07 – LA – 60– 14.0/14.7
07-358700-0719000154-PPNO 5871
Program Code 20.XX.400.100
March 2022

Project Report

For Project Approval

On State Route 60

At 7th Avenue

I have reviewed the right-of-way information contained in this report and the Right-of-Way Data Sheet attached hereto, completed by Los Angeles County Metropolitan Transportation Authority (Metro) and its consultant, ADVANTEC Consulting Engineers and find the data to be complete to form and procedures. No inference or assertations are made as to the validity of the data or the values implied by the Right-of-Way Data Sheet.

EDWARD FRANCIS
DEPUTY DISTRICT DIRECTOR – RIGHT OF WAY

APPROVAL RECOMMENDED:

MICHELLE SMITH
PROJECT MANAGER

Project Sponsor, Los Angeles County Metropolitan Transportation Authority, Accepts Risks Identified in This Project Report and attached Risk Register.

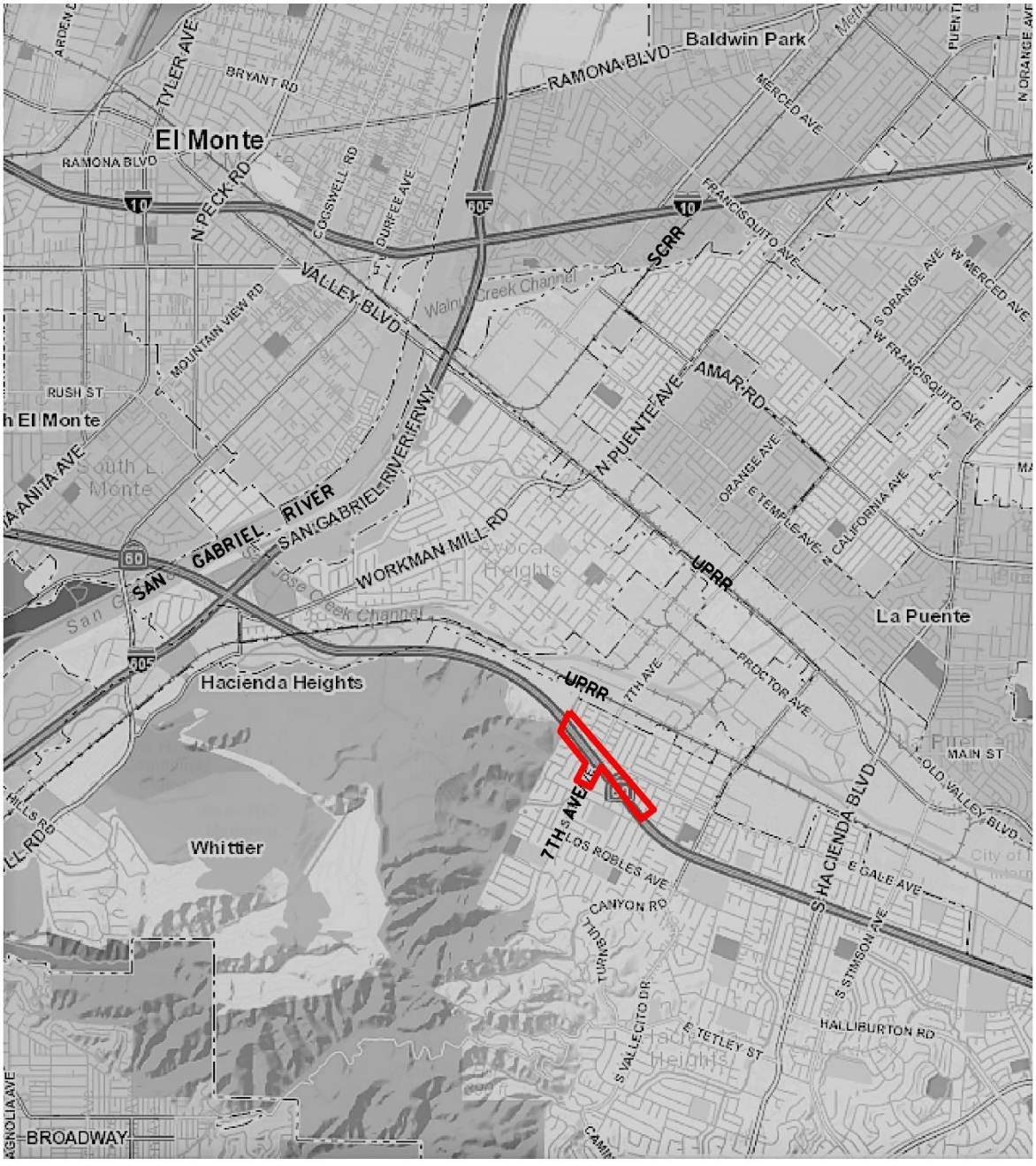
APPROVAL RECOMMENDED:

ZAREH SHAHBAZIAN
PROJECT MANAGER

PROJECT APPROVED:

TONY TAVARES
DISTRICT DIRECTOR

6-1-2022
DATE



LEGEND:

Project Limits

07-LA-60: PM 14.0/14.7
EA No. 07-35870
SR 60/7TH AVENUE INTERCHANGE IMPROVEMENT PROJECT

0 Feet 5000

Figure 1-1: Vicinity Map

This Project Report has been prepared under the direction of the following registered civil engineer. The registered civil engineer attests to the technical information contained herein and the engineering data upon which recommendations, conclusions, and decisions are based.

Ed Miller, Jr.

01/25/2022

DATE

Table of Content

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1. INTRODUCTION

Los Angeles County Metropolitan Transportation Authority (Metro), in cooperation with the California Department of Transportation (Caltrans) District 7, proposes to realign and reconstruct the State Route 60 (SR-60) on- and off-ramps at 7th Avenue interchange to improve traffic operation and enhance traffic safety. Caltrans is the Lead Agency under California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA), as assigned by the Federal Highway Administration (FHWA), in accordance with NEPA (42 United States Code [USC] 4321 et seq.); and the Council on Environmental Quality (CEQ) Regulations implementing NEPA (40 Code of Federal Regulations [CFR] 1500–1508).

The SR-60/7th Avenue Interchange Improvement Project (Project) is included in the adopted 2019 Federal Transportation Improvement Program as Project ID LA0G1456 (Southern California Association of Governments 2018) with Measure R funding.

Table 1-1: Project Summary

Project Limits	07-LA-60 14.0/14.7	
Number of Alternatives	2 (Including No Build Alternative)	
	Current Cost Estimate:	**Escalated Cost Estimate:**
Capital Outlay Support	$5,323,000	$5,988,000
Capital Outlay Construction	$17,975,500	$21,308,302
Capital Outlay Right-of-Way	$714,700	$771,900
Funding Source	Measure R 20H – Highway Capital (state/local funds)	
Funding Year	2022	
Type of Facility	Freeway Ramps and Local Streets	
Number of Structures	1 (Caltrans)	
Environmental Determination or Document	Categorical Exemption/Categorical Exclusion	
Legal Description	Improvements in roadway geometrics for ramps and roadways in Los Angeles County in Hacienda Heights on State Route 60 at the 7th Avenue interchange from PM 14.0 to PM 14.7.	
Project Development Category	Category 5	

2. RECOMMENDATION

It is recommended that the project be approved with the Build Alternative, as presented in section 5 of this document, and advance to the PS&E phase of project development.

3. BACKGROUND

A. Project History

The Interstate 605 (I-605) Corridor Improvement Project (CIP) Project Approval & Environmental Document (PA&ED) is currently on hold and the funding for the full project has not yet been identified. As a result, Metro has assigned the SR-60/7th Avenue Interchange Project as an Early Action Project for improvements due to bottlenecks and back up onto local streets. See Attachment L: I-605 CIP Project Study Report-Project Development Report.

The scope of the work of this project includes reconfiguration of the on- and off-ramps at 7th Avenue as well as roadway improvements to 7th Avenue and Gale Avenue based on the I-605/SR-60 PSR/PDS prepared in December 2015. This project proposes minimal re-design/reconstruction at the gore area for the I-605 CIP if the alternative of one-lane widening is chosen.

B. Community Interaction

A Community Impact Assessment (CIA) memo was prepared for this project to identify potential Project impacts to community resources, character and cohesion, facilities, and to environmental justice populations. The CIA Memo includes avoidance and minimize measures to reduce impacts to community resources.

A Relocation Impact Study (RIS) was prepared to assess the potential need for temporary or permanent relocation of residential and non-residential occupants. Although no temporary or permanent relocation of residents are anticipated as a result of the proposed Project, the RIS addresses the potential concern that residents whose properties are affected by the proposed temporary construction easements (TCEs) and construction activity may request temporary relocation or lodging during Project construction. For more information on relocation, refer to Section 6D of this document, “Right-of-Way Issues”.

C. Existing Facilities

The Project is located within Hacienda Heights, an unincorporated community within Los Angeles County (see Attachment A: Location Map), in a built-up urban setting with primarily residential, commercial, commercial/industrial, and open space land uses adjacent to the Project limits (See Vicinity Map and Attachment B).

SR-60 is a major east-west freeway with five general purpose lanes in the EB direction, four general purpose lanes in the WB direction, one high occupancy vehicle (HOV) lane in the EB and WB directions and non-standard median and standard outside shoulders in each direction. The SR-60 at 7th Avenue Interchange project is located from postmile 14.0 to 14.7. The WB HOV lane ends approximately 0.25 miles west of the SR-60/7th Avenue Interchange.

The 7th Avenue undercrossing SR-60 consists of 8' sidewalks on each side with two travel lanes in the NB direction and three travel lanes in the SB direction. 7th Avenue predominantly serves residential and industrial areas to the north and residential and commercial areas to the south. A 5' wide raised median exists on 7th Avenue. Gale Avenue consists of an 8' sidewalk with two travel lanes in the EB direction, and two travel lanes in the WB direction. Gale Avenue is a major east-west arterial parallel to SR-60 for over five miles from Hacienda Heights to the City of Diamond Bar. There are no bicycle lanes or paths located within the Project limits. Gale Avenue, which terminates at 7th Avenue, is often used as a freeway bypass, especially during congested periods in the morning, or when there are traffic incidents on the mainline. The existing posted speed limit for SR-60 is 65 mph. The existing posted speed limit in all directions for 7th Avenue and Gale Avenue is 35 mph. There is one undercrossing structure and four sound walls within the project limit. Traffic signals exist at the SR-60 WB intersection with Gale Avenue as well as the intersection of 7th Avenue with Gale Avenue and SR-60 WB on-ramp. The SR-60 EB off-ramp intersection with SB 7th Avenue is stop controlled yielding to 7th Avenue traffic.

The single 12' lane SR-60 WB off-ramp, bounded by embankment and soundwalls on both sides, widens to two 12' wide lanes at the signalized Gale Avenue intersection.

The two 12' lane SR-60 WB on-ramp is accessed by a free right turn from SB 7th Avenue by a left turn lane from NB 7th Avenue and two through lanes from Gale Avenue. The two 12' lanes merge to a single 12' lane at the ramp gore nose. The ramp cross section includes 12' left and a 2' right shoulders as well as an embankment on the freeway side and soundwalls on both sides.

The single 12' right turn only lane SR-60 EB off-ramp provides access to SB 7th Avenue where it is controlled by a stop sign. The ramp cross section includes 10' right and 6' left shoulders as well as an embankment on the freeway side and soundwalls on both sides.

The SR-60 EB loop off-ramp consists of a single 12’ right turn only lane with an 8’ right shoulder that provides access to NB 7th Avenue.

The SR-60 EB on-ramp consists of two 12’ lanes that merge into a single 12’ lane entering EB SR-60. A 10’ right shoulder exists on the ramp followed by a soundwall. A 2’ left shoulder exists on the ramp. This ramp is separated from the SR-60 EB loop off-ramp by a raised median.

Non-Standard features are discussed in section 5.

4. PURPOSE AND NEED

A. Problem, Deficiencies, Justification

Purpose of the Project

The purpose of the proposed Project is to improve traffic safety and operational conditions for the 7th Avenue WB on- and off-ramps, EB off-ramp, and along 7th Avenue and Gale Avenue.

Need for the Project

There is a need to reduce congestion related traffic queuing that impacts the traffic operation in the vicinity of the 7th Avenue interchange.

During the morning peak period, the WB SR-60 on-ramp experiences heavy traffic volumes. This causes backup from queuing vehicles along NB 7th Avenue left turn lane and WB Gale Avenue through lane at the intersection of 7th Avenue and Gale Avenue/SR-60 WB on-ramp, blocking access to adjacent driveways and businesses.

In addition, historically the number of incidents in the vicinity of the subject intersection have been greater than the statewide average.

Project Description

The Project proposes to reconstruct the WB SR-60 on- and off-ramps, modify the terminus of EB SR-60 off-ramp onto SB 7th Avenue, and restripe 7th Avenue. Restriping the diverging and merging gore points are included as work elements of reconstruction of WB on- and off-ramps.

Metro has assigned the subject project as an Early Action Project for improvements due to bottlenecks and back up onto local streets. This project proposes minimal re-design/reconstruction at the gore area for the I-605 CIP if the alternative of one-lane widening is chosen.

B. Regional and System Planning

Identify Systems

SR-60 is an east-west state route and part of the National Highway System (NHS) as "Other NHS Route", Primary Highway Freight System, and California Freeway and Expressway System. SR-60 (east of I-605) is also part of Caltrans District 7 Managed Lane System and Interregional Managed Lane System. It serves the cities and communities on the eastern side of the Los Angeles metropolitan area and runs along the south side of the San Gabriel Valley. It is a bypass route for I-10 through the SR-60/I-10 interchange. SR-60 provides a route across several spurs of the Peninsular Ranges, linking the Los Angeles Basin with the Pomona Valley, San Gabriel Valley, and the Inland Empire.

Traffic congestion is exacerbated by the rapid population growth and the resulting residential, commercial, and industrial development in the inland communities known informally as the Inland Empire. SR-60 has become increasingly clogged with shipping container-laden trucks travelling from the ports of Los Angeles and Long Beach to rail yards and warehouses in the Inland Empire.

Where 7th Avenue undercrosses SR-60, it consists of two travel lanes in the NB and SB directions, and predominantly serves residential and industrial areas to the north and residential and commercial areas to the south. Gale Avenue consists of two travel lanes in the EB and WB directions and is also a major east-west arterial parallel to SR-60 for over five miles from Hacienda Heights to the City of Diamond Bar. At the 7th Avenue intersection, Gale Avenue ends at the WB SR-60 on-ramp. Because of this, Gale Avenue is often used as a freeway bypass, especially during congested periods in the morning, or when there are traffic incidents.

Regional Planning

This Project is included in the adopted 2019 Federal Transportation Improvement Program as Project Identification LA0G1456 with Measure R funding. Implementation of the Project would alleviate traffic collisions related to congestion by making the intersection operations more efficient for commuters.

This Project is consistent with the goals of the SCAG – 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy:

- Goal 2: Maximize mobility and accessibility for all people and goods in the region.

- Goal 3: Ensure travel safety and reliability for all people and goods in the region

The Project is also consistent with the following: City of Los Angeles General Plan – Mobility Element; the County of Los Angeles General Plan –

Conservation and Natural Resources Element; the County of Los Angeles General Plan – Noise Element; the County of Los Angeles General Plan – Safety Element; and Hacienda Heights Community Plan.

C. Traffic

1) Current and Future Traffic Counts, Forecasting and Analysis

Accident data reports for the SR-60 freeway and interchange ramps within the project study limits were obtained from Caltrans Traffic Accident Surveillance and Analysis Systems (TASAS).

a. The existing condition (2019) traffic volumes were derived based on traffic counts collected in November 2016 and May 2017 as part of the I-605 CIP. The Traffic impact analysis was conducted for the following scenarios:

- Existing Conditions (2019)
- Opening Year (2025) – No Build Conditions
- Opening Year (2025) – Build Conditions
- Future Year (2045) – No Build Conditions
- Future Year (2045) – Build Conditions

Under the Existing Conditions, the proposed project improvements would not be implemented, therefore no construction activities would occur. The study area intersections were analyzed based on existing roadway geometries. The interchange was analyzed based on the existing geometry and traffic volumes derived based on traffic counts collected in November 2016 and May 2017 as part of the I-605 CIP.

Under Opening Year (2025) no build conditions, and future year (2045) no build conditions, the proposed project improvements would not be implemented; however, the ambient growth was applied to the existing volumes to develop volumes for opening year 2025 and future year 2045 to analyze the intersections in these conditions. These conditions include the completed improvements of the study area as per County of Los Angeles General Plan.

Under Opening Year (2025) build conditions and future year (2045) build conditions, the proposed project improvements would be implemented; however, the ambient growth was applied to the existing volumes to develop volumes for the opening year 2025 and future year 2045 to analyze the freeway segments, ramps and intersections in these conditions. These conditions include all improvements along all study roadways according to the County of Los Angeles General Plan and proposed project improvements. Except for the access points of westbound SR-60 on and off ramps at 7th Avenue being shifted a couple hundred feet, the freeway mainline lane configuration along SR-60

under the build conditions are the same as that under no build conditions.

b. Traffic analysis for the freeway segments was performed using methodologies in HCM 6. The analysis included assessments for the AM and PM peak hours for basic freeway and weave segments, where appropriate. Due to similar lane configuration along the SR-60 freeway mainline, the basic freeway analysis and ramp junction analysis under the build and no build conditions are the same. As shown in Attachment I: Traffic Operations Assessment Report (TOAR), all the mainline GP segments in the study area will operate at LOS E or F during one or both of the peak hours under Future Year (2045) Build Conditions except for the eastbound SR-60 GP segment within the SR-60 interchange at 7th Avenue which is expected to operate at LOS C and D during the AM and PM peak hours, respectively. All study ramps will operate at LOS D or better except for the weaving segment along westbound SR-60 between 7th Avenue on-ramp and Crossroads Parkway off-ramp which is expected to operate at LOS F during AM peak hour.

Existing (2019) SR-60 freeway mainline and ramp volumes are provided in **Table 4-1** through **Table 4-4**.

Table 4-1: Existing (2019) Condition SR-60 Freeway Mainline Volumes

Segment	AM Peak Hour		PM Peak Hour		ADT[3]	
	HOV[1]	GP[2]	HOV	GP	HOV	GP
Eastbound						
Between Crossroads Pkwy on-ramp and SB 7th Ave off-ramp	646	7,263	1,180	7,305	12,916	123,771
Between SB 7th Ave off-ramp and NB 7th Ave loop off-ramp	644	7,067	1,177	6,709	12,882	118,777
Between NB 7th Ave loop off-ramp and 7th Ave on-ramp	644	6,267	1,177	5,635	12,882	103,742
Between 7th Ave on-ramp and Hacienda Blvd off-ramp	838	6,503	1,462	5,673	17,097	105,537
Westbound						
Between SB Hacienda Blvd on-ramp and 7th Ave off-ramp	1,184	4,777	899	5,781	17,827	95,721
Between 7th Ave off-ramp and 7th Ave on-ramp	1,164	4,531	884	5,338	17,524	89,478
Between 7th Ave on-ramp and Crossroads Pkwy off-ramp	N/A	7,221	N/A	7,649	N/A	127,350

Notes: [1]HOV: High Occupancy Vehicle
[2]GP: General Purpose
[3]ADT: Average Daily Traffic

Table 4-2: Existing (2019) Condition SR-60 Freeway Mainline Truck Volumes

Segment	AM Peak Hour		PM Peak Hour		ADT	
	Truck Volume	Truck%	Truck Volume	Truck%	Truck Volume	Truck%
Eastbound						
Between Crossroads Pkwy on-ramp and SB 7th Ave off-ramp	1,076	15%	722	10%	18,422	15%
Between SB 7th Ave off-ramp and NB 7th Ave loop off-ramp	1,071	15%	706	11%	18,343	15%
Between NB 7th Ave loop off-ramp and 7th Ave on-ramp	1,035	17%	661	12%	17,640	17%
Between 7th Ave on-ramp and Hacienda Blvd off-ramp	1,055	16%	680	12%	18,086	17%
Westbound						
Between SB Hacienda Blvd on-ramp and 7th Ave off ramp	875	18%	792	14%	16,554	17%
Between 7th Ave off-ramp and 7th Ave on-ramp	851	19%	760	14%	16,099	18%
Between 7th Ave on-ramp and Crossroads Pkwy off-ramp	824	13%	830	11%	17,444	14%

Table 4-3: Existing (2019) Condition SR-60 Ramp Volumes

Ramp	AM Peak Hour	PM Peak Hour	ADT
Eastbound			
Crossroads Pkwy on-ramp	373	635	7,054
7th Ave off-ramp	198	599	5,028
7th Ave loop off-ramp	800	1,074	15,035
7th Ave on-ramp	430	323	5,830
Hacienda Blvd off-ramp	795	1,385	19,135
Westbound			
SB Hacienda Blvd on-ramp	344	419	6,834
7th Ave off-ramp	266	458	6,546
7th Ave on-ramp	1,526	1,427	20,348
Crossroads Pkwy off-ramp	557	472	7,999

Table 4-4: Existing (2019) Condition SR-60 Ramp Truck Volumes

Segment	AM Peak Hour		PM Peak Hour		ADT	
	Truck Volume	Truck %	Truck Volume	Truck %	Truck Volume	Truck %
Eastbound						
7th Ave off-ramp	5	3%	16	3%	79	2%
7th Ave loop off-ramp	36	5%	45	4%	703	5%
7th Ave on-ramp	20	5%	19	6%	446	8%
Westbound						
7th Ave off-ramp	24	9%	32	7%	455	7%
7th Ave on-ramp	73	5%	70	5%	1,345	7%

Opening Year (2025) SR-60 freeway mainline and ramp volumes are provided in **Table 4-5** through **Table 4-8**.

Table 4-5: Opening Year (2025) Conditions SR-60 Freeway Mainline Volumes

Segment	AM Peak Hour		PM Peak Hour		ADT[3]	
	HOV[1]	GP[2]	HOV	GP	HOV	GP
Eastbound						
Between Crossroads Pkwy on-ramp and SB 7th Ave off-ramp	675	7,259	1,235	7,277	13,508	123,618
Between SB 7th Ave off-ramp and NB 7th Ave loop off-ramp	671	7,060	1,226	6,674	13,415	118,572
Between NB 7th Ave loop off-ramp and 7th Ave on-ramp	671	6,251	1,226	5,589	13,415	103,377
Between 7th Ave on-ramp and Hacienda Blvd off-ramp	863	6,492	1,507	5,633	17,625	105,043
Westbound						
Between SB Hacienda Blvd on-ramp and 7th Ave off-ramp	1,225	4,773	930	5,790	18,442	95,801
Between 7th Ave off-ramp and 7th Ave on-ramp	1,225	4,507	930	5,332	18,442	89,255
Between 7th Ave on-ramp and Crossroads Pkwy off-ramp	N/A	7,269	N/A	7,699	N/A	128,190

Notes: [1]HOV: High Occupancy Vehicle
[2]GP: General Purpose
[3]ADT: Average Daily Traffic

Table 4-6: Opening Year (2025) Conditions SR-60 Mainline Truck Volumes

Segment	AM Peak Hour		PM Peak Hour		ADT	
	Truck Volume	Truck%	Truck Volume	Truck%	Truck Volume	Truck%
Eastbound						
Between Crossroads Pkwy on-ramp and SB 7th Ave off-ramp	1,163	16%	779	11%	19,894	16%
Between SB 7th Ave off-ramp and NB 7th Ave loop off-ramp	1,153	16%	744	11%	19,724	16%
Between NB 7th Ave loop off-ramp and 7th Ave on-ramp	1,116	18%	698	13%	18,993	18%
Between 7th Ave on-ramp and Hacienda Blvd off-ramp	1,138	18%	719	13%	19,486	19%
Westbound						
Between SB Hacienda Blvd on-ramp and 7th Ave off ramp	959	20%	866	15%	18,137	19%
Between 7th Ave off-ramp and 7th Ave on-ramp	934	21%	833	16%	17,663	20%
Between 7th Ave on-ramp and Crossroads Pkwy off-ramp	1,014	14%	909	12%	19,128	15%

Table 4-7: Opening Year (2025) Condition SR-60 Ramp Volumes

Ramp	AM Peak Hour	PM Peak Hour	ADT
Eastbound			
7th Ave off-ramp	203	612	5,139
7th Ave loop off-ramp	809	1,085	15,195
7th Ave on-ramp	433	325	5,876
Westbound			
7th Ave off-ramp	266	458	6,546
7th Ave on-ramp	1537	1,437	20,493

Table 4-8: Opening Year (2025) Condition SR-60 Ramp Truck Volumes

Segment	AM Peak Hour		PM Peak Hour		ADT	
	Truck Volume	Truck %	Truck Volume	Truck %	Truck Volume	Truck %
Eastbound						
7th Ave off-ramp	10	5%	35	6%	170	3%
7th Ave loop off-ramp	37	5%	45	4%	731	5%
7th Ave on-ramp	22	5%	21	7%	493	8%
Westbound						
7th Ave off-ramp	25	9%	33	7%	474	7%
7th Ave on-ramp	80	5%	76	5%	1,465	7%

Future Year (2045) SR-60 freeway mainline and ramp volumes are provided in **Table 4-9** through **Table 4-12**.

