

PM Conformity Hot Spot Analysis – Project Summary for Interagency Consultation

RTIP ID# H9-08-008				
TCWG Consideration Date September 27, 2022				
Project Description				
<p>The project would construct a new traffic signal, widen the existing roadway to accommodate left-turn pockets, construct curbs and gutter, sidewalks, curb ramps, crosswalks, and street lights. The project would implement a new traffic signal at the intersection of Main Street and Sultana Street/Timberlane Avenue, which would include new crosswalks. The anticipated maximum depth of excavation is 13 feet, and the anticipated height of the tallest feature (signal heights) is 30 feet. In addition, the project would construct new 6- to 7-foot sidewalks along the project area in areas where sidewalks are currently not present, and would include new curbs, curb ramps, and gutters. Street and pedestrian lighting would also be included to enhance pedestrian and motor vehicle safety in the project area. The project's regional location is depicted in Figure 1. The proposed project's street improvement plans are depicted in Figure 2 and Figure 3. The traffic signal plan is depicted in Figure 4.</p> <p>Construction of the project would result in four east-west travel lanes along Main Street, including two 12-foot lanes in each direction, one 6-foot bicycle lane in each direction, and one 12-foot left-turn lane. Additionally, the project would implement two north-south travel lanes along Timberlane Avenue and Sultana Street, including one 12-foot lane in each direction, one 5-foot bicycle lane in each direction, and one 12-foot left-turn lane.</p> <p>One existing utility pole located at the southwest (SW) corner of intersection would be relocated. The City would work with local utility owners for any construction activities on underground facilities, as necessary. Construction of the project, including utility relocation would be anticipated to last approximately four to six months.</p>				
Type of Project				
Intersection signalization				
County		Narrative Location/Route & Postmiles		
San Bernardino		At the intersection of Main Street and Timberlane Avenue/Sultana Street, between I Avenue and Peach Avenue.		
Lead Agency: Caltrans District 8 / City of Hesperia				
Contact Person		Phone#	Fax#	Email
David Burkett		760-947-1202		dburkett@cityofhesperia.us
Hot Spot Pollutant of Concern (check one or both) PM2.5 PM10 X				
Federal Action for which Project-Level PM Conformity is Needed (check appropriate box)				
<input checked="" type="checkbox"/>	Categorical Exclusion (NEPA)	<input type="checkbox"/>	EA or Draft EIS	<input type="checkbox"/>
		<input type="checkbox"/>	FONSI or Final EIS	<input type="checkbox"/>
			<input type="checkbox"/>	PS&E or Construction
				<input type="checkbox"/>
				Other
Scheduled Date of Federal Action: 2023				
NEPA Assignment – Project Type (check appropriate box)				
<input type="checkbox"/>	Exempt	<input checked="" type="checkbox"/>	Section 326 –Categorical Exemption	<input type="checkbox"/>
				Section 327 – Non-Categorical Exemption
Current Programming Dates (as appropriate)				
	PE/Environmental	ENG	ROW	CON
Start	2017	2020	2018	2023
End	2022	2022	2019	2024

<p>Project Purpose and Need (Summary): <i>(attach additional sheets as necessary)</i></p> <p>Project Purpose The purpose of the project is to improve safety at the intersection of Main Street and Sultana Street/Timberlane Avenue in the City of Hesperia with the installation of traffic signals, widened roadways, and pedestrian facilities. The project's regional location is depicted in Figure 1. The proposed project's site plan is depicted in Figure 2.</p> <p>Project Need The intersection at Main Street and Sultana Street/Timberlane Avenue has been identified by the City as the top safety priority due to numerous vehicular collisions and fatalities that have occurred since January 2013. This intersection has drawn considerable community concern over the last 10 years.</p>
<p>Surrounding Land Use/Traffic Generators <i>(especially effect on diesel traffic)</i> Surrounding land uses consist predominantly of residential land uses. No major land uses (e.g., industrial uses) that would have a significant effect on diesel traffic are located in the project vicinity.</p>
<p>Opening Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility Overall vehicle AADT, truck AADT, and truck percentages for Opening Year 2023 are summarized in Table 2. Delay and LOS for Opening Year 2023 is presented in Table 4. As depicted, the project would not result in a significant increase in overall traffic or truck volumes and would result in overall improvements in intersection LOS.</p>
<p>RTP Horizon Year / Design Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility Overall vehicle AADT, truck AADT, and truck percentages for Design Year 2040 are summarized in Table 2. Delay and LOS for Design Year 2040 is presented in Table 4. As depicted, the project would not result in a significant increase in overall traffic or truck volumes and would result in overall improvements in intersection LOS.</p>
<p>Opening Year: If facility is an interchange(s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT Cross-street (Sultana Street/Timberlane Avenue) vehicle AADT, truck AADT, and truck percentages for Opening Year 2023 are presented in Table 2. Opening year intersection traffic volumes are also depicted in Figure 5. As depicted, the project would not result in a significant increase in overall traffic or truck volumes and would result in overall improvements in intersection LOS.</p>
<p>RTP Horizon Year / Design Year: If facility is an interchange (s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT Cross-street (Sultana Street/Timberlane Avenue) vehicle AADT, truck AADT, and truck percentages for Opening Year 2040 are presented in Table 3. Design year intersection traffic volumes are also depicted in Figure 6. As depicted, the project would not result in a significant increase in overall traffic or truck volumes and would result in overall improvements in intersection LOS.</p>
<p>Describe potential traffic redistribution effects of congestion relief <i>(impact on other facilities)</i> The proposed project would include operational improvements to the intersection of Main Street and Sultana Street/Timberlane Avenue. The project would not result in a significant increase in overall traffic or truck volumes, nor result in significant impacts to other facilities. Opening year and future design year intersection traffic volumes are depicted in Figures 5 and 6, respectively.</p>

