4.10 TRANSPORTATION, CIRCULATION, AND TRAFFIC

This section of the EIR was prepared by Pinnacle Traffic Engineering. This section documents the transportation-related impacts associated with the NCP Master Plan project. Technical information is available in Appendix G.

4.10.1 Existing Conditions

4.10.1.1 Road Network

The NCP and Mesa Meadows are located southwest of US 101 within the community of Nipomo in unincorporated San Luis Obispo County. Regional access is provided via the US 101/West Tefft Street interchange, and State Route (SR) 1. Primary access is provided via West Tefft Street, Pomeroy Road, and Orchard Avenue. The existing access road for the NCP intersects West Tefft Street (150 feet south of Orchard Avenue) and Pomeroy Road (150 feet east of Juniper Street). Access to Mesa Meadows is provided via Charro Way, Tejas Place, and Amigo Place.

The impacts of the NCP Master Plan project to the transportation system were evaluated during the weekday evening (p.m.) peak hour for the following study intersections and daily operations on the following roadway segments:

Intersections

1. West Tefft Street and Pomeroy Road
2. West Tefft Street and Orchard Avenue
3. West Tefft Street and Existing Park Access Road
4. Pomeroy Road and Existing Park Access Road
5. Pomeroy Road and Juniper Street
6. Pomeroy Road and Camino Caballo

Roadway Segments

1. West Tefft Street, east of Pomeroy Road
2. West Tefft Street, Pomeroy Road - Orchard Avenue
3. West Tefft Street, south of Orchard Avenue
4. Pomeroy Road, north of West Tefft Street
5. Pomeroy Road, Juniper Street - Camino Caballo
6. Pomeroy Road, north of Camino Caballo
7. Camino Caballo, west of Pomeroy Road
8. Orchard Avenue, east of West Tefft Street'
9. Juniper Street, east of Pomeroy Road
10. Osage Street, south of Camino Caballo
11. Mesa Road, west of West Tefft Street

At the request of County staff, the analysis also includes a qualitative evaluation of the potential project impacts at the US 101 and West Tefft Street interchange.

U.S. Highway 101

US 101 is a four-lane north-south divided freeway through the Nipomo area of unincorporated San Luis Obispo County. US 101 provides regional access between northern and southern California. In the vicinity of the community of Nipomo, there are grade separated interchanges at SR 166 (Cuyama Highway), West Tefft Street, and Los Berros Road/North Thompson Avenue. The new Willow Road "grade separated" interchange is currently under construction and will connect to the Willow Road extension (planned for completion in late 2012/early 2013). The north and southbound ramps at the US 101/West Tefft Street interchange are signalized.

West Tefft Street

West Tefft Street extends west from Thompson Avenue to North Las Flores Drive. West Tefft Street in the vicinity of the NCP is posted with a 45 mph speed limit. West Tefft Street also has a "school zone" speed limit (25 mph) posted for the Dana Elementary School. The "school zone" speed limit signs are supplemented with "your speed" read-out signs. West of US 101, West Tefft Street has two travel lanes in each direction with a raised median. West of Mary Avenue, this four-lane arterial has a two-way left turn lane that provides access for various commercial driveways and collector streets. West Tefft Street continues along a horizontal curve to the south adjacent to Pomeroy Road. South of Pomeroy Road, West Tefft Street transitions to a three-lane section, and south of Orchard Avenue, West Tefft Street has a single lane in each direction with a two-way left turn lane. West Tefft Street is signalized at Thompson Avenue, Oakglen Avenue, US 101 ramps, Mary Avenue, Pomeroy Road, and Orchard Avenue. In the vicinity of the NCP, West Tefft Street also provides access for the Nipomo Public Library, Dana Elementary School and, the Nipomo Community Health Center.

Pomeroy Road

Pomeroy Road extends north of West Tefft Street to Los Berros Road. Pomeroy Road has a single lane in each direction with a posted speed limit of 45 mph (adjacent to the NCP). The 45 mph speed limit signs are supplemented with "your speed" read-out signs. There are 35 mph "curve advisory" signs for the horizontal curve near the NCP access road and Juniper Street intersections. Left turn lanes are provided for access at Primrose Lane, the NCP park access road, Juniper Street, and Camino Caballo.

Orchard Avenue

Orchard Avenue extends east of West Tefft Street to Joshua Road. Orchard Avenue has a single lane in each direction with a posted 45 mph speed limit. Left turn lanes are provided for access at Grande Street, Division Street, Soares Drive, and Story Street. The Orchard Avenue and Division Street intersection is signalized.

Park Access Road

The NCP access road extends between West Tefft Street and Pomeroy Road. The existing access road has a single lane in each direction with a width of approximately 18 to 20 feet. There is a posted speed limit of 15 mph and speed humps within the park. The existing park access road also provides access for the northerly parking lot at the Dana Elementary School (23 stalls used by staff and faculty).

The network of local collector streets serving the NCP and Mesa Meadows includes Primrose Lane, Bernita Place, Juniper Street, Camino Caballo, Osage Street, Tejas Place, and Mesa Road. Each local collector streets has a single lane in each direction.

4.10.1.2 Bicycle and Pedestrian Facilities

West Tefft Street, Pomeroy Road, and Orchard Avenue have Class II bike lanes. The Class II bike lanes include no parking signs, bike lane signs, and striping. In the vicinity of the NCP, there are pedestrian sidewalks on the east side of West Tefft Street (north of Orchard Avenue), west side of West Tefft Street (south of Orchard Avenue), north side of Pomeroy Road (between West Tefft Street and Camino Caballo), and north side of Orchard Avenue. Access to various trails within the NCP and Mesa Meadows is provided via connections to Pomeroy Road, Camino Caballo, Osage Street, Tejas Place, and La Serena Way.

4.10.1.3 Transit Facilities

South County Area Transit (Regional Transit Authority, RTA) currently provides limited service to the community of Nipomo (Route 10). Local transit stops are provided at the Nipomo High School and on West Tefft Street near Carillo Street. The RTA also provides a "dial a ride" service for Nipomo.

4.10.1.4 Existing Traffic Volumes and Intersection Configurations

The evaluation of project impacts includes an analysis of average weekday evening peak hour operations at the selected study intersections. Traffic associated with the Dana Elementary School (approx. 600 students) does create congestion along West Tefft Street on a daily basis (before classes start @ 9:00AM and after classes end @ 3:15). Schools typically generate sharp peaks in traffic demand prior to the beginning of classes and when classes end (15-30 minutes). Traffic during an average weekday afternoon commuter peak hour (highest hour between 4:00 and 6:00 PM) is generally higher and spread out over the entire peak hour. Traffic count data on the County's website demonstrates that the evening peak hour on West Tefft Street (west of Mary Avenue) typically starts between 4:00 and 5:00 PM. Therefore, traffic demands along West Tefft Street adjacent to the project site are higher during an average weekday evening commuter peak period than when classes end at the Dana Elementary School.

