STATE OF CALIFORNIA - CALIFORNIA TRANSPORTATION COMMISSION
CTC-0001 (NEW 07/2018)

ROAD REPAIR AND ACCOUNTABILITY ACT OF 2017
PROJECT BASELINE AGREEMENT
SR47/VT Bridge & Front St/Harbor Blvd Interchange Reconfiguration

Resolution TCEP-P-2021-07B
(will be completed by CTC)

1. **FUNDING PROGRAM**

- ☐ Active Transportation Program
- ☐ Local Partnership Program (Competitive)
- ☐ Solutions for Congested Corridors Program
- ☐ State Highway Operation and Protection Program
- ☒ Trade Corridor Enhancement Program

2. **PARTIES AND DATE**

2.1 This Project Baseline Agreement (Agreement) for the *SR47/VT Bridge & Front St/Harbor Blvd Interchange Reconfiguration*, effective on, June 23, 2021 (will be completed by CTC), is made by and between the California Transportation Commission (Commission), the California Department of Transportation (Caltrans), the Project Applicant, *City of Los Angeles Harbor Department*, and the Implementing Agency, *City of Los Angeles Harbor Department*, sometimes collectively referred to as the "Parties".

3. **RECITAL**

3.2 Whereas at its *Commission Programmed Project Date* meeting the Commission approved the Trade Corridor Enhancement Program, and included in this program of projects the *SR47/VT Bridge & Front St/Harbor Blvd Interchange Reconfiguration*, the parties are entering into this Project Baseline Agreement to document the project cost, schedule, scope and benefits, as detailed on the Project Programming Request Form attached hereto as Exhibit A and the Project Report attached hereto as Exhibit B, as the baseline for project monitoring by the Commission.

3.3 The undersigned Project Applicant certifies that the funding sources cited are committed and expected to be available; the estimated costs represent full project funding; and the scope and description of benefits is the best estimate possible.

4. **GENERAL PROVISIONS**

The Project Applicant, Implementing Agency, and Caltrans agree to abide by the following provisions:

4.1 To meet the requirements of the Road Repair and Accountability Act of 2017 (Senate Bill [SB] 1, Chapter 5, Statutes of 2017) which provides the first significant, stable, and on-going increase in state transportation funding in more than two decades.

4.2 To adhere, as applicable, to the provisions of the Commission:

- ☐ Resolution *Insert Number*, "Adoption of Program of Projects for the Active Transportation Program", dated
- ☐ Resolution *Insert Number*, "Adoption of Program of Projects for the Local Partnership Program", dated
- ☐ Resolution *Insert Number*, "Adoption of Program of Projects for the Solutions for Congested Corridors Program", dated
- ☐ Resolution *Insert Number*, "Adoption of Program of Projects for the State Highway Operation and Protection Program", dated
- ☒ Resolution G-20-77, "Adoption of Program of Projects for the Trade Corridor Enhancement Program", dated December 2, 2020

4.3 All signatories agree to adhere to the Commission's Guidelines. Any conflict between the programs will be resolved at the discretion of the Commission.

4.4 All signatories agree to adhere to the Commission's SB 1 Accountability and Transparency Guidelines and policies, and program and project amendment processes.

4.5 The City of Los Angeles Harbor Department agrees to secure funds for any additional costs of the project.

4.6 The City of Los Angeles Harbor Department agrees to report to Caltrans on a quarterly basis; after July 2019, reports will be on a semi-annual basis on the progress made toward the implementation of the project, including scope, cost, schedule, outcomes, and anticipated benefits.

4.7 Caltrans agrees to prepare program progress reports on a quarterly basis; after July 2019, reports will be on a semi-annual basis and include information appropriate to assess the current state of the overall program and the current status of each project identified in the program report.

4.8 The City of Los Angeles Harbor Department agrees to submit a timely Completion Report and Final Delivery Report as specified in the Commission's SB 1 Accountability and Transparency Guidelines.

4.9 All signatories agree to maintain and make available to the Commission and/or its designated representative, all work related documents, including without limitation engineering, financial and other data, and methodologies and assumptions used in the determination of project benefits during the course of the project, and retain those records for four years from the date of the final closeout of the project. Financial records will be maintained in accordance with Generally Accepted Accounting Principles.

4.10 The Transportation Inspector General of the Independent Office of Audits and Investigations has the right to audit the project records, including technical and financial data, of the Department of Transportation, the Project Applicant, the Implementing Agency, and any consultant or sub-consultants at any time during the course of the project and for four years from the date of the final closeout of the project, therefore all project records shall be maintained and made available at the time of request. Audits will be conducted in accordance with Generally Accepted Government Auditing Standards.

5. SPECIFIC PROVISIONS AND CONDITIONS

5.1 Project Schedule and Cost

See Project Programming Request Form, attached as Exhibit A.

5.2 Project Scope

See Project Report or equivalent, attached as Exhibit B. At a minimum, the attachment shall include the cover page, evidence of approval, executive summary, and a link to or electronic copy of the full document.

5.3 Other Project Specific Provisions and Conditions

In the event of a cost overrun the state will cover a share proportionate to the state contribution of the TCEP funding identified in the Project Programming Request (PPR) submitted with this baseline agreement. (For example, if the state/regional TCEP funding share was a 40/60 ratio, the state may fund no more than 40% of the cost overrun.)

Attachments:

Exhibit A: Project Programming Request Form
Exhibit B: Project Report

SIGNATURE PAGE
TO
PROJECT BASELINE AGREEMENT

SR47/VT Bridge & Front St/Harbor Blvd Interchange Reconfigu

Resolution TCEP-P-2021-07B

(See attached)
Date

City of Los Angeles Harbor Department

Project Applicant

(See attached)
Date

City of Los Angeles Harbor Department

Implementing Agency

4/27/2021
Date

District Director

California Department of Transportation

6/17/21
Toks Omishakin
Date

Director

California Department of Transportation

07/16/21
Mitchell Weiss
Date

Executive Director

California Transportation Commission

THE CITY OF LOS ANGELES
by its Board of Harbor Commissioners

By _____
EUGENE D. SEROKA, Executive Director

Attest: _____
AMBER M. KLESGES, Board Secretary

APPROVED AS TO FORM AND
LEGALITY:

4/7, 2021
MICHAEL N. FEUER, City Attorney
JANNA B. SIDLEY, General Counsel

By _____
Estelle M. Braaf, Deputy City Attorney

21-9800

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

PROJECT PROGRAMMING REQUEST (PPR)

PRG-0010 (REV 08/2020)

PPR ID
ePPR-0723-2020-0009 v0

Amendment (Existing Project) ☐ YES ☒ NO | Date 06/04/2021 10:32:58

Programs ☐ LPP-C ☐ LPP-F ☐ SCCP ☐ TCEP ☐ STIP ☒ Other

District	EA	Project ID	PPNO	Nominating Agency	
07	31850	0715000304	5088	Port of Los Angeles	
County	**Route**	**PM Back**	**PM Ahead**	**Co-Nominating Agency**	
Los Angeles	47	0.300	0.800		
				MPO	**Element**
				SCAG	Local Assistance
Project Manager/Contact			**Phone**	**Email Address**	
Kerry Cartwright			310-732-7702	kcartwright@portla.org	

Project Title

State Route 47-Vincent Thomas Bridge and Harbor Boulevard-Front Street Interchange Improvement Project

Location (Project Limits), Description (Scope of Work)

The project entails modifying the existing on- and off-ramps to improve safety, access, and the efficient operation of the SR-47 / Front Street / Harbor Blvd Interchange. (See Page 2 for additional project information). Both SR 47 and Front Street are USDOT National Highway System (NHS) Intermodal Connector Routes, and thus on the National Highway Freight Network (NHFN) - Primary Highway Freight System (PHFS). The project is contained in the State's federally required and approved freight plan (2014 California Freight Mobility Plan and 2018 update currently being reviewed by USDOT). (See Additional Information for detailed scope).

Component	Implementing Agency
PA&ED	Port of Los Angeles
PS&E	Port of Los Angeles
Right of Way	Port of Los Angeles
Construction	Port of Los Angeles

Legislative Districts

Assembly:	70	Senate:	35	Congressional:	44

Project Milestone	Existing	Proposed
Project Study Report Approved	04/05/2017	
Begin Environmental (PA&ED) Phase		07/01/2017
Circulate Draft Environmental Document — Document Type (ND/MND)/FONSI		10/15/2018
Draft Project Report		05/08/2018
End Environmental Phase (PA&ED Milestone)		06/30/2019
Begin Design (PS&E) Phase		12/10/2018
End Design Phase (Ready to List for Advertisement Milestone)		05/31/2022
Begin Right of Way Phase		10/01/2021
End Right of Way Phase (Right of Way Certification Milestone)		12/31/2021
Begin Construction Phase (Contract Award Milestone)		12/01/2022
End Construction Phase (Construction Contract Acceptance Milestone)		11/30/2025
Begin Closeout Phase		12/01/2025
End Closeout Phase (Closeout Report)		05/31/2026

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

PROJECT PROGRAMMING REQUEST (PPR)

PRG-0010 (REV 08/2020)

PPR ID
ePPR-0723-2020-0009 v0

Date 06/04/2021 10:32:58

Purpose and Need

Currently, westbound SR-47 traffic and southbound I-110 traffic exit at Harbor Boulevard, creating safety and operational issues due to significant weaving as traffic approaches the intersection. Nonstandard weaving exists as merging traffic approaches the intersection from both the Westbound SR-47 off ramp and the Southbound I-110 off ramp. Nonstandard merging also exists on the Eastbound SR-47 on-ramp from Harbor Boulevard as traffic approaches the Vincent Thomas Bridge. Traffic routinely backs up onto both off-ramps during the peak period as a result of the two freeways (I-110 & SR-47) terminating at the same point. With the projected future background growth and the development of the Waterfront, the Harbor Department anticipates that traffic back up will increase and greatly reduce the operational efficiency of the interchange.

NHS Improvements ☒ YES ☐ NO	Roadway Class 1	Reversible Lane Analysis ☐ YES ☒ NO

Inc. Sustainable Communities Strategy Goals ☒ YES ☐ NO Reduce Greenhouse Gas Emissions ☒ YES ☐ NO

Project Outputs

Category	Outputs	Unit	Total
Other	Port Improvements	EA	1
Operational Improvement	Interchange modifications	EA	1
Operational Improvement	Intersection / Signal improvements	EA	1

Additional Information

Project Scope (Continued):
To address these needs the project entails the following scope:
• Removal of the existing westbound SR 47/Vincent Thomas (VT) Bridge off-ramp with Harbor Boulevard, which eliminates an unsafe and highly congested weave, with high truck volumes
• Construction of new westbound SR 47/VT Bridge off-ramp (north of Bridge) with Front Street; including a new traffic signal that enables consolidation of two, closely spaced intersections
• Realignment of existing eastbound SR 47/VT Bridge on-ramp from Harbor Boulevard further to the west to increase eastbound merge length by 325 feet and reduce grade by 1.2%; both of which improves safety and traffic operations, especially given high truck volume (25%-40%)
• Modification of the eastbound off-ramp/auxiliary lane from I-110 connector and Gaffey Street to provide two lanes to the off-ramp, with the interior lane as a shared thru/off-ramp lane
• Removal of POLA-owned rail spur that is no longer in service

Project Benefits:
•Net present value benefit of $134,929,104; benefit-cost ratio = 3.3
•Reduces vehicle (autos & trucks) delay & travel time by 5,630 vehicle-hours/day on National Highway Freight Network (NHFN) - Primary Highway Freight System (PHFS) routes
•Improves traffic operating conditions (levels of service) on the NHFN-PHFS
•Reduces accident potential due to reduced VHT & elimination of non-standard merges/weaves
•Reduce emissions in the San Pedro and Wilmington communities, which are State designated “Disadvantaged/Low Income Communities” and also two of the State’s highest ranked communities in the California Communities Environmental Health Screening Tool (CalEnviroScreen 3.0, 2018)

Project cost increased from $60.355M to $70.5M due to unforeseen geotechnical conditions encountered during site investigative work during PS&E. These conditions require settlement mitigation and monitoring during construction and will not change the final improvement scope of the project. Three of the six retaining walls identified will now be non-standard soldier pile systems and additional utility relocations are required. Furthermore, general refinement of scope details with design progression and updated unit pricing also contributed to cost increase. Net Present Value and Benefit Cost Ratio was updated on the Performance Indicator and Measures section and on this section to reflect project cost increase stated above. Also, Benefit Cost Ratio above was previously shown as 3.8 due to a typo, correct number should have been 3.9 in this section, and is now 3.3.

Additionally, 5 months were added to the project schedule to account for the delays in preparing alternative settlement mitigation methods and design.

PPR ID
ePPR-0723-2020-0009 v0

Performance Indicators and Measures						
Measure	**Required For**	**Indicator/Measure**	**Unit**	**Build**	**Future No Build**	**Change**
Congestion Reduction	TCEP	Daily Vehicle Hours of Travel Time Reduction	Hours	2,440	8,070	-5,630
	TCEP	Daily Truck Trips	# of Trips	0	0	0
	TCEP	Daily Truck Miles Traveled	Miles	0	0	0
Throughput	TCEP	Change in Truck Volume That Can Be Accommodated	# of Trucks	0	0	0
	TCEP	Change in Rail Volume That Can Be Accommodated	# of Trailers	0	0	0
			# of Containers	0	0	0
	TCEP	Change in Cargo Volume That Can Be Accommodated	# of Tons	0	0	0
			# of Containers	0	0	0
System Reliability	TCEP	Truck Travel Time Reliability Index	Index	0	0	0
	TCEP	Daily Vehicle Hours of Travel Time Reduction	Hours	2,440	8,070	-5,630
Velocity	TCEP	Travel Time or Total Cargo Transport Time	Hours	630	1,930	-1,300
Air Quality & GHG	LPPF, LPPC, SCCP, TCEP	Particulate Matter	PM 2.5 Tons	0	0	0
			PM 10 Tons	0	0	0
	LPPF, LPPC, SCCP, TCEP	Carbon Dioxide (CO2)	Tons	-5,927	0	-5,927
	LPPF, LPPC, SCCP, TCEP	Volatile Organic Compounds (VOC)	Tons	-1	0	-1
	LPPF, LPPC, SCCP, TCEP	Sulphur Dioxides (SOx)	Tons	0	0	0
	LPPF, LPPC, SCCP, TCEP	Carbon Monoxide (CO)	Tons	-15	0	-15
	LPPF, LPPC, SCCP, TCEP	Nitrogen Oxides (NOx)	Tons	-14	0	-14
Safety	LPPF, LPPC, SCCP, TCEP	Number of Non-Motorized Fatalities and Non-Motorized Serious Injuries	Number	0	0	0
	LPPF, LPPC, SCCP, TCEP	Number of Fatalities	Number	0.178	0.195	-0.017
	LPPF, LPPC, SCCP, TCEP	Fatalities per 100 Million VMT	Number	0.285	0.312	-0.027
	LPPF, LPPC, SCCP, TCEP	Number of Serious Injuries	Number	0.536	0.582	-0.046
	LPPF, LPPC, SCCP, TCEP	Number of Serious Injuries per 100 Million VMT	Number	0.857	0.93	-0.073
Economic Development	LPPF, LPPC, SCCP, TCEP	Jobs Created (Direct and Indirect)	Number	350	0	350
Cost Effectiveness	LPPF, LPPC, SCCP, TCEP	Cost Benefit Ratio	Ratio	3.3	0	3.3

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

PROJECT PROGRAMMING REQUEST (PPR)

PRG-0010 (REV 08/2020)

PPR ID
ePPR-0723-2020-0009 v0

District	County	Route	EA	Project ID	PPNO
07	Los Angeles	47	31850	0715000304	5088

Project Title

State Route 47-Vincent Thomas Bridge and Harbor Boulevard-Front Street Interchange Improvement Project

Existing Total Project Cost ($1,000s)									
Component	Prior	20-21	21-22	22-23	23-24	24-25	25-26+	Total	Implementing Agency
E&P (PA&ED)									Port of Los Angeles
PS&E									Port of Los Angeles
R/W SUP (CT)									Port of Los Angeles
CON SUP (CT)									Port of Los Angeles
R/W									Port of Los Angeles
CON									Port of Los Angeles
TOTAL									
Proposed Total Project Cost ($1,000s)									Notes
E&P (PA&ED)	1,075							1,075	
PS&E	3,450	1,788	3,512					8,750	
R/W SUP (CT)									
CON SUP (CT)			1,209	1,727	3,523			6,459	
R/W									
CON			19,174	15,523	18,272	1,230	17	54,216	
TOTAL	4,525	1,788	23,895	17,250	21,795	1,230	17	70,500	

Fund #1:	Local Funds - Port Funds (Committed)								Program Code
Existing Funding ($1,000s)									
Component	Prior	20-21	21-22	22-23	23-24	24-25	25-26+	Total	Funding Agency
E&P (PA&ED)									Port of Los Angeles
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL									
Proposed Funding ($1,000s)									Notes
E&P (PA&ED)	75							75	
PS&E	160	1,788	3,512					5,460	
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON							17	17	
TOTAL	235	1,788	3,512				17	5,552	

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

PROJECT PROGRAMMING REQUEST (PPR)

PRG-0010 (REV 08/2020)

