



May 7, 2020

Ms. Cheryl Tubbs, Vice President
LILBURN CORPORATION
1905 Business Center Drive
San Bernardino, CA 92408

RE: U.S. Auctions Project Focused Traffic Analysis
19-0210

Dear Ms. Tubbs:

INTRODUCTION

Ganddini Group, Inc. is pleased to provide this focused traffic analysis for the proposed U.S. Auctions Project in the City of Colton. The purpose of this focused traffic analysis is to evaluate the potential traffic impacts associated with development of the proposed U.S. Auctions Project.

Although this is a technical report, effort has been made to write the report clearly and concisely. A glossary is provided in Appendix A to assist the reader with technical terms related to transportation engineering.

PROJECT DESCRIPTION

The project site is located at 1050 South Sixth Street in the City of Colton. The project proposes to construct two buildings totaling 5,550 square feet of office use and 6,000 square feet of warehouse use for fleet vehicles and construction equipment auction activities. The project is proposing two full access driveways at Sixth Street. Figure 1 shows the project location map and Figure 2 shows the project site plan.

Normal business hours of operation are 8:00 AM to 5:00 PM Monday through Friday. Typical weekday operations at the project site include up to 10 employees and 20 customer visits prior to auction day. Auction items (vehicles, trucks, etc.) will be delivered throughout the weeks prior to the once a month weekend auctions, with a maximum of 10 truck deliveries per week. Normally, there are two days of auction item inspection (Thursday and Friday), with the auction being conducted on Saturday. During inspection there are usually approximately 20 customers that visit the site.

Auction hours are anticipated to occur once per month on a weekend between 7:00 AM and 4:00 PM. It is anticipated to include up to 20 employees and 65 visiting customer vehicles per day. On auction day, the largest recorded crowd was about 75 individuals totaling between 50-65 customer vehicles on-site. The maximum number of people at the auction site is no more than 75 individuals during auction day. Pick-up and delivery of vehicles and auction items is anticipated to occur during the weekday following auction day. Off-site away auctions will be conducted as business dictates. The project applicant may conduct on-site only auctions that do not require people at this location, as it would be conducted through the internet.

PROJECT DESIGN FEATURES

This analysis also assumes the project shall comply with the following conditions as part of the City of Colton standard development review process:

- All roadway design, traffic signing and striping, and traffic control improvements relating to the proposed project shall be constructed in accordance with applicable engineering standards and to the satisfaction of the City of Colton Engineering Division.
- Site-adjacent roadways shall be constructed or repaired at their ultimate half-section width, including landscaping and parkway improvements in conjunction with development, or as otherwise required by the City of Colton Engineering Division.
- On-site traffic signing and striping plans shall be prepared in accordance with applicable State and Federal standards.
- The final grading, landscaping, and street improvement plans should demonstrate that sight distance standards are met in accordance with applicable City of Colton/California Department of Transportation sight distance standards.

EXISTING ROADWAY SYSTEM

Figure 3 identifies the lane geometry and intersection traffic controls for existing conditions based on a field survey of the study area. Regional access to the project site is provided by the I-10 Freeway located approximately 0.85 miles north of the project site, and the I-215 Freeway located approximately 1.6 miles east of the project site. Key roadways providing local circulation include La Cadena Drive, Sixth Street, Seventh Street, Eighth Street, Jefferson Lane, Fogg Street, M Street, Maple Street, and Congress Street.

TRANSIT SERVICE

Figure 4 shows existing public transit facilities and routes in the project vicinity serviced by Omnitrans. As shown on 4, the project site is not currently serviced by Omnitrans on Sixth Street. However, the project vicinity is served by OmniTrans Route 19 along La Cadena Drive, O Street, Eleventh Street, and M Street north of the project site. There are transit stops for this route along all four of these roadways approximately one half mile north of the project site.

BICYCLE FACILITIES

The City of Colton General Plan Bicycle Plan is shown on Figure 5. As shown on Figure 5, there are no bicycle facilities on the roadways directly adjacent to the project site. La Cadena Drive south of Congress Street is Class II bikeway and La Cadena Drive north of Congress Street is a Class III bikeway. M Street north of the project site is a Class II bikeway planned as a Class III bikeway.

EXISTING PEDESTRIAN FACILITIES

Existing pedestrian facilities adjacent to the project site are illustrated on Figure 6. As shown on Figure 6, there are currently no sidewalks on 6th Street or Fogg Street along the project frontage.

EXISTING TRUCK ROUTES

The City of Colton Truck Route Master Plan is shown on Figure 7. As shown on Figure 7, La Cadena Drive is an existing truck route and M Street is a proposed truck route by the City of Colton.

PROJECT TRIP GENERATION – TYPICAL OPERATIONS

Table 1 shows the project trip generation during typical weekday operations based upon trip generation rates obtained from the Institute of Transportation Engineers (ITE) Trip Generation Manual (10th Edition, 2017) and operational data provided by the project applicant. Trip generation rates for Land Use Codes 150 (Warehousing) and 710 (General Office Building) were used for the project site. Truck mix data was obtained from the ITE Trip Generation Handbook (3rd Edition, 2017) and Warehouse Truck Trip Study Data Results and Usage (SCAQMD, 2014). Trip generation rates were determined for daily trips, AM peak hour trips, and PM peak hour trips for the project land use during typical weekday operations. The number of trips forecast to be generated by the proposed project during typical weekday operations is determined by multiplying the trip generation rates by the land use quantities.

As shown in Table 1, the project is forecast to generate approximately 107 daily vehicle trips during typical weekday operations, including 12 vehicle trips during the AM peak hour and 12 vehicle trips during the PM peak hour.

It should be noted that this approach provides a conservative estimate because the auction-related trips are added on top of the standard ITE trip generation forecast associated with the square footage of proposed building area.

PROJECT TRIP GENERATION – AUCTION DAY

Table 2 shows the project trip generation forecast for a typical auction day, which is expected to occur once per month, based upon operational data provided by the project applicant. As shown in Table 2, the project is forecast to generate approximately 170 daily vehicle trips on auction day.

PROJECT TRIP DISTRIBUTION AND ASSIGNMENT

Figure 8 shows the forecast directional distribution patterns for the project generated passenger car trips. Figure 9 shows the forecast directional distribution patterns for the project generated truck trips. The project trip distribution patterns are based on review of existing roadway facilities, land uses, and truck routes in the project vicinity, as well as scoping input from the City of Colton Engineering Division. Full access for the project site is proposed to 6th Street via two project driveways.

Based on the identified project trip generation and distributions, project average daily traffic volumes have been calculated and shown on Figure 10. Project AM peak hour, PM peak hour, and daily weekday intersection turning movement volumes for passenger cars expected from the project are depicted on Figure 11. Project AM peak hour, PM peak hour, and daily weekday intersection turning movement volumes for trucks expected from the project are depicted on Figure 12. Total project AM peak hour, PM peak hour, and daily weekday intersection turning movement volumes for passenger cars and trucks expected from the project are depicted on Figure 13.

TRUCK PATHS

Figure 14 shows the alternative truck paths from the project site to City of Colton truck routes. This figure shows possible truck circulation paths to La Cadena Drive and M Street. Alternative Path 1 or 2 to Alternative

Path D appears to be the most feasible option based on truck restrictions. This truck path to M Street along Congress Street and Fogg Street would pass about a dozen single-family residential dwelling units with driveway frontage. All other potential paths would either pass by additional single-family residences or are not feasible for truck traffic. The 40+ foot curb-to-curb width along Congress Street and Fogg Street to M Street, as well as several vacant parcels on both sides of the roadway, indicates that this path would be the least impactful truck path for trucks to reach the truck routes on M Street and La Cadena Drive. This path would also avoid Wilson Elementary School and Veterans Park.

As shown in Table 1 and Figure 12, only five (5) truck trips are expected per day during typical weekday operations. With normal business hours being between 8:00 AM to 5:00 PM, Monday to Friday, five (5) truck trips over a nine-hour time frame equates to one truck trip every one hour and 48 minutes. Therefore, potential conflict between project truck trips and bicycle, pedestrian, and transit within the study area is forecast to be nominal.

For example, pedestrian activity will primarily occur along sidewalks and intersection crossings. Congress Street from the project site area eastbound to Pine Street has crosswalks on both sides of the street. Sidewalks on the south side of Congress Street terminate at Pine Street since the land is vacant and undeveloped from Pine Street eastbound along Congress Street to Fogg Street, northbound to M Street. Sidewalks on the north side of Congress Street terminate east of Cedar Street at the last developed single-family residence since the land is vacant and undeveloped from this single-family residence eastbound on Congress Street to Fogg Street, northbound to M Street except for a facility on Fogg Street that provides sidewalks along its property frontage. Due to limited sidewalk availability on Fogg Street combined with no pedestrian attractions, pedestrians are expected to primarily utilize existing sidewalks on Pine Street, 11th Street, and 8th Street, to traverse between M Street and Congress Street. Thus, minimal truck and pedestrian conflict is anticipated to occur.

M Street and La Cadena Drive are classified bicycle routes on the City of Colton General Plan Bicycle Plan. No on-street bicycle facilities exist in the project vicinity to/from those roadways. The same aforementioned reasons for pedestrian travel exist for bicycle travel on Fogg Street, as previously identified. Thus, minimal truck and bicycle conflict is anticipated to occur.

Transit routes exist along La Cadena Drive north of O Street, O Street between La Cadena Drive and 11th Street, 11th Street between O Street and M Street, and M Street (including a bus stop on the corner of Fogg Street and M Street). Access to these transit stops by nearby residents would not conflict with the proposed truck route along Congress Street to Fogg Street to M Street. Thus, minimal truck and transit conflict is anticipated to occur.

VEHICLES MILES TRAVELED (VMT)

Background

California Senate Bill 743 (SB 743) directs the State Office of Planning and Research (OPR) to amend the California Environmental Quality Act (CEQA) Guidelines for evaluating transportation impacts to provide alternatives to Level of Service that “promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses.” In December 2018, the California Natural Resources Agency certified and adopted the updated CEQA Guidelines package. The amended CEQA Guidelines, specifically Section 15064.3, recommend the use of Vehicle Miles Travelled (VMT) as the primary metric for the evaluation of transportation impacts associated with land use and transportation projects. In general terms, VMT quantifies the amount and distance of automobile travel attributable to a project or region. Agencies may currently opt-in to applying the updated CEQA guidelines for VMT analysis and implementation is required State-wide by July 1, 2020.

The updated CEQA Guidelines allow for lead agency discretion in establishing methodologies and thresholds provided there is substantial evidence to demonstrate that the established procedures promote the intended goals of the legislation. Where quantitative models or methods are unavailable, Section 15064.3 allows agencies to assess VMT qualitatively using factors such as availability of transit and proximity to other destinations. The [Technical Advisory on Evaluating Transportation Impacts in CEQA](#) (State of California, December 2018) [["Technical Advisory"](#)] provides technical considerations regarding methodologies and thresholds with a focus on office, residential, and retail developments as these projects tend to have the greatest influence on VMT. At publishing of this report, many jurisdictions are currently in the process of developing updated procedures for VMT analysis, however, few have fully implemented the new metric.

VMT Assessment and Screening

The City of Colton has not established VMT analysis guidelines at this time; therefore, the project-related VMT impact has been assessed based on guidance from the County of San Bernardino [Transportation Impact Study Guidelines](#) (July 2019).