New turning movement traffic count data was collected at the study intersections during a weekday afternoon commuter period (4:00-6:00 p.m.). New 24-hour traffic count data was also collected on West Tefft Street (south of Pomeroy Road), Pomeroy Road (west of West Tefft Street), and Osage Street (south of Camino Caballo). Existing traffic volume data contained in the *South County Traffic Model Update (Final Report)* (County of San Luis Obispo 2008) and published on the County's website was also referenced. Traffic count data for the US 101/West Street interchange was provided by County staff. The new traffic count data is provided in Appendix G The existing turning movement volumes, roadway segment, and traffic control at each of the study intersections are shown on Figure 4.10-1.

4.10.1.5 Existing Levels of Service

The operation of intersections and roadway segments is measured in terms of Level of Service (LOS). LOS is a qualitative measure of traffic conditions ranging from LOS A (representing free-flowing conditions with little or no delay) to LOS F (representing congested conditions with long delays and lengthy vehicle queues). LOS E represents at-capacity conditions. The

County has established LOS C as the general threshold for acceptable operations on rural facilities and LOS D as the general threshold for acceptable operations on urban facilities.

The *South County Inland Area Plan* considers the area within the Nipomo Urban Reserve Line (URL) as the only "urban" area within the South County planning area. The *South County Traffic Model Update (Final Report)* utilizes the LOS C threshold for acceptable operations on the study area street system (intersections and roadways). Therefore, operations within the LOS D, E, and F range are considered unacceptable. The California Department of Transportation (Caltrans) strives to maintain a target level of service at the transition between LOS C/D on State operated facilities. Operational analysis of the study intersections is based on the methods and procedures described in the 2000 *Highway Capacity Manual (HCM 2000)*, published by the Transportation Research Board.

Existing Intersection Operations

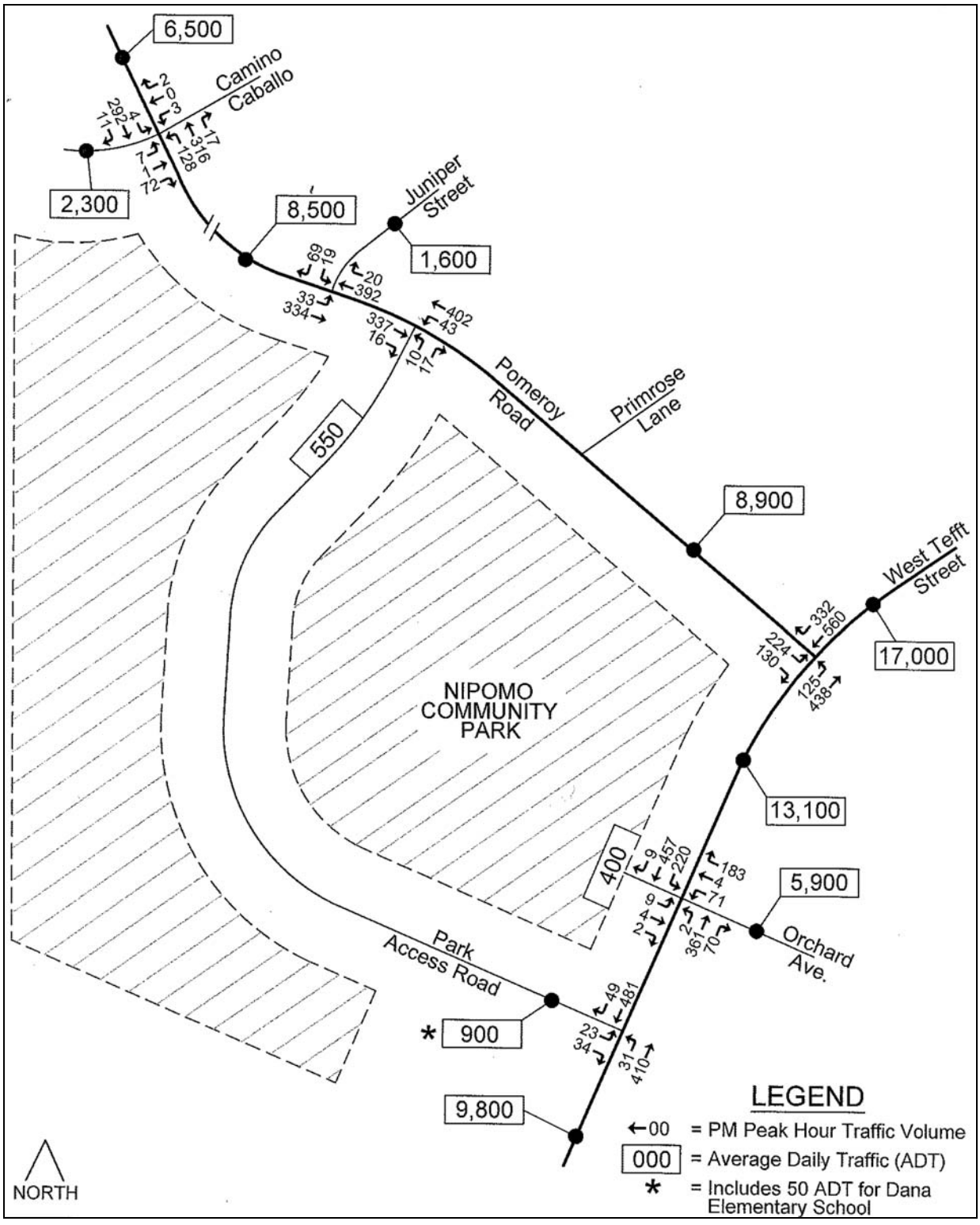
Signalized intersection operations were analyzed using the SYNCHRO software program. This program is a comprehensive analysis tool that produces a variety of output data for intersection and arterial roadway operating performance. Table 4.10-1 presents the service level criteria used for signalized intersections based on average control delay per vehicle as described in Chapter 16 of the *HCM 2000*, where control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration.

Table 4.10-1. Signalized Intersection Service Level Criteria

Level of Service	Description	Average Control Delay Per Vehicle (Seconds)
A	Operations with very low delay occurring with favorable progression and/or short cycle length.	$\leq$ 10
B	Operations with low delay occurring with good progression and/or short cycle lengths.	> 10 and $\leq$ 20
C	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	> 20 and $\leq$ 35
D	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	> 35 and $\leq$ 55
E	Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	> 55 and $\leq$ 80
F	Operations with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths.	> 80

Source: Highway Capacity Manual, Transportation Research Board, 2000

Figure 4.10-1. Existing Traffic Volumes



Source: Pinnacle Transportation Engineering 2010

Unsignalized intersections were analyzed using the methodology described in Chapter 17 of the *HCM 2000*. This methodology calculates the overall intersection control delay for intersections controlled by stop signs. At two-way or side street-controlled intersections, the control delay is calculated for each movement, not for the intersection as a whole. For approaches composed of a single lane, the control delay is computed as the average of all movements in that lane. Table 4.10-2 shows the ranges of control delay and corresponding levels of service for unsignalized intersections.

