URBAN | CROSSROADS

Approved
BB
12/7/2023

CENTRAL AND COLLIER

TRAFFIC ANALYSIS

PREPARED BY: Charlene So, PE | cso@urbanxroads.com
Connor Paquin, PE | cpaquin@urbanxroads.com
Aric Evatt | aevatt@urbanxroads.com

Reference Number	Agency	Date
15560-04 TA Report	City of Lake Elsinore	December 6, 2023

TABLE OF CONTENTS

APPENDICES

LIST OF EXHIBITS

LIST OF TABLES

LIST OF ABBREVIATED TERMS

(1)	Reference
ADT	Average Daily Traffic
CA MUTCD	California Manual on Uniform Traffic Control Devices
Caltrans	California Department of Transportation
CMP	Congestion Management Program
DIF	Development Impact Fee
EAP	Existing plus Ambient Growth plus Project
HCM	Highway Capacity Manual
ITE	Institute of Transportation Engineers
LOS	Level of Service
PHF	Peak Hour Factor
Project	Central and Collier
RCTC	Riverside County Transportation Commission
RTA	Riverside Transit Agency
SF	Square Feet
TA	Traffic Analysis
TIF	Traffic Impact Fee
TUMF	Transportation Uniform Mitigation Fee
v/c	Volume to Capacity
vphgpl	Vehicles per Hour Green per Lane
WRCOG	Western Riverside Council of Governments

This page intentionally left blank

1 INTRODUCTION

This report presents the results of the Traffic Analysis (TA) for Central and Collier ("Project"), which is located at 18295 Collier Avenue in City of Lake Elsinore, as shown on Exhibit 1-1. The purpose of this TA is to evaluate the potential circulation system deficiencies that may result from the development of the proposed Project, and where necessary recommend improvements to achieve acceptable operations consistent with General Plan level of service goals and policies. This traffic study has been prepared in accordance with the City of Lake Elsinore's Traffic Impact Analysis Preparation Guidelines and consultation with City staff during the traffic study scoping process. (1) The City approved Project Traffic Study Scoping agreement is provided in Appendix 1.1 of this TA.

1.1 SUMMARY OF FINDINGS

Since the Project does not propose any new driveways and will utilize the existing driveways on Collier Avenue (SR-74) and Central Avenue, it is recommended the Project maintain the existing roadway width at Collier Avenue (SR-74) and Central Avenue, and maintain the existing traffic control and lane geometrics at the following intersections:

- Driveway 1 & Central Avenue (#1)
- Collier Avenue (SR-74) & Driveway 2 (#2)

Additional details and intersection lane geometrics are provided in Section 1.6 *Recommendations* of this report.

1.2 PROJECT OVERVIEW

The proposed Project includes the construction of a new Starbucks coffee shop within an existing shell lease space. Construction activities will include new custom poly signage, new drive-thru equipment, landscape patch and infill, new trash enclosure, new drive-thru window, new roof membrane and mechanical equipment, addition of exterior patio furniture, new interior partition walls, new restroom, new beverage preparation equipment, new casework, new floor finishes, new wall finishes, new ceiling, new lighting, new heating ventilation and air conditioning diffusers, and new trench existing concrete slab for plumbing and electric. The preliminary site plan for the proposed Project is shown on Exhibit 1-2.

The site was formerly occupied by a bank (with drive-thru) within the 4,400 square foot building. The use is currently vacant. The Project is located within the existing Oak Grove Crossing Shopping Center. There are no changes proposed to the existing access to the center, and the site is currently served by a single access point on Collier Avenue and three access points along Central Avenue.

EXHIBIT 1-1: LOCATION MAP

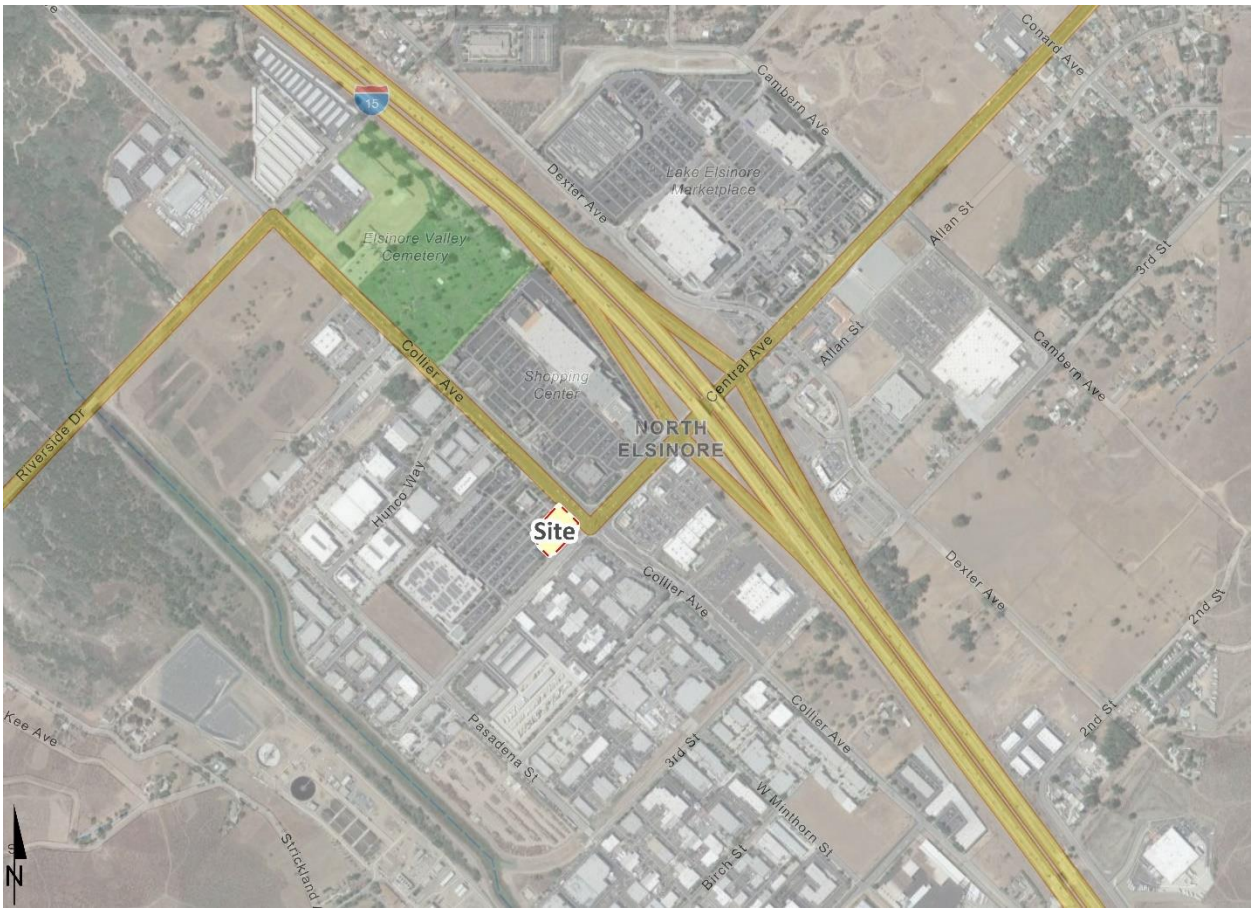
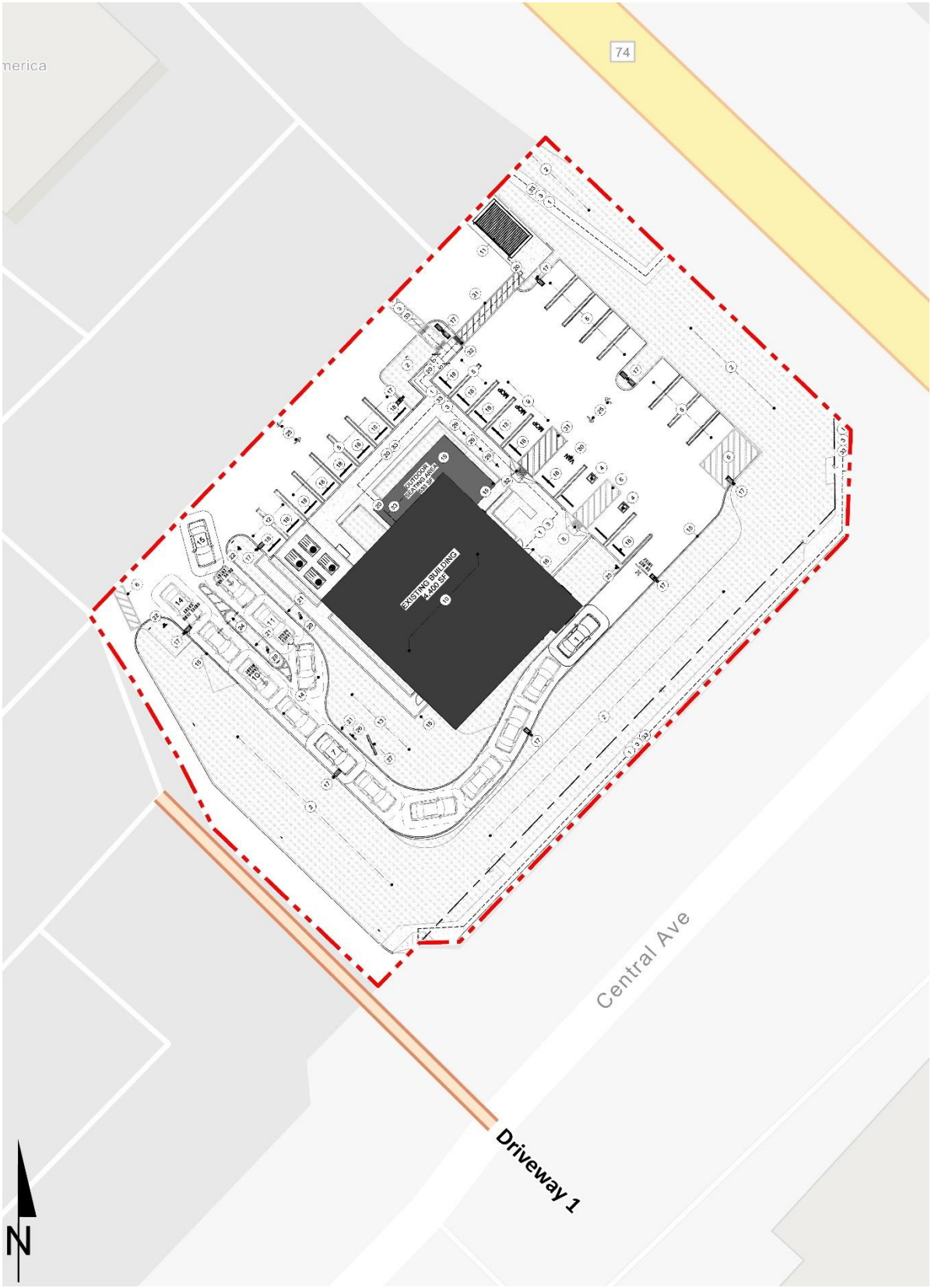


EXHIBIT 1-2: PRELIMINARY SITE PLAN



Regional access to the Project site is available from the I-15 Freeway via the Central Avenue (SR-74) interchange. Exhibit 1-3 depicts the location of the proposed Project in relation to the existing roadway network and the study area intersections.