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TABLE 2. Opening Year 2023 Traffic Summary

Segment	No-Build Conditions			Build Conditions			Change from No-Build Conditions		
	Total	Truck	Truck %	Total	Truck	Truck %	Total	Truck	Truck %
Main Street (West of Intersection)	29,600	836	3%	29,600	836	3%	0	0	0
Main Street (East of Intersection)	28,300	822	3%	28,300	822	3%	0	0	0
Sultana Street	500	27	5%	500	27	5%	0	0	0
Timberlane Avenue	1,700	45	3%	1,700	45	3%	0	0	0

TABLE 3. Design Year 2040 Traffic Summary

Segment	No-Build Conditions			Build Conditions			Change from No-Build Conditions		
	Total	Truck	Truck %	Total	Truck	Truck %	Total	Truck	Truck %
Main Street (West of Intersection)	30,200	853	3%	30,200	853	3%	0	0	0
Main Street (East of Intersection)	28,900	839	3%	28,900	839	3%	0	0	0
Sultana Street	550	29	5%	550	29	5%	0	0	0
Timberlane Avenue	1,800	48	3%	1,800	48	3%	0	0	0

TABLE 4. Main Street and Sultana Steet/Timberlane Avenue Intersection Capacity Summary

Analysis Scenario	Control Type	A.M. Peak-Hour		Mid-Day Peak-Hour		P.M. Peak-Hour	
		Delay	LOS	Delay	LOS	Delay	LOS
Existing Conditions	SSSC	22.1	C	104.4	F	57.8	F
No-Build Opening Conditions	SSSC	23.4	C	133.0	F	65.5	F
Build Opening Conditions	TS	7.4	A	9.2	A	8.9	A
No-Build Design Conditions	SSSC	28.6	D	186.5	F	90.3	F
Build Design Conditions	TS	7.6	A	9.4	A	9.0	A

SSSC – Side-Street Stop Control TS – Traffic Signal Control Delay – Seconds Per Vehicle LOS – Level of Service

Comments/Explanation/Details *(attach additional sheets as necessary)*

Under 40 CFR 93.123(b)—PM10 and PM2.5 Hot Spots—the following criteria are utilized to determine the potential for the proposed project to qualify as a Project of Air Quality Concern (POAQC):

- (i) *New highway projects that have a significant number of diesel vehicles, and expanded highway projects that have a significant increase in the number of diesel vehicles;*

In comparison to no-build conditions, the proposed build alternative would not significantly increase the number of diesel vehicles operating within the project study area. Refer to Table 2.

- (ii) *Projects affecting intersections that are at Level-of-Service D, E, or F with a significant number of diesel vehicles, or those that will change to Level-of-Service D, E, or F because of increased traffic volumes from a significant number of diesel vehicles related to the project;*

As noted above and depicted in Tables 2 and 3, the project would not result in significant increases in overall traffic or truck volumes along area roadways. As depicted in Tables 4, the proposed build alternative would not result in significant changes in intersection operations and would result in overall improvements in intersection LOS. Based on this information, the proposed build alternative would not significantly increase the number of diesel vehicles operating within the project study area, nor would the proposed build alternative adversely impact nearby intersections that have a significant number of diesel vehicles. Opening year and future design year intersection traffic volumes are also depicted in Figures 3 and 4, respectively.

- (iii) *New bus and rail terminals and transfer points that have a significant number of diesel vehicles congregating at a single location;*

The project is not a new or expanded bus or rail terminal, nor would the project adversely impact transfer points that have a significant number of diesel vehicles congregating at a single location.

- (iv) *Expanded bus and rail terminals and transfer points that significantly increase the number of diesel vehicles congregating at a single location; and*

The project is not a new or expanded bus or rail terminal, nor would the project adversely impact transfer points that have a significant number of diesel vehicles congregating at a single location.

- (v) *Projects in or affecting locations, areas, or categories of sites which are identified in the PM10 or PM2.5 applicable implementation plan or implementation plan submission, as appropriate, as sites of violation or possible violation.*

The proposed build alternative is not located in, nor would it affect locations, areas, or categories of sites that are identified in the PM2.5 and PM10 applicable implementation plan or implementation plan submission, as appropriate, as sites of violation or possible violation.

For the reasons noted above, the proposed project would not be considered a POAQC.