Table 4.10-2. Unsignalized Intersection Service Level Criteria

Level of Service	Description	Average Total Delay Per Vehicle (Seconds)
A	Little or no delay	≤ 10
B	Short delays	> 10 and ≤ 15
C	Average delays	> 15 and ≤ 25
D	Moderate delays	> 25 and ≤ 35
E	Lengthy delays.	> 35 and ≤ 50
F	Intolerable delays.	> 50

Source: Highway Capacity Manual, Transportation Research Board, 2000.

The existing peak hour volumes, peak hour factors, and lane configurations were input into the SYNCHRO program to calculate the LOS at each of the study locations. A global peak hour factor (PHF) of 0.85 was applied to all intersections in the p.m. peak hour analysis to ensure consistency with the results from the *South County Traffic Model Update (Final Report).* Table 4.10-3 summarizes the existing intersection p.m. peak hour Levels of Service. The level of service calculations are contained in Appendix G

Table 4.10-3. Existing Intersection Levels of Service

Study Intersection	Vehicle Delay (Sec./Vehicle) – LOS Value
	May 2009
W. Tefft Street/Pomeroy Road*	14.6 - B
W. Tefft Street/Orchard Avenue*	20.8 - C
W. Tefft Street/Park Access Road EB Stop Sign Approach	1.5 - A (22.0 - C)
Pomeroy Road/Park Access Road EB Stop Sign Approach	0.9 - A (14.2 - B)
Pomeroy Road/Juniper Street WB Stop Sign Approach	1.8 - A (14.6 - B)
Pomeroy Road/Camino Caballo Stop Sign Approach	2.7 - A (22.8 - C)

*Intersection controlled with traffic signal.

Vehicle delays at the West Tefft Street/Orchard Avenue intersection are within the LOS C range, while delays at the West Tefft Street/Pomeroy Road intersection are within the LOS B range. Delays at the stop sign controlled study intersections are within the LOS A range. Information in the *South County Traffic Model Update (Final Report)* indicates that delays at the US 101/West Tefft Street interchange northbound ramps are in the LOS C range during the p.m. peak hour. The study also indicates that delays at the southbound ramps intersection (opposite the Frontage Road) are within the LOS E range during the p.m. peak hour. The primary reason for the excessive delays is the current intersection configuration. The US 101 southbound ramps-Frontage Road intersection essentially has five legs, with a two-stage left turn signal phase for the westbound left turn movements at the US 101 southbound on-ramp and at the Frontage Road.

As previously discussed, the US 101/Willow Road "grade separated" interchange is currently under construction and will connect to the Willow Road extension (planned for completion in late 2012/early 2013). The US101/Willow Road Interchange Project - Final Traffic Operations Report included an evaluation of the potential benefits to the US 101/West Tefft Street interchange. The Willow Road Extension Final Supplemental EIR analyzed the benefits associated with the "preferred" alternative. The analysis of 2030 traffic conditions demonstrated that the US 101/Willow Road interchange would reduce vehicle delays at the US 101/West Tefft Street interchange ramp intersections by about 40% during the PM peak hour (sum of critical movements).

Existing Roadway Segment Operations

The operations of roadway segments are generally evaluated by comparing the measured (counted) volume to the threshold volumes. Table 4.10-4 presents threshold volumes from the *South County Traffic Model Update (Final Report) and HCM 2000*, based on the roadway facility type and number of lanes, for various types of roadways. These threshold volumes include adjustments for divided or undivided facilities and for roadways with left turn lanes. The threshold volumes are approximate in nature and serve primarily as a general guide as to whether the roadway is over or under capacity. In urban environments, where intersections become the constraint points along roadway segments, intersection level of service is typically used to determine the roadway's level of service.

Table 4.10-4. Level of Service Threshold Volumes for Various Roadway Types

Roadway Type	Maximum Daily Volume (both directions)				
	LOS A	LOS B	LOS C	LOS D	LOS E
4-Lane Divided Highway	28,000	43,200	61,600	74,400	80,000
4-Lane Divided Arterial (with left turn lanes)	22,000	25,000	29,000	32,500	36,000
3-Lane Undivided Arterial (with left turn lanes)	14,400	16,800	19,200	21,600	24,000
2-Lane Arterial (with left turn lanes)	11,000	12,500	14,500	16,000	18,000
2-Lane Arterial (with no left turn lanes)	8,000	9,500	10,500	12,000	13,500
2-Lane Collector/Local Street[1]	6,000	7,500	9,000	10,500	12,000

[1] Threshold volumes obtained by taking the average value of the range presented in the South County Traffic Model Update, derived from the Highway Capacity Manual 2000. This accounts for the nonstandard design features of collector roads in the study area, such as narrow lane widths and dirt shoulders.

Table 4.10-5 shows the existing roadway segment levels of service for the study segments. Based on the volume thresholds from the *South County Traffic Model Update (Final Report)* and *HCM 2000,* daily traffic volumes along Pomeroy Road are within the LOS B range. The remaining study roadway segments operate at LOS A.

Table 4.10-5. Existing Street Roadway Segment Daily Traffic Conditions

Roadway Segment	Type	ADT* May 2009	Level of Service
W. Tefft Street, e/o Pomeroy Road	4-Lane Divided Arterial**	17,000	A
W. Tefft Street, Pomeroy Rd. - Orchard Ave.	3-Lane Undivided Arterial**	13,100	A
W. Tefft Street, s/o Orchard Avenue	2-Lane Arterial**	9,800	A
Pomeroy Road, n/o W. Tefft Street	2-Lane Arterial	8,900	B
Pomeroy Road, Juniper St. - Camino Ca.	2-Lane Arterial	8,500	B
Pomeroy Road, n/o Camino Caballo	2-Lane Collector	6,500	B
Camino Caballo, w/o Pomeroy Road	2-Lane Collector	2,300	A
Orchard Avenue, e/o W. Tefft Street	2-Lane Arterial	5,900	A
Juniper Street, e/o Pomeroy Road	2-Lane Collector	1,600	A
Osage Street, s/o Camino Caballo	2-Lane Collector	1,200	A
Mesa Road, w/o Tefft Street	2-Lane Collector	2,900	A

* ADT = Average Daily Traffic
** With left turn lanes

4.10.2 Baseline Conditions

Baseline conditions typically reflect the sum of the existing volumes, as identified in the Existing Conditions, plus traffic from approved but not yet constructed developments in the vicinity of the proposed project. Since there are no approved but not yet constructed projects in the study area, the Existing Conditions scenario will be used to establish the baseline for evaluating project impacts.

4.10.3 Regulatory Setting

Transportation system requirements for the unincorporated areas of the county are subject to the policies and plans of the County. The County outlines policies and standards regarding use of public roads in the *South County Inland Area Plan* and *South County Traffic Model Update (Final Report).* The County is responsible for the review and approval of proposed projects and traffic study reports. All new developments are required to meet the parking space and access improvement standards specified by the County.