In order to develop the traffic characteristics of the proposed project, trip-generation statistics published in the Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition, 2021) for the following land use code: (2)

- Coffee/Donut Shop with Drive-Through – ITE Land Use Code 937

The proposed Project is anticipated to generate a total of 1,056 trip-ends per day, with 192 AM peak hour trips and 78 PM peak hour trips. The assumptions and methods used to estimate the Project's trip generation characteristics are discussed in greater detail in Section 4.1 *Project Trip Generation* of this report.

1.3 ANALYSIS SCENARIOS

For the purposes of this traffic study, potential deficiencies to traffic and circulation have been assessed for each of the following conditions:

- Existing (2023) Conditions
- Existing plus Ambient Growth plus Project (EAP) (2025) Conditions

1.3.1 EXISTING (2023) CONDITIONS

Information for Existing (2023) conditions is disclosed to represent the baseline traffic conditions as they existed at the time this report was prepared.

1.3.2 EAP (2025) CONDITIONS

The EAP (2025) conditions analyses determines the potential circulation system deficiencies based on a comparison of the EAP traffic conditions to Existing conditions. The roadway network is similar to Existing conditions except for new connections to be constructed by the Project. To account for background traffic growth, an ambient growth factor from Existing (2023) conditions of 2.01% (1 percent per year, compounded annually for 2 years) is included for EAP (2025) traffic conditions. The ambient growth factor is consistent with the Project traffic scoping agreement provided in Appendix 1.1, which has been reviewed and approved by the City of Lake Elsinore. Consistent with City's traffic study guidelines, the EAP analysis is intended to identify "Opening Year" deficiencies associated with the development of the proposed Project based on the expected background growth within the study area.

EXHIBIT 1-3: STUDY AREA

1.4 STUDY AREA

To ensure that this TA satisfies the City of Lake Elsinore's traffic study requirements, Urban Crossroads, Inc. prepared a Project traffic study scoping package for review by City of Lake Elsinore staff prior to the preparation of this report. This agreement provides an outline of the Project study area, trip generation, trip distribution, and analysis methodology. The agreement approved by the County is included in Appendix 1.1 of this TA.

The 2 study area intersections shown on Exhibit 1-3 and listed in Table 1-1 were selected for evaluation in this TA based on consultation with City of Lake Elsinore staff. At a minimum, the study area includes intersections where the Project is anticipated to contribute 50 or more peak hour trips per the City's traffic study guidelines. (1)

TABLE 1-1: INTERSECTION ANALYSIS LOCATIONS

#	Intersection	Jurisdiction	CMP?
1	Driveway 1 & Central Av.	City of Lake Elsinore	No
2	Collier Av. (SR-74) & Driveway 2	City of Lake Elsinore, Caltrans	No

The "50 peak hour trip" criteria represents a minimum number of trips at which a typical intersection would have the potential to be substantively affected by a given development proposal. The 50 peak hour trip criterion is a traffic engineering rule of thumb that is accepted and widely used within Riverside County for estimating a potential area of influence (i.e., study area).

The intent of a Congestion Management Program (CMP) is to more directly link land use, transportation, and air quality, thereby prompting reasonable growth management programs that will effectively utilize new transportation funds, alleviate traffic congestion and related deficiencies, and improve air quality. The County of Riverside CMP became effective with the passage of Proposition 111 in 1990 and updated most recently updated in 2011. The Riverside County Transportation Commission (RCTC) adopted the 2011 CMP for the County of Riverside in December 2011. (5) CMP intersections are identified in Table 1-1. There are no study area intersections identified as a Riverside County CMP facility.

1.5 DEFICIENCIES

This section provides a summary of deficiencies by analysis scenario. Section 2 *Methodologies* provides information on the methodologies used in the analysis and Section 3 *Area Conditions* and Section 5 *EAP (2025) Traffic Conditions* includes the detailed analysis. A summary of the Level of Service (LOS) results for all analysis scenarios is presented in Table 1-2.

TABLE 1-2: SUMMARY OF LOS

		Existing		EAP	
#	Intersection	AM	PM	AM	PM
1	Driveway 1 & Central Av.				
2	Collier Av. (SR-74) & Driveway 2				

= A - D = E = F

1.5.1 EXISTING (2023) CONDITIONS

The study area intersections are currently operating at an acceptable LOS during the peak hours for Existing (2023) traffic conditions.

1.5.2 EAP (2025) CONDITIONS

The study area intersections are anticipated to continue to operate at an acceptable LOS during the peak hours under EAP (2025) traffic conditions.

1.6 RECOMMENDATIONS

1.6.1 SITE ADJACENT AND SITE ACCESS RECOMMENDATIONS

The proposed Project will develop on an existing and vacant bank use. As such, the site adjacent roadways of Collier Avenue (SR-74) and Central Avenue are currently built to their ultimate width based on the City's General Plan. The Project does not propose any new driveways and will utilize the existing driveways on Collier Avenue (SR-74) and Central Avenue. As such, it is recommended the Project maintain the existing roadway width at Collier Avenue (SR-74) and Central Avenue, and maintain the existing traffic control and lane geometrics at the following intersections:

- Driveway 1 & Central Avenue (#1)
- Collier Avenue (SR-74) & Driveway 2 (#2)

1.6.2 OFF-SITE RECOMMENDATIONS

All study area intersections currently operate at an acceptable LOS during the peak hours and are anticipated to continue to operate at an acceptable LOS during the peak hours under both Existing (2023) and EAP (2025) traffic conditions. As such, there are no off-site intersection improvement recommendations.

1.7 PARKING EVALUATION

The Project site is currently vacant and was formerly occupied by a bank (with drive-thru) within the 4,400 square foot building. The proposed Project consists of the construction of a new Starbucks coffee shop with a drive-thru, as shown previously on Exhibit 1-2. It should be noted that the existing and future tenants share a parking agreement. The agreement includes a non-exclusive easement for that passage and parking of vehicles over and across the parking, driveways, and sidewalk areas within the tract.

1.7.1 PARKING REQUIREMENTS

To demonstrate that adequate parking supply exists within the Central and Collier project, this parking assessment provides a review of the City of Lake Elsinore Municipal Code parking requirements and an estimate of the peak parking demands. Section 17.148.030 of the City of Lake Elsinore Municipal Code describes the number of parking spaces required for land uses. Section 17.148.030.E.13 identifies the minimum parking spaces required for restaurant land uses, such as the Starbucks coffee shop. According to the Municipal Code use descriptions, the proposed Starbucks business use is best described under "Restaurants and other eating, drinking, and food establishments."

Table 1-3 provides a summary of the applicable City of Lake Elsinore Municipal Code parking requirements. For Restaurants, the City of Lake Elsinore Municipal Code requires 1 space per 45 square feet of customer area (1/45 SF), plus 1 space for each 200 square feet (1/200 SF) of noncustomer area.

TABLE 1-3: CITY OF LAKE ELSINORE MUNICIPAL CODE PARKING REQUIREMENTS

Use	Parking Rate	Description
Restaurants and other eating, drinking, and food establishments	1 space per 45 SF of customer area + 1 space per 200 SF noncustomer area	one space for each 45 square feet of customer area, plus one space for each 200 square feet of noncustomer area.

Using the City of Lake Elsinore Municipal Code parking rates, it is possible to calculate the parking requirements for the proposed Central and Collier project. As shown in Table 1-4, the proposed Central and Collier project requires 61 stalls. The proposed Project would not meet City of Lake Elsinore Municipal Code requirements.

TABLE 1-4: CENTRAL AND COLLIER MUNICIPAL CODE PARKING SPACE REQUIREMENTS

Use	Quantity[1]	Parking Rate[2]	Required Parking	Proposed Parking	Meets Requirement
Customer[3]	2,129 SF	1 per 45 SF	47		
Noncustomer	2,768 SF	1 per 200 SF	14		
		Total	**61**	**42**	**No**

[1] Based on the August 23, 2023 site plan, prepared by Urban Dwell Architects.
[2] Based on the City of Lake Elsinore Municipal Code Section 17.148.030.
[3] Quantity includes 497 SF of outdoor seating area.

1.7.2 SHARED PARKING

As stated previously, the existing and future tenants share a parking agreement. The agreement includes a non-exclusive easement for that passage and parking of vehicles over and across the parking, driveways, and sidewalk areas within the tract. The shared parking area is shown on Exhibit 1-4. Based on a field review of parking conditions, the shared parking area provides sufficient parking for all the uses within the tract without negatively affecting the availability of parking to each use (see Exhibit 1-5).