Table 4-9: Future Year (2045) Conditions SR-60 Freeway Mainline Volumes

Segment	AM Peak Hour		PM Peak Hour		ADT	
	HOV	GP	HOV	GP	HOV	GP
Eastbound						
Between Crossroads Pkwy on-ramp and SB 7th Ave off-ramp	755	7,264	1,378	7,221	15,082	123,489
Between SB 7th Ave off-ramp and NB 7th Ave loop off-ramp	759	7,044	1,386	6,560	15,172	117,904
Between NB 7th Ave loop off-ramp and 7th Ave on-ramp	759	6,213	1,386	5,445	15,172	102,290
Between 7th Ave on-ramp and Hacienda Blvd off-ramp	950	6,459	1,658	5,501	19,392	103,994
Westbound						
Between SB Hacienda Blvd on-ramp and 7th Ave off-ramp	1,360	4,617	1,033	5,728	20,475	94,183
Between 7th Ave off-ramp and 7th Ave on-ramp	1,360	4,348	1,033	5,264	20,475	87,550
Between 7th Ave on-ramp and Crossroads Pkwy off-ramp	N/A	7,319	N/A	7,763	N/A	129,443
Notes: [1]HOV: High Occupancy Vehicle [2]GP: General Purpose [3]ADT: Average Daily Traffic						

Table 4-10: Future Year (2045) Conditions SR-60 Mainline Truck Volumes

Segment	AM Peak Hour		PM Peak Hour		ADT	
	Truck Volume	Truck%	Truck Volume	Truck%	Truck Volume	Truck%
Eastbound						
Between Crossroads Pkwy on-ramp and SB 7th Ave off-ramp	1,450	20%	968	13%	24,783	20%
Between SB 7th Ave off-ramp and NB 7th Ave loop off-ramp	1,435	20%	914	14%	24,522	21%
Between NB 7th Ave loop off-ramp and 7th Ave on-ramp	1,372	22%	835	15%	23,287	23%
Between 7th Ave on-ramp and Hacienda Blvd off-ramp	1,404	22%	864	16%	23,982	23%
Westbound						
Between SB Hacienda Blvd on-ramp and 7th Ave off-ramp	1,248	27%	1,125	20%	23,591	25%
Between 7th Ave off-ramp and 7th Ave on-ramp	1,214	28%	1,080	21%	22,947	26%
Between 7th Ave on-ramp and Crossroads Pkwy off-ramp	1,313	18%	1,175	15%	24,788	19%

Table 4-11: Future Year (2045) Condition SR-60 Ramp Volumes

Ramp	AM Peak Hour	PM Peak Hour	ADT
Eastbound			
7th Ave off-ramp	216	653	5,495
7th Ave loop off-ramp	831	1,115	15,614
7th Ave on-ramp	437	328	5,924
Westbound			
7th Ave off-ramp	269	464	6,633
7th Ave on-ramp	1,611	1,466	24,418

Table 4-12: Future Year (2045) Condition SR-60 Ramp Truck Volumes

Segment	AM Peak Hour		PM Peak Hour		ADT	
	Truck Volume	Truck %	Truck Volume	Truck %	Truck Volume	Truck %
Eastbound						
7th Ave off-ramp	15	7%	54	8%	261	5%
7th Ave loop off-ramp	63	8%	79	7%	1,235	8%
7th Ave on-ramp	32	7%	29	9%	695	12%
Westbound						
7th Ave off-ramp	34	13%	45	10%	644	10%
7th Ave on-ramp	99	6%	95	7%	1,841	9%

The LOS worksheets for freeway basic and ramp basic analyses along with freeway peak hour volumes, lane configurations, truck percentages are provided in Attachment I: Traffic Operation Assessment Report (TOAR).

Observed density was calculated based on observed flows and observed conditions. Observed densities were calculated based on flow rates and observed speeds collected during field survey, as part of I-605 CIP study.

As shown in **Table 4-13**, under Existing Year (2019) Condition SR-60 Merge/Diverge/Weave Analysis Summary, weave segments along westbound SR-60 between 7th Avenue on-ramp and Crossroads Parkway off-ramp are expected to operate at LOS F under AM peak hour conditions.

Table 4-13: Existing Year (2019) Condition SR-60 Merge/Diverge/Weave Analysis Summary

Segment/Ramp Location	Type of Freeway Analysis	AM Peak Hour				PM Peak Hour			
		Traffic Volume[1]	V/C	Density	LOS	Traffic Volume[1]	V/C	Density	LOS
Eastbound									
7th Avenue off-ramp	Diverge	198	0.10	28.6	D	599	0.31	27.0	C
7th Avenue Loop off-ramp	Diverge	800	0.47	29.4	D	1,074	0.62	28.9	D
7th Avenue on-ramp	Merge	430	0.23	22.5	C	323	0.17	19.6	B
Westbound									
7th Avenue off-ramp	Diverge	266	0.15	25.2	C	458	0.25	29.0	D
7th Avenue on-ramp	Merge	1,526	1.06	Dem>Cap	**F**	1,427	0.75	22.9	C
Between 7th Avenue on-ramp and Crossroads Parkway off-ramp[2]	Weave	7,221				7,649	0.95	17.2	B
Crossroads off-ramp	Diverge	557				472	0.24	20.0	B

Notes:

[1]Peak hour traffic volumes are shown in vehicles per hour (vph).

[2]Weaving segment: Based on the lane configuration, ramp junction analysis is not applicable for this location. Freeway weaving analysis was performed. “Dem>Cap” means the demand is greater than the capacity.

Bold indicates LOS E or F

As shown in **Table 4-14**, under Opening Year (2025) No Build and Build Conditions weaving segment along westbound SR-60 between 7th Avenue on-ramp and Crossroads Parkway off-ramp are expected to operate at LOS F under AM peak hour conditions.

Table 4-14: Opening Year (2025) No-Build/Build Condition SR-60 Merge/Diverge/Weave Analysis Summary

Segment/Ramp Location	Type of Freeway Analysis	AM Peak Hour				PM Peak Hour			
		Traffic Volume[1]	V/C	Density	LOS	Traffic Volume[1]	V/C	Density	LOS
Eastbound									
7th Avenue off-ramp	Diverge	203	0.11	28.9	D	612	0.33	29.7	D
7th Avenue Loop off-ramp	Diverge	809	0.47	29.7	D	1,085	0.62	28.9	D
7th Avenue on-ramp	Merge	433	0.23	23.3	C	325	0.17	20.4	C
Westbound									
7th Avenue off-ramp	Diverge	266	0.15	25.5	C	458	0.25	29.4	D
7th Avenue on-ramp	Merge	1,537	1.06	Dem>Cap	**F**	1,437	0.76	22.6	C
Between 7th Avenue on-ramp and Crossroads Parkway off-ramp[2]	Weave	7,269				7,699	0.95	17.5	B
Crossroads off-ramp	Diverge	740				472	0.24	20.9	C

Notes:

[1]Peak hour traffic volumes are shown in vehicles per hour (vph).

[2]Weaving segment: Based on the lane configuration, ramp junction analysis is not applicable for this location. Freeway weaving analysis was performed. “Dem>Cap” means the demand is greater than the capacity.

Bold indicates LOS E or F

As shown in **Table 4-15**, under Future Year (2045) No Build and Build Conditions weaving segment along westbound SR-60 between 7th Avenue on-ramp and Crossroads Parkway off-ramp are expected to operate at LOS F under AM peak hour conditions.

Table 4-15: Future Year (2045) No-Build/Build Condition SR-60 Merge/Diverge/Weave Analysis Summary

Segment/Ramp Location	Type of Freeway Analysis	AM Peak Hour				PM Peak Hour			
		Traffic Volume[1]	V/C	Density	LOS	Traffic Volume[1]	V/C	Density	LOS
Eastbound									
7th Avenue off-ramp	Diverge	216	0.12	29.8	D	653	0.35	29.1	D
7th Avenue Loop off-ramp	Diverge	831	0.48	32.9	D	1,115	0.66	29.1	D
7th Avenue on-ramp	Merge	437	0.23	23.9	C	328	0.17	19.7	B
Westbound									
7th Avenue off-ramp	Diverge	269	0.15	26.0	C	464	0.26	30.2	D
7th Avenue on-ramp	Merge	1,511	1.13	Dem>Cap	**F**	1,466	0.79	23.5	C
Between 7th Avenue on-ramp and Crossroads Parkway off-ramp[2]	Weave	7,319				7,655	0.99	18.9	B
Crossroads off-ramp	Diverge	557				472	0.24	21.3	C

Notes:

[1]Peak hour traffic volumes are shown in vehicles per hour (vph).

[2]Weaving segment: Based on the lane configuration, ramp junction analysis is not applicable for this location. Freeway weaving analysis was performed. “Dem>Cap” means the demand is greater than the capacity.

Bold indicates LOS E or F

The SR 60/7th Avenue Interchange Project presents challenges from a traffic operations perspective due to existing interchange ramp geometrics and intersection lane configurations.

The industrial land use northerly of SR 60/7th Avenue interchange generates significant truck traffic at this interchange and on mainline SR-60. Using the projected traffic volumes from the I-605 CIP traffic studies the LOS was evaluated for the three (3) intersections within the Project limits under the no-build alternative, as noted below:

In the AM peak periods, the WB SR-60 on-ramp experiences heavy traffic volumes with queuing occurring along the NB 7th Avenue left turn lane, SB 7th Avenue right turn lane and the WB Gale Avenue through lane at the 7th Avenue/Gale Avenue/WB SR-60 on-ramp intersection. The traffic queuing occurring in the NB 7th Avenue left turn lane "backs up" into the #1 NB through lane and blocks the left turn in and out movements to the Denny's restaurant/Motel 6 driveway, which has significant traffic volumes. Traffic queuing along WB Gale Avenue "backs up" past the Gale Avenue/WB SR-60 off-ramp intersection, sometimes exceeding ½ mile long. Gale Avenue is a parallel arterial to SR-60, and hence serves as local commuters' freeway "bypass" route when SR-60 experiences recurrent or non-recurrent congestion. All this bypass traffic would re-enter SR-60 at the 7th Avenue on-ramp.

In the PM peak periods, the EB SR-60 to SB 7th Avenue off-ramp and the EB SR-60 to NB loop off-ramp experience heavy traffic volumes. The EB SR-60 to SB 7th Avenue off-ramp, which is stop controlled at 7th Avenue, experiences queuing with "backups" towards the EB SR-60 mainline. The EB SR-60 loop off-ramp/ 7th Avenue intersection is uncontrolled with a free right turn lane at the terminus, and the EB SR-60 loop off-ramp traffic turns to a free right turn lane at the terminus onto 7th Avenue NB.

2) Conclusions

As stated in the TOAR, under No Build (2025/2045) operating conditions, it is expected that the SR-60 freeway corridor at 7th Avenue Interchange will experience delay and congestion. The ramp junctions will operate at LOS D and F with increased delays. Similar to existing conditions, the poor operating conditions under 2045 No Build conditions are expected to deteriorate further.

The freeway mainline access points for WB SR-60 on- and off-ramps were proposed to shift a couple of hundred feet to provide longer ramp lengths. The shift of the access points is not expected to impact the basic freeway and ramp junction analysis. Therefore, the freeway analysis results under Build conditions are same as under No Build conditions.

This early action project proposed improvements at the ramp termini intersections of the SR-60 and 7th Avenue interchange. The traffic operation analysis indicated that acceptable operations at the study intersections could be maintained or improved by reconfiguring existing interchanges, improving intersection control and widening ramps with the exception of the intersection at 7th Avenue and SR-60 EB off-ramp

which will operate at LOS E during the PM peak hour under the year 2045 build conditions. With the proposed reconfiguration, the delays at the intersection of 7th Avenue and SR-60 WB on-ramp/Gale Avenue are expected to increase under the Future Year (2045) Build conditions. However, the proposed lane configuration reduces the merging conflict on the WB SR-60 on-ramp, which will improve safety.

Additional storage and geometric changes in the Build conditions at 7th Avenue and SR-60 WB on-ramp intersection provide sufficient storage for SB left turning movements at this intersection.

Overall, the traffic operations analysis summary results at the intersections confirm that based on the performance measures analyzed, the proposed project improvements will maintain or improve future traffic operations and safety conditions.

3) Collision Analysis

Traffic accident data for the SR-60 at 7th Avenue Interchange including freeway mainline and interchange ramps, were obtained from Caltrans' TASAS. Selective Accident Rate Calculation Reports (**Table B in Attachment I**) and TASAS Selective Accident Retrieval (TSAR) were collected for a 3-year period between January 1, 2017 and December 31, 2019 in the study area.

The SR-60 mainline currently operates at LOS C, D and E for eastbound segments and F for westbound segments in AM peak periods. The SR-60 mainline currently operates at LOS D and E for eastbound and westbound segments in the PM peak periods. WB SR-60 is projected to operate at LOS E in the PM peak periods in 2045 no-build condition from 7th Avenue off-ramp to 7th Avenue on-ramp; end of the HOV lane.

Table 4-16 presents the 3-year accident data for mainline and ramps at SR-60 and 7th Avenue interchange. Accident rates were expressed as number of accidents per million vehicle miles traveled. As shown in the table, the total accident rate and the combined fatality and injury accident rates along WB SR-60 mainline segment are marginally higher than the statewide average. The total accident rates for all the ramps at the interchange are higher than the statewide average for similar facilities. In westbound direction, the combined fatality and injury accident rates are higher than statewide average at both off- and on-ramps. These locations are shown in boldface in the table.

Table 4-16: Freeway Mainline and Ramp Accident Data for SR-60/7th Avenue Interchange

Post Mile (PM)	Location	Number of Accidents				Actual Accident Rates[1]			Average Accident Rates[1]		
		Total	Fatal	Injury	F+I	Fatal	F+I	Total	Fatal	F+I	Total
Freeway Mainline											
12.800-15.701	SR-60 EB Mainline	284	1	78	79	0.002	0.20	0.71	0.004	0.29	0.89
12.800-15.701	SR-60 WB Mainline	444	2	131	133	0.005	**0.33**	**1.10**	0.004	0.29	0.89
Freeway Ramps											
14.16	SR-60 EB Off-Ramp to SB 7th Ave	9	0	1	1	0	0.21	**1.91**	0.003	0.24	0.69
14.36	SR-60 EB Loop Off-Ramp to NB 7th Ave	6	0	1	1	0	0.19	**1.14**	0.004	0.3	0.93
14.52	SR-60 EB On-Ramp from 7th Ave	5	0	1	1	0	0.17	**0.84**	0.002	0.21	0.60
14.44	SR-60 WB Off-Ramp to Gale Ave/7th Ave	11	0	3	3	0	**0.70**	**2.58**	0.002	0.23	0.78
14.12	SR-60 WB On-Ramp from 7th Ave	30	0	5	5	0	**0.26**	**1.55**	0.002	0.21	0.60

Source: Caltrans District 7 TASAS Table B Data (1/1/2017 to 12/31/2019)

Notes: [1] for mainline sections and ramps, the accident rate is the number of accidents per million vehicle-miles.

Bold font indicates an actual accident rate that is higher than the average accident rate for the segment

The breakdown of incidents by type that occurred on SR-60 mainline and the interchange ramps at 7th Avenue during the 3-year period is summarized in **Table 4-17**. The table indicates that the predominant types of incidents at the SR-60/7th Avenue interchange are rear end collisions, followed by sideswipe type collisions. For the freeway mainline segment and ramps, the incident data suggests that the primary collision factor of the

incidents is traffic congestion or unsafe speed. With the improved conditions, a reduction in accident rates is anticipated.

Table 4-17: Freeway Mainline and Ramp Accident Type for SR-60/7th Avenue Interchange

Post Mile (PM)	Location	Accident Type	Head -on	Sideswipe	Rear End	Broadside	Hit Object	Overturn	Auto-pedestrian	Other	Total
Freeway Mainline											
12.800 - 15.701	SR-60 EB Mainline	Total	0	65	**191**	3	22	1	1	1	284
		Percent	0.0%	22.9%	67.3%	1.1%	7.7%	0.4%	0.4%	0.4%	100%
12.800 - 15.701	SR-60 WB Mainline	Total	2	92	**328**	2	17	1	0	2	444
		Percent	0.5%	20.7%	73.9%	0.5%	3.8%	0.2%	0.0%	0.5%	100%
Freeway Ramps											
14.16	SR-60 EB Off-Ramp to SB 7th Ave	Total	0	0	**7**	0	2	0	0	0	9
		Percent	0.0%	0.0%	77.8%	0.0%	22.2%	0.0%	0%	0%	100%
14.36	SR-60 EB Loop Off-Ramp to NB 7th Ave	Total	0	1	**3**	2	0	0	0	0	6
		Percent	0.0%	16.7%	50%	33.3%	0.0%	0.0%	0.0%	0.0%	100%
14.52	SR-60 EB On-Ramp from 7th Ave	Total	0	**4**	1	0	0	0	0	0	5
		Percent	0.0%	80.0%	20.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
14.44	SR-60 WB Off-Ramp to Gale Ave	Total	0	4	**5**	2	0	0	0	0	11
		Percent	0.0%	36..4%	45.5%	18.2%	0.0%	0.0%	0.0%	0.0%	100%
14.12	SR-60 WB On-Ramp from 7th Ave	Total	0	**14**	**14**	0	1	1	0	0	30
		Percent	0.0%	46.7%	46.7%	0.0%	3.3%	3.3%	0.0%	0.0%	100%

Source: Caltrans District 7 TASAS Selective Accident Retrieval (TSAR) (1/1/2017 to 12/31/2019)

Bold indicates most occurring accident

4) Intersection Control Evaluation

In August 2013, Caltrans Division of Traffic Operations Policy Directive (TOPD) 13-02, which requires the analysis of alternative traffic control strategies and treatments at state highway intersections undergoing change (e.g. ramp terminal intersections). A two-step evaluation was used for the Intersection Control Evaluation (ICE) process. When the ICE One screening determined that a potential concept is not viable or practical, that concept is dropped from further consideration. When Step One screening determined that intersection control strategies are viable, these strategies are carried forward to Step Two for more detailed engineering and traffic analyses.

A highlevel engineering and traffic analysis was performed to guide the decision about the appropriate intersection control to ensure the appropriate project footprint could be cleared for the PAED phase. The existing stop-controlled intersections within the project limits were analyzed using the Step 1 ICE process, which is a Caltrans Traffic Operations Policy Directive. The only warrant analysis completed was the peak hour signal warrant (MUTCD CA Signal Warrant 3) to determine if a stop-controlled intersection should be signalized.

Table 4-18 shows the ICE Summary presented in the Traffic Operations Analysis Report (TOAR). RAB=Roundabout

Table 4-18: Intersection Control Evaluation Summary

ID	Interchange	Intersection	Existing Traffic Control	Design Option		Proposed Intersection Control	Rationale
				1	2		
2	7th Avenue	SR-60 WB off-ramp @ Gale Avenue	Signal	Signal	Two-lane RAB	Signal	ROW Impacts; geometric constraints
3	7th Avenue	7th Avenue @ SR-60 WB on-ramp/Gale Avenue	Signal	Signal	Two-lane RAB	Signal	ROW Impacts; geometric constraints
4	7th Avenue	7th Avenue @ SR-60 EB off-ramp	Stop Control	Remove	Realign	Stop Controlled	The intersection was realigned to be a T-intersection.

Source: Extracted from ongoing I-605 CIP Traffic Operations Analysis Report

5. ALTERNATIVES

The alternatives consist of Alternative 1 (No Build) and Alternative 2 (SR-60 WB Ramps and EB Off-Ramp Terminus Realignment). Alternative 2 is the preferred alternative and is compatible with the alternatives under current consideration in the I-605 CIP based on Non-Standard features, traffic operations, safety, cost, environmental and right of way impacts. A brief description of each alternative is provided below. Refer to Attachment B in section 14 of this document for the Build Alternative layout.

A. Viable Alternative

Alternative 2 consists of SR-60 WB Ramps and EB Off-Ramp Terminus Realignment. It has no right of way acquisitions or any major structural improvements. It improves on- and off-ramp geometries, increasing sight distance, increasing queuing lengths and removing non-signalized pedestrian crosswalk, which will enhance traffic operations and safety. With the traffic signal system modification, push buttons and pedestrian signal heads would be upgraded to Accessible Pedestrian Signal (APS) and countdown ped head as per Americans with Disabilities Act (ADA) Standards. The revised geometry in this alternative would alleviate congestion and improve traffic flow and operational conditions for the 7th Avenue WB on- and off-ramps, EB off-ramp and along 7th Avenue and Gale Avenue. With these improved conditions, a reduction in accident rates is anticipated. Selection of Alternative 2 will result in minimal re-design/reconstruction at the gore area for the I-605 CIP if the alternative of one-lane widening is chosen.

1) Proposed Engineering Features and Improvements

Alternative 2 will include the following features and improvements:

- WB SR-60 off-ramp horizontal and vertical geometries modified and "diverging" gore relocated upstream to increase sight distance.
- WB SR-60 on-ramp horizontal and vertical geometries modified and "merging" gore relocated downstream to increase sight distance and increase ramp storage capacity.
- Relocation of combination sound wall/retaining wall along realigned standard 10' left shoulder of WB SR-60 off-ramp which increases sight distance.
- Relocation of combination sound wall/retaining wall along realigned standard 10' left shoulder of WB SR-60 on-ramp which increases sight distance and allows for increased ramp storage capacity.
- Remove median island and restripe NB approach at 7th Avenue/Gale Avenue intersection to provide for one left turn lane, one shared left turn-through lane, one through lane and one right turn lane which improves pedestrian safety.
- Increase the storage on WB SR-60 on-ramp by lengthening and widening the ramp.

    - Delineate the NB 7th Avenue to provide one shared left turn-through lane at WB SR-60 on-ramp/7th Avenue/Gale Avenue intersection.
- Modify signalized intersection of 7th Avenue/Gale Avenue/WB SR-60 on-ramp with proposed elimination of free right turn from SB 7th Avenue to WB SR-60 on-ramp and proposed left turn lanes from NB 7th Avenue to WB SR-60 on-ramp to improve pedestrian safety.
- Realign barriers (i.e., retaining walls/sound walls) on the WB SR-60 on- and off-ramps.
- Interconnect and synchronize the two signalized intersections within the project limits at 7th Avenue/Gale Avenue/WB SR-60 on-ramp and 7th Avenue/Gale Avenue/WB SR-60 off-ramp.
- Realignment of EB SR-60 off-ramp terminus.
- Lighting system upgrade including wire theft deterrent measures.
- Ramp metering system upgrade including wire theft deterrent measures.
- Upgrade of irrigation systems and landscaping.

There is no proposed High Occupancy Vehicle (HOV) preferential lane proposed for the WB SR-60 on-ramp due to right of way constraints. All improvements are within the existing right-of-way. Only TCEs are needed.

Ramp Metering:
As described in the "Fact Sheet Exception to Ramp Metering Policy" dated 02/16/2021, providing ramp metering is consistent with the 2016 Ramp Metering Development Plan. Based on the 2016 Ramp Meter Design Manual, the peak hour traffic volumes for the on-ramps, the close distance to adjacent interchanges and the right of way impacts, the Project proposes metered WB SR-60 on-ramp general purpose lanes from 7th Avenue. The ramp lengths have been optimized as a balancing effort of impacts and benefits.

As stated in the "Fact Sheet Exception to Ramp Metering Policy" dated 02/16/2021, the proposed WB 7th Avenue on-ramp improvements do not comply with Section 1.2 of the Ramp Metering Design Manual which states, "HOV preferential lanes shall be provided wherever ramp meters are installed, and each HOV preferential lane should be metered." The project proposes no HOV preferential lane at this location due to the right-of-way constraints, safety and operational and environmental considerations. This non-compliance was concurred with by Traffic/Operations/Corridor Management.

It is anticipated these improvements will reduce congestion and enhance traffic operations and safety along 7th Avenue and Gale Avenue as well as the WB SR-60 at 7th Avenue/Gale Avenue off-ramp. Reduced congestion and enhanced traffic operations and safety will also be anticipated at the EB SR-60 at 7th Avenue on- and off-ramp intersections as well as the ramps and gore areas within this interchange.

These improvements will increase sight distance, reduce queues and upgrade access to businesses, which translates to less accidents and improved safety for users.

See Attachments B and C for details.

2) Access Control

A design exception for Access Control is described in the Design Standard Decision Document approved on 08/06/2021.

3) Right of Way Requirements

There would be no permanent right of way acquisitions of public or private property for the Project as a result of reconstruction and realignment of the ramps. Temporary Construction Easements (TCEs) would be required from residential properties adjacent to the SR-60 WB on- and off-ramps for construction of the relocated combination retaining /sound walls along the right of way line. The TCEs are not anticipated to require temporary or permanent relocation of residents. Refer to Attachment F, "Right of Way Data Sheet".

4) Bicycle and Pedestrian Linkages

Existing County Class II bicycle lanes are located on Gale Avenue and existing County Class III bike routes are located on 7th Avenue. During construction, temporary impacts to local circulation would occur. A TMP will ensure that impacts to both vehicular and bicycle traffic and circulation during construction are minimized. The TMP would include methods such as public notifications and detours that would be coordinated with local jurisdictions.

ADA-compliant pedestrian ramp improvements will be provided on the south side of Gale Avenue at the SR-60 WB off-ramp, at the Gale Avenue/ 7th Avenue/ SR-60 WB on-ramp intersection and at the EB off-ramp intersection.

5) Non-Standard Design Features

Deviations from Standard Design Features are documented in the Design Standard Decision Document, approved on 08/06/2021.

Deviations to **Bold** Standards include sight distance, curve radius and lateral clearance generally in the ramp or mainline areas that are directly adjacent to residential and commercial developments.

Deviations to <u>Underlined</u> Standards include curve radius and lateral clearance generally in the ramp or mainline areas that are directly adjacent to residential and commercial developments.

6) Park and Ride Facilities

There are no park and ride facilities within the Project limits, and none have been planned for any location adjacent to the Project.

7) Retaining Walls

The proposed realignment of the WB SR-60 off- and on-ramps will require realignment of combined retaining/sound walls along the ramps. The retaining walls range from approximately 12 feet to 25 feet in height. The walls are proposed to be the same height as the existing walls with matching aesthetic treatment as existing conditions. Retaining walls will also be required between the north side of WB SR-60 and the WB SR-60 off- and on-ramps.

8) Utilities

The preliminary utility investigation performed for the project would require relocation of the existing utility facilities shown in the **Table 5-1** below. A preliminary assessment of potential relocation opportunities for these facilities indicates that all impacted utilities may be relocated within existing easements or public rights of way. No additional right of way requirements due to relocations are anticipated at this time. Utility relocation information is included in the Right of Way Data Sheet (Attachment F).

Table 5-1: Existing Utility Impacts within Project Limits

Utility Owner	Line	Impacted	Method of Mitigation
Los Angeles County Sanitation District	18" San Jose Creek Trunk	No	N/A
	15" VCP Sewer lines along 7th Avenue	Yes	Sewer manholes to be adjusted to grade
SoCalGas	3" gas main along 7th Avenue	Yes	Gas valves to be protected and adjusted to grade.
	2" gas line along Gale Avenue	Yes	Gas valves to be protected and adjusted to grade.
San Gabriel Valley Water	12" water main along 7th Avenue	Yes	Water valves to be protected and adjusted to grade.
	12" water main along Gale Avenue	Yes	Water valves to be protected and adjusted to grade.
	2.5" irrigation main along east side of WB SR-60 on-ramp	No	N/A
	3" irrigation line crossing SR-60 100' NW of 7th Avenue	Yes	To be adjusted to grade.