The County of San Bernardino guidelines state that the following projects which serve the local community and have the potential to reduce VMT (and thus may be presumed to have a less than significant VMT impact) should not be required to complete a VMT assessment:

- K-12 schools, local parks, day care centers, student housing
- Local serving retail (less than 50,000 square feet), gas stations, banks
- Local serving community colleges that are consistent with the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)
- Small projects generating less than 110 trips per day; this generally corresponds to the following typical development potentials:
 - 11 single family residential dwelling units
 - 16 multi-family residential dwelling units
 - 10,000 square feet of office
 - 15,000 square feet of light industrial
 - 63,000 square feet of warehousing
 - 79,000 square feet of high-cube transload and short-term storage warehouse
 - 12 hotel rooms
- Projects located within a Transit Priority Area (TPA) as determined by the most recent SCAG RTP/SCS
- Residential and office projects located in areas with low VMT.

Presumption of Less Than Significant VMT Impact for Small Projects

As noted in the State's [Technical Advisory](#), CEQA Guidelines § 15301, subdivision (e)(2) provides a categorical exemption for existing facilities, including additions to existing structures of up to 10,000 square feet, so long as the project is in an area where public infrastructure is available to allow for maximum planned development and the project is not in an environmentally sensitive area. Typical project types for which trip generation increases relatively linearly with building footprint (i.e., general office building, single tenant office building, office park, and business park) generate or attract an additional 110-124 trips per 10,000 square feet. Therefore, absent substantial evidence otherwise, it is reasonable to conclude that the addition of 110 or fewer trips could be considered not to lead to a significant impact.

As shown in Table 1, the typical operation of the proposed project is forecast to generate 107 daily vehicle trips. Therefore, the proposed project can be presumed to result in a less than significant VMT impact based

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May 7, 2020

on State/County of San Bernardino guidance because it is forecast to generate fewer than 110 daily vehicle trips.

The project VMT impact on auction day is negligible as it only occurs one per month and would not have a substantial effect on VMT.

CONCLUSIONS

The project is forecast to generate approximately 107 daily vehicle trips during typical weekday operations, including 12 vehicle trips during the AM peak hour and 12 vehicle trips during the PM peak hour.

Project trucks should be restricted to use Alternative Path 1 (6th Street - Congress) or Alternative 2 (Fogg Street - Congress) to Alternative Path D (Congress Street – Fogg Street) as it would be the least impactful truck path for trucks to reach the truck routes on M Street and La Cadena Drive. This path would also avoid Wilson Elementary School and Veterans Park.

Only five (5) truck trips are expected per day during typical weekday operations. With normal business hours being between 8:00 AM to 5:00 PM, Monday to Friday, five (5) truck trips over a nine-hour time frame equates to one truck trip every one hour and 48 minutes. Therefore, potential conflict between project truck trips and bicycle, pedestrian, and transit within the study area is forecast to be nominal.

The proposed project can be presumed to result in a less than significant VMT impact based on State/County of San Bernardino guidance because it is forecast to generate fewer than 110 daily vehicle trips.

Closing

It has been a pleasure to assist you with this project. Should you have any questions or if we can be of further assistance, please do not hesitate to call at (714) 795-3100.

List of Tables

- Table 1. Project Trip Generation – Typical Operations
Table 2. Project Trip Generation – Auction Day

List of Figures

- Figure 1. Project Location Map
Figure 2. Site Plan
Figure 3. Existing Lane Geometry and Intersection Controls
Figure 4. Omnitrans System Map
Figure 5. City of Colton General Plan Bicycle Plan
Figure 6. Existing Pedestrian Facilities
Figure 7. City of Colton Truck Route Master Plan
Figure 8. Project (Passenger Car) Trip Distribution
Figure 9. Project (Truck) Trip Distribution
Figure 10. Project Weekday Average Daily Traffic Volumes
Figure 11. Project (Passenger Car) Weekday Intersection Turning Movement Volumes
Figure 12. Project (Truck) Weekday Intersection Turning Movement Volumes
Figure 13. Total Project Weekday Intersection Turning Movement Volumes
Figure 14. Alternative Truck Paths from Project Site to Truck Routes

Appendices

- Appendix A Glossary of Transportation Terms

**Table 1
Project Trip Generation - Typical Operations**

Trip Generation Rates									
Land Use	Source ¹	Units ²	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
General Office Building	ITE 710	TSF	86%	14%	1.16	16%	84%	1.15	9.740
Warehousing	ITE 150	TSF	77%	23%	0.170	27%	73%	0.190	1.740
Passenger Cars (80.00%)	[a]		77%	23%	0.136	27%	73%	0.152	1.392
2-Axle Trucks (3.34%)	[a]		77%	23%	0.006	27%	73%	0.006	0.058
3-Axle Trucks (4.14%)	[a]		77%	23%	0.007	27%	73%	0.008	0.072
4+-Axle Trucks (12.52%)	[a]		77%	23%	0.021	27%	73%	0.024	0.218

Trips Generated									
Land Use	Quantity		AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
General Office Building	5.500	TSF	5	1	6	1	5	6	54
Warehousing	6.000	TSF							
Passenger Cars			1	0	1	0	1	1	8
<u>Truck Trips</u>									
2-Axle Trucks			0	0	0	0	0	0	0
3-Axle Trucks			0	0	0	0	0	0	0
4+-Axle Trucks			0	0	0	0	0	0	1
Net Truck Trips			0	0	0	0	0	0	1
Warehousing Subtotal			1	0	1	0	1	1	9
Auction-Related Trips ³	--	--							
Passenger Cars			2	1	3	1	2	3	40
<u>Truck Trips</u>									
2-Axle Trucks			0	0	0	0	0	0	0
3-Axle Trucks			0	0	0	0	0	0	0
4+-Axle Trucks			2	0	2	0	2	2	4
Net Truck Trips			2	0	2	0	2	2	4
Auction-Related Subtotal			4	1	5	1	4	5	44
Total			10	2	12	2	10	12	107

Notes:

(1) ITE = Institute of Transportation Engineers Trip Generation Manual (10th Edition, 2017); ### = Land Use Code.

[a] = ITE Trip Generation Handbook (3rd Edition, 2017) and Warehouse Truck Trip Study Data Results and Usage (SCAQMD, 2014).

(2) TSF = Thousand Square Feet

(3) Operational data provided by the project applicant. Typical weekday operations include up to 10 employees and 20 customer visits prior to auction day. A maximum of 10 truck deliveries are anticipated per week. Auctions are anticipated to occur one per month on a weekend.

**Table 2
Project Trip Generation - Auction Day**

Trips Generated	
Land Use	Daily
Auction-Related Trips ¹	
Passenger Cars	170
<u>Truck Trips</u>	
2-Axle Trucks	0
3-Axle Trucks	0
4+-Axle Trucks	0
Subtotal Truck Trips	0
Total	170

Notes:

(3) Operational data provided by the project applicant. Auction hours are anticipated to occur between 7:00 AM and 4:00 PM. It is anticipated to include up to 20 employees and 65 visiting customer vehicles per day. Pick-up and delivery of vehicles and auction items occurs during the weekday following auction day.