EXHIBIT 1-4: SHARED PARKING AGREEMENT

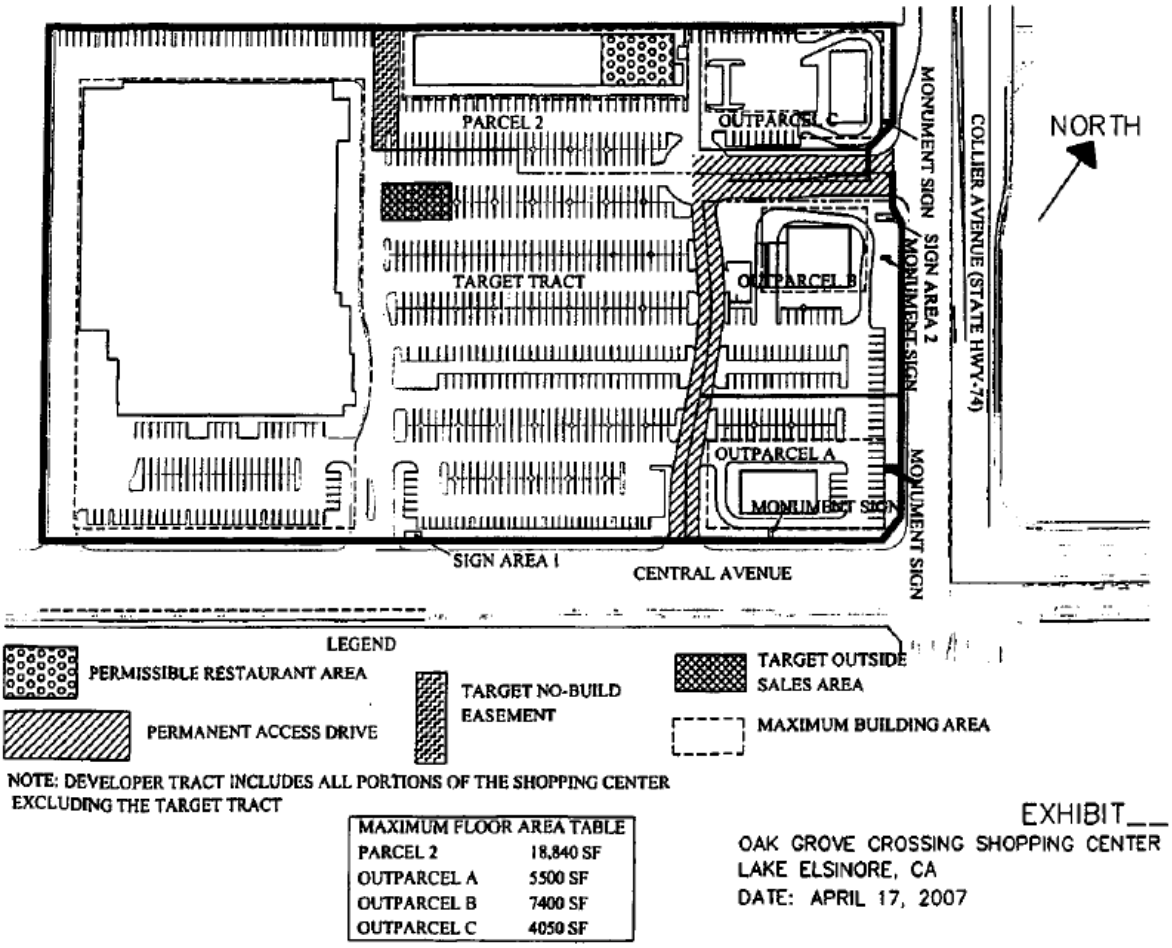


EXHIBIT 1-5: EXISTING PARKING CONDITIONS

1.7.3 CONCLUSIONS

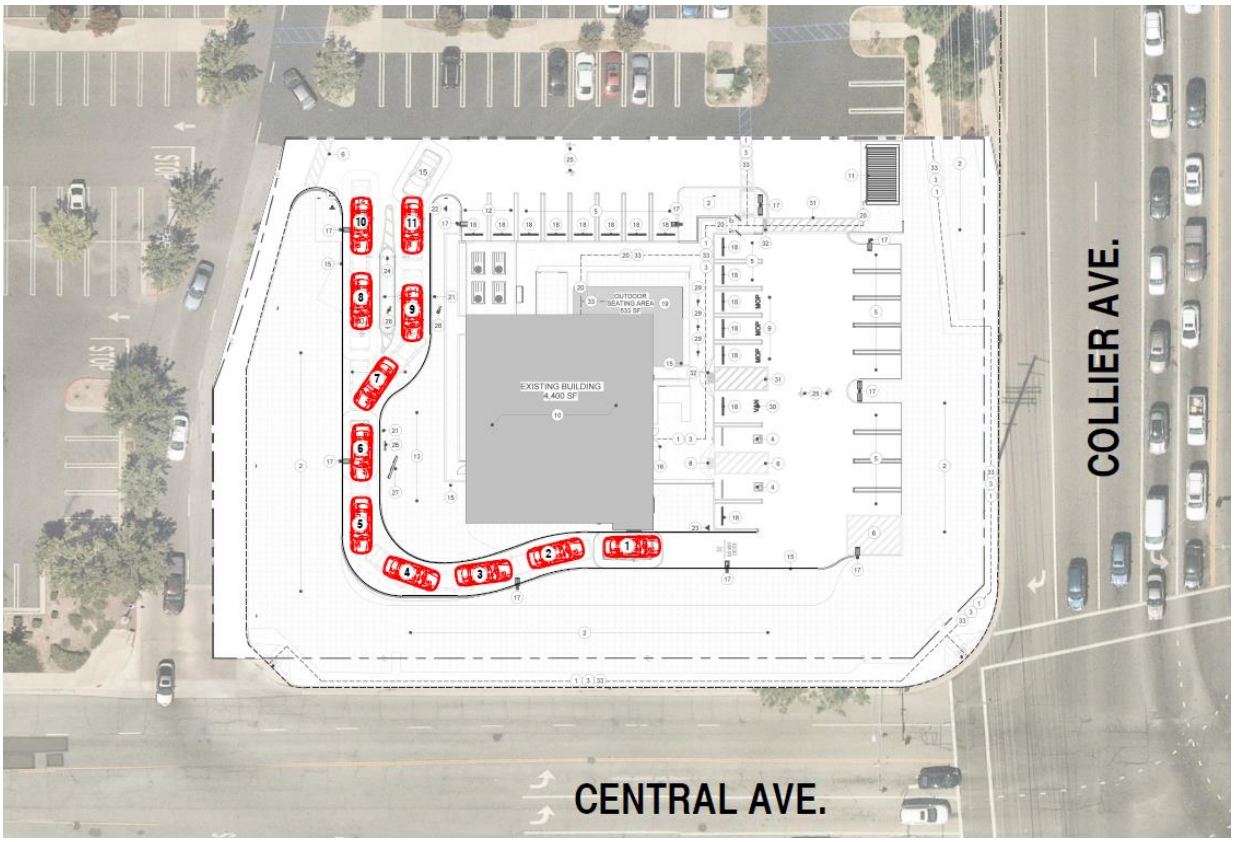
The Project site is currently vacant and was formerly occupied by a bank (with drive-thru) within the 4,400 square foot building. The proposed Project consists of the construction of a new Starbucks coffee shop with a drive-thru, located at 18295 Collier Avenue, in the City of Lake Elsinore.

Based on the City of Lake Elsinore parking requirements of 1 space per 45 SF (1/45 SF) of customer area plus 1 space per 200 SF (1/200 SF) of noncustomer area, the proposed Central and Collier project will require a total of 61 parking stalls. The proposed Project will provide 42 parking stalls. Our evaluation indicates that the proposed parking stalls would not meet parking requirements. However, the existing and future tenants share a parking agreement. The agreement includes a non-exclusive easement for that passage and parking of vehicles over and across the parking, driveways, and sidewalk areas within the tract. The shared parking area provides sufficient parking for all the uses within the tract without negatively affecting the availability of parking to each use.

1.8 DRIVE-THRU EVALUATION

The Project site is currently vacant and was formerly occupied by a bank (with drive-thru) within the 4,400 square foot building. The proposed Project consists of the construction of a new Starbucks coffee shop with a drive-thru, as shown on Exhibit 1-6.

EXHIBIT 1-6: PRELMINARY SITE PLAN WITH VEHICLE STACKING



1.8.1 DRIVE-THRU LANE

The proposed Central and Collier Circulation Plan, prepared by Urban Dwell Architects, indicates that the Starbuck drive-thru lane will provide storage capacity for 11 vehicles (see Exhibit 1-6).

It should be noted that approximately 20 to 25 feet per vehicle is an industry standard used to estimate the length needed for a queued vehicle. However, since the drive-thru operations involve relatively low speeds, a slightly shorter distance between vehicles is often observed. This can result in allowing more vehicles to queue in a given length. While a reduced queue length is appropriate, this analysis relies on a more conservative vehicle length of 25 feet per queued vehicle.

1.8.2 DRIVE-THRU REQUIREMENTS

To demonstrate that adequate space exists within the drive-thru, this queuing assessment provides a review of the City of Lake Elsinore Municipal Code queuing requirements. Section 17.148.060 of the City of Lake Elsinore Municipal Code describes the drive-thru facilities requirements and are listed below:

- A drive-through lane with minimum storage for eight vehicles shall be provided at 20 feet per vehicle.
- The drive-through lane shall be designed such that it will not interfere with free and orderly circulation of the parking lot.
- The drive-through lane shall not encroach upon or block driveways or parking spaces and shall be separated from adjoining driveways, parking spaces, and property lines by a landscaped planter a minimum of five feet in width.

As shown on Exhibit 1-6, the drive-thru provides sufficient space behind the menu board for at least 11 vehicles. As noted previously, this analysis relies on a more conservative vehicle length of 25 feet per queued vehicle. Additional vehicles are likely able to queue within the drive-thru lane. The proposed Project meets the minimum storage as identified in the City of Lake Elsinore Municipal Code.

1.8.3 REFERENCE DRIVE-THRU LANE DATA COLLECTION

To evaluate the proposed drive-thru configuration, Urban Crossroads, Inc. collected drive-thru queuing data at a reference Starbucks location (32271 Mission Trail, Lake Elsinore). **Table 1** presents the existing weekday drive-thru queuing data for the breakfast and lunch conditions. The reference queueing data includes a count of each vehicle entering the drive-thru lane during peak breakfast and lunch activity. In addition, the counts describe the total number of vehicles queued in the drive-thru lane at any time. This includes vehicles queued at the pickup window, cashier window, and order board.

TABLE 1-5: REFERENCE DRIVE-THRU QUEUEING DATA SUMMARY

Location	Average Vehicle Queue		Peak Vehicle Queue	
	AM (7am-9am)	MD (11am-1pm)	AM (7am-9am)	MD (11am-1pm)
Starbucks[1]	5	3	11	6

[1] Based on counts collected at the Starbucks located at 32271 Mission Trail on Wednesday, October 18, 2023 (Appendix A).

For the Starbucks drive-thru lane, Table 1-5 shows that the peak observed vehicle queue lengths ranged from 6 to 11 vehicles. The average vehicle queue at the reference Starbucks location ranged from 3 to 5 vehicles. The maximum number of total vehicles observed in the drive-thru never exceeded 11 vehicles.

1.8.4 DRIVE-THRU QUEUING ANALYSIS

Since the proposed Central and Collier Circulation Plan provides a drive-thru storage capacity of 11 vehicles for the proposed Starbucks, the proposed drive-thru lane will accommodate the reference average queue length of 5 vehicles. At no time does the existing or reference peak queue exceed a maximum of 11 vehicles.

The Starbucks drive-thru queuing analysis demonstrates that the maximum vehicle queue of 11 vehicles can be accommodated within the drive-thru. The site plan provides adequate drive-thru storage capacity to serve the average queue length of 5 vehicles within the drive-thru lane. During peak drive-thru demands, the site plan can accommodate a total of 11 vehicles within the drive-thru, which meets the anticipated peak queue.

1.8.5 CONCLUSIONS

The proposed Project consists of the construction of a new Starbucks coffee shop with a drive-thru, located at 18295 Collier Avenue, in the City of Lake Elsinore.

The drive-thru analysis suggests that the Project provides stacking accommodations for approximately 11 vehicles in the Starbucks drive-thru lane. Our evaluation indicates that the proposed Project meets the minimum storage as identified in the City of Lake Elsinore Municipal Code. Additionally, our evaluation suggests that the proposed drive-thru lanes for the Starbucks will provide sufficient capacity to accommodate average and peak vehicle demands for the proposed Central and Collier development. As such, additional traffic management measures to support on-site circulation are not recommended.