PPR ID
ePPR-0723-2020-0009 v0

Fund #2:	Local Funds - Measure R (Committed)								Program Code
Existing Funding ($1,000s)									
Component	Prior	20-21	21-22	22-23	23-24	24-25	25-26+	Total	Funding Agency
E&P (PA&ED)									Los Angeles County Metropolitan Tra
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL									
Proposed Funding ($1,000s)									Notes
E&P (PA&ED)	540							540	
PS&E	3,290							3,290	
R/W SUP (CT)									
CON SUP (CT)			1,209	1,727	3,523			6,459	
R/W									
CON			5,791	8,273	16,872			30,936	
TOTAL	3,830		7,000	10,000	20,395			41,225	

Fund #3:	Federal Disc. - Port Infrastructure Development Program (Committed)								Program Code
Existing Funding ($1,000s)									
Component	Prior	20-21	21-22	22-23	23-24	24-25	25-26+	Total	Funding Agency
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL									
Proposed Funding ($1,000s)									Notes
E&P (PA&ED)									U.S.D.O.T.
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON				7,250	1,400	1,230		9,880	
TOTAL				7,250	1,400	1,230		9,880	

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

PROJECT PROGRAMMING REQUEST (PPR)

PRG-0010 (REV 08/2020)

PPR ID
ePPR-0723-2020-0009 v0

Fund #4:	State SB1 TCEP - Trade Corridors Enhancement Account (Committed)								Program Code
	Existing Funding ($1,000s)								
Component	Prior	20-21	21-22	22-23	23-24	24-25	25-26+	Total	Funding Agency
E&P (PA&ED)									California Transportation Commissio
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL									
	Proposed Funding ($1,000s)								Notes
E&P (PA&ED)									REGIONAL
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON			13,383					13,383	
TOTAL			13,383					13,383	

Fund #5:	Local Funds - Measure R (Committed)								Program Code
	Existing Funding ($1,000s)								
Component	Prior	20-21	21-22	22-23	23-24	24-25	25-26+	Total	Funding Agency
E&P (PA&ED)									South Bay Cities Council of Governm
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL									
	Proposed Funding ($1,000s)								Notes
E&P (PA&ED)	460							460	
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL	460							460	

07 – LA – 047, PM 0.3 / 0.8
EA 07-31850 – 0715000304-5088
June 2019

Project Report

For Project Approval

On Route SR-47

Between Pacific Avenue Undercrossing

And Vincent Thomas Bridge

I have reviewed the right-of-way information contained in this report and the Right-of-way data sheet attached hereto, completed by the Port of Los Angeles (POLA) and its consultant and find the data to be complete to form and procedures:

for Andrew P. Nierenberg, Deputy District Director, Right of Way

APPROVAL RECOMMENDED:

John Vassiliades, Project Manager

PROJECT APPROVED:

David M. Walsh, PE, Port of Los Angeles
Project Sponsor

6-10-19
Date

John Bulinski, District Director

6/21/19
Date

07 – LA – 047 – 0.3 / 0.8

Vicinity Map

07 – LA – 047 – 0.3 / 0.8

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.

6-3-19

Brad Slawson
Registered Civil Engineer

Date

Table of Contents

1. INTRODUCTION

The Port of Los Angeles (POLA), in cooperation with the City of Los Angeles and Caltrans District 7, proposes The State Route 47/Vincent Thomas Bridge and Harbor Boulevard/Front Street Interchange Reconfiguration. This proposed project would improve safety and operation for vehicles exiting the highway. Proposed improvements also include modification of the entrance ramps and modification of Harbor Boulevard and Front Street approaching and between the ramp termini intersections.

Project Limits	07-LA-047 - 0.3/0.8	
Number of Alternatives	2	
	Current Cost Estimate: (2019)	**Escalated Cost Estimate: (2021)**
Capital Outlay Support	$9.0 M	$9.5 M
Capital Outlay Construction	$22.0 M	$23.7 M
Capital Outlay Right of Way	$9.4 M	$9.8 M
Funding Source	Measure R	
Funding Year	2020	
Type of Facility	Four-lane expressway	
Number of Structures	No new or modified structures	
Environmental Determination or Document	ND / FONSI	
Legal Description	IN LOS ANGELES COUNTY IN LOS ANGELES FROM PACIFIC AVENUE UNDERCROSSING TO VINCENT THOMAS BRIDGE	
Project Development Category	Category 4B	

2. RECOMMENDATION

It is recommended that the project be approved and that the project proceed to the next phase. The local agencies have been consulted with respect to the build alternative, have had their views considered, and are in general accord with the project.

3. BACKGROUND

3A. Project History

Interchange reconfiguration at State Route 47 and Harbor Boulevard/Front Street was originally identified in the Port of Los Angeles' West Basin Roadway Improvement Study, completed in September 2007. The project was added to the 2012 Regional Transportation Plan for Southern California Association of Governments. The Engineering Division of the Port of Los Angeles (POLA) has secured funding for the Project Initiation and Project Approval phases as well as funds for final Design and Construction phases.

POLA and Caltrans completed and approved a Project Study Report (PSR) featuring two build alternatives for this project on March 5, 2017. One build alternative considered in the Project Study Report (PSR) has been eliminated. The rejected alternative contained less desirable geometry and additional structure costs due to a required separation with the adjacent rail line. It was determined that this rail property could be eliminated and the alternative was dropped. Traffic volumes for the build and no-build alternatives were updated to support technical studies and are reflected in this Project Report. Following review of the comments received during public circulation of the IS/EA, the Project Development Team (PDT) chose the Build Alternative as the Preferred Alternative.

3B. Community Interaction

The Port of Los Angeles conducts monthly meetings with the leadership from the local neighborhood councils and chambers of commerce. Through these meetings, the Port will communicate the planned project's need and purpose, general time line, and project description to the public and local officials. A project Public Hearing took place on October 17, 2018 during public circulation of the environmental document.

3C. Existing Facility

This section of State Route 47 is a four-lane expressway which connects Route 110 in San Pedro to Terminal Island via the Vincent Thomas Bridge. The Harbor Boulevard/Front Street Interchange is immediately adjacent to the west abutment of the Vincent Thomas Bridge (VTB). The existing interchange is a modified folded-diamond configuration featuring a westbound two lane off-ramp that loops beneath the mainline to join the eastbound single lane off-ramp in a shared three lane exit terminus at Harbor Boulevard, south of SR-47.

The two lane eastbound on-ramp from Harbor Boulevard, south of SR-47, drops to a single lane through the loop, joins the mainline, and quickly merges prior to the bridge abutment. The westbound on-ramp from Front Street also features two lanes that drop to a single lane on-ramp gore and enters the mainline as an auxiliary lane to the northbound I-110 connector.

The signalized on and off-ramp terminus at Harbor Boulevard south of SR-47 is aligned with Swinford Street which provides access into the Port cruise terminals and waterfront area. The westbound on-ramp intersection at Front Street is uncontrolled. Class II bike lanes are provided along Harbor Boulevard and Front Street. On-street parking is available along southbound Harbor Boulevard beyond Beacon Street, approximately 400 feet south of the eastbound/westbound off-ramp.

Harbor Boulevard becomes Front Street north of the SR-47 and is a four-lane arterial throughout. North of the on-ramp at Front Street, rail tracks cross Front Street and curve to the south to parallel Harbor Boulevard along its northbound back of walk. This portion of the former Pacific Harbor Rail Line is inactive. Its alignment crosses Front Street again further to the north and west after rounding Knoll Hill. South of the Vincent Thomas Bridge, POLA operates the Waterfront Red Car on a segment of this line.

The next cross-street to the north along Front Street is Knoll Drive, which provides one-way access down from Knoll Hill and aligns with the West Basin Container Terminal gate, a two-way road, at a signalized intersection. After curving west around Knoll Hill, Front Street terminates at Pacific Avenue.

Several Port-owned properties lie to the west of Front Street, between Knoll Hill and the former Pacific Harbor Rail Line alignment. Adjacent to Front Street is a Port Truck Inspection Facility and behind this facility are a Police K-9 dog training facility and Knoll Hill Dog Park, a temporary public use off-leash dog park. To the south, between the rail line and westbound on-ramp from Front Street, is sewer pump station #69, owned and operated by the City of Los Angeles.

3D. Other Projects

The John S. Gibson Boulevard/I-110 Freeway Access Ramp Improvements project was recently constructed, with project limits extending from the westbound I-110 connector north to the John S. Gibson Blvd northbound on-ramp. This project improved operation on SR-47 by modifying the northbound I-110 connector from a one-lane to a two-lane connector.

The Front Street Beautification project includes a landscaped community walkway along the northbound side of Front Street between Pacific Avenue and the Vincent Thomas Bridge. Construction is expected to begin in 2019.

4. PURPOSE AND NEED

Purpose:

The purpose of the proposed project is to modify the existing on- and off-ramps to improve safety, access, and the operation of the SR-47 and Front Street/Harbor Blvd Interchange; and to improve goods movement and traffic circulation in the area in a manner that is sensitive to the needs of the local community.

Need:

Currently, westbound SR-47 off-ramp traffic and southbound I-110 off-ramp traffic exit to a shared terminus at Harbor Boulevard. This condition creates operational issues caused by vehicle slowing and weaving on the ramp as vehicles approach the terminus at Harbor Boulevard. Traffic routinely backs up on both off-ramps during peak periods and this condition is expected to worsen with projected growth. The operational efficiency of the eastbound on-ramp is reduced by the presence of short acceleration lane.

4A. Problem, Deficiencies, Justification

The primary deficiency within the existing interchange configuration is the atypical alignment of the westbound SR-47 off-ramp that loops beneath the SR-47 mainline to join the eastbound SR-47 off-ramp at a shared exit terminus. This configuration creates safety and operational issues caused by vehicle slowing and weaving where the two ramps merge as vehicles approach the terminus. Weaving vehicles often block lanes of traffic, creating queues that extend onto the ramps before the merge. Queuing on the eastbound exit can extend into the freeway lanes.

The eastbound loop on-ramp from Harbor Boulevard has short acceleration and merging lengths, approximately one-third of standard lengths, due to the close proximity of the Vincent Thomas Bridge (VTB). Slow moving traffic approaching from the loop must accelerate on an ascending grade to merge with faster moving mainline traffic.

The westbound SR-47 on-ramp terminus intersection at Front Street is currently uncontrolled. A single left-turn pocket creates long queues on northbound Front Street as vehicles wait for gaps in southbound traffic to move onto the on-ramp, presenting safety and operational concerns.

In order to resolve these deficiencies, the SR-47 Interchange at Harbor Boulevard/Front Street is proposed to be modified to create discrete east and westbound ramp termini with fully controlled terminal intersections. Additionally, improved acceleration and merging conditions are proposed for the eastbound on-ramp.

4B. Regional and System Planning

Systems

SR-47 and Harbor Boulevard/Front Street are included in the following federal and state systems:

- **National Highway System (NHS):** The NHS is a set of highways which span across the country and serve critical functions in the operation of the nation. SR-47 is a subset of the National Highway System, categorized under "Other NHS Routes". Front Street, north of SR-47, is categorized as an "Intermodal Connector" in the National Highway System. South of SR-47, Harbor Boulevard is categorized as a "Map-21 NHS Principal Arterial".
- **Freeway and Expressway System:** SR-47 is part of the State Highway System, according to Section 347 in Article 3 of the Streets and Highway Code.
- **Federal Surface Transportation Assistance Act (STAA):** The purpose of the STAA is to identify and address issues with highways and bridges included in the Interstate System, such as truck access and operations on highways. SR-47 is a Terminal Access route. A Terminal Access route allows STAA truck access between National Network Routes or a freight terminal facility.

State Planning

The 2015 Transportation Concept Report (TCR) for SR-47 identifies the segment containing the project as Segment 1A (Vincent Thomas Bridge). This segment has a functional classification of expressway and is a Terminal Access Route. Referencing the SCAG's 2012-2035 Regional Transportation Plan/Sustainable Community Strategy (RTP/SCS), the TCR recommends maintaining the existing facility of two mixed flow lanes in either direction through this segment.

Regional Planning

The proposed project is identified in the 2016 Regional Transportation Plan's Project List under Strategic Projects, RTP ID# S1160271, with the following description:

> "SR47/V. Thomas Bridge/Front St Interchange: new westbound SR47 on- and off-ramps at Front St just west of Vincent Thomas Bridge and eliminate the existing non-standard ramp connection to the Harbor Blvd off-ramp."

The project is also identified in the 2016 FTIP, Amendment #2, under RTP ID# 1120007, with the following description:

> "SR47-V.ThomasBridge/Front St Interchange: new westbound SR 47 on- and off-ramps at Front Street just west of the Vincent Thomas Bridge and eliminate the existing non-standard ramp connection to the Harbor Boulevard off-ramp; Front Street is an NHS conn."

Local Planning

The project improvements conform to the Port of Los Angeles Waterfront Master Plan which prescribes Front Street, Harbor Boulevard, and Regan Street to be part of the "Heavy Container Corridor." The project is also compatible with the San Pedro Waterfront and Promenade Master Plan. Lastly, the project is compatible with the City of Los Angeles Master Plan which denotes Front Street as an "Avenue 1" and "Scenic Hwy."

The 2010 LA City Bike Plan designates Harbor Boulevard, Front Street, and SR-47 across the Vincent Thomas Bridge as accommodating bike lanes as part of the "Backbone Bikeway Network". The portions on Harbor Boulevard and Front Street are listed as 'existing' and the segment across the Vincent Thomas Bridge is listed as 'future'.

Transit Operator Planning

Bus Routes 910 & 950X exit on the eastbound off-ramp and travel south down Beacon Street to the bus stop at Beacon Street Park & Ride. The route later returns north on Harbor Boulevard and enters SR-47 via the westbound on-ramp. This line may remain open during construction.

4C. Traffic

Current and Forecasted Traffic

An Updated Traffic Study was approved on March 18, 2018. This study relies upon a Port maintained, localized version of the 2016 SCAG Traffic Model to analyze traffic growth in the project area. Separate model runs for 2023 and 2045 provided forecasted traffic volumes that were then post-processed and analyzed using HCM2010. Existing, opening year, and design year peak hour volumes are shown in Tables 4-1, 4-2, and 4-3 below. Summary analysis is discussed throughout the Viable Alternative section below and more detailed analysis is available in the Traffic Report.

Table 4-1: Existing (2015) Freeway/Ramp Volumes

Freeway/Ramp Segments	AM Peak Hour		PM Peak Hour	
	Vehicles	Truck%	Vehicles	Truck%
I-110 Southbound to SR 47 Eastbound	1,566	10%	1,632	9%
I-110 Northbound (Gaffey) to SR 47 Eastbound	671	10%	700	9%
SR 47 Eastbound West of Harbor Blvd	2,237	10%	2,332	9%
SR 47 Eastbound Off-Ramp to Harbor Blvd	785	6%	703	7%
SR 47 Eastbound between Harbor Blvd Ramps	1,452	11%	1,629	9%
SR 47 Eastbound On-Ramp from Harbor Blvd	510	2%	481	8%
SR 47 Eastbound East of Harbor Blvd	1,962	9%	2,110	9%
SR 47 Westbound East of Harbor Blvd	2,908	9%	2,985	9%
SR 47 Westbound Off-Ramp to Harbor Blvd	371	6%	328	7%
SR 47 Westbound between Harbor Blvd Ramps	2,537	9%	2,657	9%
SR 47 Westbound On-Ramp from Harbor Blvd	579	0%	441	2%
SR 47 Westbound West of Harbor Blvd	3,116	8%	3,098	8%
SR 47 Westbound to I-110 Southbound (Gaffey)	1,259	2%	781	2%
SR 47 Westbound to I-110 Northbound	1,857	12%	2,317	10%

Table 4-2: Opening Year (2023) Build Freeway/Ramp Volumes

Freeway/Ramp Segments	AM Peak Hour		PM Peak Hour	
	Vehicles	Truck%	Vehicles	Truck%
I-110 Southbound to SR 47 Eastbound	1,766	18%	1,943	10%
I-110 Northbound (Gaffey) to SR 47 Eastbound	757	18%	832	10%
SR 47 Eastbound West of Harbor Blvd	2,523	18%	2,775	10%
SR 47 Eastbound Off-Ramp to Harbor Blvd	829	11%	901	5%
SR 47 Eastbound between Harbor Blvd Ramps	1,694	22%	1,874	13%
SR 47 Eastbound On-Ramp from Harbor Blvd	561	11%	620	7%
SR 47 Eastbound East of Harbor Blvd	2,255	19%	2,494	11%
SR 47 Westbound East of Harbor Blvd	3,335	23%	3,776	7%
SR 47 Westbound Off-Ramp to Harbor Blvd	612	23%	789	10%
SR 47 Westbound between Harbor Blvd Ramps	2,723	23%	2,987	6%
SR 47 Westbound On-Ramp from Harbor Blvd	686	13%	711	10%
SR 47 Westbound West of Harbor Blvd	3,409	21%	3,698	7%
SR 47 Westbound to I-110 Southbound (Gaffey)	1,218	5%	942	1%
SR 47 Westbound to I-110 Northbound	2,191	30%	2,756	9%

Table 4-3: Design Year (2045) Build & No-Build Freeway/Ramp Volumes

Freeway/Ramp Segments	AM Peak Hour		PM Peak Hour	
	Vehicles	Truck%	Vehicles	Truck%
I-110 Southbound to SR 47 Eastbound	2,612	57%	1,973	18%
I-110 Northbound (Gaffey) to SR 47 Eastbound	956	1%	879	1%
SR 47 Eastbound West of Harbor Blvd	3,568	42%	2,852	13%
SR 47 Eastbound Off-Ramp to Harbor Blvd	1,141	42%	988	7%
SR 47 Eastbound between Harbor Blvd Ramps	2,427	42%	1,864	16%
SR 47 Eastbound On-Ramp from Harbor Blvd	1,080	4%	832	3%
SR 47 Eastbound East of Harbor Blvd	3,507	31%	2,696	12%
SR 47 Westbound East of Harbor Blvd	4,491	32%	4,728	8%
SR 47 Westbound Off-Ramp to Harbor Blvd	891	28%	1,267	6%
SR 47 Westbound between Harbor Blvd Ramps	3,600	33%	3,461	8%
SR 47 Westbound On-Ramp from Harbor Blvd	1,601	27%	1,152	7%
SR 47 Westbound West of Harbor Blvd	5,201	31%	4,613	8%
SR 47 Westbound to I-110 Southbound (Gaffey)	1,462	4%	1,459	1%
SR 47 Westbound to I-110 Northbound	1,857	12%	2,317	10%

Collision Analysis

Collision data was gathered as part of the Traffic Report from Caltrans and the City of Los Angeles for the periods of 1/1/2015 to 12/31/2017 and 1/1/2013 to 12/31/2015, respectively. The total collision rates along the mainline locations are higher than the statewide average for similar facilities at four out of six study segments. The collision rates on the ramps were below the statewide average. Analysis of collision data on the mainline shows rear-ending, sideswipes, and hit-object are the most common types of collisions; these types of collisions are often related to traffic congestion. Collisions on the ramps and at intersections are of varied type and generally low occurrence, such that no primary factors or causes are apparent. Following the proposed project improvements, merging-type collisions may be reduced where the merging area is lengthened at the eastbound on-ramp and where merging movements are eliminated with the expansion of the eastbound off-ramp to a two-lane exit. Further detail on the collision rates and types are available in the tables below as well as in appendices to the Traffic Report.