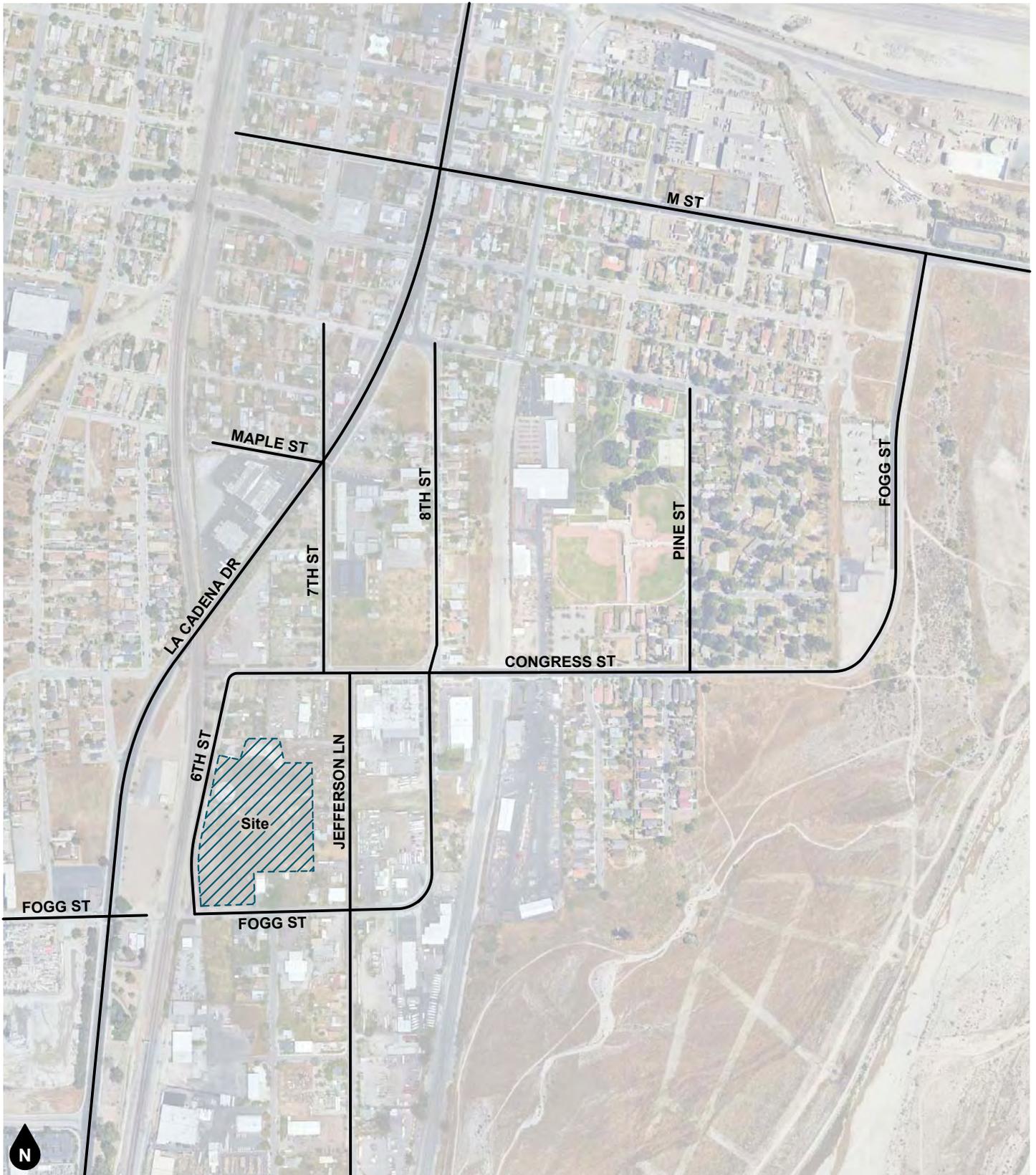


Figure 1
Project Location Map

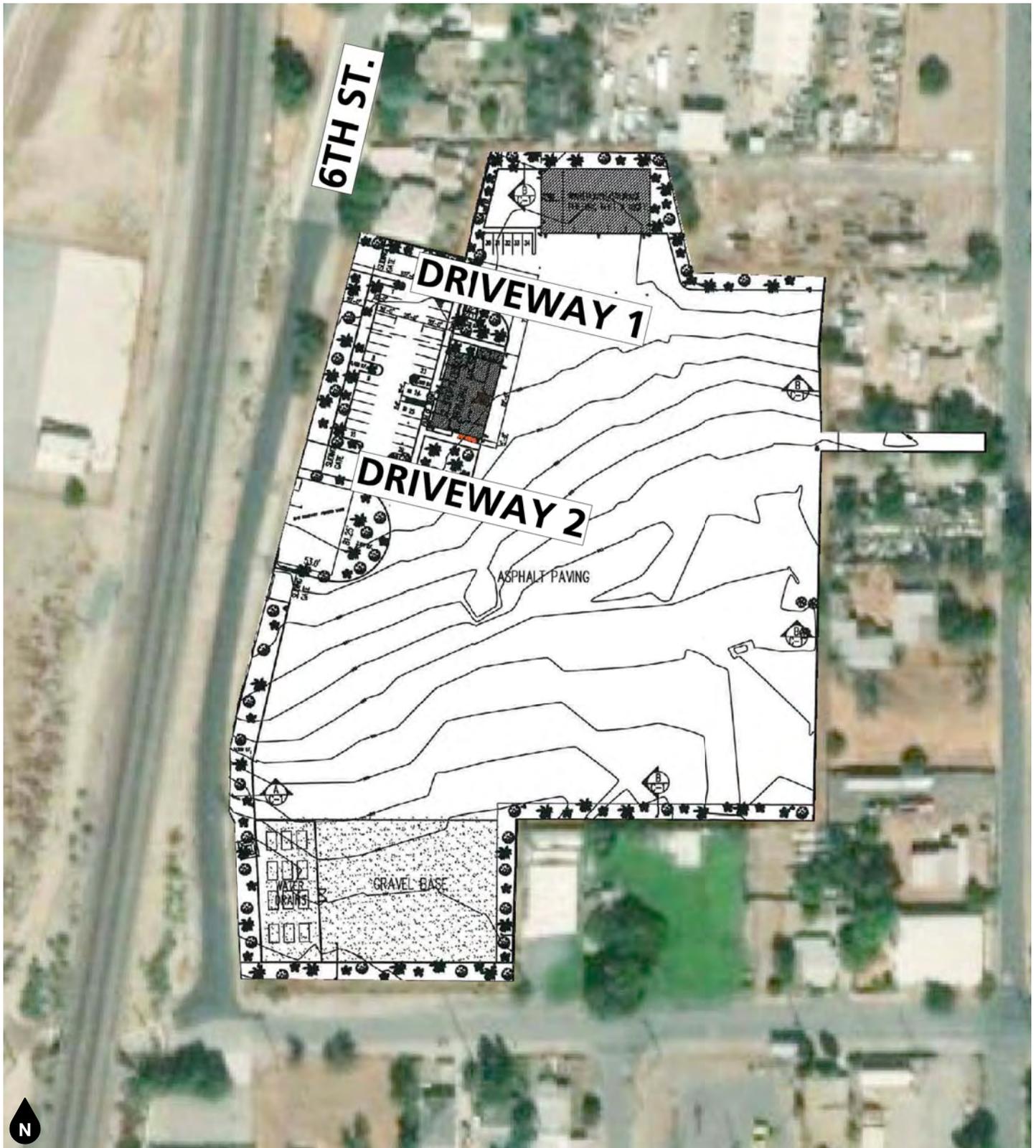
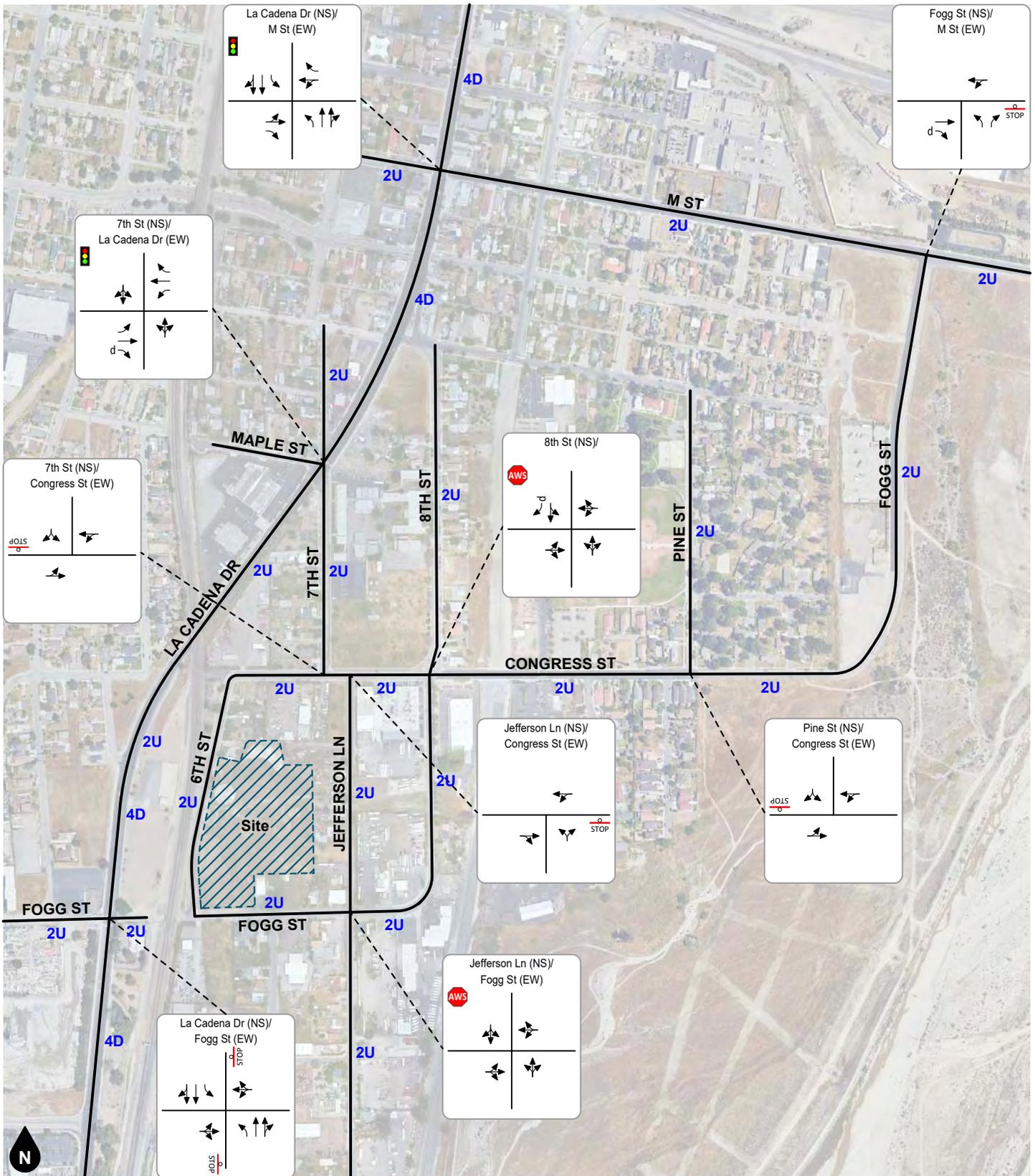


Figure 2
Site Plan



Legend

-  Traffic Signal
-  All Way Stop
-  Stop Sign
-  #D #Lane Divided Roadway
-  #U #Lane Undivided Roadway
-  Existing Lane
-  d De Facto Right Turn Lane