This Page Intentionally Left Blank

2 METHODOLOGIES

This section of the report presents the methodologies used to perform the traffic analyses summarized in this report. The methodologies described are consistent with City of Lake Elsinore's Traffic Study Guidelines.

2.1 LEVEL OF SERVICE

Traffic operations of roadway facilities are described using the term "Level of Service" (LOS). LOS is a qualitative description of traffic flow based on several factors, such as speed, travel time, delay, and freedom to maneuver. Six levels are typically defined ranging from LOS A, representing completely free-flow conditions, to LOS F, representing breakdown in flow resulting in stop-and-go conditions. LOS E represents operations at or near capacity, an unstable level where vehicles are operating with the minimum spacing for maintaining uniform flow.

2.2 INTERSECTION CAPACITY ANALYSIS

The definitions of LOS for interrupted traffic flow (flow restrained by the existence of traffic signals and other traffic control devices) differ slightly depending on the type of traffic control. The LOS is typically dependent on the quality of traffic flow at the intersections along a roadway. The 6th Edition Highway Capacity Manual (HCM) methodology expresses the LOS at an intersection in terms of delay time for the various intersection approaches. (3) The HCM uses different procedures depending on the type of intersection control.

2.2.1 SIGNALIZED INTERSECTIONS

The City of Lake Elsinore requires signalized intersection operations analysis based on the methodology described in the HCM. (3) Intersection LOS operations are based on an intersection's average control delay. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. For signalized intersections LOS is related to the average control delay per vehicle and is correlated to a LOS designation as described in Table 2-1. Consistent with the Riverside County CMP, a saturation flow rate of 1900 vehicles per hour green per lane (vphgpl) has been utilized for all intersections for all scenarios.

The traffic modeling and signal timing optimization software package Synchro (Version 11) has been utilized to analyze signalized intersections. Synchro is a macroscopic traffic software program that is based on the signalized intersection capacity analysis as specified in the HCM. Macroscopic level models represent traffic in terms of aggregate measures for each movement at the study intersections. Equations are used to determine measures of effectiveness such as delay and queue length. The level of service and capacity analysis performed by Synchro takes into consideration optimization and coordination of signalized intersections within a network.

TABLE 2-1: SIGNALIZED INTERSECTION LOS THRESHOLDS

Description	Average Control Delay (Seconds), V/C ≤ 1.0	Level of Service, V/C ≤ 1.0[1]
Operations with very low delay occurring with favorable progression and/or short cycle length.	0 to 10.00	A
Operations with low delay occurring with good progression and/or short cycle lengths.	10.01 to 20.00	B
Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.01 to 35.00	C
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.	35.01 to 55.00	D
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.	55.01 to 80.00	E
Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths.	80.01 and up	F

Source: HCM, 6th Edition

[1] If V/C is greater than 1.0 then LOS is F per HCM.

The peak hour traffic volumes have been adjusted using a peak hour factor (PHF) to reflect peak 15-minute volumes. Customary practice for LOS analysis is to use a peak 15-minute rate of flow. However, flow rates are typically expressed in vehicles per hour. The PHF is the relationship between the peak 15-minute flow rate and the full hourly volume (e.g., PHF = [Hourly Volume] / [4 x Peak 15-minute Flow Rate]). The use of a 15-minute PHF produces a more detailed analysis as compared to analyzing vehicles per hour. Existing PHFs have been used for all analysis scenarios. Per the HCM, PHF values over 0.95 often are indicative of high traffic volumes with capacity constraints on peak hour flows while lower PHF values are indicative of greater variability of flow during the peak hour. (3)

2.2.2 UNSIGNALIZED INTERSECTIONS

The City of Lake Elsinore requires the operations of unsignalized intersections be evaluated using the methodology described in the HCM. (3) The LOS rating is based on the weighted average control delay expressed in seconds per vehicle (see Table 2-2). At two-way or side-street stop-controlled intersections, LOS is calculated for each controlled movement and for the left turn movement from the major street, as well as for the intersection as a whole. For approaches composed of a single lane, the delay is computed as the average of all movements in that lane. Delay for the intersection is reported for the worst individual movement at a two-way stop-controlled intersection. For all-way stop controlled intersections, LOS is computed for the intersection as a whole (average delay).

TABLE 2-2: UNSIGNALIZED INTERSECTION LOS THRESHOLDS

Description	Average Control Delay (Seconds), V/C ≤ 1.0	Level of Service, V/C ≤ 1.0[1]
Little or no delays.	0 to 10.00	A
Short traffic delays.	10.01 to 15.00	B
Average traffic delays.	15.01 to 25.00	C
Long traffic delays.	25.01 to 35.00	D
Very long traffic delays.	35.01 to 50.00	E
Extreme traffic delays with intersection capacity exceeded.	> 50.00	F

Source: HCM, 6th Edition

[1] If V/C is greater than 1.0 then LOS is F per HCM.

2.3 TRAFFIC SIGNAL WARRANT ANALYSIS METHODOLOGY

The term "signal warrants" refers to the list of established criteria used by the California Department of Transportation (Caltrans) and other public agencies to quantitatively justify or determine the potential need for installation of a traffic signal at an otherwise unsignalized intersection. This TA uses the signal warrant criteria presented in the latest edition of the Caltrans California Manual on Uniform Traffic Control Devices (CA MUTCD). (4)

The signal warrant criteria for Existing study area intersections are based upon several factors, including volume of vehicular and pedestrian traffic, frequency of accidents, and location of school areas. The CA MUTCD indicates that the installation of a traffic signal should be considered if one or more of the signal warrants are met. (4) Specifically, this TA utilizes the Peak Hour Volume-based Warrant 3 as the appropriate representative traffic signal warrant analysis for existing traffic conditions and for all future analysis scenarios for existing unsignalized intersections. Warrant 3 is appropriate to use for this TA because it provides specialized warrant criteria for intersections with rural characteristics. For the purposes of this study, the speed limit was the basis for determining whether Urban or Rural warrants were used for a given intersection. Urban warrants have been used as posted speed limits on the major roadways with unsignalized intersections are 40 miles per hour or below and rural warrants have been used where speeds exceed 40 miles per hour.

Future intersections that do not currently exist have been assessed regarding the potential need for new traffic signals based on future average daily traffic (ADT) volumes, using the Caltrans planning level ADT-based signal warrant analysis worksheets. Similarly, the speed limit has been used as the basis for determining the use of Urban and Rural warrants. Traffic signal warrant analyses were performed for the following study area intersection shown in Table 2-3:

TABLE 2-3: TRAFFIC SIGNAL WARRANT ANALYSIS LOCATIONS

#	Intersection
1	Driveway 1 & Central Av.

Although unsignalized, the intersection of Collier Avenue (SR-74) & Driveway 2 is restricted access (right-in/right-out only). As such, traffic signal warrants have not been evaluated for this intersection. The Existing conditions traffic signal warrant analysis is presented in the subsequent section, Section 3 *Area Conditions* of this report. The traffic signal warrant analyses for future conditions are presented in Section 5 *EAP (2025) Traffic Conditions* of this report. It is important to note that a signal warrant defines the minimum condition under which the installation of a traffic signal might be warranted. Meeting this threshold condition does not require that a traffic control signal be installed at a particular location, but rather, that other traffic factors and conditions be evaluated in order to determine whether the signal is truly justified. It should also be noted that signal warrants do not necessarily correlate with LOS. An intersection may satisfy a signal warrant condition and operate at or above acceptable LOS or operate below acceptable LOS and not meet a signal warrant.

2.4 MINIMUM ACCEPTABLE LEVELS OF SERVICE (LOS)

The City of Lake Elsinore has established LOS D as the minimum level of service for its intersections. Therefore, any intersection operating at LOS E or F will be considered deficient for the purposes of this analysis.

2.5 DEFICIENCY CRITERIA

The criteria outlined below should be used to define when the Project has caused or contributed to an LOS deficiency:

- When existing traffic conditions exceed the General Plan target LOS (e.g., LOS D or better).
- When project traffic, added to existing traffic, will deteriorate the LOS to below the target LOS, and deficiencies cannot be improved through project conditions of approval.
- When cumulative traffic exceeds the target LOS, and deficiencies cannot be improved through the Transportation Uniform Mitigation Fee (TUMF) network (or other funding mechanism), project conditions of approval, or other implementation mechanism.

3 AREA CONDITIONS

This section provides a summary of the existing circulation network, the City of Lake Elsinore General Plan Circulation Network, and the resulting intersection operations and traffic signal warrant analyses.

3.1 EXISTING CIRCULATION NETWORK

Pursuant to the agreement with City of Lake Elsinore staff (Appendix 1.1), the study area includes a total of 2 existing and future intersections as shown previously on Exhibit 1-3. Exhibit 3-1 illustrates the study area intersections located near the proposed Project and identifies the number of through traffic lanes for existing roadways and intersection traffic controls.

3.2 CITY OF LAKE ELSINORE GENERAL PLAN CIRCULATION ELEMENT

Exhibit 3-2 shows the City of Lake Elsinore General Plan Circulation Element and Exhibit 3-3 illustrates the City of Lake Elsinore General Plan roadway cross-sections.