Utility Owner	Line	Impacted	Method of Mitigation
	3" irrigation line along east side of WB SR-60 off-ramp, crossing SR-60 100' southeast of 7th Avenue	Yes	To be removed and relocated.
Southern California Edison	Overhead wires and poles along 7th Avenue	Yes	Relocation of one pole
	Overhead wires and poles along Gale Avenue.	No	Protect in place
Verizon Telephone	Overhead wires along 7th Avenue	No	Protect in place
	Overhead wires along Gale Avenue	No	Protect in place

During PS&E phase, potholing will be conducted to ascertain that there are no utility conflicts within the vicinity of the proposed traffic signal poles.

During construction, all utilities within the Project area will be protected in place, adjusted to grade, removed or relocated.

9) Drainage and Stormwater Treatment

The natural topography in the project area is comprised of rolling hills. The topography of 7th Avenue within right-of-way consists of relatively flat terrain. Drainage generally slopes from south to north.

Adjacent land use is a mix between commercial, industrial, residential and open space land. Persistence of dry weather flow is not anticipated.

No bridges will be constructed over live streams.

The Project proposes to improve the geometry and profiles of the existing SR-60 WB on- and off-ramps and relocate existing sound walls to accommodate this. As a result, the slopes on both sides of these ramps will be regraded. Existing slopes within the Project limits will be disturbed only when necessary. Cut and fill areas will also be reduced as much as possible. Slopes will be flattened where possible. No additional right of way will be acquired to reduce steepness of slopes.

All slopes will be further analyzed during PS&E phase of the project when the design is more complete, however, slopes will be designed as traversable and recoverable as possible for safety and maintenance per Caltrans policy. Soils or formations that are difficult to re-stabilize will be avoided. Cut and fill slopes are

flat enough to allow re-vegetation and limit erosion. Benched or terraces will be provided wherever possible on high cut and fill slopes to reduce concentration of flows. Slopes will be rounded and shaped to reduce concentrated flow. The concentrated flow will be collected in the channel along the side slope. Existing vegetation will be retained where feasible. This project implements appropriate measures within the constraints for the process to avoid or reduce potential storm water impacts.

This project is subject to the "NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities", (NPDES Number CAS000002). The R factor was determined from the United States Environmental Protection Agency "Rainfall Erosivity Factor Calculator" to be 36.75; the K and LS factors were determined from Caltrans CGP GIS map; the K factor is 0.32 and the LS factor is 1.03. The product of these values is 0.33. Because the value is less than 15, the project is classified as having a low sediment risk. The receiving water risk is classified as low. The combined low sediment risk and low receiving water risk result in the project being classified as Risk Level 1.

The project will be designed to allow for ease of maintenance of Best Management Practices (BMPs).

The project will be scheduled to minimize or avoid soil-disturbing work during rainy season. It is considered to construct the side slope and its vegetation early in the construction process to provide additional protection.

Permanent treatment BMPs will be implemented as part of the project. A summary of the proposed design pollution prevention BMPs, temporary construction site BMPs, permanent treatment BMPs and other storm water quality information can be found in the approved Storm Water Data Report. The cover sheet of the Storm Water Data Report is included in Attachment G.

This project does not discharge into a TMDL watershed where Caltrans is named a stakeholder.

10) Overhead Sign Structures

One overhead sign affected by the proposed improvement, "Exit 14 Seventh Ave", located at the beginning of the WB SR-60 off-ramp would be replaced and relocated.

11) Railroad Involvement

The Project has no impacts to operating rail lines.

12) Highway Planting

Planting and irrigation systems currently existing within the Project limits at the interchange areas and adjacent to the freeway will be maintained where feasible. Where existing planting and irrigation systems must be modified because of new

roadway construction, replacement planting and irrigation systems will be replaced in accordance with Caltrans' current design standards. Specific planting and landscaping surfaces will be identified in the final design phase of the Project. An allowance for replacement planting has been included in the Project cost estimate. Planting design will consider safety, maintainability, aesthetic compatibility with adjacent urban communities, and existing plantings.

Design Pollution Best Management Practices (BMP) will be implemented, such as preservation of existing vegetation and slope/surface protection systems (permanent soil stabilization), as well as concentrated flow conveyance systems such as ditches, swales, oversize drains, flared end sections and outlet protection/velocity dissipation devices.

Roadside safety improvement elements such as replacement and upgrade of guardrail along inside of WB SR-60 off-ramp at Gale Ave, outside of WB SR-60 on-ramp at 7th Avenue and paved slope at inside WB SR-60 on-ramp gore area will be used. Other roadside safety improvement elements such as guardrails with vegetation control, slope paving for slope steeper than 2:1, MVPs, chain link fence, access gates, etc. are to be included, upgraded or replaced where feasible and appropriate.

13) Erosion Control

Erosion control measures will be applied at disturbed soil areas after grading operations are complete. An allowance for these erosion control measures is included in the Project cost estimate (see Storm Water Data Report in Attachment G of this document for more information). Specific erosion control measures will be coordinated with Caltrans during the final design phase.

14) Cost Estimate

The cost estimate for the project is provided in Attachment D of this document and includes a detailed breakdown of the construction cost elements. Estimated capital outlay support costs are provided in Section 8, Funding, Programming, and Estimate, of this document. These estimates include roadway, structure, and right-of-way costs.

15) Effect of Project Funded by Others on State Highway

No other project(s) are identified in the planning or design phase within or adjacent to the project limit.

B. Rejected Alternatives

1) ALTERNATIVE 1: No Build

This alternative proposes no reconstruction or improvements to the existing SR 60/7th Avenue Interchange. All freeway facilities remain as-is, with the exception of routine roadway maintenance and currently approved improvements. Since the projected growth forecast for Los Angeles County shows an increase in the number of users, the traffic volumes will also increase in the future. Lacking additional

capacity, a higher traffic volume would increase the traffic congestion, leading to a degraded LOS, and an increase in traffic delays. As a result, the No Build Alternative does not address the Purpose and Need for the project.

6. CONSIDERATIONS REQUIRING DISCUSSION

A. Hazardous Waste

An Initial Site Assessment (ISA) was prepared for the Project. The ISA was conducted to identify potential and known contaminant sources or recognized environmental conditions (REC), historical RECs and controlled RECs (CREC) that may impact the project. The ISA was prepared in accordance with the ASTM International, Inc., Standard Practice for Environmental Site Assessment Process E1527-13 (ASTM Standard) and Caltrans ISA procedures.

The following Environmental conditions were recognized:

- Aerially Deposited Lead (ADL) in soils
- Creosote and pentachlorophenol in utility poles
- Lead Chromate in traffic striping and pavement marking materials
- Polychlorinated Biphenyls (PCB)'s in a utility pole-mounted electrical transformer and soil surrounding the utility pole located adjacent to the WB SR-60 at 7th Avenue on-ramp

The ISA recommends the following:

Soils located within the Caltrans right-of-way will be sampled and analyzed for ADL and be safely reused within ADL Agreement requirements. Any soil possibly contaminated with PCBs that would be disturbed as a result of the project will be sampled for PCBs and heavy metals. Prior to construction, Metro/Caltrans will ensure the development of a Construction Health and Safety Plan (HSAP) to guide all construction activities as well as a Contaminated Media Management Plan (CMMP), Construction Contingency Plan (CCP) and Lead Compliance Plan (LCP). During construction Metro/Caltrans will ensure that sampling, analysis, removal, and disposal of any traffic striping and pavement materials will be completed. During construction, Metro/Caltrans will ensure that treated wood objects are handled as Treated Wood Waste (TWW) and managed.

The National Pollutant Discharge Elimination System (NPDES) General Construction Permit requires a construction site characterization, including a description of any pollution sources. Prior to construction Metro/ Caltrans will ensure that the designated contractor would also have to provide pollution-source corrective measures in the permit application.

B. Value Analysis

This is a locally funded project with local funds only, and Metro being the Project Sponsor. Local Advertise, Award, Administer (AAA) projects are excluded from

Caltrans Value Analysis policy.

C. Resource Conservation

The Project would not require the use of water except for minor amounts during construction and in local landscaped areas. Therefore, the Project is not anticipated to have a significant impact on the public water supply. When possible, the use of existing resources and facilities will be maximized during design and construction.

Existing asphalt pavement (freeway ramps, local streets, freeway shoulders) that is removed will be recycled and reused during construction to the extent possible.

Hardware (such as roadside signs, guardrails, drainage grates and others) and electrical equipment (such as controller cabinets, light standards and others) will be reused during construction where possible or stockpiled for future use. Operation of the Project is not anticipated to require additional supplies of energy or fuel. Minor amounts of energy and fuel would be used during construction. Reduction in long-term energy consumption is anticipated throughout the project area because of relieving congestion and improving traffic safety and operation.

D. Right-of-Way Issues

No permanent Right-of-Way takes are anticipated for the preferred alternative of this project.

TCEs would be required for 11 residential properties and 1 nonresidential property.

1) Utilities

At the end of the EB SR-60 off-ramp where it meets SB 7th Avenue, there is an SCE utility pole that will need to be relocated within the Caltrans Right of Way due to realignment of the ramp. There is also a 3” irrigation line along the east side of the WB SR-60 off-ramp that will need to be removed and relocated.

2) Airspace Lease Area

The Project does not have any airspace lease areas.

E. Environmental Compliance

Caltrans is the lead agency under the California Environmental Quality Act (CEQA) and under the National Environmental Policy Act (NEPA). A Categorial Exemption (CE)/Categorical Exclusion (CE) has been issued on 08/05/2020.

Refer to Attachment E: CEQA Exemption/NEPA Categorical Exclusion Determination Form.

F. Air Quality Conformity

A Transportation Air Quality Conformity Findings Checklist has been prepared for the Project. The Project has undergone a process with the Southern California Association of Government's (SCAG) Final Adopted Federal Transportation Improvement Program (FTIP) which has determined the Project is exempt from all project-level air quality conformity requirements under 40 CFR 93.126 per the Transportation Conformity Working Group (TCWG) on June 16, 2020 since the project would enhance safety and operations without increased capacity, and would not induce an increase in Vehicle Miles Traveled.

G. Title VI Considerations

Caltrans, under Title VI of the Civil Rights Act of 1964 and related statutes, ensures that no person in the State of California, on the grounds of race, color, national origin, sex, disability, religion, sexual orientation or age, be excluded in participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity it administers. This Project would comply with Title VI of the Civil Rights Act by meeting all the relevant requirements for consideration during the CE/CE determination process.

H. Noise Study Report

A Noise Study Report (NSR) was prepared for the Project.

Sensitive noise receptors have been identified along WB SR-60 where there are residential properties, and in the southeast (SE) quadrant of SR-60/7th interchange (IC) where a Motel 6 is located. The Project scope of SR-60/7th IC includes realignment of existing noise barriers on the WB on- and off-ramps. The NSR found that realignment of existing noise barriers would have no impacts to the sensitive noise receptors. The proposed Project would realign the following two noise barriers:

- WB SR-60 on-ramp from 7th Avenue: The existing barrier located along the edge-of-shoulder of the WB SR-60 on-ramp would be reconstructed approximately 0 to 20 feet to the north. The height of the realigned barrier would remain unchanged at 10 feet.

- WB SR-60 off-ramp to Gale Avenue/7th Avenue: The existing barrier located along the edge-of-shoulder of the WB SR-60 off-ramp would be reconstructed approximately 0 to 16 feet to the north. The height of the realigned barrier would remain unchanged at 14 feet.

7. OTHER CONSIDERATIONS AS APPROPRIATE

A. Route Matters

Since the Project does not include any addition or deletion of an access point, a freeway agreement will not be necessary.

B. Permits

The permits, reviews, and approvals in **Table 7-1** are required for Project construction:

Table 7-1: Permits

Agency	Permit/Approval	Status
Los Angeles County Department of Public Works	Encroachment Permit for Clark Channel	To be obtained during PS&E Phase
USACE	Section 404 permit	Under the Nationwide Permit 14 for Linear Transportation Projects.
California Department of Fish and Wildlife (CDFW)	Section 1602 Streambed Alteration Agreement	To be obtained during PS&E Phase
California Regional Water Quality Control Board (RWQCB)	Section 401 Water Quality Certification	To be obtained during PS&E Phase
Federal Highway Administration (FHWA)	Air Quality Conformity Determination	This project is exempt from Air Quality Conformity
County of Los Angeles	Freeway Agreement	Not needed

C. Cooperative Agreements

A Cooperative Agreement was executed in 2019 between Caltrans and Metro for the PA/ED phase of the Project. A Cooperative Agreement will be required for the PS&E, right-of-way, and construction phases.

D. Other Agreements
No other agreements are anticipated at this point.

E. Maintenance of Traffic
Attachment J: Transportation Management Plan Data Sheet was approved for this project on 03/08/2022. This document includes public information, motorist's information strategies and incident management.

The public information includes brochures and mailers, press release, paid advertising, public meetings and a project website. The motorist information strategies include portable changeable message signs and ground mounted signs. Traffic handling plans and stage construction plans will be included in the PS&E package as construction strategies. If a ramp closure is necessary during the course of the project, advance warning signs shall be provided as well as supporting traffic counts and analysis.

F. Stage Construction
Construction Staging is expected to be carried out in several construction stages. Detailed staging plans would be developed during the final design phase of the Project for the preferred alternative. It is anticipated that there will be no reduction in the number of mainline SR-60 travel lanes during peak hour period. Lane reductions on the WB ramps and the EB off-ramp are expected. All temporary closures will be limited to off-peak hours. Adequate notification about closures would be provided to the public and appropriate service purveyors.

G. Accommodation of Oversize Loads
No oversize loads are expected within the Project area. Caltrans design standards will be used for both horizontal and vertical clearances unless otherwise documented within Caltrans jurisdiction.

H. Graffiti Control
Adequate access restrictions would be established to limit the potential for graffiti. Measures to reduce graffiti will be incorporated into the PS&E and may include:

- Anti-graffiti coating on walls
- Graffiti guards on bridge mounted signs
- Anti-climb measures on pole mounted signs

I. Complete Streets
Pedestrian safety is being improved by removing the SB 7th Avenue free right turn to the WB SR-60 on-ramp. The entire intersection will now be signalized with pedestrian crosswalks. Pedestrian safety is also being enhanced by improving the geometry of the EB SR-60 off-ramp at SB 7th Avenue intersection.

All curb ramps within the project area will be ADA compliant.

8. FUNDING, PROGRAMMING AND ESTIMATE

A. Funding

It has been determined that this project is not eligible for Federal-aid funding. This project is being funded by Measure R 20H – Highway Capital – local funding.

B. Programming

The following table provides escalated support, construction, and right-of-way figures for the preferred Alternative 2. Support costs for PS&E are based on the Metro programmed amount, which is lower than Caltrans Historical Cost Data for this type of work. The current cost estimate for construction support is escalated to the middle of the component at a rate of 2.0% per year for the first fiscal year after the approval of this report, and 3% per year after that. The construction capital cost is escalated to mid construction at a rate of 3.2% per year.

Table 8-1: Alternative 2 Support, Construction, and Right-of-Way Costs

Fund Source	Fiscal Year Estimate								
MR20H	Prior	20/21	21/22	22/23	23/24	24/25	25/26	Future	Total
Component	In thousands of dollars ($1,000)								
PA/ED Support	$1,000								$1,000
PS&E Support				$1,500	$231				$1,731
Right-of-Way Support					$204				$204
Construction Support							$3,053		$3,053
Right-of-Way			$772						$772
Construction	$10,000						$11,308		$21,308
Total	$11,000		$772	$1,500	$435		$14,361		$28,100

The support cost ratio is 27.1%.

C. Estimate

The escalated Cost Estimate for Alternative 2 shows a total project cost of $28,100,000 with Roadway Items totaling $21,308,302, Right of Way totaling $771,900 and Support totaling $5,988,000. Please refer to Cost Estimate for Alternative 2 in Attachment D.

The Cost Estimate for Construction Capitol and Support are escalated as noted above in “B. Programming”.

9. DELIVERY SCHEDULE

Project Milestones		Milestone Date (Month/Day/Year)	Milestone Designation (Target/Actual)
PROGRAM PROJECT	M015	12/21/2018	Actual
BEGIN ENVIRONMENTAL	M020	2/19/2020	Actual
PA & ED	M200	05/31/2022	Target
START PS&E	M210	10/17/2022	Target
BEGIN STRUCTURE	M215	10/17/2022	Target
60% PS&E	M313	08/04/2023	Target
95% PS&E	M315	11/08/2023	Target
DRAFT STRUCTURES PS&E	M378	07/24/2023	Target
PROJECT PS&E	M380	05/10/2024	Target
RIGHT OF WAY CERTIFICATION	M410	05/24/2024	Target
READY TO LIST	M460	06/07/2024	Target
METRO ADVERTISE	M480	06/10/2024	Target
AWARD	M495	08/30/2024	Target
APPROVE CONTRACT	M500	08/30/2024	Target
CONTRACT ACCEPTANCE	M600	07/29/2026	Target
END PROJECT EXPENDITURES	M800	12/03/2027	Target
FINAL PROJECT CLOSEOUT	M900	12/09/2027	Target

10. RISKS

The Project Risk Management Team has identified 4 potential risks, all threats:

- Clark Channel possibility of right-of-way encroachment. Environmental permitting for the channel impacts need to be avoided since it would cause delay of the project. The proposed retaining wall design avoids encroachment into the channel and therefore wouldn't require a permit.
- 1113 Hedgepath Avenue dwelling and swimming pool built adjacent to Caltrans right-of-way. If legal proceedings are implemented, they could cause delay of project.
- 1122 Hedgepath Avenue dwelling encroachment into the Caltrans right-of way and will need to be altered. If legal proceedings are implemented, they could cause delay of project.
- 1123 Finegrove Avenue dwelling encroachment into the Caltrans right-of-way and will need to be altered. If legal proceedings are implemented, they could cause delay of project.

While probability and impact varies with each one, these risks require close attention throughout the project. These risks should be monitored and updated during the PA/ED, PS&E and the construction phase. See Attachment H for the Risk Register.

11. EXTERNAL AGENCY COORDINATION

Since the project limits are beyond the Interstate System, Modified Access Report (MAR) coordination with FHWA is not required.

Coordination with external agencies for permits, agreements and approvals is necessary. Section 7b-Permits provides a list of permits and approval that would require external agency coordination.

12. PROJECT REVIEWS

Scoping team field review	*Ron Stone	Date *02/15/2019
Metro Project Manager	Michelle Smith	Date 05/04/2021
District Maintenance	Peter Shih	Date 05/04/2021
Project Manager	Zareh Shahbazian	Date 05/04/2021

*****Due to the COVID-19 pandemic and ongoing pandemic restrictions, a formal project field review was unable to be performed. However, field reviews by individual stakeholders have occurred prior to the pandemic restrictions. Further field review meetings shall occur once the pandemic restrictions have been lifted.

13. PROJECT PERSONNEL

LACMTA (Metro)

Michelle Smith, Project Manager (213) 922-3057

Caltrans

Zareh Shahbazian, Project Manager (213) 792-3159
Office of Program/Project Management

Gordon Leung, Oversight Design Manager (213) 269-1593
Office of Design A

Zebunnesa Tareque, District Design Liaison (213) 272-8757
Office of Engineering Services

Richard Hartzell, District Bridge Engineer liaison (916) 639-5849
Office of Special Funded Projects and Structures Local Assistance

Mohammad Khan, Corridor Manager (213) 269-0854
Office of Corridor Management (East)

Thoa Le, Senior Environmental Planner (213) 269-0238
Office of Environmental Planning

Vanessa Velasco, Associate Environmental Planner (213) 266-6937

Office of Environmental Planning

Brian Wallace, Senior Right-of-Way Agent, Local Programs (213) 266-3579
Office of Right-of-Way

Cecilio Burciaga, Electrical Engineering (213) 626-9256
Office of Traffic Design

Min Kim, Utility Engineering (213) 269-0989
Office of Engineering Services

Nader Gobran, Materials Engineering (213) 269-1357
Office of Engineering Services

Peter Shih, Maintenance Region Engineer (213) 440-4718
Office of Maintenance, East Region

Steven Friet, Environmental Engineering (213) 335-0062
Office of Environmental Engineering, Hazardous Waste, South

Prakash Yadav, Hydraulics Engineering (213) 266-6829
Office of Storm Water & Landscape Architecture

George Olguin, Senior Landscape Architecture (213) 266-6558
Office of Storm Water & Landscape Architecture

Jeffrey Stevens, Surveys East Region (909) 727-2221
Office of Surveys

Advantec Consulting Engineers, Inc.
Leo Lee, Principal in Charge (949) 861-4999
Edward Miller Jr., P.E., Project Manager (909) 860-6722
Keith Rand, P.E.,T.E., Task Leader (909) 860-6722

HDR Engineering
Laura Paquette, QA Manager (213) 239-5800
Angie Kung, Environmental Docs Task Leader (714) 730-2300
Doug Smith, Traffic Engineering (714) 730-2300

TY Lin International
Karen Chapman, Quality Control (949) 398-4950

Arellano Associates
Chester Britt, Public Outreach Task Leader (909) 627-2974

14. ATTACHMENTS (Number of Pages)

Attachment A: Location Map (1)
Attachment B: Alternative 2 Layout Exhibits (7)
Attachment C: Alternative 2 Typical Sections (4)
Attachment D: Preliminary Cost Estimate (10)
Attachment E: CEQA Exemption/NEPA Categorical Exclusion Determination Form (11)
Attachment F: Right-of-Way Data Sheet (6)
Attachment G: Storm Water Data Report- Signed cover sheet (1)
Attachment H: Risk Register (2)
Attachment I: Traffic Operation Assessment Report (75)
https://www.dropbox.com/sh/8y78f9vd9izdj0h/AAC5UD01YIyxvA7tAbRmsC99a?dl=0
Attachment J: Traffic Management Plan Data Sheet (5)
Attachment K: Structural Preliminary Geotechnical Report (SPGR) (26)
https://www.dropbox.com/sh/q4ty4uex3l9edk2/AAC0NXdcokM-JWgFhS-jZi56a?dl=0
Attachment L: I-605 CIP Project Study Report – Project Development Report (158)
https://www.dropbox.com/sh/y213ysa6yssuvn9/AADiTfAJfJAvU9AX9z-enSIea?dl=0
Attachment M: Preliminary Materials Report (139)
https://www.dropbox.com/sh/gvzdzi86xzpsl7o/AAC9YXSUOJENR2h9S45rUHN7a?dl=0
Attachment N: ISA Report (1636)
https://www.dropbox.com/sh/a5ftfr9d3qlnri7/AAB4uV9AM3A9QE66yDWgLM_7a?dl=0

Attachment A: Location Map

Attachment B: Alternative 2 Layout Exhibits

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	60	14.0/14.7	1	-

INDEX OF PLANS

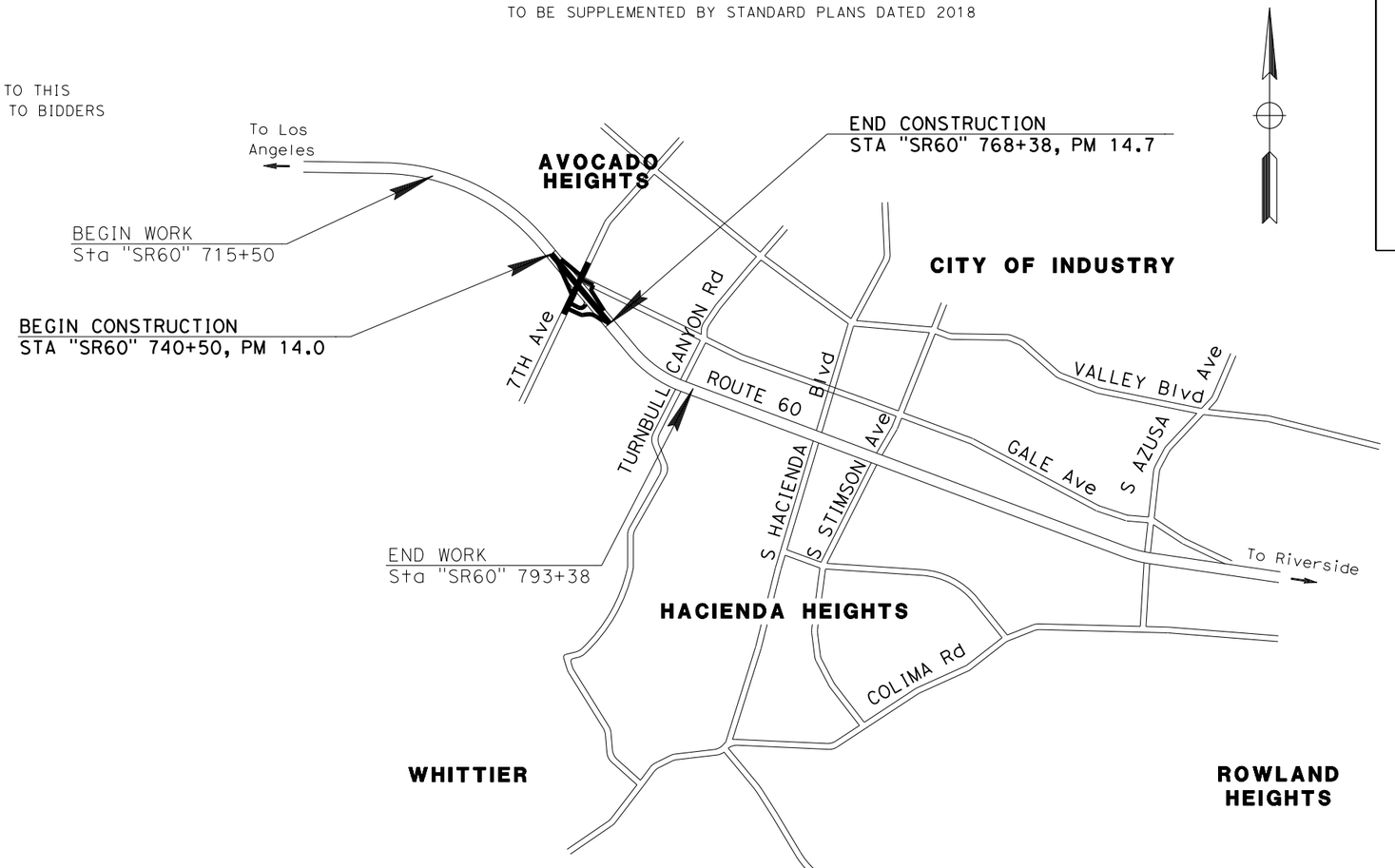
SHEET No.	DESCRIPTION
1	TITLE AND LOCATION MAP
X-X	TYPICAL SECTIONS
XX-XX	LAYOUTS
XX-XX	PROFILES
XX-XX	STAGE CONSTRUCTION AND TRAFFIC HANDLING PLANS
XX-XX	EROSION CONTROL PLANS, DETAILS, AND QUANTITIES
XX-XX	ELECTRICAL PLANS
XXXX	REVISED STANDARD PLANS

THE STANDARD PLAN LIST APPLICABLE TO THIS CONTRACT IS INCLUDED IN THE NOTICE TO BIDDERS AND SPECIAL PROVISIONS BOOK.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY
IN LOS ANGELES COUNTY
IN HACIENDA HEIGHTS ON STATE ROUTE 60
FROM 0.28 MILES NORTH-WEST OF 7th AVENUE UNDERCROSSING
TO 0.28 MILES SOUTH-EAST OF 7th AVENUE UNDERCROSSING

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2018



LOCATION MAP

PRELIMINARY - NOT FOR CONSTRUCTION

NO SCALE

THE CONTRACTOR SHALL POSSESS THE CLASS (OR CLASSES) OF LICENSE AS SPECIFIED IN THE "NOTICE TO BIDDERS."

