Riverside General Plan Circulation Element that was adopted in 2003 through the Riverside County Integrated Project (RCIP).
- **Post-2035 General Plan Buildout.** The analysis under this phase projects future traffic growth and operating conditions at full buildout of the land uses ultimately envisioned for the City of Menifee at this time and does not correspond to a specific horizon year.
- **Post-2035 General Plan with Expanded EDC.** The analysis under this phase is similar to the Post-2035 General Plan Buildout, with the proposed land use change affecting 197 acres in the southwest corner of the General Plan Study Area, west of Interstate 215 and south of Scott Road.

For clarification, year 2035 is not the actual buildout year for the City, but was selected as a land planning horizon year for purposes of the traffic analysis.

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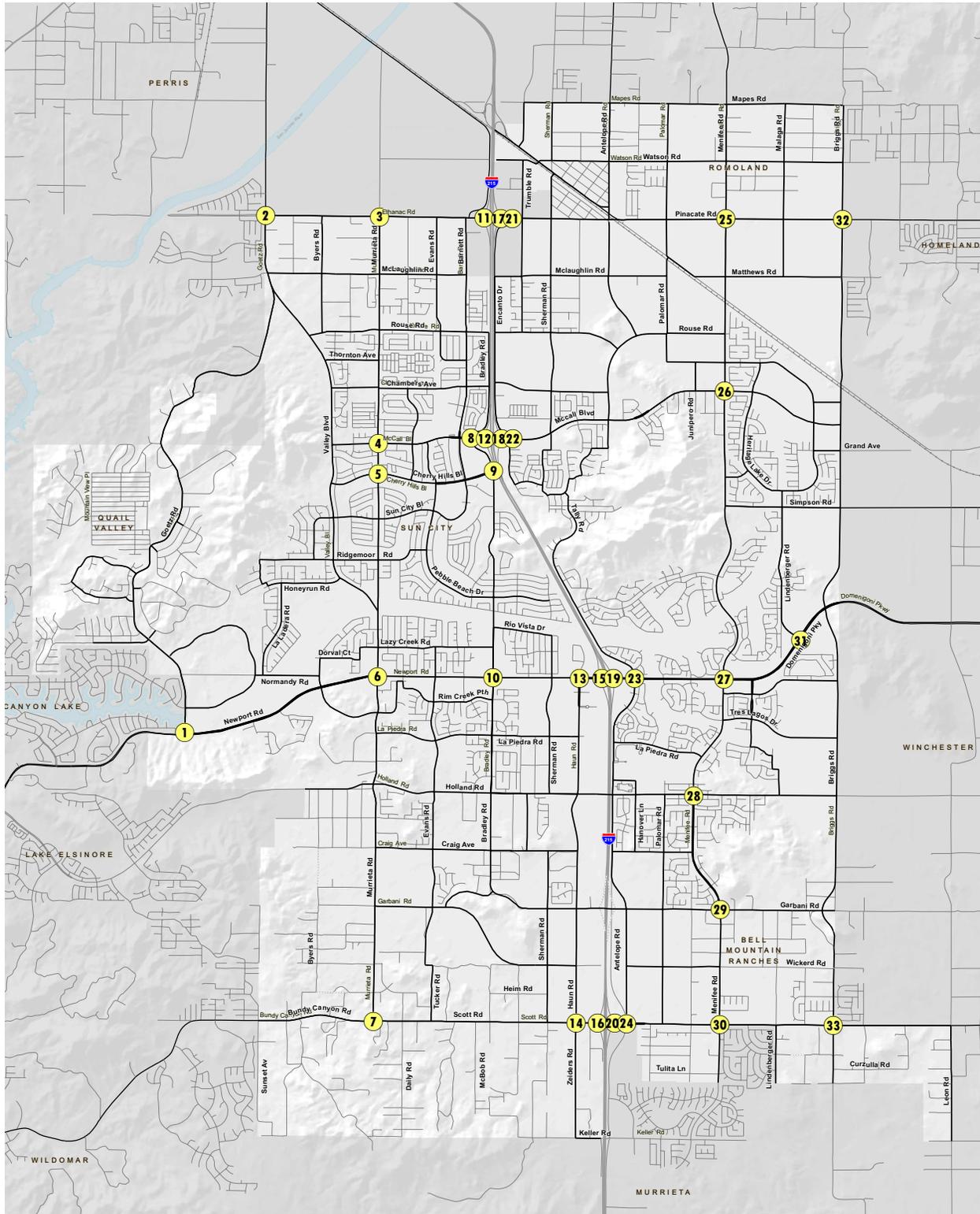
Study Area Intersections and Roadway Segments

As shown in Figure 5.16-1, *Study Area Intersections and Roadway Segments*, 33 study area intersections were selected for detailed peak hour traffic counts and traffic impact/level of service analyses. The intersection analysis is focused on assessing potential traffic impacts during the morning and evening commute peak hours (7:00 AM to 9:00 AM, and 4:00 PM to 6:00 PM, respectively) on a typical weekday. The peak hours during the weekday commute time periods typically correspond to the busiest traffic conditions.

In addition, as shown in Figure 5.16-1, 97 roadway segments were selected for level of service analysis that are based on daily traffic conditions.

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Study Area Intersections and Future Roadway Network



Source: Urban Crossroads 2013

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Existing Transportation Network and Traffic Conditions

Following is an assessment of existing transportation network conditions, which includes an inventory of the street system, truck traffic, transit and rail system, bicycle facilities, traffic volumes (passenger cars and trucks), and traffic operating conditions at analyzed locations.

Existing Street Network

A comprehensive inventory of the street system within the project study area was undertaken as a part of the TIA to develop a detailed description of existing traffic conditions. Figure 5.16-2 presents the number of through travel lanes for existing roadways and the lane configuration and traffic control devices for existing intersections in the study area. In the City of Menifee, roadways are characterized by their functional classification (Class) that defines the level of mobility and access. Freeways such as I-215 Freeway are intended to serve through-traffic traveling relatively long distances. They provide no access to adjacent land except at interchanges. The primary purpose of Arterial Streets such as Newport Road is to move the maximum amount traffic as efficiently and safely as reasonable. On arterial streets, mobility overshadows the need to provide access to fronting properties. Secondary Streets such as Bradley Road serve as a link between local streets and arterial streets. Local streets provide direct access to individual homes that front them.

The I-215 freeway and Salt Creek represent a significant constraint to the roadway network in the City of Menifee. I-215 freeway divides the City by limiting east–west directional access to key interchange locations at McCall Boulevard, Newport Road and Scott Road. In addition, the distance between the Freeway Interchanges range from 2 to 3 miles requiring increased travel in the north–south direction to go across the I-215 freeway. In the north-south direction, the Salt Creek channel also limits the mobility of drivers in the City of Menifee. North-south travel is restricted to key arterial roads with an overpass of the Salt Creek channel, such as Murrieta Road, Bradley Road, Menifee Road, and Lindenberger Road.

Existing Traffic Conditions

To evaluate existing traffic conditions, AM and PM peak hour turning movement counts, and ADT volume counts were collected on arterial highways in the study area in May 2012. Exhibits 4-2, 4-3, and 4-4 of the TIA show the intersection peak hour turn movement volumes during the AM and PM peak hours, and roadway ADT volumes.

Roadway Segments Volume per Capacities Ratios

The roadway segment V/C ratios are approximate figures only, and are used at the General Plan level to assist in determining the roadway functional classification (number of through lanes) needed to meet projected traffic demands. Based on the V/C methodologies and in Table 5.16-3, the existing daily traffic volumes were used in conjunction with existing lane configurations shown on Figure 5.16-2 to determine the current traffic operating conditions at the 97 existing study area roadway segments. Table 5.16-4 provides a summary of the existing (2012) roadway volume per capacity conditions.

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**Table 5.16-4
Existing (2012) Roadways Segments V/C Ratios**

| Roadway | Segment | Through Travel Lanes | Estimated Daily Capacity¹ | Existing (2012) ADT | Volume/Capacity Ratio | Average Daily Vehicle Capacity Threshold² |
|----------------|---------------------------------------|-----------------------------|---|----------------------------|------------------------------|---|
| Goetz Road | North of Ethanac Rd. | 3D | 26,950 | 7,900 | 0.29 | Acceptable |
| | South of Ethanac Rd. | 3D | 26,950 | 8,300 | 0.31 | Acceptable |
| | North of Newport Rd. | 4D | 35,900 | 10,200 | 0.28 | Acceptable |
| Murrieta Road | North of Ethanac Rd. | 2U | 13,000 | 2,400 | 0.18 | Acceptable |
| | South of Ethanac Rd. | 2U | 13,000 | 7,300 | 0.56 | Acceptable |
| | North of McCall Bl. | 4U | 25,900 | 8,600 | 0.33 | Acceptable |
| | Between McCall Bl. & Cherry Hills Bl. | 4U | 25,900 | 7,900 | 0.31 | Acceptable |
| | South of Cherry Hills Bl. | 4U | 25,900 | 8,700 | 0.34 | Acceptable |
| | North of Newport Rd. | 4D | 35,900 | 14,300 | 0.40 | Acceptable |
| | South of Newport Rd. | 3D | 26,950 | 3,900 | 0.14 | Acceptable |
| Bradley Road | North of Scott Rd. | 2U | 18,000 | 6,100 | 0.34 | Acceptable |
| | North of McCall Bl. | 2U | 13,000 | 4,400 | 0.34 | Acceptable |
| Bradley Road | Between McCall Bl. & Cherry Hills Bl. | 4D | 25,900 | 15,600 | 0.60 | Acceptable |
| | South of Cherry Hills Bl. | 2D | 18,000 | 11,100 | 0.62 | Acceptable |
| | North of Newport Rd. | 2D | 18,000 | 13,200 | 0.73 | Acceptable |
| | South of Newport Rd. | 4D | 34,100 | 10,700 | 0.31 | Acceptable |
| | South of Ethanac Rd. | 2U | 13,000 | 3,200 | 0.25 | Acceptable |
| Encanto Road | North of McCall Bl. | 2U | 13,000 | 4,800 | 0.37 | Acceptable |
| | South of McCall Bl. | 2U | 13,000 | 7,800 | 0.60 | Acceptable |
| | North of Newport Rd. | 2D | 18,000 | 10,000 | 0.56 | Acceptable |
| Haun Road | South of Newport Rd. | 4D | 34,100 | 24,800 | 0.73 | Acceptable |
| | North of Scott Rd. | 2U | 13,000 | 8,600 | 0.66 | Acceptable |
| | South of Scott Rd. | 2D | 18,000 | 400 | 0.02 | Acceptable |
| | North of Newport Rd. | 4D | 25,900 | 7,500 | 0.29 | Acceptable |
| Antelope Road | South of Newport Rd. | 4D | 34,100 | 18,700 | 0.55 | Acceptable |
| | North of Scott Rd. | 2U | 13,000 | 13,500 | 1.04 | Potentially Exceeds |
| | South of Scott Rd. | 4D | 34,100 | 17,100 | 0.50 | Acceptable |
| | North of Newport Rd. | 4D | 25,900 | 7,500 | 0.29 | Acceptable |

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**Table 5.16-4
Existing (2012) Roadways Segments V/C Ratios**

| Roadway | Segment | Through Travel Lanes | Estimated Daily Capacity¹ | Existing (2012) ADT | Volume/Capacity Ratio | Average Daily Vehicle Capacity Threshold² |
|----------------------------------|---------------------------------------|-----------------------------|---|----------------------------|------------------------------|---|
| Menifee Road | North of SR-74 (Pinacate Rd.) | 2U | 13,000 | 6,700 | 0.52 | Acceptable |
| | South of SR-74 (Pinacate Rd.) | 4D | 35,900 | 12,000 | 0.33 | Acceptable |
| | North of McCall Bl. | 4D | 35,900 | 11,000 | 0.31 | Acceptable |
| | Between McCall Bl. & Simpson Rd | 4D | 35,900 | 6,400 | 0.18 | Acceptable |
| | North of Newport Rd. | 4D | 35,900 | 6,000 | 0.17 | Acceptable |
| | South of Newport Rd. | 5D | 44,900 | 8,300 | 0.18 | Acceptable |
| | North of Holland Rd. | 4D | 35,900 | 7,000 | 0.19 | Acceptable |
| | South of Holland Rd. | 4D | 35,900 | 6,500 | 0.18 | Acceptable |
| | North of Garbani Rd. | 6D | 53,900 | 6,300 | 0.12 | Acceptable |
| | South of Garbani Rd. | 2U | 13,000 | 6,900 | 0.53 | Acceptable |
| | North of Scott Rd. | 2U | 13,000 | 6,400 | 0.49 | Acceptable |
| South of Scott Rd | 2D | 18,000 | 6,600 | 0.37 | Acceptable | |
| Lindenberger Road | North of Newport Rd. | 2D | 18,000 | 6,500 | 0.36 | Acceptable |
| Briggs Road | North of SR-74 (Pinacate Rd.) | 2U | 13,000 | 3,900 | 0.30 | Acceptable |
| | South of SR-74 (Pinacate Rd) | 3D | 25,600 | 5,700 | 0.22 | Acceptable |
| | North of Scott Rd. | 2D | 18,000 | 700 | 0.04 | Acceptable |
| | South of Scott Rd | 2U | 13,000 | 900 | 0.07 | Acceptable |
| SR-74 (Pinacate Rd./Ethanac Rd.) | West of Goetz Rd. | 6D | 61,300 | 600 | 0.01 | Acceptable |
| | Between Goetz Rd & Murrieta Rd. | 2U | 13,000 | 8,700 | 0.67 | Acceptable |
| | East of Murrieta Rd. | 2U | 13,000 | 10,700 | 0.82 | Approaching |
| | West of I-215 SB Ramp | 3D | 30,700 | 18,900 | 0.62 | Acceptable |
| | Between I-215 SB Ramp & I-215 NB Ramp | 2U | 13,000 | 13,200 | 1.02 | Potentially Exceeds |
| | Between I-215 NB Ramp & Encanto Dr. | 2U | 13,000 | 11,300 | 0.87 | Approaching |
| | East of Encanto Dr. | 2U | 13,000 | 10,200 | 0.78 | Acceptable |
| | West of Menifee Rd. | 4U | 40,900 | 23,300 | 0.57 | Acceptable |
| | East of Menifee Rd. | 4U | 40,900 | 26,300 | 0.64 | Acceptable |
| | West of Briggs Rd. | 4U | 40,900 | 31,500 | 0.77 | Acceptable |
| East of Briggs Rd. | 4D | 40,900 | 28,700 | 0.70 | Acceptable | |

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**Table 5.16-4
Existing (2012) Roadways Segments V/C Ratios**

| Roadway | Segment | Through Travel Lanes | Estimated Daily Capacity¹ | Existing (2012) ADT | Volume/Capacity Ratio | Average Daily Vehicle Capacity Threshold² |
|--------------------------|---------------------------------------|-----------------------------|---|----------------------------|------------------------------|---|
| McCall Boulevard | West of Murrieta Rd. | 2U | 13,000 | 3,200 | 0.25 | Acceptable |
| | East of Murrieta Rd. | 4D | 34,100 | 7,900 | 0.23 | Acceptable |
| | West of Bradley Rd. | 4D | 34,100 | 19,500 | 0.57 | Acceptable |
| | Between Bradley Rd & I-215 SB Ramp | 4D | 34,100 | 31,400 | 0.92 | Approaching |
| | Between I-215 SB Ramp & I-215 NB Ramp | 4D | 34,100 | 29,700 | 0.87 | Approaching |
| | Between I-215 NB Ramp & Encanto Dr. | 4D | 35,900 | 29,800 | 0.83 | Approaching |
| | East of Encanto Dr. | 4D | 35,900 | 21,600 | 0.60 | Acceptable |
| | West of Menifee Rd. | 4D | 35,900 | 13,700 | 0.38 | Acceptable |
| | East of Menifee Rd. | 6D | 53,900 | 4,000 | 0.07 | Acceptable |
| Cherry Hills Boulevard | West of Murrieta Rd. | 2U | 13,000 | 1,400 | 0.11 | Acceptable |
| | East of Murrieta Rd. | 4D | 25,900 | 2,800 | 0.11 | Acceptable |
| | West of Bradley Rd. | 4D | 25,900 | 4,600 | 0.18 | Acceptable |
| Newport Road | West of Goetz Rd. | 4D | 35,900 | 20,600 | 0.57 | Acceptable |
| | East of Goetz Rd. | 6D | 53,900 | 18,000 | 0.33 | Acceptable |
| | West of Murrieta Rd. | 6D | 53,900 | 23,900 | 0.44 | Acceptable |
| | East of Murrieta Rd. | 4D | 35,900 | 29,000 | 0.81 | Approaching |
| | West of Bradley Rd. | 5D | 44,900 | 25,800 | 0.57 | Acceptable |
| | East of Bradley Rd. | 4D | 35,900 | 31,600 | 0.88 | Approaching |
| | West of Haun Rd. | 6D | 53,900 | 36,800 | 0.68 | Acceptable |
| | Between Haun Rd. & I-215 SB Ramp | 6D | 53,900 | 48,500 | 0.90 | Approaching |
| | Between I-215 SB Ramp & I-215 NB Ramp | 4D | 35,900 | 46,500 | 1.30 | Exceeds |
| | Between I-215 NB Ramp & Antelope Rd. | 6D | 53,900 | 52,700 | 0.98 | Approaching |
| | East of Antelope Rd. | 5D | 44,900 | 34,200 | 0.76 | Acceptable |
| | West of Menifee Rd. | 5D | 44,900 | 34,200 | 0.76 | Acceptable |
| | East of Menifee Rd. | 6D | 53,900 | 24,700 | 0.46 | Acceptable |
| | West of Lindenberger Rd. | 6D | 53,900 | 24,900 | 0.46 | Acceptable |
| East of Lindenberger Rd. | 6D | 53,900 | 19,800 | 0.37 | Acceptable | |

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**Table 5.16-4
Existing (2012) Roadways Segments V/C Ratios**

| Roadway | Segment | Through Travel Lanes | Estimated Daily Capacity¹ | Existing (2012) ADT | Volume/Capacity Ratio | Average Daily Vehicle Capacity Threshold² |
|--------------------|---------------------------------------|-----------------------------|---|----------------------------|------------------------------|---|
| Holland Road | West of Menifee Rd. | 4D | 34,100 | 4,400 | 0.13 | Acceptable |
| | East of Menifee Rd. | 4D | 34,100 | 3,100 | 0.09 | Acceptable |
| Garbani Road | West of Menifee Rd. | 4D | 34,100 | 1,100 | 0.03 | Acceptable |
| | East of Menifee Rd. | 2U | 13,000 | 1,100 | 0.08 | Acceptable |
| Scott Road | West of Murrieta Rd. | 2U | 13,000 | 14,000 | 1.08 | Potentially Exceeds |
| | East of Murrieta Rd. | 2U | 13,000 | 11,600 | 0.89 | Approaching |
| | West of Haun Rd. | 2U | 13,000 | 13,600 | 1.05 | Potentially Exceeds |
| | Between Haun Rd. & I-215 SB Ramp | 2U | 13,000 | 20,000 | 1.54 | Exceeds |
| | Between I-215 SB Ramp & I-215 NB Ramp | 2D | 18,000 | 28,000 | 1.56 | Exceeds |
| | Between I-215 NB Ramp & Antelope Rd. | 4D | 35,900 | 35,700 | 0.99 | Approaching |
| | East of Antelope Rd. | 4D | 35,900 | 21,300 | 0.59 | Acceptable |
| | West of Menifee Rd. | 4D | 35,900 | 21,300 | 0.59 | Acceptable |
| | East of Menifee Rd. | 4D | 35,900 | 17,200 | 0.48 | Acceptable |
| | West of Briggs Rd. | 4D | 35,900 | 14,600 | 0.41 | Acceptable |
| East of Briggs Rd. | 2D | 18,000 | 13,400 | 0.74 | Acceptable | |

Source: Urban Crossroads, 2013.

¹ According to the County of Riverside General Plan Circulation Element Link Volume Capacities/Level of Service, March 2001.

² The Average Daily Vehicle Capacity Threshold is determined by the following V/C ratio range: 0.00– 0.79 = "Acceptable", 0.80–1.00 = "Approaching Capacity", 1.01– 1.25 = "Potentially Exceeds Capacity", 1.26+ = "Exceeds Capacity"

Currently, 7 segments out of the total of 97 existing study area roadway segments potentially exceed or exceed the average daily vehicle capacity thresholds:

- Antelope Road south of Newport Road
- Ethanac Road between the I-215 Southbound Ramp and the I-215 Northbound Ramp
- Newport Road between the I-215 Southbound Ramp and the I-215 Northbound Ramp
- Scott Road west of Murrieta Road
- Scott Road west of Haun Road
- Scott Road between Haun Road and the I-215 Southbound Ramp
- Scott Road between the I-215 Southbound Ramp and the I-215 Northbound Ramp

As previously described, the roadway segment analysis is presented as a planning tool to assess the adequacy of the existing and proposed General Plan Circulation Element functional roadway classifications.

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It is important to consider the intersection LOS in combination with the roadway segment V/C ratios, the following presents the intersections level of service in the study area.