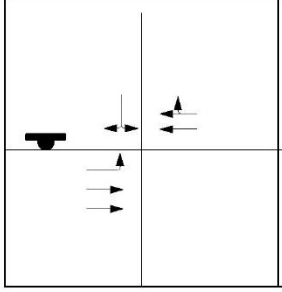
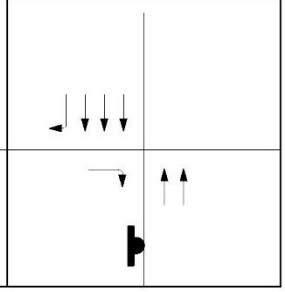
Urban Arterials are six-lane divided roadways (typically divided by a raised median or painted two-way turn-lane) with a 120-foot right-of-way. These roadways serve both regional through-traffic and inter-city traffic and typically direct traffic onto and off-of the freeways. The following study area roadway within the City of Lake Elsinore is classified as an Urban Arterial:

- Collier Avenue (SR-74), north of Central Street

Major Roadways are four-lane roadways and may include a painted median. These roadways typically have a 100-foot right-of-way. These roadways typically direct traffic through major development areas. The following study area roadways within the City of Lake Elsinore are classified as a Major Roadway:

- Central Avenue, west of Collier Avenue (SR-74)

EXHIBIT 3-1: EXISTING NUMBER OF THROUGH LANES AND INTERSECTION CONTROLS

1 Driveway 1 & Central Av.	2 Collier Av. (SR-74) & Driveway 2
	

2 = Number of Lanes
D = Divided
SPEED LIMIT 45 = Speed Limit (MPH)
= Existing Stop Sign
= Existing Lane

EXHIBIT 3-2: CITY OF LAKE ELSINORE GENERAL PLAN CIRCULATION ELEMENT

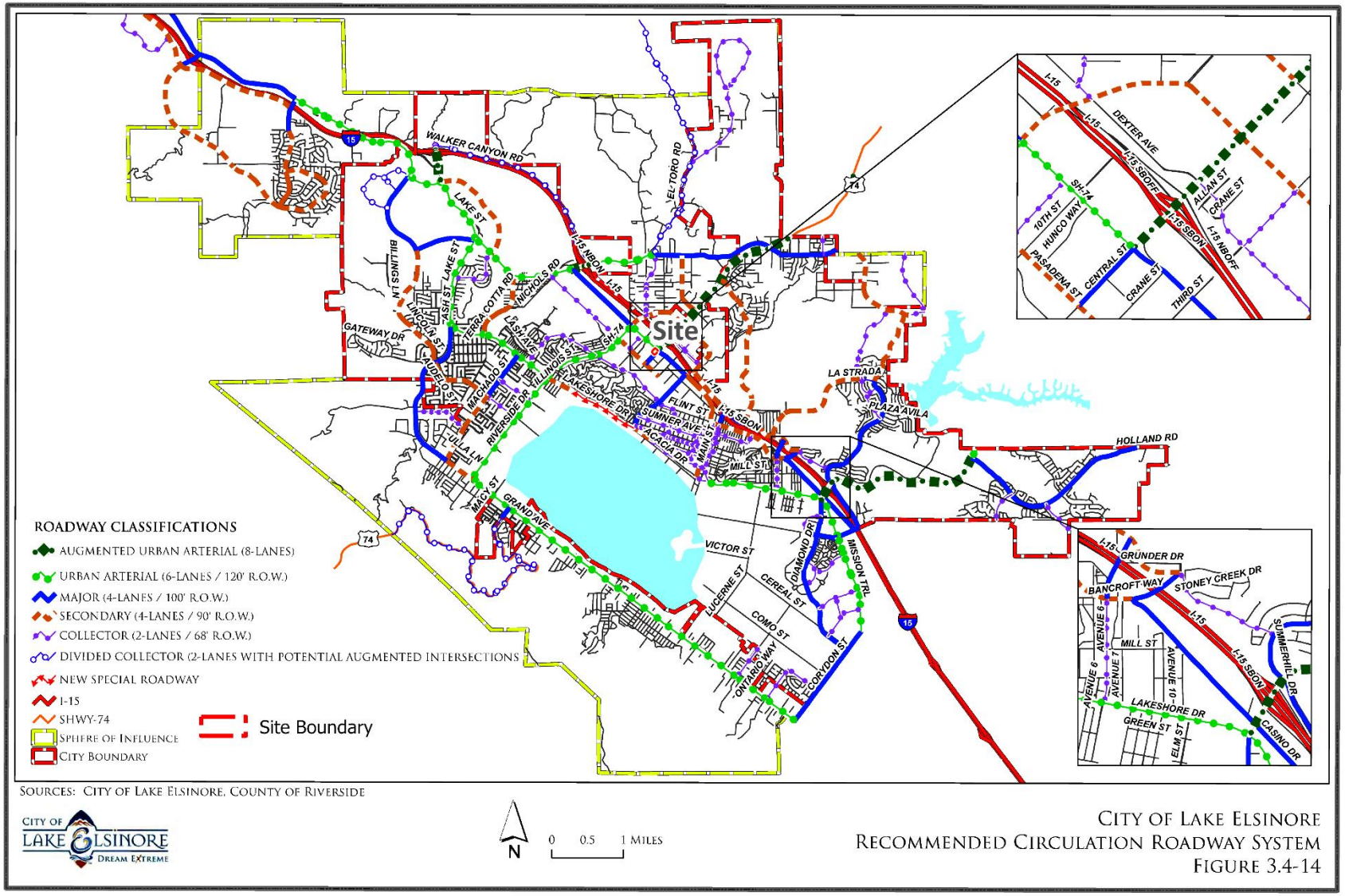
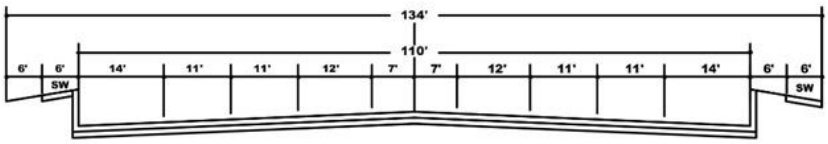
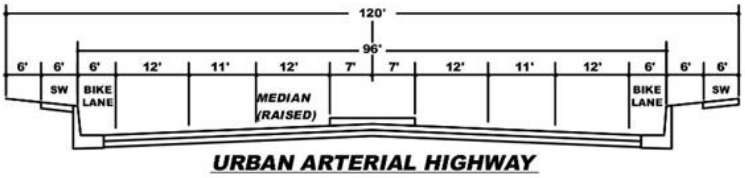


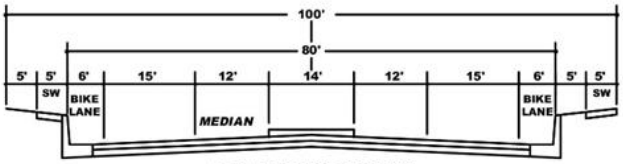
EXHIBIT 3-3: COUNTY OF RIVERSIDE GENERAL PLAN ROADWAY CROSS-SECTIONS



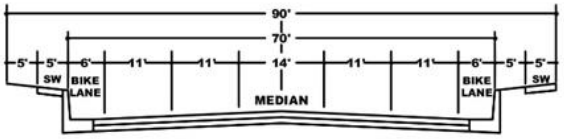
AUGMENTED URBAN ARTERIAL - STATE HIGHWAY
(8-LANE)



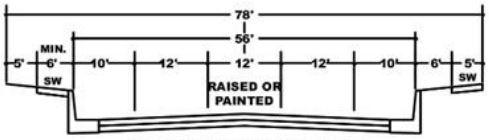
URBAN ARTERIAL HIGHWAY
(6-LANE)



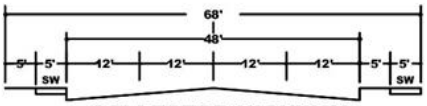
MAJOR HIGHWAY
(4-LANE)



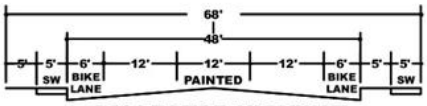
SECONDARY HIGHWAY
(4-LANE)



DIVIDED COLLECTOR
BIKES USE SHOULDER
(2-LANE)



COLLECTOR HIGHWAY
(4-LANE)



COLLECTOR HIGHWAY
(2-LANE)

NEW SPECIAL ROADWAY
SHOULDER/BIKE LANE
(2-LANE)
(PROPOSED FOR LAKESHORE DRIVE IN THE COUNTRY CLUB HEIGHT DISTRICT)

* BIKE LANES ARE NOT MANDATORY UNLESS SHOWN ON THE BIKEWAY CIRCULATION ELEMENT PLAN
PRECISE SIDEWALK LOCATION SUBJECT TO CITY ENGINEER APPROVAL
NOTE: CHECK THE DISTRICT PLAN OF YOUR AREA FOR ANY REQUIRED SPECIAL ROADWAY CROSS-SECTION, ESPECIALLY THE LAKE EDGE AND COUNTRY CLUB HEIGHTS DISTRICT PLANS.
STRIPPING OF COLLECTOR HIGHWAY AS DIRECTED BY CITY ENGINEER.

SOURCE: CITY OF LAKE ELSINORE GENERAL PLAN (ADOPTED 12-13-2011)

3.3 BICYCLE & PEDESTRIAN FACILITIES

Exhibit 3-4 illustrates the City of Lake Elsinore General Plan bicycle facilities. There are existing Class II bicycle facilities along portions of Collier Avenue. There are also planned Class II bicycle facilities along Collier Avenue for the remaining portions within the study area.

Existing pedestrian facilities within the study area are shown on Exhibit 3-5. As shown on Exhibit 3-5, there are existing pedestrian facilities in the vicinity of the Project site that provide access to the adjacent areas and developments. Field observations and traffic counts conducted in 2023 indicate moderate pedestrian and bicycle activity within the study area.

3.4 TRANSIT SERVICE

The study area within the City of Lake Elsinore is currently served by Riverside Transit Agency (RTA), a public transit agency serving various jurisdictions within Riverside County. Existing transit routes in the vicinity of the study area are illustrated on Exhibit 3-6. As shown on Exhibit 3-6, the existing RTA Routes 8, 9, and 206 run along Collier Avenue (SR-74). Transit service is reviewed and updated by RTA periodically to address ridership, budget, and community demand needs. Changes in land use can affect these periodic adjustments which may lead to either enhanced or reduced service where appropriate. As such, it is recommended that the Project Applicant work in conjunction with RTA to potentially extend the existing routes to accommodate bus service to the site.

3.5 EXISTING (2023) TRAFFIC COUNTS

The intersection LOS analysis is based on the traffic volumes observed during the peak hour conditions using traffic count data collected in October 2023. The following peak hours were selected for analysis:

- Weekday AM Peak Hour (peak hour between 7:00 AM and 9:00 AM)
- Weekday PM Peak Hour (peak hour between 4:00 PM and 6:00 PM)

The 2023 weekday AM and weekday PM peak hour count data is representative of typical weekday peak hour traffic conditions in the study area. There were no observations made in the field that would indicate atypical traffic conditions on the count dates, such as construction activity or detour routes and near-by schools were in session and operating on normal schedules. As such, no additional adjustments were made to the traffic counts to establish the baseline condition. The raw manual peak hour turning movement traffic count data sheets are included in Appendix 3.1.