PROJECT ENGINEER DATE
REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
ED MILLER, JR
No. 47615
Exp. 12-31-23
CIVIL
STATE OF CALIFORNIA

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ADVANTEC CONSULTING ENGINEERS
445 S. FIGUEROA ST., 31st FLOOR
LOS ANGELES, CA 90071

CONTRACT No.	AE53204000
PROJECT ID	0798010060

LAST REVISION 11-15-21
DATE PLOTTED => $DATE
TIME PLOTTED => $TIME

APPROVED AS TO IMPACT ON STATE FACILITIES AND CONFORMANCE WITH APPLICABLE STATE STANDARDS AND PRACTICES AND THAT TECHNICAL OVERSIGHT WAS PERFORMED.

CONSULTANT DESIGN MANAGER	CALTRANS DESIGN OVERSIGHT APPROVAL	REGISTRATION No.	LICENSE Exp DATE	DATE SIGNED
EDWARD MILLER				

Dist	COUNTY	LOCATION	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
7	LA	60	14.0/14.7	–	–

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. STATE OF CALIFORNIA

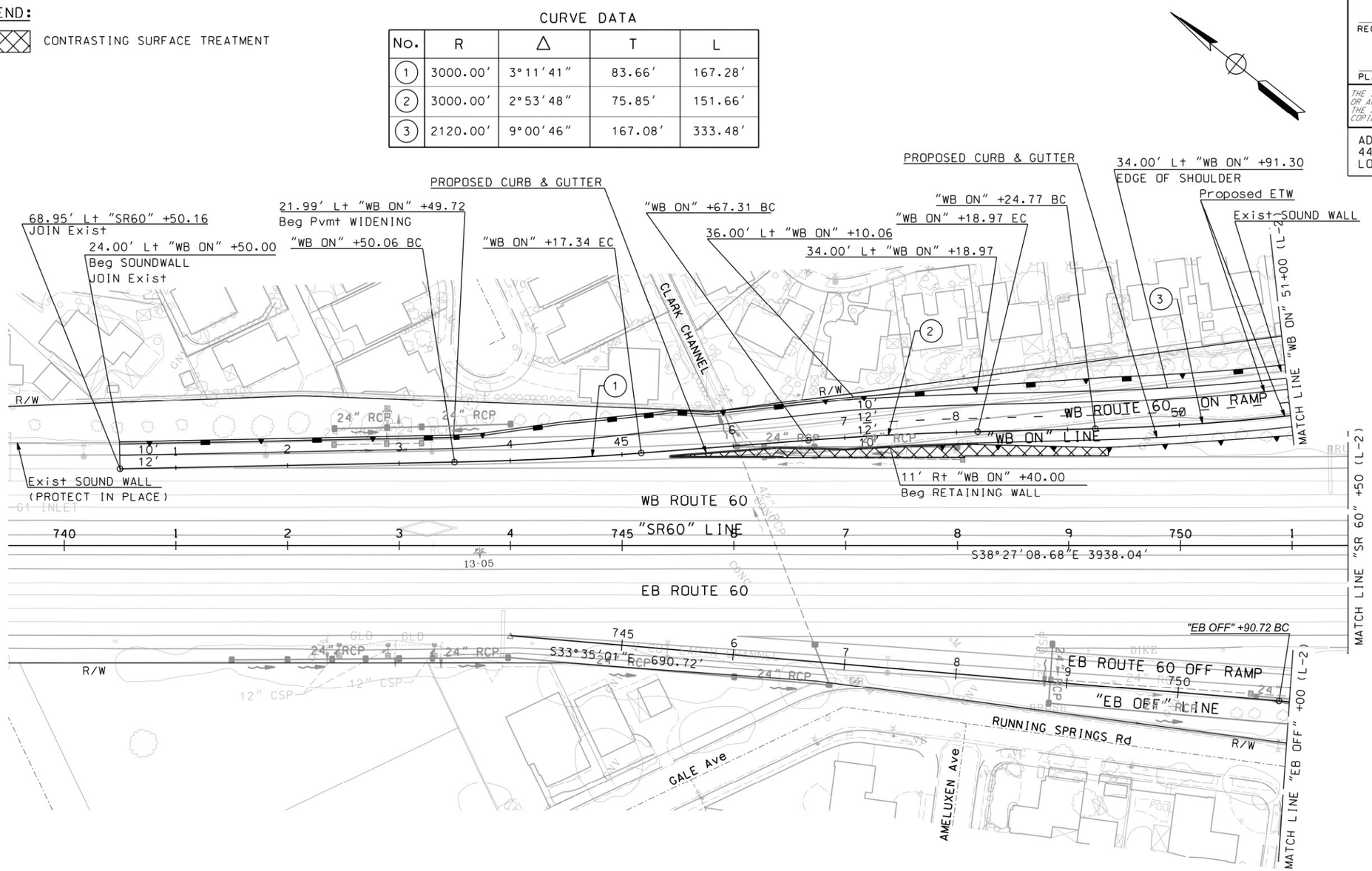
ADVANTEC CONSULTING ENGINEERS
445 S. FIGUEROA ST, 31st FLOOR
LOS ANGELES, CA 90071

LEGEND:

CONTRASTING SURFACE TREATMENT

CURVE DATA

No.	R	Δ	T	L
1	3000.00′	3°11′41″	83.66′	167.28′
2	3000.00′	2°53′48″	75.85′	151.66′
3	2120.00′	9°00′46″	167.08′	333.48′



PRELIMINARY – NOT FOR CONSTRUCTION

LAYOUT
SCALE: 1″ = 50′

L–1

REVISED BY | DATE REVISED
CALCULATED– DESIGNED BY | CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR
STATE OF CALIFORNIA – DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION DATE PLOTTED = 8/5/2021
TIME PLOTTED = 11:43:31 AM

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Dist	COUNTY	LOCATION	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
7	LA	60	14.0/14.7	-	-

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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LOS ANGELES, CA 90071

REVISED BY | DATE REVISED

CALCULATED-DESIGNED BY | CHECKED BY

CONSULTANT FUNCTIONAL SUPERVISOR

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans®

9+00.00 7th Ave
BEGIN COLD PLANE & OVERLAY
JOIN Exist Pvmt

12+46.63 "7TH Ave." 41.00' Rt
END SIDEWALK, MATCH Exist

13+81.35 "7TH Ave"
=0+00.00 "GALE Ave"

0+40.48 GALE Ave
BEGIN COLD PLANE & OVERLAY

4+97.61 GALE Ave
END COLD PLANE & OVERLAY
JOIN Exist Pvmt

48.78' Lt "WB ON" +45.19
BEGIN SIDEWALK

46.00' Lt "WB ON" +41.61
END PAVEMENT WIDENING

49.82' Lt "WB ON" +93.06
END MGS

MAINTENANCE VEHICLE PULLOUT

46' Lt "WB ON" +33.51
END SOUNDWALL, Beg MGS

Exist SOUND WALL
ETW

9.00' Rt "EB OFF" +21.85
Pvmt EDGE
JOIN Exist

3+42.69 GALE Ave
=55+48.09 WB OFF RAMP

72.13' Lt "WB ON" +80.59
Beg Pvmt WIDENING

65.02' Lt 56+14.56 WB OFF RAMP
Beg SOUNDWALL

Exist SOUND WALL

"WB ON" +28.49 BC

PROPOSED
CURB & GUTTER

SR 60 "WB OFF" LINE

WB OFF RAMP

MATCH LINE "WB OFF" +50 (L-1)

MATCH LINE "WB ON" +50 (L-1)

WB ROUTE 60 ON RAMP

"WB ON" LINE

MATCH LINE "WB OFF" +50 (L-3)
59+00 (L-3)

13+85.52 7TH Ave
=53+36.70 "WB ON"

PROPOSED
RETAINING WALL

"WB ON" +40.51 EC

EDGE OF PAVEMENT,
PROPOSED CURB & GUTTER

"WB ON" +58.24 EC

30.00' Rt "WE ON" +58.24
END RETAINING WALL

WB ROUTE 60

"SR60" LINE

EB ROUTE 60

"EB OFF" +95.65 EC

PROPOSED CURB
& GUTTER

15+55.47 7TH Ave
=754+05.36 SR 60

"EB OFF" +63.78 PT

SR 60 EB OFF RAMP

MATCH LINE "SR 60" +50 (L-1)

MATCH LINE "SR 60" +50 (L-3)

MATCH LINE "EB OFF" +00 (L-1)

EB ROUTE 60 OFF RAMP

"EB OFF" LINE

Conc. Chnl

17+12.73 7TH Ave
=81+22.82 EB OFF RAMP

69.42' Rt "EB OFF" +85.16
Pvmt EDGE, JOIN Exist

11.53' Lt "EB OFF" +07.57
Pvmt EDGE, JOIN Exist

14.09' Rt "EB OFF" +03.12
Pvmt EDGE, JOIN Exist

Proposed ETW

12.33' Lt "EB OFF" +17.44
Pvmt EDGE, JOIN Exist

7TH Ave

24+00.00 7th Ave
END COLD PLANE & OVERLAY
JOIN Exist Pvmt

CURVE DATA

No.	R	Δ	T	L
(3)	2120.00'	9°00'46"	167.08'	333.48'
(4)	200.00'	60°44'19"	117.20'	212.02'
(5)	350.00'	14°23'43"	44.20'	87.94'

LAYOUT
SCALE: 1" = 50'

L-2

LAST REVISION | DATE PLOTTED = 8/5/2021
TIME PLOTTED = 11:44:23 AM

PRELIMINARY - NOT FOR CONSTRUCTION

BORDER LAST REVISED 5/24/2018 | USERNAME = rstone | DGN FILE = ...\SHEET\0798010060ea002.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT | PROJECT NUMBER & PHASE

Dist	COUNTY	LOCATION	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
7	LA	60	14.0/14.7	–	–

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — No. — EXP. — STATE OF CALIFORNIA

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445 S. FIGUEROA ST, 31st FLOOR
LOS ANGELES, CA 90071

37.00' Lt "WB OFF" +52.78
Pvmt EDGE

"WB OFF" +40.00
Beg JPCP

23.75' Lt "WB OFF" +02.87
SOUNDWALL

22.00' Lt "WB OFF" +02.78
Pvmt EDGE

89.20' Lt "SR60" +37.88
END SOUNDWALL
JOIN Exist

88.16' Lt "SR60" +98.95
END Pvmt WIDENING
JOIN Exist

89.20' Lt "SR60" +37.88
END SOUNDWALL
JOIN Exist

Exist SOUND WALL
(PROTECT IN PLACE)

MATCH LINE "WB OFF" 59+00 (L-2)

10'
15' "WB OFF" LINE
12'
10'

WB ROUTE 60 OFF RAMP

4.00' Rt "WB OFF" +30.56
Pvmt EDGE

76.25' Lt "SR60" +28.98
END JPCP, JOIN Exist

PROPOSED RETAINING WALL
10.00' Rt "WB OFF" +80.00
Pvmt EDGE
4.00' Rt "WB OFF" +40.00
Pvmt EDGE

WB ROUTE 60

"SR60" LINE

760 1 2 3 4 765 6 7 8 9 770 1

EB ROUTE 60

MATCH LINE "SR 60" +50 (L-2)

EBROUTE 60 OFF RAMP

EB ROUTE 60 ON RAMP

18" CSP
18" RCP
24" RCP
42" RCP
18" CSSB
DIKE
BRUSH
GNV
ASPH
CONC
DECK
POOL

PRELIMINARY – NOT FOR CONSTRUCTION

LAYOUT

SCALE: 1" = 50'

L–3

STATE OF CALIFORNIA – DEPARTMENT OF TRANSPORTATION
Caltrans
CONSULTANT FUNCTIONAL SUPERVISOR
CALCULATED–DESIGNED BY
CHECKED BY
REVISED BY
DATE REVISED

LAST REVISION DATE PLOTTED = 8/5/2021
TIME PLOTTED = 11:45:16 AM
02-12-20

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USERNAME = rstone
DGN FILE = ...\SHEET\0798010060ea003.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT
PROJECT NUMBER & PHASE

NOTE:

1. LOCATIONS OF CONSTRUCTION AREA SIGNS ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER.

Dist	COUNTY	LOCATION	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
7	LA	60	14.0/14.7	-	-

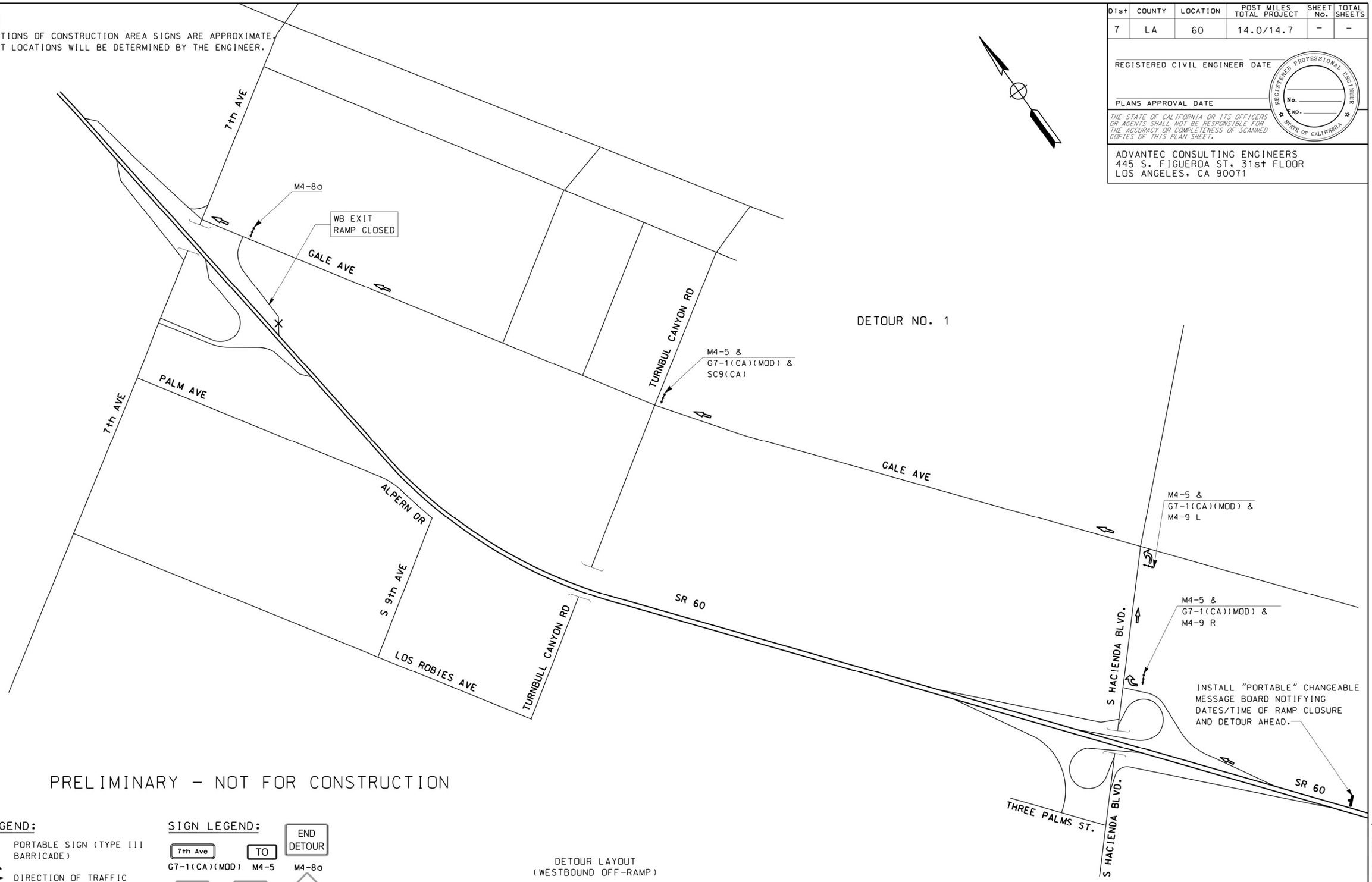
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — No. — Exp. — STATE OF CALIFORNIA

ADVANTEC CONSULTING ENGINEERS
445 S. FIGUEROA ST. 31st FLOOR
LOS ANGELES, CA 90071

DETOUR NO. 1



PRELIMINARY - NOT FOR CONSTRUCTION

LEGEND:

- PORTABLE SIGN (TYPE III BARRICADE)
- DIRECTION OF TRAFFIC
- RAMP CLOSED

SIGN LEGEND:

7th Ave	TO	END DETOUR
G7-1(CA)(MOD)	M4-5	M4-8a
DETOUR ←	DETOUR →	DETOUR ↑
M4-9L	M4-9R	SC9 (CA)

DETOUR LAYOUT
(WESTBOUND OFF-RAMP)

MOTORIST INFORMATION PLAN

NO SCALE

MI-1

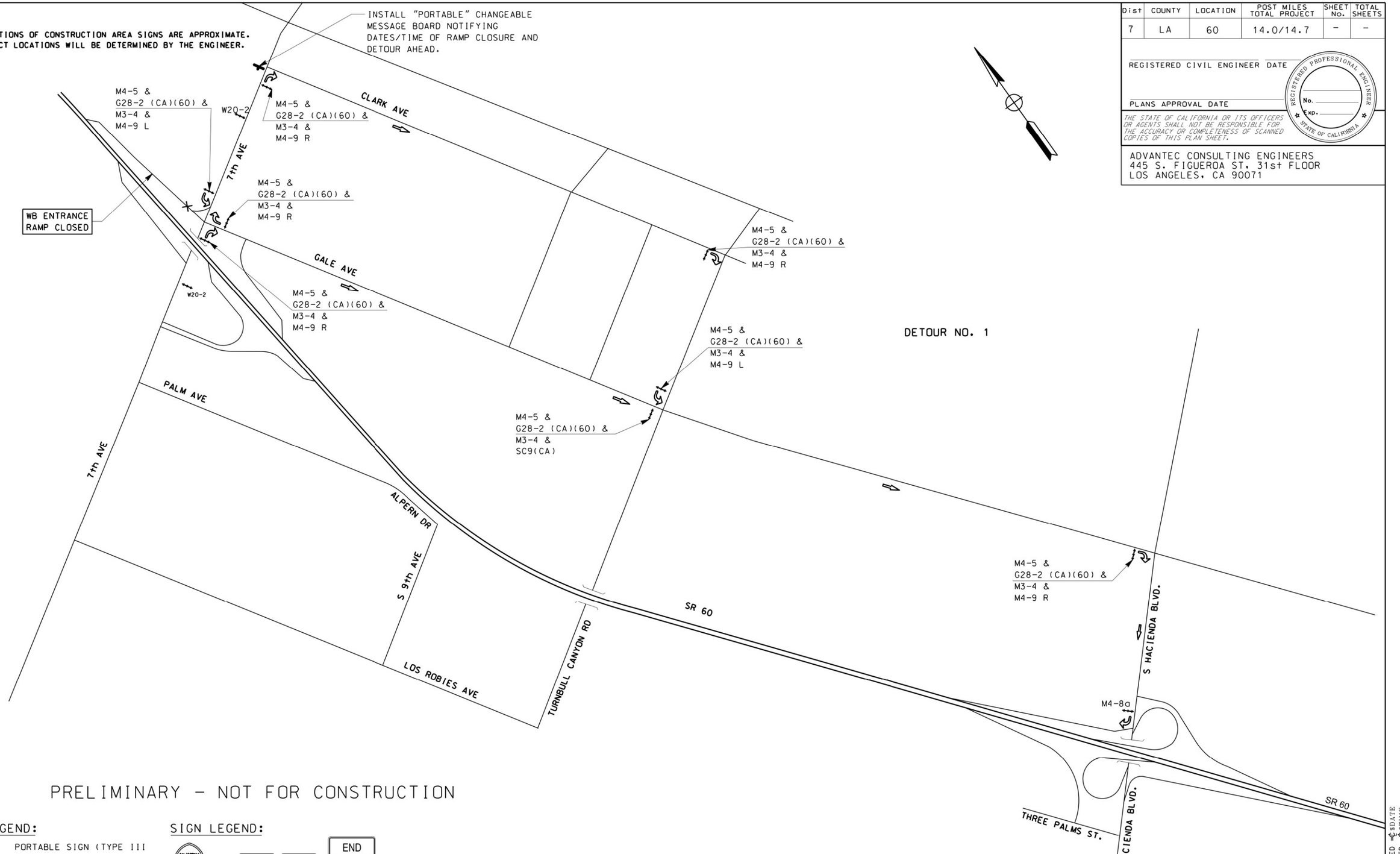
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
CONSULTANT FUNCTIONAL SUPERVISOR
CALCULATED-DESIGNED BY
CHECKED BY
REVISED BY
DATE REVISED

LAST REVISION 02-12-20 DATE PLOTTED =¢$DATE TIME PLOTTED =¢$TIME

BORDER LAST REVISED 5/24/2018 | USERNAME =¢$USER DGN FILE =¢$REQUEST | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT | PROJECT NUMBER & PHASE

NOTE:

1. LOCATIONS OF CONSTRUCTION AREA SIGNS ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER.



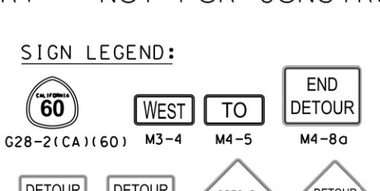
DETOUR NO. 1

PRELIMINARY – NOT FOR CONSTRUCTION

LEGEND:

- PORTABLE SIGN (TYPE III BARRICADE)
- DIRECTION OF TRAFFIC
- RAMP CLOSED

SIGN LEGEND:



DETOUR LAYOUT
(WESTBOUND ON-RAMP)

MOTORIST INFORMATION PLAN
NO SCALE

MI-2

Dist	COUNTY	LOCATION	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
7	LA	60	14.0/14.7	–	–

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. STATE OF CALIFORNIA

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ADVANTEC CONSULTING ENGINEERS
445 S. FIGUEROA ST, 31st FLOOR
LOS ANGELES, CA 90071

REVISED BY | DATE REVISED

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STATE OF CALIFORNIA – DEPARTMENT OF TRANSPORTATION

Caltrans®

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02-12-20

BORDER LAST REVISED 5/24/2018 | USERNAME =$USER$ DGN FILE =$REQUEST$ | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT | PROJECT NUMBER & PHASE

Dist	COUNTY	LOCATION	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
7	LA	60	14.0/14.7	-	-

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — No. — Exp. — STATE OF CALIFORNIA

