
4.9 - Transportation/Traffic

4.9.1 - Introduction

This section provides a summary of the analysis contained within the Traffic Impact Study prepared for the proposed development of a Walmart by Psomas in April 2011. The Traffic Impact Study evaluates the potential traffic impacts of the development of a Walmart on existing and future traffic operations near the project site. The mitigation measures that are identified in this section to reduce impacts from the development of a Walmart are separated into two sets of improvements. The first set of improvements consist of those improvements that are the same as those that are required with the development of the approved Wasco Center that includes the 158,000 square foot “Large Box Retail” use building on the project site. The second set of improvements consists of those improvements that are required for the addition of 12,000 square feet to the approved structure and the change in use to a Walmart that includes a 24-hour operation. The following is a list of information reviewed in preparation of this section and is located as noted below:

- Traffic Impact Study - Wasco Walmart, Wasco, California. April 2011. Psomas, Inc. This information is located in ~~Draft~~ [Final](#) SEIR Appendix K.
- Traffic Impact Study - Wasco Center, Wasco, California. January 2008. Psomas, Inc. This information is located in ~~Draft~~ [Final](#) SEIR Appendix K.

4.9.2 - Environmental Setting

Methodology

Psomas met with Caltrans District 6, a Responsible Agency for the project, in August 2010 to discuss the scope of the traffic impact study. Based on the discussion, the study consists of the same study area that was covered in the Traffic Impact Study for the Wasco Center, which includes 4.2 miles of State Highway 46 between Scofield Avenue and State Highway 43 North/J Street. The Traffic Study utilizes existing traffic counts, published average daily traffic (ADT) volumes, and data from the Kern Council of Governments (KernCOG) traffic model. The Walmart has an expected build-out year of 2013, and construction of other areas in the Wasco Center will likely begin after the Walmart is in place. Therefore, the horizon years for this study will be 2013 (the proposed opening year of the Walmart) and 2035. Caltrans recommends that the general plan buildout year be used in the analysis, but if data is unavailable for that year, the plan horizon year should be used. The KernCOG traffic model is currently based on 2035 volumes, so that year was used for the long-term analysis in this report. The scope of the study was approved by the traffic engineering staff at both Caltrans and the City of Wasco.

The traffic impact evaluation includes a weekday morning (7:30 AM to 8:30 AM) and evening (4:45 PM to 5:45 PM) peak hours intersection level of service (LOS) at unsignalized and signalized intersections. In addition, peak hour traffic signal warrant evaluations were conducted for each study area unsignalized intersection to determine if traffic signals were warranted.

In particular, a traffic impact analysis was performed for the years 2013 (buildout year of proposed Walmart), and 2035 (General Plan buildout year). The year 2013 scenarios included baseline conditions in 2013 without the proposed Walmart and baseline conditions in 2013 with the proposed Walmart. The year 2035 scenarios included baseline conditions in 2035 without the proposed Walmart but with the approved “Large Box Retail” use and baseline conditions in 2035 with the proposed Walmart but without the approved “Large Box Retail” use. The project analysis included two comparisons (1) the year 2013 baseline conditions with the proposed Walmart is compared to the year 2013 without the proposed Walmart and (2) the year 2035 baseline conditions with the proposed Walmart to the year 2035 baseline conditions without the proposed Walmart but with the approved “Large Box Retail” use. The cumulative analysis also include two comparisons (1) the year 2013 baseline conditions with the proposed Walmart is compared to existing baseline conditions and (2) the year 2035 baseline conditions with the proposed Walmart and without the approved “Large Box Retail” use is compared to existing baseline conditions.

Performance Measures and Standards

A level of service (LOS) designation is the generally accepted measure utilized for determining the quality of operation of either a roadway segment or intersection. There are six LOS categories ranging from LOS A, free flowing traffic to LOS F, bumper-to-bumper traffic. Because each of the nine analyzed intersections are at Highway 46, the performance criteria that is used is the established Caltrans’ and County of Kern criteria and not the City of Wasco’s criteria. The established Caltrans and County of Kern performance criteria is LOS D or better for signalized and unsignalized intersections.

The analysis of the signalized intersections was performed using Synchro, a software tool that employs the methodology set forth in the “2000 Highway Capacity Manual.” The HCM defines the Level of Service (LOS) of a signalized intersection in terms of control delay per vehicle. Table 4.9-1 presents the thresholds defined in the HCM for determining the LOS of signalized intersections. Based on the LOS D target set by the County of Kern and Caltrans, signalized intersections should operate with 55 seconds or less of delay per vehicle.

Table 4.9-1: Signalized Intersection Level of Service

Average Delay (seconds / vehicle)	Level of Service
≤10	A
>10 - 20	B
>20 - 35	C
>35 - 55	D
>55 - 80	E
>80	F

Unsignalized intersections were analyzed using the same software (Synchro) as the signalized intersection analysis. However, the thresholds set in the Highway Capacity Manual for unsignalized intersections are slightly different than those set for signalized intersections. Table 4.9-2 shows the LOS thresholds for unsignalized intersections. Because LOS is only defined for movements that experience stop delay, only some of the movements at an unsignalized intersection will be included in the analysis and the intersection as a whole will not have an average delay (and therefore will not have a LOS). In order to meet the County of Kern standards, each stop-controlled approach has to have 35 or fewer seconds of delay per vehicle to meet the LOS D target.

Table 4.9-2: Unsignalized Intersection Level of Service

Average Delay (seconds / vehicle)	Level of Service
≤10	A
>10 - 15	B
>15 - 25	C
>25 - 35	D
>35 - 50	E
>50	F

Study Area Roadway Circulation System

The following is a description of the roadways that are located within the project study area. Exhibit 4.9-1 illustrates each of the analyzed intersections in the project study area.

Highway 46 begins at the junction of Route 1 in San Luis Obispo County and continues east for 118 miles, intersecting Interstate (I) 5 and terminating at State Route (SR) 99 east of Wasco. The highway functions as a significant interregional route for agricultural products and recreational traffic to and from the Central Coast/Central Valley. The segment included in this study extends from Scofield Avenue to Highway 43 North/J Street and is classified as an arterial by the City of Wasco.

Highway 46 is a two-lane highway between Scofield Avenue and Central Avenue. Between Central Avenue and Highway 43 South (F Street) there is a continuous two-way left turn lane. The road then narrows again to two lanes between the south and north legs of Highway 43 as it goes under the Burlington Northern/Santa Fe Railroad. In addition, Highway 46 widens to four lanes between Central Avenue and Beckes Street (0.25 mile) providing two eastbound lanes, one westbound lane and a two-way left turn lane. The additional eastbound lane becomes a trap lane at Beckes Street, where the roadway returns to a 3-lane section. Between Peters Street (1/8 mile west of Palm Avenue) and Poplar Avenue (0.25 mile east of Palm Avenue) the roadway widens enough to provide two westbound lanes, but there is no striping to indicate that there are two westbound travel lanes.

The road is curbed with sidewalks on the south side east of Central Avenue. On the north side there are some segments of curb with sidewalks, particularly in the vicinity of Palm Avenue and east to Griffith Avenue. This includes new curb and sidewalks that have recently been constructed in areas between Palm Avenue and Griffith Avenue. West of Central Avenue the road is uncurbed. The curbed segments have a wide curb lane to provide room for disabled vehicles. The uncurbed segments include a wide paved shoulder.

The posted speed limit is 40 miles per hour (mph) east of Palm Avenue, and 45 mph from Palm Avenue to Central Avenue, where the speed limit zone ends (westbound). The route serves a very high volume of heavy trucks and buses (approximately 35 percent) in part due to its importance for agriculture in the region.

Scofield Avenue is a two-lane roadway, approximately two miles west of Magnolia Avenue. The roadway is classified as an arterial by the City of Wasco.

Magnolia Avenue is a two-lane roadway in the project area, and is classified as a collector by the City of Wasco. The roadway does not have paved shoulders or exclusive turn lanes within the project area.