Intersections Peak Hour Levels of Service

Based on the LOS methodologies described in the *Intersection Level of Service* section above, the existing peak hour traffic volumes presented in Exhibits 4-2 and 4-3 of the TIA were used in conjunction with existing lane configurations to determine the current traffic operating conditions at the 33 existing study area intersections.

Table 5.16-5 summarizes the Existing Condition peak hour LOS at the 33 existing study area intersections during the weekday AM and PM peak hours.

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**Table 5.16-5
Existing (Year 2012) Intersection Peak Hour Level of Service**

| Intersection | Traffic Control ¹ | Delay ² (secs.) | | Level of Service | |
|--------------------------------------|------------------------------|----------------------------|-----------------|------------------|----------|
| | | AM | PM | AM | PM |
| Goetz Rd / Newport Rd | TS | 19.2 | 23.9 | B | C |
| Goetz Rd / Ethanac Rd | TS | 30.7 | 32.3 | C | C |
| Murrieta Rd / Ethanac Rd | AWS | 14.1 | 14.3 | B | B |
| Murrieta Rd / McCall Blvd | TS | 28.9 | 29.7 | C | C |
| Murrieta Rd / Cherry Hills Blvd | TS | 23.7 | 24.0 | C | C |
| Murrieta Rd / Newport Rd | TS | 50.7 | 44.1 | D | D |
| Murrieta Rd / Scott Rd | AWS | 13.8 | 30.9 | B | D |
| Bradley Rd / McCall Blvd | TS | 58.6 | >80.0 | E | F |
| Bradley Rd / Cherry Hills Blvd | AWS | 10.4 | 12.1 | B | B |
| Bradley Rd / Newport Rd | TS | 39.6 | 38.2 | D | D |
| I-215 Southbound Ramps / Ethanac Rd | TS | 15.1 | 16.9 | B | B |
| I-215 Southbound Ramps / McCall Blvd | TS | 17.6 | 23.4 | B | C |
| Haun Rd / Newport Rd | TS | 37.9 | 49.0 | D | D |
| Haun Rd / Scott Rd | TS | 40.4 | 39.3 | D | D |
| I-215 Southbound Ramps / Newport Rd | TS | 29.6 | 30.3 | C | C |
| I-215 Southbound Ramps / Scott Rd | TS | 31.3 | 50.8 | C | F |
| I-215 Northbound Ramps / Ethanac Rd | TS | 26.2 | 24.4 | C | C |
| I-215 Northbound Ramps / McCall Blvd | TS | 19.1 | 21.4 | B | C |
| I-215 Northbound Ramps / Newport Rd | TS | 20.9 | 28.2 | C | C |
| I-215 Northbound Ramps / Scott Rd | TS | 20.3 | 31.0 | C | C |
| Encanto Dr / Ethanac Rd | CSS | 18.6 | 20.2 | C | C |
| Encanto Dr / McCall Blvd | TS | 20.3 | 22.0 | C | C |
| Antelope Rd / Newport Rd | TS | 41.3 | 49.8 | D | D |
| Antelope Rd / Scott Rd | TS | 34.7 | 38.6 | C | D |
| Menifee Rd / SR-74 (Pinacate Rd.) | TS | 41.4 | 20.5 | D | C |
| Menifee Rd / McCall Blvd | TS | 46.4 | 33.4 | D | C |
| Menifee Rd / Newport Rd | TS | 45.6 | 35.7 | D | D |
| Menifee Rd / Holland Rd | AWS | 14.0 | 9.9 | B | A |
| Menifee Rd / Garbani Rd | AWS | 9.9 | 10.7 | A | B |
| Menifee Rd / Scott Rd | TS | 27.3 | 30.2 | C | C |
| Lindenberg Rd / Newport Rd | TS | 19.8 | 21.2 | B | C |
| Briggs Rd / SR-74 (Pinacate Rd.) | TS | 56.3 | 31.9 | E | C |
| Briggs Rd / Scott Rd | TS | 18.8 | 19.2 | B | B |

Source: Urban Crossroads, 2013.

Bold indicates poor level of service.

¹ TS = Traffic Signal; AWS = All Way Stop; CSS = Cross-Street Stop.

² Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all-way-stop control. For intersections with cross-street-stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. The I-215 ramp locations have been analyzed utilizing the Synchro software.

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As shown in this table, 30 of the 33 existing intersections currently operate at satisfactory levels of service (i.e., LOS D or better) during the weekday AM and PM peak hours, and the following 3 intersections currently operate at deficient levels of service (LOS E or F) during one or both of the peak hours:

- Bradley Road/McCall Boulevard
- I-215 Southbound Ramps/Scott Road
- Briggs Road/SR-74 (Pinacate Rd.)

Signal Warrants

The term "signal warrants" refers to the list of established criteria used by Caltrans and other public agencies to quantitatively justify or ascertain the potential need for installation of a traffic signal at an otherwise unsignalized intersection. The signal warrant criteria for Existing (2012) conditions are based upon several factors, including volume of vehicular and pedestrian traffic, frequency of accidents, and location of school areas. For existing conditions, traffic signals currently appear to be warranted at the following intersections:

- Murrieta Road (NS) at Ethanac Road (EW)
- Murrieta Road (NS) at Scott Road (EW)

While the analysis worksheet provides an indication that a signal is warranted, the satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of traffic control signal. Rather, the planning level warrants indicate the need for additional engineering analysis based on existing conditions to demonstrate that installing a traffic control signal will improve the overall safety and/or operation of the intersection.

I-215 Freeway Mainline Analysis

Using the City of Menifee General Plan Circulation Element roadway V/C values provided on Table 5.16-3, an analysis of the existing I-215 freeway mainline was performed. As shown on Table 5.16-6, the I-215 freeway is approaching or potentially exceeding the daily traffic capacity thresholds on all of the 5 segments located within City limits. I-215 will continue to experience traffic delay through year 2015 until the Riverside County Transportation Commission (RCTC) completes the planned I-215 widening project from the junction of I-15/I-215 in Temecula to State Route 60 in Riverside. The proposed I-215 widening project will add one general purpose lane and inside shoulder in both directions.

**Table 5.16-6
Existing (2012) I-215 Freeway V/C ratios**

| <i>Segment</i> | <i>Through Travel Lanes</i> | <i>Estimated Daily Capacity¹</i> | <i>Existing ADT</i> | <i>Volume/ Capacity Ratio</i> | <i>Average Daily Vehicle Capacity Threshold²</i> |
|--|-----------------------------|---|---------------------|-------------------------------|---|
| North of Ethanac Road (CA-74) | 4D | 76,500 | 72,000 | 0.94 | Approaching |
| Ethanac Road (CA-74) to McCall Boulevard | 4D | 76,500 | 74,000 | 0.97 | Approaching |
| McCall Boulevard to Newport Road | 4D | 76,500 | 80,000 | 1.05 | Potentially Exceeds |
| Newport Road to Scott Road | 4D | 76,500 | 85,000 | 1.11 | Potentially Exceeds |
| South of Scott Road | 4D | 76,500 | 93,000 | 1.22 | Potentially Exceeds |

Source: Urban Crossroads, 2013.

¹ Source: County of Riverside General Plan Circulation Element Link Volume Capacities/Level of Service, March 2001.

² The Average Daily Vehicle Capacity Threshold is determined by the following V/C ratio range: 0.00– 0.79 = "Acceptable", 0.80–1.00 = "Approaching Capacity", 1.01– 1.25 = "Potentially Exceeds Capacity", 1.26+ = "Exceeds Capacity"

Existing (Year 2012) Transit and Rail System

The network of potential transit services works in conjunction with the proposed Menifee General Plan Roadway Network to provide a framework for key routes and facilities that will further enhance connectivity for all users.

The Riverside Transit Agency (RTA) provides fixed route and Dial-A-Ride bus service within the City of Menifee and neighboring jurisdictions. Fixed-route service represents established routes that follow fixed timetables, bus stops are generally placed by RTA on public rights of way. RTA currently provides six fixed routes that operate within and through the City of Menifee serving residential, business, and educational institutions. RTA reviews and updates fixed-route bus service three times annually and makes adjustments to the system as needed to address ridership, budget and other factors. Dial-A-Ride service is a demand-response shuttle-type service that complements the fixed route system by providing accessible transit to address Americans with Disabilities Act (ADA) mandates. Dial-A Ride is also available to seniors for travel within the city. Dial-A-Ride shuttles operate within three-quarters of a mile of any RTA fixed-route service.

Currently the City is not served by commuter rail, but there are plans for commuter rail service to Menifee at a Metrolink station planned at Case Road west of I-215. The network of potential transit services works in conjunction with the proposed Menifee General Plan Roadway Network and the proposed Menifee Bikeway and Community Pedestrian Network to provide a framework for key routes and facilities that will further enhance connectivity for all users.

Existing Bicycle and Pedestrian Facilities

Menifee's roadway network, relatively flat terrain and temperate weather provide an ideal setting for promoting and encouraging pedestrian and bicycle usage. The City currently accommodates bicycle and pedestrian travel on multipurpose sidewalks and bike lanes.

Regulatory Setting

State and local laws, regulations, plans or guidelines that are potentially applicable to this analysis are summarized in this section.

State

California Assembly Bill 32 (2006) and Senate Bill 375 (2008)

Assembly Bill 32, the Global Warming Solutions Act of 2006 (AB 32), is the primary state policy created with the purpose of reducing greenhouse gas emissions in California. AB 32 created emissions reduction targets and granted authority over emissions reduction to the California Air Resources Board (CARB). Senate Bill 375, the Sustainable Communities and Climate Protection Act of 2008 (SB 375), which was passed by the legislature as a tool for working towards AB 32's reduction goals, requires CARB to set regional greenhouse gases (GHG) emissions targets and requires each California metropolitan planning organizations to develop a Sustainable Community Strategy (SCS) that integrates housing, transportation, and land use policy. These mandates were designed with the intention of reducing vehicle miles traveled, and thus, GHG emissions. Additionally the CARB Scoping Plan outlines ways to achieve GHG reductions in California as required by AB 32.

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AB 1358 California Complete Streets Act of 2008

The Complete Street Act of 2008 (Assembly Bill 1358) was developed in response to and in support of other legislation aimed at reducing vehicle emissions through reduced trip length and frequency combined with changes in land use policies. The bill includes several key provisions including a requirement that the state amend guidelines to show how “appropriate accommodation varies depending on its transportation and land use context.” Reducing vehicle miles travelled and enabling short trips in an automobile to be replaced by biking, walking, neighborhood electric vehicles NEVs/golf carts, and use of public transit is the goal. Ultimately, a well-balanced transportation system can move more people (rather than vehicles) efficiently and at a reasonable cost.

The Complete Streets Act is supported by Caltrans Deputy Directive DD-64-R1. DD-64-R1 memorializes the importance of pedestrian and bicycle facilities to the state’s transportation system and outlines responsibilities for Caltrans employees to ensure that travelers of all ages and abilities can move safely and efficiently along and across a network of complete streets throughout the state.

Regional

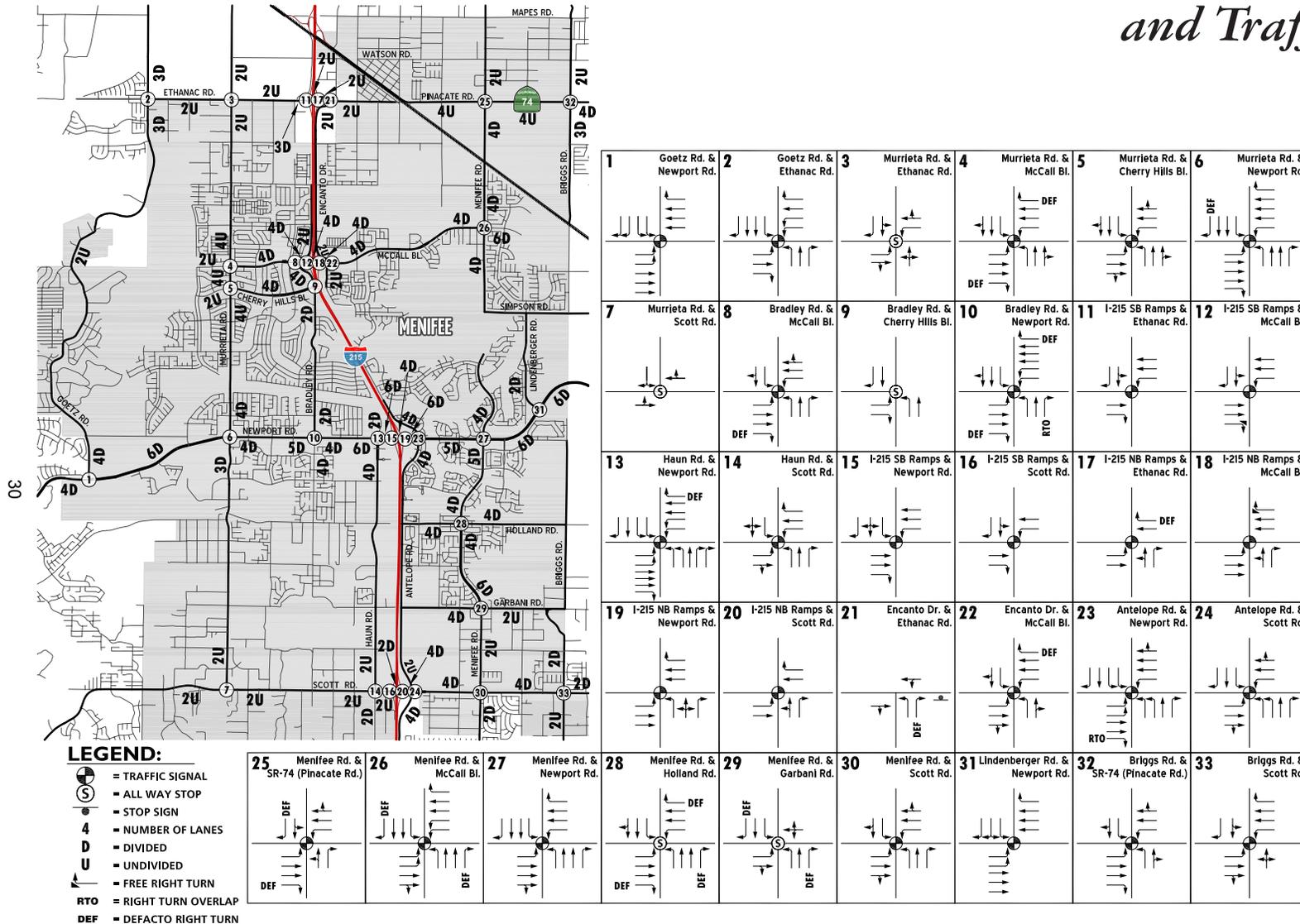
The Regional Transportation Plan

On April 4, 2012, the Regional Council of the Southern California Association of Governments (SCAG) adopted the 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS): Towards a Sustainable Future. The 2012–2035 RTP/SCS includes a strong commitment to reduce emissions from transportation sources to comply with SB 375, improve public health, and meet the National Ambient Air Quality Standards as set forth by the federal Clean Air Act. The 2012–2035 RTP/SCS contains a regional commitment for the broad deployment of zero- and near-zero emission transportation technologies in the 2023–2035 time frame and clear steps to move toward this objective.

The SCS focuses the majority of new housing and job growth in high-quality transit areas and other opportunity areas in existing main streets, downtowns, and commercial corridors, resulting in an improved jobs-housing balance and more opportunity for transit-oriented development. This overall land use development pattern supports and complements the proposed transportation network that emphasizes system preservation, active transportation, and transportation demand management measures.

This RTP/SCS achieves greenhouse gas emission-reduction targets set by CARB by achieving a 9 percent reduction by 2020 and 16 percent reduction by 2035 compared to the 2005 level on a per capita basis. This air quality benefit is made possible largely by more sustainable planning, integrating transportation and land use decisions to allow Southern Californians to live closer to where they work and play and to high-quality transit service. As a result, more residents will be able to use transit and active transportation as a safe and attractive means of travel.

Existing Number of Roadways Through Travel Lanes and Intersection Lanes and Traffic Control



0 2
Scale (Miles)



Source: Urban Crossroads 2013

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Western Riverside County Non-Motorized Transportation Plan

The Western Riverside Council of Governments (WRCOG) adopted a Non-Motorized Transportation Plan (NMTP) in 2010. The NMTP includes a system of regional routes through western Riverside County, including the City of Menifee. Although the NMTP is non-binding to participating agencies, the plan consolidated adopted bike plans where available and created a recommended system of supporting routes to connect systems to each other and serve as regional non-motorized transportation backbone. The NMTP included four routes that directly serve Menifee and connect to neighboring jurisdictions. These regionally significant routes were identified in the NMTP as follows:

- Route 15: Future Class I bike path along Salt Creek with an eastern connection to the City of Hemet and a western connection to the City of Lake Elsinore.
- Route 19: Future Class II bike lane along Scott Road/Bundy Canyon Road Connecting to Mission Trail in the City of Lake Elsinore and Washington Street in French Valley.
- Route 23: Future Class II bike lane along Bradley Road/Holland Road/Haun Road with a northern terminus at Salt Creek in the City of Menifee and connecting to the City of Murrieta at Keller Road/Antelope Road.
- Route 24: Future Class II bike lane along Matthews Road connecting to the City of Perris at Case Road and County of Riverside at Leon Road.

County

Riverside County General Plan Circulation Element

Since incorporation of the City in 2008, the County of Riverside's General Plan Circulation Element has been utilized for the purposes of providing a transportation framework. The county's Circulation Element was adopted in 2003 through the Riverside County Integrated Project (RCIP). The RCIP represented a comprehensive planning process to determine future placement of buildings, roads, and open spaces for Riverside County. The purpose of the RCIP was to create plans that are coherent and consistent for transportation, land use, and the environment.

The adopted RCIP roadway network provides the basis for the developing the City of Menifee General Plan roadway network. This is critical since any changes to the roadway classifications and/or cross-sections will impact future development within the City. The General Plan roadway network defines the right-of-way dedications and capacity requirements needed to support buildout of proposed General Plan land uses. Figure 5.16-3 shows the RCIP roadway network adopted in the County of Riverside General Plan Circulation Element in 2003.

Riverside County Congestion Management Program

The CMP in effect in Riverside County was approved by the RCTC in 2010. All freeways and selected arterial roadways in the county are designated elements of the CMP system of highways and roadways. There are two CMP system roadways in the City, I-215 and SR-74. Traffic impacts to these two roadways that would result from General Plan buildout are analyzed in this study. RCTC has adopted a minimum Level of Service threshold of LOS "E" for CMP facilities.

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Local

City of Menifee Proposed Circulation Element

The new City of Menifee was officially established in 2008. At incorporation, the City of Menifee adopted the existing Riverside County General Plan Circulation Element. The City is in the process of implementing its first General Plan. According to the proposed General Plan Circulation Element, LOS “D” is generally considered acceptable at intersections within the City of Menifee. LOS “E” may be allowed in designated Economic Development Corridors because they would support transit-oriented development and pedestrian communities. The LOS criteria recognizes the physical and financial limitations of providing additional infrastructure to satisfy peak hour traffic demands considering that traffic congestion itself encourages the use of alternative modes of transportation. LOS “E” may also be used at constrained intersections in close proximity to I-215 such as Haun/Newport, Bradley/McCall, Antelope/Scott, and Haun/Scott.

The proposed circulation system provides a layered transportation network designed to improve the balance between environmental concerns, community objectives, and performance (mobility and safety). Figure 5.16-4 presents the proposed General Plan roadway network, and Figure 5-16-5 the proposed roadway cross-sections. Components of the proposed Circulation Element have been created to encourage travel via modes other than standard automobiles, including bicycle/pedestrian, public transit, and neighborhood electric vehicles (NEVs)/golf carts. The various modal layers that provide the framework for the City of Menifee General Plan Circulation Element are presented in Figure 5.16-6.