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LOS ANGELES, CA 90071

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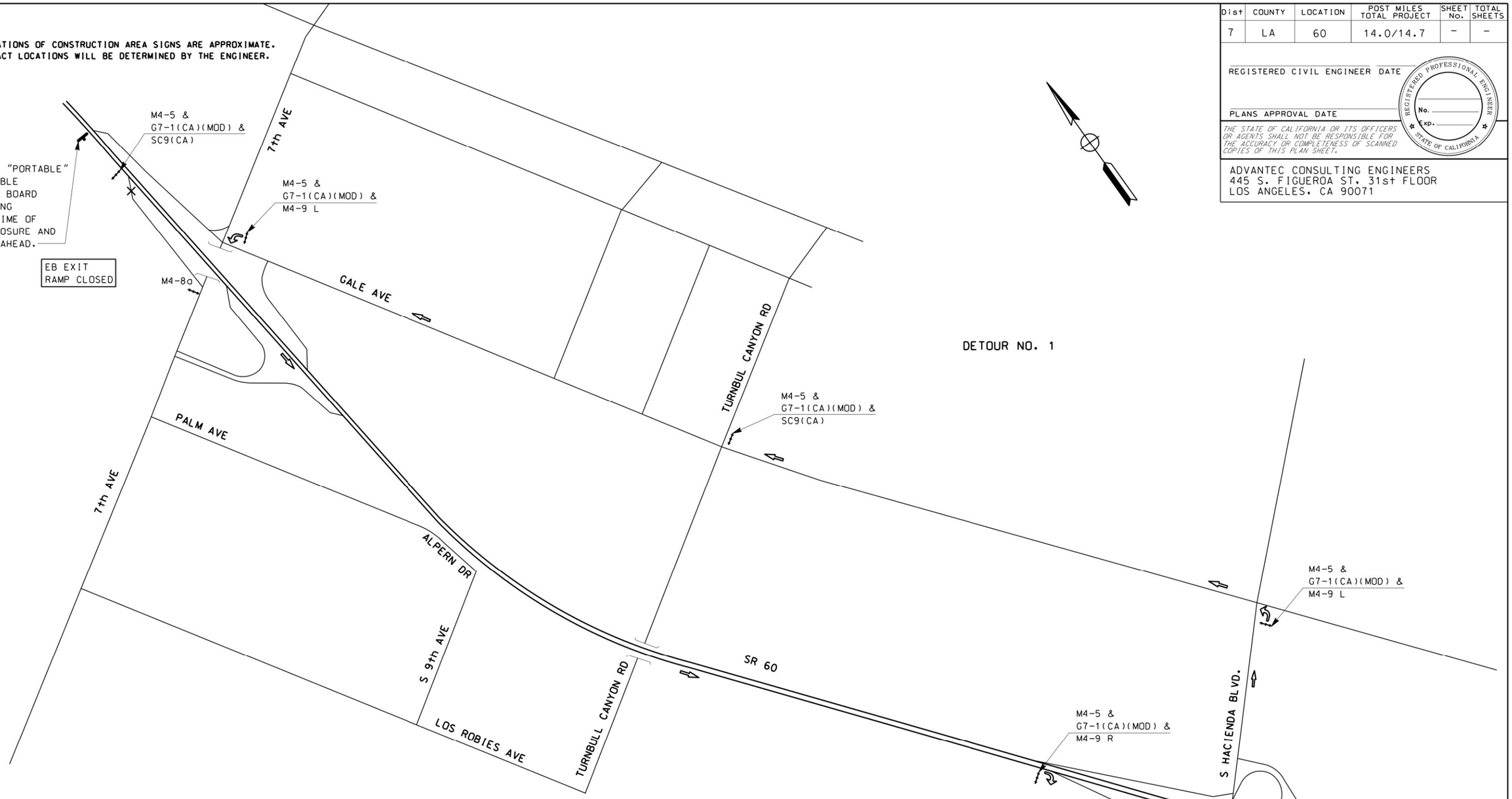


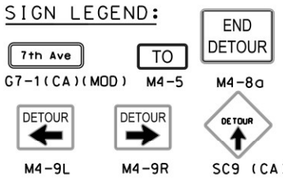
DETOUR NO. 1

PRELIMINARY – NOT FOR CONSTRUCTION

LEGEND:

- PORTABLE SIGN (TYPE III BARRICADE)
- DIRECTION OF TRAFFIC
- RAMP CLOSED

SIGN LEGEND:



DETOUR LAYOUT
(EASTBOUND OFF-RAMP)

MOTORIST INFORMATION PLAN

NO SCALE

MI-3

STATE OF CALIFORNIA – DEPARTMENT OF TRANSPORTATION | CONSULTANT FUNCTIONAL SUPERVISOR | CALCULATED-DESIGNED BY | CHECKED BY | REVISED BY | DATE REVISED

LAST REVISION | DATE PLOTTED = $DATE | TIME PLOTTED = $TIME
02-12-20

BORDER LAST REVISED 5/24/2018 | USERNAME = $USER | DGN FILE = $REQUEST | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT | PROJECT NUMBER & PHASE

Attachment C: Alternative 2 Typical Sections

Dist	COUNTY	LOCATION	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
7	LA	60	14.0/14.7	-	-

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. STATE OF CALIFORNIA

ADVANTEC CONSULTING ENGINEERS
445 S. FIGUEROA ST, 31st FLOOR
LOS ANGELES, CA 90071

NOTES:

1. DIMENSIONS OF THE PAVEMENT STRUCTURES (STRUCTURAL SECTIONS) ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
2. EXACT LOCATIONS AND TYPES OF DIKE, CURB, CONCRETE BARRIER, AND MGS ARE SHOWN ON THE LAYOUTS AND SUMMARY OF QUANITIES SHEETS.
3. FOR LOCATION AND DETAILS OF RETAINING WALL, SEE RETAINING WALL PLANS.
4. SUPERELEVATION IS SHOWN ON THE SUPERELEVATION DIAGRAM.

PAVEMENT STRUCTURAL SECTIONS:

NEW:

1
- 0.95′ JPCP
- 0.35′ LCB
- 0.70′ CLASS 3 AGGREGATE BASE

2
- 0.75′ HMA (TYPE A)
- 1.10′ CLASS 2 AGGREGATE BASE
- 1.35′ CLASS 2 AGGREGATE SUBBASE

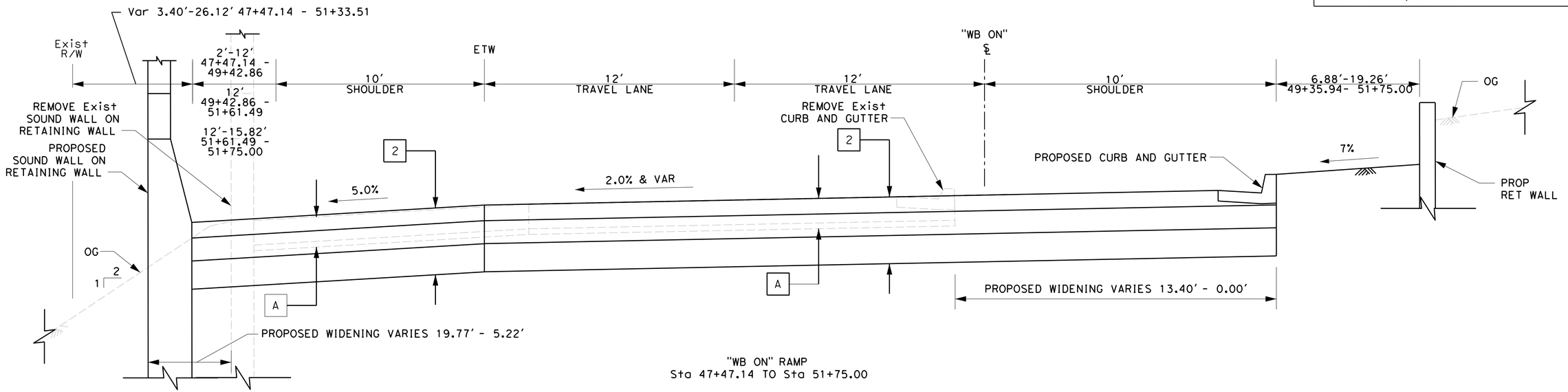
3
- 0.20′ COLD PLANE
- 0.20′ Min & Var OVERLAY HMA (TYPE A)

EXISTING:

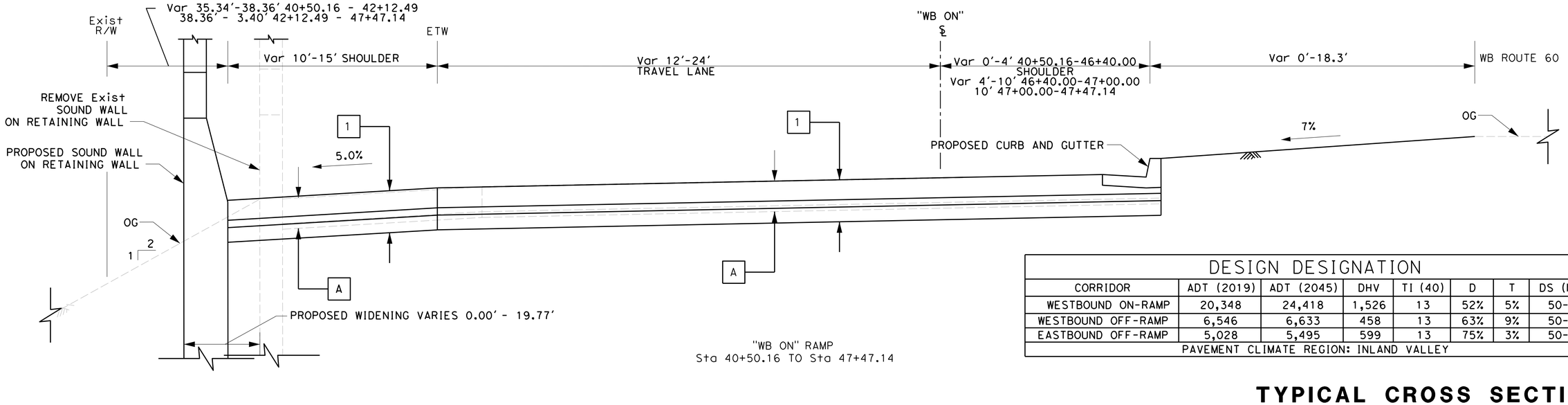
A
- 1.50′ HMA (TYPE A)
- 0.33′ CLASS 2 AB

B
- 0.33′ HMA (TYPE B)
- 0.66′ CLASS A CTB
- 0.66′ CLASS A AGGREGATE BASE
- 0.66 CLASS 4 AGGREGATE SUBBASE

C
- 0.33′ HMA (TYPE B)
- 0.50′ CLASS 2 AGGREGATE BASE
- 1.17′ CLASS 4 AGGREGATE SUBBASE



"WB ON" RAMP
Sta 47+47.14 TO Sta 51+75.00



"WB ON" RAMP
Sta 40+50.16 TO Sta 47+47.14

DESIGN DESIGNATION							
CORRIDOR	ADT (2019)	ADT (2045)	DHV	TI (40)	D	T	DS (MPH)
WESTBOUND ON-RAMP	20,348	24,418	1,526	13	52%	5%	50-25
WESTBOUND OFF-RAMP	6,546	6,633	458	13	63%	9%	50-25
EASTBOUND OFF-RAMP	5,028	5,495	599	13	75%	3%	50-25
PAVEMENT CLIMATE REGION: INLAND VALLEY							

PRELIMINARY - NOT FOR CONSTRUCTION

TYPICAL CROSS SECTIONS

NO SCALE

X-1

REVISED BY | DATE REVISED | CALCULATED-DESIGNED BY | CHECKED BY | CONSULTANT FUNCTIONAL SUPERVISOR

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

LAST REVISION | DATE PLOTTED => 11/15/2021 | TIME PLOTTED => 1:22:39 PM | 11-10-21

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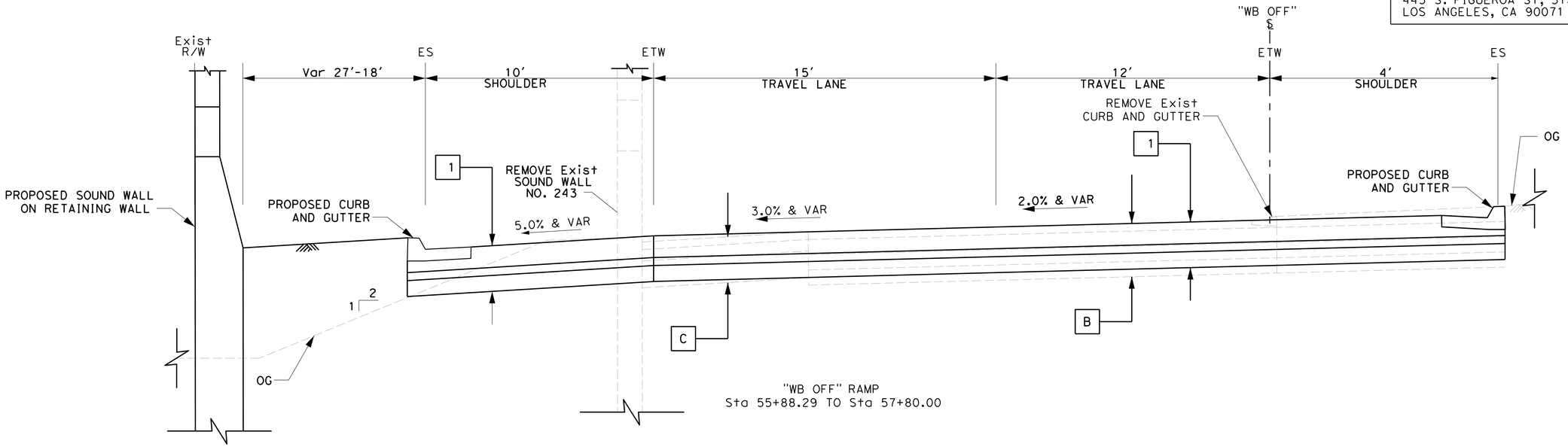
Dist	COUNTY	LOCATION	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
7	LA	60	14.0/14.7	-	-

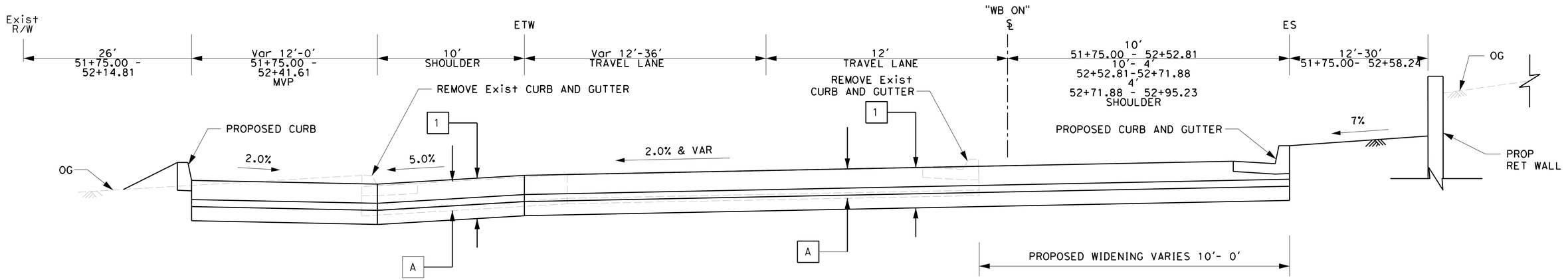
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. STATE OF CALIFORNIA

ADVANTEC CONSULTING ENGINEERS
445 S. FIGUEROA ST, 31st FLOOR
LOS ANGELES, CA 90071





PRELIMINARY - NOT FOR CONSTRUCTION

TYPICAL CROSS SECTIONS

NO SCALE

X-2

REVISED BY	DATE REVISED

CALCULATED-DESIGNED BY

CHECKED BY

CONSULTANT FUNCTIONAL SUPERVISOR

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

LAST REVISION | DATE PLOTTED => 11/15/2021
11-10-21 | TIME PLOTTED => 11:23:16 PM

BORDER LAST REVISED 5/24/2018

USERNAME => ACE-046
DGN FILE => ...\SHEET\0798010060ca002.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT

PROJECT NUMBER & PHASE

Dist	COUNTY	LOCATION	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
7	LA	60	14.0/14.7	-	-

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. STATE OF CALIFORNIA

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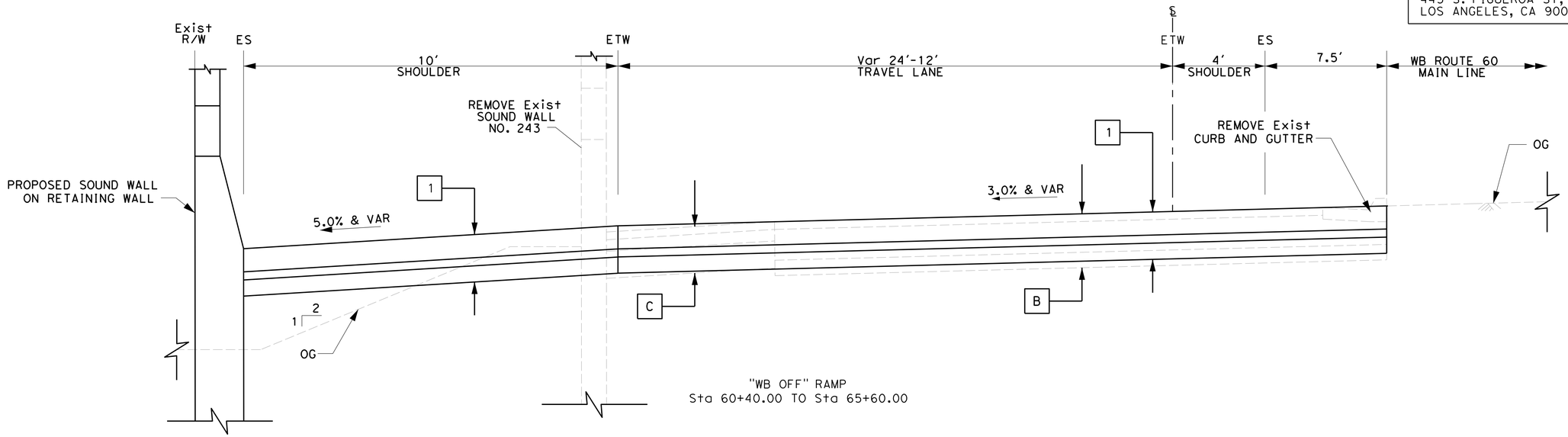

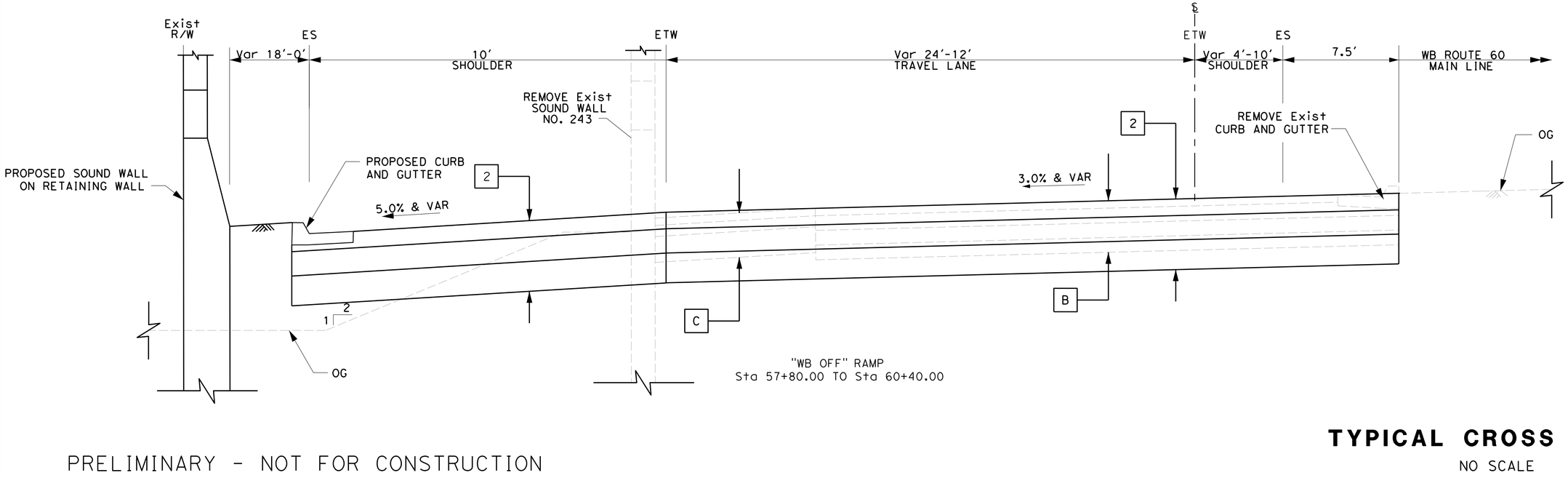

PRELIMINARY - NOT FOR CONSTRUCTION

TYPICAL CROSS SECTIONS

NO SCALE

X-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION | CONSULTANT FUNCTIONAL SUPERVISOR | CALCULATED-DESIGNED BY | CHECKED BY | REVISED BY | DATE REVISED

LAST REVISION 11-10-21 | DATE PLOTTED => 11/15/2021 | TIME PLOTTED => 1:24:07 PM

BORDER LAST REVISED 5/24/2018 | USERNAME => ACE-046 | DGN FILE => ...\SHEET\0798010060ca003.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT | PROJECT NUMBER & PHASE

Dist	COUNTY	LOCATION	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
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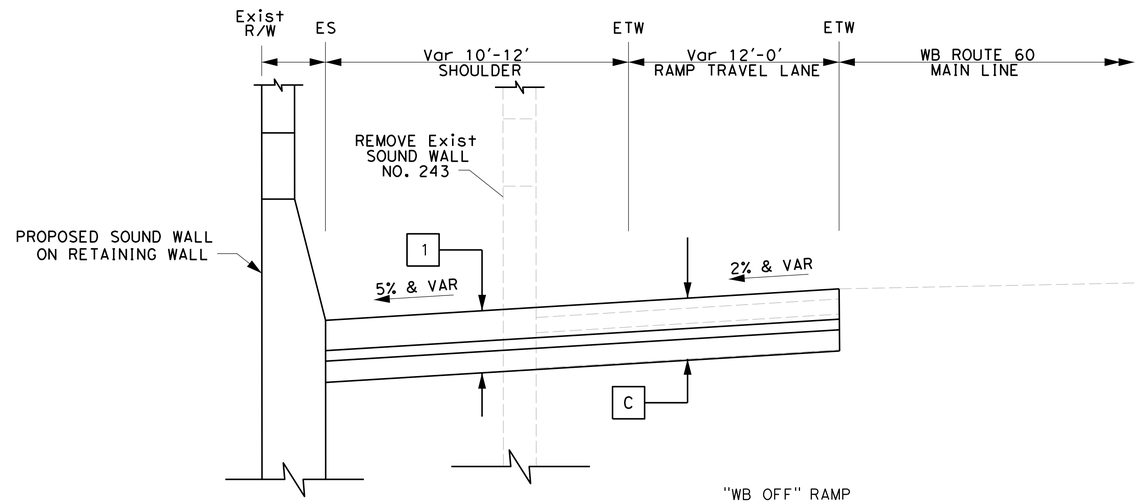
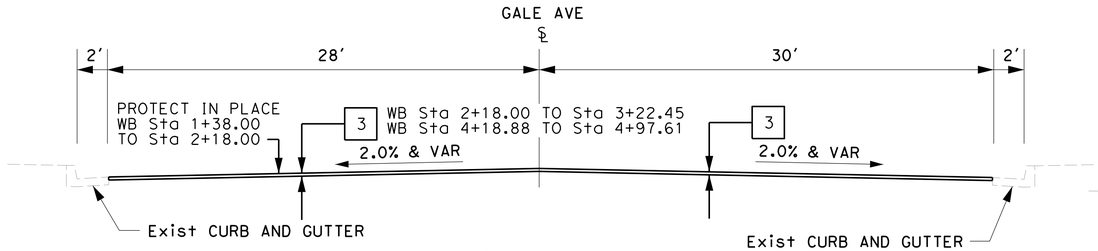
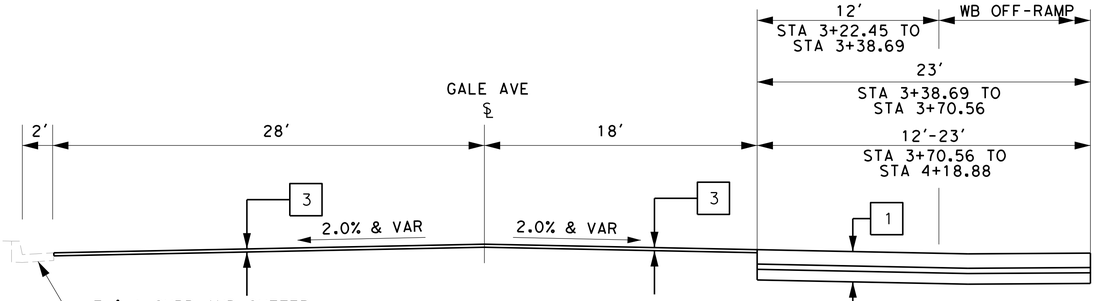


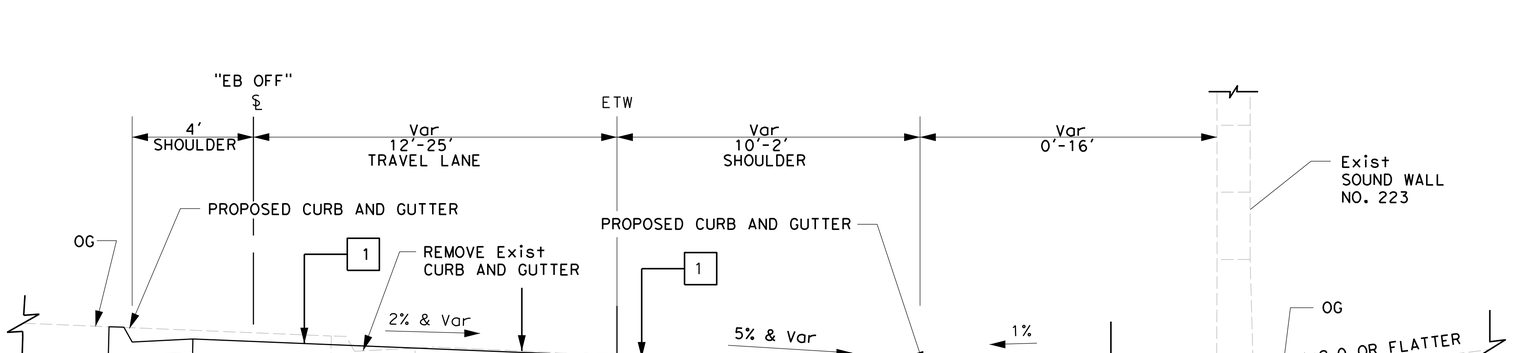
"WB OFF" RAMP
Sta 65+60.00 TO "SR60" Sta 767+28.98



GALE AVENUE
Sta 1+38.00 TO Sta 3+22.45
Sta 4+18.88 TO Sta 4+97.61



GALE AVENUE
Sta 3+22.45 TO Sta 4+18.88



EB OFF-RAMP
Sta 79+52.71 TO Sta 80+77.22

PRELIMINARY - NOT FOR CONSTRUCTION

TYPICAL CROSS SECTIONS

NO SCALE

X-4

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
CONSULTANT FUNCTIONAL SUPERVISOR
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REVISED BY
DATE REVISED

LAST REVISION 11-10-21
DATE PLOTTED => 11/15/2021
TIME PLOTTED => 11:24:46 PM

Attachment D: Preliminary Cost Estimate

PROJECT

PLANNING COST ESTIMATE ©

EA: 07-35870 PID: 798010060

EA: 07-35870

PID: 798010060

District-County-Route: 07-LA-60

PM: 14.0 - 14.7

Type of Estimate : PA & ED

Program Code : STIP

Project Limits : SR-60 PM 14.0 to PM 14.7

Project Description: Freeway Interchange Improvements

Scope : SR-60 on- and off-ramp and roadway improvements

Alternative : Alternative # 2

SUMMARY OF PROJECT COST ESTIMATE

	Current Year Cost	Escalated Cost
TOTAL ROADWAY COST	$ 17,975,500	$ 21,308,302
TOTAL STRUCTURES COST	$ -	$ -
SUBTOTAL CONSTRUCTION COST	$ 17,975,500	$ 21,308,302
TOTAL RIGHT OF WAY COST	$ 714,700	$ 771,900
TOTAL CAPITAL OUTLAY COSTS	$ 18,691,000	$ 22,081,000
PA/ED SUPPORT	$ 1,000,000	$ 1,000,000
PS&E SUPPORT	$ 1,500,000	$ 1,730,990
RIGHT OF WAY SUPPORT	$ 176,380	$ 203,541
CONSTRUCTION SUPPORT	$ 2,645,700	$ 3,053,120
TOTAL SUPPORT COST	$ 5,323,000	$ 5,988,000
TOTAL PROJECT COST	$ 24,050,000	$ 28,100,000 *

Programmed Amount

	Month	/	Year
Date of Estimate (Month/Year)	1	/	2022
Estimated Construction Start (Month/Year)	9	/	2024
Number of Working Days =	371		
Estimated Mid-Point of Construction (Month/Year)	5	/	2025
Estimated Construction End (Month/Year)	2	/	2026
Number of Plant Establishment Days	180		

Estimated Project Schedule

PID Approval	12/21/2018
PA/ED Approval	5/31/2022 (Target)
PS&E	5/10/2024
RTL	6/7/2024
Begin Construction	9/3/2024

Reviewed by District O.E. or Cost Estimate Certifier

Office Engineer / Cost Estimate Certifier **Date** **Phone**

Approved by Project Manager

Project Manager **Date** **Phone**

I. ROADWAY ITEMS SUMMARY

	Section		Cost
1	**Earthwork**	$	842,000
2	**Pavement Structural Section**	$	4,534,700
3	**Drainage**	$	587,300
4	**Specialty Items**	$	4,365,500
5	**Environmental**	$	501,700
6	**Traffic Items**	$	942,900
7	**Detours**	$	-
8	**Minor Items**	$	824,200
9	**Roadway Mobilization**	$	1,259,900
10	**Supplemental Work**	$	739,700
11	**State Furnished**	$	277,000
12	**Time-Related Overhead**	$	755,900
13	**Total Roadway Contingency**	$	2,344,700
	TOTAL ROADWAY ITEMS	**$**	**17,975,500**

Estimate Prepared By :	Ronald A. Stone, Deputy Project Manager	1/25/2022	909-860-6222
	Name and Title	Date	Phone
Estimate Reviewed By :	Joe Harake, Senior Project Engineer	1/25/2022	949-861-4999
	Name and Title	Date	Phone

By signing this estimate you are attesting that you have discussed your project with all functional units and have incorporated all their comments or have discussed with them why they will not be incorporated.