Caltrans has jurisdiction over all state-maintained facilities, including US 101. Caltrans strives to maintain operations at the LOS C/D threshold on all of its facilities but acknowledges that

numerous roadway segments under its control in urban areas will operate at LOS D or worse. Any modifications to facilities within Caltrans right-of-way must be approved by the State.

4.10.4 Thresholds of Significance

The significance of potential transportation and circulation impacts are based on thresholds identified by the County of San Luis Obispo, in accordance with Appendix G of the CEQA Guidelines. Transportation impacts are considered significant if the proposed project would:

- Increase vehicle trips to local or areawide circulation system;
- Reduce existing "Levels of Service" on public roadways (refer to LOS standards below);
- Create unsafe conditions on public roadways (e.g., limited access, design features, sight distance, slow vehicles);
- Provide for adequate emergency access;
- Result in inadequate parking capacity;
- Result in inadequate internal traffic circulation;
- Conflict with adopted policies, plans, or programs supporting alternative transportation; or,
- Result in a change in air traffic patterns that may result in substantial safety risks.

"Level of Service" Thresholds

The County has established the LOS C threshold for acceptable operations on rural facilities maintained by the County. Caltrans strives to maintain a target level of service at the transition between LOS C/D on State operated facilities.

Transportation impacts at signalized intersections are considered significant when:

- The addition of project traffic causes the intersection's level of service to degrade from LOS C or better to LOS D, E, or F.
- Project traffic is added to an intersection operating at LOS D, E, or F.

Transportation impacts at unsignalized intersections are considered significant when:

- The addition of project traffic to an unsignalized intersection degrades the level of service to an unacceptable level and satisfies the peak-hour signal warrant from the California Manual on Uniform Traffic Control Devices (MUTCD).
- The project's access to a major street causes a potentially unsafe situation or requires a new traffic signal.

Evaluation of arterial roadway segments reflects planning-level conditions along a street, whereas analysis of the intersections reflects detailed conditions of the arterial. Typically, poor operating conditions on an arterial are due to constraints at the intersections, and can be mitigated at the intersection. Therefore, if an arterial roadway segment analysis shows poor operating conditions, but individual intersections operate within acceptable standards, the mitigation measures defer to the intersection.

For US 101 ramps, US 101 mainline segments, or a County roadway segment already operating at LOS D, E, or F without the project, the addition of any project traffic to that location is considered a significant impact.

Alternative Transportation

An impact to pedestrians and bicyclists would be considered significant if implementation of the proposed project would conflict with existing or planned bicycle facilities or would generate pedestrian and bicycle demand without providing adequate and appropriate facilities for safe non-motorized mobility. Impacts to transit would be considered significant if the proposed project would conflict with existing or planned transit facilities or will generate potential transit trips and would not provide adequate facilities for pedestrians and bicyclists to access transit routes and stops.

4.10.5 Impact Assessment and Methodology

Impacts were assessed by comparing roadway operations with the addition of project-generated traffic to those under Existing Conditions and applying the appropriate criteria from thresholds of significance described above. Potential impacts to bicycle, pedestrian, and transit facilities and services were also identified by comparing project conditions to Existing Conditions.

In addition to project-specific impacts, the EIR analysis identifies long-term impacts under a cumulative conditions scenario, representing future conditions in Year 2025. This scenario includes 20 years of growth in the study area in addition to background traffic growth.

4.10.6 Project-specific Impacts and Mitigation Measures

4.10.6.1 Increase in Traffic and Level of Service

Proposed Intersection and Roadway Improvements

As part of the NCP Master Plan project, various on- and off-site circulation infrastructure improvements will be constructed prior to construction and operation of any high-traffic generating facility, including the permanent pre-school and administration building, sports fields, community center, amphitheater, swimming pool, and skate park. The existing park access road connection to West Tefft Street will be realigned to the north side of the public library opposite Orchard Avenue (signalized). Modifications at the West Tefft Street/Orchard Avenue intersection will include two approach lanes for traffic exiting the NCP (i.e., a shared left-through lane and a right turn lane). The existing split signal phasing for Orchard Avenue should be eliminated. An exclusive left turn signal phase should be provided on the northbound approach of West Tefft Street. The existing park access road connection to Pomeroy Road will be realigned opposite Juniper Street and a traffic signal will be installed. A northbound left turn and southbound right turn lane will be installed on Pomeroy Road at the Juniper Street intersection. The following impact analysis assumes the implementation of the infrastructure improvements included in the NCPMP.

Intersection and Roadway Impacts

Project Trip Generation, Distribution, and Assignment

The amount of traffic added to the roadway system by a proposed development project is estimated using a three-step process: (1) trip generation, (2) trip distribution, and (3) trip

assignment. The first step estimates the amount of added traffic to the roadway network. The second step estimates the direction of travel to and from the project site. The trips are assigned to specific street segments and intersection turning movements during the third step. These steps are described below.

Currently the NCP includes a variety of recreational facilities (e.g., park and playground area, tennis courts, restrooms, trails, Little Bits Preschool, etc.). The existing park access road provides access for existing recreational facilities, an existing preschool, and the northerly parking lot for the Dana Elementary School. The preschool and access to the elementary school parking lot are included in the NCP Master Plan. The number of p.m. peak hour trips associated with the existing park uses was quantified using the new traffic count data. Daily traffic volumes associated with the existing uses at the NCP were estimated using the appropriate trip generation rates contained in the Institute of Transportation Engineers (ITE) Trip Generation Manual (8th Edition) (2008) and other sources. The project trip generation estimates associated with the proposed uses were also derived using data contained in the ITE Trip Generation Manual and other sources. Table 4.10-6 summarizes the estimated trip generation of the proposed project (new increase equals proposed minus existing).

Table 4.10-6. Estimated Project Vehicle Trip Generation

Land Use Component	Number of Vehicle Trips				
	a.m. Peak Hour		p.m. Peak Hour		Daily
	In	Out	In	Out	
Existing NCP Uses (159.167 acres)	-	-	154	99	1,800
Proposed NCP Master Plan Uses					
Various Park Uses - 6.12 acres*	0	0	1	1	28
Community Center - 36,000 sf**	36	22	19	33	824
Four Baseball/Softball Fields	0	0	20	10	120
Two Basketball Courts	0	0	65	35	400
Two Handball Courts	0	0	13	7	80
Six Tennis Courts	5	5	11	11	200
Six Multi-Purpose Sporting Fields (Soccer)	4	4	86	38	428
Skate Park or Comm. Pool - 10,000 sf	0	0	15	9	158
Amphitheater - 5,227 sf (50-75 Seats)	0	0	15	4	50
Library - 11,134 sf	8	3	39	42	626
Preschool - 4,050 sf (30 Students)	13	11	12	13	134
Ranger Residence	0	1	1	0	10
Total	**66**	**46**	**297**	**203**	**3,058**
Net Change	***n/a***	***n/a***	***+143***	***+104***	***+1,258***

* Uses include playgrounds, dog park area, picnic areas, horseshoe pits & trails/walkways

** Uses include gymnasium and pool (8,400 sf)

Buildout of the NCP Master Plan will generate 3,058 daily trips (two-way trip ends), 112 trips during the a.m. peak hour (66 inbound and 46 outbound), and 500 trips during the p.m. peak hour (297 inbound and 203 outbound). The additional facilities included in the NCP Master Plan will generate a "net" increase of 1,258 daily trips (+70%) and 247 trips during the p.m. peak hour (+98%). Information contained in the various trip rate sources indicates that a small portion of the trips attracted to the NCP and Mesa Meadows will come from traffic already on the local street system (5% to 10%). It is anticipated that there will also be "multiple-use" type trips associated with the buildout of the NCP Master Plan. To present a "worst case" analysis the evaluation of potential impacts was conducted without any reductions applied to the project trip generation estimates.