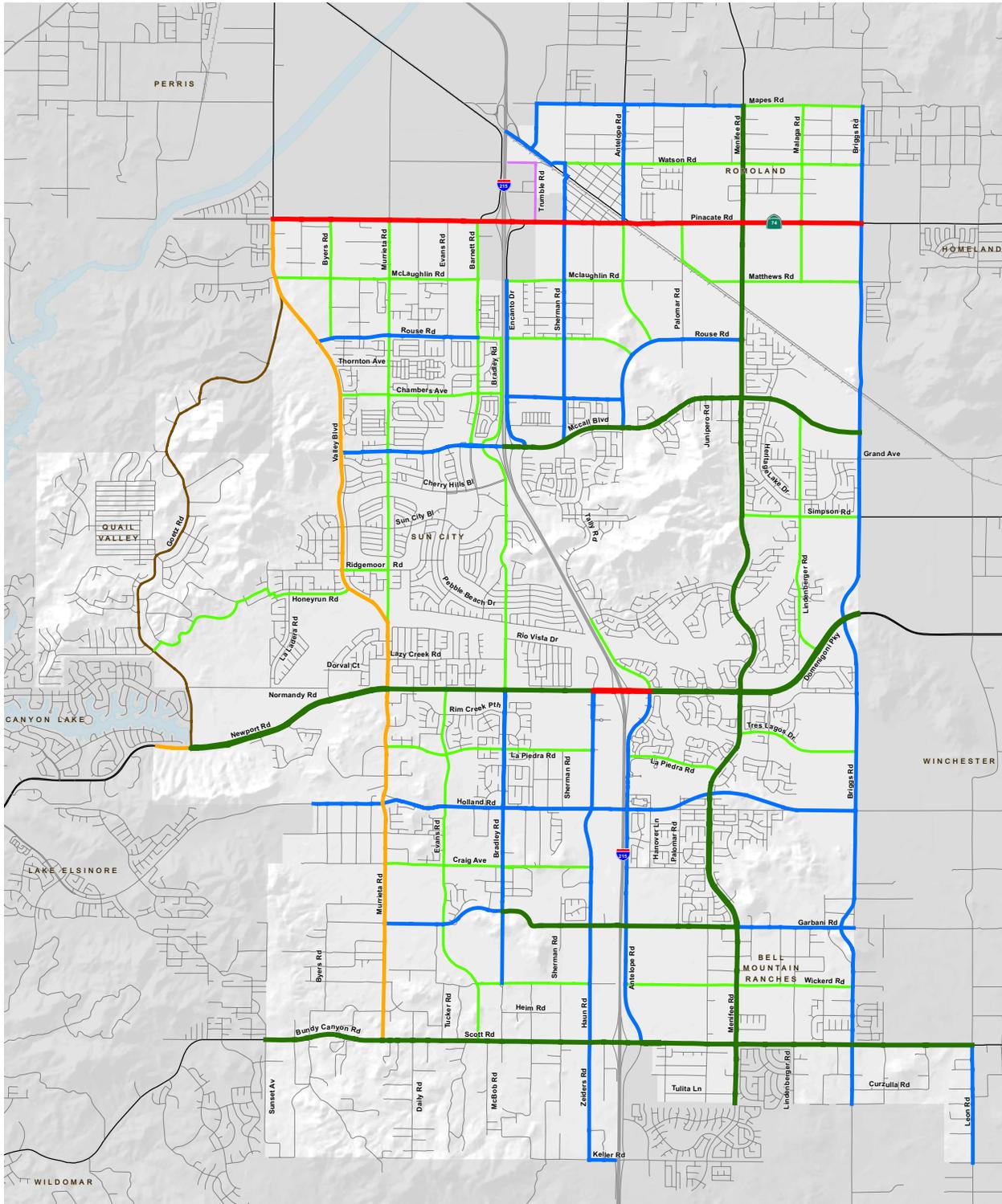
5.16.2 Thresholds of Significance

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

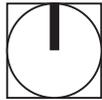
- T-1 Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including 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.

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RCIP Roadway Network



- Expressway (184'-220' ROW)
- Arterial (128' ROW)
- Secondary (100' ROW)
- Mountain Arterial (110' ROW)
- Urban Arterial (152' ROW)
- Major (118' ROW)
- Collector (74' ROW)



Source: Urban Crossroads 2013

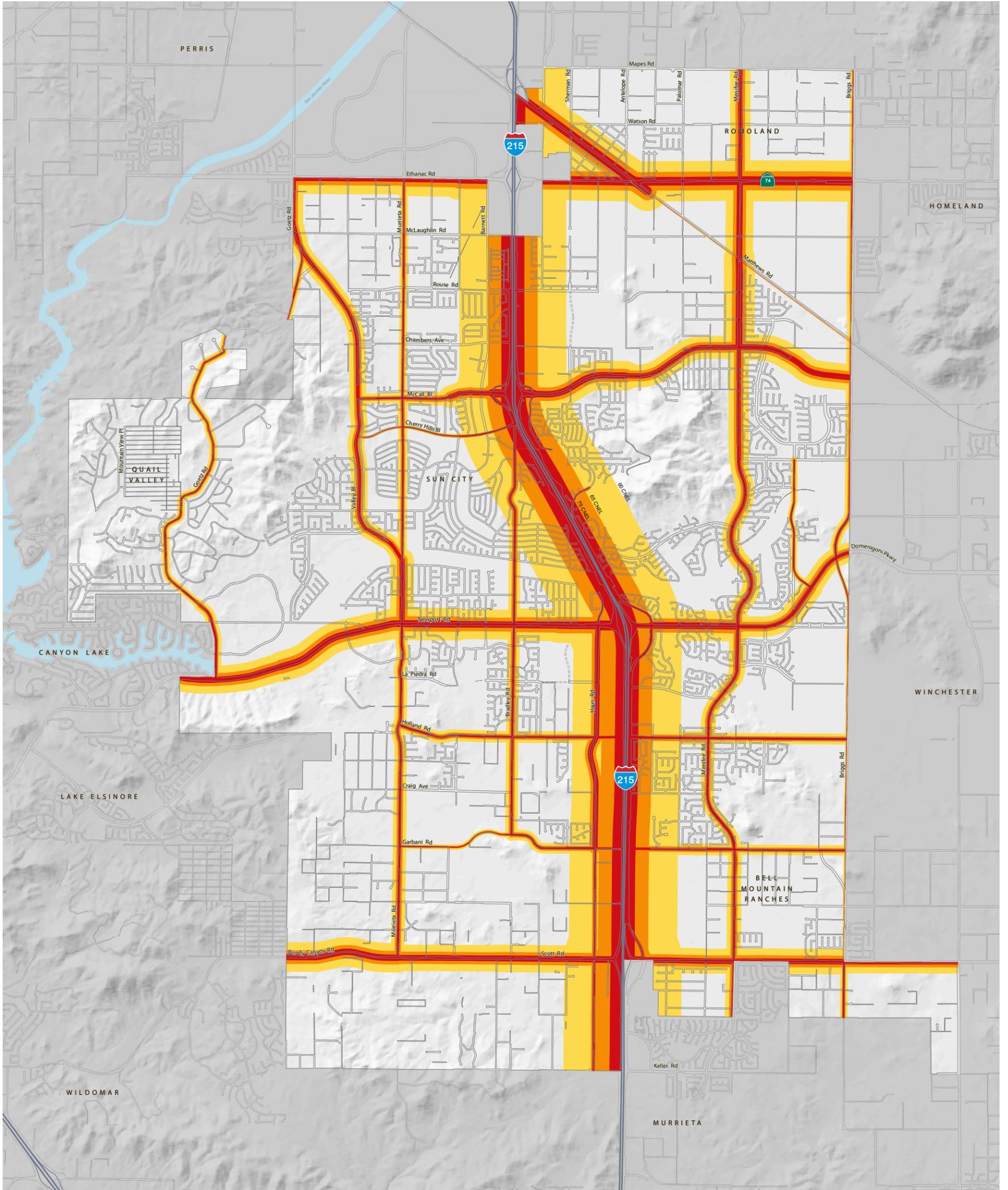


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Future Noise Levels in Menifee from Surface Transportation



NOISE CONTOURS

- 60 - 65 CNEL
- 65 - 70 CNEL
- 70+ CNEL

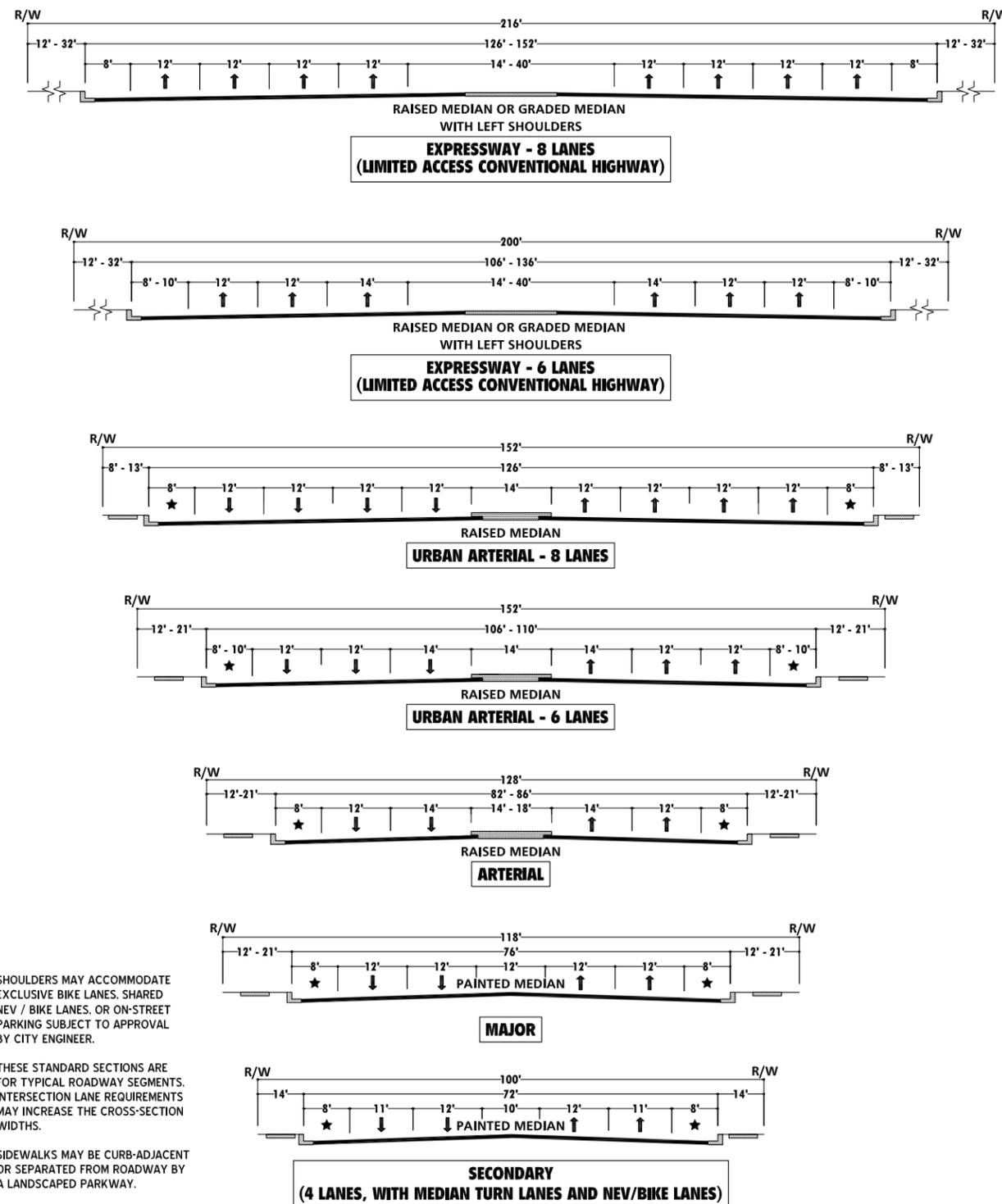


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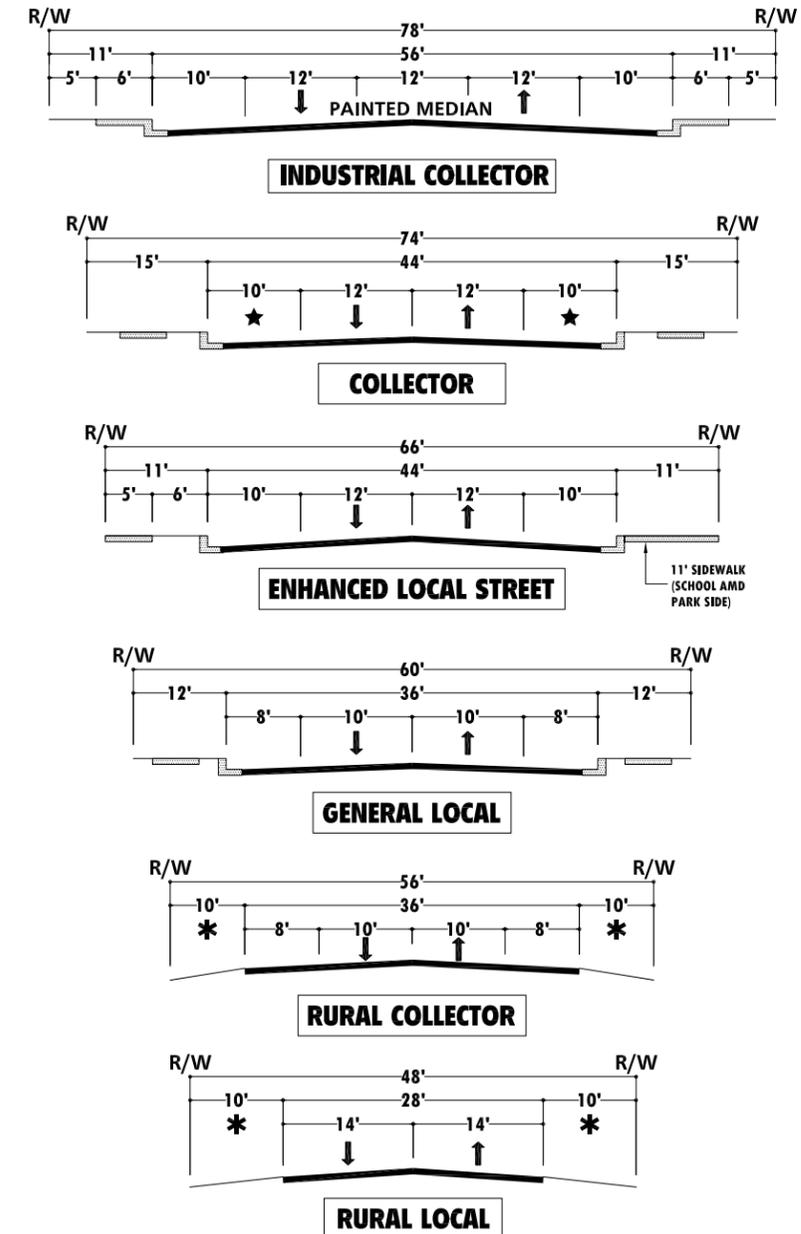
Proposed General Plan Roadway Cross-Sections



★ SHOULDERS MAY ACCOMMODATE EXCLUSIVE BIKE LANES, SHARED NEV / BIKE LANES, OR ON-STREET PARKING SUBJECT TO APPROVAL BY CITY ENGINEER.

THESE STANDARD SECTIONS ARE FOR TYPICAL ROADWAY SEGMENTS. INTERSECTION LANE REQUIREMENTS MAY INCREASE THE CROSS-SECTION WIDTHS.

SIDEWALKS MAY BE CURB-ADJACENT OR SEPARATED FROM ROADWAY BY A LANDSCAPED PARKWAY.

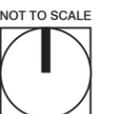


★ SHOULDERS MAY ACCOMMODATE EXCLUSIVE BIKE LANES, SHARED NEV / BIKE LANES, OR ON-STREET PARKING SUBJECT TO APPROVAL BY CITY ENGINEER.

* RURAL PARKWAYS MAY ACCOMMODATE PEDESTRIAN DIRT PATHS AND / OR EQUESTRIAN TRAILS, AND WATER QUALITY TREATMENT SUBJECT TO APPROVAL BY CITY ENGINEER.

THESE STANDARD SECTIONS ARE FOR TYPICAL ROADWAY SEGMENTS. INTERSECTION LANE REQUIREMENTS MAY INCREASE THE CROSS-SECTION WIDTHS.

SIDEWALKS MAY BE CURB-ADJACENT OR SEPARATED FROM ROADWAY BY A LANDSCAPED PARKWAY.

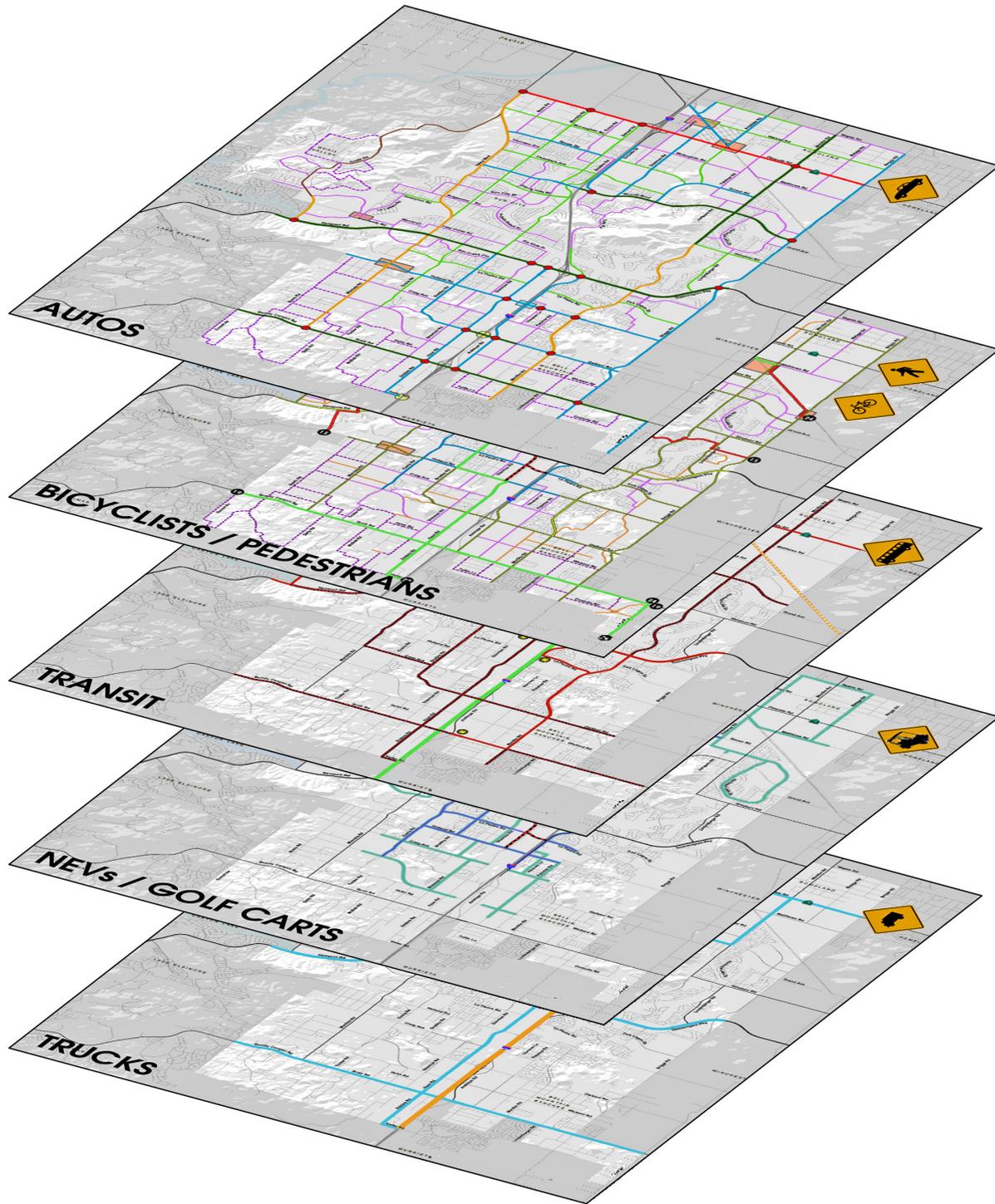


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City of Menifee Proposed Layered Transportation Network



Source: Urban Crossroads 2013

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5.16.3 Environmental Impacts

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: TRAFFIC VOLUMES ASSOCIATED WITH GENERAL PLAN BUILDOUT WOULD EXCEED ROADWAY CAPACITY AT VARIOUS LOCATIONS THROUGHOUT THE CITY [THRESHOLD T-1]

Impact Analysis: For the purpose of the following analysis, it is important to note that the General Plan is a regulatory document that sets the framework for future growth and development and does not directly result in development in and of itself. Before any development can occur in the City, it must be analyzed for conformance with the General Plan, zoning requirements, and other applicable local and state requirements; comply with the requirements of CEQA; and obtain all necessary clearances and permits.

In order to identify potential traffic and circulation deficiencies in the future year scenarios (2035 and Post-2035), traffic that could be generated by the proposed project (i.e., incremental growth that would be accommodated by the City's General Plan), future baseline volumes due to ambient traffic, and traffic shifts due to programmed transportation improvements were estimated as a part of the TIA and are discussed below.

Menifee Traffic Model

The section describes the development and application of the Menifee Traffic Model, which has been developed to evaluate the trip-making characteristics and resulting travel patterns of the Menifee General Plan. The City of Menifee Traffic Model is a refined version of the Riverside County Transportation Analysis Model. RivTAM is a focused traffic model that is consistent with the SCAG Regional Model and includes the entire southern California region. In addition to the trip generation, trip distribution, time of day factoring, and traffic assignment steps, RivTAM also includes a mode choice component, explicitly calculating mode share for transit and non-motorized travel components.

The refined version of the RivTAM model used for the City of Menifee includes land uses in the City of Menifee that were translated into socioeconomic data and an updated roadway network with greater level of detail in the City. The resulting forecasts were evaluated to determine the appropriate circulation system features to support the General Plan Circulation Element Traffic Study. A detailed discussion of the Menifee Traffic Model and its development is provided in Section 6 of the traffic study (included in Appendix I).

Future Traffic Conditions

Three future traffic analysis conditions were provided: one interim year scenario (RCIP 2035) and two separate buildout (Post-2035) scenarios. The RCIP 2035 scenario includes nominal growth in City of Menifee employment in comparison to existing conditions, and a population growth of approximately 30 percent. The Post-2035 scenarios account for full occupancy of residential and nonresidential land uses included in the proposed General Plan Land Use Element.