Table 4-4: Collision Rates

Location	Collision Rate[1]						
	Actual			Statewide Average			
	F	F+I	Total	F	F+I	Total	MVM
SR 47 Mainline Northbound/Eastbound (PM R000.000–R000.348)	0.000	0.06	0.50	0.01	0.33	0.87	15.96
SR 47 Mainline Northbound/Eastbound (PM R000.349–000.787)	0.000	0.95	3.07	0.005	0.24	0.71	4.23
SR 47 Mainline Northbound/Eastbound (PM 000.788–000.857)	0.000	0.50	3.48	0.005	0.26	0.76	2.01
SR 47 Mainline Southbound/Westbound (PM 000.819–000.857)	0.000	0.00	1.79	0.005	0.26	0.76	1.12
SR 47 Mainline Southbound/Westbound (PM R000.377–000.818)	0.000	0.46	1.62	0.005	0.26	0.76	4.31
SR 47 Mainline Southbound/Westbound (PM R000.000–R000.376)	0.060	0.12	0.18	0.007	0.32	0.87	16.75
SR 47 Northbound/Eastbound Off-Ramp to Harbor Boulevard	0.000	0.11	0.32	0.003	0.12	0.37	9.5
SR 47 Northbound/Eastbound On-Ramp from Harbor Boulevard	0.000	0.35	0.53	0.001	0.23	0.67	5.67
SR 47 Southbound/Westbound Off-Ramp to Harbor Boulevard	0.000	0.00	0.23	0.003	0.15	0.45	8.78
SR 47 Southbound/Westbound On-Ramp from Harbor Boulevard	0.000	0.00	0.51	0.002	0.21	0.60	5.88

Notes:
[1] For mainline sections, the collision rate is the number of collisions per million vehicle-miles. For ramps, the collision rate is the number of collisions per million vehicles.
F = Fatal; I = Injury; F+I = Fatal + Injury
Source: Caltrans TASAS, Table B Collision Data Reviewed: 01/01/2015 to 12/31/2017

Table 4-5: Collision Types

Location	Head-On	Sideswipe	Rear-End	Broadside	Hit Object	Overturn	Other	Total
Freeway Data								
SR 47 NB/EB Mainline (PM R000.000–R000.348)		50%	13%		25%		13%	8
SR 47 NB/EB Mainline (PM R000.349–000.787)		46%	38%	8%	8%			13
SR 47 NB/EB Mainline (PM 000.788–000.857)	14%	29%	29%		28%			7
SR 47 SB/WB Mainline (PM 000.819–000.857)		50%			50%			2
SR 47 SB/WB Mainline (PM R000.377–000.818)		43%	43%		14%			7
SR 47 SB/WB Mainline (PM R000.000–R000.376)	33%	34%			33%			3
SR 47 NB/EB Off-Ramp		33%			67%			3
SR 47 NB/EB On-Ramp		33%			67%			3
SR 47 SB/WB Off-Ramp		50%		50%				2
SR 47 SB/WB On-Ramp			67%			33%		3
Intersection Data								
Pacific Ave & Front St		11%	11%		56%	22%		9
Harbor Blvd & Swinford St		18%	27%	9%	37%		9%	11
Front St & Knoll Dr		20%	40%		40%			5

Freeway Data Source: Caltrans TASAS; Collision Data Reviewed: 01/01/2015 to 12/31/2017
Intersection Data Source: LADOT Collision Report Summary; Collision Data Reviewed: 01/01/2013 to 12/31/2015

5. ALTERNATIVES

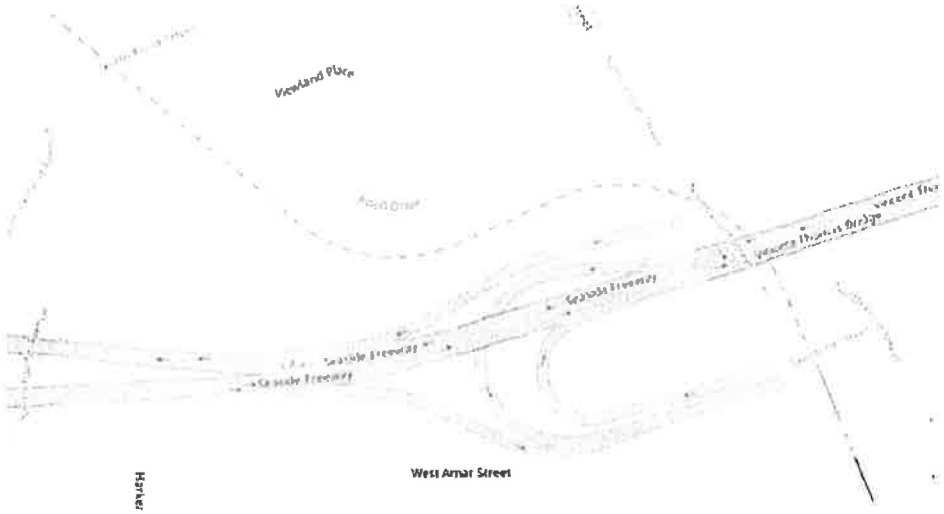
The project proposes to reconfigure the existing interchange at State Route 47 and Harbor Boulevard/Front Street. The proposed improvements in the Build Alternative will eliminate a historically problematic weave at the shared off-ramp terminus by creating a new, separate terminus for the westbound ramps. Proposed improvements also include modification of the eastbound ramps and modification of Harbor Boulevard and Front Street between Knoll Drive and Beacon Street.

5A. Viable Alternatives

No-Build Alternative

The No Build Alternative maintains the current configuration (See Figure 5 below). As traffic volumes increase, traffic operation will deteriorate. Existing geometric deficiencies, discussed above, will remain. This alternative does not meet the project's purpose and was not chosen as the preferred alternative.

Figure 5 – Existing Layout



No-Build Traffic Analysis

In the Design Year (2045) No-Build conditions, Harbor Boulevard & SR 47 Ramps/Swinford Street intersection is projected to operate at LOS F with significant delays. The queuing analysis for the year 2023 and year 2045 No-Build conditions indicated that during peak hours, the expected 95th percentile queues at the SR 47 EB/WB Off-Ramp to Front Street/Harbor Boulevard would extend beyond the point where the eastbound and westbound off-ramps merge at the intersection, and would likely reach the eastbound mainline presenting potential for rear-end collisions.

Table 5-1: No-Build Intersection Levels of Service

SR-47 Traffic Data	AM Peak		PM Peak	
Base Year (2015)	**Delay**	**LOS**	**Delay**	**LOS**
Front St & Knoll Dr/WBCT Gate 2	3.4	A	11.5	B
Harbor Blvd/Front St & SR 47 Ramps/Swinford St	31.3	C	28.7	C
Opening Year (2023) – No-Build	**Delay**	**LOS**	**Delay**	**LOS**
Front St & Knoll Dr/WBCT Gate 2	8.2	A	9.1	A
Harbor Blvd/Front St & SR 47 Ramps/Swinford St	39.0	D	37.2	D
Design Year (2045) – No-Build	**Delay**	**LOS**	**Delay**	**LOS**
Front St & Knoll Dr/WBCT Gate 2	11.5	B	7.8	A
Harbor Blvd/Front St & SR 47 Ramps/Swinford St	239.3	F	103.6	F

Note: Delay is in seconds

Build Alternative

Following public circulation, the Build Alternative was identified by the PDT as the preferred project alternative. Local agencies were largely supportive of the build alternative. Public response to the project was muted and generally neutral. Owners and residents of properties affected by the

proposed noise walls constituted the primary commenters and did not express support for the potential walls. These walls have been removed from the proposed project and are further discussed in the Noise Barrier and Noise Abatement Decision Report sections below.

This alternative would reconfigure the existing interchange at State Route 47 and Harbor Boulevard/Front Street. The build alternative was identified in the Project Study Report as Alternative 3. See Attachment B for a layout featuring the proposed project improvements.

Proposed Engineering Features

The proposed improvements will eliminate a problematic weave at the shared off-ramp terminus by creating new, separate termini for the eastbound and westbound ramps. Specific improvements are described below:

- The westbound off-ramp is directed north of SR-47, across the former Pacific Harbor Line rail right-of-way toward a new ramp terminus on Front Street at the existing West Basin Container Gate signalized intersection.
- The westbound on-ramp shifts its terminus approximately 650 feet north along Front Street to the new ramp terminus at the existing West Basin Container Gate signalized intersection (previously signed as Knoll Drive). The ramp crosses the former Pacific Harbor Line rail right-of-way and joins the SR-47 mainline at the existing gore location. The on-ramp introduces an auxiliary lane that continues onto the Northbound I-110 connector.
- The eastbound off-ramp begins reconstruction 200 feet west of its current mainline gore. The existing one-lane ramp is widened to a two-lane exit ramp and the cross-section is expanded from three to four lanes at the terminus intersection.
- The eastbound on-ramp utilizes space previously occupied by the westbound off-ramp to shift its mainline gore west 200 feet to increase acceleration distance for merging traffic.
- The east end of Knoll Drive is realigned to meet Front Street approximately 250 feet north of its current intersection. The one-way direction of Knoll Drive is changed to westbound.

In addition to this ramp reconstruction, Harbor Boulevard/Front Street's cross-section is widened to accommodate additional turning movements at both ramp terminus intersections. Six-foot-wide sidewalks and five-foot wide bike lanes along Harbor Boulevard and Front Street are provided, as are ADA compliant curb ramps and crosswalks at each of the intersections, following Complete Street guidelines.

The proposed ramp alignments require cut retaining walls, up to 20 feet high, where Knoll Drive and the westbound on-ramp have shifted into Knoll Hill. Cut walls are also required along the widened

eastbound off-ramp. A fill wall is proposed along the inside of the westbound off-ramp loop to maximize useable space for the existing land uses to be relocated. Standard wall types are feasible and have been estimated. Final wall types and footings will be determined during Design Stage.

No modifications to Vincent Thomas Bridge are proposed. The Harbor Boulevard Ramp Undercrossing (53-807) is proposed to remain. The existing cut retaining wall along the eastbound off-ramp between station 18+00 and 21+00 is proposed to remain.

Ramp and mainline roadway drainage will be collected in a combination of new and existing drainage systems to tie into existing storm drain systems along Harbor Boulevard / Front Street, as they do today.

South of SR-47, access control to the Caltrans facility is maintained in the manner that exists today. North of the SR-47, access control is proposed along the westbound on and off-ramps to the ramp intersection at Front Street. See Attachment B – Project Layout.

Build Traffic Analysis

The proposed reconfiguration of the interchange in the Build conditions would improve traffic operations at both the eastbound and westbound SR-47 ramp intersections. Although the SR-47 EB Ramps/Harbor Boulevard intersection is projected to operate at LOS E during the design year in the Build conditions, there would be significant reduction in delay when compared to the No-Build conditions. Under Build conditions, with the proposed reconfiguration of the interchange, there would be sufficient storage available on the eastbound and westbound off-ramps for the projected 95th percentile queues.

Table 5.2 below summarizes HCM2010 analysis of delay at intersections in the project area. Analysis of the existing and no-build westbound on-ramp intersection is not available for direct comparison because it is uncontrolled. Please see the Traffic Report for further information.

Table 5-2: Intersection Levels of Service

SR-47 Traffic Data	AM Peak		PM Peak	
Base Year (2015)	**Delay**	**LOS**	**Delay**	**LOS**
Front St & Knoll Dr/Container Terminal Gate 2	3.4	A	11.5	B
Harbor Blvd/Front St & SR 47 Ramps/Swinford St	31.3	C	28.7	C
Opening Year (2023) – No-build	**Delay**	**LOS**	**Delay**	**LOS**
Front St & Knoll Dr/Container Terminal Gate 2	8.2	A	9.1	A
Harbor Blvd/Front St & SR 47 Ramps/Swinford St	39.0	D	37.2	D
Opening Year (2023) – Build	**Delay**	**LOS**	**Delay**	**LOS**
Front St & SR 47 WB Ramps/Container Terminal G2	27.3	C	28.7	C
Harbor Blvd/Front St & SR 47 Ramps/Swinford St	33.1	C	35.0	D
Design Year (2045) – No-Build	**Delay**	**LOS**	**Delay**	**LOS**
Front St & Knoll Dr/Container Terminal Gate 2	11.5	B	7.8	A
Harbor Blvd/Front St & SR 47 Ramps/Swinford St	239.3	F	103.6	F
Design Year (2045) – Build	**Delay**	**LOS**	**Delay**	**LOS**
Front St & SR 47 WB Ramps/Container Terminal G2	65.4	E	44.6	D
Harbor Blvd/Front St & SR 47 Ramps/Swinford St	65.9	E	53.4	D

Note: Delay is in seconds

Non-Standard Mandatory and Advisory Design Features

The build alternative includes non-standard features.

A Design Standards Decision Document was approved on May 29, 2019. A total of 28 non-standard features are included in the build alternative: 17 bold exceptions and 11 underlined exceptions. The exceptions, by type and number, are listed below in Table 5-3. Features related to the mainline generally perpetuate or improve upon existing conditions. Sensitive right-of-way uses, namely a residential neighborhood to the south, Knoll Hill Park to the north, and commercial and industrial port facilities to the east, constrain proposed ramp alignments. Although some features are non-standard, the proposed alignments improve existing conditions. Vincent Thomas Bridge, a 1.2 mile long steel suspension bridge to the east, and the I-110 Interchange, a freeway to freeway interchange to the west, also limit practical improvements for this project. Preliminary Layouts, Profiles, and Typical Cross-sections are provided in Attachment C.

Table 5-3: Non-Standard Features

HDM Index	Topic	Number of Exceptions
Bold Standards		
203.1	Stopping Sight Distance	1
203.2	Horizontal Alignment	4
302.1	Inside Shoulder	1
305.1(3a)	Median Width	1
501.3	Interchange Spacing	1
504.2(2)	Ramp Deceleration	2
504.3(3)	Intersection Spacing	3
504.7	Mainline Weaving Length	2
504.8	Access Control	2
Underlined Standards		
201.7	Decision Sight Distance	1
202.5(1)	Superelevation Transitions	6
304.1	Side Slope Standards	1
504.2(2)	Ramp Gore Geometry	1
504.2(5)(b)	Ramp Auxiliary Lane	1
504.2(6)	Provision for Future Ramp Widening	1

HOV Facilities

High Occupancy Vehicle facilities are not proposed for the SR-47 or the SR-47 on-ramps.

Ramp Metering

The existing entrance ramps include ramp metering systems, although they are currently not in use by request from the Port of Los Angeles. The proposed on-ramps are designed to accommodate

ramp metering, and ramp metering equipment is included in the capital cost estimate. Ramp metering systems proposed will follow guidelines in Caltrans' Ramp Metering Design Manual.

CHP Enforcement

Enforcement areas and maintenance pullouts are not currently shown on project layouts. These areas will be identified during final design and placed as appropriate, following guidance in the Caltrans' Ramp Metering Design Manual and Standard Plans.

Park and Ride

Harbor-Beacon Park and Ride is located directly to the south of the project, along the west side of Beacon Avenue on Port of Los Angeles property. The entrance to the Park and Ride is approximately 600 feet south of the Harbor Boulevard/Swinford Street intersection. This facility accommodates Bus Routes 910 & 950X.

Utility and Other Owner Involvement

A records search was completed for above and below ground utilities in the project area, and a utility conflict assessment was conducted. Most utilities lie beneath or along Harbor Blvd/Front Street, or run parallel beneath the adjacent terminal properties to the east. The utilities include:

- Los Angeles Department of Water and Power Water Lines and Fire Hydrants;
- Los Angeles Department of Water and Power above and below ground transmission lines;
- Southern California Gas Lines;
- Port of LA and/or City of LA Storm Drains;
- United States Navy Oil Pipelines;
- Standard Oil Pipelines;
- City of Los Angeles Bureau of Engineering Sanitary Sewer Lines;
- Los Angeles Department of Transportation Communication Lines.