FIGURE 1. Regional Location

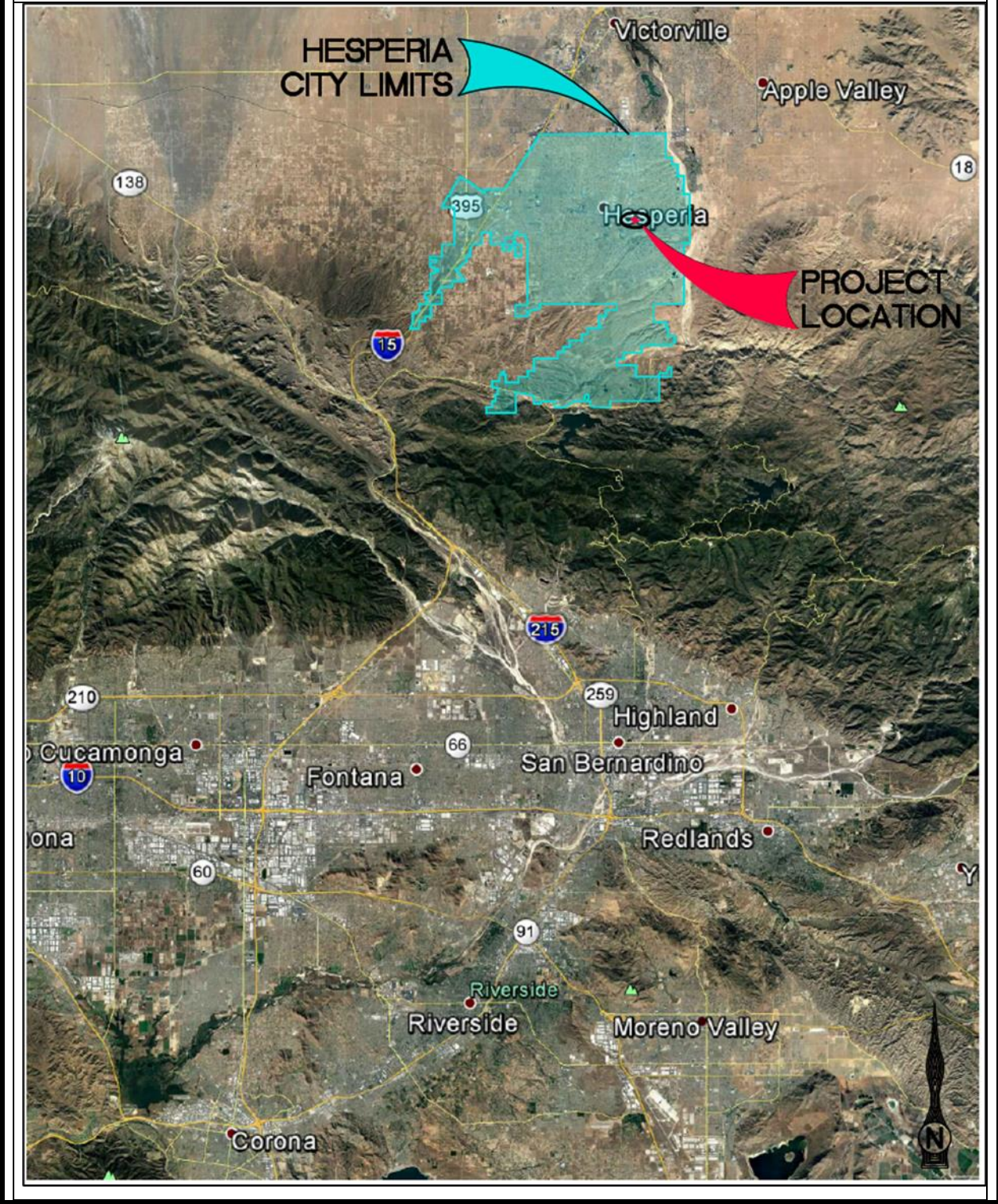


FIGURE 2. Project's Street Improvement