Buildout of the proposed Land Use Plan is projected to accommodate approximately 63,754 dwelling units and 158,948 people (approximately 80 percent increase in population over existing conditions). The buildout scenarios potentially increase employment by more than 80,000 jobs (a fivefold increase over existing conditions) and greatly improve the jobs/housing balance within the City.

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All future traffic volume forecasts have been developed from the traffic model using accepted procedures for model forecast refinement and smoothing. The traffic forecasts reflect the area-wide growth anticipated between existing conditions and future year conditions. In addition, all of the average daily traffic volume forecasts and the future turning movement estimates have been reviewed for reasonableness and ensure a minimum growth of 10 percent.

RCIP 2035 Traffic Forecasts

The interim year RCIP 2035 traffic forecasts reflect the current County of Riverside General Plan Circulation Element that was adopted in 2003 through the RCIP. The RivTAM model reflects the RCIP 2035 conditions and roadway network classifications shown on Exhibit 5.16-3. The Average Daily Traffic Volumes and the AM and PM peak hour intersection turning movement volumes expected for interim year RCIP 2035 conditions are presented in Exhibits 7-1, 7-2 and 7-3, respectively, of the TIA included in Appendix I.

Roadway Segments Volume per Capacities (V/C) Ratios

As explained above, the roadway segment V/C ratios are approximate figures to assist in determining the roadway functional classification (number of through lanes) needed to meet projected traffic demands. Table 5.16-7 presents a summary of the roadways performance for 2035 RCIP conditions.

**Table 5.16-7
Roadways Segments V/C Ratios, RCIP 2035 Conditions**

| Roadway | Segment | Through Travel Lanes | Estimated Daily Capacity¹ | RCIP 2035 ADT | Volume/ Capacity Ratio | Average Daily Vehicle Capacity Threshold² |
|----------------|---------------------------------------|-----------------------------|---|----------------------|-------------------------------|---|
| Goetz Road | North of Ethanac Rd. | 4D | 35,900 | 22,900 | 0.64 | Acceptable |
| | South of Ethanac Rd. | 4D | 35,900 | 29,300 | 0.82 | Approaching |
| | North of Newport Rd. | 4D | 37,200 | 10,200 | 0.27 | Acceptable |
| Murrieta Road | North of Ethanac Rd. | 4U | 25,900 | 5,400 | 0.21 | Acceptable |
| | South of Ethanac Rd. | 4U | 25,900 | 9,300 | 0.36 | Acceptable |
| | North of McCall Bl. | 4U | 25,900 | 8,600 | 0.33 | Acceptable |
| | Between McCall Bl. & Cherry Hills Bl. | 4U | 25,900 | 10,900 | 0.42 | Acceptable |
| | South of Cherry Hills Bl. | 4U | 25,900 | 8,700 | 0.34 | Acceptable |
| | North of Newport Rd. | 4D | 35,900 | 30,300 | 0.84 | Approaching |
| | South of Newport Rd. | 4D | 35,900 | 9,900 | 0.28 | Acceptable |
| | North of Scott Rd. | 4D | 35,900 | 15,100 | 0.42 | Acceptable |
| Bradley Road | North of McCall Bl. | 4U | 25,900 | 5,400 | 0.21 | Acceptable |
| | Between McCall Bl. & Cherry Hills Bl. | 4D | 25,900 | 18,600 | 0.72 | Acceptable |
| | South of Cherry Hills Bl. | 4U | 25,900 | 14,100 | 0.54 | Acceptable |
| | North of Newport Rd. | 4U | 25,900 | 13,200 | 0.51 | Acceptable |
| | South of Newport Rd. | 4D | 34,100 | 10,700 | 0.31 | Acceptable |

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**Table 5.16-7
Roadways Segments V/C Ratios, RCIP 2035 Conditions**

| Roadway | Segment | Through Travel Lanes | Estimated Daily Capacity¹ | RCIP 2035 ADT | Volume/ Capacity Ratio | Average Daily Vehicle Capacity Threshold² |
|------------------------------|---------------------------------------|-----------------------------|---|----------------------|-------------------------------|---|
| Encanto Road | South of Ethanac Rd. | 4D | 34,100 | 4,200 | 0.12 | Acceptable |
| | North of McCall Bl. | 4D | 34,100 | 4,800 | 0.14 | Acceptable |
| | South of McCall Bl. | 2U | 13,000 | 7,800 | 0.60 | Acceptable |
| Haun Road | North of Newport Rd. | 2U | 13,000 | 10,000 | 0.77 | Acceptable |
| | South of Newport Rd. | 4D | 34,100 | 25,800 | 0.76 | Acceptable |
| | North of Scott Rd. | 4D | 34,100 | 8,600 | 0.25 | Acceptable |
| | South of Scott Rd | 4D | 34,100 | 4,400 | 0.13 | Acceptable |
| Antelope Road | North of Newport Rd. | 4D | 25,900 | 7,500 | 0.29 | Acceptable |
| | South of Newport Rd. | 4D | 34,100 | 18,700 | 0.55 | Acceptable |
| | North of Scott Rd. | 4D | 34,100 | 13,500 | 0.40 | Acceptable |
| | South of Scott Rd | 4D | 34,100 | 17,100 | 0.50 | Acceptable |
| Menifee Road | North of SR-74 (Pinacate Rd.) | 6D | 53,900 | 23,700 | 0.44 | Acceptable |
| | South of SR-74 (Pinacate Rd.) | 6D | 53,900 | 30,000 | 0.56 | Acceptable |
| | North of McCall Bl. | 6D | 53,900 | 35,000 | 0.65 | Acceptable |
| | Between McCall Bl. & Simpson Rd | 6D | 53,900 | 15,400 | 0.29 | Acceptable |
| | North of Newport Rd. | 6D | 53,900 | 16,000 | 0.30 | Acceptable |
| | South of Newport Rd. | 6D | 53,900 | 17,300 | 0.32 | Acceptable |
| | North of Holland Rd. | 6D | 53,900 | 16,000 | 0.30 | Acceptable |
| Menifee Road | South of Holland Rd. | 6D | 53,900 | 9,500 | 0.18 | Acceptable |
| | North of Garbani Rd. | 6D | 53,900 | 9,300 | 0.17 | Acceptable |
| | South of Garbani Rd. | 6D | 53,900 | 15,900 | 0.29 | Acceptable |
| | North of Scott Rd. | 6D | 53,900 | 16,400 | 0.30 | Acceptable |
| | South of Scott Rd | 6D | 53,900 | 21,600 | 0.40 | Acceptable |
| Lindenberger Road | North of Newport Rd. | 4U | 25,900 | 6,500 | 0.25 | Acceptable |
| Briggs Road | North of SR-74 (Pinacate Rd.) | 4D | 34,100 | 6,900 | 0.20 | Acceptable |
| | South of SR-74 (Pinacate Rd.) | 4D | 34,100 | 9,700 | 0.28 | Acceptable |
| | North of Scott Rd. | 4D | 34,100 | 2,700 | 0.08 | Acceptable |
| | South of Scott Rd | 4D | 34,100 | 4,900 | 0.14 | Acceptable |
| Ethanac/SR-74 (Pinacate Rd.) | West of Goetz Rd. | 6D | 61,300 | 37,600 | 0.61 | Acceptable |
| | Between Goetz Rd & Murrieta Rd. | 6D | 61,300 | 40,700 | 0.66 | Acceptable |
| | East of Murrieta Rd. | 6D | 61,300 | 45,700 | 0.75 | Acceptable |
| | West of I-215 SB Ramp | 6D | 61,300 | 52,900 | 0.86 | Approaching |
| | Between I-215 SB Ramp & I-215 NB Ramp | 6D | 61,300 | 51,200 | 0.84 | Approaching |

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**Table 5.16-7
Roadways Segments V/C Ratios, RCIP 2035 Conditions**

| <i>Roadway</i> | <i>Segment</i> | <i>Through Travel Lanes</i> | <i>Estimated Daily Capacity¹</i> | <i>RCIP 2035 ADT</i> | <i>Volume/ Capacity Ratio</i> | <i>Average Daily Vehicle Capacity Threshold²</i> |
|------------------------|---------------------------------------|-----------------------------|---|----------------------|-------------------------------|---|
| | Between I-215 NB Ramp & Encanto Dr. | 6D | 61,300 | 57,300 | 0.93 | Approaching |
| | East of Encanto Dr. | 6D | 61,300 | 56,200 | 0.92 | Approaching |
| | West of Menifee Rd. | 6D | 61,300 | 52,300 | 0.85 | Approaching |
| | East of Menifee Rd. | 6D | 61,300 | 52,300 | 0.85 | Approaching |
| | West of Briggs Rd. | 6D | 61,300 | 56,500 | 0.92 | Approaching |
| | East of Briggs Rd. | 6D | 61,300 | 54,700 | 0.89 | Approaching |
| McCall Boulevard | West of Murrieta Rd. | 4D | 34,100 | 6,200 | 0.18 | Acceptable |
| | East of Murrieta Rd. | 4D | 34,100 | 13,900 | 0.41 | Acceptable |
| | West of Bradley Rd. | 4D | 34,100 | 29,500 | 0.87 | Approaching |
| | Between Bradley Rd & I-215 SB Ramp | 4D | 34,100 | 44,400 | 1.30 | Exceeds |
| | Between I-215 SB Ramp & I-215 NB Ramp | 6D | 53,900 | 43,700 | 0.81 | Approaching |
| | Between I-215 NB Ramp & Encanto Dr. | 6D | 53,900 | 43,800 | 0.81 | Approaching |
| | East of Encanto Dr. | 6D | 53,900 | 34,600 | 0.64 | Acceptable |
| | West of Menifee Rd. | 6D | 53,900 | 22,700 | 0.42 | Acceptable |
| Cherry Hills Boulevard | East of Menifee Rd. | 6D | 53,900 | 29,000 | 0.54 | Acceptable |
| | West of Murrieta Rd. | 2U | 13,000 | 6,400 | 0.49 | Acceptable |
| | East of Murrieta Rd. | 4D | 25,900 | 2,800 | 0.11 | Acceptable |
| Newport Road | West of Bradley Rd. | 4D | 25,900 | 4,600 | 0.18 | Acceptable |
| | West of Goetz Rd. | 4D | 35,900 | 23,600 | 0.66 | Acceptable |
| | East of Goetz Rd. | 6D | 53,900 | 30,000 | 0.56 | Acceptable |
| | West of Murrieta Rd. | 6D | 53,900 | 31,900 | 0.59 | Acceptable |
| | East of Murrieta Rd. | 6D | 53,900 | 37,000 | 0.69 | Acceptable |
| | West of Bradley Rd. | 6D | 53,900 | 30,800 | 0.57 | Acceptable |
| | East of Bradley Rd. | 6D | 53,900 | 37,600 | 0.70 | Acceptable |
| | West of Haun Rd. | 6D | 53,900 | 41,800 | 0.78 | Acceptable |
| | Between Haun Rd. & I-215 SB Ramp | 8D | 81,700 | 51,500 | 0.63 | Acceptable |
| | Between I-215 SB Ramp & I-215 NB Ramp | 8D | 81,700 | 46,500 | 0.57 | Acceptable |
| | Between I-215 NB Ramp & Antelope Rd. | 8D | 81,700 | 52,700 | 0.65 | Acceptable |
| | East of Antelope Rd. | 6D | 53,900 | 34,200 | 0.63 | Acceptable |
| | West of Menifee Rd. | 6D | 53,900 | 34,200 | 0.63 | Acceptable |
| East of Menifee Rd. | 6D | 53,900 | 24,700 | 0.46 | Acceptable | |

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**Table 5.16-7
Roadways Segments V/C Ratios, RCIP 2035 Conditions**

| <i>Roadway</i> | <i>Segment</i> | <i>Through Travel Lanes</i> | <i>Estimated Daily Capacity¹</i> | <i>RCIP 2035 ADT</i> | <i>Volume/ Capacity Ratio</i> | <i>Average Daily Vehicle Capacity Threshold²</i> |
|----------------|---------------------------------------|-------------------------------------|---|------------------------------|---------------------------------------|---|
| | West of Lindenberger Rd. | 6D | 53,900 | 24,900 | 0.46 | Acceptable |
| | East of Lindenberger Rd. | 6D | 53,900 | 19,800 | 0.37 | Acceptable |
| Holland Road | West of Menifee Rd. | 4D | 34,100 | 14,400 | 0.42 | Acceptable |
| | East of Menifee Rd. | 4D | 34,100 | 8,100 | 0.24 | Acceptable |
| Garbani Road | West of Menifee Rd. | 6D | 53,900 | 7,100 | 0.13 | Acceptable |
| | East of Menifee Rd. | 4D | 34,100 | 8,100 | 0.24 | Acceptable |
| Scott Road | West of Murrieta Rd. | 6D | 53,900 | 32,000 | 0.59 | Acceptable |
| | East of Murrieta Rd. | 6D | 53,900 | 23,600 | 0.44 | Acceptable |
| | West of Haun Rd. | 6D | 53,900 | 25,600 | 0.47 | Acceptable |
| | Between Haun Rd. & I-215 SB Ramp | 6D | 53,900 | 26,000 | 0.48 | Acceptable |
| | Between I-215 SB Ramp & I-215 NB Ramp | 6D | 53,900 | 29,000 | 0.54 | Acceptable |
| | Between I-215 NB Ramp & Antelope Rd. | 6D | 53,900 | 35,700 | 0.66 | Acceptable |
| | East of Antelope Rd. | 6D | 53,900 | 26,300 | 0.49 | Acceptable |
| | West of Menifee Rd. | 6D | 53,900 | 25,300 | 0.47 | Acceptable |
| | East of Menifee Rd. | 6D | 53,900 | 32,200 | 0.60 | Acceptable |
| | West of Briggs Rd. | 6D | 53,900 | 31,600 | 0.59 | Acceptable |
| | East of Briggs Rd. | 6D | 53,900 | 28,400 | 0.53 | Acceptable |

Source: Urban Crossroads, 2013.

¹ According to the County of Riverside General Plan Circulation Element Link Volume Capacities/Level of Service, March 2001.

² The Average Daily Vehicle Capacity Threshold is determined by the following V/C ratio range: 0.00– 0.79 = "Acceptable", 0.80– 1.00 = "Approaching Capacity", 1.01– 1.25 = "Potentially Exceeds Capacity", 1.26+ = "Exceeds Capacity"

The roadway segment analysis for RCIP 2035 conditions shows that the proposed RivTAM roadway network would provide adequate capacity to accommodate interim year 2035 conditions on all of the study area roadway segments with the exception of McCall Boulevard between Bradley Road and I-215 southbound ramps. As previously described, the roadway segment analysis is presented as a planning tool to assess the adequacy of the existing and proposed General Plan Circulation Element functional roadway classifications. It is important to consider the intersection LOS in combination with the roadway segment V/C ratios.

I-215 Freeway Mainline Analysis

As shown on Table 5.16-8, for 2035 RCIP conditions with the proposed widening project that would add additional travel lanes, the I-215 Freeway would carry traffic volumes that would potentially exceed the daily capacity on all five mainline segments evaluated.

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Table 5.16-8
RCIP 2035 Conditions I-215 Freeway V/C ratios

| Segment | Through Travel Lanes | Estimated Daily Capacity¹ | Existing ADT | Volume/ Capacity Ratio | Average Daily Vehicle Capacity Threshold² |
|--|-----------------------------|---|---------------------|-------------------------------|---|
| North of Ethanac Road (CA-74) | 6D | 117,500 | 127,000 | 1.08 | Potentially Exceeds |
| Ethanac Road (CA-74) to McCall Boulevard | 6D | 117,500 | 120,000 | 1.02 | Potentially Exceeds |
| McCall Boulevard to Newport Road | 6D | 117,500 | 131,000 | 1.11 | Potentially Exceeds |
| Newport Road to Scott Road | 6D | 117,500 | 118,000 | 1.00 | Potentially Exceeds |
| South of Scott Road | 6D | 117,500 | 135,000 | 1.15 | Potentially Exceeds |

Source: Urban Crossroads, 2013.

¹ Source: County of Riverside General Plan Circulation Element Link Volume Capacities/Level of Service, March 2001.

² The Average Daily Vehicle Capacity Threshold is determined by the following V/C ratio range: 0.00– 0.79 = "Acceptable", 0.80– 1.00 = "Approaching Capacity", 1.01– 1.25 = "Potentially Exceeds Capacity", 1.26+ = "Exceeds Capacity"

Intersections Peak Hour Levels of Service

Based on the LOS methodologies described in the "Methodology" section, the peak hour traffic volumes presented in Exhibits 7-2 and 7-3 of the TIA were used in conjunction with existing lane configurations to determine the current traffic operating conditions at the 33 existing study area intersections.

Table 5.16-9 summarizes the RCIP 2035 Condition peak hour LOS at the 33 existing study area intersections during the weekday AM and PM peak hours.

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**Table 5.16-9
RCIP 2035 Intersection Peak Hour Level of Service**

| Intersection | Traffic Control ¹ | Delay ² (secs.) | | Level of Service | |
|--------------------------------------|------------------------------|----------------------------|-------|------------------|----------|
| | | AM | PM | AM | PM |
| Goetz Rd / Newport Rd | TS | 42.0 | 47.8 | D | D |
| Goetz Rd / Ethanac Rd | TS | 46.7 | 38.2 | D | D |
| Murrieta Rd / Ethanac Rd | TS | 35.4 | 41.5 | D | D |
| Murrieta Rd / McCall Blvd | TS | 25.7 | 26.8 | C | C |
| Murrieta Rd / Cherry Hills Blvd | TS | 24.3 | 26.7 | C | C |
| Murrieta Rd / Newport Rd | TS | 45.5 | 49.6 | D | D |
| Murrieta Rd / Scott Rd | TS | 19.9 | 24.9 | B | C |
| Bradley Rd / McCall Blvd | TS | 41.9 | >80.0 | D | F |
| Bradley Rd / Cherry Hills Blvd | TS | 14.3 | 14.5 | B | B |
| Bradley Rd / Newport Rd | TS | 37.9 | 40.8 | D | D |
| I-215 Southbound Ramps / Ethanac Rd | TS | 11.8 | 9.9 | B | A |
| I-215 Southbound Ramps / McCall Blvd | TS | 13.9 | 20.3 | B | C |
| Haun Rd / Newport Rd | TS | 39.2 | 52.5 | D | D |
| Haun Rd / Scott Rd | TS | 36.7 | 35.7 | D | D |
| I-215 Southbound Ramps / Newport Rd | TS | 7.0 | 10.3 | A | B |
| I-215 Southbound Ramps / Scott Rd | TS | 5.5 | 7.9 | A | A |
| I-215 Northbound Ramps / Ethanac Rd | TS | 10.9 | 12.2 | B | B |
| I-215 Northbound Ramps / McCall Blvd | TS | 15.6 | 23.5 | B | C |
| I-215 Northbound Ramps / Newport Rd | TS | 11.4 | 11.1 | B | B |
| I-215 Northbound Ramps / Scott Rd | TS | 14.0 | 16.8 | B | B |
| Encanto Dr / Ethanac Rd | TS | 22.4 | 19.9 | C | B |
| Encanto Dr / McCall Blvd | TS | 32.1 | 32.3 | C | C |
| Antelope Rd / Newport Rd | TS | 42.6 | 44.7 | D | D |
| Antelope Rd / Scott Rd | TS | 34.6 | 36.5 | C | D |
| Menifee Rd / SR-74 (Pinacate Rd.) | TS | 49.6 | 41.0 | D | D |
| Menifee Rd / McCall Blvd | TS | 50.2 | 34.6 | D | C |
| Menifee Rd / Newport Rd | TS | 40.5 | 35.2 | D | D |
| Menifee Rd / Holland Rd | TS | 27.3 | 27.9 | C | C |
| Menifee Rd / Garbani Rd | TS | 28.0 | 30.2 | C | C |
| Menifee Rd / Scott Rd | TS | 32.5 | 37.8 | C | D |
| Lindenberger Rd / Newport Rd | TS | 19.9 | 21.1 | B | C |
| Briggs Rd / SR-74 (Pinacate Rd.) | TS | 49.7 | 42.1 | D | D |
| Briggs Rd / Scott Rd | TS | 30.1 | 31.6 | C | C |

Source: Urban Crossroads, 2013.

Bold indicates poor level of service.

¹ TS = Traffic Signal; AWS = All Way Stop; CSS = Cross-street Stop.

² Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all-way-stop control. For intersections with cross-street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. The I-215 ramp locations have been analyzed utilizing the Synchro software.

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As shown in this table, all intersections would operate at satisfactory levels of service (i.e., LOS D or better) during the weekday AM and PM peak hours, except for the intersection of Bradley Road and McCall Boulevard, which is forecast to operate at LOS F. With implementation of the mitigation measures presented below, this intersection would operate at acceptable LOS for long-range future conditions.

Post- 2035 Traffic Forecasts

The Post-2035 traffic forecasts reflect the proposed Menifee General Plan Post-2035 traffic forecasts and are based on Menifee General Plan Land Use Element that represents future Post-2035 conditions. The buildout data reflects full buildout of the land uses ultimately envisioned for the City of Menifee at this time and does not correspond to a specific horizon year. This scenario also reflects the proposed roadway network classifications shown on Figure 5.16-4. The ADT and the AM and PM peak hour intersection turning movement volumes expected for Post-2035 conditions are presented in Exhibits 7-4, 7-5 and 7-6, respectively, of the TIA (included in Appendix I).