In general, many underground utilities within Harbor Boulevard/Front Street will be protected in place. Underground utilities along existing Knoll Drive will require relocation due to changes in grade and retaining wall construction. Above ground utilities along the west side of Front Street and along the rail right-of-way are in conflict and will require relocation.

There are no existing or proposed parallel encroachments of utility easements. However, near and parallel to the former Pacific Harbor Line rail right-of-way are overhead power poles, an oil pipe, and a stormwater line that will all cross beneath the proposed westbound on and off-ramps. The power line is proposed to be undergrounded along a similar alignment, the stormwater line will continue to

support local drainage, and the oil line is proposed to be protected in place. An existing utility map is included in Attachment D.

Railroad Involvement

There is no railroad involvement. The Port of Los Angeles and the Port of Long Beach jointly own the rail right of way of the former Pacific Harbor Line running through the study area. The existing tracks are inactive and severed on both ends. The joint owners have determined that no potential future use is intended for this corridor and therefore the right-of-way may be acquired for freeway and Port of Los Angeles uses, as necessary (See Right-of-Way Map and Data Sheet included in Attachments E and F)

A Historical Resources Evaluation Report (HRER) has been completed. Analysis finds that this portion of the Pacific Harbor Line does not possess historical significance. The HRER has been completed, reviewed, and submitted to the State Historic Preservation Officers (SHPO) where findings were confirmed.

Highway Planting

Existing landscaping in the project area consists mainly of inconsistent ground cover, medium and large sized bushes, palm trees, and in the area of the dog park, a number of young trees. The slopes of Knoll Hill are covered in native grasses and scrub. As construction will disturb much of this vegetation, new and disturbed slopes will be landscaped and irrigated to match existing conditions and to the extent necessary to insure adequate erosion control.

Erosion Control

Existing erosion control includes landscaping, natural vegetation, hard surfaces, and slope protection. Existing cut and fill slopes will be disturbed throughout the project limits and new slopes will be created. Proposed slopes of 4:1 will be provided as feasible. No slopes steeper than 2:1 are proposed. Slopes of 2:1 and between 2:1 to 4:1 will be coordinated with the Landscaping unit. Preliminary grading limits are indicated on the project layout included in Attachment B. Retaining wall locations, limits, and heights have been identified and estimated where the desirable gradient cannot be achieved or where available right of way is constrained. Final grading plans will be prepared during final design.

New slopes will include erosion control measures, primarily landscaping, mulch, and hard surfaces. Plant establishment periods will be included in the project construction to permanently establish the new landscaping. Specific locations and the appropriate type of vegetation will be based on local soil conditions, topography, climate and native vegetation and will be selected with the approval of the District Landscape Architect during the final design.

Erosion control is part of Design Pollution Prevention (DPP) best management practices (BMPs), which is discussed further in the Storm Water Data Report. BMP goals are to minimize the impervious surface, to prevent downstream erosion, to stabilize disturbed surface areas (DSA), and to maximize

vegetated surfaces. Together these goals will reduce the volume of runoff, avoid downstream erosion, promote infiltration, and remove pollutants. The project will be designed to not pose any additional sediment discharge risk than it did prior to the beginning of project construction. The following measures will be utilized to avoid or reduce potential erosion control:

- Erosion from slopes will be minimized by disturbing existing slopes only when necessary, minimizing cut and fill areas to reduce slope length, incorporating retaining walls to reduce steepness of slopes or to shorten slopes, avoiding soil formations that would be difficult to re-stabilize, providing cut and fill slopes flat enough to allow re-vegetation and limit erosion to pre-construction rates, rounding and shaping slopes to reduce concentrated flow, and collecting concentrated flows in stabilized drains and channels.
- The project conceptual design allows for the ease of BMP maintenance. Concurrence with the Maintenance Unit will occur during final design.
- Construction activities involving extensive soil disturbance will be scheduled outside of the wetter months as much as practical.

During the PS&E stage and prior to construction, a Storm Water Pollution Prevention Plan (SWPPP) will be prepared for this project. It will identify construction site BMPs to reduce water quality impacts. Bioswales and a detention basin are currently proposed as part of the project BMPs. Any design issues during final design should be discussed with Caltrans Maintenance to allow for ease of BMP maintenance, and to prevent future maintenance and/or safety problems, as well as expensive last minute design corrections.

Noise Barriers

A Final Noise Study Report was prepared for the project to evaluate potential traffic noise impacts that may result from the Build Alternative. Preliminary noise abatement measures necessary to comply with state and federal noise abatement regulations are also analyzed and presented in this report.

Noise sensitive areas exist north of the project, at Knoll Hill Park and at the existing residence on Knoll Hill. To the south, a large residential complex is situated within the eastbound loop on-ramp from Front Street and there is a residential neighborhood atop the bluffs abutting the southern limits of the project area.

In the Noise Study, noise walls were found to be feasible along the top of slope following the south boundary of the Caltrans right-of-way, from the end of the existing noise wall at Powell Street to the slope above Beacon Street. Additionally, a feasible noise wall was proposed surrounding the southern edge of the residence upon Knoll Hill; however, these walls were eliminated from the project due to feedback gathered from the residence surveys during public circulation. Further detail on Noise Study Report is located in Section 6H, Noise Abatement Decision Report.

Non-Motorized and Pedestrian Features

The City of Los Angeles Bicycle Plan and General Plan denote Front Street/Harbor Boulevard as a bike route with existing Class II bike lanes. The Plan also classifies the SR-47 across the Vincent Thomas Bridge as a Class III shared-lane bike lane. A Class I bike and pedestrian pathway is planned for the east side of Front Street north of Vincent Thomas Bridge as part of the Front Street Beautification Project (to begin construction in 2019).

The proposed Front Street and Harbor Boulevard cross-section includes Class II bike lanes in both directions across the project limits, including a bike refuge lane between the through and right-turn lane southbound at the eastbound terminal ramp intersection.

The existing SR-47 eastbound ramp terminus intersection features curb ramps at all corners and crosswalks on all but the south leg. Sidewalks extend along Harbor Boulevard north beneath the Vincent Thomas Bridge, but do not continue beyond the existing SR-47 westbound on-ramp intersection. This ramp intersection is uncontrolled and does not contain crosswalks or curb ramps. Continuing north along Front Street, there are no existing sidewalks and pedestrians must use the shoulder. Neither are there curb ramps, although there is a crosswalk on the south side of the Knoll Drive intersection. The Front Street Beautification Project proposes sidewalk and ADA curb ramps along the east and north side of Front Street, from the rail crossing to Pacific Avenue northwest of Knoll Hill.

This project proposes continuous sidewalk with ADA curb ramps along each side of Harbor Boulevard and Front Street from the southern project limits to the proposed westbound ramp intersection. To the north of the westbound ramp intersection, sidewalk will continue to be available only on the northbound side of Front Street. Improvements from the Front Street Beautification Project, including northbound sidewalk and Class I bike and pedestrian path, will remain.

Crosswalks are provided at all four legs of the westbound terminal intersection and all but the south leg of the eastbound terminal intersection. As in the existing conditions, the crosswalk at this location is omitted for pedestrian safety and enhanced signal operations due to the double right-turn movements on the SR-47 eastbound off-ramp.

Intersection controls, signage, markings, and lighting provide safe passage for all users on the local streets. During final design, sidewalk, curb ramp, and bikeway design details will comply with the Highway Design Manual, Americans with Disabilities Act (ADA), and local standards, as appropriate.

Needed Roadway Rehabilitation and Upgrading

Reconfiguration of the four interchange ramps will replace existing ramp and gore pavement on SR-47. The Front Street Beautification Project will be replacing the existing pavement along Harbor Boulevard and Front Street through most of the project limits. As such, where possible, the existing pavement is expected to remain and the cross-section widened with new pavement.

The mainline pavement of State Route 47 is joint concrete pavement with flexible asphalt shoulders. Condition of the pavement, according to the Pavement Condition Summary Report, consists of 0.44 lane miles of "Fair Condition" pavement and 0.22 lane miles of "Poor Condition" (2018). It is not within the scope of this interchange reconfiguration to replace the mainline pavement.

Needed Structure Rehabilitation and Upgrading

There are no new structures proposed as part of this project. According to the 2014 Bridge Inspection Report, The Harbor Boulevard Ramp Undercrossing (53-807) has no significant defects and will remain in place. Modifications to the alignment of the SR-47 eastbound on-ramp gore location may alter the grading of the sloped abutment in the southeast corner of the structure. This alteration is not expected to negatively impact the structure or columns.

Cost Estimates

The total capital outlay is estimated at $31.3 million. A preliminary cost estimate is included in Attachment G. With anticipated support costs included, the total project cost is $40.4 million. The project cost is summarized in the table below:

Description	Cost (millions) (2019)	Escalated Cost (millions) (2021)
Roadway Items	*$22.0*	*$23.7*
Structures	*$0.0*	*$0.0*
Total Construction	***$22.0***	***$23.7***
Right of Way (incl Utilities)	*$9.4*	*$9.8*
Total Capital Outlay	***$31.3***	***$33.4***
Support	*$9.0*	*$9.5*
Total Project Cost	***$40.4***	***$43.0***

Right of Way Data

The proposed interchange reconfiguration impacts properties to the north of the existing interchange. Forty-one properties owned by the Port of Los Angeles are impacted by the project or construction of the roadway improvements. A Right-of-Way Map and a Right-of-Way Data Sheet are included in Attachments E and F, respectively.

5B. Rejected Alternatives

The Project Study Report considered a second build alternative identified as Alternative 2. Alternative 2 considered ramp alignments and grade separations to avoid acquisition of the former Pacific Harbor Line right-of-way, as the Port was considering a potential future use. Due to the necessary rail grade separations, Alternative 2 had a higher cost and contained less desirable geometric features related to the westbound ramp profiles. Short vertical curves and steeper grades were required to achieve vertical clearance over the rail lines. The Port has since determined that it is not necessary to preserve the right of way for future use. Consequently, Alternative 2 is no longer under consideration.

6. Considerations Requiring Discussion

6A. Hazardous Waste

An Initial Site Assessment (ISA) and an Addendum to ISA (Addendum) were completed to evaluate the potential presence of hazardous materials within the proposed project and to evaluate liability issues related to site cleanup and construction impacts prior to design and construction activities within the proposed project area. The key findings are summarized as follows:

Two "High Risk" parcels located in the project area: one at the West Basin Container Terminal property (Assessor Parcel Number (APN): 7440-025-904) where petroleum pipelines have been abandoned-in-place adjacent to Front Street, and a second parcel at the cruise port terminal property (APN: 7440-024-091) across from the eastbound ramp termini. Historically, soil and groundwater contamination were detected in these areas. The proposed work for the Project within the two parcels includes curb and sidewalk reconstruction, utility protection, and traffic signal construction to a maximum depth of approximately 10 feet below ground surface (bgs) which is likely below groundwater depth, historically reported in this area between 4 and 11 feet bgs. The ISA and the Addendum recommended soil and groundwater investigations at or near the two parcels prior to any soil excavation to assess the potential presence of hazardous contaminants and to determine disposal options if necessary for any contaminated soil and/or groundwater.

In the ISA, the railroad use parcels (APNs 7448-035-927 and 7448-035-932 which is the same Parcel as 7448-035-027) were identified as "medium risk" properties. The "medium risk" was assigned to the parcels due to the presence of the former Pacific Harbor Line railroad right-of-way. The ISA recommended a site investigation to evaluate potential presence of contaminants

commonly found in association with railroads, including total petroleum hydrocarbons, lead, asbestos, and arsenic. Remediation of contaminated soil, including groundwater, is included in the project costs.

A Preliminary Site Assessment/Phase II Environmental Site Investigation Report (SI report) was prepared for the railroad properties in September 2018. The scope of work described in the SI report included soil sampling at five borings to depths between 2.5 and 3.5 feet below ground surface (bgs), along an approximately 430-foot stretch of the railroad tracks near the future interchange. The analytical results of the collected soil samples reported the presence of lead, arsenic and chromium at concentrations above regulatory limits. Chrysotile asbestos was detected in two borings at a depth of one foot bgs. No deeper soil or groundwater samples were collected during this SI, therefore, a full extent of contaminant distribution in the subsurface of the railroad properties could not be evaluated at that time. The following conclusions and recommendations were provided in the SI report:

Potential human health risk associated with future use of the Site: Sample analytical results were compared to United States Environmental Protection Agency (US EPA) Regional Screening Levels (RSLs) and to background concentrations of arsenic in Southern California per the Department of Toxic Substances (DTSC) standard. A mix of residential and worker exposure RSLs were exceeded at all boring locations at various depths, as well as the composite ballast sample at the west end of the right-of way. As EPA's Soil Screening Guidance is used to address direct ingestion, inhalation of volatiles and fugitive dusts, and dermal absorption, among other pathways, concentrations above these soil screening levels pose potential risks to human health. RSLs are screening levels for potential risk, however, and are advisory. Concentrations above RSLs for arsenic or chromium were found in all borings and most sample depths. Chemical concentrations above these RSLs do not automatically designate a site as contaminated or trigger a response action; rather, they suggest that further evaluation of the potential risks caused by site contaminants is deemed appropriate. Furthermore, chrysotile asbestos was detected in certain samples. Construction workers and potential recreational users of the future development may be at risk from these contaminants, most commonly through ingestion of contaminated soil by direct hand to mouth activity or by inhaling airborne soil and dust particles that enter the mouth and nose, if not protected. The following minimum recommendations were included in the SI report that could apply to the planned redevelopment of the Site:

- Cover the impacted soil with clean fill soil that exceeds acceptable limits 1 foot or more in thickness (or cover with pavement) to be protective of future recreational users.
- Prior to construction activities that involve soil excavation or disturbance, develop a site-specific health and safety plan that specifically addresses the known concentrations of chromium and arsenic in the soil.

- Impacted soil that is excavated and placed within the Site should be covered with clean fill soil to a depth of 1 foot or more in thickness (or paved) to be protective for future Site uses that do not involve soil excavation.

Offsite disposal of Site soil: Soil analytical results were also compared to waste characterization criteria. The sample results collected at 1 ft bgs from borings B1, B2, and B4 (western and central portions of the Site) exhibited characteristics of non-RCRA California hazardous waste, but none of the sample results were characteristic of RCRA hazardous waste. If Site redevelopment plans include removal and offsite disposal, a portion or all of the upper two feet of soil from the western and central portions of the investigated area, the soil should be disposed at an appropriately licensed facility, with waste profiling and sampling in accordance with the facility's requirements.

Next steps: Based on discussions of these results with Caltrans, and in consideration of Caltrans policies regarding transfer of parcels to Caltrans, POLA acknowledges the need for supplemental site investigation and, if needed, removal action during the Plans, Specifications, and Estimates (PS&E) phase of the project. Soil and ballast will be sampled to delineate the extent of contamination in soil between the ground surface and the water table and to define the limits of excavation as necessary and appropriate to remove contaminated materials. Shallow groundwater will be sampled at a representative number of locations to evaluate the nature and extent of hazardous materials at or below the water table, if any.

A Supplemental Site Investigation (SSI) Work Plan outlining these sampling activities will be prepared by POLA during the PS&E phase and submitted to Caltrans prior to implementation of field activities. If necessary based on evaluation of the SSI results, a Remedial Action Work Plan will be developed and implemented by POLA to manage in place and/or remove contaminated material from the Site as appropriate.

Aerially Deposited Lead in soil along SR-47 and interchange ramps to certain depths can be expected and are evident in investigations previously conducted nearby on SR-47/I-110. The PDT and the ISA have recommended soil testing to determine the extent of aerially deposited lead (ADL) be conducted during Design and the Right-of-Way phase. The Port of Los Angeles has determined that regardless of testing results and for Project Report cost estimating purpose, all ADL soil shall be classified as California regulated hazardous waste (non-RCRA) and shall be excavated, contained, transported, and disposed of at a permitted Class I disposal facility in the State of California. As such, quantities and waste management cost estimate shall be adequately accounted for in the Project Cost and are supported by recent relevant investigation data on adjacent highway projects (for PAED purpose only).

The ISA recommended a pre-demolition survey for Asbestos Containing Materials (ACM) and Lead Based Paint (LBP) be conducted on any structures, and/or improvements that shall be demolished and/or altered. Thermoplastic paint and yellow painted traffic stripes/pavement markings identified

within the Project area, will require special removal, handling and disposal in conformance with Caltrans standard special provisions and specifications.

Regarding parcels planned to be dedicated to Caltrans; further soil, soil vapor, and groundwater testing will be conducted and completed prior to the right-of-way certification phase to identify the presence, nature, and extent of contaminants over the full extent of the property to be dedicated and determine required remediation which may include excavation and disposal of contaminated material. If contamination is identified, a remediation plan will be prepared, implemented, and completed prior to right-of-way certification. The remediation plan will be subject to Caltrans review and approval, and if applicable regulatory agency review and approval, prior to implementation. The Port of Los Angeles acknowledges that the remediation of these parcels must be completed and a site closure document issued by any overseeing regulatory agencies prior to the end of project construction. Following construction of the project, these parcels will be dedicated to Caltrans.

6B. Value Analysis

A value analysis (VA) has not been conducted since the total project cost is estimated under $50 million, which is the current threshold requiring a VA study as determined by *Title 23 United States Code*, Section 106.

6C. Resource Conservation

During construction, measures will be taken to conserve energy and nonrenewable resources according to Caltrans' specifications. Existing pavement materials may be recycled and incorporated into engineered fill, for example. Where available, existing roadside infrastructure will be preserved and/or relocated.