SECTION 1: EARTHWORK

Item code		Unit	Quantity		Unit Price ($)			Cost
190101	Roadway Excavation	CY	14,000	x	50.00	=	$	700,000
19010X	Roadway Excavation (Insert Type) ADL	CY		x		=	$	-
19801X	Imported Borrow	CY/TON	3,000	x	44.00	=	$	132,000
194001	Ditch Excavation	CY		x		=	$	-
192037	Structure Excavation (Retaining Wall)	CY		x		=	$	-
193013	Structure Backfill (Retaining Wall)	CY		x		=	$	-
193031	Pervious Backfill Material (Retaining Wall)	CY		x		=	$	-
17010X	Clearing & Grubbing	LS/ACRE	1	x	10,000.00	=	$	10,000
100100	Develop Water Supply	LS		x		=	$	-
19801X	Imported Borrow	CY/TON		x		=	$	-
21012X	Duff	ACRE/SQFT		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-

TOTAL EARTHWORK SECTION ITEMS	**$**	**842,000**

SECTION 2: PAVEMENT STRUCTURAL SECTION

Item code		Unit	Quantity		Unit Price ($)			Cost
401050	Jointed Plain Concrete Pavement	CY	2,060	x	208.00	=	$	428,480
400050	Continuously Reinforced Concrete Pavement	CY		x		=	$	-
390132	Hot Mix Asphalt (Type A)	TON	1,980	x	82.60	=	$	163,548
26020X	Class 2 Aggregate Base	TON/CY	1,250	x	256.00	=	$	320,000
280000	Lean Concrete Base	CY	760	x	152.00	=	$	115,520
250201	Class 2 Aggregate Subbase	CY	1,530	x	40.00	=	$	61,200
260303	Class 3 Aggregate Base	CY	1,520	x	37.00	=	$	56,240
280010	Rapid Strength Concrete Base	CY		x		=	$	-
410096	Drill and Bond (Dowel Bar)	EA	575	x	24.00	=	$	13,800
390137	Rubberized Hot Mix Asphalt (Gap Graded)	TON		x		=	$	-
391006	Asphalt Binder (Geosynthetic Pavement Interlayer)	TON		x		=	$	-
290201	Asphalt Treated Permeable Base	CY		x		=	$	-
374002	Asphaltic Emulsion (Fog Seal Coat)	TON		x		=	$	-
397005	Tack Coat	TON		x		=	$	-
377501	Slurry Seal	TON		x		=	$	-
374493	Polymer Asphaltic Emulsion (Seal Coat)	TON	120,000	x	1.10	=	$	132,000
370001	Sand Cover (Seal)	TON		x		=	$	-
731530	Minor Concrete (Textured Paving)	CY	5,450	x	564.00	=	$	3,073,800
731627	Minor Concrete (Curb, Sidewalk and Curb Ramp)	CY	5	x	848.00	=	$	4,240
394073	Place Hot Mix Asphalt Dike (Type A)	LF	575	x	2.50	=	$	1,438
398100	Remove Asphalt Concrete Dike	LF	575	x	3.25	=	$	1,869
420201	Grind Existing Concrete Pavement	SQYD		x		=	$	-
731850	Remove Concrete (Curb, Gutter and Sidewalk)	CY	10	x	374.00	=	$	3,740
390095	Replace Asphalt Concrete Surfacing	CY		x		##	$	-
418005	Remove Concrete Pavement	SQYD	5,125	x	7.30	=	$	37,413
394090	Place Hot Mix Asphalt (Miscellaneous Area)	SQYD		x		=	$	-
398200	Cold Plane Asphalt Concrete Pavement	SQYD	130	x	3.50	=	$	455
731504	Minor Concrete (Curb and Gutter)	CY	110	x	813.00	=	$	89,430
731840	Remove Concrete (Curb and Gutter)	LF	1,900	x	13.00	=	$	24,700
846051	12" Rumble Strip (Asphalt Concrete Pavement)	STA		x		=	$	-
846052	12" Rumble Strip (Concrete Pavement)	STA		x		=	$	-
420102	Groove Existing Concrete Pavement	SQYD		x		=	$	-
394095	Roadside Paving (Miscellaneous Areas)	SQYD		x		=	$	-
390136	Minor Hot Mix Asphalt	TON	2	x	3,370.00	=	$	6,740
XXXXXX	Some Item	Unit		x		=	$	-

TOTAL PAVEMENT STRUCTURAL SECTION ITEMS	**$**	**4,534,700**

SECTION 3: DRAINAGE

Item code		Unit	Quantity		Unit Price ($)			Cost
71013X	Remove Culvert	EA/LF		x		=	$	-
710240	Modify Inlet	EA		x		=	$	-
710370	Sand Backfill	CY		x		=	$	-
71010X	Abandon Culvert	EA/LF		x		=	$	-
710196	Adjust Inlet	LF		x		=	$	-
510092	Concrete Headwall	CY	1	x	1,607.00	=	$	1,607
510501	Minor Concrete	CY		x		=	$	-
510502	Minor Concrete (Minor Structure)	CY		x		=	$	-
731627	Minor Concrete (Curb, Sidewalk, and Curb Ramp)	CY		x		=	$	-
6101XX	XX" Alternative Pipe Culvert (Insert Type)	LF		x		=	$	-
6411XX	XX" Plastic Pipe	LF		x		=	$	-
650014	18" Reinforced Concrete Pipe (Insert Type)	LF	120	x	155.00	=	$	18,600
6811XX	XX" Plastic Pipe (Edge Drain)	LF		x		=	$	-
6901XX	XX" Corrugated Steel Pipe Downdrain (0.XXX" Thic	LF		x		=	$	-
7006XX	XX" Corrugated Steel Pipe Inlet (0.XXX" Thick)	LF		x		=	$	-
7032XX	XX" Corrugated Steel Pipe Riser (0.XXX" Thick)	LF		x		=	$	-
7050XX	XX" Steel Flared End Section	EA		x		=	$	-
703233	Grated Line Drain	LF		x		=	$	-
723095	Rock Slope Protection	CY	2,060	x	260.00	=	$	535,600
729011	Rock Slope Protection Fabric (Class B)	SQYD	17	x	4.50	=	$	77
27338	Precast Drainage Inlet	EA	6	x	3,000.00	=	$	18,000
31727	Concrete Collar	EA	2	x	3,176.00	=	$	6,352
31727	Junction Structure w/Manhole	EA	1	x	7,000.00	=	$	7,000
XXXXXX	Additional Drainage	LS		x		=	$	-

TOTAL DRAINAGE ITEMS	**$**	**587,300**

SECTION 4: SPECIALTY ITEMS

Item code		Unit	Quantity		Unit Price ($)			Cost	
520103	Bar Reinforced Steel (Retaining Wall)	LB	120,000	x	1.10	=	$	132,000	PRSM quantity input for Look Ahead report.
5100XX	Structural Concrete	CY		x		=	$	-	PRSM quantity input for Look Ahead report.
510060	Structural Concrete, Retaining Wall	CY	5,450	x	564.00	=	$	3,073,800	PRSM quantity input for Look Ahead report.
5201XX	Bar Reinforcing Steel	LB		x		=	$	-	PRSM quantity input for Look Ahead report.
080050	Progress Schedule (Critical Path Method)	LS		x		=	$	-	
582001	Sound Wall (Masonry Block)	SQFT	42,800	x	23.00	=	$	984,400	
510502	Minor Concrete (Minor Structure)	CY	16	x	1,350.00	=	$	21,600	
600051	Remove Sound Wall	LF	2,200	x	25.00	=	$	55,000	
070030	Lead Compliance Plan	LS		x		=	$	-	
141120	Treated Wood Waste	LB	1,300	x	0.35	=	$	455	
839750	Remove Barrier	LF		x		=	$	-	
839752	Remove Guardrail	LF	130	x	4.70	=	$	611	
710167	Remove Flared End Section	EA		x		##	$	-	
8000XX	Chain Link Fence (Insert Type)	LF		x		=	$	-	
80XXXX	XX" Chain Link Gate (Type CL-X)	EA		x		=	$	-	
832007	Midwest Guardrail System (Wood Post)	LF	575	x	24.00	=	$	13,800	
839301	Single Thrie Beam Barrier	LF		x		=	$	-	
839310	Double Thrie Beam Barrier	LF		x		=	$	-	
839521	Cable Railing	LF		x		=	$	-	
839566	Terminal System (Type CAT)	EA		x		=	$	-	
839584	Alternative In-line Terminal System	EA	2	x	3,370.00	=	$	6,740	
839585	Alternative Flared Terminal System	EA		x		=	$	-	
4906XX	XX" Cast-In-Drilled-Hole Concrete Piling	LF		x		=	$	-	
8396XX	Crash Cushion (Insert Type)	EA		x		=	$	-	
833080	Concrete Barrier (Type K)	LF	2,000	x	34.00	=	$	68,000	
475010	Retaining Wall (Masonry Wall)	SQFT		x		=	$	-	
511035	Architectural Treatment	SQFT		x		=	$	-	
780460	Anti-Graffiti Coating	SQFT		x		=	$	-	
780450	Rock Stain	SQFT		x		=	$	-	
4730XX	Reinforced Concrete Crib Wall (Insert Type)	SQFT		x		=	$	-	
839543	Transition Railing (Type WB-31)	EA	2	x	3,373.00	=	$	6,746	
780440	Prepare and Stain Concrete	SQFT		x		=	$	-	
83958X	End Anchor Assembly (Type X)	EA	2	x	1,166.00	=	$	2,332	
83958X	End Anchor Assembly (Insert Type)	EA							

TOTAL SPECIALTY ITEMS	**$**	**4,365,500**

Effective immediately, districts must input estimated item quantities in blue text above in the PRSM database for the pay items listed in the Design Memo, dated April 9, 2018, when Project Report is approved (Milestone 200). Link to Desgin Memo.

SECTION 5: ENVIRONMENTAL

5A - ENVIRONMENTAL MITIGATION

Item code		Unit	Quantity		Unit Price ($)			Cost		
	Biological Mitigation (on-site)	LS		x		=	$	-		
80010X	Temporary Fence (Type CL-6)	LF	700	x	20.00	=	$	14,000		
130680	Temporary Silt Fence	LF	900	x	4.25	=	$	3,825		
								Subtotal Environmental Mitigation	*$*	*17,825*

5B - LANDSCAPE AND IRRIGATION

Item code		Unit	Quantity		Unit Price ($)			Cost		
20XXXX	Highway Planting	LS	1	x	84,240.00	=	$	84,240		
20XXXX	Irrigation System	LS	1	x	168,480.00	=	$	168,480		
204099	Plant Establishment Work	LS	1	x	63,000.00	=	$	63,000		
20XXXX	Follow-up Landscape Project	LS		x		=	$	-		
206405	Remove Irrigation Facility	LS		x		=	$	-		
204096	Maintain Existing Planted Areas	LS		x		=	$	-		
206400	Check and Test Existing Irrigation Facilities	LS		x		=	$	-		
21011X	Imported Topsoil	CY/TON		x		=	$	-		
200114	Rock Blanket	SQFT/SQYD		x		=	$	-		
200122	Weed Germination	SQYD		x		=	$	-		
995100	Water Meter Charges	LS		x		=	$	-		
2087XX	XX" Conduit (Use for Irrigation x-overs)	LF		x		=	$	-		
20890X	Extend X" Conduit (Use for Extension of Irrigation	LF		x		=	$	-		
								Subtotal Landscape and Irrigation	*$*	*315,720*

5C - EROSION CONTROL

Item code		Unit	Quantity		Unit Price ($)			Cost		
211111	Permanent Erosion Control Establishment Work	LS		x		=	$	-		
210010	Move-In/Move-Out (Erosion Control)	EA		x		=	$	-		
130640	Temporary Fiber Roll	LF	2,400	x	3.00	=	$	7,200		
210360	Compost Sock	LF		x		=	$	-		
130500	Temporary Erosion Control Blanket	SQFT	2,800	x	2.80	=	$	7,840		
21025X	Bonded Fiber Matrix	SQFT/ACRE		x		=	$	-		
210300	Hydromulch	SQFT		x		=	$	-		
210420	Straw	SQFT		x		=	$	-		
210430	Hydroseed	SQFT		x		=	$	-		
210610	Compost	CY		x		=	$	-		
210630	Incorporate Materials	SQFT								
								Subtotal Erosion Control	*$*	*15,040*

5D - NPDES

Item code		Unit	Quantity		Unit Price ($)			Cost		
130300	Prepare SWPPP	LS		x		=	$	-		
130200	Prepare WPCP	LS		x		=	$	-		
130100	Job Site Management	LS		x		=	$	-		
130330	Storm Water Annual Report	EA		x		=	$	-		
130310	Rain Event Action Plan	EA		x		=	$	-		
130320	Storm Water Sampling and Analysis Day	EA		x		##	$	-		
130520	Temporary Hydraulic Mulch	SQYD		x		=	$	-		
130550	Temporary Hydroseed	SQYD		x		=	$	-		
130505	Move-In/Move-Out (Temporary Erosion Control)	EA		x		=	$	-		
130640	Temporary Fiber Roll	LF		x		=	$	-		
130900	Temporary Concrete Washout	LS		x		=	$	-		
130710	Temporary Construction Entrance	EA		x		=	$	-		
130610	Temporary Check Dam	LF		x		=	$	-		
130620	Temporary Drainage Inlet Protection	EA		x		=	$	-		
130730	Street Sweeping	LS		x		=	$	-		
XXXXXX	NPDES	LS	1	x	153,027.00	##	$	153,027		
								Subtotal NPDES	*$*	*153,027*

	TOTAL ENVIRONMENTAL	**$**	**501,700**

Supplemental Work for NPDES

066595	Water Pollution Control Maintenance Sharing*	LS		x		=	$	-		
066596	Additional Water Pollution Control**	LS		x		=	$	-		
066597	Storm Water Sampling and Analysis***	LS		x		=	$	-		
XXXXXX	Some Item	LS		x		=	$	-		
								Subtotal Supplemental Work for NDPS	*$*	*-*

*Applies to all SWPPPs and those WPCPs with sediment control or soil stabilization BMPs.

**Applies to both SWPPPs and WPCP projects.

*** Applies only to project with SWPPPs.

SECTION 6: TRAFFIC ITEMS

6A - Traffic Electrical

Item code		Unit	Quantity		Unit Price ($)			Cost
870200	Lighting System	LS		x		=	$	-
870300	Sign Illumination System	LS		x		=	$	-
870400	Signal and Lighting System	LS		x		=	$	-
870510	Ramp Metering System	LS		x		=	$	-
87181X	Interconnection Conduit and Cable	LF/LS		x		=	$	-
5602XX	Furnish Sign Structure (Insert Type)	LB		x		=	$	-
5602XX	Install Sign Structure (Insert Type)	LB		x		=	$	-
4980XX	XX" CIDHC Pile (Sign Foundation)	LF		x		=	$	-
87011X	Inductive Loop Detector	EA/LS		x		=	$	-
870600	Traffic Monitoring Station System	LS		x		=	$	-
56804X	Remove Sign Structure	EA	1	x	3,900.00	=	$	3,900
568054	Reconstruct Sign Structure	EA	1	x	200,000.00	=	$	200,000
568060	Modify Sign Structure	EA		x		=	$	-
870009	Elements During Construction	LS		x		=	$	-
86XXXX	Fiber Optic Conduit System	LS	1	x	100,000.00	=	$	100,000
XXXXX	Modify Traffic Signal	LS	2	x	175,000.00	=	$	350,000

Subtotal Traffic Electrical $ *653,900*

6B - Traffic Signing and Striping

Item code		Unit	Quantity		Unit Price ($)			Cost
820840	Roadside Sign - One Post	EA		x		=	$	-
820850	Roadside Sign - Two Post	EA		x		=	$	-
5602XX	Furnish Sign Structure (Insert Type)	SQFT		x		=	$	-
820890	Install Sign Panel on Existing Frame	SQFT		x		=	$	-
846020	Remove Painted Traffic Stripe	LF		x		=	$	-
141102	Remove Yellow Painted Traffic Stripe (Hazardous \	LF		x		=	$	-
846025	Remove Painted Pavement Marking	SQFT		x		=	$	-
820250	Remove Roadside Sign	EA		x		=	$	-
820530	Reset Roadside Sign	EA		x		=	$	-
820610	Relocate Roadside Sign	EA		x		=	$	-
8101XX	Delineator (Insert Class)	EA		x		=	$	-
840502	Thermoplastic Traffic Stripe (Enhanced Wet Night \	LF		x		=	$	-
846012	Thermoplastic Crosswalk and Pavement Marking (Enhanced Wet Night Visibility)	SQFT		x		=	$	-
120090	Construction Area Signs	LS	1	x	25,000.00	=	$	25,000
84XXXX	Permanent Pavement Delineation	LS	1	x	150,000.00	=	$	150,000

Subtotal Traffic Signing and Striping $ *175,000*

6C - Traffic Management Plan

Item code		Unit	Quantity		Unit Price ($)			Cost
12865X	Transportation Management Plan	LS	1	x	$ 10,000	##	$	10,000

Subtotal Traffic Management Plan $ *10,000*

6C - Stage Construction and Traffic Handling

Item code		Unit	Quantity		Unit Price ($)			Cost
120198	Plastic Traffic Drums	EA		x		=	$	-
12016X	Channelizer (Insert Type)	EA		x		=	$	-
120116	Type II Barricade	EA		x		=	$	-
120120	Type III Barricade	EA		x		=	$	-
129100	Temporary Crash Cushion Module	EA		x		=	$	-
120100	Traffic Control System	LS	1	x	103,908.00	=	$	103,908
129110	Temporary Crash Cushion	EA		x		=	$	-
129000	Temporary Railing (Type K)	LF		x		=	$	-
120149	Temporary Pavement Marking (Paint)	SQFT		x		=	$	-
120152	Temporary Pavement Marking (Tape)	SQFT		x		=	$	-
8101XX	Delineator (Insert Class)	EA		x		=	$	-

Subtotal Stage Construction and Traffic Handling $ *103,908*

TOTAL TRAFFIC ITEMS $ **942,900**

SECTION 7: DETOURS

Includes constructing, maintaining, and removal

Item code		Unit	Quantity		Unit Price ($)		Cost
190101	Roadway Excavation	CY		x		= $	-
19801X	Imported Borrow	CY/TON		x		= $	-
390132	Hot Mix Asphalt (Type A)	TON		x		= $	-
26020X	Class 2 Aggregate Base	CY/TON		x		= $	-
250401	Class 4 Aggregate Subbase	CY		x		= $	-
130620	Temporary Drainage Inlet Protection	EA		x		= $	-
129000	Temporary Railing (Type K)	LF		x		= $	-
128601	Temporary Signal System	LS		x		= $	-
120149	Temporary Pavement Marking (Paint)	SQFT		x		= $	-
80010X	Temporary Fence (Insert Type)	LF		x		= $	-
XXXXXX	Some Item	LS		x		= $	-

TOTAL DETOURS $ -

SUBTOTAL SECTIONS 1 through 7 $ 11,774,100

SECTION 8: MINOR ITEMS

8A - Americans with Disabilities Act Items							
	ADA Items	LS			1.0%	$	117,741
8B - Bike Path Items					3.0%		
	Bike Path Items				0.0%	$	-
8C - Other Minor Items							
	Other Minor Items				3.0%	$	353,223
	Total of Section 1-7		$ 11,774,100	x	7.0%	= $	824,187

TOTAL MINOR ITEMS $ 824,200

SECTIONS 9: ROADWAY MOBILIZATION *

Item code							
999990	Total Section 1-8	$ 12,598,300	x	10%	= $	1,259,830

TOTAL ROADWAY MOBILIZATION $ 1,259,900

SECTION 10: SUPPLEMENTAL WORK

Item code		Unit	Quantity		Unit Price ($)		Cost
066670	Payment Adjustments For Price Index Fluctuations	LS	1	x	41,197.00	## $	41,197
066094	Value Analysis	LS	1	x	10,000.00	= $	10,000
066070	Maintain Traffic	LS	1	x	152,000.00	= $	152,000
066919	Dispute Resolution Board	LS	1	x	7,500.00	= $	7,500
066921	Dispute Resolution Advisor	LS	1	x	5,000.00	= $	5,000
066015	Federal Trainee Program	LS		x		= $	-
066610	Partnering	LS	1	x	20,000.00	= $	20,000
066204	Remove Rock and Debris	LS		x		= $	-
066222	Locate Existing Crossover	LS		x		= $	-
XXXXXX	Some Item	Unit		x		= $	-
	*Cost of **NPDES** Supplemental Work specified in Section 5D*					= $	-
	Total Section 1-8	$ 12,598,300			4%	= $	503,932

TOTAL SUPPLEMENTAL WORK $ 739,700

SECTION 11: STATE FURNISHED MATERIALS AND EXPENSES

Item code		Unit	Quantity		Unit Price ($)		Cost
066105	Resident Engineers Office	LS		x		=	$0
066063	Traffic Management Plan - Public Information	LS		x		=	$0
066901	Water Expenses	LS		x		=	$0
8609XX	Traffic Monitoring Station (X)	LS		x		=	$0
066841	Traffic Controller Assembly	LS		x		=	$0
066840	Traffic Signal Controller Assembly	LS		x		=	$0
066062	COZEEP Contract	LS	1	x	25,000.00	=	$25,000
066838	Reflective Numbers and Edge Sealer	LS		x		=	$0
066065	Tow Truck Service Patrol	LS		x		=	$0
066916	Annual Construction General Permit Fee	LS		x		=	$0
XXXXXX	Some Item	Unit		x		=	$0
	Total Section 1-8		$ 12,598,300		2%	=	$ 251,966

TOTAL STATE FURNISHED **$277,000**

SECTION 12: TIME-RELATED OVERHEAD

Total of Roadway and Structures Contract Items excluding Mobilization $12,598,300 (used to calculate total TRO)

Total Construction Cost (excluding TRO and Contingency) $14,874,900 (used to check if project capital cost is greater than $5 million including contingency)

Estimated Time-Related Overhead (TRO) Percentage (0% to 10%) = **6%**

Item code		Unit	Quantity		Unit Price ($)		Cost
090100	Time-Related Overhead	WD	371	X	$2,037	=	$755,900

TOTAL TIME-RELATED OVERHEAD **$755,900**

SECTION 13: ROADWAY CONTINGENCY*

Risk Amount from Risk Register	(for Known Risks)			2%		$400,000
Additional or Residual Contingency	(for Unknown/Undefined Risks)			13%	##	$2,032,004
Total Section 1-12	$	15,630,800	x	**15%**	=	$2,344,620

TOTAL CONTINGENCY* **$2,344,700**

II. STRUCTURE ITEMS

Bridge 1

DATE OF ESTIMATE	00/00/00		00/00/00		00/00/00
Bridge Name	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Bridge Number	57-XXX		57-XXX		57-XXX
Structure Type	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	0 LF		0 LF		0 LF
Total Bridge Length (Feet)	0 LF		0 LF		0 LF
Total Area (Square Feet)	0 SQFT		0 SQFT		0 SQFT
Structure Depth (Feet)	0 LF		0 LF		0 LF
Footing Type (pile or spread)	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Cost Per Square Foot	$0		$0		$0
COST OF EACH	**$0**		**$0**		**$0**

Building 1

DATE OF ESTIMATE	00/00/00		00/00/00		00/00/00
Building Name	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Bridge Number	57-XXX		57-XXX		57-XXX
Structure Type	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	0 LF		0 LF		0 LF
Total Building Length (Feet)	0 LF		0 LF		0 LF
Total Area (Square Feet)	0 SQFT		0 SQFT		0 SQFT
Structure Depth (Feet)	0 LF		0 LF		0 LF
Footing Type (pile or spread)	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Cost Per Square Foot	$0		$0		$0
COST OF EACH	**$0**		**$0**		**$0**

TOTAL COST OF BRIDGES		**$0**
TOTAL COST OF BUILDINGS		**$0**
Time-Related Overhead	10%	**$0**
STRUCTURES MOBILIZATION	10%	**$0**
STRUCTURES CONTINGENCY*	25%	**$0**
TOTAL COST OF STRUCTURES		**$0**

Estimate Prepared By: _____ _____

------ Division of Structures — Date

EA: 07-35870 PID: 798010060

III. RIGHT OF WAY

Fill in all of the available information from the Right of Way Data Sheet.