Existing weekday ADT volumes are shown on Exhibit 3-7. Where actual 24-hour tube count data was not available, Existing ADT volumes were based upon factored intersection peak hour counts collected by Urban Crossroads, Inc. using the following formula for each intersection leg:

Weekday PM Peak Hour (Approach Volume + Exit Volume) x 13.50 = Leg Volume

EXHIBIT 3-4: CITY OF LAKE ELSINORE GENERAL PLAN BICYCLE FACILITIES

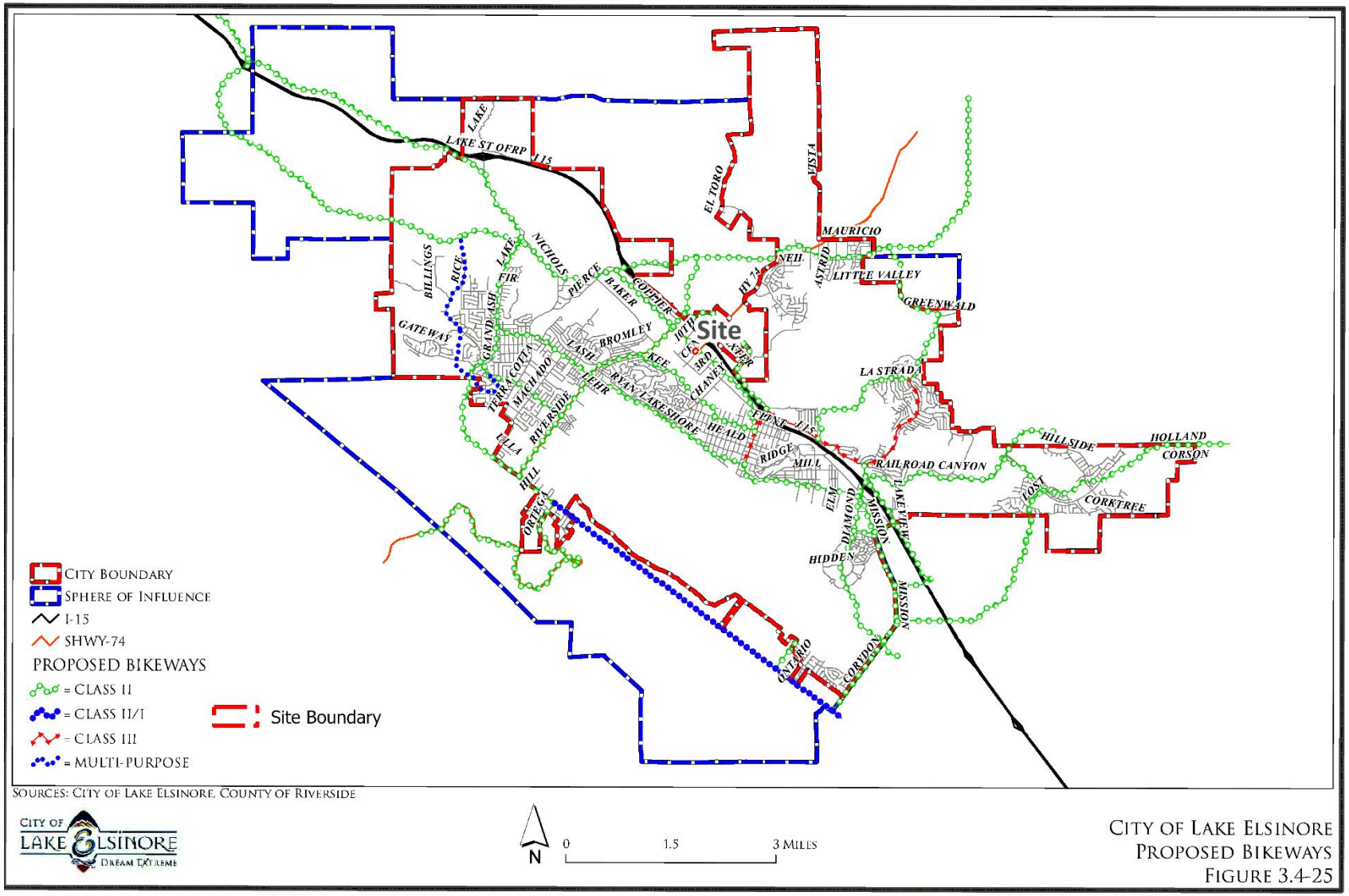
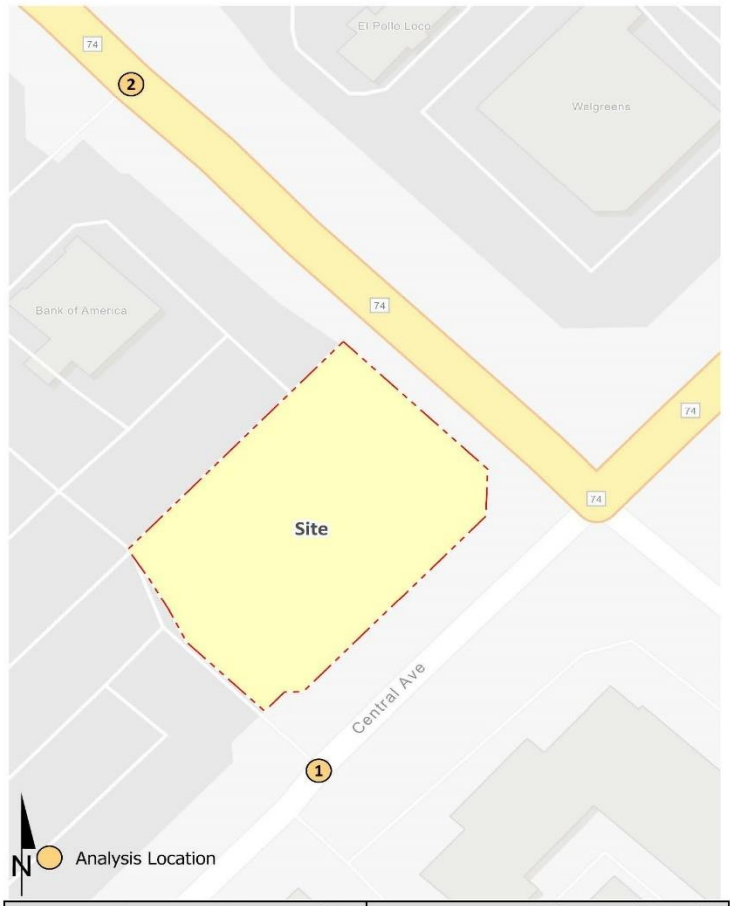


EXHIBIT 3-5: EXISTING PEDESTRIAN FACILITIES

EXHIBIT 3-6: EXISTING TRANSIT ROUTES

EXHIBIT 3-7: EXISTING (2023) TRAFFIC VOLUMES



1 Driveway 1 & Central Av.			2 Collier Av. (SR-74) & Driveway 2		
5,250		***11,400***	***29,550***		
12(16) ↲	125(230) ↳	← 142(130) ← 203(170)	106(122) ↲	862(1049) ↓	
2(10) ⇀ 108(310) →			35(26) ↴		686(1002) →
6,900			***2,000***		***28,250***

##(##) AM(PM) Peak Hour Intersection Volumes

Average Daily Trips

A comparison of the PM peak hour and daily traffic volumes of various roadway segments within the study area indicated that the peak-to-daily relationship is approximately 7.36 percent. As such, the above equation utilizing a factor of 13.50 estimates the ADT volumes on the study area roadway segments assuming a peak-to-daily relationship of approximately 7.36 percent (i.e., 1/0.0736 = 13.50) and was assumed to sufficiently estimate ADT volumes for planning-level analyses. Existing weekday peak hour intersection volumes are also shown on Exhibit 3-7.

Existing peak hour turning movements were reviewed by Urban Crossroads for reasonableness, and in some cases, were adjusted to achieve flow conservation, reasonable growth, and reasonable diversion between parallel routes. Flow conservation checks ensure that traffic flow between two closely spaced intersections, such as two freeway ramp locations, is verified in order to make certain that vehicles leaving one intersection are entering the adjacent intersection and that there is no unexplained loss of vehicles.

3.6 INTERSECTION OPERATIONS ANALYSIS

Existing peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2.2 *Intersection Capacity Analysis* of this report. The intersection operations analysis results are summarized in Table 3-1, which indicates that the study area intersections are currently operating at an acceptable LOS during the peak hours for Existing (2023) traffic conditions. The intersection operations analysis worksheets are included in Appendix 3.2 of this TA.

TABLE 3-1: INTERSECTION ANALYSIS FOR EXISTING (2023) CONDITIONS

#	Intersection	Traffic Control[2]	Delay[1] (secs.) AM	Delay[1] (secs.) PM	Level of Service AM	Level of Service PM
1	Driveway 1 & Central Av.	CSS	12.4	14.7	B	B
2	Collier Av. (SR-74) & Driveway 2	CSS	13.9	15.1	B	C

1 Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. HCM delay reported in seconds.

2 CSS = Cross-street Stop

3.7 TRAFFIC SIGNAL WARRANTS ANALYSIS

Traffic signal warrants for Existing traffic conditions are based on existing peak hour intersection turning volumes. There are no study area intersections that currently meet a traffic signal warrant under Existing (2023) traffic conditions. Existing conditions traffic signal warrant analysis worksheets are provided in Appendix 3.3.

3.8 DEFICIENCIES AND IMPROVEMENTS

The study area intersections are currently operating at an acceptable LOS during the peak hours. As such, no intersection improvements have been identified.

4 PROJECTED FUTURE TRAFFIC

This section presents the traffic volumes estimated to be generated by the Project, as well as the Project's trip assignment onto the study area roadway network. A preliminary site plan for the proposed Project is shown previously on Exhibit 1-2.

The proposed Project includes the construction of a new Starbucks coffee shop within an existing shell lease space. Construction activities will include new custom poly signage, new drive-thru equipment, landscape patch and infill, new trash enclosure, new drive-thru window, new roof membrane and mechanical equipment, addition of exterior patio furniture, new interior partition walls, new restroom, new beverage preparation equipment, new casework, new floor finishes, new wall finishes, new ceiling, new lighting, new heating ventilation and air conditioning diffusers, and new trench existing concrete slab for plumbing and electric. The preliminary site plan for the proposed Project is shown on Exhibit 1-1.

The site was formerly occupied by a bank (with drive-thru) within the 4,400 square foot building. The use is currently vacant. The Project is located within the existing Oak Grove Crossing Shopping Center. There are no changes proposed to the existing access to the center, and the site is currently served by a single access point on Collier Avenue and three access points along Central Avenue. Regional access to the Project site is available from the I-15 Freeway via the Central Avenue (SR-74) interchange.

4.1 PROJECT TRIP GENERATION

4.1.1 EXISTING USE

In order to develop the traffic characteristics of the existing use, trip-generation statistics published in the ITE Trip Generation Manual (11th Edition, 2021) was used to estimate the trip generation for the existing 4,400 square foot bank. Table 4-1 summarizes the trip generation rates for the existing land use.

Pass-by trip reduction percentages have been obtained from the ITE Trip Generation Manual (11th Edition, 2021). Pass-by trips account for trips that are currently on the existing roadway network that would stop by a destination on the way to their ultimate destination (e.g., stopping at the bank, pharmacy, dry cleaners, etc. on the way to work or school).