Roadway Segments Volume per Capacities Ratios

The roadway segment V/C ratios are approximate figures to assist in determining the roadway functional classification (number of through lanes) needed to meet projected traffic demands. Table 5.16-10 presents a summary of roadway performance for Post-2035 conditions.

Table 5.16-10
Roadways Segments V/C Ratios, Post-2035 Conditions

| <i>Roadway</i> | <i>Segment</i> | <i>Through Travel Lanes</i> | <i>Estimated Daily Capacity¹</i> | <i>RCIP 2035 ADT</i> | <i>Volume/ Capacity Ratio</i> | <i>Average Daily Vehicle Capacity Threshold²</i> |
|----------------|---------------------------------------|-----------------------------|---|----------------------|-------------------------------|---|
| Goetz Road | North of Ethanac Rd. | 4D | 35,900 | 26,900 | 0.75 | Acceptable |
| | South of Ethanac Rd. | 4D | 35,900 | 32,300 | 0.90 | Approaching |
| | North of Newport Rd. | 4D | 35,900 | 14,200 | 0.40 | Acceptable |
| Murrieta Road | North of Ethanac Rd. | 4U | 25,900 | 7,400 | 0.29 | Acceptable |
| | South of Ethanac Rd. | 4U | 25,900 | 9,300 | 0.36 | Acceptable |
| | North of McCall Bl. | 4U | 25,900 | 8,600 | 0.33 | Acceptable |
| | Between McCall Bl. & Cherry Hills Bl. | 4U | 25,900 | 11,900 | 0.46 | Acceptable |
| | South of Cherry Hills Bl. | 4U | 25,900 | 10,700 | 0.41 | Acceptable |
| | North of Newport Rd. | 4D | 35,900 | 42,300 | 1.18 | Potentially Exceeds |
| | South of Newport Rd. | 4D | 35,900 | 15,900 | 0.44 | Acceptable |
| | North of Scott Rd. | 4D | 35,900 | 18,100 | 0.50 | Acceptable |
| Bradley Road | North of McCall Bl. | 4U | 25,900 | 6,400 | 0.25 | Acceptable |
| | Between McCall Bl. & Cherry Hills Bl. | 4D | 25,900 | 24,600 | 0.95 | Approaching |
| | South of Cherry Hills Bl. | 4U | 25,900 | 20,100 | 0.78 | Acceptable |
| | North of Newport Rd. | 4U | 25,900 | 15,200 | 0.59 | Acceptable |
| | South of Newport Rd. | 4D | 34,100 | 15,700 | 0.46 | Acceptable |

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**Table 5.16-10
Roadways Segments V/C Ratios, Post-2035 Conditions**

| Roadway | Segment | Through Travel Lanes | Estimated Daily Capacity¹ | RCIP 2035 ADT | Volume/ Capacity Ratio | Average Daily Vehicle Capacity Threshold² |
|-------------------------------|---------------------------------|-----------------------------|---|----------------------|-------------------------------|---|
| Encanto Road | South of Ethanac Rd. | 4D | 34,100 | 8,200 | 0.24 | Acceptable |
| | North of McCall Bl. | 4D | 34,100 | 13,800 | 0.40 | Acceptable |
| | South of McCall Bl. | 2U | 13,000 | 7,800 | 0.60 | Acceptable |
| Haun Road | North of Newport Rd. | 2U | 13,000 | 10,000 | 0.77 | Acceptable |
| | South of Newport Rd. | 4D | 34,100 | 42,800 | 1.26 | Exceeds |
| | North of Scott Rd. | 4D | 34,100 | 13,600 | 0.40 | Acceptable |
| | South of Scott Rd. | 4D | 34,100 | 14,400 | 0.42 | Acceptable |
| Antelope Road | North of Newport Rd. | 4D | 25,900 | 7,500 | 0.29 | Acceptable |
| | South of Newport Rd. | 4D | 34,100 | 18,700 | 0.55 | Acceptable |
| | North of Scott Rd. | 4D | 34,100 | 18,500 | 0.54 | Acceptable |
| | South of Scott Rd. | 4D | 34,100 | 17,100 | 0.50 | Acceptable |
| Menifee Road | North of SR-74 (Pinacate Rd.) | 6D | 53,900 | 24,700 | 0.46 | Acceptable |
| | South of SR-74 (Pinacate Rd.) | 6D | 53,900 | 39,000 | 0.72 | Acceptable |
| | North of McCall Bl. | 6D | 53,900 | 46,000 | 0.85 | Approaching |
| | Between McCall Bl. & Simpson Rd | 4D | 35,900 | 24,400 | 0.68 | Acceptable |
| | North of Newport Rd. | 4D | 35,900 | 28,000 | 0.78 | Acceptable |
| | South of Newport Rd. | 4D | 35,900 | 24,300 | 0.68 | Acceptable |
| | North of Holland Rd. | 4D | 35,900 | 21,000 | 0.58 | Acceptable |
| | South of Holland Rd. | 4D | 35,900 | 17,500 | 0.49 | Acceptable |
| | North of Garbani Rd. | 4D | 35,900 | 17,300 | 0.48 | Acceptable |
| | South of Garbani Rd. | 4D | 35,900 | 18,900 | 0.53 | Acceptable |
| | North of Scott Rd. | 4D | 35,900 | 20,400 | 0.57 | Acceptable |
| | South of Scott Rd. | 4D | 35,900 | 22,600 | 0.63 | Acceptable |
| Lindenberger Road | North of Newport Rd. | 4U | 25,900 | 6,500 | 0.25 | Acceptable |
| Briggs Road | North of SR-74 (Pinacate Rd.) | 4D | 34,100 | 6,900 | 0.20 | Acceptable |
| | South of SR-74 (Pinacate Rd.) | 4D | 34,100 | 11,700 | 0.34 | Acceptable |
| | North of Scott Rd. | 4D | 34,100 | 2,700 | 0.08 | Acceptable |
| | South of Scott Rd. | 4D | 34,100 | 7,900 | 0.23 | Acceptable |
| SR-74 (Ethanac/Pinacate Road) | West of Goetz Rd. | 6D | 61,300 | 43,600 | 0.71 | Acceptable |
| | Between Goetz Rd & Murrieta Rd. | 6D | 61,300 | 50,700 | 0.83 | Approaching |
| | East of Murrieta Rd. | 6D | 61,300 | 57,700 | 0.94 | Approaching |
| | West of I-215 SB Ramp | 8D | 81,700 | 65,900 | 0.81 | Approaching |

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**Table 5.16-10
Roadways Segments V/C Ratios, Post-2035 Conditions**

| <i>Roadway</i> | <i>Segment</i> | <i>Through Travel Lanes</i> | <i>Estimated Daily Capacity¹</i> | <i>RCIP 2035 ADT</i> | <i>Volume/ Capacity Ratio</i> | <i>Average Daily Vehicle Capacity Threshold²</i> |
|------------------------|---------------------------------------|-----------------------------|---|----------------------|-------------------------------|---|
| | Between I-215 SB Ramp & I-215 NB Ramp | 8D | 81,700 | 64,200 | 0.79 | Acceptable |
| | Between I-215 NB Ramp & Encanto Dr. | 8D | 81,700 | 66,300 | 0.81 | Approaching |
| | East of Encanto Dr. | 8D | 81,700 | 62,200 | 0.76 | Acceptable |
| | West of Menifee Rd. | 8D | 81,700 | 62,300 | 0.76 | Acceptable |
| | East of Menifee Rd. | 8D | 81,700 | 64,300 | 0.79 | Acceptable |
| | West of Briggs Rd. | 8D | 81,700 | 64,500 | 0.79 | Acceptable |
| | East of Briggs Rd. | 8D | 81,700 | 61,700 | 0.76 | Acceptable |
| McCall Boulevard | West of Murrieta Rd. | 4D | 34,100 | 11,200 | 0.33 | Acceptable |
| | East of Murrieta Rd. | 4D | 34,100 | 18,900 | 0.55 | Acceptable |
| | West of Bradley Rd. | 4D | 34,100 | 38,500 | 1.13 | Potentially Exceeds |
| | Between Bradley Rd & I-215 SB Ramp | 6D | 53,900 | 57,400 | 1.06 | Potentially Exceeds |
| | Between I-215 SB Ramp & I-215 NB Ramp | 6D | 53,900 | 57,700 | 1.07 | Potentially Exceeds |
| | Between I-215 NB Ramp & Encanto Dr. | 6D | 53,900 | 58,800 | 1.09 | Potentially Exceeds |
| | East of Encanto Dr. | 6D | 53,900 | 42,600 | 0.79 | Acceptable |
| | West of Menifee Rd. | 6D | 53,900 | 29,700 | 0.55 | Acceptable |
| | East of Menifee Rd. | 6D | 53,900 | 36,000 | 0.67 | Acceptable |
| Cherry Hills Boulevard | West of Murrieta Rd. | 2U | 13,000 | 2,400 | 0.18 | Acceptable |
| | East of Murrieta Rd. | 4D | 25,900 | 2,800 | 0.11 | Acceptable |
| | West of Bradley Rd. | 4D | 25,900 | 5,600 | 0.22 | Acceptable |
| Newport Road | West of Goetz Rd. | 6D | 53,900 | 29,600 | 0.55 | Acceptable |
| | East of Goetz Rd. | 6D | 53,900 | 39,000 | 0.72 | Acceptable |
| | West of Murrieta Rd. | 6D | 53,900 | 44,900 | 0.83 | Approaching |
| | East of Murrieta Rd. | 6D | 53,900 | 50,000 | 0.93 | Approaching |
| | West of Bradley Rd. | 6D | 53,900 | 43,800 | 0.81 | Approaching |
| | East of Bradley Rd. | 6D | 53,900 | 49,600 | 0.92 | Approaching |
| | West of Haun Rd. | 6D | 53,900 | 56,800 | 1.05 | Potentially Exceeds |
| | Between Haun Rd. & I-215 SB Ramp | 8D | 71,800 | 75,500 | 1.05 | Potentially Exceeds |
| | Between I-215 SB Ramp & I-215 NB Ramp | 8D | 71,800 | 64,500 | 0.90 | Approaching |
| | Between I-215 NB Ramp & Antelope Rd. | 8D | 71,800 | 60,700 | 0.85 | Approaching |
| | East of Antelope Rd. | 6D | 53,900 | 46,200 | 0.86 | Approaching |
| West of Menifee Rd. | 6D | 53,900 | 44,200 | 0.82 | Approaching | |

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**Table 5.16-10
Roadways Segments V/C Ratios, Post-2035 Conditions**

| Roadway | Segment | Through Travel Lanes | Estimated Daily Capacity ¹ | RCIP 2035 ADT | Volume/ Capacity Ratio | Average Daily Vehicle Capacity Threshold ² |
|--------------|---------------------------------------|----------------------|---------------------------------------|---------------|------------------------|---|
| | East of Menifee Rd. | 6D | 53,900 | 24,700 | 0.46 | Acceptable |
| | West of Lindenberger Rd. | 6D | 53,900 | 28,900 | 0.54 | Acceptable |
| | East of Lindenberger Rd. | 6D | 53,900 | 23,800 | 0.44 | Acceptable |
| Holland Road | West of Menifee Rd. | 4D | 34,100 | 19,400 | 0.57 | Acceptable |
| | East of Menifee Rd. | 4D | 34,100 | 13,100 | 0.38 | Acceptable |
| Garbani Road | West of Menifee Rd. | 4D | 34,100 | 15,100 | 0.44 | Acceptable |
| | East of Menifee Rd. | 4D | 34,100 | 12,100 | 0.35 | Acceptable |
| Scott Road | West of Murrieta Rd. | 6D | 53,900 | 43,000 | 0.80 | Acceptable |
| | East of Murrieta Rd. | 6D | 53,900 | 36,600 | 0.68 | Acceptable |
| | West of Haun Rd. | 6D | 53,900 | 38,600 | 0.72 | Acceptable |
| | Between Haun Rd. & I-215 SB Ramp | 6D | 53,900 | 45,000 | 0.83 | Approaching |
| | Between I-215 SB Ramp & I-215 NB Ramp | 6D | 53,900 | 46,000 | 0.85 | Approaching |
| | Between I-215 NB Ramp & Antelope Rd. | 6D | 53,900 | 47,700 | 0.88 | Approaching |
| | East of Antelope Rd. | 6D | 53,900 | 34,300 | 0.64 | Acceptable |
| | West of Menifee Rd. | 6D | 53,900 | 33,300 | 0.62 | Acceptable |
| | East of Menifee Rd. | 6D | 53,900 | 35,200 | 0.65 | Acceptable |
| | West of Briggs Rd. | 6D | 53,900 | 34,600 | 0.64 | Acceptable |
| | East of Briggs Rd. | 6D | 53,900 | 29,400 | 0.55 | Acceptable |

Source: Urban Crossroads, 2013.

¹ According to the County of Riverside General Plan Circulation Element Link Volume Capacities/Level of Service, March 2001.

² The Average Daily Vehicle Capacity Threshold is determined by the following V/C ratio range: 0.00– 0.79 = "Acceptable", 0.80– 1.00 = "Approaching Capacity", 1.01– 1.25 = "Potentially Exceeds Capacity", 1.26+ = "Exceeds Capacity"

The roadway segment analysis for Post-2035 conditions shows that the following 8 study area roadway segments may exceed the roadway capacity:

- Murrieta Road north of Newport Road
- Haun Road south of Newport Road
- McCall Boulevard west of Bradley Road
- McCall Boulevard between Bradley Road & I-215 SB Ramp
- McCall Boulevard between I-215 SB Ramp & I-215 NB Ramp
- McCall Boulevard between I-215 NB Ramp & Encanto Drive
- Newport Road west of Haun Road
- Newport Road between Haun Road & the I-215 Southbound Ramps

As previously described, the roadway segment analysis is presented as a planning tool to assess the adequacy of the existing and proposed General Plan Circulation Element functional roadway classifications. A V/C ratio of

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greater than 1.01 to 1.25 suggests that additional review is required; however, if adjacent intersections provide the lanes needed to achieve acceptable peak hour LOS, then segment capacity improvements between key intersections may not be needed. For roadway segments significantly exceeding capacity (V/C ratio > 1.25), additional through lane roadway capacity and intersection improvements are more likely to be needed. It is important to consider the intersection LOS in combination with the roadway segment V/C ratios.

I-215 Freeway Mainline Analysis

As shown on Table 5.16-11, for 2035 RCIP conditions with the proposed widening project that would add additional travel lanes, the I-215 freeway would carry traffic volumes that are expected to exceed and potentially exceed the daily capacity on all five mainline segments evaluated.

**Table 5.16-11
Post-2035 Conditions I-215 Freeway V/C ratios**

| Segment | Through Travel Lanes | Estimated Daily Capacity¹ | Existing ADT | Volume/ Capacity Ratio | Average Daily Vehicle Capacity Threshold² |
|--|-----------------------------|---|---------------------|-------------------------------|---|
| North of Ethanac Road (CA-74) | 6D | 117,500 | 133,000 | 1.13 | Potentially Exceeds |
| Ethanac Road (CA-74) to McCall Boulevard | 6D | 117,500 | 134,000 | 1.14 | Potentially Exceeds |
| McCall Boulevard to Newport Road | 6D | 117,500 | 140,000 | 1.19 | Potentially Exceeds |
| Newport Road to Scott Road | 6D | 117,500 | 123,000 | 1.05 | Potentially Exceeds |
| South of Scott Road | 6D | 117,500 | 144,000 | 1.23 | Potentially Exceeds |

Source: Urban Crossroads, 2013.

¹ Source: County of Riverside General Plan Circulation Element Link Volume Capacities/Level of Service, March 2001.

² The Average Daily Vehicle Capacity Threshold is determined by the following V/C ratio range: 0.00– 0.79 = "Acceptable", 0.80– 1.00 = "Approaching Capacity", 1.01– 1.25 = "Potentially Exceeds Capacity", 1.26+ = "Exceeds Capacity"

Intersections Peak Hour Levels of Service

Based on the LOS methodologies described in the "Methodology" section, the peak hour traffic volumes presented in Exhibits 7-5 and 7-6 of the TIA were used in conjunction with existing lane configurations to determine the current traffic operating conditions at the 33 existing study area intersections.

Table 5.16-12 summarizes the Post-2035 Condition peak hour LOS at the 33 existing study area intersections during the weekday AM and PM peak hours.

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**Table 5.16-12
Post-2035 Intersection Peak Hour Level of Service**

| Intersection | Traffic Control ¹ | Delay ² (secs.) | | Level of Service | |
|--------------------------------------|------------------------------|-------------------------------|-------|----------------------|----------|
| | | AM | PM | AM | PM |
| Goetz Rd / Newport Rd | TS | 31.3 | 39.4 | C | D |
| Goetz Rd / Ethanac Rd | TS | 47.5 | 42.8 | D | D |
| Murrieta Rd / Ethanac Rd | TS | 46.8 | 49.3 | D | D |
| Murrieta Rd / McCall Blvd | TS | 26.2 | 26.6 | C | C |
| Murrieta Rd / Cherry Hills Blvd | TS | 23.5 | 24.0 | C | C |
| Murrieta Rd / Newport Rd | TS | 36.9 | 50.8 | D | D |
| Murrieta Rd / Scott Rd | TS | 19.8 | 32.9 | B | C |
| Bradley Rd / McCall Blvd | TS | 42.6 | >80.0 | D | F |
| Bradley Rd / Cherry Hills Blvd | TS | 14 | 15 | B | B |
| Bradley Rd / Newport Rd | TS | 39.2 | 42 | D | D |
| I-215 Southbound Ramps / Ethanac Rd | TS | 11.8 | 9 | B | A |
| I-215 Southbound Ramps / McCall Blvd | TS | 20.2 | 29.2 | C | C |
| Haun Rd / Newport Rd | TS | >80.0 | >80.0 | F | F |
| Haun Rd / Scott Rd | TS | 45.5 | 41.8 | D | D |
| I-215 Southbound Ramps / Newport Rd | TS | 14.6 | 13.9 | B | B |
| I-215 Southbound Ramps / Scott Rd | TS | 7.7 | 7.5 | A | A |
| I-215 Northbound Ramps / Ethanac Rd | TS | 11.6 | 12.3 | B | B |
| I-215 Northbound Ramps / McCall Blvd | TS | 20.5 | 27.3 | C | C |
| I-215 Northbound Ramps / Newport Rd | TS | 15.2 | 18.5 | B | B |
| I-215 Northbound Ramps / Scott Rd | TS | 15.3 | 15 | B | B |
| Encanto Dr / Ethanac Rd | TS | 31.0 | 23.5 | C | C |
| Encanto Dr / McCall Blvd | TS | 34.7 | 54.9 | C | D |
| Antelope Rd / Newport Rd | TS | 34.5 | 37.1 | C | D |
| Antelope Rd / Scott Rd | TS | 38.1 | 43.1 | D | D |
| Menifee Rd / SR-74 (Pinacate Rd) | TS | 61.8 | 47.1 | F⁴ | D |
| Menifee Rd / McCall Blvd | TS | >80.0 | 45.6 | F | D |
| Menifee Rd / Newport Rd | TS | 39.4 | 39.8 | D | D |
| Menifee Rd / Holland Rd | TS | 29.7 | 33.3 | C | C |
| Menifee Rd / Garbani Rd | TS | 29.8 | 37.9 | C | D |
| Menifee Rd / Scott Rd | TS | 35.1 | 45.1 | C | D |
| Lindenberger Rd / Newport Rd | TS | 20.6 | 21.7 | C | C |
| Briggs Rd / SR-74 (Pinacate Rd) | TS | 46.7 | 44.3 | D | D |
| Briggs Rd / Scott Rd | TS | 31.7 | 33.9 | C | C |

Source: Urban Crossroads, 2013.

Bold indicates poor level of service.

¹ TS = Traffic Signal; AWS = All Way Stop; CSS = Cross-Street Stop.

² Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all-way-stop control. For intersections with cross-street-stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. The I-215 ramp locations have been analyzed utilizing the Synchro software.

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As shown in this table for Post-2035 conditions, the following intersection location will experience unacceptable LOS E or worse conditions during one or both of the peak hours:

- Bradley Road at McCall Boulevard
- Haun Road at Newport Road
- Menifee Road at SR-74 (Pinacate Road)
- Menifee Road at McCall Boulevard

Expanded EDC Scenario Post- 2035 Traffic Forecasts

The Expanded EDC scenario Post-2035 traffic forecasts are based on Menifee General Plan Land Use Element with the proposed land use change affecting 197 acres in the southwest corner of the General Plan Study Area, west of Interstate 215 and south of Scott Road. A summary of the differences between the Post-2035 General Plan and the Expanded EDC Post 2035 scenario are shown below.

- Increase the EDC area
 - Add 197 acres to the EDC-designated area
 - Increase nonretail by 3,260,901 square feet
- Reduce the Rural Residential area
 - Remove 4 acres of the RR1 (1-acre minimum) land use designation and 193 acres of the RR2 (2 acres minimum) land use designation
 - Reduce population by 281 persons
 - Reduce total number of units by 101

The Average Daily Traffic Volumes and the AM and PM peak hour intersection turning movement volumes expected for Expanded EDC scenario Post-2035 conditions are presented in Exhibits 7-7, 7-8 and 7-9, respectively, of the TIA included (in Appendix I).