6D. Right of Way Issues

Proposed improvements require the acquisition of Port of Los Angeles property located directly north of the interchange. Existing uses in this area consist of a sewer pump station, off-leash Dog Park, K-9 Training Facility, and Truck Inspection Facility. The sewer pump station is to remain and the police dog training facility is expected to be located off-site. The dog park is currently a temporary facility and will not be replaced and/or relocated with the construction of this project. The truck inspection facility is anticipated to be relocated within the property remaining inside the proposed westbound loop on-ramp.

The project will also affect a portion of the former Pacific Harbor Rail Line, owned by the Port of Los Angeles. This rail line is no longer in service and has been previously severed in a number of other locations along its alignment. The reconstruction of a section of Knoll Drive requires acquisition of Port properties containing vacant land and slopes on Knoll Hill. The baseball field and fencing atop Knoll Hill will remain unaffected.

6E. Environmental Compliance

Caltrans has prepared an Initial Study (IS)/ Environmental Assessment (EA) for this project and, following public review, has determined from this study that the proposed project would not have a significant impact on the environment. The Negative Declaration (ND)/ Finding of No Significant Impact (FONSI) has been prepared in accordance with Caltrans' environmental procedures, as well as State and Federal environmental regulations. The attached ND/FONSI is the appropriate document for the proposal (See Attachment H).

Wetlands and Floodplains

National Flood Insurance Program (NFIP) Flood Insurance Rate Maps (FIRM) (panels 1945, 2031, and 2032) were used to determine the status of the project study area with respect to the flood plain. The study area was found to be outside the floodplain boundaries, however a portion of Front Street and the truck inspection center between Knoll Drive and the westbound on-ramp was found to be in Other Flood Areas: Zone X. Zone X is described as "areas of 0.2% annual chance of flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood".

Other Environmental Issues

While right of way is the main issue influencing project design or cost, potential hazardous waste may influence project design and cost, and are described further in the Hazardous Waste section within this document. Anticipated environmental permits are listed under the Permits section.

6F. Air Quality Conformity

The proposed project is listed in the financially constrained list of projects in the 2016 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) under RTP ID 7120018. The 2016 RTP was approved by the Regional Council of the Southern California Association of Governments (SCAG) on April 7, 2016, with ongoing amendments as needed with Amendment No. 2 adopted on July 6, 2017. The proposed project is listed in the 2017 Federal Transportation Improvement Program (FTIP) Consistency Amendment to 2016 RTP Amendment #2 under RTP ID #1120007. The 2017 FTIP Consistency Amendment to 2016 RTP Amendment #2 was approved by SCAG on July 7, 2017 and by FTA/FHWA on August 1, 2017. Each project alternative is fully compatible with the design concept and scope described in the current regional transportation plan.

An Air Quality Report was prepared for the project and determined that neither the short-term construction impacts nor the long-term operation impacts would exceed thresholds that either create or worsen an ambient air quality standard or contribute to an existing air quality violation.

6G. Title VI Considerations

Sidewalk and curb ramps along Front Street and Harbor Boulevard will be designed in accordance with the latest Americans with Disabilities Act (ADA) standards. This project adheres to Caltrans Title VI Policy Statement

6H. Noise Abatement Decision Report

A Final Noise Study Report (NSR) and Noise Abatement Decision Report (NADR) have been completed for the project. The NSR for this project was prepared by Daniel Kaufman on April 10, 2018 and approved by Jin S. Lee on April 20, 2018 and its findings are incorporated into the NADR. The NADR was prepared by Jason Lui on December 26, 2018 and concurred by Hamid R. Toossi on January 9, 2019. The NADR is an evaluation of the reasonableness and feasibility of incorporating noise abatement measures into this project.

The Noise Study Report identified six feasible noise barrier locations due to predicted noise levels approaching or exceeding the Noise Abatement Criteria (NAC). Based on analysis of reasonableness, the preliminary noise abatement decision recommended a 10-foot wall around the residence on Knoll Hill and a 12 to 16 foot wall along the south edge of Caltrans right-of-way. As part of the public review period for the environmental document, noise barrier survey letters were sent to the property owners and non-own occupants of the benefited receptors for each of these walls. Survey results showed a lack of support for these and consequently they are not recommended for construction.

7. Other Considerations as Appropriate

Public Hearing Process

The Environmental Document was circulated for agency and public comment from October 1 to October 30, 2018. A public hearing was held on October 17 at the Harbor Department Administration Building. Public participation was low; two public comments were recorded. Written comments were provided by the Environmental Protection Agency and the California Coastal Commission. All local agencies appear supportive of the project improvements featured in the Build Alternative.

Route Matters

A superseding freeway agreement is in progress as the traffic circulation at the SR 47/Front Street Interchange will be modified.

Permits

The following permits are anticipated during the preliminary engineering, project design, and construction phases:

- National Pollutant Discharge Elimination System (NPDES) Permits
- Caltrans Encroachment Permit

- Public Utility Commission (PUC) Permit
- Coastal Development Permit from California Coastal Commission (CCC)
- City of Los Angeles Bureau of Engineering B Permit
- City of Los Angeles Fire (hydrant relocation)
- City of Los Angeles Building and Safety (water line relocation, electrical, grading)

Cooperative Agreements

POLA and Caltrans executed a cooperative agreement on January 20, 2016 (Caltrans District Agreement No. 07-5049) to complete a Project Study Report. On July 12, 2017 POLA and Caltrans executed a cooperative agreement to complete a Project Report (Caltrans District Agreement No. 07-5120). POLA and Caltrans are currently developing a cooperative agreement to address design, right of way, and construction.

Other Agreements

The roles and responsibilities for the maintenance and operation of the Front Street and Harbor Boulevard on- and off-ramps will be addressed in separate maintenance agreements.

Transportation Management Plan

A Transportation Management Plan (TMP) will be developed for the project prior to construction. To address short-term traffic impacts during construction, the objectives of the TMP are to:

- Maintain traffic safety during construction;
- Maintain an acceptable level of traffic flow throughout the transportation system during construction;
- Minimize traffic delays and facilitate reduction in the overall duration of construction activities;
- Minimize detours and impacts to pedestrians and bicyclists; and
- Foster public awareness of the project and construction-related impacts.

The TMP includes the elements recommended in the Caltrans TMP Guidelines (November 2015) including:

- Public information;
- Motorist Information Strategies;
- Incident Management;
- Construction Strategies; and
- Alternative Route Strategies

- As applicable, a bicycle and pedestrian safety plan for local streets and trails is a component of these strategies.
- Parking Restrictions

As described in the following section, Stage Construction, an overview of the probable construction staging concept is provided. Prolonged temporary ramp closures are not anticipated. A Transportation Management Plan (TMP) Data Sheet has been prepared and is included as Attachment I.

Stage Construction

Much of the project improvements north of the SR-47 mainline may be constructed prior to any modification to the existing interchange. Grading Knoll Hill and construction of the re-aligned portion of Knoll Hill Drive will ensure access to Knoll Hill is available throughout the remainder of construction. Next, the majority of the westbound ramps, including the terminus intersection, may be constructed outside the current freeway footprint. Access into the West Basin Container Terminal is likely required during construction, but coordination with Port staff may prioritize other container terminal gates to reduce traffic through the intersection during construction.

Overnight closures may be required during reconstruction of the westbound gores. Ramp closure detours are available using Gaffey Street or John S. Gibson Boulevard interchanges. Once the westbound ramps are functioning, the existing westbound ramp may be removed and the new alignment for the eastbound on-ramp may be constructed. Once again, overnight closures for the eastbound on-ramp may be required for reconstruction of the gore area. Widening and reconstruction of the eastbound off-ramp should not require significant temporary ramp closures.

Proposed project improvements do not involve mainline or median construction; therefore closure of the mainline lanes is not anticipated. Proposed improvements will require approximately 18 months to construct.

Accommodation of Oversize Loads

Per policy, State freeways are designed to provide passage for vehicles of unrestricted height while moving in and out of an area. The project interchange features an undercrossing such that oversize loads are not limited on the State Route through the project area. Neither do the proposed ramps contain obstacles to oversize vehicles.

Graffiti Control

Los Angeles is a graffiti-prone area. During subsequent design development, consideration should be given to design features that prevent or deter vandals from accessing bridges, signs, and walls. Landscaping should be considered along proposed noise walls as a measure of graffiti control. Recently installed noise walls west of the project feature vine planting, but it has not yet spread sufficiently across wall faces and graffiti can regularly be observed.

8. Funding, Programming and Estimate

Funding

The project is identified in the South Bay Cities Council of Governments (SBCCOG) South Bay Highway Program (SBHP), which is funded by Measure R. Funding was previously allocated to the project for feasibility studies, the PSR, and for PA&ED Support. The Port of Los Angeles has secured funding through the Los Angeles County Metropolitan Transportation Authority for design, construction, and associated support costs. It has been determined that this project is eligible for Federal-aid funding.

Programming

Current programmed amounts for on-going PA&ED Support and planned PS&E, Right-of-way, and Construction related activities are shown in the following table:

Fund Source	Fiscal Year Estimate								
SBHP & Local	Prior	15/16	16/17	17/18	18/19	19/20	20/21	Future	Total
Component	In thousands of dollars ($1,000)								
PA&ED Support			112	588	300				1,000
PS&E Support					600	1,500	1,200		3,300
Right-of-Way Support					500				500
Construction Support								4,700	4,700
Right-of-Way					9,800				9,800
Construction								23,700	23,700
Total			112	588	11,200	1,500	1,200	28,400	43,000

Note: The estimates provided in this table are not based on work to be performed by Caltrans

9. Delivery Schedule

Project Milestones		Milestone Date (Month/Day/Year)
PA & ED	M200	06/17/19
60% PS&E	M260	1/31/20
95% PS&E	M300	5/31/20
FINAL PS&E	M377	8/1/20
RIGHT OF WAY CERTIFICATION	M410	5/31/20
FUND ALLOCATION	M470	8/30/20
READY TO LIST	M460	10/31/20
ADVERTISE (POLA)	M480	11/1/20
AWARD	M495	2/1/21
APPROVE CONTRACT	M500	4/1/21
CONTRACT ACCEPTANCE	M600	3/30/23
END PROJECT	M800	3/30/26

Note: The schedule above is local agency's schedule; Caltrans will oversee the PS&E and construction.

10. Risks

The primary risk to the project during the PID phase was related to the decision on the future use of the former Pacific Harbor Line right-of-way. This threat was eliminated when the rail right-of-way was secured.

Since approval of the PSR, the addition of noise barriers outside the existing right-of-way presented risks associated with acquiring right-of-way and maintenance easements to construct and maintain these features. The results of public survey has removed these noise barriers from the project and therefore removed the associated risks.

Soil and groundwater investigation for the parcels to be dedicated to Caltrans, including any necessary remediation, is planned for the right-of-way phase. This and other low risk threats are identified in the Risk Register included in Attachment N.

11. External Agency Coordination

Federal Highway Administration (FHWA)

The project is not identified as a "Project of Division Interest."

Port of Los Angeles, Department of City of Los Angeles

The Port of Los Angeles, a department of the City of Los Angeles, is the project sponsor through all project phases. Although Caltrans owns the existing freeway interchange, POLA is the owner of the majority of the adjacent properties and uses impacted by the project improvements. As such, Port staff has regularly attended PDT and focus meetings as well as rendered coordination for and review of technical studies required through these phases. The Port of Los Angeles and Caltrans also continue to coordinate through cooperative agreements.

12. Project Reviews

PDT meetings and reviews, including technical study focus meetings, have been conducted throughout development of this Project Report.

This Project Report is not required to be reviewed by the Federal Highway Administration (FHWA) because the proposed project is on a State Highway and determined to be exempt from FHWA review and oversight:

> "For projects under this title that are on the National Highway System, including projects on the Interstate System, the State may assume the responsibilities of the Secretary under this title for design, plans, specifications, estimates, contract awards, and inspections with respect to the projects unless the Secretary determines that the assumption is not appropriate." [23 USC 106(c)(1)].

13. PROJECT PERSONNEL

Caltrans Personnel

Name	Unit	Title	Phone
John Vassilliades	Project Management	Project Manager	(213) 897-7395
Hamid Toossi	Design	Design Manager	(213) 897-2923
MD Alam	Design	Project Engineer	(213) 897-4714
Karl Price	Environmental Planning	Senior Environmental Planner	(213) 897-1839
Savannah Speerstra	Environmental Planning	Environmental Planner	(213) 897-2022
Sarah Horn	Traffic	Corridor Manager	(213) 897-5631
Zebunnesa Tareque	Design	District Design Liaison	(213) 897-2669

Consultant Personnel

Name	Firm	Title	Phone
Shannon Willits	AECOM	Project Manager	(714) 567-2626
Brad Slawson	AECOM	Deputy Project Manager	(714) 567-2731
Jayna Harris	LSA	Environmental Coordinator	(949) 553-0666

Implementing Agency Personnel (POLA)

Name	Organization	Title	Phone
Guillermo Martinez	POLA	Project Oversight	(310) 732-3090
Sarah Aziz	POLA	Project Manager	(310) 732-0398

14. ATTACHMENTS (NUMBER OF PAGES)

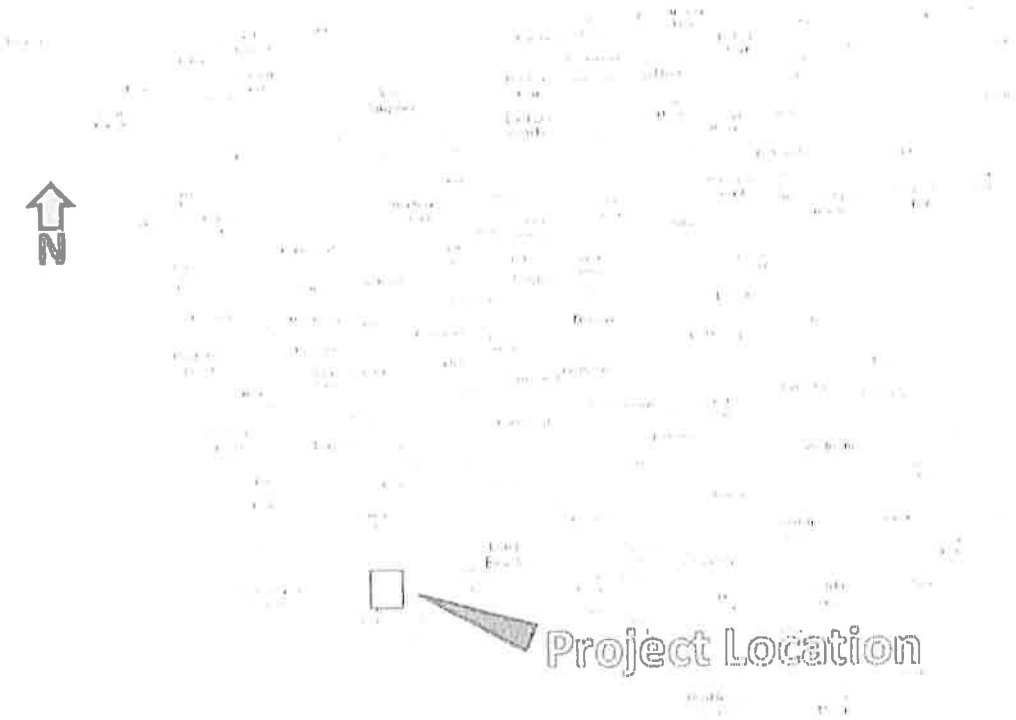
Attachment	Description
A	Location Map (1)
B	Build Alternative Layout (1)
C	Preliminary Layouts, Profiles, and Typical Cross-sections (3)
D	Existing Utility Map (2)
E	Right of Way Exhibit (1)
F	Right of Way Data Sheet (5)
G	Project Cost Estimate (10)
H	Negative Declaration (2)
I	Transportation Management Plan (TMP) Data Sheet (3)
J	TASAS Table B (10)
K	Storm Water Data Report (Cover Sheet) (1)
L	Hazardous Waste Assessment Letter (13)
M	Project Schedule (3)
N	Risk Register (3)
O	Design Resource Worksheet (1)

Supporting Documents	Description
Negative Declaration / Finding of No Significant Impact	Environmental Document
Traffic Report	Freeway, Ramp and Ramp Intersection Assessments
Noise Study Report & Noise Abatement Decision Report	Noise Assessments Preliminary Sound Wall Locations and Limits Sound Wall Recommendations
Initial Site Assessment	Hazardous Waste investigation