Internal capture is a percentage reduction that can be applied to the trip generation estimates for individual land uses to account for trips internal within a shopping center (trips that travel between uses without leaving the site). In other words, trips could be made between the prior bank use with other uses in the center which include Target, nail salon, dental office, restaurant, and ice cream shop, by either by walking or using internal roadways without using external streets (Collier Avenue and Central Avenue). A separate internal capture trip reduction has not been considered and is instead assumed to be captured in the ITE pass-by trip reductions applied. ITE identifies a pass-by trip reduction of 29% during the weekday AM peak hour and 35% during the weekday PM peak hour for a bank with drive-thru window.

The existing use is estimated to generate a total of 286 two-way trips per day on a typical weekday with approximately 34 AM peak hour trips and 60 PM peak hour trips as shown in Table 4-1.

TABLE 4-1: EXISTING TRIP GENERATION

Land Use[1]	ITE Code	Units[2]	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Bank with Drive-Through	912	TSF	5.77	4.18	9.95	10.51	10.50	21.01	100.35

[1] Trip Generation & Vehicle Mix Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, Eleventh Edition (2021).

[2] TSF = thousand square feet

Land Use	Quantity	Units	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Bank with Drive-Through	4.40	TSF	25	18	44	46	46	92	442
Pass-by/Internal Trip Reduction (29% = AM; 35% = PM/Daily)			-5	-5	-10	-16	-16	-32	-156
Existing Trips			**20**	**13**	**34**	**30**	**30**	**60**	**286**

4.1.2 PROPOSED PROJECT

In order to develop the traffic characteristics of the proposed Project, trip-generation statistics published in the ITE Trip Generation Manual (11th Edition, 2021) was used to estimate the trip generation for the proposed 4,400 square foot Starbucks coffee shop with drive-thru. Table 4-2 summarizes the trip generation rates for the proposed Project.

Similar to the existing use, pass-by trip reduction percentages have been obtained from the ITE Trip Generation Manual (11th Edition, 2021) for the proposed use. Separate internal capture trip reductions have not been considered and are instead assumed to be captured in the ITE pass-by trip reductions applied. ITE identifies a pass-by trip reduction of 50% during the weekday AM peak hour and 55% during the weekday PM peak hour for a fast-food restaurant with drive-through window (ITE Land Use Code 934).

The existing use is estimated to generate a total of 1,056 two-way trips per day on a typical weekday with approximately 192 AM peak hour trips and 78 PM peak hour trips as shown in Table 2.

TABLE 4-2: PROPOSED PROJECT TRIP GENERATION

Land Use[1]	ITE Code	Units[2]	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Coffee/Donut Shop with Drive-Through	937	TSF	43.80	42.08	85.88	19.50	19.50	38.99	533.57

[1] Trip Generation & Vehicle Mix Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, Eleventh Edition (2021).

[2] TSF = thousand square feet

Land Use	Quantity	Units[1]	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Starbucks with Drive-Through	4.40	TSF	193	185	378	86	86	172	2,348
Pass-by/Internal Trip Reduction (50% = AM; 55% = PM/Daily)			-93	-93	-186	-47	-47	-94	-1,292
Proposed Project Trips			**100**	**92**	**192**	**39**	**39**	**78**	**1,056**

[1] TSF = thousand square feet

[2] Pass-by reduction consistent with ITE Land Use Code 934 (Fast-Food Restaurant with Drive-Thru Window).

4.1.3 TRIP GENERATION COMPARISON

As shown in Table 4-3, the proposed Project is anticipated to generate a net increase of 770 two-way trips per day with a net increase of 158 AM peak hour trips and 18 PM peak hour trips as compared to the previous use (bank). The trip generation comparison is provided for informational purposes only since the existing use is currently vacant, and therefore not currently generating any trips. As such, the trip generation presented in Table 4-2 has been utilized for the operations analysis.

TABLE 4-3: TRIP GENERATION COMPARISON

	AM Peak Hour			PM Peak Hour			
Land Use	In	Out	Total	In	Out	Total	Daily
Existing Use	20	13	34	30	30	60	286
Proposed Project	100	92	192	39	39	78	1,056
Net Change in Trips	**80**	**79**	**158**	**9**	**9**	**18**	**770**

4.2 PROJECT TRIP DISTRIBUTION

The Project trip distribution and assignment process represents the directional orientation of traffic to and from the Project site. The trip distribution pattern is heavily influenced by the geographical location of the site, the location of surrounding uses, and the proximity to the regional freeway system. The Project trip distribution patterns are shown on Exhibit 4-1.

4.3 MODAL SPLIT

The potential for Project trips to be reduced by the use of public transit, walking or bicycling have not been included as part of the Project's estimated trip generation. Essentially, the Project's traffic projections are "conservative" in that these alternative travel modes would reduce the forecasted traffic volumes.

4.4 PROJECT TRIP ASSIGNMENT

The assignment of traffic from the Project area to the adjoining roadway system is based upon the Project trip generation, trip distribution, and the arterial highway and local street system improvements that would be in place by the time of initial occupancy of the Project. Based on the identified Project traffic generation and trip distribution patterns, Project weekday ADT and peak hour intersection turning movement volumes are shown on Exhibit 4-2.

EXHIBIT 4-1: PROJECT TRIP DISTRIBUTION

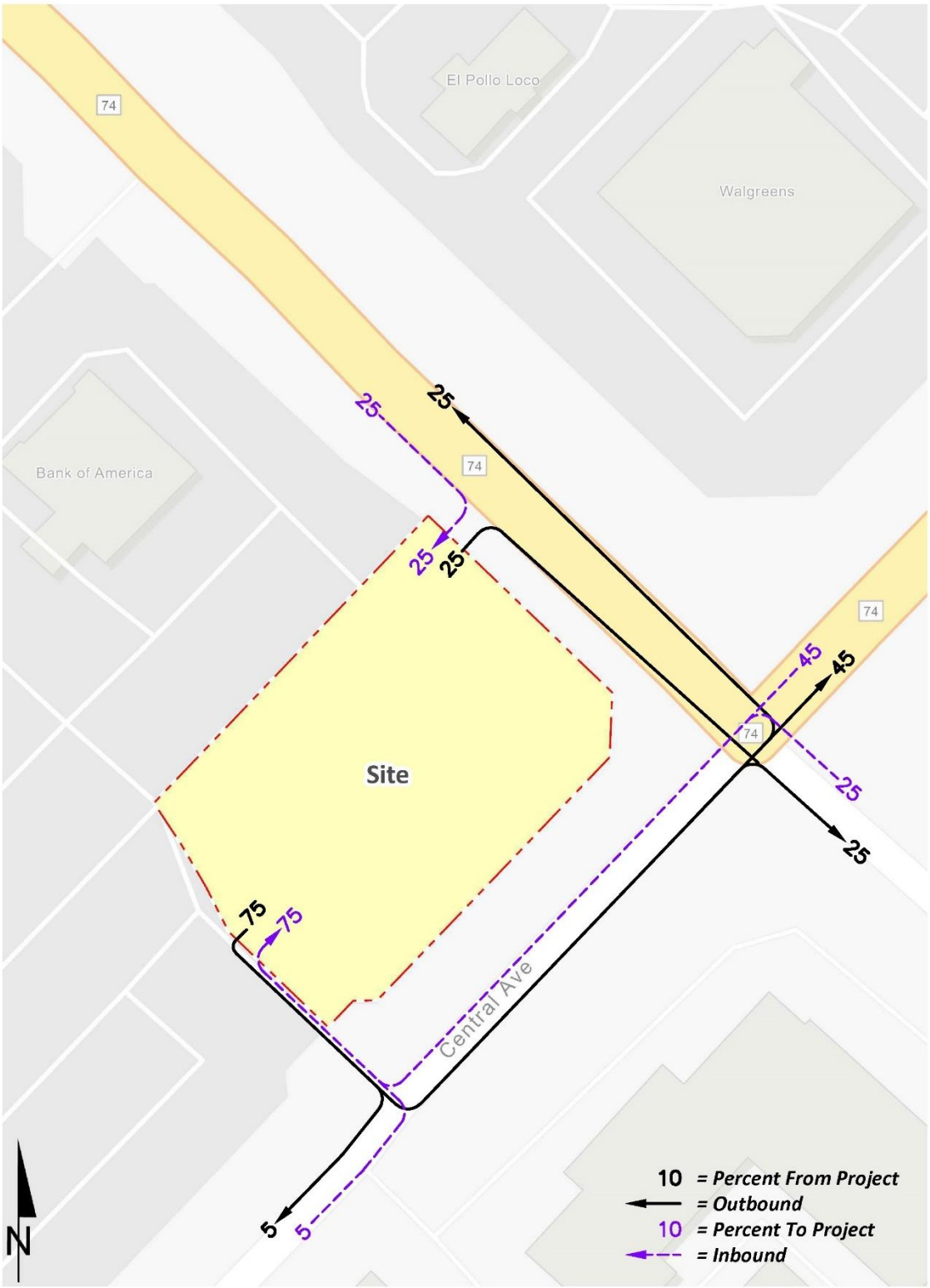
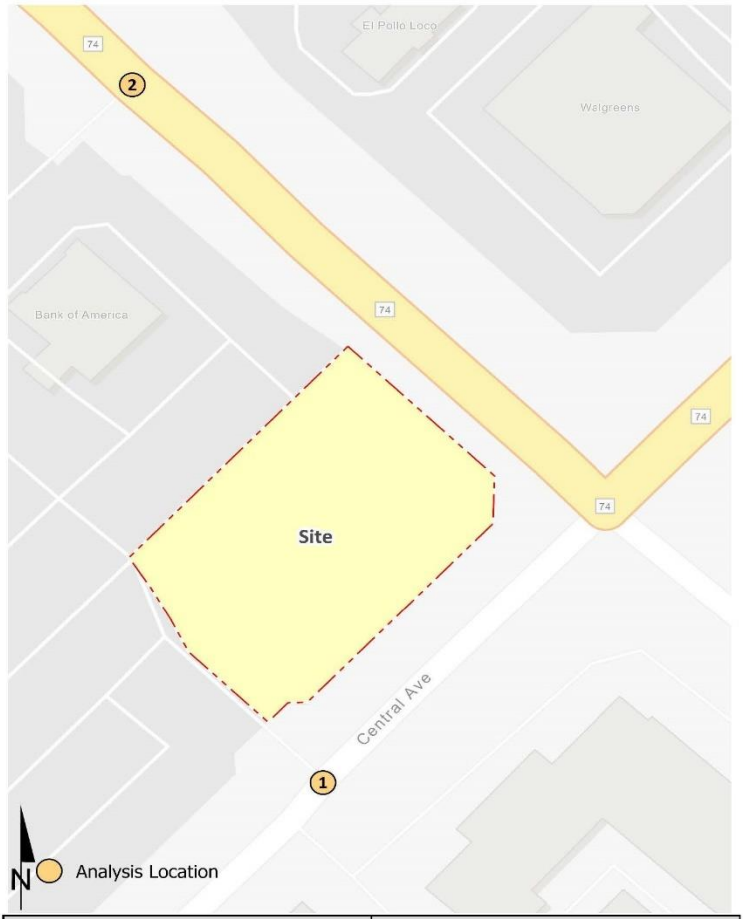
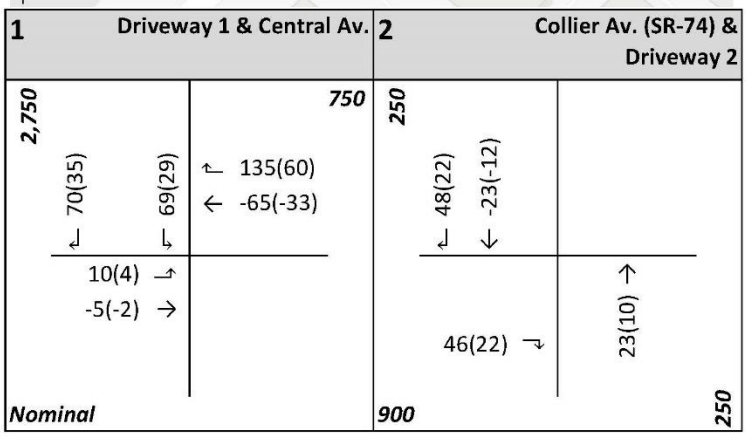