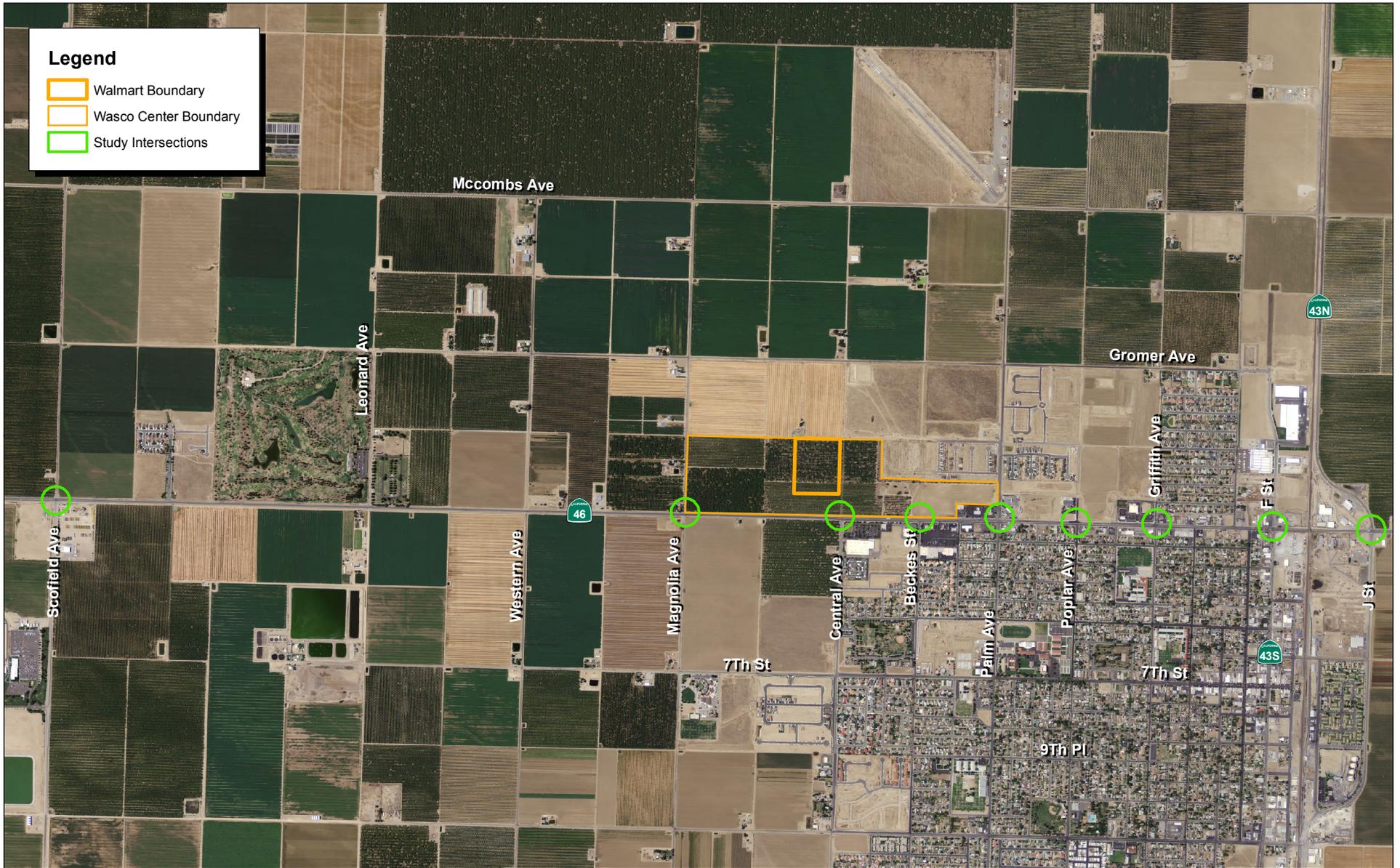
Central Avenue is a two-lane roadway that currently dead-ends at Highway 46 from the south. The roadway provides access into the City of Wasco, and is classified as an arterial by the City of Wasco.

Beckes Street is a two-lane roadway that currently dead-ends at Highway 46 from the south. The roadway provides access into the City of Wasco and serves both commercial and residential land uses. The roadway is classified as a minor collector by the City of Wasco.

Palm Avenue is a two-lane roadway, but portions of it have been widened to four lanes north of Highway 46. The widened areas are located along the frontage of the Hidden Grove subdivision, which is currently under construction, and immediately north of the Highway 46 intersection. Palm Avenue is classified as a collector south of Highway 46 and as an arterial north of Highway 46 by the City of Wasco. The roadway has a speed limit of 35 mph south of Highway 46.

Poplar Avenue is a two-lane roadway. The north leg of the roadway was recently constructed with the adjacent commercial developments. The roadway provides access into the City of Wasco, and is classified as a minor collector by the City of Wasco.

Griffith Avenue is a two-lane roadway, with parking allowed south of Highway 46. The roadway is classified as a collector by the City of Wasco.



Source: Kern County NAIP, 2009. MBA GIS Data, 2010.



Exhibit 4.9-1 Traffic Study Area Map

F Street/Highway 43 South is a two-lane highway in the project area. South of Highway 46, the roadway is SR-43 South, classified as a collector by the City of Wasco. Continuing north of Highway 46, the roadway becomes F Street, and is also classified as a collector.

J Street/Highway 43 North is a two-lane highway in the project area. South of Highway 46, the roadway is J Street, and is classified as an arterial by the City of Wasco. North of Highway 46, the roadway is SR-43 North, offset approximately 1/3 mile from SR-43 South, and is classified as an arterial.

Existing Traffic Volumes

Existing Average Daily Traffic (ADT) volumes and peak hour turning movement counts for the road segments and intersections in the study area were collected by City Traffic Counters for Psomas in 2007 and 2008. The ADT volumes were collected for use in the noise analysis in Section 4.7 of this ~~Draft~~ Final SEIR. The peak hour turning movement counts at the intersections were collected for use in this traffic analysis. Turning movement counts for Poplar Avenue at Highway 46 were collected in October 2010 because the intersection geometry changed significantly after the original counts were collected.

Existing Levels of Service at Study Area Intersections

As illustrated in Exhibit 4.9-1, nine intersections were selected for analyzing the potential traffic impacts of the proposed Walmart. These nine intersections were previously analyzed for the Wasco Center IS/MND and were chosen for analysis in this report for consistency with the Wasco Center IS/MND. The AM and PM peak hours were evaluated at each analyzed intersection. Based on the traffic movement counts, the AM peak hours was found to be from 7:30 to 8:30 AM and the evening peak hour was found to be from 4:45 to 5:45 PM. Based on the intersection peak hour volumes, the AM and PM peak hours levels of service at each intersection were determined by applying the criteria identified in Table 4.9-1 and Table 4.9-2. The peak hour levels of service for the nine existing intersections are shown below in Table 4.9-3.

Table 4.9-3: Existing Intersection Levels of Service

Intersection	EB			WB			NB			SB			Intersection LOS	
	L	T	R	L	T	R	L	T	R	L	T	R		
Highway 46/Scofield Ave (U)														
LOS/Delay	AM	A/7.6	b	b	A/7.9	b	b	B/11.5	B/11.5	B/11.5	B/13.7	B/13.7	B/13.7	N/A
	PM	A/7.6	b	b	A/8.1	b	b	B/11.6	B/11.6	B/11.6	B/12.9	B/12.9	B/12.9	N/A
Highway 46/Magnolia Ave (U)														
LOS/Delay	AM	A/0.1	b	b	A/0.1	b	b	B/11.8	B/11.8	B/11.8	B/13.9	B/13.9	a	N/A
	PM	a	b	b	A/0.1	b	b	B/14.2	B/14.2	B/14.2	C/15.9	C/15.9	C/15.9	N/A
Highway 46/Central Ave (U)														
LOS/Delay	AM	c	b	b	A/7.7	b	c	B/11.4	c	A/9.7	c	c	c	N/A
	PM	c	b	b	A/8.6	b	c	B/12.0	c	B/12.2	c	c	c	N/A
Highway 46/Beckes St (U)														
LOS/Delay	AM	c	b	b	A/7.7	b	c	B/10.8	c	B/10.8	c	c	c	N/A
	PM	c	b	b	A/8.5	b	c	B/12.0	c	B/12.0	c	c	c	N/A
Highway 46/Palm Ave (S)														
LOS/Delay	AM	B/19.8	B/10.3	B/10.3	B/19.4	B/10.3	A/4.3	B/17.5	B/16.4	A/6.9	B/16.4	B/16.6	A/7.0	B/11.9
	PM	C/22.8	C/20.1	C/20.1	C/25.3	A/9.7	A/4.4	C/21.0	B/18.8	A/7.7	B/19.1	B/19.5	A/8.2	B/16.6
Highway 46/Poplar Ave (U)														
LOS/Delay	AM	a	b	b	A/8.1	b	b	B/11.7	B/11.7	B/11.7	B/13.8	B/13.8	B/13.8	N/A
	PM	A/8.4	b	b	A/8.8	b	b	B/13.6	a	B/13.6	B/14.3	a	B/14.3	N/A
Highway 46/Griffith Ave (S)														
LOS/Delay	AM	B/20.0	A/8.2	A/8.2	C/20.3	A/7.6	A/7.6	B/14.2	B/14.2	B/14.2	B/12.0	B/12.0	B/12.0	A/9.6
	PM	C/24.7	B/11.3	B/11.3	C/25.7	B/11.1	B/11.1	B/16.3	B/16.3	B/16.3	B/11.8	B/11.8	B/11.8	B/12.7

Table 4.9-3 (cont.): Existing Intersection Levels of Service

Intersection	EB			WB			NB			SB			Intersection LOS	
	L	T	R	L	T	R	L	T	R	L	T	R		
Highway 46/F St – Highway 43 South (S)														
LOS/Delay	AM	C/25.0	B/14.6	A/4.9	C/25.5	B/14.3	B/14.3	C/21.0	B/10.5	B/10.5	B/19.4	B/19.4	B/19.4	B/14.6
	PM	C/29.2	B/18.5	A/5.4	C/29.8	B/15.0	B/15.0	C/24.4	B/11.2	B/11.2	B/19.6	B/19.6	B/19.6	B/17.4
Highway 46/J St – Highway 43 North (U)														
LOS/Delay	AM	A/7.7	b	b	A/7.5	b	b	B/11.1	B/11.1	B/11.1	B/11.2	B/11.2	B/11.2	N/A
	PM	A/7.8	b	b	A/7.8	b	b	B/13.4	B/13.4	B/13.4	B/12.7	B/12.7	B/12.7	N/A
Notes: (U) = Unsignalized (S) = Signalized a = Movement is allowed, but traffic volume for peak hour was zero. Therefore, no delay is shown. b = No stopping restrictions for turning movement. Therefore, there is no delay. c = Movement does not exist. Source: Psomas, 2011.														