				Current Value Future Use		*Escalated Value*
A)	A1)	Acquisition, including Excess Land, Fees, Damages, Goodwill	$	170,000	$	183,600
	A2)	Acquisition of Offsite Mitigation	$	0	$	0
	A3)	Railroad Acquisition	$	0	$	0
B)	B1)	Utility Relocation (State Share)	$	0	$	0
	B2)	Potholing (Design Phase)	$	20,000	$	21,600
C)	Utility - Advance Engineering Estimate (Encumber with State Only Funds)		$	0	$	0
D)	RAP and/or Last Resort Housing		$	0	$	0
E)	Clearance & Demolition		$	0	$	0
F)	Relocation Assistance (RAP and/or Last Resort Housing Costs)		$	0	$	0
G)	Title and Escrow		$	0	$	0
H)	Environmental Review		$	0	$	0
I)	Condemnation Settlements	0%	$	0	$	0
J)	Design Appreciation Factor	0%	$	0	$	0
K)	Utility Relocation (Construction Cost)		$	524,638	$	566,609

L)	**TOTAL RIGHT OF WAY ESTIMATE**	**$714,700**
M)	**TOTAL R/W ESTIMATE: Escalated**	**$771,900**
N)	**RIGHT OF WAY SUPPORT**	**$203,541**

Support Cost Estimate Prepared By	Michelle Smith	Project Coordinator[1]	213-922-3057 Phone
Utility Estimate Prepared By	Danny Mendoza	Utility Coordinator[2]	714-730-2370 Phone
R/W Acquisition Estimate Prepared By	Danny Mendoza	Right of Way Estimator[3]	714-730-2370 Phone

Note: Items G & H applied to items A + B

[1] When estimate has Support Costs only [2] When estimate has Utility Relocation [3] When R/W Acquisition is required

Attachment E: CEQA Exemption/NEPA Categorical Exclusion Determination Form

CEQA EXEMPTION / NEPA CATEGORICAL EXCLUSION
DETERMINATION FORM (rev. 05/2020)

Project Information

DIST-CO-RTE: 07-LA-60 **PM/PM:** 14.0/14.7

PROJ ID/EA: 0719000154/07-35870 **CE Number:** 202007001

Project Description

The Los Angeles County Metropolitan Transportation Authority (Metro), in cooperation with the California Department of Transportation (Caltrans), proposes to reconstruct the westbound (WB) State Route 60 (SR-60) on- and off-ramps at the 7th Avenue interchange to improve traffic operation and enhance traffic safety. The proposed Project is located within Hacienda Heights, an unincorporated community within Los Angeles County.

See Continuation Sheet.Caltrans CEQA Determination (Check one)

☐ **Not Applicable** – Caltrans is not the CEQA Lead Agency
☐ **Not Applicable** – Caltrans has prepared an IS or EIR under CEQA

Based on an examination of this proposal and supporting information, the project is:
☐ **Exempt by Statute.** (PRC 21080[b]; 14 CCR 15260 et seq.)
☒ **Categorically Exempt. Class 1**. (PRC 21084; 14 CCR 15300 et seq.)
☒ No exceptions apply that would bar the use of a categorical exemption (PRC 21084 and 14 CCR 15300.2). See the SER Chapter 34 for exceptions.
☐ **Covered by the Common Sense Exemption**. This project does not fall within an exempt class, but it can be seen with certainty that there is no possibility that the activity may have a significant effect on the environment (14 CCR 15061[b][3].)

Senior Environmental Planner or Environmental Branch Chief

Karl Price	Karl Price	8/5/2020
Print Name	Signature	Date

Project Manager

Zareh Shahbazian	Zareh Shahbazian	8/5/2020
Print Name	Signature	Date

Caltrans NEPA Determination (Check one)

Caltrans has determined that this project has no significant impacts on the environment as defined by NEPA, and that there are no unusual circumstances as described in 23 CFR 771.117(b). See SER Chapter 30 for unusual circumstances. As such, the project is categorically excluded from the requirements to prepare an EA or EIS under NEPA and is included under the following:

☒ **23 USC 326:** Caltrans has been assigned, and hereby certifies that it has carried out the responsibility to make this determination pursuant to 23 USC 326 and the Memorandum of Understanding dated April 18, 2019, executed between FHWA and Caltrans. Caltrans has determined that the project is a Categorical Exclusion under:

- ☐ **23 CFR 771.117(c): activity (Enter activity number)**
- ☒ **23 CFR 771.117(d): activity (d)(13)**
- ☐ **Activity Enter activity number listed in Appendix A of the MOU between FHWA and Caltrans**

☐ **23 USC 327:** Based on an examination of this proposal and supporting information, Caltrans has determined that the project is a Categorical Exclusion under 23 USC 327. The environmental review, consultation, and any other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 USC 327 and the Memorandum of Understanding dated December 23, 2016 and executed by FHWA and Caltrans.

Senior Environmental Planner or Environmental Branch Chief

Karl Price	Karl Price	8/5/2020
Print Name	Signature	Date

Project Manager/ DLA Engineer

Zareh Shahbazian	Zareh Shahbazian	8/5/2020
Print Name	Signature	Date

Date of Categorical Exclusion Checklist completion: July 20, 2020
Date of Environmental Commitment Record or equivalent: July 20, 2020

Briefly list environmental commitments on continuation sheet if needed (i.e., not necessary if included on an attached ECR). Reference additional information, as appropriate (e.g., additional studies and design conditions).

Continuation sheet:

Project Description

The Project proposes to reconstruct the WB SR-60 on- and off-ramps, modify the terminus of eastbound (EB) SR-60 off-ramp onto southbound (SB) 7th Avenue, and restripe SB 7th Avenue. Restriping the diverging and merging gore points are included as work elements of reconstruction of WB on- and off-ramps. Additional Project improvements include:

- Increasing storage on WB SR-60 on-ramp by lengthening and widening the ramp;
- Delineating the northbound (NB) 7th Avenue to provide one shared left turn through lane at WB SR-60 on-ramp/7th Avenue/Gale Avenue intersection;
- Modifying the traffic signals at the intersections of WB SR-60 on-ramp/7th Avenue/Gale Avenue and Gale Avenue/WB SR-60 off-ramp; and
- Realigning of barriers (i.e., retaining walls/sound walls) on the WB SR-60 on- and off-ramps.

No permanent right of way acquisitions of public or private property would occur as a result of the reconstruction and realignment of the ramps. Temporary construction easements (TCE) of residential properties would be required north of WB SR-60; however, the TCEs are not anticipated to require temporary or permanent relocation of residents.

Purpose/Need

The purpose of the proposed Project is to improve traffic safety, alleviate congestion, and improve traffic flow and operational conditions for the 7th Avenue WB on- and off-ramps, EB off-ramp, and along 7th Avenue and Gale Avenue.

During the morning peak period, the WB SR-60 on-ramp experiences heavy traffic volumes. This causes inadequate queuing capacity along the NB 7th Avenue left turn lane and WB Gale Avenue through lane at the intersection of 7th Avenue and Gale Avenue/SR-60 WB on-ramp, blocking access to adjacent driveways and businesses. In addition, the accident analysis provided in the I-605/SR-60 Corridor Improvement Project Study Report/Project Development Support Report (Caltrans 2015) indicates the collision rates at the WB off-ramp and EB off-ramp have higher than state average accident rates, with multiple accidents occurring at the ramp intersection. The Project would address the needs within the Project limits.

Environmental Commitments Record

An Environmental Commitments Record has been prepared for the Project and is attached to this form.

Permit Type	Agency	Date Submitted	Date Received	Expiration	Fee	Notes	Permit Requirement Completed	
							Name	Date
1602	California Department of Fish and Wildlife							
401	Regional Water Quality Control Board							
404	United States Army Corps of Engineers							

Date of ECR: July 20, 2020

Project Phase:
☒ PA/ED (*DED/FED*)
☐ PS&E Submittal_____ %
☐ Construction

ENVIRONMENTAL COMMITMENTS RECORD
SR-60/7th Avenue Interchange Improvement Project

07-LA-60
PM 14.0/14.7

EA 07-35870
EFIS 0719000154
Generalist: Vanessa Velasco
ECL: Jimmy Chan

Avoidance, Minimization, and/or Mitigation Measures	Environmental Analysis Source	Responsible for Development and/or Implementation of Measure	Timing/ Phase	If applicable, corresponding construction provision: (standard, special, non-standard)	Action(s) Taken to Implement Measure/if checked No, add Explanation here	PS&E Task Completed	Construction Task Completed	Environmental Compliance	
						Date / Initials	Date / Initials	YES	NO
AIR QUALITY									
AQ-1 **South Coast Air Quality Management District Rule 403.** During clearing, grading, earthmoving, or excavation operations, fugitive dust emissions will be controlled by regular watering or other dust preventive measures using the following procedures, as specified in South Coast Air Quality Management District Rule 403. All material excavated or graded will be sufficiently watered to prevent excessive amounts of dust. Watering will occur at least twice daily with complete coverage, preferably in the late morning and after work is done for the day. All material transported on site or off site will be either sufficiently watered or securely covered to prevent excessive amounts of dust. The areas disturbed by clearing, grading, earthmoving, or excavation operations will be minimized so as to prevent excessive amounts of dust. These control techniques will be indicated in project specifications. Visible dust beyond the property line emanating from the Project will be prevented to the maximum extent feasible.	Community Impact Assessment Memorandum	Caltrans District 7 and Los Angeles County Metropolitan Transportation Authority (or LA Metro's Designated Contractor)	During Construction						
BIOLOGICAL RESOURCES									
BIO-1 **Nesting Birds.** During construction, any native vegetation removal or tree (native or exotic) trimming activities will occur outside of the nesting bird season to avoid impacts on nesting birds. In the event that vegetation clearing is necessary during the nesting season (i.e., February 1 through September 30), a qualified biologist will conduct a preconstruction survey to identify the locations of nests. Should nesting birds be found, an exclusionary buffer will be established by a qualified biologist. This buffer should be clearly marked in the field by construction personnel under guidance of the biologist, and construction or clearing will not be conducted within this zone until the biologist determines that the young have fledged or the nest is no longer active.	Natural Environment Study (Minimal Impacts)	Caltrans District 7, Caltrans Biologist, and Los Angeles County Metropolitan Transportation Authority (or LA Metro's Designated Contractor)	During Construction						

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						Date / Initials	Date / Initials	YES	NO
BIO-2 **Environmental Sensitive Areas.** Prior to construction, exclusionary fencing will be installed around all environmentally sensitive areas, under supervision of a qualified biologist familiar with the biological resources in the Biological Study Area, to prevent accidental encroachment into these areas. Non-impacted Coast Live Oak Woodland habitat, United States Army Corps of Engineers and Regional Water Quality Board regulated waters of the U.S. and California Department of Fish and Wildlife regulated streambed within the Biological Study Area that is outside of, but adjacent to, the Project limits will be identified as environmentally sensitive areas.	Natural Environment Study (Minimal Impacts)	Caltrans District 7 and Los Angeles County Metropolitan Transportation Authority (or LA Metro's Designated Contractor)	During Construction						
BIO-3 **Weed Abatement.** During construction, the introduction and spread of invasive species to and from the job site into environmentally sensitive areas will be prevented with the implementation of Caltrans Standard Special Provision 14-6.05 Invasive Species Control.	Natural Environment Study (Minimal Impacts)	Caltrans District 7 and Los Angeles County Metropolitan Transportation Authority (or LA Metro's Designated Contractor)	During Construction	Standard Special Provision 14-6.05 Invasive Species Control.					
BIO-4 **Environmental Permits.** During construction, comply with the Project's Section 404 Nationwide Permit, Section 1602 Streambed Alteration Agreement and Section 401 Water Quality Certification.	Natural Environment Study (Minimal Impacts)	Caltrans District 7 and Los Angeles County Metropolitan Transportation Authority (or LA Metro's Designated Contractor)	During Construction						
COMMUNITY RESOURCES									
COM-1 **Relocation.** Where potential temporary relocation of residents may occur, the provisions of the Caltrans Right of Way Manual (Caltrans 2020) would be followed to ensure temporary relocation units are decent, safe, and sanitary; and that the tenants would be reimbursed for out-of-pocket expenses as it relates to the temporary relocation (i.e. moving expenses and increased housing costs).	Community Impact Assessment Memorandum Relocation Impact Statement	Caltrans District 7 and Los Angeles County Metropolitan Transportation Authority (or LA Metro's Designated Contractor)	During PS&E						

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						Date / Initials	Date / Initials	YES	NO
HAZARDOUS WASTE/MATERIALS									
HAZ-1 **Aerially-Deposited Lead.** Soils located within Caltrans right-of-way have the potential to contain aerially-deposited lead (ADL). During Final Design, soil sampling and analysis for ADL will be conducted on Caltrans right-of-way (within the Project disturbance limits) that have not been previously characterized, to determine the proper handling and disposal requirements. Soil determined to contain lead concentrations exceeding stipulated thresholds must be managed in accordance with Caltrans Standard Specifications, Section 14-11.08 Material Containing Hazardous Waste Concentrations of Aerially Deposited Lead (2018) and under the July 1, 2016, ADL Agreement between Caltrans and the California Department of Toxic Substances Control. This ADL Agreement allows such soils to be safely reused within the Project limits, as long as all requirements of the ADL Agreement are met.	Initial Site Assessment	Caltrans District 7 and Los Angeles County Metropolitan Transportation Authority (or LA Metro's Designated Contractor)	During PS&E and During Construction	Standard Specifications Section 14-11.08 Material Containing Hazardous Waste Concentrations of Aerially Deposited Lead					
HAZ-2 **Polychlorinated Biphenyls.** A utility pole mounted electrical transformer is located within the Project limits adjacent to the westbound SR-60 7th Avenue on-ramp and may contain polychlorinated biphenyls (PCB). Soil surrounding this utility pole may also be contaminated with PCBs if the transformer had leaked. During Final Design and prior to construction activities, soil in unpaved locations surrounding the transformer that would be disturbed as a result of the Project will be sampled for PCBs and heavy metals.	Initial Site Assessment	Caltrans District 7 and Los Angeles County Metropolitan Transportation Authority (or LA Metro's Designated Contractor)	During PS&E and Prior to Construction						
HAZ-3 **Lead Compliance Plan.** Prior to construction, a Lead Compliance Plan (LCP) will be developed by a Certified Industrial Hygienist, to protect workers from exposure to lead associated with aerially-deposited lead (ADL) and traffic stripe and pavement makings. The LCP will include procedures for the handling, management, sampling, and disposal of material containing lead. ADL investigations and traffic striping removal are separate tasks usually conducted by separate contractors, which each require a separate LCP.	Initial Site Assessment	Caltrans District 7 and Los Angeles County Metropolitan Transportation Authority (or LA Metro's Designated Contractor)	Prior to Construction						

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						Date / Initials	Date / Initials	YES	NO
HAZ-4 **Paint and Thermoplastic Striping.** Paint used for traffic striping and pavement marking may contain lead chromate. During construction, sampling, analysis, removal, and disposal of any traffic striping and pavement materials will be completed in accordance with Caltrans Standard Specifications, Section 14-11.12. Removal of Yellow Traffic Stripe and Pavement Marking with Hazardous Waste Residue and Section 36-4 Residue Containing Lead from Paint and Thermoplastic (2018), and will be consistent with the requirements within Caltrans Construction Manual, Chapter 7-107E Removing Yellow Traffic Stripe and Pavement Marking with Hazardous Waste Residue (2019). Before disposal, the contractor is required to sample the removed material for proper waste classification. Yellow traffic stripe and pavement marking that is characterized as hazardous waste requires disposal to a Department of Toxic Substances Control permitted Class I disposal facility.	Initial Site Assessment	Caltrans District 7 and Los Angeles County Metropolitan Transportation Authority (or LA Metro's Designated Contractor)	During Construction	Standard Specifications Section 14-11.12. Removal of Yellow Traffic Stripe and Pavement Marking with Hazardous Waste Residue Standard Specifications Section 36-4 Residue Containing Lead from Paint and Thermoplastic (2018)					
HAZ-5 **Treated Wood Waste.** Utility poles may contain creosote and pentachlorophenol. During construction, treated wood objects are handled as treated wood waste (TWW) and managed per Chapter 34, Title 22 California Code of Regulations Sections 67386.1 through 67386.12, "Alternative Management Standards for Treated Wood Waste." All TWW should be properly disposed at a landfill permitted to accept TWW.	Initial Site Assessment	Caltrans District 7 and Los Angeles County Metropolitan Transportation Authority (or LA Metro's Designated Contractor)	During Construction						
NOISE									
N-1 **Warning Signal.** During construction, ensure that the contractor will use an alternative warning method instead of a sound signal unless required by safety laws	Noise Study Report and Community Impact Assessment Memorandum	Caltrans District 7 and Los Angeles County Metropolitan Transportation Authority (or LA Metro's Designated Contractor)	During Construction						
N-2 **Use of Mufflers for Construction Equipment.** During construction, ensure that the contractor will equip all internal combustion engines with the manufacturer recommended muffler and will not operate any internal combustion engine on the job site without the appropriate muffler.	Noise Study Report and Community Impact Assessment Memorandum	Caltrans District 7 and Los Angeles County Metropolitan Transportation Authority (or LA Metro's Designated Contractor)	During Construction						
N-3 **Use of Mufflers for Construction Equipment.** During construction, ensure that all construction equipment, fixed or mobile, will be equipped with properly operating and maintained mufflers consistent with manufacturers' standards during all Project site excavation and grading on site.	Noise Study Report and Community Impact Assessment Memorandum	Caltrans District 7 and Los Angeles County Metropolitan Transportation Authority (or LA Metro's Designated Contractor)	During Construction						

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							Date / Initials	Date / Initials	YES	NO
N-4	**Placement of Stationary Construction Equipment.** During construction, ensure that all stationary construction equipment will be placed so that emitted noise is directed away from noise-sensitive locations nearest the Project site.	Noise Study Report and Community Impact Assessment Memorandum	Caltrans District 7 and Los Angeles County Metropolitan Transportation Authority (or LA Metro's Designated Contractor)	During Construction						
N-5	**Equipment Staging Areas.** During construction, ensure that construction vehicle staging areas and equipment maintenance areas will be located as far as possible from sensitive receptor locations.	Noise Study Report and Community Impact Assessment Memorandum	Caltrans District 7 and Los Angeles County Metropolitan Transportation Authority (or LA Metro's Designated Contractor)	During Construction						
N-6	**Construction Work Hours.** During construction, ensure that all heavy construction activities that would potentially exceed 86 dBA Lmax at 50 feet will be conducted between 6 a.m. and 9 p.m.	Noise Study Report and Community Impact Assessment Memorandum	Caltrans District 7 and Los Angeles County Metropolitan Transportation Authority (or LA Metro's Designated Contractor)	During Construction						
N-7	**Construction Work Hours.** Construction activities that occur outside of the Caltrans right-of-way shall be prohibited between weekday hours of 7:00 p.m. and 7:00 a.m., or at any time on Sundays or holidays. In addition, ensure that noise from mobile equipment operating outside of the right-of-way will not exceed 75 dBA Lmax at residential uses between the hours of 7:00 a.m. and 8:00 p.m. daily except Sundays and legal holidays and 60 dBA Lmax between the hours of 8:00 p.m. and 7:00 a.m. daily and on Sundays and legal holidays.	Noise Study Report and Community Impact Assessment Memorandum	Caltrans District 7 and Los Angeles County Metropolitan Transportation Authority (or LA Metro's Designated Contractor)	During Construction						

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						Date / Initials	Date / Initials	YES	NO
PALEONTOLOGICAL RESOURCES									
PAL-1 **Paleontological Monitoring.** Excavations are likely to impact Pleistocene-age older elevated and dissected alluvium (Qae) in all areas of the Project below the ground surface. Therefore, all excavations should be initially spot checked to inspect for the presence of native sensitive sedimentary deposits. Full time monitoring by a professional paleontologist should be implemented during excavations impacting Pleistocene-age older elevated and dissected alluvium (Qae) (high sensitivity), or Pliocene-age Fernando Formation, Pico Claystone (Tfp) (high sensitivity), Repetto Claystone (Tfr) (high sensitivity), and sandstone facies (Tfs) (high sensitivity) members. Additionally, excavations impacting Holocene-age younger alluvium (Qa) (low sensitivity), Holocene-age younger gravel and sand (Qg) (low sensitivity), and artificial fill (low sensitivity) should be spot-checked to inspect for the presence of older more paleontologically sensitive geologic units at depth. If it is determined that only Holocene-age younger sedimentary deposits (Qa, Qg), artificial fill, or previously disturbed sediments (low sensitivity) are impacted, the monitoring program should be reduced or suspended. During construction, if the monitor deems it necessary they will coordinate with Caltrans, Division of Environmental Planning, to consider if a Paleontological Mitigation Plan (PMP) is needed.	Paleontological Identification Report / Paleontological Evaluation Report	Los Angeles County Metropolitan Transportation Authority (or LA Metro's Designated Contractor)	During Construction						
PAL-2 **Fossil Discovery.** If any suspected subsurface bones or potential fossils are discovered during ground-disturbing activities, work in the immediate vicinity of the discovery must be halted. A professional paleontologist would be called to the site to assess the significance of the find.	Paleontological Identification Report / Paleontological Evaluation Report	Los Angeles County Metropolitan Transportation Authority (or LA Metro's Designated Contractor)	During Construction						
TRANSPORTATION									
TR-1 **Transportation Management Plan.** During Final Design, a TMP will be prepared for the Project. Key elements to be included in the TMP are the following: • Construction staging plans • Public awareness campaign • Analysis of impacts to traffic • Options for lane closures • Alternate route strategies • Access, circulation, parking, public transportation, and pedestrian and bicycle facilities	Community Impact Assessment Memorandum Traffic Operations Analysis Report	Caltrans District 7 and Los Angeles County Metropolitan Transportation Authority (or LA Metro's Designated Contractor)	During PS&E						

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						Date / Initials	Date / Initials	YES	NO
VISUAL/AESTHETICS									
VIS-1 **Landscaping Plan.** In-kind replacement vegetation will be implemented for the Project, such as native trees, shrubs, and grasses that are typically used by Caltrans in ornamental landscapes. During Final Design, a Landscaping Plan will be prepared in coordination with LA Metro and Caltrans District 7 Landscape Architect. The Landscaping Plan will include specific types of replacement vegetation and will need to be approved by Caltrans District 7 Landscape Architect.	Visual/Aesthetics	Caltrans District 7 Landscape Architect and Los Angeles County Metropolitan Transportation Authority (or LA Metro's Designated Contractor)	During PS&E						
WATER QUALITY									
WQ-1 **National Pollutant Discharge Elimination System Compliance.** LA Metro will ensure that its designated contractor comply with the provisions of the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit [CGP]) (Order No. 2009-0009-DWQ, NPDES No. CAS000002), as amended by Order No. 2010-0014-DWQ and Order No. 2012 0006 DWQ.	Water Quality Technical Memorandum	Los Angeles County Metropolitan Transportation Authority Resident Engineer and Designated Contractor	During Construction						
WQ-2 **National Pollutant Discharge Elimination System Compliance.** The Project will comply with the National Pollutant Discharge Elimination System (NPDES) Construction General Permit (CGP) by preparing and implementing a Storm Water Pollution Prevention Plan (SWPPP) to address all construction related activities, equipment, and materials that have the potential to impact water quality. The SWPPP will identify the sources of pollutants that may affect the quality of storm water and include Best Management Practices (BMP) to control the pollutants, such as sediment control, storm drain inlet protection, construction materials management and non-storm water BMPs. All work must conform to the Construction Site Best Management Practice Requirements specified in the latest edition of the Storm Water Quality Handbooks: Construction Site Best Management Practices Manual to control and minimize impacts of construction and construction related activities, materials, and pollutants on the watershed. These include, but are not limited to temporary sediment control, temporary soil stabilization, scheduling, waste management, materials handling, and other non-storm water BMPs.	Water Quality Technical Memorandum	Los Angeles County Metropolitan Transportation Authority Resident Engineer and Designated Contractor	Prior to and During Construction						
WQ-3 **Design Pollution Best Management Practices.** Design Pollution Prevention Best Management Practices (BMP) will be implemented, such as preservation of existing vegetation and slope/surface protection systems (permanent soil stabilization), as well as concentrated flow conveyance systems such as ditches, swales, oversize drains, flared end sections and outlet protection/velocity dissipation devices.	Water Quality Technical Memorandum	Los Angeles County Metropolitan Transportation Authority Resident Engineer and Designated Contractor	Prior to and During Construction						

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						Date / Initials	Date / Initials	YES	NO
WQ-4 **Best Management Practice Implementation.** LA Metro will ensure that the Caltrans-approved treatment BMPs are implemented in accordance with the requirements of the National Pollutant Discharge Elimination System (NPDES) Statewide Storm Water Permit Waste Discharge Requirements for Caltrans (Order No. 2012-0011-DWQ, NPDES No. CAS000003, adopted on September 19, 2012 and effective on July 1, 2013), as amended by Order No. 2014-006-EXEC (effective January 17, 2014), Order No. 2014-0077-DWQ (effective May 20, 2014) and Order No. 2015-0036-EXEC (effective April 7, 2015). Treatment BMPs may include biofiltration swales/strips.	Water Quality Technical Memorandum	Los Angeles County Metropolitan Transportation Authority Resident Engineer and Designated Contractor	Prior to and During Construction						

Attachment F: Right of Way Data Sheet

To: District Division Chief
Division of Right of Way and Land Surveys

Date: _August 2021_

Co. _LA___ Rte. ____60_____
EA ____07-35870_____

Attention: District Branch Chief
R/W Local Programs

Subject: **RIGHT OF WAY DATA SHEET - LOCAL PUBLIC AGENCIES**

Project Description:

The proposed Project would reconstruct the WB SR-60 on- and off-ramps, realign the ramp termini of the EB SR-60 off-ramp onto SB 7th Avenue, and restripe SB 7th Avenue. The reconstruction of the WB SR-60 on- and off-ramps would also restripe the diverging and merging gore points. Additional Project improvements include:

- Increasing storage on WB SR-60 on-ramp,
- Delineate the NB 7th Avenue to provide one shared left turn-through lane at WB SR-60 on-ramp/7th Avenue/Gale Avenue intersection,
- Provide an exclusive lane for EB SR-60 off-ramp to SB 7th Avenue,
- Modification to the traffic signals at the intersections of WB SR-60 on-ramp/7th Avenue/Gale Avenue and Gale Avenue/WB SR-60 off-ramp,
- Realignment of barriers (i.e., retaining walls/sound walls) on the WB SR-60 on- and off-ramps.