Attachment A

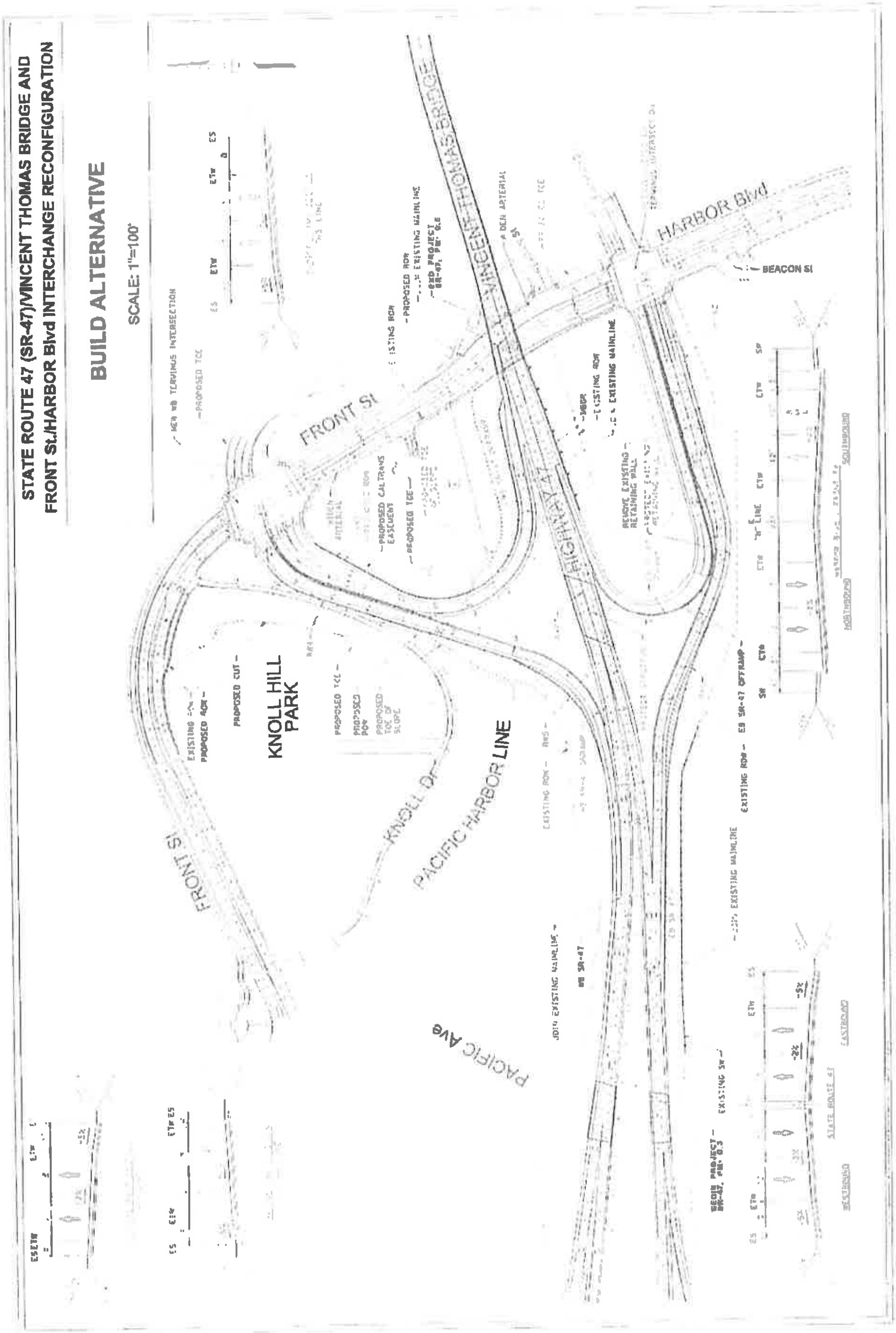
Location Map

Project Location Map



Attachment B

Build Alternative Layout


STATE ROUTE 47 (SR-47)/VINCENT THOMAS BRIDGE AND
FRONT St./HARBOR Blvd INTERCHANGE RECONFIGURATION
BUILD ALTERNATIVE
SCALE: 1"=100'
VINCENT THOMAS BRIDGE
HARBOR Blvd
BEACON St
FRONT St
HIGHWAY 47
KNOLL HILL
PARK
KNOLL Dr
PACIFIC HARBOR LINE
PACIFIC Ave
FRONT St
PROPOSED CUT
EXISTING ROW
PROPOSED ROW
PROPOSED TCE
EXISTING MAINLINE
NORTHBOUND
SOUTHBOUND
EASTBOUND
WESTBOUND
STATE ROUTE 47

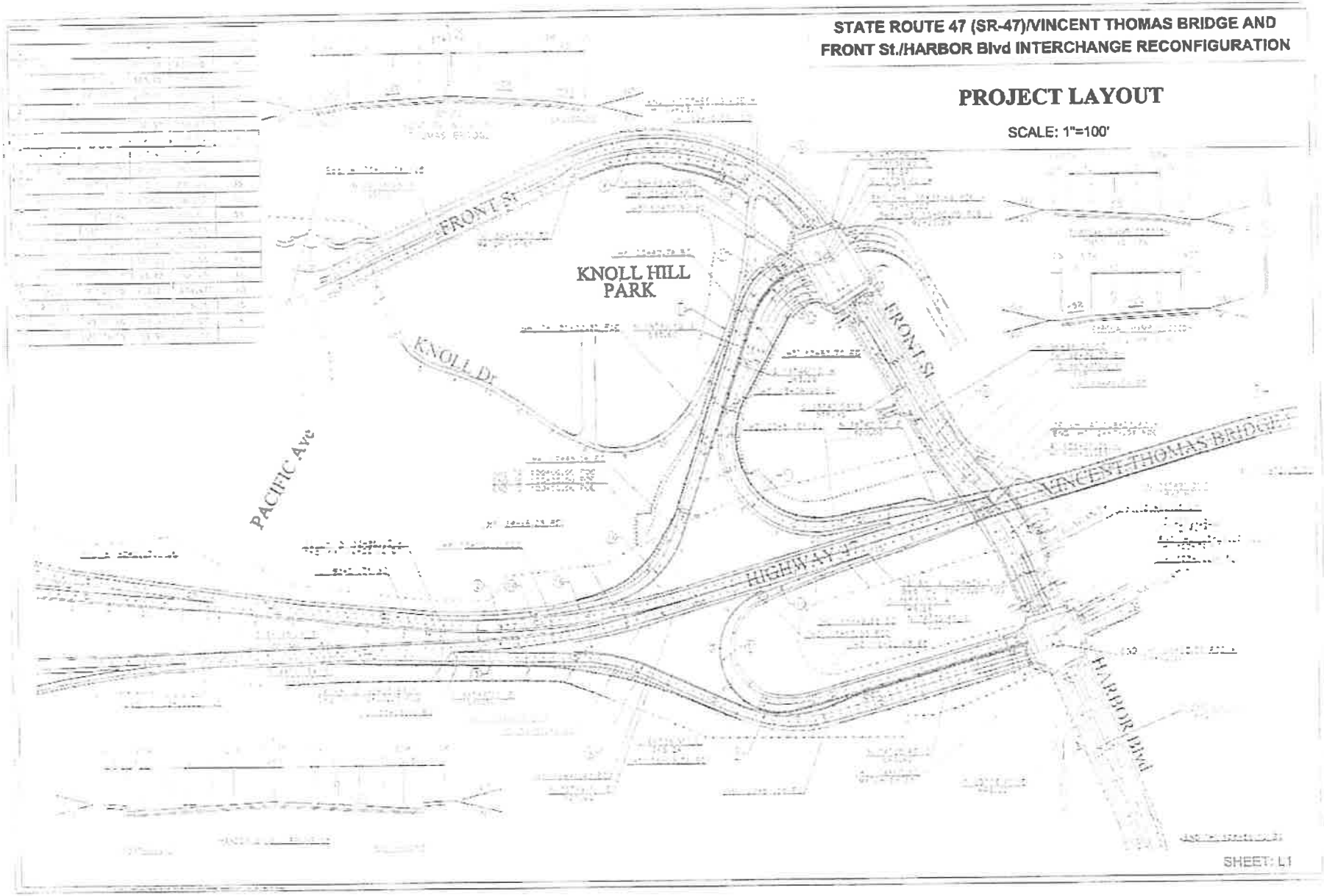
Attachment C

Preliminary Layouts, Profiles, and Typical Cross-sections

STATE ROUTE 47 (SR-47)/VINCENT THOMAS BRIDGE AND
FRONT St./HARBOR Blvd INTERCHANGE RECONFIGURATION

PROJECT LAYOUT

SCALE: 1"=100'



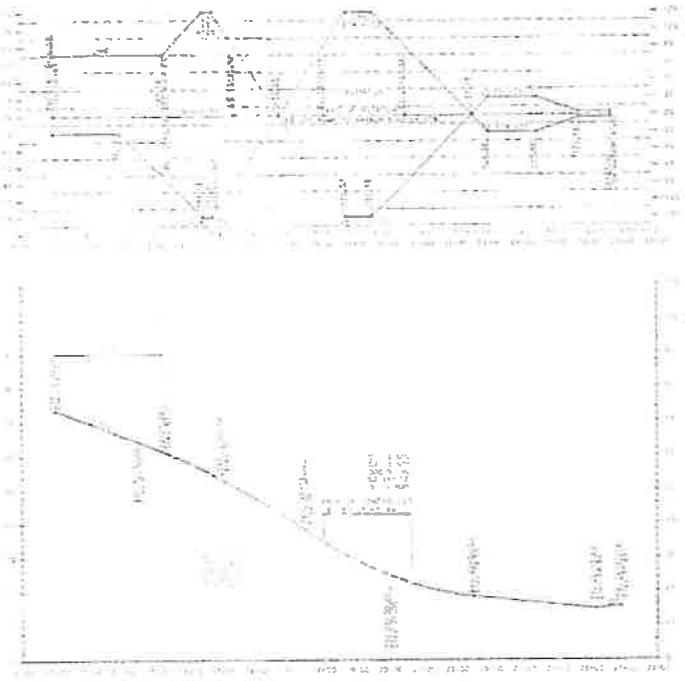
SHEET: L1

Transmittal No. 1

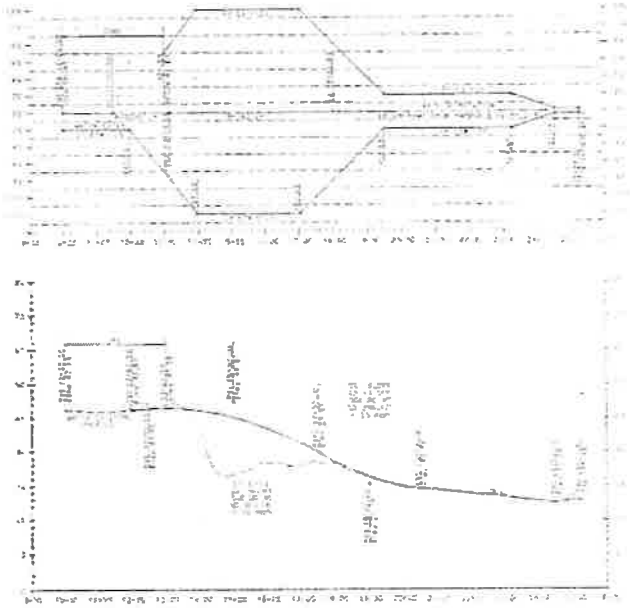
STATE ROUTE 47 (SR-47)/VINCENT THOMAS BRIDGE AND
FRONT St./HARBOR Blvd INTERCHANGE RECONFIGURATION

PROFILES
EASTBOUND RAMPS

SCALE: Vert. 1"=10'
Horiz. 1"=100'



"H1" EB OFF-RAMP



"H2" EB ON-RAMP

SHEET: P1

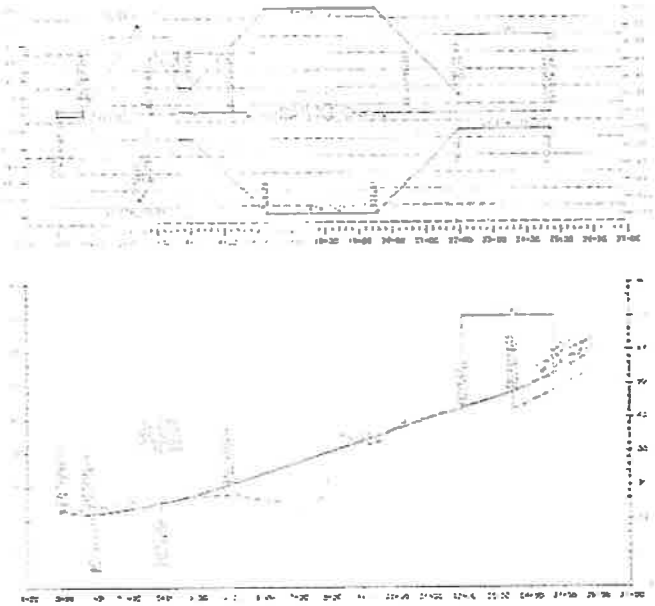
Transmittal No. 1

STATE ROUTE 47 (SR-47)/VINCENT THOMAS BRIDGE AND FRONT St./HARBOR Blvd INTERCHANGE RECONFIGURATION

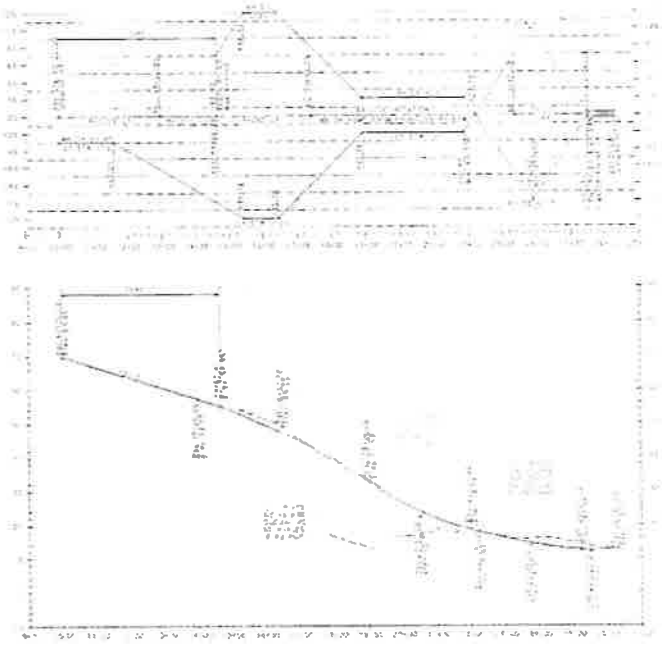
PROFILES

WEST BOUND RAMPS

SCALE: Vert. 1"=10'
Horiz. 1"=100'



"H3" WB OFF-RAMP



"H4" WB ON-RAMP

SHEET: P2

Transmittal No. 1

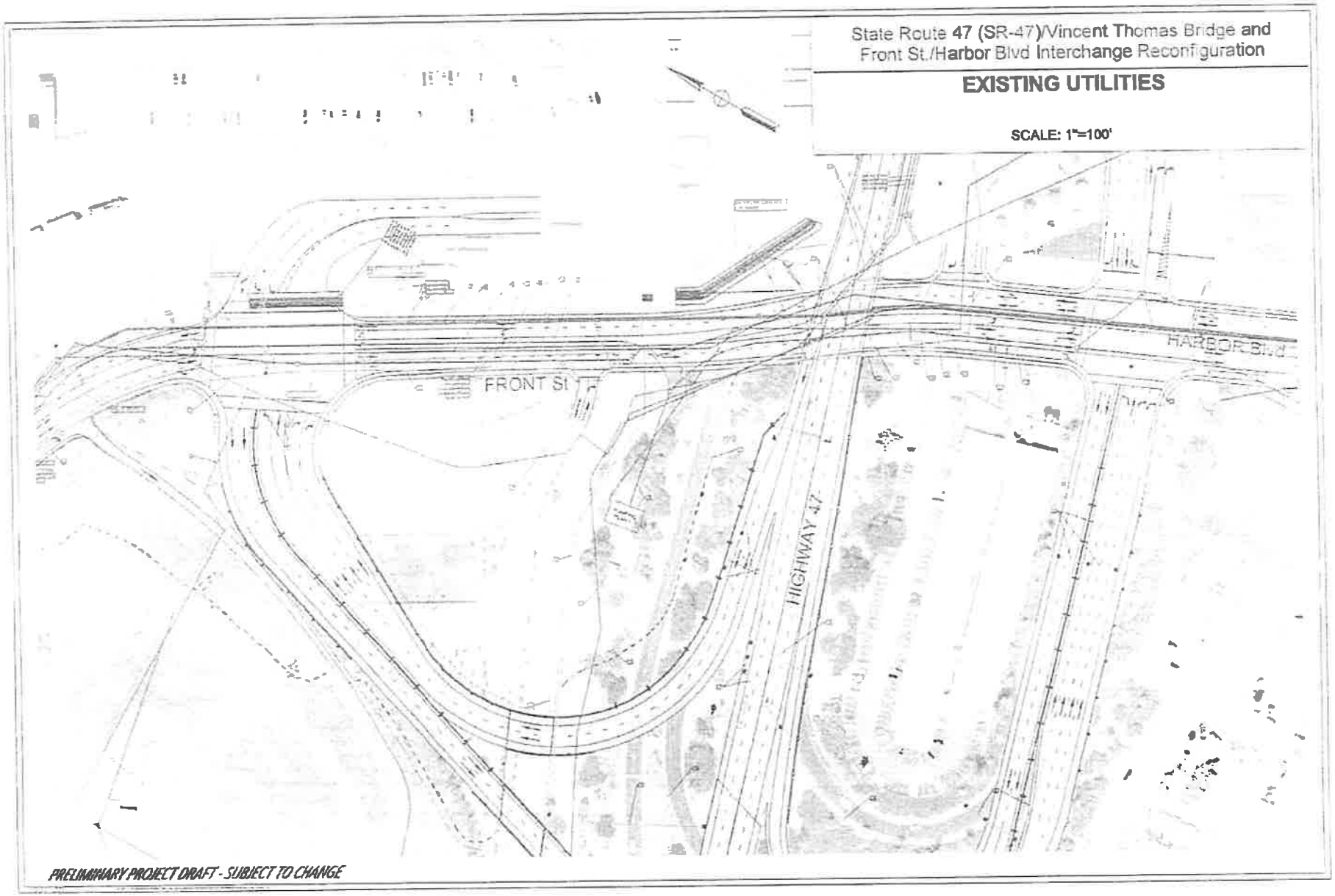
Attachment D

Existing Utility Map

State Route 47 (SR-47)/Vincent Thomas Bridge and
Front St./Harbor Blvd Interchange Reconfiguration