According to Table 4.9-3, all signalized and unsignalized intersections are currently operating at levels of service (LOS) of LOS C or better for the existing conditions.

4.9.3 - Thresholds of Significance

According to the CEQA Guidelines' Appendix G Environmental Checklist, to determine whether transportation/traffic impacts are significant environmental effects, the following questions are analyzed and evaluated. Would the project:

- a) 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?
- b) 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?
- c) 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? (Refer to Section 7, Effects Found Not To Be Significant.)
- d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? (Refer to Section 7, Effects Found Not To Be Significant.)
- e) Result in inadequate emergency access? (Refer to Section 7, Effects Found Not To Be Significant.)
- f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities? (Refer to Section 7, Effects Found Not To Be Significant.)

According to Caltrans, a significant impact at an intersection will occur if the level of service at a signalized intersection or a turning movement at an unsignalized intersection degrades from a LOS D or better to LOS E or F. Also according to Caltrans, if the level of service is at LOS E or F in the baseline condition, any increase in the delay at an intersection or turning movement would result in a significant impact.

4.9.4 - Impact Analysis and Mitigation Measures

Traffic Increase

Impact TR-1:	The proposed Walmart may 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.
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Project Trip Generation

The proposed Walmart's trip generation was calculated using the rates published in the Institute of Transportation Engineers (ITE) Trip Generation, 8th Edition. The rates are based on ITE Code 813 (Discount Superstore) which is appropriate for the proposed Walmart because this land use code includes stores with 24-hour operations and grocery and retail sales. The decision to utilize the average rate or the regression equation was based on the recommendations of the Trip Generation Handbook, 2nd Edition.

The proposed project will also include pass-by trips in the opening year. Pass-by trips are those that are made as intermediate stops on the way from an origin to a destination. Examples of pass-by trips include things such as eating and grocery shopping on the way from work to home, or as part of another primary trip. Based on trip generation information in Figure 5.5 in the Trip Generation Handbook, the pass-by rate for the Walmart is 28 percent in the year 2013 opening year and 23 percent in the year 2035. The pass-by rate decreases in the year 2035 compared to the year 2013 because there are a greater number of uses in the year 2035 compared to the year 2013. An internal capture rate was not used for the year 2013 because the proposed Walmart would be the only use north of SR-46. In 2035, multiple uses within the Wasco Center would be constructed and an internal capture rate in the year 2035 was used in the analysis. The amount of internal capture trips is calculated based on Section 7-5 in the Trip Generation Handbook, 2nd Edition. Detailed calculations of the internal capture trips is provided in Appendix C in Appendix K of this ~~Draft~~ [Final](#) SEIR.

For the year 2013, the daily trips were calculated using the trip generation equation and subtracting the pass-by trips. The AM and PM peak hour trips were calculated using the average trip generation rate and took the pass-by trips into account. The proposed Walmart project will generate 8,462 daily trips, including 2,369 of which will be pass-by trips. Therefore, the Walmart will add 6,093 new daily trips to external roadways in 2013.

For the year 2035, the daily trips were calculated using the trip generation equation and subtracting the pass-by trips and capture trips. The AM and PM peak hour trips were calculated using the average trip generation rate and took the pass-by trips and capture trips into account. The proposed Walmart project will generate 8,462 daily trips, including 1,774 of which will be pass-by trips and 751 of which will be capture trips. Therefore, the Walmart will add 5,938 daily trips to external roadways in 2035 which are fewer trips than in the year 2013.

Trip Distribution and Assignment

Access to the Walmart will mostly be from Central Avenue on the west. There will also be access provided internally from the Wasco Center, south and west of the Walmart site. The trip distribution used in this report is the same that was used in the Wasco Center Traffic Impact Study in order to maintain consistency. Trip distribution for the proposed Walmart will be as follows; 17% of visitors will come from the West, 73 percent from the East, and 10 percent from the South. Note that flows into and out of the site may not be symmetrical due to the presence of right-in right-out only access points.

2013 Traffic Volumes

The 2013 traffic volumes consist of the traffic counts in 2007 and 2008 (except for the Highway 46 and Poplar intersection which was recounted in 2010), a zero percent growth rate between the original traffic counts and 2010, a 1.5 percent growth rate between 2010 and 2013, and traffic generated by the proposed Red Roof Inn located north of Highway 46 and west of Popular Avenue. The traffic volumes at the Highway 46 and Poplar Avenue intersection were recounted due to significant changes of the intersection's geometry after the original counts were collected. A zero percent growth rate between the original traffic counts and 2010 was determined applicable after a comparison of the Caltrans 2010 traffic volumes along Highway 46 in the project study area to the original traffic counts. The comparison showed that traffic volumes along Highway 46 in the project study area did not appreciably change. One explanation why traffic volumes along Highway 46 did not appreciably change is due to the economic recession between the year 2008 and the year 2010. Caltrans staff agreed with the approach. The 1.5 percent growth rate between the year 2010 and the year 2013 is based on the following.

Based on information provided to Psomas from Caltrans, the Wasco area has grown at approximately three percent per year on average over the last 10 years. To provide an average three percent growth rate per year through the year 2035, it was determined that a 1.5 percent ambient growth rate should be applied. The ambient growth rate at 1.5 percent plus the traffic volumes projected to be generated by the approved Wasco Center and the proposed Walmart will result in a three percent per year growth rate over the next 25 years to match the historic trend. Therefore, with consent from Caltrans, a 1.5 percent per year growth rate was used to calculate the ambient growth rate for the time periods between the year 2010 and the year 2013 as well as between the year 2013 and the year 2035. Finally, it is assumed that the Red Roof Inn will be constructed by 2013.

2035 Traffic Volumes

The 2035 traffic volumes consist of the 2013 traffic volumes plus a continuance of a 1.5 percent growth rate between 2013 and 2035, as discussed above. In addition, the 2035 traffic volumes also consist of the full buildout of the Wasco Center except for the approved structure on the Walmart project site.

Project Traffic Evaluation

The project traffic evaluation includes two analyses: the first analysis compares 2013 traffic volumes in relation to 2013 traffic volumes with the proposed Walmart, and the second analysis compares 2035 traffic volumes in relation to the 2035 traffic volumes with the proposed Walmart. These two analyses identify whether the addition of traffic from the proposed Walmart will result in additional traffic impacts.

2013 Intersections Analysis

The proposed Walmart will increase traffic volumes at intersections in 2013 in the vicinity of the project site. To determine potential impacts of the proposed Walmart on the surrounding intersections for the year 2013, the peak hour 2013 levels of service without the proposed Walmart (i.e., baseline conditions) are compared to the peak hour 2013 levels of service with the proposed Walmart. Table 4.9-4 shows the levels of service and delays at each intersection during weekday peak hours. Table 4.9-4 includes improvements that would be constructed with the development of the project site. These improvements are project design features and are described below:

Central Avenue at Highway 46

- Eastbound left turn lane
- Stripe northbound right turn lane as a shared through-right turn
- New north leg as 4-lane divided along Central Avenue between Highway 46 and the future alignment of Margalo Street.

The levels of service and delays for the intersection that will experience a significant impact from the development of the proposed Walmart in the year 2013 are indicated in bold in Table 4.9-4.

As shown in Table 4.9-4, there is one intersection that will be significantly impacted in 2013 when Walmart-generated traffic is added and the project design features described above are installed. The following intersection is significantly impacted:

- Highway 46/Central Avenue (PM Southbound Left degrades to LOS F, 55.7)

The remaining analyzed intersections will operate at an adequate level of LOS A, B, C, or D in 2013.

2035 Intersections Analysis

The proposed Walmart will increase traffic volumes at intersections in 2035 in the vicinity of the project site. To determine potential impacts of the proposed Walmart on the surrounding intersections for the year 2035, the peak hour 2035 levels of service without the proposed Walmart (i.e., baseline conditions) are compared to the peak hour 2035 levels of service with the proposed Walmart. Table 4.9-5 shows the levels of service and delays at each intersection during weekday peak hours. The level of services and delays for the intersections that will experience a significant

impact from the development of the proposed Walmart in the year 2035 are indicated in bold in Table 4.9-5.