The trips associated with the NCP Master Plan were distributed on the local street system based on a review of current travel patterns and traffic demands included in the *South County Traffic Model Update (Final Report).* The project vehicle trip distribution percentages are presented in Table 4.10-7.

Table 4.10-7. Project Vehicle Trip Distribution Percentages

Trip Route and Roadway	Distribution Percentage
To and from Northwest via Pomeroy Road	12-17%
To and from Northeast Via West Tefft Street	35-25%
To and from South via West Tefft Street	28-30%
To and from East via Orchard	15-18%
To and from Local Collector Street*	10%

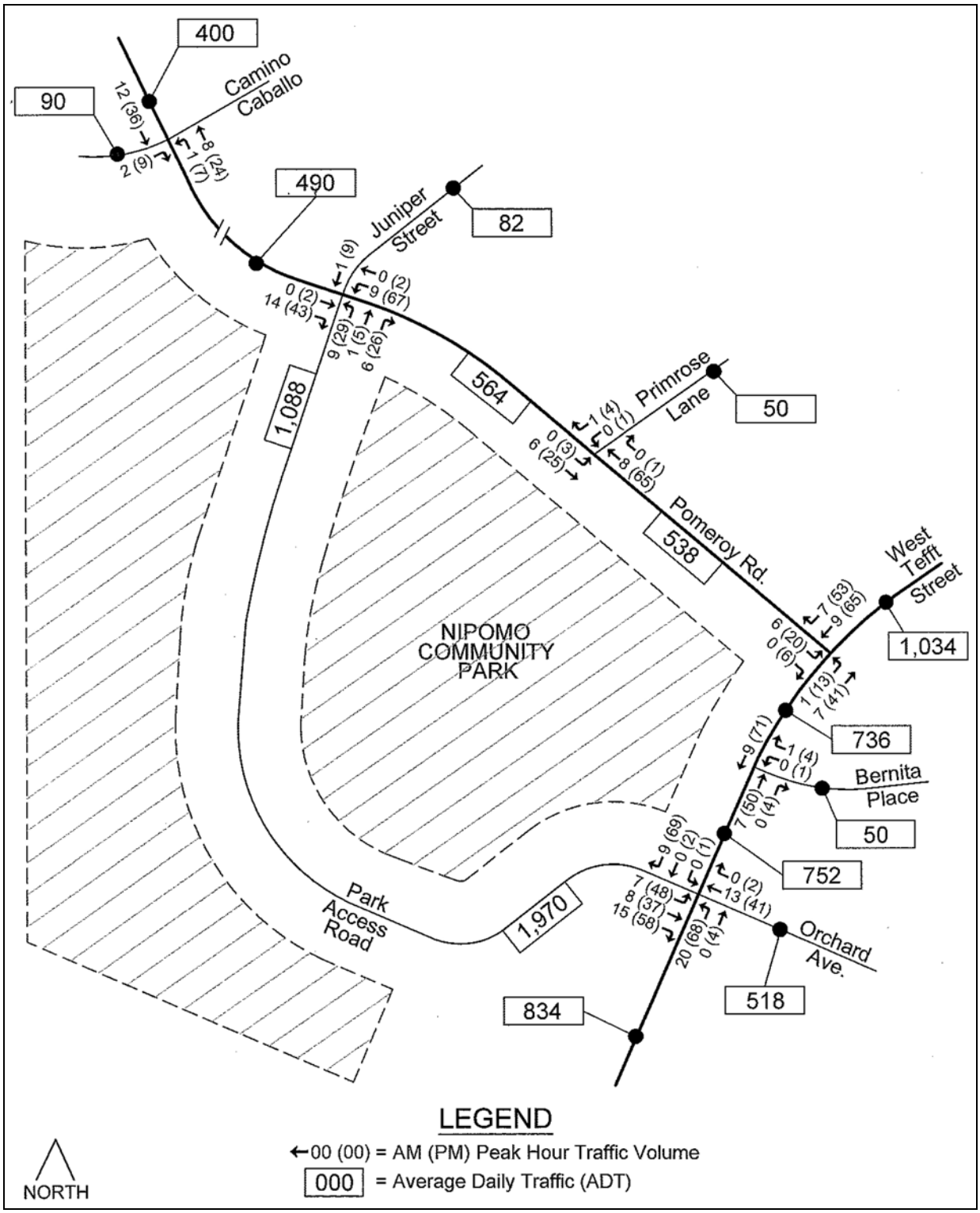
* Local Streets include Juniper Street, Camino Caballo, Primrose Lane and Bernita Place

A small portion of the trips are anticipated to use Osage Street, Mesa Road, Tejas Place, and Charro Way (less than 5%), and US 101 (5% to 10%). The trips associated with the individual uses were assigned to the local street system using the distribution percentages in Table 4.10-7, assuming that the Master Plan infrastructure improvements are in place. The traffic volumes associated with the buildout of the NCP Master Plan are illustrated on Figure 4.10-2.

Existing Plus Project Intersection Operations

Intersection operations were re-calculated with the total traffic volumes associated with the NCP Master Plan buildout (refer to Table 4.10-8). Detailed LOS calculation sheets are presented in Appendix G. Table 4.10-8 shows the levels of service under Existing and Existing with Project Conditions. The study intersections will operate within acceptable limits (LOS C or better) with buildout of the NCP Master Plan. The project analysis assumes that the NCP Master Plan infrastructure improvements will be in place at the West Tefft Street/Orchard Avenue and Pomeroy Road/Juniper Street intersections.

Figure 4.10-2. Project Traffic Volumes



Source: Pinnacle Transportation Engineering 2010

Table 4.10-8. Existing and Existing with Project Intersection Levels of Service

Study Intersection	Vehicle Delay/LOS	
	Existing	With Project
W. Tefft Street/Pomeroy Road*	14.6/B	15.4/B
W. Tefft Street/Orchard Avenue*	20.8/C	19.9/B
Pomeroy Road/Juniper Street *	n/a	5.4/A
Pomeroy Road/Camino Caballo Stop Sign Approach	2.7/A (22.8/C)	2.7/A (24.5/C)

* Intersection controlled with traffic signal.