Figure 3
Existing Lane Geometry and Intersection Traffic Controls

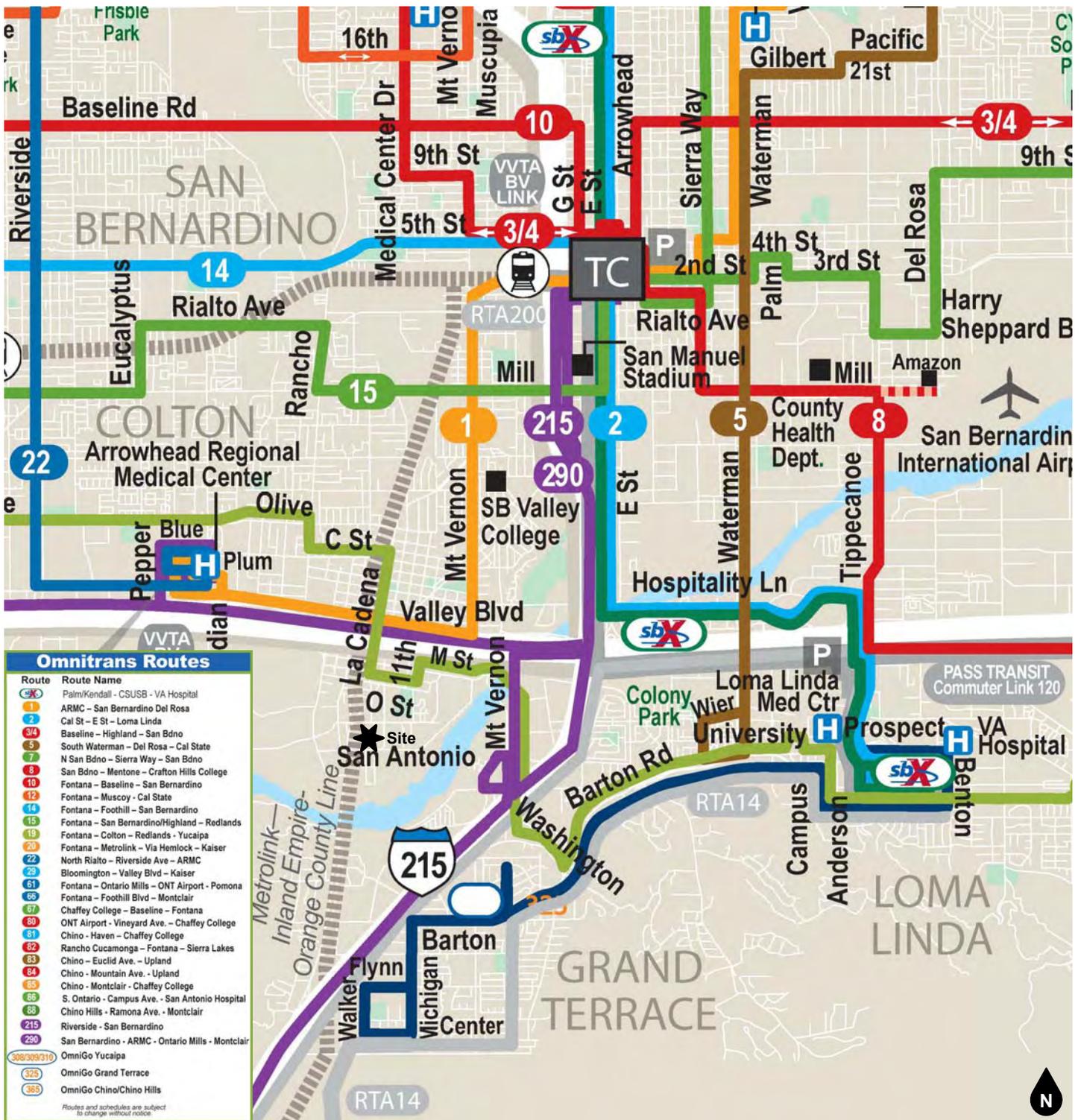


Figure 4
Omnitrans System Map

Source: Omnitrans

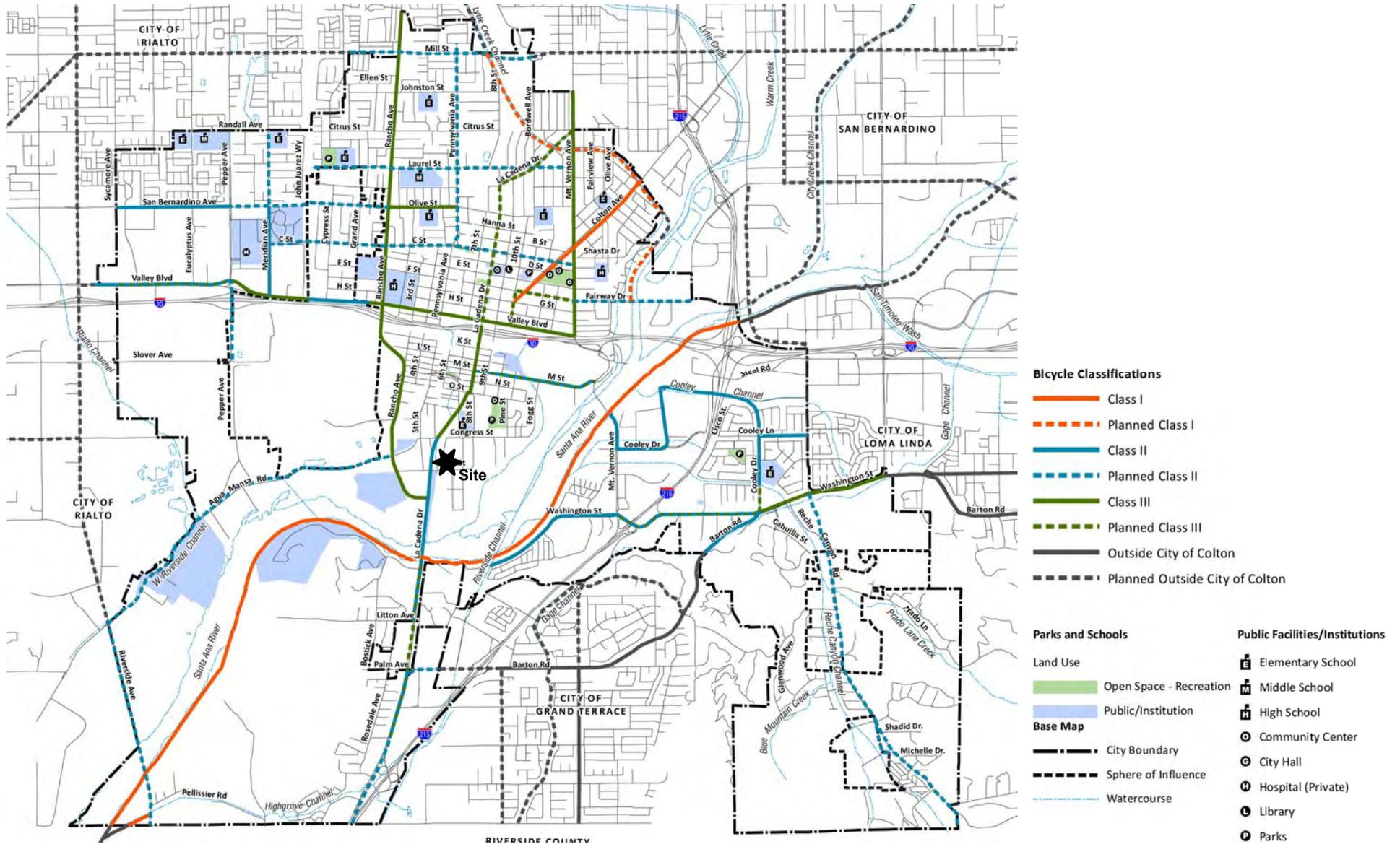


Figure 5
City of Colton General Plan Bicycle Plan

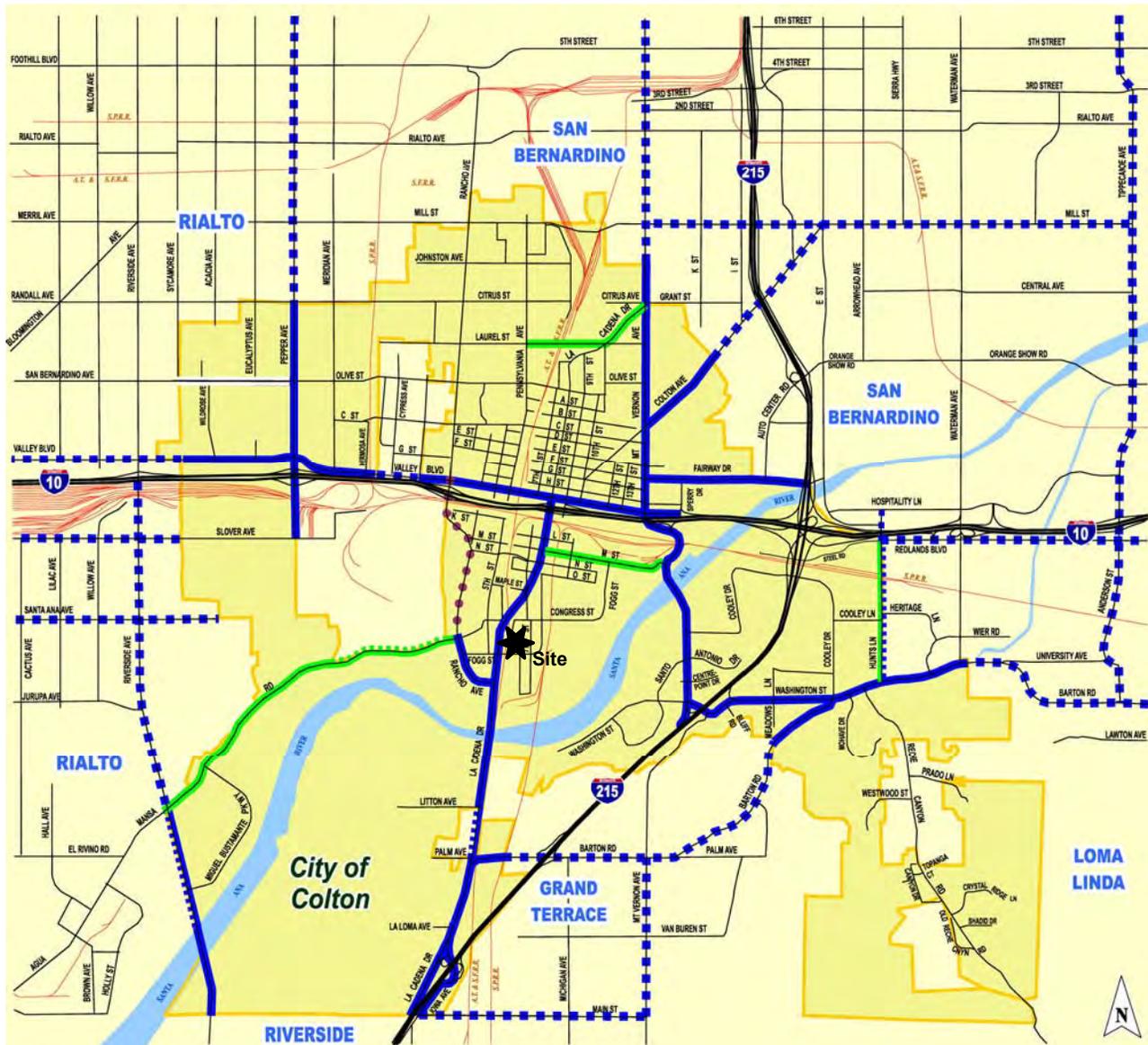
Source: City of Colton





Legend
 — Sidewalk

Figure 6
Existing Pedestrian Facilities



Legend:

City Limit

Existing Truck Routes

- City of Colton (truck route to remain)
- City of Colton (subject to size restriction*)
- Other Agency

Proposed New Truck Routes

- City of Colton
- Other Agency

Freeway (State Truck Route)