Roadway Segments Volume per Capacities Ratios

The roadway segment V/C ratios are approximate figures to assist in determining the roadway functional classification (number of through lanes) needed to meet projected traffic demands. Table 5.16-13 presents a summary of the roadways performance for the Expanded EDC scenario Post-2035 conditions:

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**Table 5.16-13
Roadways Segments V/C Ratios, Expanded EDC Scenario Post-2035 Conditions**

| <i>Roadway</i> | <i>Segment</i> | <i>Through Travel Lanes</i> | <i>Estimated Daily Capacity¹</i> | <i>RCIP 2035 ADT</i> | <i>Volume/ Capacity Ratio</i> | <i>Average Daily Vehicle Capacity Threshold²</i> |
|----------------|---------------------------------------|-----------------------------|---|----------------------|-------------------------------|---|
| Goetz Road | North of Ethanac Rd. | 4D | 34,100 | 26,900 | 0.79 | Acceptable |
| | South of Ethanac Rd. | 4D | 34,100 | 32,300 | 0.95 | Approaching |
| | North of Newport Rd. | 4D | 34,100 | 14,200 | 0.42 | Acceptable |
| Murrieta Road | North of Ethanac Rd. | 4U | 25,900 | 7,400 | 0.29 | Acceptable |
| | South of Ethanac Rd. | 4U | 25,900 | 9,300 | 0.36 | Acceptable |
| | North of McCall Bl. | 4U | 25,900 | 8,600 | 0.33 | Acceptable |
| | Between McCall Bl. & Cherry Hills Bl. | 4U | 25,900 | 11,900 | 0.46 | Acceptable |
| | South of Cherry Hills Bl. | 4U | 25,900 | 10,700 | 0.41 | Acceptable |
| | North of Newport Rd. | 4D | 35,900 | 42,300 | 1.18 | Potentially Exceeds |
| | South of Newport Rd. | 4D | 35,900 | 15,900 | 0.44 | Acceptable |
| | North of Scott Rd. | 4D | 35,900 | 19,100 | 0.53 | Acceptable |
| Bradley Road | North of McCall Bl. | 4U | 25,900 | 6,400 | 0.25 | Acceptable |
| | Between McCall Bl. & Cherry Hills Bl. | 4D | 25,900 | 24,600 | 0.95 | Approaching |
| | South of Cherry Hills Bl. | 4U | 25,900 | 20,100 | 0.78 | Acceptable |
| | North of Newport Rd. | 4U | 25,900 | 15,200 | 0.59 | Acceptable |
| | South of Newport Rd. | 4D | 34,100 | 15,700 | 0.46 | Acceptable |
| Encanto Road | South of Ethanac Rd. | 4D | 34,100 | 8,200 | 0.24 | Acceptable |
| | North of McCall Bl. | 4D | 34,100 | 13,800 | 0.40 | Acceptable |
| | South of McCall Bl. | 2U | 13,000 | 7,800 | 0.60 | Acceptable |
| Haun Road | North of Newport Rd. | 2U | 13,000 | 10,000 | 0.77 | Acceptable |
| | South of Newport Rd. | 4D | 34,100 | 42,800 | 1.26 | Exceeds |
| | North of Scott Rd. | 4D | 34,100 | 13,600 | 0.40 | Acceptable |
| | South of Scott Rd. | 4D | 34,100 | 17,400 | 0.51 | Acceptable |
| Antelope Road | North of Newport Rd. | 4D | 25,900 | 7,500 | 0.29 | Acceptable |
| | South of Newport Rd. | 4D | 34,100 | 18,700 | 0.55 | Acceptable |
| | North of Scott Rd. | 4D | 34,100 | 18,500 | 0.54 | Acceptable |
| | South of Scott Rd. | 4D | 34,100 | 17,100 | 0.50 | Acceptable |
| Menifee Road | North of SR-74 (Pinacate Rd.) Rd. | 6D | 53,900 | 24,700 | 0.46 | Acceptable |
| | South of SR-74 (Pinacate Rd.) Rd. | 6D | 53,900 | 39,000 | 0.72 | Acceptable |
| | North of McCall Bl. | 6D | 53,900 | 47,000 | 0.87 | Approaching |
| | Between McCall Bl. & Simpson Rd | 6D | 53,900 | 24,400 | 0.45 | Acceptable |

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**Table 5.16-13
Roadways Segments V/C Ratios, Expanded EDC Scenario Post-2035 Conditions**

| <i>Roadway</i> | <i>Segment</i> | <i>Through Travel Lanes</i> | <i>Estimated Daily Capacity¹</i> | <i>RCIP 2035 ADT</i> | <i>Volume/ Capacity Ratio</i> | <i>Average Daily Vehicle Capacity Threshold²</i> |
|---------------------------------------|---------------------------------------|-----------------------------|---|----------------------|-------------------------------|---|
| | North of Newport Rd. | 4D | 35,900 | 28,000 | 0.78 | Acceptable |
| | South of Newport Rd. | 4D | 35,900 | 24,300 | 0.68 | Acceptable |
| | North of Holland Rd. | 4D | 35,900 | 21,000 | 0.58 | Acceptable |
| | South of Holland Rd. | 4D | 35,900 | 18,500 | 0.52 | Acceptable |
| | North of Garbani Rd. | 4D | 35,900 | 18,300 | 0.51 | Acceptable |
| | South of Garbani Rd. | 4D | 35,900 | 18,900 | 0.53 | Acceptable |
| | North of Scott Rd. | 4D | 35,900 | 20,400 | 0.57 | Acceptable |
| | South of Scott Rd | 4D | 35,900 | 22,600 | 0.63 | Acceptable |
| Lindenberger Road | North of Newport Rd. | 4U | 25,900 | 6,500 | 0.25 | Acceptable |
| Briggs Road | North of SR-74 (Pinacate Rd.) | 4D | 34,100 | 6,900 | 0.20 | Acceptable |
| | South of SR-74 (Pinacate Rd.) | 4D | 34,100 | 11,700 | 0.34 | Acceptable |
| | North of Scott Rd. | 4D | 34,100 | 2,700 | 0.08 | Acceptable |
| | South of Scott Rd | 4D | 34,100 | 7,900 | 0.23 | Acceptable |
| Ethanac/SR-74 (Pinacate Rd.) | West of Goetz Rd. | 6D | 61,300 | 43,600 | 0.71 | Acceptable |
| | Between Goetz Rd & Murrieta Rd. | 6D | 61,300 | 50,700 | 0.83 | Approaching |
| | East of Murrieta Rd. | 6D | 61,300 | 57,700 | 0.94 | Approaching |
| | West of I-215 SB Ramp | 8D | 81,700 | 65,900 | 0.81 | Approaching |
| | Between I-215 SB Ramp & I-215 NB Ramp | 8D | 81,700 | 64,200 | 0.79 | Acceptable |
| | Between I-215 NB Ramp & Encanto Dr. | 8D | 81,700 | 67,300 | 0.82 | Approaching |
| | East of Encanto Dr. | 8D | 81,700 | 62,200 | 0.76 | Acceptable |
| | West of Menifee Rd. | 8D | 81,700 | 62,300 | 0.76 | Acceptable |
| | East of Menifee Rd. | 8D | 81,700 | 64,300 | 0.79 | Acceptable |
| | West of Briggs Rd. | 8D | 81,700 | 64,500 | 0.79 | Acceptable |
| | East of Briggs Rd. | 8D | 81,700 | 61,700 | 0.76 | Acceptable |
| | McCall Boulevard | West of Murrieta Rd. | 4D | 34,100 | 11,200 | 0.33 |
| East of Murrieta Rd. | | 4D | 34,100 | 18,900 | 0.55 | Acceptable |
| West of Bradley Rd. | | 4D | 34,100 | 38,500 | 1.13 | Potentially Exceeds |
| Between Bradley Rd & I-215 SB Ramp | | 6D | 53,900 | 56,400 | 1.05 | Potentially Exceeds |
| Between I-215 SB Ramp & I-215 NB Ramp | | 6D | 53,900 | 57,700 | 1.07 | Potentially Exceeds |
| Between I-215 NB Ramp & Encanto Dr. | | 6D | 53,900 | 58,800 | 1.09 | Potentially Exceeds |
| East of Encanto Dr. | | 6D | 53,900 | 42,600 | 0.79 | Acceptable |

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**Table 5.16-13
Roadways Segments V/C Ratios, Expanded EDC Scenario Post-2035 Conditions**

| <i>Roadway</i> | <i>Segment</i> | <i>Through Travel Lanes</i> | <i>Estimated Daily Capacity¹</i> | <i>RCIP 2035 ADT</i> | <i>Volume/ Capacity Ratio</i> | <i>Average Daily Vehicle Capacity Threshold²</i> |
|------------------------|---------------------------------------|-----------------------------|---|----------------------|-------------------------------|---|
| | West of Menifee Rd. | 6D | 53,900 | 29,700 | 0.55 | Acceptable |
| | East of Menifee Rd. | 6D | 53,900 | 36,000 | 0.67 | Acceptable |
| Cherry Hills Boulevard | West of Murrieta Rd. | 2U | 13,000 | 2,400 | 0.18 | Acceptable |
| | East of Murrieta Rd. | 4D | 25,900 | 2,800 | 0.11 | Acceptable |
| | West of Bradley Rd. | 4D | 25,900 | 5,600 | 0.22 | Acceptable |
| Newport Road | West of Goetz Rd. | 6D | 53,900 | 32,600 | 0.60 | Acceptable |
| | East of Goetz Rd. | 6D | 53,900 | 39,000 | 0.72 | Acceptable |
| | West of Murrieta Rd. | 6D | 53,900 | 44,900 | 0.83 | Approaching |
| | East of Murrieta Rd. | 6D | 53,900 | 50,000 | 0.93 | Approaching |
| | West of Bradley Rd. | 6D | 53,900 | 43,800 | 0.81 | Approaching |
| | East of Bradley Rd. | 6D | 53,900 | 49,600 | 0.92 | Approaching |
| | West of Haun Rd. | 6D | 53,900 | 56,800 | 1.05 | Potentially Exceeds |
| Newport Road | Between Haun Rd. & I-215 SB Ramp | 8D | 71,800 | 75,500 | 1.05 | Potentially Exceeds |
| | Between I-215 SB Ramp & I-215 NB Ramp | 8D | 71,800 | 64,500 | 0.90 | Approaching |
| | Between I-215 NB Ramp & Antelope Rd. | 8D | 71,800 | 60,700 | 0.85 | Approaching |
| | East of Antelope Rd. | 6D | 53,900 | 46,200 | 0.86 | Approaching |
| | West of Menifee Rd. | 6D | 53,900 | 44,200 | 0.82 | Approaching |
| | East of Menifee Rd. | 6D | 53,900 | 24,700 | 0.46 | Acceptable |
| | West of Lindenberger Rd. | 6D | 53,900 | 28,900 | 0.54 | Acceptable |
| Holland Road | East of Lindenberger Rd. | 6D | 53,900 | 23,800 | 0.44 | Acceptable |
| | West of Menifee Rd. | 4D | 34,100 | 19,400 | 0.57 | Acceptable |
| Garbani Road | East of Menifee Rd. | 4D | 34,100 | 13,100 | 0.38 | Acceptable |
| | West of Menifee Rd. | 4D | 34,100 | 15,100 | 0.44 | Acceptable |
| Garbani Road | East of Menifee Rd. | 4D | 34,100 | 12,100 | 0.35 | Acceptable |
| | West of Menifee Rd. | 4D | 34,100 | 15,100 | 0.44 | Acceptable |
| Scott Road | West of Murrieta Rd. | 6D | 53,900 | 45,000 | 0.83 | Approaching |
| | East of Murrieta Rd. | 6D | 53,900 | 38,600 | 0.72 | Acceptable |
| | West of Haun Rd. | 6D | 53,900 | 38,600 | 0.72 | Acceptable |
| | Between Haun Rd. & I-215 SB Ramp | 6D | 53,900 | 48,000 | 0.89 | Approaching |
| | Between I-215 SB Ramp & I-215 NB Ramp | 6D | 53,900 | 47,000 | 0.87 | Approaching |
| | Between I-215 NB Ramp & Antelope Rd. | 6D | 53,900 | 48,700 | 0.90 | Approaching |
| | East of Antelope Rd. | 6D | 53,900 | 36,300 | 0.67 | Acceptable |

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**Table 5.16-13
Roadways Segments V/C Ratios, Expanded EDC Scenario Post-2035 Conditions**

| <i>Roadway</i> | <i>Segment</i> | <i>Through Travel Lanes</i> | <i>Estimated Daily Capacity¹</i> | <i>RCIP 2035 ADT</i> | <i>Volume/ Capacity Ratio</i> | <i>Average Daily Vehicle Capacity Threshold²</i> |
|----------------|---------------------|-----------------------------|---|----------------------|-------------------------------|---|
| | West of Menifee Rd. | 6D | 53,900 | 34,300 | 0.64 | Acceptable |
| | East of Menifee Rd. | 6D | 53,900 | 36,200 | 0.67 | Acceptable |
| | West of Briggs Rd. | 6D | 53,900 | 35,600 | 0.66 | Acceptable |
| | East of Briggs Rd. | 6D | 53,900 | 30,400 | 0.56 | Acceptable |

Source: Urban Crossroads, 2013.

¹ According to the County of Riverside General Plan Circulation Element Link Volume Capacities/Level of Service, March 2001.

² The Average Daily Vehicle Capacity Threshold is determined by the following V/C ratio range: 0.00– 0.79 = "Acceptable", 0.80– 1.00 = "Approaching Capacity", 1.01–1.25 = "Potentially Exceeds Capacity", 1.26+ = "Exceeds Capacity"

The roadway segment analysis for the Expanded EDC Scenario Post-2035 conditions shows that the following 8 study area roadway segments may exceed the roadway capacity:

- Murrieta Road north of Newport Road
- Haun Road south of Newport Road
- McCall Boulevard west of Bradley Road
- McCall Boulevard between Bradley Road & I-215 SB Ramp
- McCall Boulevard between I-215 SB Ramp & I-215 NB Ramp
- McCall Boulevard between I-215 NB Ramp & Encanto Drive
- Newport Road west of Haun Road
- Newport Road between Haun Road & the I-215 Southbound Ramps

These are the same segments identified under Post-2035 conditions. As previously described, the roadway segment analysis is presented as a planning tool to assess the adequacy of the existing and proposed General Plan Circulation Element functional roadway classifications. It is important to consider the intersection LOS in combination with the roadway segment V/C ratios.

I-215 Freeway Mainline Analysis

As shown on Table 5.16-14, for 2035 RCIP conditions with the proposed widening project which would add additional travel lanes, the I-215 freeway is expected to exceed and potentially exceed the daily capacity on all five mainline segments evaluated.

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**Table 5.16-14
Post-2035 Conditions I-215 Freeway V/C ratios**

| Segment | Through Travel Lanes | Estimated Daily Capacity¹ | Existing ADT | Volume/ Capacity Ratio | Average Daily Vehicle Capacity Threshold² |
|--|-------------------------------------|---|-------------------------|---------------------------------------|---|
| North of Ethanac Road (CA-74) | 6D | 117,500 | 135,000 | 1.15 | Potentially Exceeds |
| Ethanac Road (CA-74) to McCall Boulevard | 6D | 117,500 | 135,000 | 1.15 | Potentially Exceeds |
| McCall Boulevard to Newport Road | 6D | 117,500 | 150,000 | 1.28 | Exceeds |
| Newport Road to Scott Road | 6D | 117,500 | 124,000 | 1.06 | Potentially Exceeds |
| South of Scott Road | 6D | 117,500 | 143,000 | 1.22 | Potentially Exceeds |

Source: Urban Crossroads, 2013.

¹ Source: County of Riverside General Plan Circulation Element Link Volume Capacities/Level of Service, March 2001.

² The Average Daily Vehicle Capacity Threshold is determined by the following V/C ratio range: 0.00–0.79 = "Acceptable", 0.80–1.00 = "Approaching Capacity", 1.01–1.25 = "Potentially Exceeds Capacity", 1.26+ = "Exceeds Capacity"

Intersections Peak Hour Levels of Service

Based on the LOS methodologies described in the *Intersection Level of Service* section above, the peak hour traffic volumes presented in Exhibits 7-7 and 7-8 of the TIA were used in conjunction with future lane configurations to determine the current traffic operating conditions at the 33 existing study area intersections.

Table 5.16-15 summarizes the Expanded EDC Scenario Post-2035 Condition peak hour LOS at the 33 existing study area intersections during the weekday AM and PM peak hours.

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Table 5.16-15
Expanded EDC Scenario Post-2035 Intersection Peak Hour Level of Service

| Intersection | Traffic Control ¹ | Delay ² (secs.) | | Level of Service | |
|--------------------------------------|------------------------------|----------------------------|-------|----------------------|----------|
| | | AM | PM | AM | PM |
| Goetz Rd / Newport Rd | TS | 31.3 | 39.4 | C | D |
| Goetz Rd / Ethanac Rd | TS | 47.5 | 42.8 | D | D |
| Murrieta Rd / Ethanac Rd | TS | 46.7 | 49.3 | D | D |
| Murrieta Rd / McCall Blvd | TS | 26.2 | 26.6 | C | C |
| Murrieta Rd / Cherry Hills Blvd | TS | 23.5 | 24.0 | C | C |
| Murrieta Rd / Newport Rd | TS | 36.9 | 50.8 | D | D |
| Murrieta Rd / Scott Rd | TS | 19.8 | 32.9 | B | C |
| Bradley Rd / McCall Blvd | TS | 42.6 | >80.0 | D | F |
| Bradley Rd / Cherry Hills Blvd | TS | 14 | 15 | B | B |
| Bradley Rd / Newport Rd | TS | 39.2 | 42 | D | D |
| I-215 Southbound Ramps / Ethanac Rd | TS | 11.8 | 9 | B | A |
| I-215 Southbound Ramps / McCall Blvd | TS | 20.2 | 29.2 | C | C |
| Haun Rd / Newport Rd | TS | >80.0 | >80 | F | F |
| Haun Rd / Scott Rd | TS | 45.5 | 41.8 | D | D |
| I-215 Southbound Ramps / Newport Rd | TS | 14.6 | 13.9 | B | B |
| I-215 Southbound Ramps / Scott Rd | TS | 7.7 | 7.5 | A | A |
| I-215 Northbound Ramps / Ethanac Rd | TS | 11.6 | 12.3 | B | B |
| I-215 Northbound Ramps / McCall Blvd | TS | 20.5 | 27.3 | C | C |
| I-215 Northbound Ramps / Newport Rd | TS | 15.2 | 18.5 | B | B |
| I-215 Northbound Ramps / Scott Rd | TS | 15.3 | 15.0 | B | B |
| Encanto Dr / Ethanac Rd | TS | 31.0 | 23.5 | C | C |
| Encanto Dr / McCall Blvd | TS | 34.7 | 54.9 | C | D |
| Antelope Rd / Newport Rd | TS | 34.5 | 37.1 | C | D |
| Antelope Rd / Scott Rd | TS | 38.1 | 43.1 | D | D |
| Menifee Rd / SR-74 (Pinacate Rd.) | TS | 61.8 | 47.1 | F⁴ | D |
| Menifee Rd / McCall Blvd | TS | >80.0 | 45.6 | F | D |
| Menifee Rd / Newport Rd | TS | 39.4 | 39.8 | D | D |
| Menifee Rd / Holland Rd | TS | 29.7 | 33.3 | C | C |
| Menifee Rd / Garbani Rd | TS | 29.8 | 37.9 | C | D |
| Menifee Rd / Scott Rd | TS | 35.1 | 45.1 | D | D |
| Lindenberger Rd / Newport Rd | TS | 20.6 | 21.7 | C | C |
| Briggs Rd / SR-74 (Pinacate Rd.) | TS | 46.7 | 44.3 | D | D |
| Briggs Rd / Scott Rd | TS | 31.7 | 33.9 | C | C |

Source: Urban Crossroads, 2013.

Bold indicates poor level of service.

¹ TS = Traffic Signal; AWS = All Way Stop; CSS = Cross-Street Stop.

² Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all-way-stop control. For intersections with cross-street-stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. The I-215 Ramp Locations have been analyzed utilizing the Synchro software.

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As shown in this table for the Expanded EDC Scenario Post-2035 conditions, the following intersection locations would experience unacceptable LOS E or worse conditions during one or both of the peak hours:

- Bradley Road at McCall Boulevard
- Haun Road at Newport Road
- Menifee Road at SR-74 (Pinacate Rd.)
- Menifee Road at McCall Boulevard

Four intersections would experience unacceptable LOS during one or both peak hours for Post-2035 for the General Plan and for the Expanded EDC scenario. Without additional improvements above and beyond programmed improvements, this would be a significant impact. Implementation of Mitigation Measures 16-1 and 16-2 would reduce impacts to less than significant.

IMPACT 5.16-2: TRAFFIC VOLUMES AT GENERAL PLAN BUILDOUT WOULD EXCEED WITH THE APPLICABLE CONGESTION MANAGEMENT PLAN CRITERIA AT THREE MAINLINE SEGMENTS OF THE I-215. [THRESHOLD T-2]

The Congestion Management Program in effect in Riverside County was approved by the RCTC in 2010. All freeways and selected arterial roadways in the county are designated elements of the CMP system of highways and roadways. There are two CMP system roadways in the City, I-215 and SR-74. Traffic impacts to these two roadways that would result from General Plan buildout were analyzed in Impact Statement 5.16-1 above. RCTC has adopted a minimum level of service threshold of LOS “E” for CMP facilities.