As documented under existing conditions, delays at the US 101/West Tefft Street interchange southbound ramps intersection are in the LOS E range during the p.m. peak hour. However, completion of the US 101/Willow Road interchange is anticipated to reduce delays at the US 101 West Tefft Street interchange by about 40% during the PM peak hour. It is anticipated that buildout of uses included in the NCP Master Plan could add 10 to 15 trips to the US 101/West Tefft Street interchange. Buildout of the NCPMP would not significantly impact existing operations during the p.m. peak hour; therefore, no mitigation measures are warranted.

Existing With Project Roadway Segment Operations

Table 4.10-9 shows the roadway levels of service for the study street segments under Existing and Existing with Project Conditions. The study roadway segments will operate at LOS C or better with the addition of project traffic. The project will potentially add daily trips to West Tefft Street through the US 101 interchange. Project specific impacts associated with the "existing with project" scenario are presented under the intersection levels of service analysis. Thus, no project impacts to roadway segments are anticipated, so no mitigation measures are warranted.

Table 4.10-9. Existing and Existing With Project Street Roadway Segment Daily Traffic Conditions

Roadway Segment	Type	LOS E Capacity	ADT/LOS	
			Existing	With Project
W. Tefft Street, e/o Pomeroy Road	4-Lane Arterial*	36,000	17,000/A	17,426/A
W. Tefft Street, Pomeroy Rd. - Orchard Ave.	3-Lane Arterial*	24,000	13,100/A	13,410/A
W. Tefft Street, s/o Orchard Avenue	2-Lane Arterial*	18,000	9,800/A	10,144/A
Pomeroy Road, n/o W. Tefft Street	2-Lane Arterial	13,500	8,900/B	9,122/B
Pomeroy Road, Juniper St. - Camino Ca.	2-Lane Arterial	13,500	8,500/B	8,702/B
Pomeroy Road, n/o Camino Caballo	2-Lane Collector	12,000	6,500/B	6,664/B

Roadway Segment	Type	LOS E Capacity	ADT/LOS	
			Existing	With Project
Camino Caballo, w/o Pomeroy Road	2-Lane Collector	12,000	2,300/A	2,338/A
Orchard Avenue, e/o W. Tefft Street	2-Lane Arterial	13,500	5,900/A	6,114/A
Juniper Street, e/o Pomeroy Road	2-Lane Collector	12,000	1,600/A	1,634/A
Osage Street, s/o Camino Caballo	2-Lane Collector	12,000	1,200/A	1,222/A
Mesa Road, w/o Tefft Street	2-Lane Collector	12,000	2,900/A	2,922/A

* With left turn lanes.

Neighborhood Impacts

Buildout of uses included in the NCP Master Plan will not significantly increase vehicular traffic demands on local neighborhood streets. No significant neighborhood impacts are anticipated and no mitigation measures are warranted.

4.10.6.2 Create Unsafe Conditions

The NCPMP includes various infrastructure improvements, which will address existing potential hazards related to site access for vehicles, bicyclists, and pedestrians. The existing park access road connection to West Tefft Street will be realigned to the north side of the public library opposite Orchard Avenue. The existing park access road connection to Pomeroy Road will be realigned opposite Juniper Street and a traffic signal will be installed. A northbound left turn and southbound right turn lane will be installed on Pomeroy Road at the Juniper Street intersection. Osage Road will be widened to meet County road standards, allowing for adequate room for two vehicles to pass in alternate directions. These improvements would have a beneficial impact related to safety and road hazards by remediating sub-standard existing conditions. No significant project access impacts are anticipated and no mitigation measures are warranted.

4.10.6.3 Provide for Adequate Emergency Access

As noted above, on and off-site road improvements would have a beneficial effect on access, which would in turn improve access for emergency vehicles. Internal roads, shoulders, and parking areas would support emergency vehicles. No impact would occur.

4.10.6.4 Parking Capacity and Internal Circulation

Buildout of the NCPMP will include the construction of numerous internal circulation improvements. New parking lots will be constructed to accommodate parking demands adjacent to the existing and proposed facilities. No significant internal circulation or parking impacts are anticipated, and no mitigation measures are warranted.

4.10.6.5 Alternative Transportation

Pedestrian Impacts

Buildout of uses included in the NCP Master Plan has a potential to increase local pedestrian traffic. The NCP Master Plan includes various multi-purpose trails and walkways. The project trails and walkways will connect to existing pedestrian facilities along West Tefft Street, Pomeroy Road, Camino Caballo, and Osage Street. Thus, no project impacts to pedestrian facilities are anticipated, so no mitigation measures are warranted.

Bicycle Impacts

Buildout of uses included in the NCP Master Plan has a potential to increase local bicycle traffic. The NCP Master Plan includes various multi-purpose trails. The project trails will connect to existing bicycle facilities along West Tefft Street and Pomeroy Road. Thus, no project impacts to bicycle facilities are anticipated, so no mitigation measures are warranted.

Transit Impacts

Buildout of the uses included in the NCP Master Plan has a potential to increase local demands for transit service. As discussed under existing conditions, South County Area Transit (RTA) currently provides limited service to Nipomo. The nearest transit stop is located on West Tefft Street near Carillo Street, approximately 1 mile from the NCP. Currently, there are not adequate paved pedestrian facilities to access the transit stops on West Tefft Street. Therefore, existing transit services are not adequate to serve NCP.

TR Impact 1 **Inadequate transit service is available to serve NCP, which is potentially inconsistent with alternative transportation goals.**

TR/mm-1 *Upon implementation of the NCP Master Plan, the General Services Agency shall coordinate with the Regional Transportation Authority, and establish a transit stop within Nipomo Community Park, if appropriate.*

Residual Impact

The project would generate increased trips in the area, but would not exceed identified thresholds based on existing and forecasted conditions. Improved pedestrian and bicycling access and connections, and incorporation of transit service to and from NCP would reduce potential vehicle trips contributing to the US 101/West Tefft Street interchange, and would be consistent with alternative transportation goals; therefore, potential transportation impacts would be considered *less than significant* (Class II).

4.10.6.6 Air Traffic

The project site is not located in close proximity to a public or private airstrip or airport. No features are proposed that would interfere with air traffic. Therefore, potential impacts would be less than significant.

4.10.7 Cumulative Impacts

4.10.7.1 Year 2025 Cumulative Impacts

The impacts of the proposed project were evaluated under Cumulative Conditions (Year 2025) with and without the proposed project. This scenario includes 20 years of growth in the study area in addition to background traffic growth on the area's through corridors.