Major Arterial / Collector Roadway

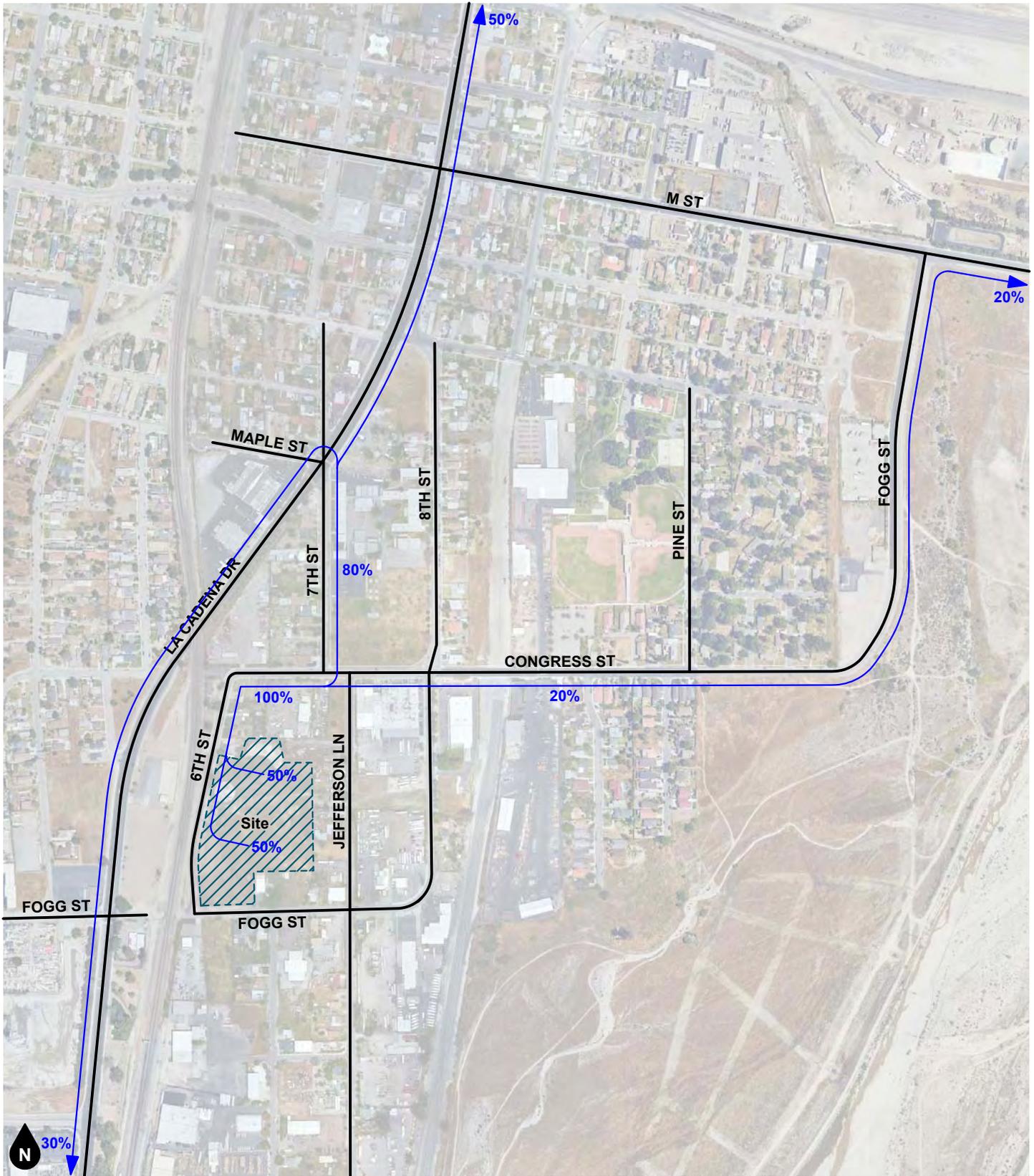
Railway



Source: City of Colton

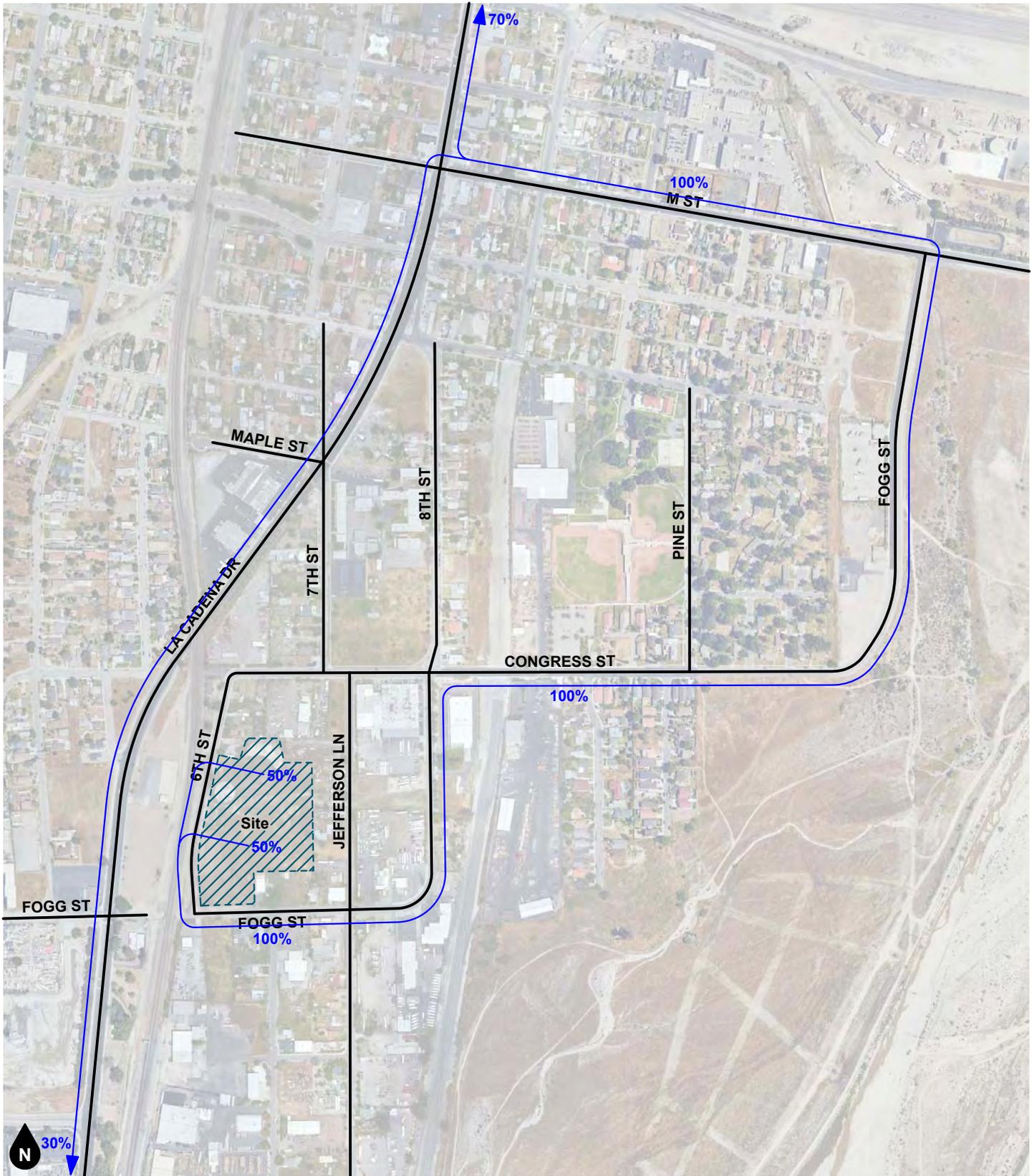


Figure 7
City of Colton Truck Route Master Plan



Legend
 ← 10% Percent To/From Project

Figure 8
Project (Passenger Car) Trip Distribution



Legend
 ← 10% Percent To/From Project

Figure 9
Project (Truck) Trip Distribution

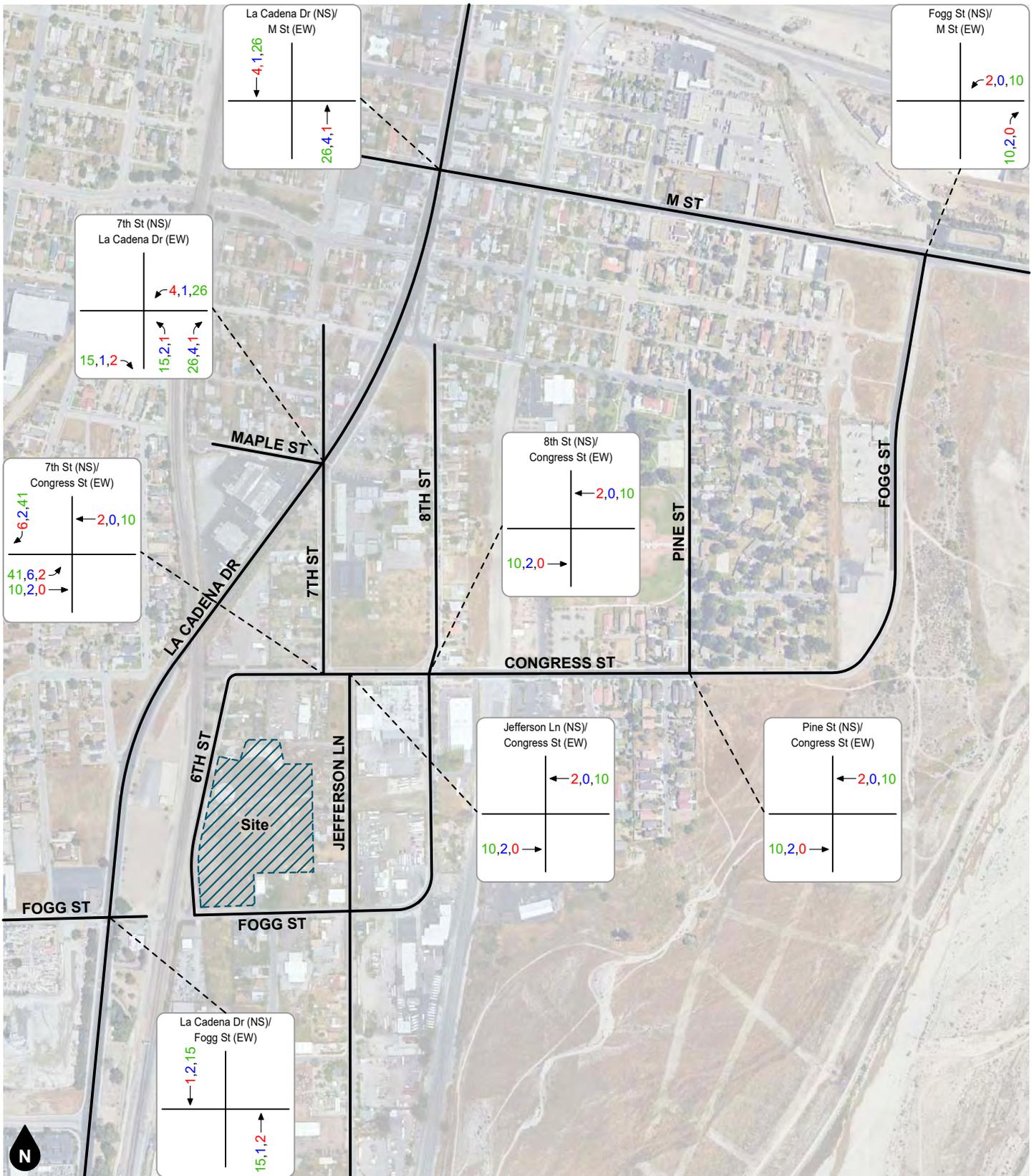


Figure 11
Project (Passenger Cars) Weekday Intersection Turning Movement Volumes

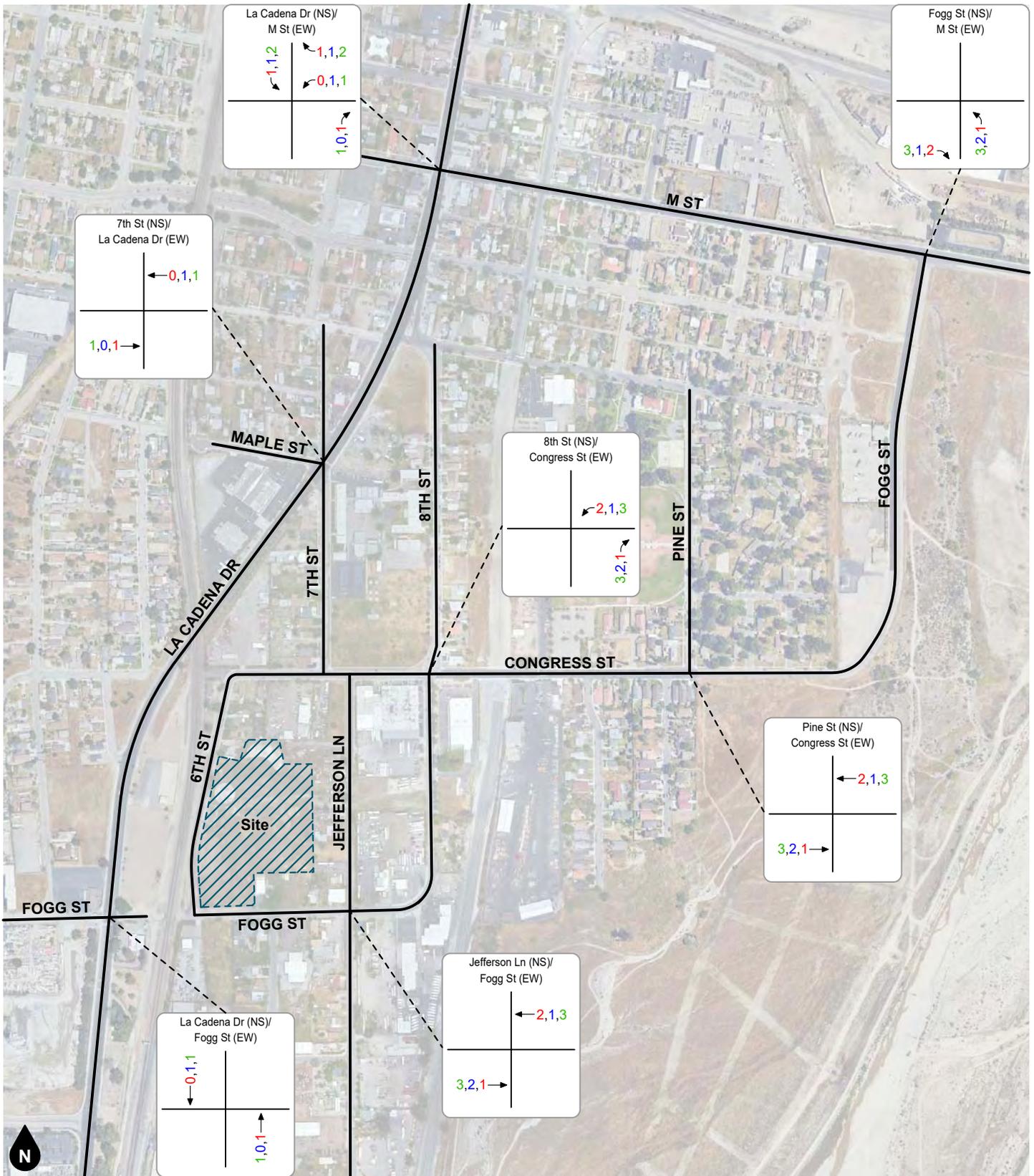


Figure 12
Project (Trucks) Weekday Intersection Turning Movement Volumes

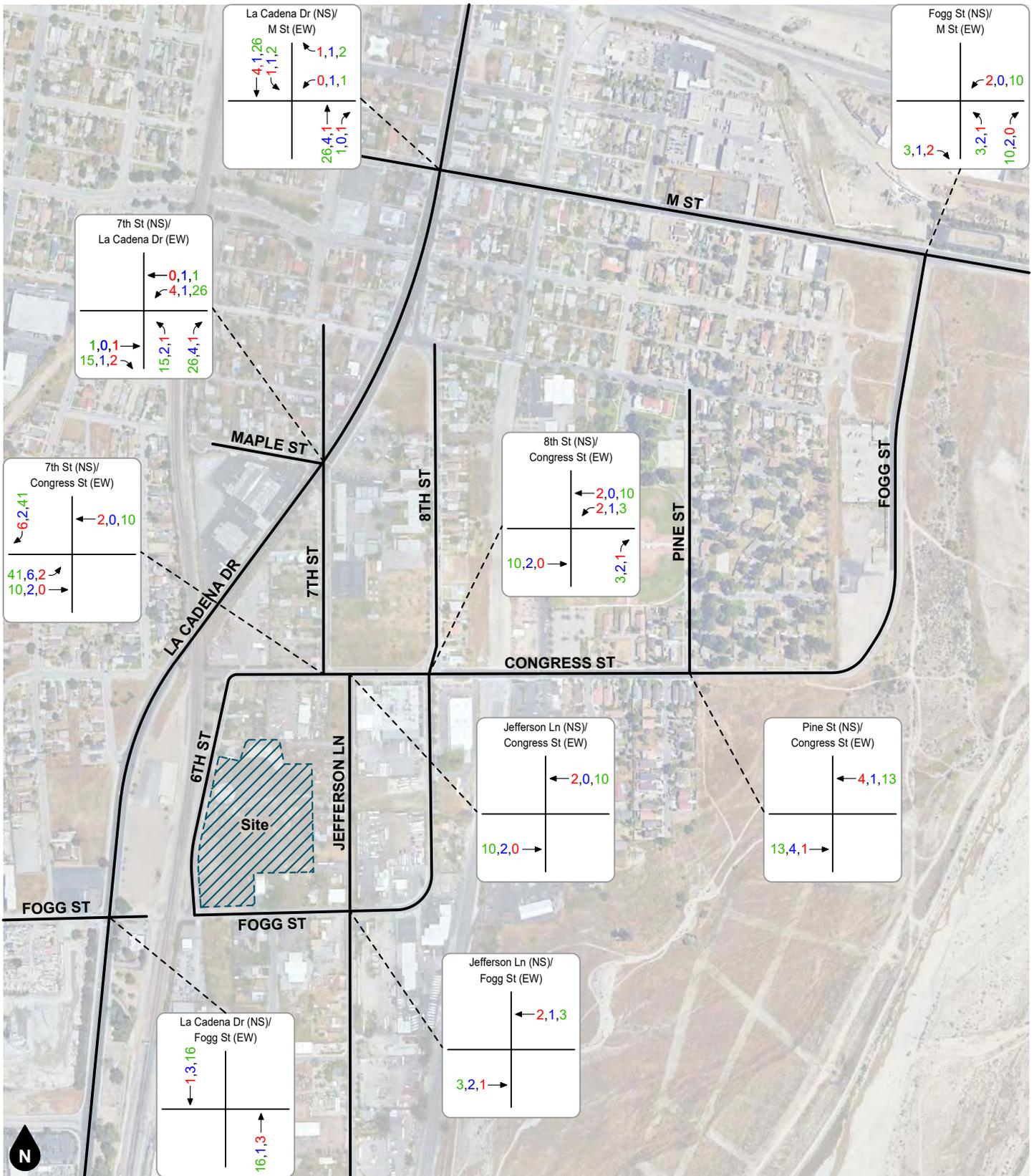
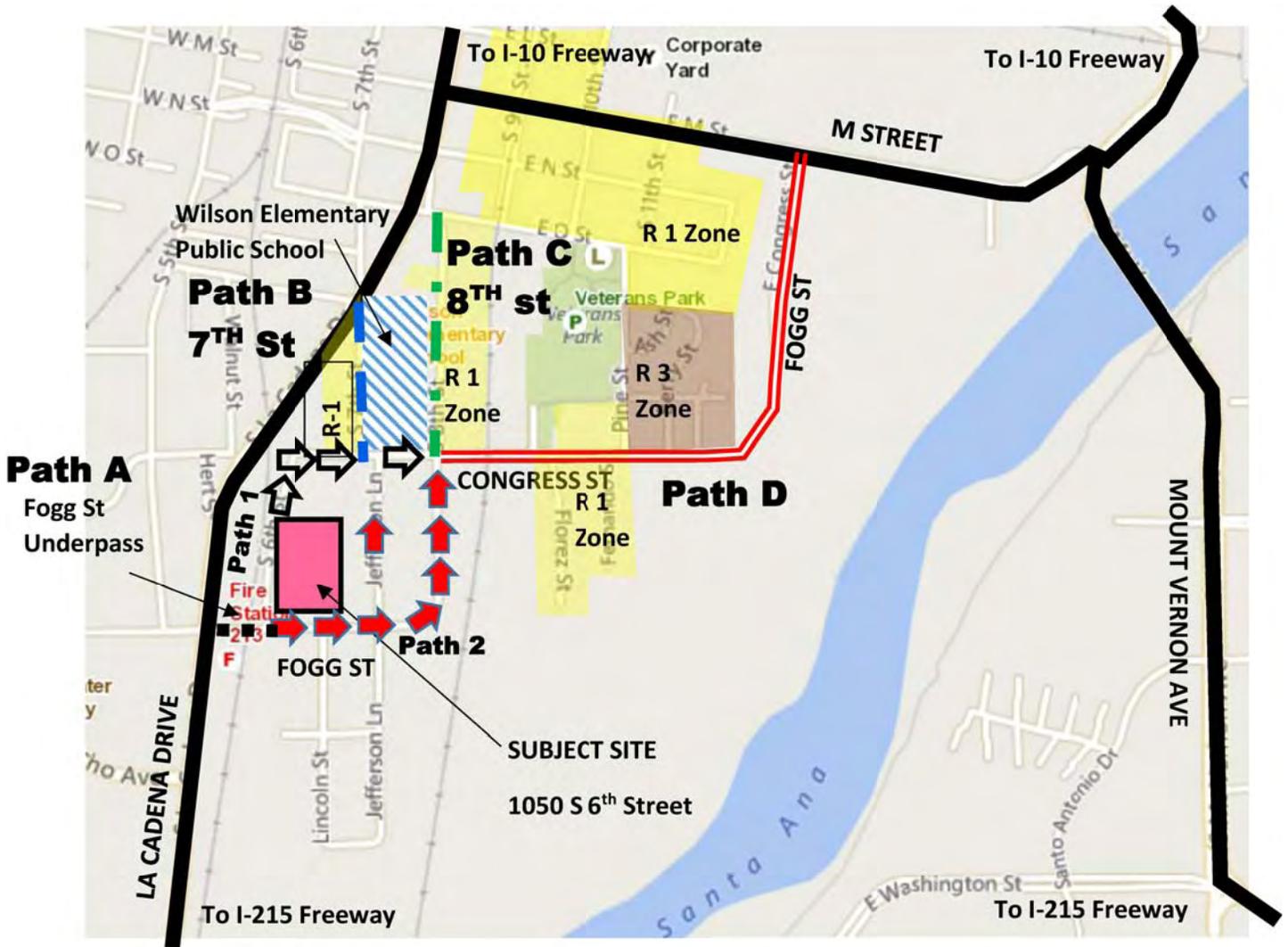


Figure 13
Total Project Weekday Intersection Turning Movement Volumes



City Designated Truck Routes – La Cadena Dr & M St

Alternate Path A. Fogg St to La Cadena (trucks to be prohibited)

Alternative Path 1. Site to Congress via 6th (inaccessible if 6th St blocked)

Alternative Path 2. Site to Congress via Fogg

Alternate Path B. 7th St/Congress to La Cadena (trucks to be prohibited)

Alternate Path C. 8th St/ Congress to La Cadena (trucks to be prohibited)

Alternate Path D. 8th/Congress to M St/Mt Vernon

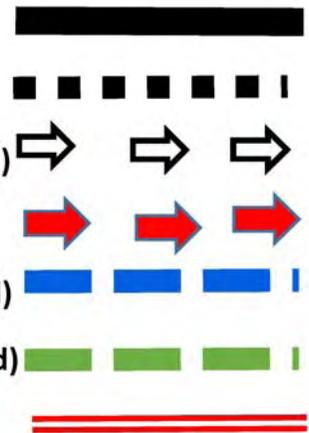


Figure 14
Alternative Truck Paths from Project Site to Truck Routes

APPENDIX A

GLOSSARY

GLOSSARY OF TERMS

ACRONYMS

AC	Acres
ADT	Average Daily Traffic
Caltrans	California Department of Transportation
DU	Dwelling Unit
ICU	Intersection Capacity Utilization
LOS	Level of Service
TSF	Thousand Square Feet
V/C	Volume/Capacity
VMT	Vehicle Miles Traveled

TERMS

AVERAGE DAILY TRAFFIC: The average 24-hour volume for a stated period divided by the number of days in that period. For example, Annual Average Daily Traffic is the total volume during a year divided by 365 days.

BANDWIDTH: The number of seconds of green time available for through traffic in a signal progression.

BOTTLENECK: A point of constriction along a roadway that limits the amount of traffic that can proceed downstream from its location.

CAPACITY: The maximum number of vehicles that can be reasonably expected to pass over a given section of a lane or a roadway in a given time period.