EXISTING UTILITIES

SCALE: 1"=100'



PRELIMINARY PROJECT DRAFT - SUBJECT TO CHANGE

Transmittal No. 1

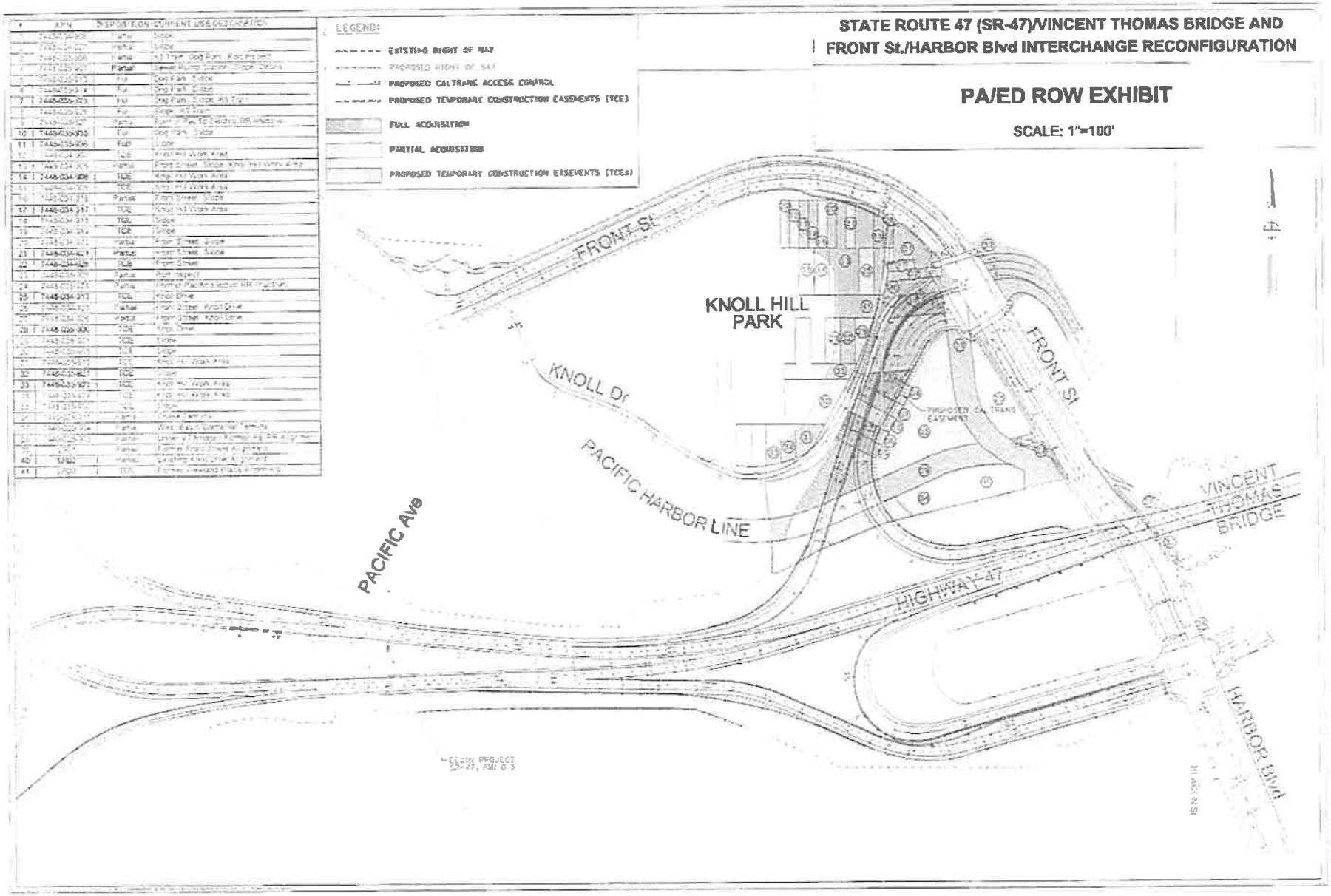
State Route 47 (SR-47)/Vincent Thomas Bridge and Front St./Harbor Blvd Interchange Reconfiguration

EXISTING UTILITY MATRIX

ID. No.	UTILITY SIZE AND TYPE	UTILITY OWNER	LOCATION
1	EXIST Fire Hydrant	LADWP - Water	Approx 70 ft west of Station 18+40
2	EXIST 2-inch Gas	SCG	In Knoll Drive, west of Front Street (immediately northwest of the future w/b SR-47 on-ramp)
3	EXIST 6-inch Water	LADWP - Water	In Knoll Drive, west of Front Street (immediately northwest of the future w/b SR-47 on-ramp)
4	EXIST Catch Basin and 12-in SD lateral	POLA	Intersection of Front Street and the future w/b SR-47 off ramp (Approx. 35 ft west of Station 16+50)
5	EXIST Power poles (2)	LADWP - Power	Intersection of Front Street and the future w/b SR-47 off-ramp and on-ramp
6	EXIST 14-inch Oil pipeline	USN	In Front Street from Station 13+40 to Station 21+00
7	EXIST 2-24-inch Oil pipelines	[illegible]	In Front Street from Station 13+40 to Station 24+50
8	EXIST 42-in SS	LABOE	In Front Street from Station 13+60 to Station 22+20
9	EXIST 18-in SS	LABOE	In Front Street from Station 13+80 to Station 21+60
10	EXIST Underground electrical	LADWP - Power	In Front Street from Station 13+50 to Station 21+90
11	EXIST 10-inch and 12-inch water	LADWP - Water	In Front Street and various areas west of Front Street from Station 13+40 to Station 33+70
12	EXIST 8-inch water	LADWP - Water	Intersection of Front Street and the future w/b SR-47 off-ramp and on-ramp
13	EXIST 2-in and 3-in Gas	SCG	In Front Street and various areas west of Front Street from Station 18+40 to Station 30+00
14	EXIST 4-in Gas	SCG	In Front Street from Station 13+80 to Station 16+50
15	EXIST 24-in SD and catch basins		Under future w/b SR-47 off-ramp, on-ramp and various areas west of Front Street
16	EXIST 18-in SD line		Under future w/b SR-47 off-ramp, on-ramp and various areas west of Front Street
17	EXIST 24-in SD pipe and catch basins		Under SR-47 Fwy and future w/b SR-47 off-ramp from the west edge of Front Street to 450 ft west of Front Street
18	EXIST 12-in SD pipe and catch basin		Adjacent to and south of SR-47, from 400 ft west of Front Street to 510 ft west of Front Street
19	EXIST 15-in SD pipe and catch basin		Under future w/b SR-47 on-ramp, approx 125 ft west of Station 11+00
20	EXIST 18-in and 24-in SD pipe and catch basins		Pipeline segments and CBs are located under future w/b SR-47 on-ramp and off-ramp (west side of Harbor Blvd), within Stations [illegible]
21	EXIST 18-in and 30-in SD pipe and catch basins		Pipeline segments and CBs are located under Front Street (west side), between Stations 23+70 and 29+20
22	EXIST 4-inch and 6-inch water laterals	LADWP - Water	In Harbor Blvd. from Station 26+40 to Station 28+60
23	EXIST Storm Drain Conveyance		South of SR-47 and west of Harbor Blvd.
24	EXIST Storm Drain Conveyance		South of SR-47 and west of Harbor Blvd
25	EXIST 18-inch Storm Drain Pipeline		North of SR-47 approximately 1,200 ft west of Front Street
26	EXIST 18-inch Storm Drain Pipelines and catch basins		Under SR-47 approximately 1,100 ft west of Front Street
27	EXIST 24-inch Storm Drain Pipelines and catch basins		North of SR-47 and west of Front Street at approximate station 23+00
28	EXIST storm drainage natural water course		North of SR-47 and west of Front Street under the future westbound on-ramp and off-ramp and in various areas
29	EXIST SS Pump station and 54-inch SS pipeline	LABOE	North of SR-47 and west of Front Street at approximate Station 22+00
30	EXIST 2-14-inch Oil pipelines	USN	In Front Street from Station 22+50 to Station 25+00
31	EXIST 2-16-inch Oil pipelines	USN	In Front Street from Station 23+80 to Station 24+50
32	EXIST communication line		In Front Street from Station 23+60 to Station 27+50
33	EXIST 33-in SS	LABOE	In Front Street from Station 22+00 to Station 30+20
34	EXIST Underground electrical	LADWP - Power	In Harbor Blvd. from Station 25+20 to Station 25+50
35	EXIST 30-in SS Force Main	LABOE	In Front Street from Station 22+00 to Station 26+00
36	EXIST 12-inch water	LADWP - Water	In Harbor Blvd at approximate Station 26+00
37	EXIST 12-inch and 15-inch SS pipelines	LABOE	In Harbor Blvd. from Station 27+50 to Station 28+50
38	EXIST 2-14-inch Oil pipelines	USN	In Harbor Blvd. from Station 24+00 to Station 33+70
39	EXIST 12-inch, 14-inch and 15-inch Storm Drain Pipelines and catch basins		In Harbor Blvd. from Station 10+00 to Station 31+50
40	EXIST 12-inch water	LADWP - Water	In Harbor Blvd at approximate Station 21+50
41	EXIST 20-inch, 21-inch and 24-inch SS pipelines	LABOE	In Harbor Blvd. from Station 21+70 to Station 33+70
42	EXIST Power poles (9)	LADWP - Power	West of Front Street, under the future w/b SR-47 off-ramp and on-ramp, adjacent to and south of the existing railroad tracks
43	EXIST Power poles (8)	LADWP - Power	In Harbor Blvd. from Station 9+40 to Station 21+70

Attachment E

Right-of-Way Exhibit



Transmittal No. 1

Attachment F

Right of Way Data Sheet

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION
RIGHT OF WAY DATA SHEET FOR LOCAL PUBLIC AGENCIES
(Form #)

EXHIBIT
17-EX-21 (NEW 12/2007)

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

Date: 05/30/19

Co. LA Rte. 47
Expense Authorization 318500

Attention: District Branch Chief
R/W Local Programs

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

Project Description:

Right of way necessary for the subject project will be the responsibility of Port of Los Angeles .

The information in this data sheet was developed by AECOM (Consultant) .

I. *Right of Way Engineering*

Will Right of Way Engineering be required for this project?

- No ____
- Yes X

• Hard copy (base map)	X
• Appraisal map	X
• Acquisition Documents	
• 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.

RIGHT OF WAY DATA SHEET FOR LOCAL PUBLIC AGENCIES (Cont.)

(Form #)

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	16	6	$ 5,687,690
B. Number of Single Family Residential Units			$
C. Number of Multifamily Residential Units			$
D. Number of Commercial/Industrial Parcels	2		$ 1,484,874
E. Number of Farm/Agricultural Parcels			$
F. Permanent and/or Temporary Easements	17		$ 0
G. Other Parcels (define in "Remarks" section)			$
Totals	35	6	$ 7,172,564

The project impacts Port of Los Angeles owned properties currently vacant or containing a Port truck inspection facility, Police K-9 training facility, a public off-leash dog park, and a vacant rail right-of-way. All anticipated Permanent and Temporary Easements are within the Port of Los Angeles right-of-way. As the project sponsor, the Port has assigned no project cost to these easements.

IV. *Dedications*

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

No ____ Yes X (Complete the following.)

Number of dedicated parcels 24

Have the dedication parcel(s) been accepted by the municipality involved? Yes, Port is the owner.

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

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. Water Lines	DWP	$	$105,000**	$
B. Gas Lines	So Cal Gas	$	$11,500**	$
C. Storm Drains	City DPW Water	$	$41,375**	$
D. Electrical Lines	City DPW Power	$	$1,970,000**	$
E. Oil Lines	US Navy Oil	$	$15,300**	$
F. Misc Electric	City DOT	$	$8,200**	$
Totals		$TBD	$2,151,375**	$TBD
Number of facilities			6**	

*This amount reflects the estimated total financial obligation by the State.
**Utility rights and cost sharing has not yet been investigated. At this time, all utility costs are assumed as general project costs for this locally funded project.
Any additional information concerning utility involvement on this project?

VIII. *Rail Information*

Are railroad facilities or railroad rights of way affected?

No ____ Yes __X__ (Complete the following.)

Describe railroad facilities or railroad rights of way affected.

Owner's Name	Transverse Crossing	Longitudinal Encroachment
A. Port of Los Angeles	Former Pacific Harbor Line	
B.		

Discuss types of agreements and rights required from the railroads. Are grade crossings that require services contracts, or grade separations that require construction and maintenance agreements involved?

This line is no longer active. The project will remove the inactive rail alignment on Port of Los Angeles property.

IX. *Clearance Information*

Are there improvements that require clearance?

No ____ Yes __X__ (Complete the following.)

A. Number of Structures to be Demolished 2
Estimated Cost of Demolition $ 27,500

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 ____ Yes __X__ (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	5 (months)	TBD
* R/W Engineering Submittals	4 (months)	TBD
* R/W Appraisals/Acquisition	7 (months)	TBD
Proposed Environmental Clearance		TBD
Proposed R/W Certification		5/31/20

RIGHT OF WAY DATA SHEET FOR LOCAL PUBLIC AGENCIES (Cont.)

(Form #)

XII. *Proposed Funding*

	Local	State	Federal	Other
Acquisition	$7,200,064			
Utilities	$2,151,375			
Relocation Assistance Program	$0			
R/W Support	$500,000			
Cost (Eng. Appraisals, etc.)	$0			

XIII. *Remarks*

The Port of Los Angeles property east of Front Street, containing the West Basin Container Terminal, has been found to contain petroleum hydrocarbons in the soil and groundwater beneath an abandoned pipeline corridor. This location is currently being remediated. The Port of Los Angeles property east of Harbor Boulevard is suspected to contain petroleum hydrocarbons. The former Pacific Harbor Line property, which will be crossed by the westbound ramp alignments, is suspected to contain hazardous materials associated with industrial rail use.

Project Sponsor Consultant
Prepared by:

Brad Slawson (AECOM)

6 · 6 · 19
Date

Project Sponsor
Reviewed and Approved by:

Sarah Aziz (POLA)

6/6/19
Date

Caltrans
Reviewed and approved as to Form and Procedures based on information provided to date:

Caltrans District Branch Chief
Local Programs
Division of Right of Way

6/6/19
Date

Attachment G

Project Cost Estimate

PROJECT

PAED PLANNING COST ESTIMATE

EA: 07-318500 PID: 7150000304

EA: 07-318500

PID: 7150000304

District-County-Route: 07-LA-047

PM: 00.3 - 00.8

Type of Estimate : Project Report Cost Estimate

Program Code : 20.30.600.624

Project Limits : From I-110 Connectors to Vincent Thomas Bridge

Project Description: Reconstruction of the SR-47 Harbor Boulevard/Front Street Interchange

Scope : Interchange Modification

Alternative : Build

SUMMARY OF PROJECT COST ESTIMATE

	Current Year Cost	Escalated Cost
TOTAL ROADWAY COST	$ 21,987,400	$ 23,686,794
TOTAL STRUCTURES COST	$ -	
SUBTOTAL CONSTRUCTION COST	$ 21,987,400	$ 23,686,794
TOTAL RIGHT OF WAY COST	$ 9,361,439	$ 9,763,845
TOTAL CAPITAL OUTLAY COSTS	$ 31,349,000	$ 33,443,000
PR/ED SUPPORT	$ 1,000,000	$ 1,000,000
PS&E SUPPORT	$ 3,100,000	$ 3,300,000
RIGHT OF WAY SUPPORT	$ 500,000	$ 500,000
CONSTRUCTION SUPPORT	$ 4,400,000	$ 4,700,000
TOTAL SUPPORT COST	$ 9,000,000	$ 9,500,000
TOTAL PROJECT COST	**$ 40,350,000**	**$ 42,950,000**

If Project has been programmed enter Programmed Amount

	Month	Year
Date of Estimate (Month/Year)	5	2019
Estimated Construction Start (Month/Year)	2	2021
Number of Working Days =	260	
Estimated Mid-Point of Construction (Month/Year)	2	2022
Estimated Construction End (Month/Year)	3	2023
Number of Plant Establishment Days	100	

Estimated Project Schedule

PID Approval	4/1/2017
PA/ED Approval	5/30/2019
PS&E	8/1/2020
RTL	10/31/2020
Begin Construction	2/1/2021

Reviewed by District OE or Cost Estimate Certifier — Date 5/29/19 — Phone 714.567.2626

Approved by Project Manager — Date 10/10/19 — Phone 310-732-0393

PROJECT

EA: 07-318500 PID: 715000304

I. ROADWAY ITEMS SUMMARY

	Section		Cost
1	Earthwork	$	2,790,400
2	Pavement Structural Section	$	4,080,700
3	Drainage	$	1,188,100
4	Specialty Items	$	2,443,300
5	Environmental	$	659,100
6	Traffic Items	$	1,701,100
7	Detours	$	-
8	Minor Items	$	1,286,300
9	Roadway Mobilization	$	1,414,900
10	Supplemental Work	$	1,414,900
11	State Furnished	$	919,000
12	Time-Related Overhead	$	1,414,900
13	Roadway Contingency	$	2,684,700
	TOTAL ROADWAY ITEMS	**$**	**21,997,400**

Estimate Prepared By : Robert Martinez, Roadway Engineer — 5-30-19 (Date) — 714-567-2744 (Phone)

Estimate Reviewed By : Brad Slawson, Project Engineer — 5-30-19 (Date) — 714-567-2731 (Phone)