Plan SI-1

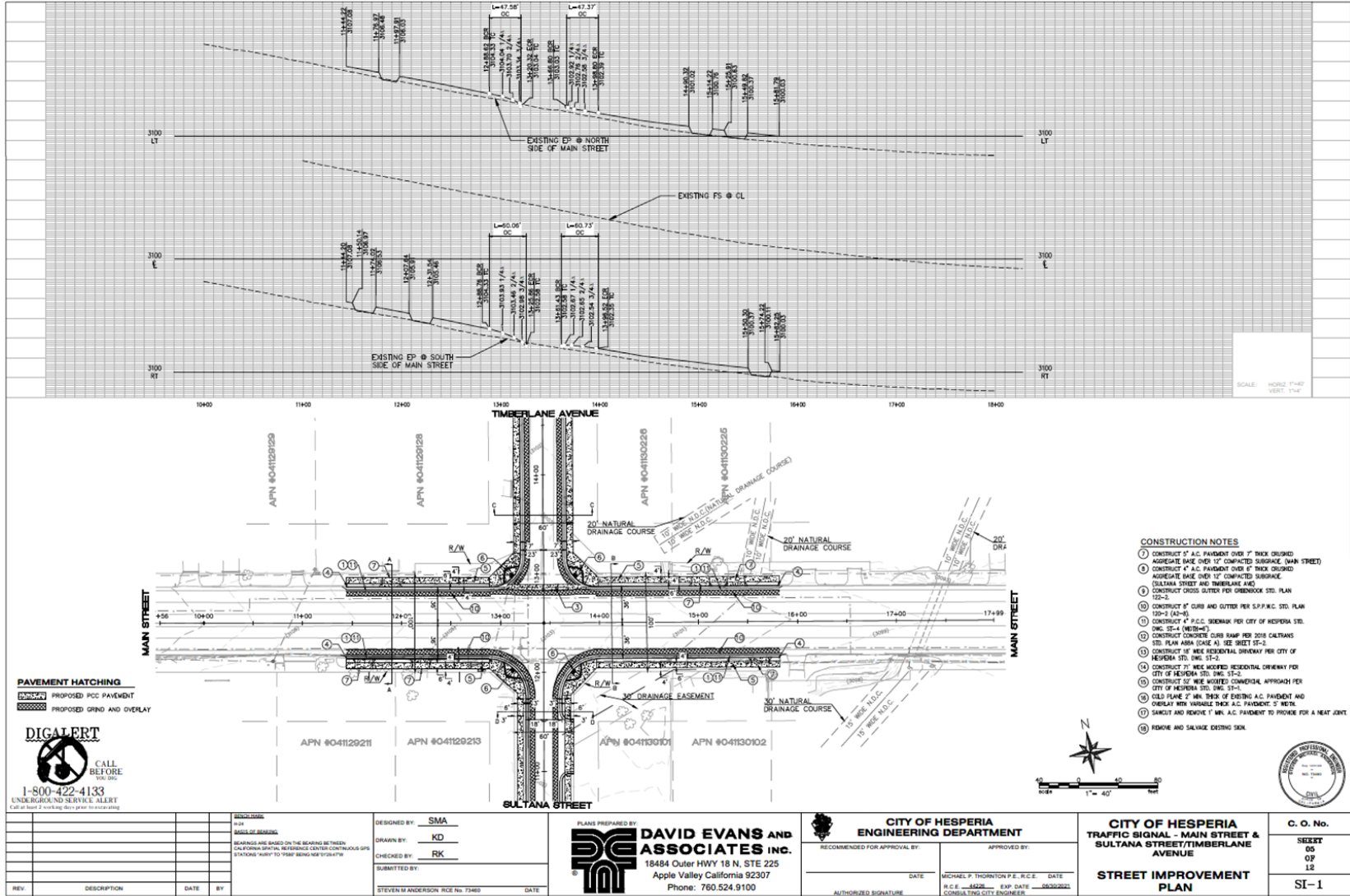


FIGURE 3. Project's Street Improvement Plan SI-2