EXHIBIT 4-2: PROJECT ONLY TRAFFIC VOLUMES





##(##) AM(PM) Peak Hour Intersection Volumes

Average Daily Trips

4.5 BACKGROUND TRAFFIC

Future year traffic forecasts have been based upon background (ambient) growth at 1% per year, compounded annually, for 2025 traffic conditions. The total ambient growth is 2.01% for 2025 traffic conditions. The ambient growth factor is intended to approximate regional traffic growth. This ambient growth rate is added to existing traffic volumes to account for area-wide growth not reflected by cumulative development projects. Ambient growth has been added to daily and peak hour traffic volumes on surrounding roadways, in conjunction with traffic generated by the development of future projects that have been approved but not yet built and/or for which development applications have been filed and are under consideration by governing agencies. 2025 traffic volumes are provided in Section 5 of this report. The traffic generated by the proposed Project was then manually added to the base volume to determine With Project forecasts.

The near-term traffic analysis includes the following traffic conditions, with the various traffic components:

- Existing Plus Ambient Growth Plus Project (2025)
  - Existing 2023 counts
  - Ambient growth traffic (2.01%)
  - Project traffic

5 EAP (2025) TRAFFIC CONDITIONS

This section discusses the traffic forecasts for EAP (2025) conditions and the resulting intersection operations and traffic signal warrant analyses.

5.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for EAP (2025) conditions are consistent with those shown previously on Exhibit 3-1, with the exception of the following:

- Project driveways and those facilities assumed to be constructed by the Project to provide site access are also assumed to be in place for EAP (2025) conditions (e.g., intersection and roadway improvements at the Project's frontage and driveways).

5.2 EAP (2025) GROWTH TRAFFIC VOLUME FORECASTS

This scenario includes Existing (2023) traffic volumes plus an ambient growth factor of 2.01% and the addition of Project traffic. The weekday ADT volumes and peak hour volumes which can be expected for EAP (2025) traffic conditions are shown on Exhibit 5-1.

5.3 INTERSECTION OPERATIONS ANALYSIS

EAP (2025) peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2 *Methodologies* of this TA. The intersection analysis results are summarized in Table 5-1 for EAP (2025) traffic conditions, which indicates that the study area intersections are anticipated to continue to operate at an acceptable LOS during the peak hours under EAP (2025) traffic conditions. The intersection operations analysis worksheets for EAP (2025) traffic conditions are included in Appendix 5.1 of this TA.

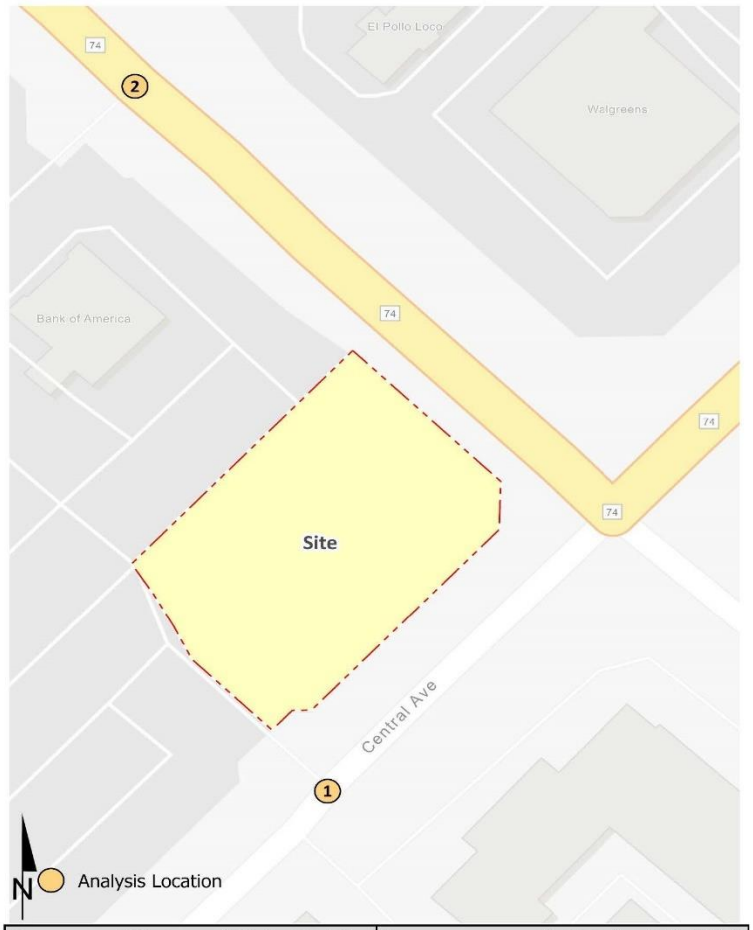
TABLE 5-1: INTERSECTION ANALYSIS FOR EAP (2025) CONDITIONS

			Existing (2023)				EAP (2025)			
			Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service	
#	Intersection	Traffic Control[2]	AM	PM	AM	PM	AM	PM	AM	PM
1	Driveway 1 & Central Av.	TS	12.4	14.7	B	B	15.7	16.7	C	C
2	Collier Av. (SR-74) & Driveway 2	TS	13.9	15.1	B	C	15.2	16.0	C	C

1 Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. HCM delay reported in seconds.

2 CSS = Cross-street Stop

EXHIBIT 5-1: EAP (2025) TRAFFIC VOLUMES



1 Driveway 1 & Central Av.			2 Collier Av. (SR-74) & Driveway 2		
8,100	82(51) ↲	197(264) ↳	*30,400*	156(146) ↲	856(1058) ↓
		↱ 280(193)			
		← 142(140)			
	12(14) ⇀				
	105(314) →			82(49) ↴	723(1032) →
7,050			*2,950*		*29,050*

##(##) AM(PM) Peak Hour Intersection Volumes

Average Daily Trips

5.4 TRAFFIC SIGNAL WARRANTS ANALYSIS

There are no unsignalized study area intersections anticipated to meet a traffic signal warrant under EAP (2025) conditions (see Appendix 5.2).

5.5 DEFICIENCIES AND IMPROVEMENTS

The study area intersections are anticipated to continue to operate at an acceptable LOS during the peak hours. As such, no intersection improvements have been identified.

This Page Intentionally Left Blank

6 LOCAL AND REGIONAL FUNDING MECHANISMS

Transportation improvements within the City of Lake Elsinore are funded through a combination of improvements constructed by the Project, development impact fee programs or fair share contributions. Fee programs applicable to the Project are described below.

6.1 CITY OF LAKE ELOSINORE DEVELOPMENT IMPACT FEE (DIF) PROGRAM

Transportation improvements throughout the City of Lake Elsinore are funded through a combination of project improvements, fair share contributions or development impact fee programs, such as the Western Riverside Council of Governments (WRCOG) TUMF program or the City's Transportation Impact Fee (TIF) program. Identification and timing of needed improvements is generally determined through local jurisdictions based upon a variety of factors. These fees are collected as part of a funding mechanism aimed at ensuring that regional highways and arterial expansions keep pace with the projected vehicle trip increases.

Fees from new residential, commercial and industrial development are collected to fund local facilities. Under the City's TIF program, the City may grant to developers a credit against specific components of fees when those developers construct certain facilities and landscaped medians identified in the list of improvements funded by the TIF program.

The timing to use the TIF fees is established through periodic capital improvement programs which are overseen by the City's Engineering Department. Periodic traffic counts, review of traffic accidents, and a review of traffic trends throughout the City are also periodically performed by City staff and consultants. The City uses this data to determine the timing of the improvements listed in its facilities list. The City also uses this data to ensure that the improvements listed on the facilities list are constructed before the LOS falls below the LOS performance standards adopted by the City. In this way, the improvements are constructed before the LOS falls below the City's LOS performance thresholds. The City's TIF program establishes a timeline to fund, design, and build the improvements.

6.2 RIVERSIDE COUNTY TRANSPORTATION UNIFORM MITIGATION FEE (TUMF)

The TUMF program is administered by the WRCOG based upon a regional Nexus Study most recently updated in 2016 to address major changes in right of way acquisition and improvement cost factors. (5) This regional program was put into place to ensure that development pays its fair share, and that funding is in place for construction of facilities needed to maintain the requisite level of service and critical to mobility in the region. TUMF is a truly regional mitigation fee program and is imposed and implemented in every jurisdiction in Western Riverside County.

6.3 MEASURE A

Measure A, Riverside County's half-cent sales tax for transportation, was adopted by voters in 1988 and extended in 2002. It will continue to fund transportation improvements through 2039. Measure A funds a wide variety of transportation projects and services throughout the County. RCTC is responsible for administering the program. Measure A dollars are spent in accordance with a voter-approved expenditure plan that was adopted as part of the 1988 election.

This Page Intentionally Left Blank

7 REFERENCES

1. **City of Lake Elsinore.** *Traffic Impact Analysis Preparation Guide.* City of Lake Elsinore : s.n., June 2020.
2. **Institute of Transportation Engineers.** *Trip Generation Manual.* 11th Edition. 2021.
3. **Transportation Research Board.** *Highway Capacity Manual (HCM).* 6th Edition. s.l. : National Academy of Sciences, 2016.
4. **California Department of Transportation.** California Manual on Uniform Traffic Control Devices (CA MUTCD). [book auth.] California Department of Transportation. *California Manual on Uniform Traffic Control Devices (CA MUTCD).* 2014, Updated March 30, 2021 (Revision 6).
5. **Western Riverside Council of Governments.** *TUMF Nexus Study, 2016 Program Update.* July 2017.

This page intentionally left blank