4.10.7.2 Cumulative Planned Road Improvements

The *2005 Regional Transportation Plan (RTP)* published by the San Luis Obispo Council of Governments (SLOCOG) and the *South County Traffic Model Update (Final Report)* provides an overview of the planned region-wide improvements in the South County area. The *RTP* also notes the status of funding for expected improvements. In the study area, the *South County Traffic Model Update (Final Report)* identifies various projects that would affect local traffic operations in Nipomo. The cumulative transportation network includes the following roadway improvements:

- Willow Road extension to Thompson Avenue (under construction)
- US 101/Willow Road Interchange (under construction)
- North Frontage Road Connection to Willow Road Extension
- State Route 1 connections to Dawn Road, Mesa Road and Eucalyptus Road

The Cumulative analysis presented in the *South County Traffic Model Update (Final Report)* designates the segment of West Tefft Street between Pomeroy Road and Orchard Avenue as a four-lane arterial with left turn lanes. Therefore, the buildout analysis assumes that future improvements in this portion of Nipomo will include providing two through travel lanes in each direction along this segment of West Tefft Street. The County Public Works Department is currently evaluating various operational improvements for the US 101/West Tefft Street interchange. However, these improvements are not designed or funded at this time, and therefore, are not assumed to be completed under the baseline cumulative scenario. The following is a brief description of the three alternatives under consideration:

Alternative 1 – This alternative would include closing the existing US 101 southbound on ramp and constructing a new southbound "hook" on ramp on the frontage road opposite Hill Street. The northbound left turn movement on the frontage road would be prohibited at West Tefft Street. Southbound traffic exiting the US 101 with a destination to West Tefft Street (west of US 101) would utilize the Hill Road and Mary Avenue. This alternative would also eliminate the existing two-stage left turn signal phase for westbound traffic on West Tefft Street at the existing the southbound on ramp.

Alternative 2 – This alternative would include moving the existing US 101 southbound off ramp to the previous location opposite the southbound on ramp. This alternative would also eliminate the existing two-stage left turn signal phase for westbound traffic on West Tefft Street at the existing US 101 southbound ramps intersection.

Alternative 3 – This alternative would include restriping the eastbound approach on West Tefft Street at the US 101 northbound ramps intersection. The eastbound approach would be striped for dual left turn lanes and one through lane. This alternative would not include any traffic signal modifications at the US 101/West Tefft Street interchange.

County staff prefers Alternative 1 at this time. A preliminary analysis associated with the potential benefits of this alternative indicates that levels of service in the LOS C-D range could be achieved under buildout conditions.

4.10.7.3 Cumulative Intersection and Roadway Impacts

Cumulative Traffic Volumes

Buildout daily and peak hour traffic volumes for the local street system serving were obtained from the South County Traffic Model Update (Final Report). The relation between daily and peak hour traffic volumes in the traffic model were used to derive roadway segment and intersection turning movement volumes not included in the final report. Minor adjustments were applied to the p.m. peak hour traffic volumes at the West Tefft Street and Orchard Avenue intersection to reflect for the actual amount of traffic utilizing the library driveway. Data contained in the ITE Trip Generation Manual was referenced to perform the adjustments for p.m. peak hour traffic on the adjacent street system between 4:00 and 6:00 PM. The cumulative buildout volumes for the local street system are illustrated on Figure 4.10-3. It should be mentioned that the cumulative traffic volumes only reflect the current uses at the NCP and not buildout of all the proposed uses in the NCP Master Plan.

Cumulative Intersection Operations

Table 4.10-10 shows the levels of service under Cumulative and Cumulative with Project Conditions. Detailed LOS calculation sheets are included in Appendix G.

Table 4.10-10. Cumulative Intersection Levels of Service

Study Intersection	Vehicle Delay/LOS	
	Cumulative	With Project
W. Tefft Street/Pomeroy Road*	27.2/C	34.0/C
W. Tefft Street/Orchard Avenue*	34.4/C	20.6/C
Pomeroy Road/Juniper Street*	n/a	6.1/A
Pomeroy Road/Camino Caballo Stop Sign Approach	3.4/A (43.4/E)	4.0/A (>50/F)

* Intersection controlled with traffic signal.

Average vehicle delays will be within acceptable limits at the study intersections with the buildout of the NCP Master Plan. Delays on the westbound approach at the Pomeroy Road and Camino Caballo intersection will be within unacceptable limits (LOS E-F). Cumulative traffic demands will satisfy the minimum “peak hour volume” signal warrant criteria (California MUTCD 70% factor) at this intersection. However, the construction of capacity improvements at this intersection would not reduce delays on the westbound approach to an acceptable level (LOS C or better). Additional signal warrants should be satisfied before considering the installation of traffic signal control and, therefore, the installation of signal control at this intersection is not recommended. As documented under existing conditions delays at the US 101/West Tefft Street interchange southbound ramps are within unacceptable levels (LOS E).

Completion of the US 101/Willow Road interchange is anticipated to reduce traffic demands and vehicle delays at the US101/West Tefft Street interchange by about 40% during the PM peak hour. PM peak hour traffic demands will also be reduced on Pomeroy Road and at the Pomeroy Road/Camino Caballo intersection. However, the Willow Road Extension EIR analysis indicates that the benefits associated with the project will not eliminate the adverse LOS at the US 101/West Tefft Street interchange during the PM peak hour period.

The NCPMP is a 20-year plan; therefore, periodic re-assessment of traffic conditions is recommended prior to development and during operation of high-traffic generating uses to ensure traffic impacts are mitigated to the extent feasible. The re-assessment would include consultation with Public Works to identify impact fees appropriate for the project, based on the most recent South County Traffic Model Update. The associated capital improvement program provides a mechanism for the funding of future long range infrastructure improvements, which would improve traffic and circulation. Proposed facilities and amenities that may trigger the South County Road Improvement Fee (Area 1) include the permanent pre-school and administration building, sports fields, community center, amphitheater, swimming pool, skate park, open turf, playgrounds, dog park, handball courts, horseshoe pits, tennis courts, and basketball courts.

TR Impact 2 **Buildout of the NCP Master Plan will potentially have a significant cumulative impact at the US 101/West Tefft Street interchange southbound ramps during the p.m. peak hour.**

Implement TR/mm-1.

TR/mm-2 *Upon development of high-traffic generating uses, including tennis courts, sports fields, amphitheater, and community center, a during periodic review of the Nipomo Community Park Master Plan, the General Services Agency shall re-assess the project's effect on the US 101/West Tefft Street interchange.*

a. In the event the project would have a significant traffic impact, the County shall adopt Transportation Demand Management (TDM) measures for implementation, as necessary, during peak times (Monday through Friday, 4:00 – 6:00 pm) including, but not be limited to: requiring reservation for specific uses, staggered scheduling of starting times for the sports fields, and limiting the size of community center events.

b. County Parks shall coordinate with County Public Works to determine the appropriate South County Road Improvement Fee Area 1 fees at the time development is proposed. In the event South County Road Improvement Fee Area 1 fees are determined to be appropriate by Public Works in accordance with Title 13.01 of the County Code, the General Services Agency shall provide the fees prior to development of high-traffic generating uses (i.e., tennis courts, sports fields, amphitheater, and community center).