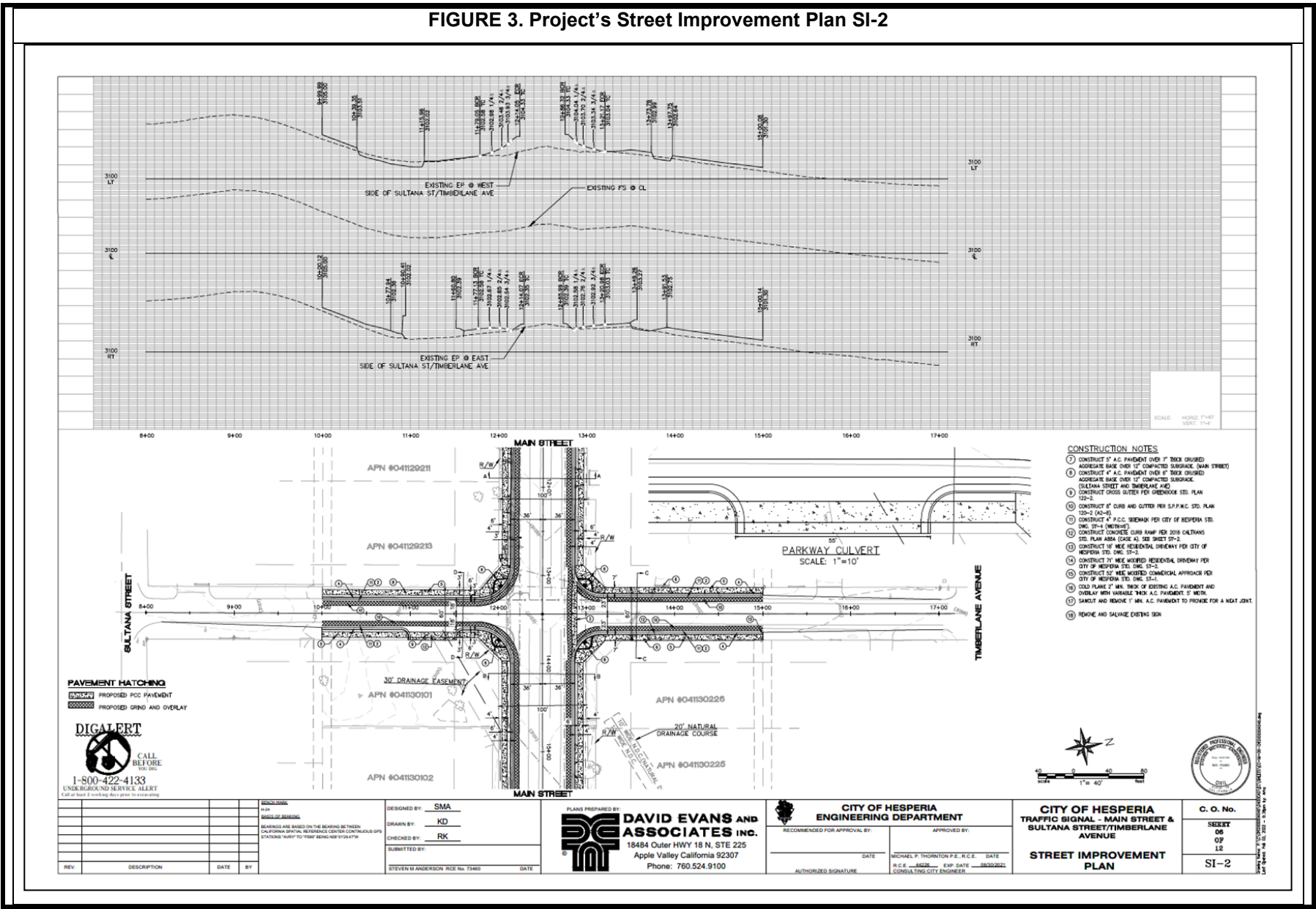


FIGURE 3. Project's Traffic Signal Plan