As shown in Table 4.9-5, there are six intersections that will operate at a deficient level of service in the year 2035 without the proposed Walmart. After the addition of Walmart-generated traffic to the 2035 baseline conditions, the same six intersections will operate at a deficient level of service. The addition of Walmart traffic will further degrade the level of service and/or increase the delay at the intersection or turning movement. The following six intersections will be significantly impacted:

- **Highway 46/Magnolia Avenue** (PM Northbound Left degrades from LOS F, 51.5 to LOS F, 60.5; PM Northbound Through degrades from LOS F, 51.5 to LOS F, 60.5; PM Northbound Right degrades from LOS F, 51.5 to LOS F, 60.5; AM Southbound Left degrades from LOS E, 38.3 to LOS E, 41.5; PM Southbound Left degrades from LOS F, 116.3 to LOS F, 263.1; AM Southbound Through degrades from LOS E, 38.3 to LOS E, 41.5; PM Southbound Through degrades from LOS F, 113.4 to LOS F, 201.6; AM Southbound Right degrades from LOS E, 38.3 to LOS E, 41.5; PM Southbound Right degrades from LOS F, 117.5 to LOS F, 280.2)
- **Highway 46/Central Avenue** (PM Northbound Left degrades from LOS F, 225.1 to LOS F, 625.4; PM Northbound Through degrades from LOS E, 49.4 to LOS F, 124.4; PM Northbound Right degrades from LOS E, 49.4 to LOS F, 124.4; PM Southbound Through degrades from LOS D, 26.7 to LOS E, 41.3; AM Southbound Left degrades from LOS D, 29.8 to LOS E, 43.5; PM Southbound Right degrades from LOS D, 26.7 to LOS E, 41.3)
- **Highway 46/Beckes Street** (PM Northbound Left degrades from LOS E, 37.2 to LOS F, 72.2; PM Northbound Right degrades from LOS E, 37.2 to LOS F, 72.2)
- **Highway 46/Palm Avenue** (Intersection PM Peak Hour degrades from LOS F, 210.0 to LOS F, 260.7)
- **Highway 46/Poplar Avenue** (PM Northbound Left degrades from LOS F, 161.1 to LOS F, 255.0; PM Northbound Right degrades from LOS F, 161.1 to LOS F, 255.0; PM Southbound Left degrades from LOS F, 52.4 to LOS F, 64.8; PM Southbound Right degrades from LOS F, 52.4 to LOS F, 64.8)
- **Highway 46/Griffith Avenue** (Intersection PM Peak Hour degrades from LOS F, 135.6 to LOS F, 184.0)

The remaining analyzed intersections will operate at an adequate level of service of LOS A, B, C, or D or better in 2035.

Table 4.9-4: 2013 Without and With the Proposed Walmart

Intersection	2013 without Proposed Walmart													2013 with Proposed Walmart													Intersection LOS/Delay	Cumulative Significant Impact?
	EB			WB			NB			SB			Intersection LOS/Delay	EB			WB			NB			SB					
	L	T	R	L	T	R	L	T	R	L	T	R		L	T	R	L	T	R	L	T	R	L	T	R			
Highway 46/Scotfield Ave (U)																												
LOS/Delay	AM	A/7.6	b	b	A/7.9	b	b	B/11.7	B/11.7	B/11.7	B/14.1	B/14.1	B/14.1	N/A	A/7.6	b	b	A/7.9	b	b	B/11.7	B/11.7	B/11.7	B/14.5	B/14.5	B/14.5	N/A	No
	PM	A/7.6	b	b	A/8.0	b	b	B/11.8	B/11.8	B/11.8	B/12.8	B/12.8	B/12.8	N/A	A/7.6	b	b	A/8.1	b	b	B/12.2	B/12.2	B/12.2	B/13.9	B/13.9	B/13.9	N/A	
Highway 46/Magnolia Ave (U)																												
LOS/Delay	AM	A/0.1	b	b	A/0.1	b	b	B/11.8	B/11.8	B/11.8	B/13.9	B/13.9	a	N/A	A/0.1	b	b	A/0.1	b	b	B/11.8	B/11.8	B/11.8	B/14.6	B/14.6	a	N/A	No
	PM	a	b	b	A/0.2	b	b	B/14.2	B/14.2	B/14.2	C/15.5	C/15.5	C/15.5	N/A	a	b	b	A/0.3	b	b	B/14.7	B/14.7	B/14.7	C/19.1	C/19.1	C/19.1	N/A	
Highway 46/Central Ave (U)																												
LOS/Delay	AM	c	b	b	A/7.7	b	c	B/11.4	c	A/9.6	c	c	c	N/A	A/0.3	b	b	A/7.7	b	b	B/13.2	B/10.9	B/10.9	C/15.1	B/12.7	B/10.5	N/A	Yes
	PM	c	b	b	A/8.5	b	c	B/11.7	c	B/11.7	c	c	c	N/A	A/0.8	b	b	A/8.4	b	b	C/15.3	C/15.5	C/15.5	F/55.7	C/15.5	B/10.8	N/A	
Highway 46/Beckes St (U)																												
LOS/Delay	AM	c	b	b	A/7.7	b	c	B/10.8	c	B/10.8	c	c	c	N/A	c	b	b	A/7.9	b	c	B/11.8	c	B/11.8	c	c	c	N/A	No
	PM	c	b	b	A/8.5	b	c	B/11.8	c	B/11.8	c	c	c	N/A	c	b	b	A/9.3	b	c	C/15.1	c	C/15.1	c	c	c	N/A	
Highway 46/Palm Ave (S)																												
LOS/Delay	AM	B/19.9	B/10.5	B/10.5	B/19.4	B/10.3	A/4.3	B/17.5	B/16.3	A/6.8	B/16.5	B/16.5	A/6.9	B/12.0	C/21.5	B/14.5	B/14.5	C/20.3	B/12.6	A/4.5	B/18.4	B/16.1	A/6.6	B/16.1	B/16.4	A/6.5	B/14.1	No
	PM	C/22.9	B/19.6	B/19.6	C/25.4	A/9.6	A/4.4	C/21.1	B/18.8	A/7.6	B/19.1	B/19.5	A/8.0	B/16.3	C/26.2	D/43.3	D/43.3	C/26.9	B/17.3	A/5.8	C/22.2	B/17.6	A/6.8	B/17.9	B/18.1	A/6.6	C/28.7	
Highway 46/Poplar Ave (U)																												
LOS/Delay	AM	a	b	b	A/8.1	b	b	B/11.8	B/11.8	B/11.8	B/13.8	B/13.8	B/13.8	N/A	a	b	b	A/8.2	b	b	B/12.8	B/12.8	B/12.8	B/14.6	B/14.6	B/14.6	N/A	No
	PM	A/8.5	b	b	A/8.9	b	b	B/13.9	a	B/13.9	B/14.5	a	B/14.5	N/A	A/9.0	b	b	A/9.5	b	b	C/17.7	a	C/17.7	C/16.7	a	C/16.7	N/A	
Highway 46/Griffith Ave (S)																												
LOS/Delay	AM	B/20.0	A/8.8	A/8.8	C/20.6	A/8.6	A/8.6	B/14.4	B/14.4	B/14.4	B/12.0	B/12.0	B/12.0	B/10.2	C/20.4	A/9.5	A/9.5	C/20.7	B/10.1	B/10.1	B/15.5	B/15.5	B/15.5	B/11.2	B/11.2	B/11.2	B/11.1	No
	PM	C/25.0	B/10.9	B/10.9	C/25.9	B/10.9	B/10.9	B/16.8	B/16.8	B/16.8	B/11.9	B/11.9	B/11.9	B/12.6	C/27.9	B/17.1	B/17.1	C/27.3	B/16.2	B/16.2	B/19.7	B/19.7	B/19.7	A/9.8	A/9.8	A/9.8	B/17.6	
Highway 46/F St – Highway 43 South (S)																												
LOS/Delay	AM	C/25.0	B/14.6	A/4.8	C/25.6	B/14.9	B/14.9	C/21.0	B/10.3	B/10.3	B/20.0	B/20.0	B/20.0	B/14.8	C/25.5	B/15.1	A/4.8	C/26.0	B/15.6	B/15.6	C/21.0	B/10.1	B/10.1	B/18.9	B/18.9	B/18.9	B/15.1	No
	PM	C/30.0	C/20.4	A/5.3	C/32.4	B/19.8	B/19.8	C/25.4	B/10.6	B/10.6	C/20.4	C/20.4	C/20.4	B/19.7	C/31.9	C/22.5	A/5.2	C/33.2	C/25.3	C/25.3	C/26.5	B/10.5	B/10.5	B/19.3	B/19.3	B/19.3	C/21.8	
Highway 46/J St – Highway 43 North (U)																												
LOS/Delay	AM	A/7.7	b	b	A/7.5	b	b	B/11.2	B/11.2	B/11.2	B/11.4	B/11.4	B/11.4	N/A	A/7.7	b	b	A/7.6	b	b	B/11.5	B/11.5	B/11.5	B/11.4	B/11.4	B/11.4	N/A	No
	PM	A/7.9	b	b	A/7.9	b	b	B/13.9	B/13.9	B/13.9	B/13.4	B/13.4	B/13.4	N/A	A/7.9	b	b	A/7.9	b	b	B/15.0	B/15.0	B/15.0	B/13.6	B/13.6	B/13.6	N/A	

Footnotes:
(U) = Unsignalized
(S) = Signalized
a = Movement is allowed, but traffic volume for peak hour was zero. Therefore, no delay is shown.
b = No stopping restrictions for turning movement. Therefore, there is no delay.
c = Movement does not exist.
Source: Psomas, 2011.