Right of way necessary for the subject project will be the responsibility of LA Metro.

The information in this data sheet was developed by HDR, Inc.

I. ***Right of Way Engineering***

Will Right of Way Engineering be required for this project?

- No _____
- Yes __X___ (Submit a copy of the *Right of Way Engineering Surveys and Mapping Services checklist for Locally Funded Projects*. This checklist includes, but is not limited to, the following items.)

• Hard copy (base map)	__X__
• Appraisal map	__X__
• Acquisition Documents	__X__
• Property Transfer Documents	__X__
• R/W Record Map	__X__
• Record of Survey	__X__

II. ***Engineering Surveys***

1. Is any surveying or photogrammetric mapping required?

   No _____ Yes __X___ (Complete the following.)

2. Datum Requirements

   Yes __X__Project will adhere to the following criteria:

- Horizontal - datum policy is NAD 83, CA-HPGN, EPOCH 1991.35 and English system of units and measures.
- Vertical - datum policy is NAVD 88.
- Units - metric is not required.

No ____ Provide an explanation on additional page.

3. Will land survey monument perpetuation be scoped into the project, if required?

Yes __X___

No _____ Provide explanation on additional page.

III. ***Parcel Information (Land and Improvements)***

Are there any property rights required within the proposed project limits?

No _____ Yes __X___ (Complete the following.)

	Part Take	Full Take	Estimate $
A. Number of Vacant Land Parcels	0	0	$ 0
B. Number of Single Family Residential Units	0	0	$ 0
C. Number of Multifamily Residential Units	0	0	$ 0
D. Number of Commercial/Industrial Parcels	0	0	$ 0
E. Number of Farm/Agricultural Parcels	0	0	$ 0
F. Permanent and/or Temporary Easements	12	0	$ 183,600
G. Other Parcels (define in "Remarks" section)	0	0	$ 0
Totals	**12**	**0**	$ **183,600**

**Costs include 8.0% escalation for 1 years.*

Temporary construction easements (TCE's), will be required from 11 residential properties and one flood control property for the construction of the WB off and on ramp at 7th Avenue.

IV. ***Dedications***

Are there any property rights which have been acquired, or anticipate will be acquired, through the "dedication" process for the Project?

No __X__ Yes _____ (Complete the following.)

Number of dedicated parcels _____

Have the dedication parcel(s) been accepted by the municipality involved?

V. ***Excess Lands / Relinquishments***

Are there Caltrans property rights which may become excess lands or potential relinquishment areas?

No __X___ Yes _____ (Provide an explanation on additional page.)

VI. ***Relocation Information***

Are relocation displacements anticipated?

No __X__ Yes _____ (Complete the following.)

A. Number of Single Family Residential Units	0	
Estimated RAP Payments		$ 0
B. Number of Multifamily Residential Units	0	
Estimated RAP Payments		$ 0
C. Number of Business/Nonprofit	0	
Estimated RAP Payments		$ 0
D. Number of Farms	0	
Estimated RAP Payments		$ 0
E. Other (define in the "Remarks" section)	0	
Estimated RAP Payments		$ 0
Totals	0	$ 0

VII. ***Utility Relocation Information***

Do you anticipate any utility facilities or utility rights of way to be affected?

No _____ Yes _X____ (Complete the following.)

		Estimated Relocation Expense		
Facility	Owner	State Obligation	Local Obligation	Utility Owner Obligation
A. Wooden Pole (E)	SCE	$	$566,609	$
B.		$	$	$
C.		$	$	$
D.		$	$	$
E.		$	$	$
F.		$	$	$
Totals		$0 *	$566,609	$
Number of facilities			1	

*This amount reflects the estimated total financial obligation by the State.

Any additional information concerning utility involvement on this project? No

VIII. ***Rail Information***

Are railroad facilities or railroad rights of way affected?

No __X___ Yes _____ (Complete the following.)

Owner's Name	Transverse Crossing	Longitudinal Encroachment
A.		
B.		

IX. ***Clearance Information***

Are there improvements that require clearance?

No __X___ Yes _____ (Complete the following.)

A. Number of Structures to be Demolished 0
Estimated Cost of Demolition $ 0

X. ***Hazardous Materials/Waste***

Are there any site(s) and/or improvements(s) in the Project Limits that are known to contain *hazardous materials*? None __X___ Yes _____ (Explain in the "Remarks" section.)

Are there any site(s) and/or improvement(s) in the Project Limits that are suspected to contain *hazardous waste*? None _____ Yes __X__ (Explain in the "Remarks" section.)

XI. ***Project Scheduling***

	Proposed lead time	Completion date
* Preliminary Engineering, Surveys	2 (months)	09/29/2020 (Actual)
* R/W Engineering Submittals	9 (months)	12/15/2022 (Target)
* R/W Appraisals/Acquisition	16 (months)	05/24/2024 (Target)
Proposed Environmental Clearance		05/10/2024 (Target)
Proposed R/W Certification		05/24/2024 (Target)

XII. ***Proposed Funding***

	Local	State	Federal	Other
Acquisition	$183,600			
Utilities	$566,609			
Relocation Assistance Program				
R/W Support	$188,727			
Cost (Eng. Appraisals, etc.)				

XIII. ***Remarks***

An ISA has been prepared for the Project and no individual parcel specific ISAs are recommended. PSIs for ADL, PCB if a pole-mounted electrical transformer near the SR-60 7th Avenue on-ramp (or the soils around the pole are disturbed) and traffic striping.

Project Sponsor Consultant
Prepared by:

Ronald Stone

01/10/2022
Date

Project Sponsor
Reviewed and Approved by:

Michelle Smith

Michelle E. Smith

09/07/2021
Date

EA/Project ID: 07-35870

I have reviewed the right-of-way information contained in this report and the Right-of-Way Data Sheet attached hereto, completed by LA Metro and/or its consultant ADVANTEC Consulting Engineers, and find the data to be complete as to form and procedures. No inference or assertions are made as to the validity of the data or the values implied by the Right-of-Way Data Sheet.

Brian Wallace
Caltrans District Branch Chief
Local Programs
Division of Right of Way

03/04/2022
Date

Attachment G: Storm Water Data Report

Dist-County-Route: 07-LA-60
Post Mile Limits: 14.0/14.7
Type of Work: Ramp Improvements
Project ID (EA): 0719000154 (358700)
Program Identification: MR20H
Phase: ☐ PID ☒ PA/ED ☐ PS&E

Regional Water Quality Control Board(s): Los Angeles (Region 4)

Total Disturbed Soil Area: 6.2 acres PCTA: 2.22 acres

Alternative Compliance (acres): -1.58 acres ATA 2 (50% Rule)? Yes ☐ No ☒

Estimated Const. Start Date: 07/26/2022 Estimated Const. Completion Date: 01/26/2023

Risk Level: RL 1 ☒ RL 2 ☐ RL 3 ☐ WPCP ☐ Other:

Is MWELO applicable? Yes ☐ No ☒

Is the Project within a TMDL watershed? Yes ☒ No ☐

TMDL Compliance Units (acres): -1.32 acres

Notification of ADL reuse (if yes, provide date): Yes ☐ Date: No ☒

This Report has been prepared under the direction of the following Licensed Person. The Licensed Person attests to the technical information contained herein and the date upon which recommendations, conclusions, and decisions are based. Professional Engineer or Landscape Architect stamp required at PS&E only.

10/08/2021
Rodrigo Gonzalez,
Registered Project Engineer/Landscape Architect

Richard Tran 10/11/2021
Richard Tran, Date
Caltrans Designated Oversight Representative

I have reviewed the stormwater quality design issues and find this report to be complete, current and accurate:

Zareh Shahbazian 10/11/2021
Zareh Shahbazian, Project Manager *Date*

10/18/2021
Jose Villasenor, Designated Maintenance Representative *Date*

for 10/19/2021
Ron Russak, Designated Landscape Architect Representative *Date*

[Stamp Required at PS&E only]

Sunny Liem 10/19/2021
Sunny Liem, District/Regional Design SW Coordinator or Designee *Date*

Attachment H: Risk Register

RISK REGISTER				Project Name:	SR 60 at 7th Avenue Interchange Improvements		DIST- EA	07-35870	Project Manag	Ed Miller							
Risk Identification							Risk Assessment						Risk Response				
Status	ID #	Type	Category	Title	Risk Statement	Current status/assumptions	Probability	Cost Impact	Cost Score	Time Impact	Time Score	Rationale	Strategy	Response Actions	Project Cost Impact	Risk Owner	Updated
Active	1	Threat	ROW	Clark Channel	This risk has a high level because if ROW encroachment within the channel occurs, environmental permitting will be required, delaying the project schedule.	- In the past months the design team has refined all the ramp horizontal and vertical alignments and identified the construction staging in order to minimize the TCE areas needed for construction and achieve the project safety improvement goals. - Clark Channel Outlet is 5 feet inside Caltrans ROW. The outlet consists of 3 drainage pipes through and existing retaining wall. Clark Channel is concrete lined within Caltrans ROW. - Clark Channel is an LA County Flood Control Facility.	4-High	4 -High	16	8 -High	32		AVOID - Environmental permitting for channel impacts needs to be avoided. Obtaining regulatory agency permits due to channel impacts could take 12 months. - Project team has developed 3 preliminary design options for avoiding channel impacts. However these options use non-standard retaining walls and thereby require an Advanced Planning Study (APS) to be performed and approval needed from Caltrans HQ Structures with schedule impacts. An APS is not included in the project's scope.	- A focused meeting regarding the potential impact to scope and schedule related to Clark Channel and residential encroachment onto Caltrans ROW was held with Metro on 6/19/19. - This item was introduced at the PDT mtg held on 7/17/19. - A follow up meeting with Metro management was held on 7/23/19.	$250,000	Metro	8/24/2021
Active	2	Threat	ROW	1113 Hedgepath Ave (APN 8217-027-022)	This risk has a high level since the dwelling and swimming pool are built adjacent to the Caltrans ROW.	- In the past months the design team has revined all the ramp horizontal and vertical alignments and identified the construction staging to minimize TCE areas needed for construction and achieve project safety improvement goals. - Existing Caltrans(?) ROW fence removed from top of block wall. - White picket fence placed on residential property within 3 feet of block wall. - Swimming pool within TCE limits.	4-High	4 -High	16	8 -High	32		MITIGATE - Metro ROW needs Legal Description and Plats to start 18-month ROW Process. -TCE boundaries need to be set in order for Plat Survey work to commence. - RTL date is currently 18 months away.	- A focused meeting regarding the potential impact to scope and schedule related to Clark Channel and residential encroachment onto Caltrans ROW was held with Metro on 6/19/19. - A follow up meeting with Metro management was held on 7/23/19.	$50,000	Metro	9/22/2021

RISK REGISTER				Project Name:	SR 60 at 7th Avenue Interchange Improvements		DIST- EA	07-35870	Project Manag	Ed Miller						
Risk Identification							Risk Assessment						Risk Response			
Status	ID #	Type	Category	Title	Risk Statement	Current status/assumptions	Probability	Cost Impact	Cost Score	Time Impact	Time Score	Rationale	Strategy	Response Actions	Project Cost Impact	Risk Owner	Updated
Active	3	Threat	ROW	1122 Hedgepath Ave (APN 8217-027-021)	This risk has a high level since the dwelling is encroaching into the Caltrans ROW and will need to be altered.	- In the past months the design team has revined all the ramp horizontal and vertical alignments and identified the construction staging to minimize TCE areas needed for construction and achieve project safety improvement goals. - Existing Caltrans(?) ROW fence removed from top of block wall. - Property owner has extended home and incorporated their outside wall, with windows, into the block wall. Home extension does not appear "code permitted". - Roof of home extension overhangs onto Caltrans ROW.	4-High	4 -High	16	8 -High	32		MITIGATE - Metro ROW needs Legal Description and Plats to start 18-month ROW Process. -TCE boundaries need to be set in order for Plat Survey work to commence. - RTL date is currently 18 months away.	- A focused meeting regarding the potential impact to scope and schedule related to Clark Channel and residential encroachment onto Caltrans ROW was held with Metro on 6/19/19. - A follow up meeting with Metro management was held on 7/23/19.	$50,000	Metro	9/22/2021
Active	4	Threat	ROW	1123 Finegrove Ave (APN 8217-027-005)	This risk has a high level since the dwelling is encroaching into the Caltrans ROW and will need to be altered.	- In the past months the design team has revined all the ramp horizontal and vertical alignments and identified the construction staging to minimize TCE areas needed for construction and achieve project safety improvement goals. - Existing Caltrans(?) ROW fence and block wall removed. Only pilasters remain. - Metal corrugated fence placed on residential property against pilasters. - Backyard patio roof overhangs onto Caltrans ROW.	4-High	4 -High	16	8 -High	32		MITIGATE - Metro ROW needs Legal Description and Plats to start 18-month ROW Process. -TCE boundaries need to be set in order for Plat Survey work to commence. - RTL date is currently 18 months away.	- A focused meeting regarding the potential impact to scope and schedule related to Clark Channel and residential encroachment onto Caltrans ROW was held with Metro on 6/19/19. - A follow up meeting with Metro management was held on 7/23/19.	$50,000	Metro	9/22/2021

Attachment I: Traffic Operation Assessment Report

Final Traffic Operations Analysis Report (TOAR)

SR-60 at 7th Avenue Interchange Improvement project

Hacienda Heights, CA

October 2020

Attachment J: Transportation Management Plan Data Sheet

TRANSPORTATION MANAGEMENT PLAN DATA SHEET

(Preliminary TMP Elements and Costs)

SR-60/7th Avenue Interchange Improvement Project

Registered Civil Engineer Certification:
This Transportation Management Plan Data Sheet has been prepared under the direction of the following registered engineer. The registered engineer attest to the technical information contained therein and has judged the qualifications of the technical specialists providing engineering data upon which recommendations, conclusions, and decisions are based.

…… ……01/25/2022……..
Ronald Stone, PE, Project Engineer Date
ADVANTEC Consulting Engineers

Approval Recommendation by:

…….. 3-7-2022
Daisy Vergara, Caltrans TMP Manager, North Date

Approval by:

…….. 03-08-2022
Morteza Fahrtash, Caltrans District Traffic Manager (Acting) Date

TRANSPORTATION MANAGEMENT PLAN DATA SHEET
(Preliminary TMP Elements and Costs)

Co/Rte/PM 07-LA-60-PM 14.0/14.7 EA 07-35870 Alternative No. 2
Project Limit WB SR-60 at 7th Ave off-ramp to WB SR-60 at 7th Ave on-ramp, 7th Ave at Gale Avenue to 7th Ave at EB SR-60 on-ramp

Project Description SR-60 at 7th Avenue Interchange Improvements
Expected Construction Schedule 12 months

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1) Public Information
- ☒ a. Brochures and Mailers ..... $ 3,000
- ☐ b. Press Release ..... $ -
- ☒ c. Paid Advertising ..... $ 100,000
- ☐ d. Public Information Center/Kiosk ..... $ -
- ☒ e. Public Meeting/Speakers Bureau ..... $ 60,000
- ☒ f. Telephone Hotline ..... $ 18,000
- ☒ g. Internet/Project Website/Social Media ..... $ 10,000
- ☐ h. Other: Community Task Force Communication with Selected Stakeholders, Freight Travel Information ..... $ -

2) Motorists Information Strategies
- ☐ a. Changeable Message Signs ..... $ -
- ☒ b. Portable Changeable Message Signs ..... $ 30,000
- ☒ c. Ground Mounted Signs ..... $ 16,000
- ☐ d. Highway Advisory Radio (HAR) ..... $ -
- ☐ e. Caltrans Highway Information Network (CHIN) ..... $ -
- ☐ f. Other: Automated Work Zone Information System ..... $ -

3) Incident Management
- ☒ a. Construction Zone Enhancement Enforcement Program (COZEEP) ..... $ 100,000
- ☒ b. Tow/Freeway Service Patrol ..... $ 50,000
- ☐ c. Traffic Management Team ..... $ -
- ☐ d. Helicopter Surveillance ..... $ -
- ☐ e. Traffic Surveillance Stations (Loop Detector and CCTV) ..... $ -
- ☐ f. Other: ..... $ -

4) Construction Strategies

- ☒ a. Lane Closure Chart ..... $ -
- ☐ b. Reversible Lanes ..... $ -
- ☐ c. Total Facility Closure ..... $ -
- ☐ d. Contra Flow ..... $ -
- ☐ e. Truck Traffic Restrictions ..... $ -
- ☒ f. Reduced Speed Zone ..... $ -
- ☐ g. Ramp Closure ..... $ -
- ☐ h. Incentive/Disincentive ..... $ -
- ☐ i. Moveable Barrier ..... $ -
- ☐ j. Other: ..... $ -

5) Demand Management

- ☐ a. HOV Lanes/Ramps (New or Convert) ..... $ -
- ☐ b. Park and Ride ..... $ -
- ☐ c. Rideshare ..... $ -
- ☐ d. Variable Work Hours ..... $ -
- ☐ e. Telecommute ..... $ -
- ☐ f. Ramp Metering (Temporary Installations) ..... $ -
- ☐ g. Ramp Metering (Modify Existing) ..... $ -
- ☐ h. Other: ..... $ -

6) Alternative Route Strategies

- ☐ a. Local Street Improvement (widening, traffic signal, etc.) ..... $ -
- ☐ b. Traffic Control Officer ..... $ -
- ☐ c. Parking Restrictions ..... $ -
- ☐ d. Other: ..... $ -

7) Other Strategies

- ☐ a. Application of Technology ..... $ -
- ☐ b. Other: ..... $ -

TOTAL ESTIMATED COST OF TMP ELEMENTS = ...$ 387,000

PUBLIC INFORMATION

BROCHURES AND MAILERS:

Send courtesy notices by direct mail to the project neighborhood to inform them of construction and work zone information. The information provided will include the project's start date, schedules and alternative routes. It is anticipated that 1,000 brochures and mailers will be needed at $3 each.

PRESS RELEASE:

Provide press release whenever any facilities are closed for construction. During any ramp closures necessitated for the construction, Caltrans will implement a press release upon receiving ramp closure information from the Project Resident Engineer.

PAID ADVERTISING:

Notifying the public using radio ads, television commercials and newspaper ads, the public will be informed of construction and work zone information. The information provided will include the project's start date, schedules and alternative routes. Estimating $20,000/day for 5 days.

PUBLIC MEETING

It is anticipated that public meetings will be held at the project start and at the beginning of each stage (up to 5 stages) to present the project information to the community resulting in 6 meetings at $10,000 = $60,000

INTERNET

A project website will be designed to provide real-time interactive information on project plans and progress.

MOTORISTS INFORMATION STRATEGIES

PORTABLE CHANGEABLE MESSAGE SIGN:

PCMS will be placed at key locations to notify motorists of construction activities, ramp closures and detours. It is assumed that a total of 3 PCMS at a cost of $10,000 each would be used as a TMP measure to be used for each stage. The PCMS will be moved for each stage as needed. Additional PCMSs may be specified as part of the project signing.

GROUND MOUNTED SIGNS:

Temporary ground mounted signs will provide traveler information to guide motorists through the work zone. Each stage will require up to 40 signs at $400 per sign for each stage (3 stages) = $16,000.

CONSTRUCTION STRATEGIES

TRAFFIC HANDLING PLANS:

As part of the PS&E package Stage Construction plans shall be prepared that show the sequence of construction activities. The order of work specification will identify the portions of the project to be completed in a specific sequence to minimize impacts to the traveling public.

In addition to the stage construction plans, traffic handling plans shall be included. The traffic handling plan shall contain sufficient alignment detail, profiles and typical cross-sections to guide traffic through the work zone in the sequence shown in the stage construction plans.

RAMP CLOSURE

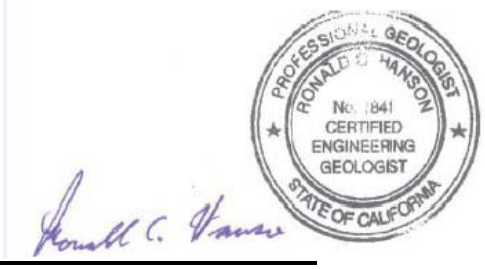
It may be necessary to temporarily close on/off ramp during the course of the project. Advance warning signs shall be provided to alert motorists of closure. Supporting traffic counts and analysis shall also be prepared.

Attachment K: Structural Preliminary Geotechnical Report (SPGR)

SR-60/7th Avenue Interchange Improvement
CALTRANS PROJECT NO. EA 07-35870
PM 14.0/14.5
(CITY OF HACIENDA HEIGHTS)

Structure Preliminary Geotechnical Report

THE STATE OF CALIFORNIA:
Department of Transportation
In cooperation with
LA METRO



07/09/2019
Date.

Prepared by:
Ronald C. Hanson
Principal Engineering Geologist
Geo-Advantec, Inc.

07/09/2019
Date.

Prepared by:
Yasmin Proa
Project Engineer
Geo-Advantec, Inc.

07/09/2019
Date.

Reviewed by:
Shawn Arianna
Principal Geotechnical Engineer
Geo-Advantec, Inc.

Attachment L: I-605 CIP Project Study Report-Project Development Report

07 - LA - 605 PM 15.1/20.4
07 - LA - 60 PM 10.2/15.6
EA 07-31010K
Project ID# 0714000331
December 2015

Project Study Report-Project Development Support (PSR-PDS) To Request Approval of a Locally Funded Project to Proceed to Project Approval and Environmental Document Phase

On Route Interstate 605 and State Route 60

I-605 between south of Rose Hills Road (PM 15.1) and I-10 (PM 20.4)

SR-60 between Santa Anita Avenue (PM 10.2) and east of Turnbull Canyon Road (PM 15.6)

APPROVAL RECOMMENDED:

Ernesto Chaves
Los Angeles Metro
Accepts Risks Identified in this PSR-PDS and Attached Risk Register

APPROVAL RECOMMENDED:

Syed Huq, P.E.
CALTRANS PROJECT MANAGER

APPROVED:

for *CARRIE BOWEN*
DISTRICT DIRECTOR

12/18/15
DATE

Attachment M: Preliminary Materials Report

SR-60/7th Avenue Interchange Improvement
CALTRANS PROJECT NO. EA 07-35870
PM 14.0/14.7
(CITY OF HACIENDA HEIGHTS)

Preliminary Materials Information Report

THE STATE OF CALIFORNIA:
Department of Transportation
In cooperation with
LA METRO

06/19/2020
Date.

Prepared by:
Yasmin Proa
Project Engineer
Geo-Advantec, Inc.

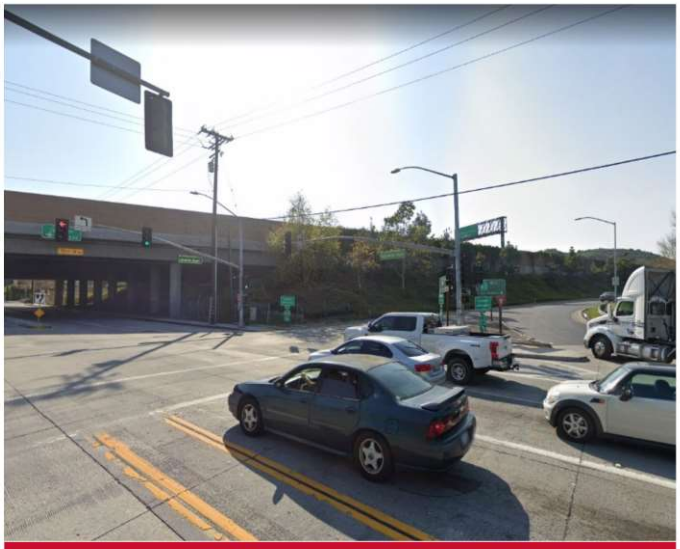
06/19/2020
Date.

Prepared by:
Ronald C. Hanson
Principal Engineering Geologist
Geo-Advantec, Inc.

06/19/2020
Date.

Reviewed by:
Shawn Ariannia
Principal Geotechnical Engineer
Geo-Advantec, Inc.

Attachment N: ISA Report



Initial Site Assessment

SR-60/7th Avenue Interchange Improvement Project

SR-60: PM 14.0/14.7

EA No. 07-35870

EFIS No. 0719000154

June 15, 2020

Submitted to:

Advantec Consulting Engineers, Inc.
21700 Copley Drive, Suite 350
Diamond Bar, CA 91765

Prepared by:

HDR Engineering, Inc.
350 S. Grand Avenue, Suite 2900
Los Angeles, CA 90071

Metro

Caltrans