Residual Impact

The NCPMP is a long-term, 20-year plan. The South County Circulation Model is periodically updated by County Public Works and, over time, will likely show changes in traffic flow and

delays within the community of Nipomo, and specifically at the US 101/West Tefft Street interchange. While the project would add trips to this interchange, periodic re-assessment of the project's effect on traffic flow and delay is recommended to ensure the best application of mitigation prior to development and during operation of major improvements. Recommended mitigation, including implementation of Transportation Demand Management measures, payment of "in lieu fees", and incorporation of a transit stop within NCP (if requested by RTA), would reduce potential cumulative effects related to trip generation to *less than significant* (Class II).

Cumulative Roadway Segment Operations

Table 4.10-11 presents the cumulative roadway segment levels of service for the study segments.

Table 4.10-11. Cumulative Roadway Segment Daily Traffic Conditions

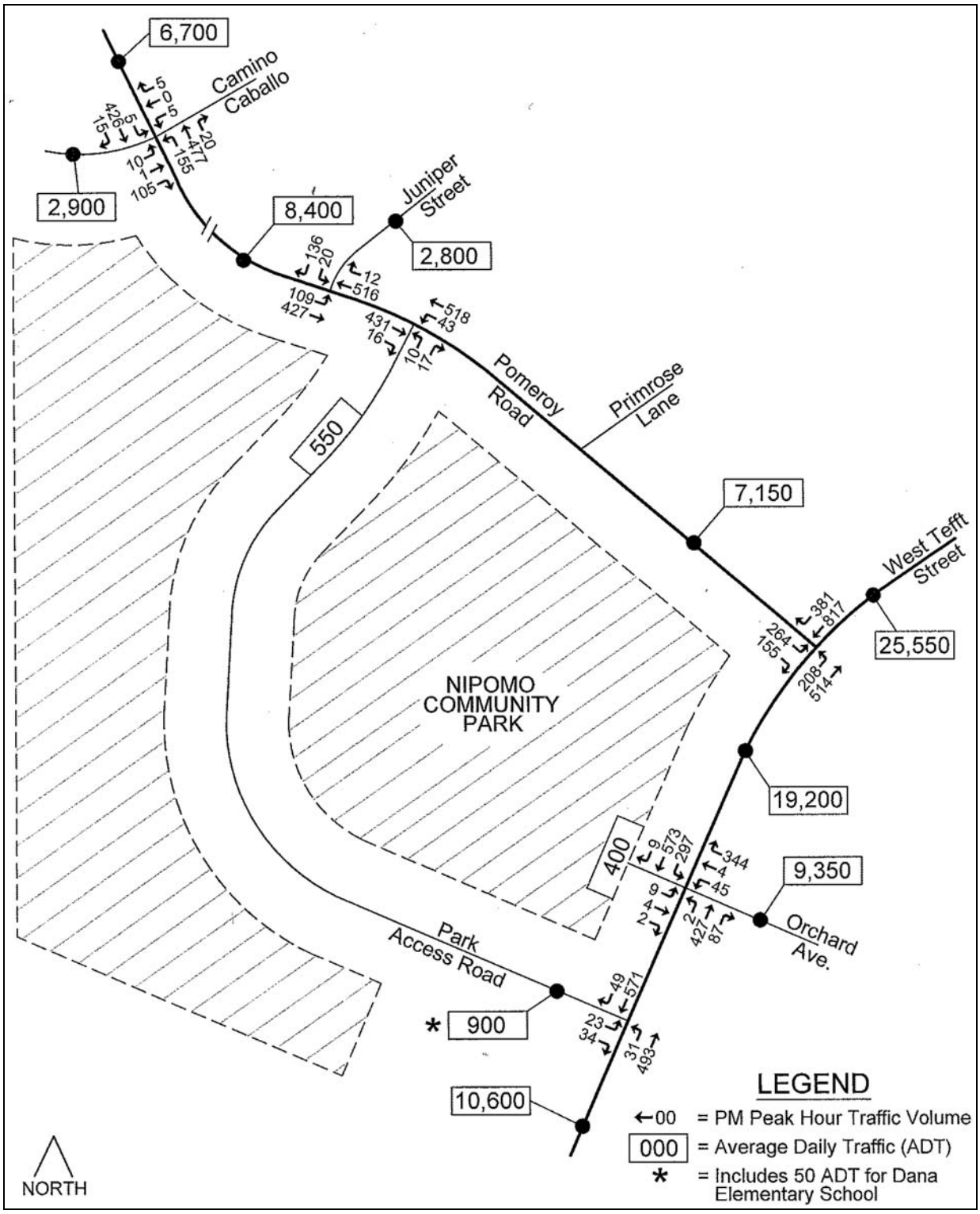
Roadway Segment	Type	LOS E Capacity	ADT/LOS	
			Cumulative	With Project
W. Tefft Street, e/o Pomeroy Road	4-Lane Arterial*	36,000	25,550/C	25,976/C
W. Tefft Street, Pomeroy Rd. - Orchard Ave.	4-Lane Arterial*	36,000	19,200/B	19,510/B
W. Tefft Street, s/o Orchard Avenue	2-Lane Arterial*	18,000	10,600/A	10,944/A
Pomeroy Road, n/o W. Tefft Street	2-Lane Arterial	13,500	7,150/B	7,372/B
Pomeroy Road, Juniper St. - Camino Ca.	2-Lane Arterial	13,500	8,400/B	8,602/B
Pomeroy Road, n/o Camino Caballo	2-Lane Collector	12,000	6,700/B	6,764/B
Camino Caballo, w/o Pomeroy Road	2-Lane Collector	12,000	2,900/A	2,938/A
Orchard Avenue, e/o W. Tefft Street	2-Lane Arterial	13,500	9,350/B	9,564/C
Juniper Street, e/o Pomeroy Road	2-Lane Collector	12,000	2,800/A	2,834/A
Osage Street, s/o Camino Caballo	2-Lane Collector	12,000	1,300/A	1,222/A
Mesa Road, w/o Tefft Street	2-Lane Collector	12,000	3,100/A	3,122/A

* With left turn lanes.

Cumulative daily traffic volumes on a majority of the study area roadway segments will remain within acceptable limits with the buildout of the NCP Master Plan (LOS C or better). Cumulative daily traffic along West Tefft Street near the US 101 interchange is projected to be within the LOS E range (with or without the project).

Completion of the US 101/Willow Road interchange is anticipated to reduce daily traffic on West Tefft Street (west of US 101) by about 20-25%. The Willow Road Extension EIR analysis indicates that the benefits associated with the project are estimated to improve the buildout LOS E to an acceptable LOS C (27,200 ADT) on West Tefft Street (near US 101 interchange). Thus, no project impacts to roadway segments are anticipated, so no mitigation measures are warranted.

Figure 4.10-3. Buildout Traffic Volumes



Source: Pinnacle Transportation Engineering 2010

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