Table 4.9-5: 2035 Without and With the Proposed Walmart

Intersection	2035 without Proposed Walmart													2035 with Proposed Walmart													Intersection LOS/Delay	Cumulative Significant Impact?
	EB			WB			NB			SB			Intersection LOS/Delay	EB			WB			NB			SB					
	L	T	R	L	T	R	L	T	R	L	T	R		L	T	R	L	T	R	L	T	R	L	T	R			
Highway 46/Scofield Ave (U)																												
LOS/Delay	AM	A/7.8	b	b	A/8.2	b	b	B/13.0	B/13.0	B/13.0	C/20.1	C/20.1	C/20.1	N/A	A/7.8	b	b	A/8.3	b	b	B/13.0	B/13.0	B/13.0	C/20.5	C/20.5	C/20.5	N/A	No
	PM	A/7.9	b	b	A/8.6	b	b	B/14.9	B/14.9	B/14.9	C/20.1	C/20.1	C/20.1	N/A	A/8.0	b	b	A/8.6	b	b	C/15.3	C/15.3	C/15.3	C/21.2	C/21.2	C/21.2	N/A	
Highway 46/Magnolia Ave (U)																												
LOS/Delay	AM	A/0.6	b	b	A/0.2	b	b	C/18.2	C/18.2	C/18.2	E/38.3	E/38.3	E/38.3	N/A	A/0.6	b	b	A/0.3	b	b	C/18.4	C/18.4	C/18.4	E/41.5	E/41.5	E/41.5	N/A	Yes
	PM	A/1.0	b	b	A/0.9	b	b	F/51.5	F/51.5	F/51.5	F/116.3	F/113.4	F/117.5	N/A	A/1.0	b	b	A/1.1	b	b	F/60.5	F/60.5	F/60.5	F/263.1	F/201.6	F/280.2	N/A	
Highway 46/Central Ave (U)																												
LOS/Delay	AM	A/0.6	b	b	A/8.3	b	b	D/29.5	B/14.2	B/14.2	D/29.8	B/14.2	B/14.2	N/A	A/0.8	b	b	A/8.3	b	b	D/33.7	C/15.6	C/15.6	E/43.5	B/14.9	B/14.9	N/A	Yes
	PM	A/3.5	b	b	B/10.2	b	b	F/225.1	E/49.4	E/49.4	F/472.0	D/26.7	D/26.7	N/A	A/5.2	b	b	B/10.2	b	b	F/625.4	F/124.4	F/124.4	F/404.9	E/41.3	E/41.3	N/A	
Highway 46/Beckes St (U)																												
LOS/Delay	AM	A/0.1	b	b	A/8.6	b	b	B/13.8	a	B/13.8	C/16.5	a	C/16.5	N/A	A/0.1	b	b	A/8.7	b	b	B/14.6	a	B/14.6	C/17.5	a	C/17.5	N/A	Yes
	PM	A/1.1	b	b	B/11.8	b	b	E/37.2	a	E/37.2	F/113.5	a	F/113.5	N/A	A/1.5	b	b	B/12.8	b	b	F/72.2	a	F/72.2	F/72.8	a	F/72.8	N/A	
Highway 46/Palm Ave (S)																												
LOS/Delay	AM	C/29.2	C/32.7	C/32.7	C/24.0	C/26.3	A/6.0	C/21.1	B/15.9	A/5.5	B/17.9	B/16.6	A/5.4	C/24.6	C/30.4	D/36.8	D/36.8	C/24.2	C/29.0	A/6.3	C/21.4	B/15.7	A/5.4	B/17.6	B/16.4	A/5.2	C/26.9	Yes
	PM	D/40.4	F/379.0	F/379.0	C/33.7	F/225.6	A/7.8	C/33.6	B/17.4	A/5.6	C/27.8	B/19.3	A/5.3	F/210.0	D/49.8	F/427.8	F/427.8	D/35.2	F/331.2	A/8.2	D/40.7	B/17.3	A/5.6	C/27.6	B/19.3	A/5.1	F/260.7	
Highway 46/Poplar Ave (U)																												
LOS/Delay	AM	a	b	b	A/9.2	b	b	C/21.8	C/21.8	C/21.8	C/22.7	C/22.7	C/22.7	N/A	a	b	b	A/9.3	b	b	C/23.7	C/23.7	C/23.7	C/23.8	C/23.8	C/23.8	N/A	Yes
	PM	B/13.6	b	b	B/12.8	b	b	F/161.1	a	F/161.1	F/52.4	a	F/52.4	N/A	B/14.2	b	b	B/13.4	b	b	F/255.0	a	F/255.0	F/64.8	a	F/64.8	N/A	
Highway 46/Griffith Ave (S)																												
LOS/Delay	AM	C/23.8	B/18.8	B/18.8	C/24.0	C/26.0	C/26.0	B/19.4	B/19.4	B/19.4	A/9.9	A/9.9	A/9.9	C/21.6	C/24.1	C/20.1	C/20.1	C/24.1	C/27.7	C/27.7	C/20.2	C/20.2	C/20.2	A/9.7	A/9.7	A/9.7	C/22.8	Yes
	PM	D/48.9	F/188.7	F/188.7	C/33.5	F/134.2	F/134.2	C/28.6	C/28.6	C/28.6	A/7.4	A/7.4	A/7.4	F/135.6	D/54.2	F/231.5	F/231.5	C/33.7	F/218.9	F/218.9	C/31.3	C/31.3	C/31.3	A/7.1	A/7.1	A/7.1	F/184.0	
Highway 46/F St – Highway 43 South (S)																												
LOS/Delay	AM	C/29.7	C/22.4	A/6.1	C/31.3	C/28.3	C/28.3	C/25.8	B/10.5	B/10.5	B/19.6	B/19.6	B/19.6	C/22.0	C/22.9	C/22.9	A/6.2	C/31.4	C/28.9	C/28.9	C/26.0	B/10.4	B/10.4	B/19.3	B/19.3	B/19.3	C/22.3	No
	PM	D/38.1	D/48.7	B/11.2	D/37.5	D/46.7	D/46.7	D/37.6	B/10.3	B/10.3	B/20.0	B/20.0	B/20.0	D/35.8	D/40.4	D/53.4	B/11.8	D/37.7	D/52.0	D/52.0	D/39.1	B/10.2	B/10.2	B/19.7	B/19.7	B/19.7	D/38.8	
Highway 46/J St – Highway 43 North (U)																												
LOS/Delay	AM	A/8.0	b	b	A/7.7	b	b	B/14.3	B/14.3	B/14.3	B/12.5	B/12.5	B/12.5	N/A	A/8.0	b	b	A/7.7	b	b	B/14.5	B/14.5	B/14.5	B/12.6	B/12.6	B/12.6	N/A	No
	PM	A/8.3	b	b	A/8.3	b	b	D/28.4	D/28.4	D/28.4	C/19.8	C/19.8	C/19.8	N/A	A/8.3	b	b	A/8.3	b	b	D/31.3	D/31.3	D/31.3	C/20.2	C/20.2	C/20.2	N/A	

Footnotes:
 (U) = Unsignalized
 (S) = Signalized
 a = Movement is allowed, but traffic volume for peak hour was zero. Therefore, no delay is shown.
 b = No stopping restrictions for turning movement. Therefore, there is no delay.
 Source: Psomas, 2011.

Cumulative Impact Analysis

The cumulative traffic evaluation includes two analyses: the first analysis compares existing conditions (i.e., conditions occurring at the time of the traffic counts) in relation to the year 2013 with the proposed Walmart, and the second analysis compares existing conditions (i.e., conditions occurring at the time of the traffic counts) in relation to the year 2035 with the proposed Walmart. These two analyses identify whether the addition of cumulative with Walmart traffic will result in traffic impacts.