CHANNELIZATION: The separation or regulation of conflicting traffic movements into definite paths of travel by the use of pavement markings, raised islands, or other suitable means to facilitate the safe and orderly movements of both vehicles and pedestrians.

CLEARANCE INTERVAL: Nearly same as yellow time. If there is an all red interval after the end of a yellow, then that is also added into the clearance interval.

CONTROL DELAY: The component of delay, typically expressed in seconds per vehicle, resulting from the type of traffic control at an intersection. Control delay is measured by comparison with the uncontrolled condition; it includes delay incurred by slowing down, stopping/waiting, and speeding up.

CORDON: An imaginary line around an area across which vehicles, persons, or other items are counted (in and out).

CORNER SIGHT DISTANCE: The minimum sight distance required by the driver of a vehicle to cross or enter the lanes of the major roadway without requiring approaching traffic travelling at a given speed to radically alter their speed or trajectory. Corner sight distance is measured from the driver's eye at 42 inches above the pavement to an object height of 36 inches above the pavement in the center of the nearest approach lane.

CYCLE LENGTH: The time period in seconds required for a traffic signal to complete one full cycle of indications.

CUL-DE-SAC: A local street open at one end only and with special provisions for turning around.

DAILY CAPACITY: A theoretical value representing the daily traffic volume that will typically result in a peak hour volume equal to the capacity of the roadway.

DELAY: The time consumed while traffic is impeded in its movement by some element over which it has no control, usually expressed in seconds per vehicle.

DEMAND RESPONSIVE SIGNAL: Same as traffic-actuated signal.

DENSITY: The number of vehicles occupying in a unit length of the through traffic lanes of a roadway at any given instant. Usually expressed in vehicles per mile.

DETECTOR: A device that responds to a physical stimulus and transmits a resulting impulse to the signal controller.

DESIGN SPEED: A speed selected for purposes of design. Features of a highway, such as curvature, superelevation, and sight distance (upon which the safe operation of vehicles is dependent) are correlated to design speed.