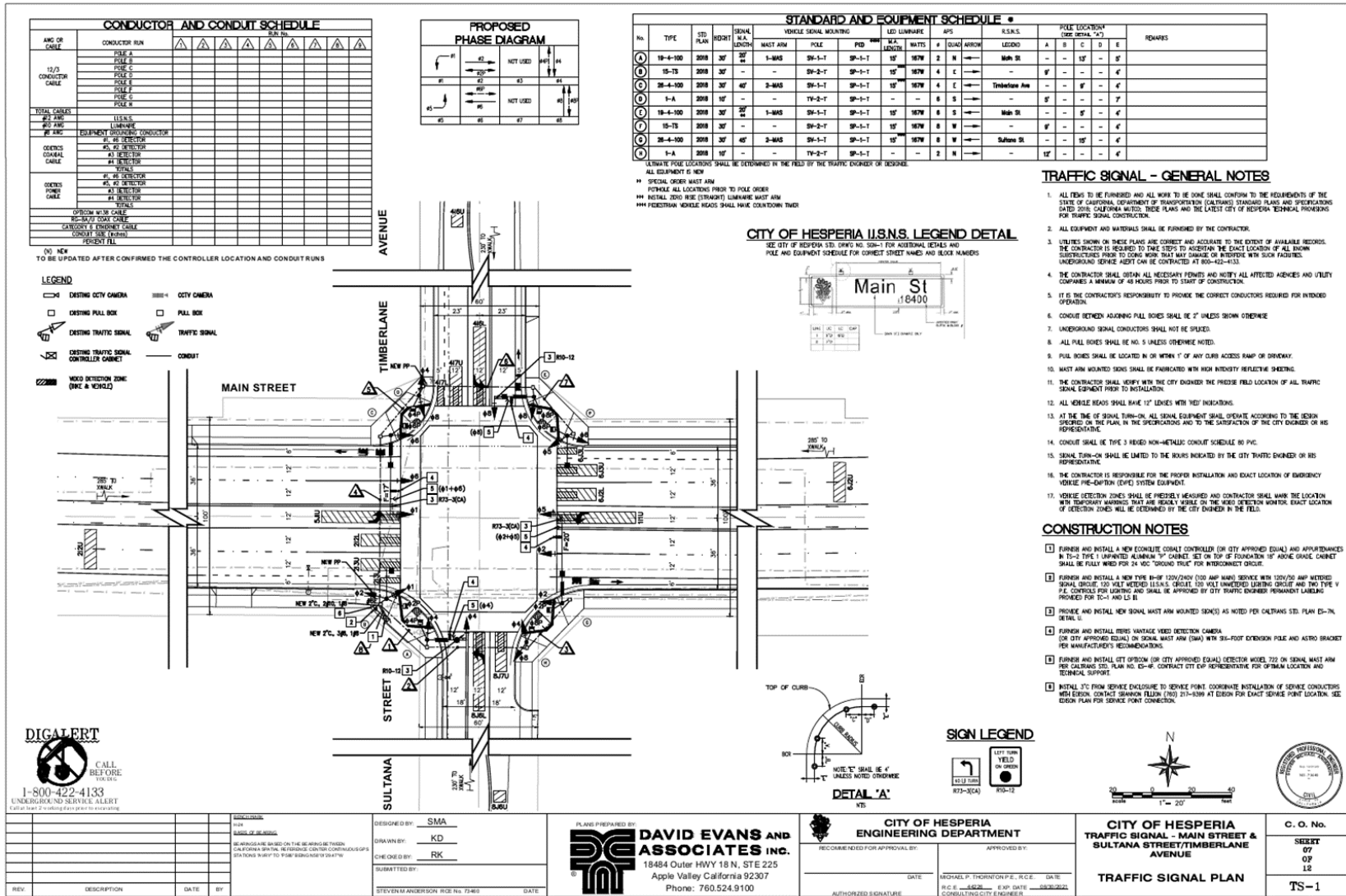
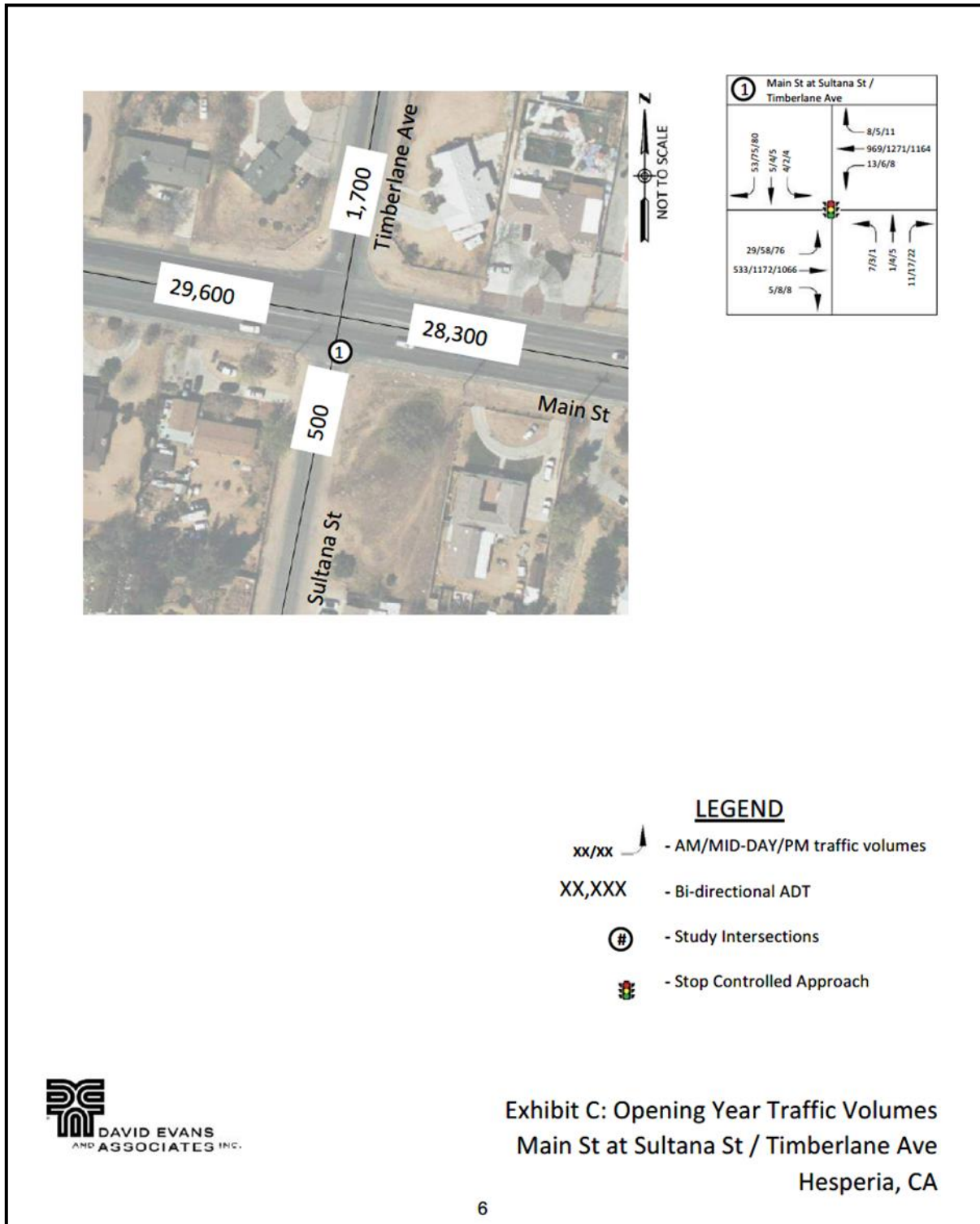
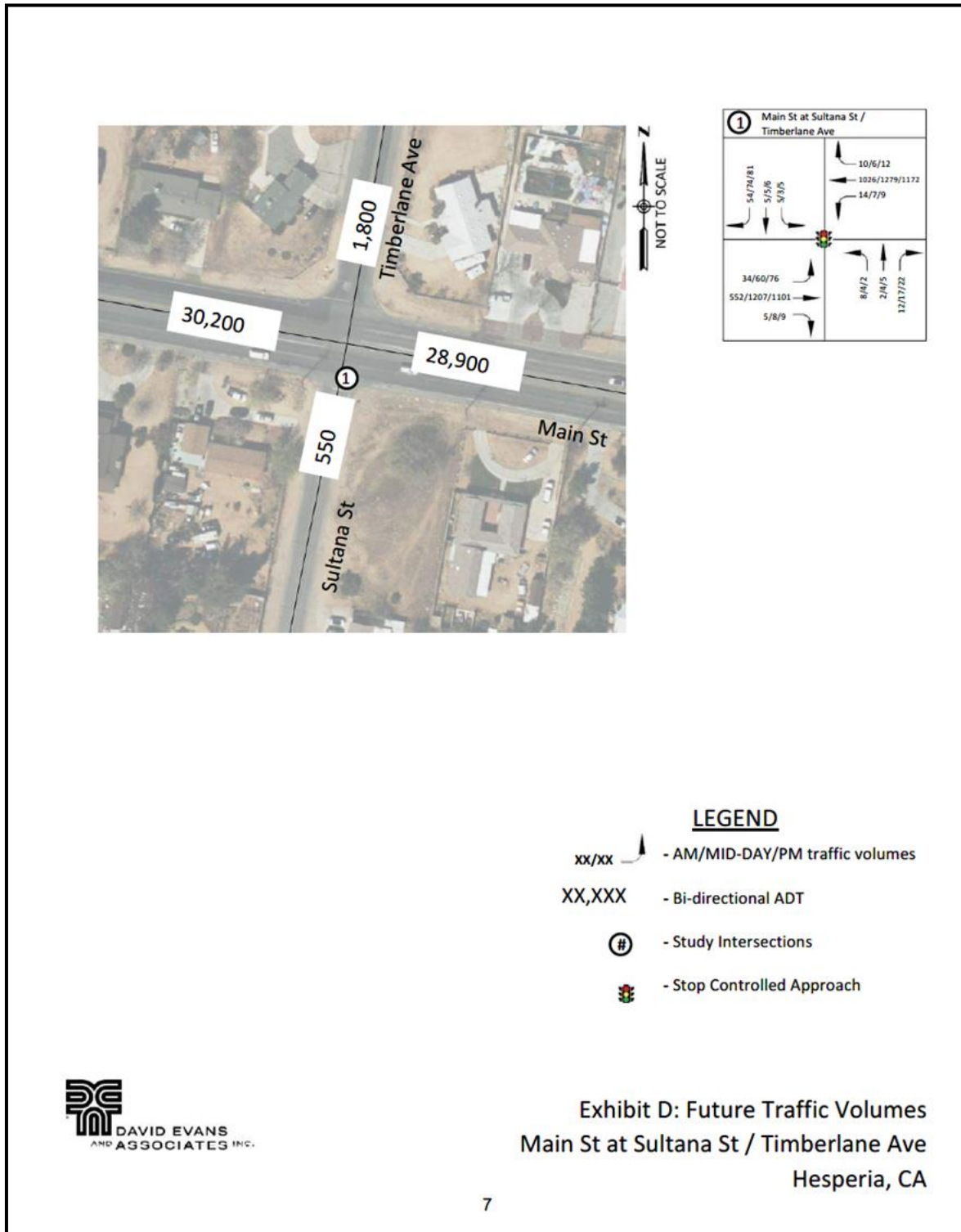