2013 Cumulative Intersections Analysis

As described above, cumulative impacts are determined by comparing the 2013 with-Walmart conditions to the existing conditions to determine if the combined effect of the year 2013 conditions and the proposed Walmart results in a substandard LOS or exacerbation of a substandard LOS. Table 4.9-6 shows the level of service and delay at each intersection during weekday peak hours for the Cumulative Year 2013. Table 4.9-6 includes improvements that would be constructed with the development of the project site. These improvements are project design features and are described below:

Central Avenue at Highway 46

- Eastbound left turn lane
- Stripe northbound right turn lane as a shared through-right turn
- New north leg as 4-lane divided along Central Avenue between Highway 46 and the future alignment of Margalo Street.

The level of service and delay for the intersections that will experience significant cumulative impacts are indicated in bold in Table 4.9-6.

As shown in Table 4.9-6, there is one intersection that will be significantly impacted in 2013 when the cumulative traffic is added and the project design features described above are installed. The following intersection will be significantly impacted:

- Highway 46/Central Ave (PM Southbound Left will be implemented with an LOS F, 55.7)

The remaining analyzed intersection will operate at an adequate level of LOS A, B, C, or D in cumulative year 2013.

2035 Cumulative Intersections Analysis

As previously described, cumulative impacts are determined by comparing the 2035 with-Walmart conditions to the existing conditions to determine if the combined effect of the cumulative projects (which includes the buildout of the Wasco Center) and the proposed Walmart results in a substandard LOS or exacerbation of a substandard LOS. Table 4.9-7 shows the level of service and delay at each

intersection during weekday peak hours for the Cumulative Year 2035. The level of service and delay for the intersections that will experience significant cumulative impacts from the development of the proposed Walmart in the year 2035 are indicated in bold in Table 4.9-7.

As shown Table 4.9-7, there are six intersections, four unsignalized and two signalized, that will operate at a deficient level of service in the year 2035 when the cumulative traffic and the proposed Walmart are added. These six intersections are the same six intersections that will operate at a deficient level of service in the year 2035 without Walmart as shown in Table 4.9-5. Table 4.9-7 includes improvements that would be constructed with the development of the project site. These improvements are project design features and are described below:

Central Avenue at Highway 46

- Eastbound left turn lane
- Stripe northbound right turn lane as a shared through-right turn
- New north leg as 4-lane divided along Central Avenue between Highway 46 and the future alignment of Margalo Street.

Following are the six intersections that will be significantly impacted in the year 2035 with the addition of cumulative traffic and the proposed Walmart traffic to the existing roadway system and the addition of the above project design features.

- **Highway 46/Magnolia Avenue** (PM Northbound Left degrades from LOS B, 14.2 to LOS F, 60.5; PM Northbound Through degrades from LOS B, 14.2 to LOS F, 60.5; PM Northbound Right degrades from LOS B, 14.2 to LOS F, 60.5; AM Southbound Left degrades from LOS B, 13.9 to LOS E, 41.5; PM Southbound Left degrades from LOS C, 15.9 to LOS F, 263.1; AM Southbound Through degrades from LOS B, 13.9 to LOS E, 41.5; PM Southbound Through degrades from LOS C, 15.9 to LOS F, 201.6; AM Southbound Right degrades from zero movement and zero delay to LOS E, 41.5; PM Southbound Right degrades from LOS C, 15.9 to LOS F, 280.2)
- **Highway 46/Central Avenue** (PM Northbound Left degrades from LOS B, 12.0 to LOS F, 625.4; PM Northbound Through degrades to F, 124.4; PM Northbound Right degrades from LOS B, 12.2 to LOS F, 124.4; AM Southbound Left degrades to LOS E, 43.5; PM Southbound Left degrades to LOS F, 404.9; PM Southbound Through degrades to LOS E, 41.3; PM Southbound Right degrades to LOS E, 41.3)
- **Highway 46/Beckes Street** (PM Northbound Left degrades from LOS B, 12.0 to LOS F, 72.2; PM Northbound Right degrades from LOS B, 12.0 to LOS F, 72.2; PM Southbound Left degrades to LOS F, 72.8; PM Southbound Right degrades to LOS F, 72.8)

Table 4.9-6: Existing and Cumulative Year 2013 with Proposed Walmart Intersections

Intersection	Existing													2013 with Proposed Walmart													Intersection LOS/Delay	Cumulative Significant Impact?
	EB			WB			NB			SB			Intersection LOS/Delay	EB			WB			NB			SB					
	L	T	R	L	T	R	L	T	R	L	T	R		L	T	R	L	T	R	L	T	R	L	T	R			
Highway 46/Scofield Ave (U)																												
LOS/Delay	AM	A/7.6	b	b	A/7.9	b	b	B/11.5	B/11.5	B/11.5	B/13.7	B/13.7	B/13.7	N/A	A/7.6	b	b	A/7.9	b	b	B/11.7	B/11.7	B/11.7	B/14.5	B/14.5	B/14.5	N/A	No
	PM	A/7.6	b	b	A/8.1	b	b	B/11.6	B/11.6	B/11.6	B/12.9	B/12.9	B/12.9	N/A	A/7.6	b	b	A/8.1	b	b	B/12.2	B/12.2	B/12.2	B/13.9	B/13.9	B/13.9	N/A	
Highway 46/Magnolia Ave (U)																												
LOS/Delay	AM	A/0.1	b	b	A/0.1	b	b	B/11.8	B/11.8	B/11.8	B/13.9	B/13.9	a	N/A	A/0.1	b	b	A/0.1	b		B/11.8	B/11.8	B/11.8	B/14.6	B/14.6	a	N/A	No
	PM	a	b	b	A/0.1	b	b	B/14.2	B/14.2	B/14.2	C/15.9	C/15.9	C/15.9	N/A	a	b	b	A/0.3	b	b	B/14.7	B/14.7	B/14.7	C/19.1	C/19.1	C/19.1	N/A	
Highway 46/Central Ave (U)																												
LOS/Delay	AM	c	b	b	A/7.7	b	c	B/11.4	c	A/9.7	c	c	c	N/A	A/0.3	b	b	A/7.7	b	b	B/13.2	B/10.9	B/10.9	C/15.1	B/12.7	B/10.5	N/A	Yes
	PM	c	b	b	A/8.6	b	c	B/12.0	c	B/12.2	c	c	c	N/A	A/0.8	b	b	A/8.4	b	b	C/15.3	C/15.5	C/15.5	F/55.7	C/15.5	B/10.8	N/A	
Highway 46/Beckes St (U)																												
LOS/Delay	AM	c	b	b	A/7.7	b	c	B/10.8	c	B/10.8	c	c	c	N/A	c	b	b	A/7.9	b	c	B/11.8	c	B/11.8	c	c	c	N/A	No
	PM	c	b	b	A/8.5	b	c	B/12.0	c	B/12.0	c	c	c	N/A	c	b	b	A/9.3	b	c	C/15.1	c	C/15.1	c	c	c	N/A	
Highway 46/Palm Ave (S)																												
LOS/Delay	AM	B/19.8	B/10.3	B/10.3	B/19.4	B/10.3	A/4.3	B/17.5	B/16.4	A/6.9	B/16.4	B/16.6	A/7.0	B/11.9	C/21.5	B/14.5	B/14.5	C/20.3	B/12.6	A/4.5	B/18.4	B/16.1	A/6.6	B/16.1	B/16.4	A/6.5	B/14.1	No
	PM	C/22.8	C/20.1	C/20.1	C/25.3	A/9.7	A/4.4	C/21.0	B/18.8	A/7.7	B/19.1	B/19.5	A/8.2	B/16.6	C/26.2	D/43.3	D/43.3	C/26.9	B/17.3	A/5.8	C/22.2	B/17.6	A/6.8	B/17.9	B/18.1	A/6.6	C/28.7	
Highway 46/Poplar Ave (U)																												
LOS/Delay	AM	a	b	b	A/8.1	b	b	B/11.7	B/11.7	B/11.7	B/13.8	B/13.8	B/13.8	N/A	a	b	b	A/8.2	b	b	B/12.8	B/12.8	B/12.8	B/14.6	B/14.6	B/14.6	N/A	No
	PM	A/8.4	b	b	A/8.1	b	b	B/13.6	a	B/13.6	B/14.3	a	B/14.3	N/A	A/9.0	b	b	A/9.5	b	b	C/17.7	a	C/17.7	C/16.7	a	C/16.7	N/A	
Highway 46/Griffith Ave (S)																												
LOS/Delay	AM	B/20.0	A/8.2	A/8.2	C/20.3	A/7.6	A/7.6	B/14.2	B/14.2	B/14.2	B/12.0	B/12.0	B/12.0	A/9.6	C/20.4	A/9.5	A/9.5	C/20.7	B/10.1	B/10.1	B/15.5	B/15.5	B/15.5	B/11.2	B/11.2	B/11.2	B/11.1	No
	PM	C/24.7	B/11.3	B/11.3	C/25.7	B/11.1	B/11.1	B/16.3	B/16.3	B/16.3	B/11.8	B/11.8	B/11.8	B/12.7	C/27.9	B/17.1	B/17.1	C/27.3	B/16.2	B/16.2	B/19.7	B/19.7	B/19.7	A/9.8	A/9.8	A/9.8	B/17.6	
Highway 46/F St – Highway 43 South (S)																												
LOS/Delay	AM	C/25.0	B/14.6	A/4.9	C/25.5	B/14.3	B/14.3	C/21.0	B/10.5	B/10.5	B/19.4	B/19.4	B/19.4	B/14.6	C/25.5	B/15.1	A/4.8	C/26.0	B/15.6	B/15.6	C/21.0	B/10.1	B/10.1	B/18.9	B/18.9	B/18.9	B/15.1	No
	PM	C/29.2	B/18.5	A/5.4	C/29.8	B/15.0	B/15.0	C/24.4	B/11.2	B/11.2	B/19.6	B/19.6	B/19.6	B/17.4	C/31.9	C/22.5	A/5.2	C/33.2	C/25.3	C/25.3	C/26.5	B/10.5	B/10.5	B/19.3	B/19.3	B/19.3	C/21.8	
Highway 46/J St – Highway 43 North (U)																												
LOS/Delay	AM	A/7.7	b	b	A/7.5	b	b	B/11.1	B/11.1	B/11.1	B/11.2	B/11.2	B/11.2	N/A	A/7.7	b	b	A/7.6	b	b	B/11.5	B/11.5	B/11.5	B/11.4	B/11.4	B/11.4	N/A	No
	PM	A/7.8	b	b	A/7.8	b	b	B/13.4	B/13.4	B/13.4	B/12.7	B/12.7	B/12.7	N/A	A/7.9	b	b	A/7.9	b	b	B/15.0	B/15.0	B/15.0	B/13.6	B/13.6	B/13.6	N/A	