DIRECTIONAL SPLIT: The percent of traffic in the peak direction at any point in time.

DIVERSION: The rerouting of peak hour traffic to avoid congestion.

FORCED FLOW: Opposite of free flow.

FREE FLOW: Volumes are well below capacity. Vehicles can maneuver freely and travel is unimpeded by other traffic.

GAP: Time or distance between successive vehicles in a traffic stream, rear bumper to front bumper.

HEADWAY: Time or distance spacing between successive vehicles in a traffic stream, front bumper to front bumper.

INTERCONNECTED SIGNAL SYSTEM: A number of intersections that are connected to achieve signal progression.

LEVEL OF SERVICE: A qualitative measure of a number of factors, which include speed and travel time, traffic interruptions, freedom to maneuver, safety, driving comfort and convenience, and operating costs.

LOOP DETECTOR: A vehicle detector consisting of a loop of wire embedded in the roadway, energized by alternating current and producing an output circuit closure when passed over by a vehicle.

MINIMUM ACCEPTABLE GAP: Smallest time headway between successive vehicles in a traffic stream into which another vehicle is willing and able to cross or merge.

MULTI-MODAL: More than one mode; such as automobile, bus transit, rail rapid transit, and bicycle transportation modes.

OFFSET: The time interval in seconds between the beginning of green at one intersection and the beginning of green at an adjacent intersection.

PLATOON: A closely grouped component of traffic that is composed of several vehicles moving, or standing ready to move, with clear spaces ahead and behind.

PASSENGER CAR EQUIVALENT (PCE): A metric used to assess the impact of larger vehicles, such as trucks, recreational vehicles, and buses, by converting the traffic volume of larger vehicles to an equivalent number of passenger cars.

PEAK HOUR: The 60 consecutive minutes with the highest number of vehicles.

PRETIMED SIGNAL: A type of traffic signal that directs traffic to stop and go on a predetermined time schedule without regard to traffic conditions. Also, fixed time signal.

PROGRESSION: A term used to describe the progressive movement of traffic through several signalized intersections.

QUEUE: The number of vehicles waiting at a service area such as a traffic signal, stop sign, or access gate.

QUEUE LENGTH: The length of vehicle queue, typically expressed in feet, waiting at a service area such as a traffic signal, stop sign, or access gate.

SCREEN-LINE: An imaginary line or physical feature across which all trips are counted, normally to verify the validity of mathematical traffic models.

SHARED/RECIPROCAL PARKING AGREEMENT: A written binding document executed between property owners to provide a designated number of off-street parking stalls within a designated area to be available for specified businesses or land uses.

SIGHT DISTANCE: The continuous length of roadway visible to a driver or roadway user.

SIGNAL CYCLE: The time period in seconds required for one complete sequence of signal indications.

SIGNAL PHASE: The part of the signal cycle allocated to one or more traffic movements.

STACKING DISTANCE: The length of area available behind a service area, such as a traffic signal or gate, for vehicle queuing to occur.

STARTING DELAY: The delay experienced in initiating the movement of queued traffic from a stop to an average running speed through an intersection.

STOPPING SIGHT DISTANCE: The minimum distance required by the driver of a vehicle on the major roadway travelling at a given speed to bring the vehicle to a stop after an object on the road becomes visible. Stopping sight distance is measured from the driver's eye at 42 inches above the pavement to an object height of 6 inches above the pavement.

TRAFFIC-ACTUATED SIGNAL: A type of traffic signal that directs traffic to stop and go in accordance with the demands of traffic, as registered by the actuation of detectors.

TRIP: The movement of a person or vehicle from one location (origin) to another (destination). For example, from home to store to home is two trips, not one.

TRIP-END: One end of a trip at either the origin or destination (i.e., each trip has two trip-ends). A trip-end occurs when a person, object, or message is transferred to or from a vehicle.

TRIP GENERATION RATE: The quantity of trips produced and/or attracted by a specific land use stated in terms of units such as per dwelling, per acre, and per 1,000 square feet of floor space.

TRUCK: A vehicle having dual tires on one or more axles, or having more than two axles.

TURNING RADIUS: The circular arc formed by the smallest turning path radius of the front outside tire of a vehicle, such as that performed by a U-turn maneuver. This is based on the length and width of the wheel base as well as the steering mechanism of the vehicle.

UNBALANCED FLOW: Heavier traffic flow in one direction than the other. On a daily basis, most facilities have balanced flow. During the peak hours, flow is seldom balanced in an urban area.

VEHICLE MILES OF TRAVEL: A measure of the amount of usage of a section of highway, obtained by multiplying the average daily traffic by length of facility in miles.

APPENDIX B
SCOPING AGREEMENT

TO # 205C
US Auctions
Urban Crossroads
Dec. 4, 2019

SCOPING AGREEMENT FOR TRAFFIC IMPACT STUDY

This form acknowledges the City of Colton Engineering Division requirements for traffic impact analysis of the following project. The analysis must comply with SANBAG CMP TIA Guidelines, as applicable.

Case No. DAP-001-566

Related Cases: _____

APN(S): 0163-281-31

Project Name: US Auctions - Colton

Project Address: 1050 South 6th Street

Project Description: fleet vehicles and construction equipment auction activities

Project Size: two buildings consisting of approximately 5,509 square of office use and 6,000 square feet of warehouse use.

	Traffic Consultant	Developer
Name:	<u>Urban Crossroads, Inc.</u>	<u>US Auctions</u>
Address:	<u>260 E. Baker Street, Suite 200</u> <u>Costa Mesa, CA 92626</u>	<u>130 East 9th Street</u> <u>Upland, CA 91786</u>
Telephone:	<u>(949) 660-1994</u>	<u>(909) 982-6688</u>
e-mail:	<u>ptarikere@urbanxroads.com</u>	_____

A. Technical Methodology

Technical methodology to comply with SANBAG CMP guidelines. However, mitigation on nonstate facilities to maintain LOS D threshold.

Traffic count data must be current or within previous 12 months. Provide traffic count dates.

At a minimum, one Weekday PM peak (4-6) and one two hour Weekend (Saturday) count for subsequent Synchro/capacity analyses. (No Weekday AM peak hour analysis will be conducted)

B. Trip Generation Source: Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition (2017) and operational data provided by the Applicant

Current GP Land Use: LI – Light Industrial Proposed Land Use: LI – Light Industrial

Current Zoning: M-1 - Light Industrial Proposed Zoning: M-1 - Light Industrial

Current Trip Generation			Proposed Trip Generation		
In	Out	Total	In	Out	Total

Weekday – Typical Operation

AM Trips: <u>0</u>	<u>0</u>	<u>0</u>	<u>6</u>	<u>1</u>	<u>7</u>
PM Trips: <u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>6</u>	<u>7</u>

Weekend – Auction Day (once per month)

Daily Trips: <u>0</u>	<u>0</u>	<u>0</u>	<u>85**</u>	<u>85**</u>	<u>170</u>
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**Includes 20 employees and maximum of 65 visiting customer vehicles on Auction Day between 7 AM and 4 PM

Internal Trip Allowance: Not Applicable

Pass-By Trip Allowance: Not Applicable

Traffic impact study to quantify change in project trip generation in comparison with pre-existing uses on project site when fully occupied.

C. Trip Geographic Distribution: To be submitted for approval by city staff. Cite source. Attach exhibit of detailed assignment. (See Exhibits 2 and 3)

D. Scenario Analysis

Project year of completion: 2021

Phase Year(s) _____

Annual Ambient Growth rate: 1.0%

City staff to provide cumulative background projects list.

Scenarios:

Existing Conditions

Year of project completion: 1) No Project; 2) With Project.

E. Preliminary Study Intersections: (See SANBAG CMP guidelines or comments from other agencies.)

- | | |
|--|--|
| 1. <u>La Cadena Drive & 7th Street/Maple Street</u> | 5. <u>Jefferson Lane & Fogg Street</u> |
| 2. <u>La Cadena Drive & Fogg Street</u> | 6. <u>8th Street & Congress Street</u> |

3. 7th Street & Congress Street

7. Pine Street/Congress Street

4. Jefferson Lane & Congress Street

8. Fogg Street/ M Street

F. Preliminary Study Roadway Segments: (See SANBAG CMP guidelines or comments from other agencies.)

1. Fogg St., 6th St. to Jefferson Ln.

6. Fogg St., M St. to Congress St.

2. 7th St., La Cadena Dr. to Congress St.

7. _____

3. Jefferson Ln., Congress St. to Fogg St.

8. _____

4. 8th St., O St. to Congress St.

9. _____

5. 8th St., Congress St. to Fogg St.

10. _____

G. Freeways - See SANBAG CMP guidelines. *Not Applicable*

H. Other Jurisdictional Impacts

Is this project within a one-mile radius of City or County boundaries? Yes No

If so, name of City Jurisdiction: Grand Terrace and County of San Bernardino

I. Site Plan (please attach reduced copy) (see Exhibit 1)

J. Specific issues to be addressed in the Study

- VMT assessment
- Alternative truck path evaluation
- Pedestrian safety analysis

Recommended by:

Approved Scoping Agreement:



Pranesh Tarikere

09/06/19

Dec. 10, 2019

Consultant's Representative

Date

City of Colton
Engineering Division

Date

Table 1

Project Trip Generation Rates

Land Use ¹	Units ²	ITE LU Code	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Actual Vehicle Trip Generation Rates									
Warehousing ³	TSF	150	0.131	0.039	0.170	0.051	0.139	0.190	1.740
Passenger Cars (80.0%)			0.105	0.031	0.136	0.041	0.111	0.152	1.392
2-Axle Trucks (3.34%)			0.004	0.001	0.005	0.002	0.005	0.007	0.058
3-Axle Trucks (4.14%)			0.005	0.002	0.007	0.002	0.006	0.008	0.072
4+-Axle Trucks (12.52%)			0.016	0.005	0.021	0.006	0.017	0.023	0.218
General Office Building	TSF	710	0.998	0.162	1.160	0.184	0.966	1.150	9.740
Passenger Car Equivalent (PCE) Trip Generation Rates⁴									
Warehousing ³	TSF	150	0.131	0.039	0.170	0.051	0.139	0.190	1.740
Passenger Cars (80.0%)			0.105	0.031	0.136	0.041	0.111	0.152	1.392
2-Axle Trucks (3.34%) (PCE = 1.5)			0.006	0.002	0.008	0.003	0.008	0.011	0.087
3-Axle Trucks (4.14%) (PCE = 2.0)			0.010	0.004	0.014	0.004	0.012	0.016	0.144
4+-Axle Trucks (12.52%) (PCE = 3.0)			0.048	0.015	0.063	0.018	0.051	0.069	0.654
General Office Building	TSF	710	0.998	0.162	1.160	0.184	0.966	1.150	9.740

¹ Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, Tenth Edition (2017).

² TSF = thousand square feet

³ Vehicle Mix Source: ITE Trip Generation Handbook (3rd Edition, 2017).

Truck Mix Source: South Coast Air Quality Management District (SCAQMD) Warehouse Truck Trip Study Data Results and Usage (2014).

Normalized % - Without Cold Storage: 16.7% 2-Axle trucks, 20.7% 3-Axle trucks, 62.6% 4-Axle trucks

⁴ PCE rates are per San Bernardino County Transportation Authority (SBCTA).