All segments on SR-74 currently operate and would continue to operate at acceptable LOS E or better. However, three of the study area freeway mainline segments on the I-215 (from McCall Boulevard to south of Scott Road) currently operate and would continue to operate at LOS F at 2035 and Post-2035 conditions. Buildout of the proposed Land Use Plan would result in additional traffic volume that would significantly cumulatively contribute to mainline freeway segment impacts. According to the RTCT CMP plan, when a deficiency is identified, a deficiency plan must be prepared by the local agency (in this case Caltrans). Other agencies identified as contributors to the deficiency, which include the City of Menifee and the County of Riverside, are also required to coordinate with the development of the plan. The plan must contain mitigation measures, including consideration of Transportation Demand Management strategies and transit alternatives, and a schedule for mitigating deficiency. Without specific policies requiring the City to contribute to the deficiency plan, this would be a significant impact. Implementation of Mitigation Measures 16-3 would reduce impacts but not to less than significant.

IMPACT 5.16-3: CIRCULATION IMPROVEMENTS ASSOCIATED WITH GENERAL PLAN BUILDOUT 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:

Buildout of the proposed General Plan would result in some changes to the City’s circulation network, but would not increase hazards or impact emergency access due to design features. Several modifications to the currently adopted county (RCIP) highway cross-sections were recommended in order to accommodate a broader array of traffic volume conditions and modes; to provide appropriate lane capacities within limited right-of-way (ROW); and to provide more detailed information on lane configurations, shoulders, medians, etc. Higher volume streets were designed with shoulders to accommodate exclusive bike lanes or share NEV/bike lanes. Sidewalks may be curb-adjacent or separated from the roadway by a landscaped parkway or on-street parking, subject to approval. All future roadway system improvements associated with

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development and redevelopment activates under the General Plan would be designed in accordance with the established roadway design standards, some of which have also been incorporated into the Circulation Element of the General Plan.

In addition to functional classifications, the plan identifies “enhanced intersection” locations (additional lanes/right-of-way required within 600 feet of the intersection) and “connectivity analysis zones” (roadway alignments, intersections geometrics and traffic control features subject to future assessment). The proposed City-wide roadway network identifies four connectivity analysis zones that may be subject to review and future consideration by the City of Menifee. These areas have been highlighted to recognize that additional evaluation of the roadway alignments, intersection geometrics, and traffic control features are needed. The traffic study (Urban Crossroads 2013) identified a connectivity analysis zone for the State Route 74/Ethanac Road convergence area. Matthews Road (SR-74) currently turns into SR-74 (Pinacate Rd.) just east of Antelope Road, as it does not currently have a connection south of Ethanac Road/SR-74. When the direct connection of Ethanac Road to SR-74 occurs in the future, the current diagonal alignment of Matthews Road (SR-74) is proposed to “T” into Antelope Road north of Ethanac Road/SR-74. This areas shown on Figure 5.16-7 and is identified as one of the connectivity analysis zones, acknowledging that additional review of the roadway alignments, intersection geometrics, and traffic control features are needed.

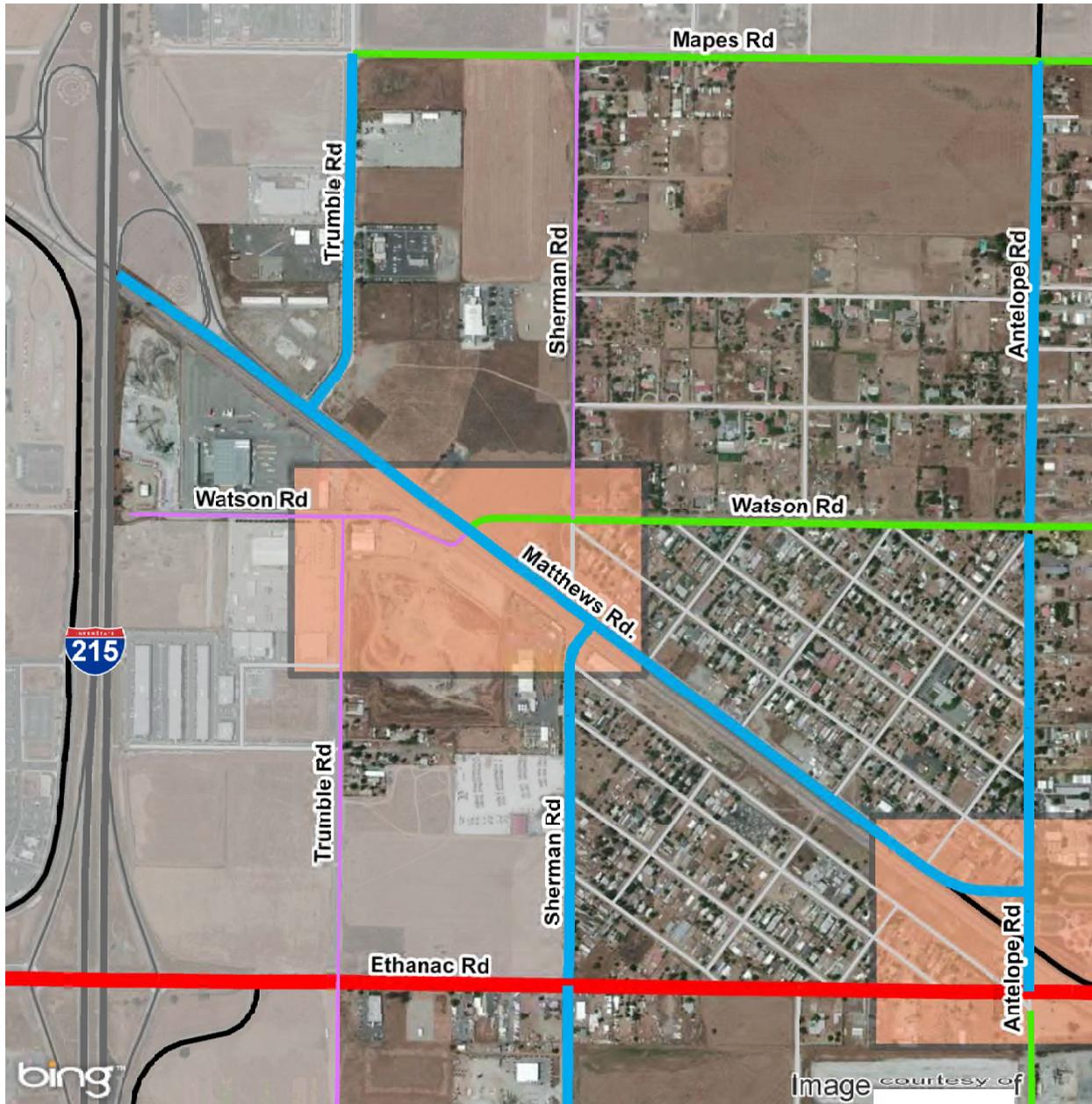
The Circulation Element includes policies that requires the City to comply with federal, state, and local design and safety standards when designing roadways and on-street and off-street pedestrian and bicycle pathways. Impacts to the circulation system and to emergency access as a result of implementation of the General Plan would be less than significant.

IMPACT 5.16-4: GENERAL PLAN BUILDOUT WOULD COMPLY WITH ADOPTED POLICIES, PLANS, AND PROGRAMS FOR ALTERNATIVE TRANSPORTATION. [THRESHOLD T-6]

Impact Analysis: Enabling the use of transportation alternatives with modal layers provides a broader range of options for getting around town. The Circulation Element would introduce and implement various strategies and approaches to accommodate, improve, enhance, and maintain multiple modes of travel throughout the City. The Circulation Element accounts for the implementation and enhancements of several travel modes including automobile, walking, bicycling, transit, and the use of NEVs/golf carts. The General Plan identifies the layered transportation networks, discusses their respective roles in personal mobility, and provides a framework for a cohesive and comprehensive transportation system. Various modal layers provide the framework for the City of Menifee General Plan Circulation Element (see Figure 5.16-6). Environmental impact considerations, personal preference, and economic situations all drive the need to accommodate “layered” networks.

Mode choice is influenced by walk connectivity and proximity of buildings, bike accommodations, transit stop density and service characteristics, and availability of interconnected low speed routes. Layered transportation networks have been created to serve this demand. Alternative mode choices will also contribute to sustainable development by allowing users to satisfy their functional travel needs while supporting their environmental, social, and recreational interests.

State Route 74/Ethnac Road Convergence Area



- █ Expressway
- █ Major
- █ Secondary
- █ Collector/Interconnected Local
- Connectivity Analysis Zone - Roadway alignments, intersection geometrics and traffic control features subject to additional assessment

0 1,000
Scale (Feet)



Source: Urban Crossroads 2013

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Bicycle and Pedestrian Network

The proposed Menifee Bikeway and Community Pedestrian Network presented in Figure 5.16-8 works in conjunction with the proposed Menifee General Plan Roadway Network to provide a framework for key routes and facilities that would enhance connectivity for all users. The layered networks enable travel by various modes to major activity areas, including civic and county facilities, hospitals, libraries, major parks and recreation area, colleges, malls and major retail centers, and large employment centers. A robust sidewalk and bikeway network provides an alternate to the automobile. Thoughtful and strategic investment can help to reduce emission-related pollution and congestion and improve overall community character. In addition, a well-designed pedestrian-based system can encourage usage. There are 10 elementary schools, 4 middle schools, 2 high schools, and 5 private or parochial schools in Menifee. Additionally, Mount San Jacinto Community College (Menifee Valley Campus) is in Menifee, and several transit nodes have been identified. The proposed Menifee Bikeway and Community Pedestrian Network provides linkages to these key destinations.

Menifee's roadway network, relatively flat terrain, and mild weather provide an ideal setting for promoting and encouraging bicycle usage as a healthy and reliable transportation alternative with significant recreational potential. Bikeway planning and design typically conforms to standards developed and endorsed by the Caltrans and the American Association of State Highway and Transportation Officials. Specific design recommendations and planning concepts have been developed to provide a level of consistency while encouraging local needs. Bicycle facilities are generally categorized in three separate classes with distinct objectives and characteristics.

- **Class I Bike Trails:** Provides for bicycle travel on a paved or graded path outside of a road right of way. Bike trails may be shared with other uses, such as pedestrians on a multiuse trail. Class I bike trails are typically 8 to 12 feet in width to accommodate bidirectional travel.
- **Class II Bike Lanes:** Provides a striped lane within the road right of way for one-way bicycle travel. Bike lanes may be shared with NEVs and/or golf carts under certain circumstances. Bike lanes are typically 5 to 8 feet in width adjacent to the curb lane. On-street parking with Class II bike lanes will require safety considerations.
- **Class III Bike Routes:** Bike routes are signed but not striped for bicycle use. Bike routes are generally planned on low volume, low speed local and collector streets where vehicular conflicts are minimal.

WRCOG adopted a Non-Motorized Transportation Plan (NMTP) in 2010. The NMTP includes a system of regional routes through western Riverside County, including the City of Menifee. Although the NMTP is non-binding to participating agencies, the plan consolidated adopted bike plans where available and created a recommended system of supporting routes to connect systems to each other and serve as regional non-motorized transportation backbone. The NMTP included four routes that directly serve Menifee and connect to neighboring jurisdictions. These regionally significant routes were identified in the NMTP as follows:

- **Route 15:** Future Class I bike path along Salt Creek with an eastern connection to Hemet and a western connection to Lake Elsinore
- **Route 19:** Future Class II bike lane along Scott Road/Bundy Canyon Connecting to Mission Trail in Lake Elsinore and Washington Street in French Valley
- **Route 23:** Future Class II bike lane along Bradley Road/Holland Road/Haun Road with a northern terminus at Salt Creek in Menifee and connecting to Murrieta at Keller/Antelope

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- Route 24: Future Class II bike lane along Matthews Road connecting to Perris at Case Road and County of Riverside at Leon Road

In summary, the proposed Menifee Bikeway and Community Pedestrian Network focuses on specific community needs and sets the stage for a comprehensive and effect system which supports pedestrian and bicycle travel. The Circulation Element would include policies to ensure that adequate modes of nonmotorized transportation continue to be provided and expanded, where feasible and necessary, throughout the City, see policies C2.1 to C 2.5 in Section 5.16-4.

Transit Network

The network of potential transit services shown on Figure 5.16-9 works in conjunction with the proposed Menifee General Plan Roadway Network and the proposed Menifee Bikeway and Community Pedestrian Network to provide a framework for key routes and facilities that will further enhance connectivity for all users. The Riverside Transit Agency (RTA) provides fixed route and Dial-A-Ride bus service within the City of Menifee and neighboring jurisdictions. Fixed route service represents established routes that follow fixed timetables. RTA currently provides six fixed routes that operate within and through the City of Menifee. RTA provides several commuter-based fixed route buses throughout the system. There are currently two routes that directly serve Menifee commuters. These buses provide “express” service that uses the I-215 freeway for portions of the route. RTA CommuterLink Route 208 connects Temecula to downtown Riverside with a stop near McCall Boulevard/Bradley Road. RTA CommuterLink Route 212 connects Hemet to downtown Riverside via SR-74 and I-215 but the nearest stop is at the Perris Station Transit Center.

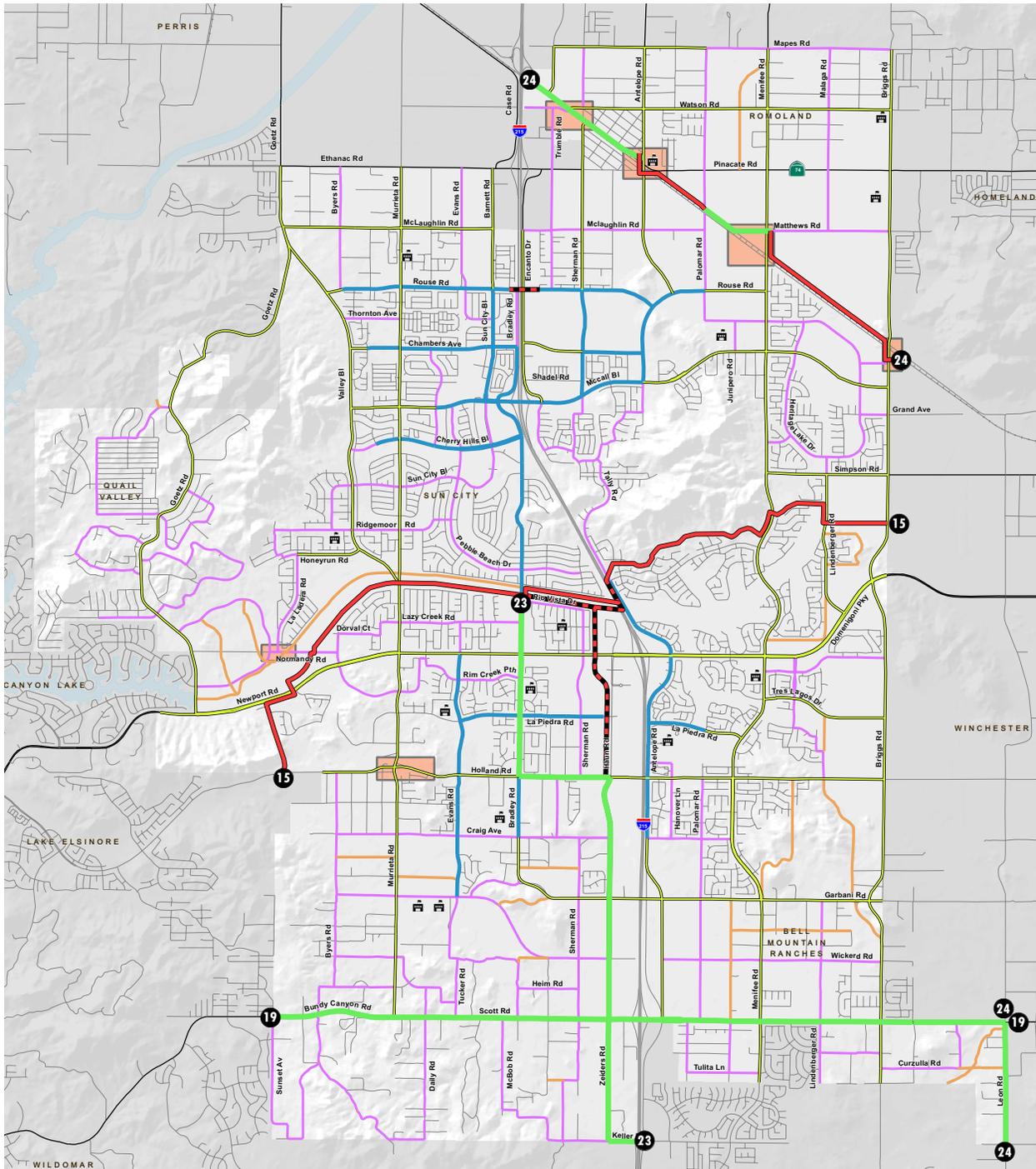
Dial-A-Ride service is a demand response shuttle-type service that complements the fixed route system by providing accessible transit to address Americans with Disabilities Act (ADA) mandates. Dial-A Ride is also available to seniors for travel within the city. Dial-A-Ride shuttles operate within three-quarters of a mile of any RTA fixed route service.

Bus stops are generally placed by RTA on public rights of way. These stops may include signage only, bus bench, shelter or other amenities. Maintenance of bus stops is provided either by RTA or by the City according to an agreement. Ideally, bus stops should be ADA accessible but may have limited access in rural areas or confined locations.

Transit ridership in some communities is high enough to warrant a transit node or center. Transit centers often host multiple routes that overlap or converge for efficient transfers from one bus to another. Transit Centers may be standalone or located within large shopping centers, college campuses or other transit-dense location. As the City of Menifee grows, a transit center may be considered to facilitate commuter express bus service, fixed route bus service, future connections to Perris Valley Metrolink stations and carpools. The location of a transit node or center is determined by ridership demand, design elements (such as parking garage or surface parking needs and bus bays), and coordination with other modes of travel. Five potential transit node locations within the City of Menifee are shown on Figure 5.16-9. These five transit node locations represent key locations that may benefit from transit services. The node locations include Sun City, Mount San Jacinto College and key centers of commercial retail activity.

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City of Menifee Bikeway and Community Pedestrian Network



- Subregional Route - Off-Road Bike Trail (Class I)
- Subregional Route - On-Street Bike Lanes (Class II)
- Community Off-Road NEV/ Bike Trail (Class I)
- Community On-Street NEV/Bike Lanes (Class II)
- Community On-Street Bike Lanes (Class II)
- Community Hiking / Biking Trail Opportunity

- Class III Bike Routes
- Connectivity Analysis Zone - Trail alignments and traffic control features subject to additional assessment
- Ⓜ Existing Schools
- 23 Subregional Route Number (WRCOG Non-Motorized Transportation Plan)

0 1
Scale (Miles)



Source: Urban Crossroads 2013

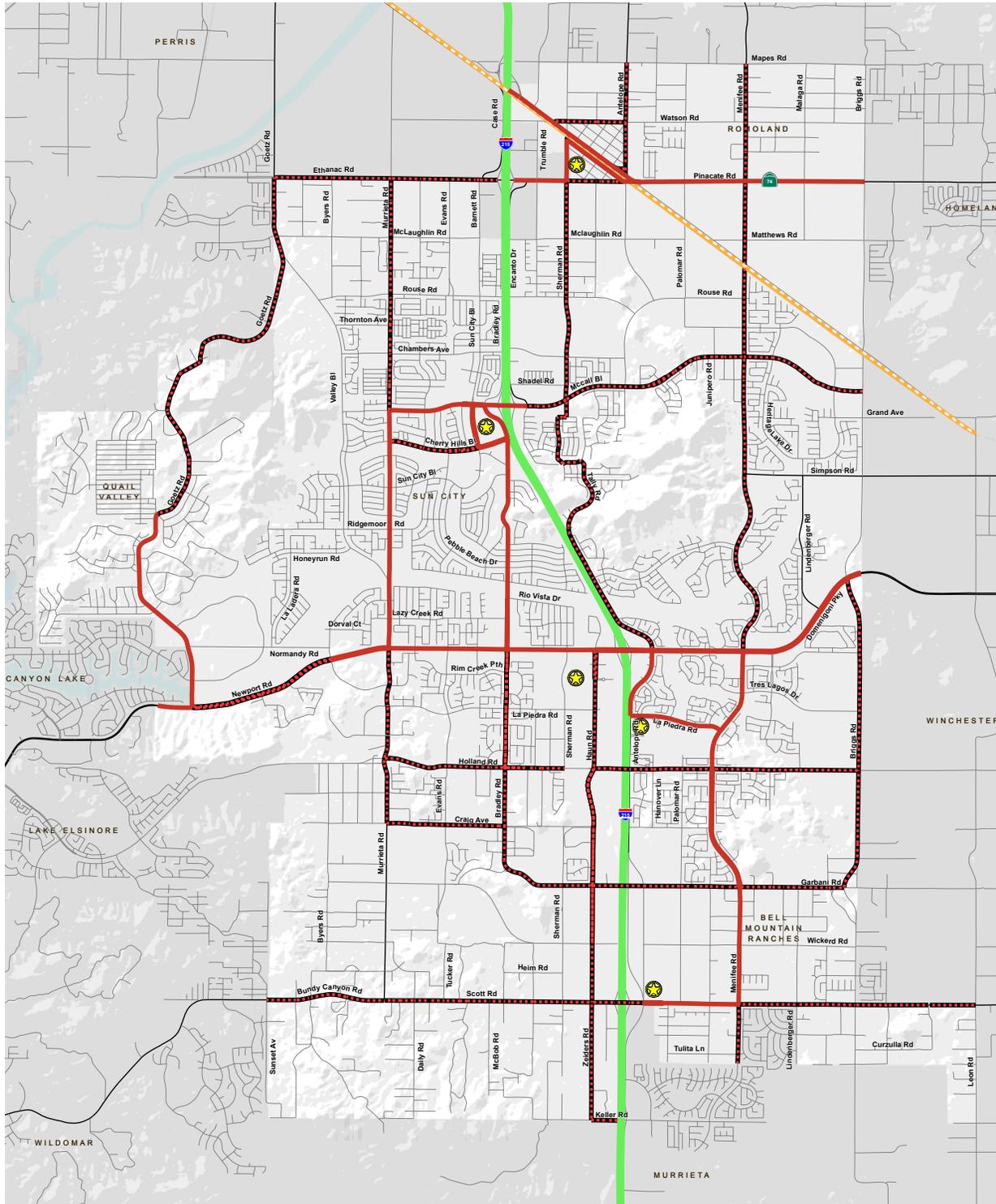
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City of Menifee Transit Network



- Existing On-Road Transit Service (RTA)
- - - Potential Future Rail Service
- Potential Future On-Road Transit Service
- Express Bus Service
- Transit Node



Source: Urban Crossroads 2013

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Commuter rail is provided in several counties in southern California by Metrolink. Metrolink provides service to Riverside County through several rail lines travelling to Los Angeles, Orange, San Bernardino and San Diego counties. Riverside County Transportation Commission (RCTC), in partnership with Metrolink, is responsible for rail planning and funding within Riverside County. RCTC is currently planning an extension of existing rail service from Riverside/San Bernardino along the I-215 and terminating in the City of Perris. The Perris Valley line will provide commuter rail service to Menifee at a Metrolink station planned at Case Road west of I-215. Future service could be extended into Hemet/San Jacinto if ridership demand and other important considerations are met. In addition, the City of Menifee has expressed a desire to add a Metrolink station to serve the community.