FIGURE 5. Opening Year 2023 Traffic Volumes



Source: Traffic Operations Report (David Evans and Associates 2022)

FIGURE 6. Future Design Year 2040 Traffic Volumes



Source: Traffic Operations Report (David Evans and Associates 2022)

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ATTACHMENT A FTIP Project Listing

#21-00 VAR SCAG015 HSIP

Caltrans Division of Local Assistance

Highway Safety Improvement Program (HSIP)
2019 FTIP Back-Up List, sorted by MPO, Agency and Unique Project ID

MPO					Statewide (all MPOs)											
Backup List Updated On:					12/13/2019											
Unique Project ID	HSIP Eligibility	District	Agency	MPO	Project Location	Description of Work	Current Total Project Cost Estimate	Current Programmed Federal Funds	Other/Local Funds	Fiscal Year 2019 Programmed under "Plan"	Fiscal Year 2020 Programmed in 2019/20	Fiscal Year 2021 Programmed in 2019/20	Fiscal Year 2022 Programmed in 2019/20	Fiscal Year 2023 Programmed in 2019/20	Approved Federal Funds	
HSIP7-07-007	No	7	Culver City	SCAG	Twelve signalized intersections on the arterial network throughout the city: 2 on Sepulveda Blvd, 7 on Washington Blvd, 1 on Washington Pl, 1 on Culver Blvd, and 1 on Green Valley Circle.	Replace existing permissive left-turn movements with protected/permissive left-turn phases (including new signal standards, mast arms, indicators, detection, wiring, and controller upgrades).	\$2,083,300	\$2,083,300	\$0	\$198,000	\$0	\$0	\$0	\$1,930,300	\$0	\$2,083,300
HS-08-004	No	8	Desert Hot Springs	SCAG	Palm Drive from Dillon Road to Pearson Boulevard.	Upgrade mast arm pedestrian signal heads to recessed signal pedestrian signal heads and pedestrian push buttons to accessible pedestrian signal (APS); construct continental style crosswalks with LED lighting.	\$206,300	\$206,300	\$0	\$0	\$0	\$0	\$0	\$0	\$206,300	\$206,300
HS-08-005	No	8	Desert Hot Springs	SCAG	Two locations along Palm Drive (just south of Buena Vista Avenue and just south of Hacienda Avenue).	Install two red-block pedestrian crossings with enhanced safety features (construct continental crosswalks with advance yield lines, LED flashing pedestrian crossings and improve street lighting).	\$119,400	\$107,400	\$11,940	\$0	\$0	\$0	\$0	\$0	\$107,400	\$107,400
HS-08-006	No	8	Desert Hot Springs	SCAG	The intersection of Palm Drive at 8th Street.	Construct median refuges and curb bulb-outs, upgrade stop signs to LED bordered stop signs, and upgrade existing crosswalks to continental crosswalks.	\$177,300	\$159,570	\$17,730	\$0	\$0	\$0	\$0	\$0	\$159,570	\$159,570
HS-07-007	No	7	Downey	SCAG	Imperial Highway between Old River School Road and Woodruff Avenue.	Upgrade signals to provide separate left-turn phasing at 3 intersections and provide various safety improvements at all other intersections.	\$1,243,100	\$1,243,100	\$0	\$100,000	\$1,143,100	\$0	\$0	\$0	\$1,243,100	\$1,243,100
HSIP7-07-008	No	7	Downey	SCAG	Paramount Boulevard - Gardendale Street to Telegraph Road	Traffic signal upgrades: Fiber optic cable, new controllers, signal hardware, equipment, intersection pedestrian countdown signal heads, safety lighting	\$1,928,300	\$1,928,300	\$0	\$187,500	\$0	\$0	\$0	\$1,738,800	\$0	\$1,928,300
HSIP7-07-009	No	7	Downey	SCAG	Beverly and Gray - Old River School Road to Firestone Boulevard	Traffic signal upgrades: Fiber optic cable, new controllers, equipment, intersection pedestrian countdown signal heads, safety lighting	\$2,029,800	\$2,029,800	\$0	\$162,500	\$0	\$0	\$0	\$1,877,300	\$0	\$2,029,800
HS-08-003	No	8	Eastvale	SCAG	Forty-six (46) intersections throughout the City of Eastvale	Retrofit existing traditional pedestrian crossings with Countdown Pedestrian Signals at forty-six (46) locations and install audible APS Controller Units at twenty-two (22) locations.	\$205,000	\$205,500	\$43,900	\$0	\$205,500	\$0	\$0	\$0	\$0	\$205,500
HS-07-004	No	7	El Segundo	SCAG	El Segundo Boulevard between Pacific Coast Highway and Los Avenue.	Install pedestrian countdown signal heads, enhancing striping with high visibility crosswalks, and construction of ADA compliant curb ramps.	\$241,500	\$241,500	\$0	\$0	\$241,500	\$0	\$0	\$0	\$0	\$241,500
HS-12-003	No	12	Fountain Valley	SCAG	Various intersections, including Edison Ave at Walnut St, Birchwood St at Hill Ave, Harbor Blvd at Civic Ave, Magnolia St at Sater Ave, Euclid St at Sater Ave, Wilmer Ave at Los Jardines West, Elm Ave at Bushland St, Elm Ave at Wood St.	Improve signal hardware - lenses, back plates, mounting size and number; provide protected left-turn phase.	\$1,898,000	\$1,898,000	\$0	\$0	\$0	\$0	\$0	\$1,898,000	\$1,898,000	
HS-12-004	No	12	Fullerton	SCAG	Seventeen (17) unsignalized intersections.	Install pedestrian warning flashing beacons.	\$286,200	\$286,200	\$0	\$0	\$286,200	\$0	\$0	\$0	\$0	\$286,200
HS-12-005	No	12	Fullerton	SCAG	Eighty-four (84) signalized intersections throughout the city.	Install 189 pedestrian countdown signal heads.	\$136,600	\$136,600	\$0	\$0	\$136,600	\$0	\$0	\$0	\$0	\$136,600