Table 2

Project Trip Generation Summary - Typical Operation

Land Use	Quantity	Units ¹	Weekday AM Peak Hour			Weekday PM Peak Hour			Weekday Daily ⁵
			In	Out	Total	In	Out	Total	
General Office Building ²	5.509	TSF	5	1	6	1	5	6	54
Warehousing ²	6.000	TSF							
Passenger Cars:			1	0	1	0	1	1	8
Truck Trips:									
2-axle:			0	0	0	0	0	0	0
3-axle:			0	0	0	0	0	0	0
4+-axle:			0	0	0	0	0	0	2
- Net Truck Trips			0	0	0	0	0	0	2
Auction-related Trips ³	--	--							
Passenger Cars:			2	1	3	1	2	3	40
Truck Trips:									
2-axle:			0	0	0	0	0	0	0
3-axle:			0	0	0	0	0	0	0
4+-axle:			2	0	2	0	2	2	4
- Net Truck Trips			2	0	2	0	2	2	4
TOTAL NET TRIPS (Actual Vehicles)⁴			10	2	12	2	10	12	108

Land Use	Quantity	Units ¹	Weekday AM Peak Hour ²			Weekday PM Peak Hour ²			Weekday Daily ⁵
			In	Out	Total	In	Out	Total	
General Office Building ²	5.509	TSF	5	1	6	1	5	6	54
Warehousing ²	6.000	TSF							
Passenger Cars:			1	0	1	0	1	1	8
Truck Trips:									
2-axle:			0	0	0	0	0	0	2
3-axle:			0	0	0	0	0	0	2
4+-axle:			0	0	0	0	0	0	4
- Net Truck Trips			0	0	0	0	0	0	8
Auction-related Trips ³	--	--							
Passenger Cars:			2	1	3	1	2	3	40
Truck Trips:									
2-axle:			0	0	0	0	0	0	0
3-axle:			0	0	0	0	0	0	0
4+-axle:			6	0	6	0	6	6	12
- Net Truck Trips			6	0	6	0	6	6	12
TOTAL NET TRIPS (PCE)⁴			14	2	16	2	14	16	122

¹ TSF = thousand square feet

² Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, Tenth Edition (2017).

³ Trip Generation Source: Operational data provided by the Applicant.

⁴ TOTAL NET TRIPS = Passenger Cars + Net Truck Trips.

⁵ Typical weekday operations include up to 10 employees and 20 customer visits prior to auction day. A maximum of 10 truck deliveries are anticipated per week. Auctions are anticipated to occur once per month.

Table 3

Project Trip Generation Summary - Auction Day

Land Use	Weekend Daily ^{4,5}
Auction-related Trips ²	
Passenger Cars:	170
Truck Trips:	
2-axle:	0
3-axle:	0
4+-axle:	0
- Net Truck Trips	0
TOTAL NET TRIPS (Actual Vehicles)³	170

Land Use	Weekend Daily ⁴
Auction-related Trips ²	
Passenger Cars:	170
Truck Trips:	
2-axle:	0
3-axle:	0
4+-axle:	0
- Net Truck Trips	0
TOTAL NET TRIPS (PCE)³	170

¹ TSF = thousand square feet

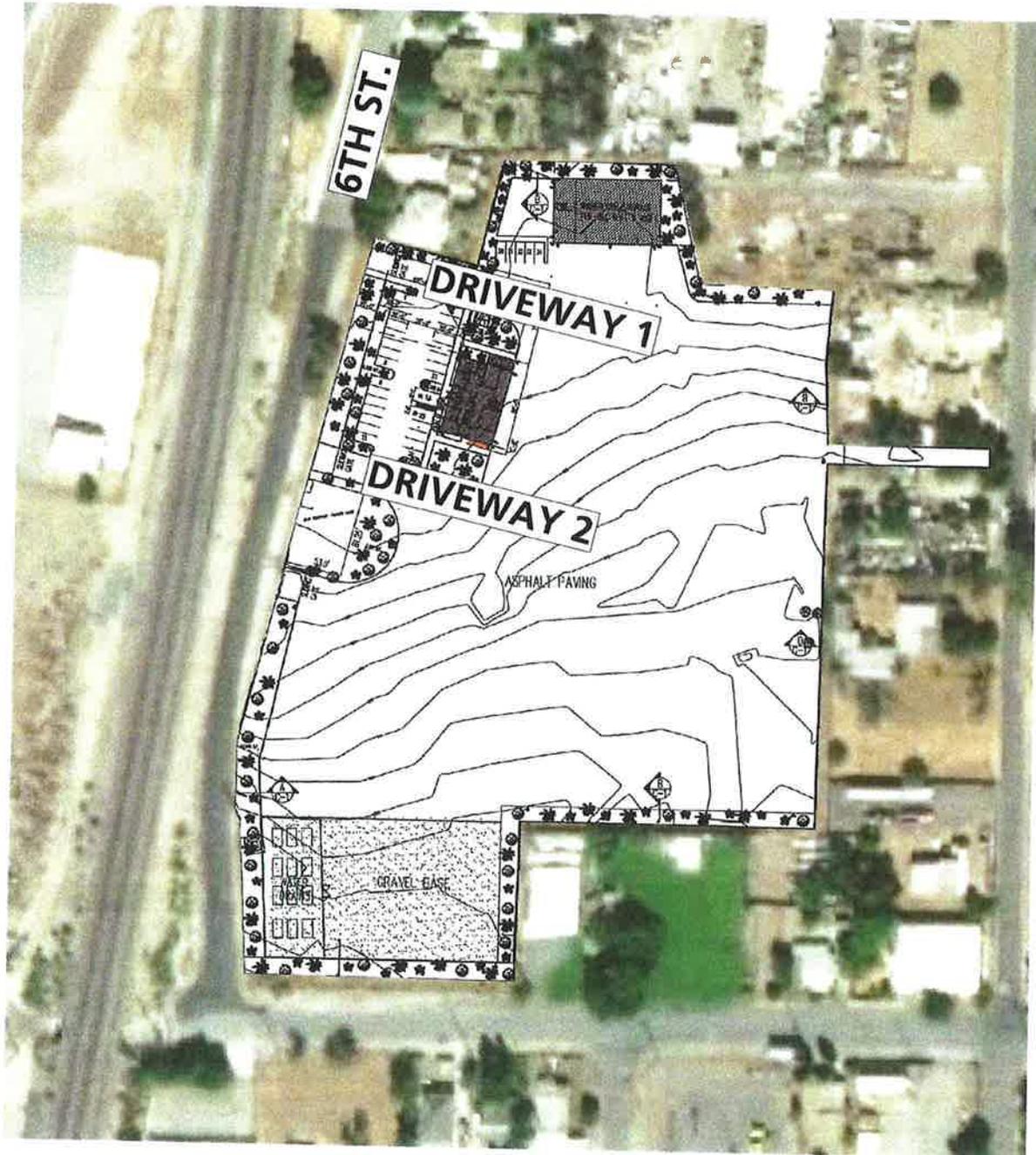
² Trip Generation Source: Operational data provided by the Applicant.

³ TOTAL NET TRIPS = Passenger Cars + Net Truck Trips.

⁴ Auction hours are anticipated to occur between 7:00am and 4:00pm. It is anticipated to include up to 20 employees and 65 visiting customer vehicles on auction day.

⁵ Pick up and delivery of vehicles and auction items is anticipated to occur during the weekday following auction day.

EXHIBIT 1: PRELIMINARY SITE PLAN



12881 - siteplan.dwg



EXHIBIT 2: LOCATION MAP



LEGEND:

-  - EXISTING INTERSECTION ANALYSIS LOCATION
-  - FUTURE INTERSECTION ANALYSIS LOCATION



EXHIBIT 3: PROJECT (PASSENGER CAR) TRIP DISTRIBUTION

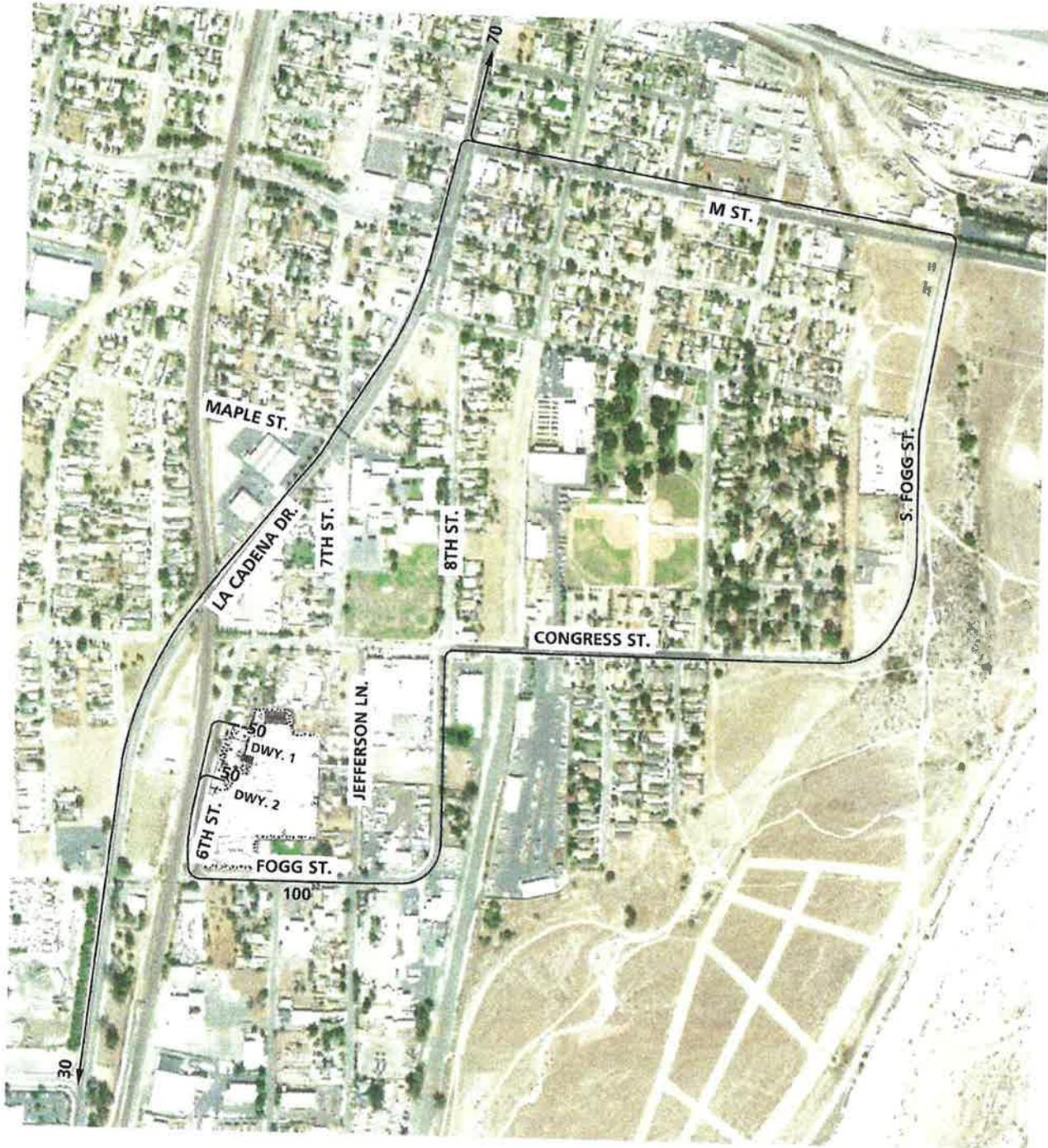


LEGEND:

10 = PERCENT TO/FROM PROJECT



EXHIBIT 4: PROJECT (TRUCK) TRIP DISTRIBUTION



LEGEND:

10 = PERCENT TO/FROM PROJECT



12881 - trip.dwg