Footnotes:
(U) = Unsignalized
(S) = Signalized
a = Movement is allowed, but traffic volume for peak hour was zero. Therefore, no delay is shown.
b = No stopping restrictions for turning movement. Therefore, there is no delay.
c = Movement does not exist.
Source: Psomas, 2011.

Table 4.9-7: Existing and Cumulative Year 2035 with Proposed Walmart Intersections

Intersection	Existing													2035 with Walmart													Intersection LOS/Delay	Cumulative Significant Impact?
	EB			WB			NB			SB			Intersection LOS/Delay	EB			WB			NB			SB					
	L	T	R	L	T	R	L	T	R	L	T	R		L	T	R	L	T	R	L	T	R	L	T	R			
Highway 46/Scotfield Ave (U)																												
LOS/Delay	AM	A/7.6	b	b	A/7.9	b	b	B/11.5	B/11.5	B/11.5	B/13.7	B/13.7	B/13.7	N/A	A/7.8	b	b	A/8.3	b	b	B/13.0	B/13.0	B/13.0	C/20.5	C/20.5	C/20.5	N/A	No
	PM	A/7.6	b	b	A/8.1	b	b	B/11.6	B/11.6	B/11.6	B/12.9	B/12.9	B/12.9	N/A	A/8.0	b	b	A/8.6	b	b	C/15.3	C/15.3	C/15.3	C/21.2	C/21.2	C/21.2	N/A	
Highway 46/Magnolia Ave (U)																												
LOS/Delay	AM	A/0.1	b	b	A/0.1	b	b	B/11.8	B/11.8	B/11.8	B/13.9	B/13.9	a	N/A	A/0.6	b	b	A/0.3	b	b	C/18.4	C/18.4	C/18.4	E/41.5	E/41.5	E/41.5	N/A	Yes
	PM	a	b	b	A/0.1	b	b	B/14.2	B/14.2	B/14.2	C/15.9	C/15.9	C/15.9	N/A	A/1.0	b	b	A/1.1	b	b	F/60.5	F/60.5	F/60.5	F/263.1	F/201.6	F/280.2	N/A	
Highway 46/Central Ave (U)																												
LOS/Delay	AM	c	b	b	A/7.7	b	c	B/11.4	c	A/9.7	c	c	c	N/A	A/0.8	b	b	A/8.3	b	b	D/33.7	C/15.6	C/15.6	E/43.5	B/14.9	B/14.9	N/A	Yes
	PM	c	b	b	A/8.6	b	c	B/12.0	c	B/12.2	c	c	c	N/A	A/5.2	b	b	B/10.2	b	b	F/625.4	F/124.4	F/124.4	F/404.9	E/41.3	E/41.3	N/A	
Highway 46/Beckes St (U)																												
LOS/Delay	AM	c	b	b	A/7.7	b	c	B/10.8	c	B/10.8	c	c	c	N/A	A/0.1	b	b	A/8.7	b	b	B/14.6	a	B/14.6	C/17.5	a	C/17.5	N/A	Yes
	PM	c	b	b	A/8.5	b	c	B/12.0	c	B/12.0	c	c	c	N/A	A/1.5	b	b	B/12.8	b	b	F/72.2	a	F/72.2	F/72.8	a	F/72.8	N/A	
Highway 46/Palm Ave (S)																												
LOS/Delay	AM	B/19.8	B/10.3	B/10.3	B/19.4	B/10.3	A/4.3	B/17.5	B/16.4	A/6.9	B/16.4	B/16.6	A/7.0	B/11.9	C/30.4	D/36.8	D/36.8	C/24.2	C/29.0	A/6.3	C/21.4	B/15.7	A/5.4	B/17.6	B/16.4	A/5.2	C/26.9	Yes
	PM	C/22.8	C/20.1	C/20.1	C/25.3	A/9.7	A/4.4	C/21.0	B/18.8	A/7.7	B/19.1	B/19.5	A/8.2	B/16.6	D/49.8	F/427.8	F/427.8	D/35.2	F/331.2	A/8.2	D/40.7	B/17.3	A/5.6	C/27.6	B/19.3	A/5.1	F/260.7	
Highway 46/Poplar Ave (U)																												
LOS/Delay	AM	a	b	b	A/8.1	b	b	B/11.7	B/11.7	B/11.7	B/13.8	B/13.8	B/13.8	N/A	a	b	b	A/9.3	b	b	C/23.7	C/23.7	C/23.7	C/23.8	C/23.8	C/23.8	N/A	Yes
	PM	A/8.4	b	b	A/8.8	b	b	B/13.6	a	B/13.6	B/14.3	a	B/14.3	N/A	B/14.2	b	b	B/13.4	b	b	F/255.0	a	F/255.0	F/64.8	a	F/64.8	N/A	
Highway 46/Griffith Ave (S)																												
LOS/Delay	AM	B/20.0	A/8.2	A/8.2	C/20.3	A/7.6	A/7.6	B/14.2	B/14.2	B/14.2	B/12.0	B/12.0	B/12.0	A/9.6	C/24.1	C/20.1	C/20.1	C/24.1	C/27.7	C/27.7	C/20.2	C/20.2	C/20.2	A/9.7	A/9.7	A/9.7	C/22.8	Yes
	PM	C/24.7	B/11.3	B/11.3	C/25.7	B/11.1	B/11.1	B/16.3	B/16.3	B/16.3	B/11.8	B/11.8	B/11.8	B/12.7	D/54.2	F/231.5	F/231.5	C/33.7	F/218.9	F/218.9	C/31.3	C/31.3	C/31.3	A/7.1	A/7.1	A/7.1	F/184.0	
Highway 46/F St – Highway 43 South (S)																												
LOS/Delay	AM	C/25.0	B/14.6	A/4.9	C/25.5	B/14.3	B/14.3	C/21.0	B/10.5	B/10.5	B/19.4	B/19.4	B/19.4	B/14.6	C/29.9	C/22.9	A/6.2	C/31.4	C/28.9	C/28.9	C/26.0	B/10.4	B/10.4	B/19.3	B/19.3	B/19.3	C/22.3	No
	PM	C/29.2	B/18.5	A/5.4	C/29.8	B/15.0	B/15.0	C/24.4	B/11.2	B/11.2	B/19.6	B/19.6	B/19.6	B/17.4	D/40.4	D/53.4	B/11.8	D/37.7	D/52.0	D/52.0	D/39.1	B/10.2	B/10.2	B/19.7	B/19.7	B/19.7	D/38.8	
Highway 46/J St – Highway 43 North (U)																												
LOS/Delay	AM	A/7.7	b	b	A/7.5	b	b	B/11.1	B/11.1	B/11.1	B/11.2	B/11.2	B/11.2	N/A	A/8.0	b	b	A/7.7	b	b	B/14.5	B/14.5	B/14.5	B/12.6	B/12.6	B/12.6	N/A	No
	PM	A/7.8	b	b	A/7.8	b	b	B/13.4	B/13.4	B/13.4	B/12.7	B/12.7	B/12.7	N/A	A/8.3	b	b	A/8.3	b	b	D/31.3	D/31.3	D/31.3	C/20.2	C/20.2	C/20.2	N/A	

Footnotes:
(U) = Unsignalized
(S) = Signalized
a = Movement is allowed, but traffic volume for peak hour was zero. Therefore, no delay is shown.
b = No stopping restrictions for turning movement. Therefore, there is no delay.
c = Movement does not exist.
Source: Psomas, 2011.