According to the Year 2000 Post-Census Regional Travel Survey, Final Report of Survey Results (Southern California Association of Governments, Fall, 2003), for existing conditions in Riverside County, 0.4% of trips are served by transit. For the entire SCAG region, transit accommodates approximately 1.8% of person trips. As transit service is expanded, the proportion of trips served by transit (i.e. the transit mode share) is expected to increase.

The Circulation Element would include policies to promote the use of transit throughout the City, see policies C3.1 to C 3.6.

Neighborhood Electric Vehicles (NEVs) / Golf Carts

Neighborhood Electric Vehicles (NEV) are a relatively recent mode choice within the low speed vehicle (LSV) family that is gaining attention and expanding travel choices. In 1999, Riverside County adopted a Golf Cart Plan that enables residents in the Sun City community to use golf carts on certain public streets. The proposed Menifee Neighborhood Electric Vehicle network expands the original Sun City Golf Cart plans and identifies areas throughout the City of Menifee that will accommodate the use of NEV's/Golf Carts. Licensing, vehicle registration, safety equipment and operational capabilities also differ with NEVs as the more robust, closely regulated vehicle type. These vehicles are subject to established Department of Motor Vehicles laws and regulations.

The network of potential NEV routes shown in Figure 5.16-10 works in conjunction with the proposed Menifee General Plan Roadway Network and the proposed Menifee Bikeway and Community Pedestrian Network to provide a framework for low speed vehicle usage. The concept plan depicts the existing Golf cart plan roadways as well as potential NEV routes as either Class I routes (off-street), Class II striped lanes (on-street shared lanes with bikes), and Class III preferred local routes (on-street, signed only). NEVs may be legally operated on any local street with a posted speed limit of 35 MPH or less unless specifically prohibited by local ordinance. The Circulation Element promotes the use of transit throughout the City.

In summary, no conflict with policies, plans, and programs for alternative transportation would occur from future development and redevelopment under the proposed General Plan; no impacts would occur.

IMPACT 5.16-5 AIR TRAFFIC PATTERNS WOULD NOT BE CHANGED BY THE GENERAL PLAN BUILDOUT. [THRESHOLD T-3]

Impact Analysis: Large public airports with passenger service in the vicinity include the Ontario International Airport about 45 miles to the northwest, and Palm Springs International Airport 30 miles east.

There are no air carriers providing scheduled passenger service at Riverside Municipal Airport. Four smaller airports also operate in the Menifee area: Perris Valley Airport, Hemet-Ryan Airport, French Valley Airport, and Skylark Field Airport.

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Perris Valley Airport is a privately owned and operated airport open to public use. The airport has one runway and is used for general aviation and extensive skydiving. A skydiving drop zone operates at the airport, and skydivers land about 50 feet from the runway. As identified in the Riverside County Airport Land Use Plan, the northwestern portion of Menifee lies in the Compatibility Zone E of the Perris Valley Airport.

Hemet-Ryan Airport. The nearby county-owned Hemet-Ryan Airport has a 4,300-foot runway and also has general aviation facilities.

French Valley Airport is a county-owned public-use airport on Highway 79 in Murrieta. French Valley Airport has one asphalt-paved runway.

Skylark Field Airport in Lake Elsinore is a private airport with three runways and is used for general aviation and skydiving activities.

March Air Reserve Base in unincorporated Riverside County area, north of Perris and west of Moreno Valley, has a lower number of operations than some of the other airports identified above, but its runway is the longest in the County, and it serves large aircraft as part of its military functions. March has take-off and landing flight patterns that go over the northwest portion of Menifee.

Portions of Menifee are located within the Airport Influence areas of Perris Valley Airport and March Air Reserve Base. Pursuant to Section 21676(b) of the California Public Utilities Code, the adoption of a General Plan and all General Plan amendments affecting land use designations within airport influence areas are subject to Airport Land Use Commission review, involving a formal submittal process.

Airport land use commissions (ALUCs) were created by the State of California to work with local jurisdictions in a joint effort to provide for compatible land uses in the vicinity of public use airports. There are no direct conflicts with the compatibility criteria in the Perris Valley Airport Land Use Compatibility Plan as adopted by the Riverside County ALUC or the provisions of the March Air Reserve Base Joint Land Use Study. Air traffic pattern impacts would be less than significant.

5.16.4 Existing Regulations and Standard Conditions

State

- The California Complete Streets Act (Assembly Bill 1358)
- SB 375 Sustainable Communities and Climate Protection Act

Regional

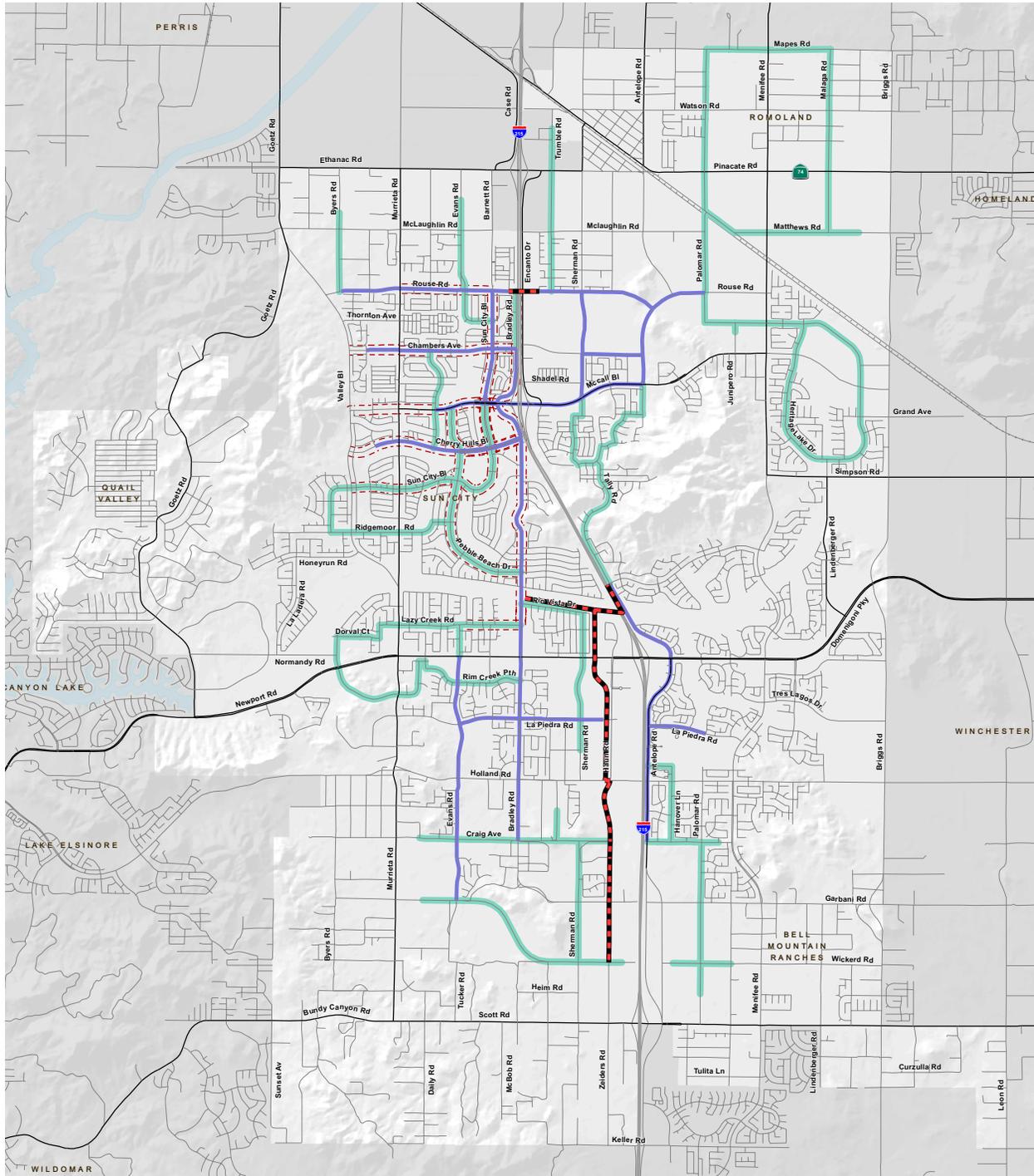
- Riverside County Congestion Management Plan
- Western Riverside County Non-Motorized Transportation Plan

Relevant General Plan Policies

Relevant Menifee General Plan policies are in the Circulation Element and are listed in Appendix C of this EIR.

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City of Menifee NEV Network



- NEV/Bike Lanes (Class II Routes)
- Shared Use Roadway (Potentially Signed, Class III Routes, on Two-Lane Roadways with Speed Limits of 35 MPH or Less; NEV/Bike Lanes on Roadways with Speed Limits Greater than 35 MPH)
- Adopted Sun City Golf Cart Plan
- Off-Road Golf Cart/NEV/Bike Trail (Class I)



Source: Urban Crossroads 2013



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5.16.5 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and compliance with the General Plan policies, the following impacts would be less than significant: 5.16-3, 5.16-4, and 5.16-5.

Without mitigation, the following impacts would be **potentially significant**:

- Impact 5.13-1 General Plan buildout trip generation would impact levels of service at various intersections.
- Impact 5.13-2 General Plan buildout trip generation would contribute to an exceedance of the CMP criteria at freeway mainline segments.

The above significance conclusions apply to both the proposed General Plan and the Expanded EDC Scenario.

5.16.6 Mitigation Measures

Impact 5.16-1

As shown in impact statement 5.16-1, four intersections would experience unacceptable LOS during one or both peak hours for Post-2035 General Plan and with the Expanded EDC scenario. Tables 5.16-16 and 5.16-17 identify the additional lane requirements needed to mitigate the unacceptable peak hour LOS for the Post-2035, General Plan and the Expanded EDC scenario, respectively.

In order to address area-wide intersection deficiencies during the weekday AM and PM peak commute hours under the Post-2035 General Plan and Expanded EDC scenario buildout, additional physical roadway improvements (improvements above and beyond programmed improvements) have been identified. The necessary physical improvements include a combination of recommended lane geometrics at key intersections.

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**Table 5.16-16
Intersection Mitigation Measures for Post-2035 General Plan**

| Intersection | Traffic Control | Intersection Approach Lanes | | | | | | | | | | | | Delay (secs.) | | Level of Service | | | | |
|---|-----------------|-----------------------------|---|----|------------|---|----|-----------|---|----|-----------|---|----|---------------|----|------------------|-------|-------|---|---|
| | | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | AM | PM | AM | PM | | | |
| | | L | T | R | L | T | R | L | T | R | L | T | R | | | | | | | |
| Bradley Rd / McCall Blvd | | | | | | | | | | | | | | | | | | | | |
| - Without Mitigation | TS | 1 | 2 | 1> | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 42.5 | >80.0 | D | F |
| - With Mitigation | TS | 1 | 2 | 2> | 1 | 2 | 1 | 2 | 3 | 1 | 2 | 3 | 1 | 3 | 3 | 1 | 34.5 | 45.6 | C | D |
| Haun Rd / Newport Rd | | | | | | | | | | | | | | | | | | | | |
| - Without Mitigation | TS | 2 | 1 | 2> | 2 | 1 | 1 | 2 | 3 | 1> | 2 | 3 | 1 | 2 | 3 | 1 | >80.0 | >80.0 | F | F |
| - With Mitigation ¹ | TS | 2 | 1 | 2> | 2 | 1 | 1 | 2 | 4 | 1> | 2 | 4 | 1 | 4 | 4 | 1 | 55.4 | 78.1 | E | E |
| - With Additional Mitigation ² | TS | 2 | 1 | 2> | 2 | 1 | 1 | 2 | 4 | 1> | 2 | 4 | 1 | 4 | 4 | 1 | 26.5 | 39.0 | C | D |
| Menifee Rd / SR-74 (Pinacate Rd.) | | | | | | | | | | | | | | | | | | | | |
| - Without Mitigation | TS | 2 | 3 | 1> | 2 | 3 | 1 | 2 | 4 | 1> | 2 | 4 | 1 | 2 | 4 | 1 | 61.3 | 47.3 | F | D |
| - With Mitigation | TS | 2 | 3 | 2> | 2 | 3 | 1 | 2 | 4 | 1> | 2 | 4 | 1 | 2 | 4 | 1 | 46.3 | 46.4 | D | D |
| Menifee Rd / McCall Blvd | | | | | | | | | | | | | | | | | | | | |
| - Without Mitigation | TS | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 3 | 1> | 2 | 3 | 1> | >80.0 | 44.6 | F | D |
| - With Mitigation | TS | 2 | 3 | 1 | 2 | 3 | 1> | 2 | 3 | 1 | 2 | 3 | 2> | 2 | 3 | 2> | 40.2 | 42.1 | D | D |

Source: Urban Crossroads, 2013.

L = Left; T = Through; R = Right; > = Right-Turn Overlap Phasing; >> = Free-Right Turn Lane; d= Defacto Right Turn Lane; 1 = Improvement

TS = Traffic Signal; AWS = All Way Stop; CSS = Cross-street Stop

¹ In addition to the lane improvements shown, the removal of the southbound crosswalk (west leg) is recommended.

² In addition to the lane improvements shown, the removal of both the northbound (east leg) and southbound (west leg) crosswalks is recommended.

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Table 5.16-17
Intersection Mitigation Measures for Post-2035 Expanded EDC Scenario

| Intersection | Traffic Control | Intersection Approach Lanes | | | | | | | | | | | | Delay (secs.) | | Level of Service | |
|---|-----------------|-----------------------------|---|----|------------|---|----|-----------|---|----|-----------|---|----|---------------|-------|------------------|----|
| | | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | AM | PM | AM | PM |
| | | L | T | R | L | T | R | L | T | R | L | T | R | | | | |
| Bradley Rd / McCall Blvd | | | | | | | | | | | | | | | | | |
| - Without Mitigation | TS | 1 | 2 | 1> | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 42.6 | >80.0 | D | F |
| - With Mitigation | TS | 1 | 2 | 2> | 1 | 2 | 1 | 2 | 3 | 1 | 2 | 3 | 1 | 34.7 | 45.4 | C | D |
| Haun Rd / Newport Rd | | | | | | | | | | | | | | | | | |
| - Without Mitigation | TS | 2 | 1 | 2> | 2 | 1 | 1 | 2 | 3 | 1> | 2 | 3 | 1 | >80.0 | >80 | F | F |
| - With Mitigation ¹ | TS | 2 | 1 | 2> | 2 | 1 | 1 | 2 | 4 | 1> | 2 | 4 | 1 | 55.8 | 77.7 | E | E |
| - With Additional Mitigation ² | TS | 2 | 1 | 2> | 2 | 1 | 1 | 2 | 4 | 1> | 2 | 4 | 1 | 26.5 | 39.3 | C | D |
| Menifee Rd / SR-74 (Pinacate Rd.) | | | | | | | | | | | | | | | | | |
| - Without Mitigation | TS | 2 | 3 | 1> | 2 | 3 | 1 | 2 | 4 | 1> | 2 | 4 | 1 | 61.8 | 47.1 | F | D |
| - With Mitigation | TS | 2 | 3 | 2> | 2 | 3 | 1 | 2 | 4 | 1> | 2 | 4 | 1 | 46.7 | 46.1 | D | D |
| Menifee Rd / McCall Blvd | | | | | | | | | | | | | | | | | |
| - Without Mitigation | TS | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 3 | 1> | >80.0 | 45.6 | F | D |
| - With Mitigation | TS | 2 | 3 | 1 | 2 | 3 | 1> | 2 | 3 | 1 | 2 | 3 | 2> | 40.0 | 42.9 | D | D |

Source: Urban Crossroads, 2013.

L = Left; T = Through; R = Right; > = Right-Turn Overlap Phasing; >> = Free-Right Turn Lane; d= Defacto Right Turn Lane; 1 = Improvement

TS = Traffic Signal; AWS = All Way Stop; CSS = Cross-street Stop

¹ In addition to the lane improvements shown, the removal of the southbound crosswalk (west leg) is recommended.

² In addition to the lane improvements shown, the removal of both the northbound (east leg) and southbound (west leg) crosswalks is recommended.

16-1 As development occurs, the City of Menifee shall implement intersection improvements identified below. When applicable, implementation of transportation improvements shall be conducted in coordination with Caltrans and/or the County of Riverside. The intersection improvements are ultimately subject to the review, approval, modification, and implementation of the City. Further environmental review may be required on a project-specific basis for certain intersection improvements.

- Bradley Road at McCall Blvd
 - add a second northbound right-turn lane
 - add a third eastbound through lane
 - add a third westbound through lane
- Haun Road at Newport Road
 - add a fourth eastbound through lane
 - add a fourth westbound through lane
 - remove both the northbound (east leg) and southbound (west leg) crosswalks
- Menifee Road at SR-74 (Pinacate Rd.)
 - add a second northbound right-turn lane
- Menifee Road at McCall Boulevard
 - add a southbound right-turn overlap phase
 - add a second westbound right-turn lane

16-2 Prior to issuance of each building permit, appropriate Traffic Impact and TUMF fees shall be paid by the property owner/developer in amounts determined by the City Council Resolution in effect at the time of issuance of the building permit.

Impact 5.16-2

16-3 The City of Menifee shall contribute to the preparation of the deficiency plan, which will consider mitigation measures, including Transportation Demand Management (TDM) strategies and transit alternatives, and a schedule for mitigating deficiency to reduce impacts at the I-215 mainline segments. Once the need for improvements has been identified by Caltrans for a particular freeway mainline segment and a program for implementing the required improvements has been developed, the City will coordinate with Caltrans, as appropriate. Contributions may be in the form of developer fees, freeway improvements, development in lieu of fees, state or federal funds, or other programs, as appropriate. Contributions required of individual development projects will be determined on a project-by-project basis at the time of development application review and will be based on a traffic analysis undertaken for individual development project applicants.

5.16.7 Level of Significance After Mitigation

Impact 5.16-1

Mitigation Measures 16-1 and 16-2 would require contributions toward the cost of improvements needed to meet acceptable LOS on intersections. With implementation of the recommended intersection improvements listed above, the study area intersections are expected to operate at acceptable levels of service under the Post-2035 General Plan, and the Post-2035 Expanded EDC scenario; impacts would be less than significant.

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Impact 5.16-2

Implementation of Mitigation Measure 16-3 would contribute to the preparation of the deficiency plan to provide necessary improvements needed for the affected freeway mainline segments. However, since the I-215 freeway is under Caltrans's sole jurisdiction, the City itself cannot implement the freeway improvements. The City's development impact fees cannot be used for improvements to roadway facilities under Caltrans's sole jurisdiction, such as freeway mainline segments, and the City cannot widen the freeway itself. Consequently, impacts to freeway mainline segments as a result of implementation of the General Plan would be significant and unavoidable.

The above significance conclusions apply to both the proposed General Plan and the Expanded EDC scenario.