HS-12-004	No	12	Garden Grove	SCAG	The intersection of Trask Avenue and Rowley Drive.	Install a new traffic signal.	\$310,000	\$310,000	\$0	\$0	\$310,000	\$0	\$0	\$0	\$0	\$310,000
HS-12-005	No	12	Garden Grove	SCAG	The intersection of Trask Avenue and Newland Street.	Install protected left-turn phasing at all directions.	\$310,000	\$310,000	\$0	\$0	\$310,000	\$0	\$0	\$0	\$0	\$310,000
HS-12-006	No	12	Garden Grove	SCAG	Twenty-one (21) school crossing locations throughout the City of Garden Grove.	Install speed radar feedback signs.	\$249,500	\$249,500	\$0	\$0	\$249,500	\$0	\$0	\$0	\$0	\$249,500
HS-07-005	No	7	Gardena	SCAG	Verment Ave just North of 133rd St.	Install a pedestrian crosswalk with a Pedestrian Hybrid Beacon (PHB) or High-Intensity Activated Crosswalk Beacon (HIACB) Crossing System.	\$167,800	\$167,800	\$0	\$0	\$167,800	\$0	\$0	\$0	\$0	\$167,800
HS-07-008	No	7	Glandale	SCAG	Various locations along the Valley Road corridor (valley road) and south of Hill (valley road) including College and Canada Blvd (north-south near Merlo Drive), including five (5) signalized intersections, and the overall roadway segment.	Install safety improvements, including dynamic speed warning signs, traffic signal visibility improvements, and dynamic lane detection.	\$1,209,200	\$1,209,200	\$0	\$100,000	\$1,109,200	\$0	\$0	\$0	\$0	\$1,209,200
HS-07-006	No	7	Glandale	SCAG	Four (4) non-signalized intersections throughout Glandale.	Install side-powered Rectangular Roadway Flashing Beacons (RRFBs) with flashing pedestrian push buttons, retroreflective crosswalks, enhanced curb and sidewalk, and retroreflective crosswalks.	\$271,000	\$247,500	\$27,500	\$0	\$247,500	\$0	\$0	\$0	\$0	\$247,500
H9-08-008	No	8	Hesperia	SCAG	The intersection of Main Street and Timberlane Avenue/Sultana Street.	Install a traffic signal; widen roadway to accommodate left turn pockets; install curb, gutter, sidewalk, curb ramps, crosswalks, and lighting; provide pedestrian phasing and countdown timers.									\$1,214,300	
HS-08-004	No	8	Grand Terrace	SCAG	Three (3) uncontrolled four-way stop intersections and two (2) signalized intersections along Mt. Vernon Avenue.	Upgrade intersection and crosswalk pavement markings, install advanced speed feedback warning signs, and install segment lighting.	\$435,700	\$435,700	\$0	\$37,400	\$398,300	\$0	\$0	\$0	\$0	\$435,700
HS-08-007	No	8	Grand Terrace	SCAG	Various sections of Barton Road, Mount Vernon Avenue, Vista Grande Way and Vivandia Avenue, in the cities of Grand Terrace and Colton.	Upgrade existing guardrails to meet the current standards.	\$648,300	\$648,300	\$0	\$0	\$648,300	\$0	\$0	\$0	\$0	\$648,300
HS-07-009	No	7	Hawaiian Gardens	SCAG	Various signalized intersections along Carson St. between Western City Limit (Pioneer Blvd) and Eastern City Limit (Bloomfield Ave).	Install traffic signal hardware improvements.	\$387,500	\$387,500	\$0	\$0	\$0	\$387,500	\$0	\$0	\$0	\$387,500
HS-07-010	No	7	Hawaiian Gardens	SCAG	Various intersections on Norwalk Blvd between 214th St and 226th St.	Install traffic signal improvements.	\$516,000	\$464,400	\$51,600	\$0	\$0	\$464,400	\$0	\$0	\$0	\$464,400
HSIP7-07-010	No	7	Hawthorne	SCAG	1.3 mile section of 120th Street from Plaine Avenue to Felton Avenue	Traffic signal upgrades (upgrade signals, controllers and detectors) and coordination of eight signalized intersections and improve crossings and signage at spot locations in the corridor.	\$1,305,800	\$1,305,800	\$104,400	\$0	\$0	\$0	\$0	\$1,201,400	\$0	\$1,305,800
HS-08-005	No	8	Hemet	SCAG	Signalized intersections on the following corridors: Cavalon Ave, Dominguez Plaza, Kirby St, Calhoun Ave, Lynn Ave, Sanderson Ave, State St, and Bowen St; Mountain Ave & Sultana St; Rowan Rd & Mustang St.	Install LED luminaire safety lighting and pedestrian countdown signal heads.	\$985,900	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$985,900
HS-08-008	No	8	Hesperia	SCAG	The intersection of Main Street and Timberlane Avenue/Sultana Street.	Install traffic signal; widen roadway to accommodate left turn pockets; install curb, gutter, sidewalk, curb ramps, crosswalks, and lighting; provide pedestrian phasing and countdown timers.	\$1,214,300	\$899,300	\$315,000	\$0	\$899,300	\$0	\$0	\$0	\$0	\$899,300
HSIP7-08-004	No	8	Hesperia	SCAG	On Main Street at Bellam Avenue	Construct raised curb stand median, install street lighting, and improve signing and striping.	\$232,300	\$209,070	\$23,230	\$0	\$0	\$0	\$0	\$0	\$0	\$209,070
HS-11-008	No	11	Imperial County	SCAG	SR-86 at Haber Curve.	Eliminate curve, install 4-way stop; install southbound left turn lane and dedicated westbound right turn lane, and add intersection lighting.	\$2,580,000	\$2,515,000	\$38,000	\$300,000	\$0	\$2,155,000	\$0	\$0	\$0	\$2,515,000

Source: SCAG, March 2021. *Final 2021 Federal Transportation Improvement Program, Technical Appendix, Volume III of III/Part B*. Website url: <https://scag.ca.gov/sites/main/files/file-attachments/f2021-ftip-project-listing-b.pdf?1614888012>.