- **Highway 46/Palm Avenue** (Intersection PM Peak Hour degrades from LOS B, 16.6 to LOS F, 260.7)
- **Highway 46/Poplar Avenue** (PM Northbound Left degrades from LOS B, 13.6 to LOS F, 255.0; PM Northbound Right degrades from LOS B, 13.6 to LOS F, 255.0; PM Southbound Left degrades from LOS B, 14.3 to LOS F, 64.8; PM Southbound Right degrades from LOS B, 14.3 to LOS F, 64.8)
- **Highway 46/Griffith Avenue** (Intersection PM Peak Hour degrades from LOS B, 12.7 to LOS F, 184.0)

The remaining analyzed intersection will operate at an adequate level of LOS A, B, C, or D in cumulative year 2035.

Mitigation Measures

Project Specific and Cumulative

The proposed Walmart consist of 170,000 square feet and will replace the 158,000 square-foot “Large-Box Retail” use that was approved as part of the Wasco Center Specific Development Plan. The proposed project includes the addition of 12,000 square feet to the approved structure and a change to a 24-hour Walmart use. The following mitigation measures identify that the project applicant will either construct or contribute its fair share funding to construct improvements. The two mitigation measures below are the same as the two mitigation measures identified in the approved Wasco Center MND; however, some of the specific improvements are not the same. Within each mitigation measure, the improvements are separated into two sets of improvements: one set of improvements are those that are the same as those required for the approved Wasco Center, and the second set of improvements are new improvements to reduce significant impacts associated with the change of the approved “Large-Box Retail” use to a Walmart. The timing of each of the improvements that are the same as those improvements identified for the approved Wasco Center is also identified.

MM TR-1a Prior to the issuance of a certificate of occupancy, the project applicant shall either construct or contribute its fair share to construct the following improvements. Currently, the City of Wasco does not have a fair share program; however, if one is approved prior to the issuance of a certificate of occupancy, the applicant could participate in a fair share program. If one is not established, the project applicant will be required to construct the improvements. Following are the improvements that are estimated to be implemented in or before 2013; however, the improvements shall be completed as the significance thresholds are reached.

Improvements that are the same as those Identified for the Wasco Center

Central Avenue

- Eastbound left turn lane
This project design feature improvement was scheduled with the development of Phase 1 of the Wasco Center.
- [Westbound right turn lane](#)
[This improvement was scheduled with the development of Phase I of the Wasco Center.](#)
- Stripe northbound right turn lane as a shared through-right turn lane
This project design feature improvement was scheduled with the development of Phase 1 of the Wasco Center.
- New north leg as 4-lane divided
This project design feature improvement was scheduled with the development of Phase 1 of the Wasco Center.
- Traffic Signal
This improvement was scheduled with the development of Phase 2 of the Wasco Center.

New Improvements that are not Identified for the Wasco Center

There are no improvements in addition to those identified above.

MM TR-1b

Prior to the issuance of a certificate of occupancy, the project applicant shall either construct or contribute its fair share to construct the following improvements. Currently, the City of Wasco does not have a fair share program; however, if one is approved prior to the issuance of a certificate of occupancy, the applicant could participate in a fair share program. If one is not established, the project applicant will be required to construct the improvements. Following are the improvements that are estimated to be implemented in or before 2035; however, the improvements shall be completed as the significance thresholds are reached.

Improvements that are the same as those Identified for the Wasco Center

Highway 46

- Widen to four lane divided roadway from Magnolia Avenue to Highway 43 South/F Street
This improvement was scheduled with the development of Phase 2 of the Wasco Center.

Magnolia Avenue

- Eastbound left turn lane
This improvement was scheduled with the development of Phase 2 of the Wasco Center.
- Westbound left turn lane (in median)

This improvement was scheduled with the development of Phase 2 of the Wasco Center.

- Westbound trap right turn lane

This improvement is a reduced improvement compared to the addition of a westbound through lane and a right turn lane that was schedule with the development of Phase 2 of the Wasco Center.

- Southbound left turn lane

This improvement was scheduled with the development of Phase 2 of the Wasco Center.

- Traffic Signal

This improvement was scheduled with the development of Phase 2 of the Wasco Center.

Central Avenue

- Add a second eastbound through lane

This improvement was scheduled with the development of Phase 1 of the Wasco Center.

- Convert the existing [eastbound](#) through lane to a shared through-right turn lane

This improvement was scheduled with the development of Phase 2 of the Wasco Center.

- Add a second westbound through lane with a shared through-right turn lane
The second westbound through lane was scheduled with the development of Phase 1 of the Wasco Center; ~~however the shared through-right turn lane is a reduced improvement compared to the separate through lane and right turn lane that was schedule with the development of Phase 1 of the Wasco Center.~~

Beckets Street

- Northbound/Southbound right-out only

This improvement was scheduled with the development of Phase 1 of the Wasco Center.

- Add a second eastbound through lane and maintain the existing shared through-right lane

This improvement was scheduled with the development of Phase 1 of the Wasco Center.

- Add a second westbound through lane with a shared through-right turn lane

This improvement was scheduled with the development of Phase 1 of the Wasco Center.

Palm Avenue

- Add a second eastbound through lane and maintain the existing shared through-right turn lane

This improvement was scheduled with the development of Phase 1 of the Wasco Center.

- Add a second westbound through lane and convert the existing right turn lane to a shared through-right turn lane

This improvement was scheduled with the development of Phase 1 of the Wasco Center.

Poplar Avenue

- Add a second eastbound through lane and maintain the existing shared through-right lane

This improvement was scheduled with the development of Phase 1 of the Wasco Center.

- Add a second westbound through lane

This improvement was scheduled with the development of Phase 1 of the Wasco Center.

- Prohibit existing northbound left turns

This improvement was scheduled with the development of Phase 2 of the Wasco Center.

- Continue to prohibit northbound through movements

This continued prohibition was scheduled with the development of Phase 2 of the Wasco Center.

Griffith Avenue

- Add a second eastbound through lane

This improvement was scheduled with the development of Phase 2 of the Wasco Center.

- Construct a shared through-right turn lane

This improvement was scheduled with the development of Phase 1 of the Wasco Center.

- Add a second westbound through lane and maintain the existing shared through-right turn lane

This improvement was scheduled with the development of Phase 2 of the Wasco Center.

New Improvements that are not Identified for the Wasco Center

Palm Avenue

- Minor timing changes (80-second cycle)
- [Increase northbound left turn storage \(striping\) from 115 feet to 200 feet](#)

Poplar Avenue

- Rest ripe to provide a westbound-shared through-right turn lane.

Griffith Avenue

- Minor timing changes (80-second cycle)

Highway 43 South

- Minor timing changes (80-second cycle)
- [Increase northbound left turn storage \(striping\) from 155 feet to 200 feet](#)

Level of Significance After Mitigation

Project Specific and Cumulative

With the implementation of the improvements identified in the above proposed mitigation measures, the levels of service at each of the study area intersections would operate at a level of service of LOS D or better which is considered less than significant. However, the changes or improvements along SR-46 to improve the operations of intersections are not under the jurisdiction of the City of Wasco. Rather, these improvements would be under the jurisdiction of California Department of Transportation (Caltrans). Therefore, conservatively, these potential traffic impacts are considered significant and unavoidable because the City of Wasco does not have jurisdiction over the proposed traffic improvements along SR-46.

Congestion Management Program

Impact TR-2:	The proposed Walmart may 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.
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Project Specific and Cumulative Impact Analysis

The traffic study area includes SR-46 which is part of the Kern County Congestion Management Plan (CMP). Level of service (LOS) E has been established as the minimum system-wide level of service standard in the Kern County CMP (Kern Council of Governments, 2007). This level of service is different from the LOS D or better standard identified in the Kern County General Plan (Kern County, 2009). The discussion in Impact TR-1 is based on an intersection LOS D or better as acceptable and LOS E and LOS F as not acceptable because SR-46 is a state facility and Caltrans has established a LOS D or better standard for the portion of SR-46 within Wasco (Caltrans, 2001). Therefore, the analysis in Impact TR-1 provides a worst-case evaluation.

Mitigation Measures

Project Specific and Cumulative

Implementation of Mitigation Measures TR-1a and TR-1b are required.

Level of Significance After Mitigation

Project Specific and Cumulative

Similar to Impact TR-1, with the implementation of the improvements identified in Mitigation Measures TR-1a and TR-1b, the levels of service at each of the study area intersections would operate at a level of service of LOS D or better which is considered less than significant. However, the changes or improvements along SR-46 to improve the operations of intersections are not under the jurisdiction of the City of Wasco. Rather, these improvements would be under the jurisdiction of California Department of Transportation (Caltrans). Therefore, conservatively, these potential traffic

impacts are considered significant and unavoidable because the City of Wasco does not have jurisdiction over the proposed traffic improvements along SR-46.