PROJECT

EA 07-318500 PID: 715000304

SECTION 1: EARTHWORK

Item code		Unit	Quantity		Unit Price ($)			Cost
190101	Roadway Excavation	CY	36,729	x	20.00	=	$	734,580
190107	Roadway Excavation (Type Y-1) ADL	CY	8,500	x	135.00	=	$	1,147,500
194001	Ditch Excavation	CY		x		=	$	-
19801X	Imported Borrow	CY	34,563	x	20.00	=	$	691,260
192037	Structure Excavation (Retaining Wall)	CY		x		=	$	-
193013	Structure Backfill (Retaining Wall)	CY		x		=	$	-
193031	Pervious Backfill Material (Retaining Wall)	CY		x		=	$	-
XXXXXX	Dewatering (Retaining Wall)	LS	1	x	50,000.00	=	$	50,000
	Remove Retaining Wall	SF	1,000	x	12.00	=	$	12,000
16010X	Clearing & Grubbing	ACRE	11	x	5,000.00	=	$	55,000
170101	Develop Water Supply	LS	1	x	100,000.00	=	$	100,000
210130	Duff	ACRE		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-

TOTAL EARTHWORK SECTION ITEMS $ 2,790,400

SECTION 2: PAVEMENT STRUCTURAL SECTION

Item code		Unit	Quantity		Unit Price ($)			Cost
401050	Jointed Plain Concrete Pavement	CY	940	x	260.00	=	$	244,400
400050	Continuously Reinforced Concrete Pavement	CY		x		=	$	-
404092	Seal Pavement Joint	LF		x		=	$	-
404093	Seal Isolation Joint	LF		x		=	$	-
413117	Seal Concrete Pavement Joint (Silicone)	LF		x		=	$	-
413118	Seal Pavement Joint (Asphalt Rubber)	LF		x		=	$	-
260000	Lean Concrete Base	CY	940	x	170.00	=	$	159,800
260010	Rapid Strength Concrete Base	CY		x		=	$	-
410095	Dowel Bar (Drill and Bond)	EA		x		=	$	-
390132	Hot Mix Asphalt (Type A)	TON	23,620	x	100.00	=	$	2,362,000
390137	Rubberized Hot Mix Asphalt (Gap Graded)	TON		x		=	$	-
39300X	Geosynthetic Pavement Interlayer (Type X)	SQYD		x		=	$	-
26020X	Class 2 Aggregate Base	CY	14,030	x	45.00	=	$	631,350
290201	Asphalt Treated Permeable Base	CY		x		=	$	-
250201	Class 2 Aggregate Subbase	CY	6,390	x	40.00	=	$	255,600
250401	Class 4 Aggregate Subbase	CY		x		=	$	-
374002	Asphaltic Emulsion (Fog Seal Coat)	TON		x		=	$	-
397005	Tack Coat	TON		x		=	$	-
377501	Slurry Seal	TON		x		=	$	-
3750XX	Screenings (Type XX)	TON		x		=	$	-
374492	Asphaltic Emulsion (Polymer Modified)	TON		x		=	$	-
370001	Sand Cover (Seal)	TON		x		=	$	-
731530	Minor Concrete (Textured Paving)	CY		x		=	$	-
731502	Minor Concrete (Miscellaneous Construction)	CY		x		=	$	-
39407X	Place Hot Mix Asphalt Dike (Type X)	LF		x		=	$	-
150771	Remove Asphalt Concrete Dike	LF		x		=	$	-
420201	Grind Existing Concrete Pavement	SQYD		x		=	$	-
150860	Remove Base and Surfacing	SY	28,498	x	15.00	=	$	427,470
390095	Replace Asphalt Concrete Surfacing	CY		x		=	$	-
15312X	Remove Concrete	LF/CY/LS		x		=	$	-
394090	Place Hot Mix Asphalt (Miscellaneous Area)	SQYD		x		=	$	-
153103	Cold Plane Asphalt Concrete Pavement	SQYD		x		=	$	-
39405X	Shoulder Rumble Strip (HMA, X-In Indentations	STA		x		=	$	-
413113	Repair Spalled Joints, Polyester Grout	SQYD		x		=	$	-
420102	Groove Existing Concrete Pavement	SQYD		x		=	$	-
390136	Minor Hot Mix Asphalt	TON		x		=	$	-
394095	Roadside Paving (Miscellaneous Areas)	SQYD		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-

TOTAL PAVEMENT STRUCTURAL SECTION ITEMS $ 4,080,700

PROJECT

EA: 07-318500 PID: 715000304

SECTION 3: DRAINAGE

Item code		Unit	Quantity		Unit Price ($)		Cost
15060X	Remove Culvert	EA/LF		x		$	-
150820	Modify Inlet	EA		x		$	-
155232	Sand Backfill	CY		x		$	-
15020X	Abandon Culvert	EA/LF		x		$	-
152430	Adjust Inlet	LF		x		$	-
155003	Cap Inlet	EA		x		$	-
510501	Minor Concrete	CY		x		$	-
510502	Minor Concrete (Minor Structure)	CY		x		$	-
5105XX	Minor Concrete (Type XX)	CY		x		$	-
620XXX	XX" Alternative Pipe Culvert (Type X)	LF		x		$	-
6411XX	XX" Plastic Pipe	LF		x		$	-
65XXXX	XX" Reinforced Concrete Pipe (Type X)	LF		x		$	-
6650XX	XX" Corrugated Steel Pipe (0.XXX" Thick)	LF		x		$	-
68XXXX	XX" Plastic Pipe (Edge Drain)	LF		x		$	-
69011X	XX" Corrugated Steel Pipe Downdrain (0.XXX'	LF		x		$	-
70321X	XX" Corrugated Steel Pipe Inlet (0.XXX" Thick'	LF		x		$	-
70XXXX	XX" Corrugated Steel Pipe Riser (0.XXX" Thicl	LF		x		$	-
7050XX	XX" Steel Flared End Section	EA		x		$	-
703233	Grated Line Drain	LF		x		$	-
72XXXX	Rock Slope Protection (Type and Method)	CY/TON		x		$	-
72901X	Rock Slope Protection Fabric (Class X)	SQYD		x		$	-
721420	Concrete (Ditch Lining)	CY		x		$	-
721430	Concrete (Channel Lining)	CY		x		$	-
750001	Miscellaneous Iron and Steel	LB		x		$	-
XXXXXX	Roadway Drainage (7.5% Roadway Pavement	%	1	x	308,052.50	$	308,053
XXXXXX	Treatment BMP - Bioswales	AC	3	x	98,000.00	$	294,000
XXXXXX	Treatment BMP - Infiltration/Detention Basins	AC	8	x	73,500.00	$	588,000
XXXXXX	Additional Drainage	Unit		x		$	-

TOTAL DRAINAGE ITEMS $ 1,188,100

SECTION 4: SPECIALTY ITEMS

Item code		Unit	Quantity		Unit Price ($)		Cost
060050	Progress Schedule (Critical Path Method)	LS		x		$	-
510530	Minor Concrete (Wall)	CY		x		$	-
	Curb and Gutter	LF	1,600	x	90.00	$	144,000
	Sidewalk	SF	13,000	x	5.00	$	65,000
	ADA Ramps	EA	11	x	8,000.00	$	88,000
15325X	Remove Sound Wall	LF/LS		x		$	-
070030	Lead Compliance Plan	LS		x		$	-
141120	Treated Wood Waste	LB		x		$	-
153221	Remove Concrete Barrier	LF		x		$	-
150662	Remove Metal Beam Guard Railing	LF		x		$	-
150668	Remove Flared End Section	EA		x		$	-
8000XX	Chain Link Fence (Type XX)	LF		x		$	-
80XXXX	XX" Chain Link Gate (Type CL-6)	EA		x		$	-
832017	Midwest Guardrail System	LF	450	x	35.00	$	15,750
839301	Single Thrie Beam Barrier	LF		x		$	-
839310	Double Thrie Beam Barrier	LF		x		$	-
839521	Cable Railing	LF		x		$	-
8395XX	Terminal System (Type CAT)	EA		x		$	-
839585	Alternative Flared Terminal System	EA	2	x	5,000.00	$	10,000
839584	Alternative In-line Terminal System	EA	2	x	5,000.00	$	10,000
4906XX	CIDH Concrete Piling (Insert Diameter)	LF		x		$	-
839XXX	Crash Cushion (Insert Type)	EA		x		$	-
83XXXX	Concrete Barrier (Insert Type)	LF		x		$	-
839704	Concrete Barrier (Roadside Type 60D)	LF	2,530	x	60.00	$	151,800
XXXXXX	Retaining Wall (Type TBD)	SQFT	19,587	x	100.00	$	1,958,700
520103	Bar Reinforced Steel (Retaining Wall)	LB		x		$	-
510060	Structural Concrete, Retaining Wall	SQFT		x		$	-
513553	Retaining Wall (Masonry Wall)	SQFT		x		$	-
511035	Architectural Treatment	SQFT		x		$	-
598001	Anti-Graffiti Coating	SQFT		x		$	-
203070	Rock Stain	SQFT		x		$	-
5136XX	Reinforced Concrete Crib Wall (Type X)	SQFT		x		$	-
83954X	Transition Railing (Type X)	EA		x		$	-
597601	Prepare and Stain Concrete	SQFT		x		$	-
839561	Rail Tensioning Assembly	EA		x		$	-
83956X	End Anchor Assembly (Type X)	EA		x		$	-
XXXXXX	Some Item	Unit		x		$	-

TOTAL SPECIALTY ITEMS $ 2,443,300

PROJECT

EA 07-318500 PID 7*5000004

SECTION 5: ENVIRONMENTAL

5A - ENVIRONMENTAL MITIGATION

Item code		Unit	Quantity		Unit Price ($)			Cost
	Biological Mitigation	LS		x		=	$	-
130670	Temporary Reinforced Silt Fence	LF		x		=	$	-
141000	Temporary Fence (Type ESA)	LF		x		=	$	-
							Subtotal Environmental Mitigation	$ -

5B - LANDSCAPE AND IRRIGATION

Item code		Unit	Quantity		Unit Price ($)			Cost
20XXXX	Highway Planting	AC	3	x	38,000.00	=	$	114,000
20XXXX	Irrigation System	AC	3	x	55,000.00	=	$	165,000
204099	Plant Establishment Work	AC	3	x	16,680.00	=	$	50,040
204101	Extend Plant Establishment Work	LS		x		=	$	-
20XXXX	Follow-up Landscape Project	LS		x		=	$	-
150585	Remove Irrigation Facility	LS		x		=	$	-
20XXXX	Maintain Existing (Irrigation or Planted Areas)	LS		x		=	$	-
208400	Check and Test Existing Irrigation Facilities	LS		x		=	$	-
21011X	Imported Topsoil (X)	CY/TON		x		=	$	-
20XXXX	Rock Blanket, Rock Mulch, DG, Gravel Mulch	QFT/SQYD		x		=	$	-
200122	Weed Germination	SQYD		x		=	$	-
208304	Water Meter	EA		x		=	$	-
2087XX	XX" Conduit (Use for irrigation x-overs)	LF		x		=	$	-
20890X	Extend X" Conduit (Use for Extension of Irrigation x-overs)	LF		x		=	$	-
							Subtotal Landscape and Irrigation	$ 329,040

5C - EROSION CONTROL

Item code		Unit	Quantity		Unit Price ($)			Cost
210010	Move In/Move Out (Erosion Control)	EA		x		=	$	-
210350	Fiber Rolls	LF		x		=	$	-
210360	Compost Sock	LF		x		=	$	-
2102XX	Rolled Erosion Control Product (X)	SQFT		x		=	$	-
21025X	Bonded Fiber Matrix	QFT/ACRE		x		=	$	-
210300	Hydromulch	SQFT		x		=	$	-
210420	Straw	SQFT		x		=	$	-
210430	Hydroseed	SQFT		x		=	$	-
210500	Compost	SQFT		x		=	$	-
210630	Incorporate Materials	SQFT		x		=	$	-
XXXXXX	Lump Sum Design Pollution Prevention (DPP)	SY	30000	x	1	=	$	30,000
							Subtotal Erosion Control	$ 30,000

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 (REAP)	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 Contr	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	Lump Sum NPDES (1.5% total project cost)	%	1.5	x	20,000,000	=	$	300,000
							Subtotal NPDES	$ 300,000

							TOTAL ENVIRONMENTAL	$ 659,100

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

PROJECT

EA 07-318500 PID 715000304

SECTION 6: TRAFFIC ITEMS

6A - Traffic Electrical

Item code		Unit	Quantity		Unit Price ($)		Cost
860460	Lighting and Sign Illumination	EA/LS	24	x	12,500.00	= $	300,000
860201	Signal and Lighting	LS	2	x	150,000.00	= $	300,000
860990	Closed Circuit Television System	LS	1	x	50,000.00	= $	50,000
86110X	Ramp Metering System	LS	2	x	25,000.00	= $	50,000
86070X	Cable, Data, & Video Nodes	LF/LS	1	x	45,000.00	= $	45,000
5602XX	Furnish Sign Structure (Type X)	EA	3	x	40,000.00	= $	120,000
5602XX	Install Sign Structure (Type X)	EA	3	x	5,000.00	= $	15,000
498040	XX" CIDHC Pile (Sign Foundation)	LF		x		= $	-
86080X	Inductive Loop Detectors	EA/LS	1	x	10,000.00	= $	10,000
860090	Maintain ExistingTraffic Monitoring Station	LS	1	x	15,000.00	= $	15,000
15075X	Remove Sign Structure	EA/LS	2	x	5,000.00	= $	10,000
151581	Reconstruct Sign Structure	EA		x		= $	-
152641	Modify Sign Structure	EA		x		= $	-
860090	Maintain Existing Traffic Management System I	LS		x		= $	-
86XXXX	Fiber Optic Conduit System	LS	1	x	120,000.00	= $	120,000
XXXXX	Relocate / Modify existing Flashing Warning Si	LS	1	x	25,000.00	= $	25,000
XXXXX	Some Item	LS		x		= $	-

Subtotal Traffic Electrical $ 1,060,000

6B - Traffic Signing and Striping

Item code		Unit	Quantity		Unit Price ($)		Cost
566011	Roadside Sign - One Post	EA		x		= $	-
566012	Roadside Sign - Two Post	EA		x		= $	-
5602XX	Furnish Sign	SQFT		x		= $	-
568016	Install Sign Panel on Existing Frame	SQFT		x		= $	-
150711	Remove Painted Traffic Stripe	LF		x		= $	-
141101	Remove Yellow Painted Traffic Stripe	LF		x		= $	-
150712	Remove Painted Pavement Merking	SQFT		x		= $	-
150742	Remove Roadside Sign	EA		x		= $	-
152320	Reset Roadside Sign	EA		x		= $	-
152390	Relocate Roadside Sign	EA		x		= $	-
82010X	Delineator (Class X)	EA		x		= $	-
840502	Thermoplastic Traffic Stripe (Enhanced Wet Ni	LF		x		= $	-
846012	Thermoplastic Crosswalk and Pavement Markir	SQFT		x		= $	-
120090	Construction Area Signs	LS		x		= $	-
84XXXX	Permanent Pavement Delineation	LS		x		= $	-
84XXXX	Striping Lump Sum (7.5% cost of Roadway Pav	LS	1	x	306,052.50	= $	306,053
XXXXXX	Roadside Signs Lump Sum	LS	1	x	25,000.00	= $	25,000

Subtotal Traffic Signing and Striping $ 331,053

6C - Traffic Management Plan

Item code		Unit	Quantity		Unit Price ($)		Cost
12865X	Portable Changeable Message Signs	EA/LS	1	x	$ 60,000	= $	60,000

Subtotal Traffic Management Plan $ 60,000

6C - Stage Construction and Traffic Handling

Item code		Unit	Quantity		Unit Price ($)		Cost
120199	Traffic Plastic Drum	EA		x		= $	-
12016X	Channelizer (Type X)	EA		x		= $	-
120120	Type III Barricade	EA		x		= $	-
129100	Temporary Crash Cushion Module	EA		x		= $	-
120100	Traffic Control System	LS		x		= $	-
129110	Temporary Crash Cushion	EA		x		= $	-
129000	Temporary Railing (Type K)	LF		x		= $	-
120149	Temporary Pavement Marking (Paint)	SQFT		x		= $	-
82010X	Delineator (Class X)	EA		x		= $	-
XXXXXX	Stage Construction Lump Sum	Unit	1	x	250,000.00	= $	250,000
XXXXXX	Some Item	Unit		x		= $	-

Subtotal Stage Construction and Traffic Handling $ 250,000

TOTAL TRAFFIC ITEMS $ 1,701,100

PROJECT

EA: 07-318500 PID: 715000304

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	TON/CY		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 (Type X)	LF		x = $	
XXXXXX	Some Item	Unit		x = $	

TOTAL DETOURS	$	-

SUBTOTAL SECTIONS 1 through 7	$	12,862,700

SECTION 8: MINOR ITEMS

8A - Americans with Disabilities Act Items					
ADA Items			1.0%	$	128,627
8B - Bike Path Items					
Bike Path Items			1.0%	$	128,627
8C - Other Minor Items					
Other Minor Items			8.0%	$	1,029,016
Total of Section 1-7	$	12,862,700	x 10.0% =	$	1,286,270

TOTAL MINOR ITEMS	$	1,286,300

SECTIONS 9: MOBILIZATION

Item code					
999990	Total Section 1-8	$ 14,149,000	x 10% =	$	1,414,900

TOTAL MOBILIZATION	$	1,414,900

SECTION 10: SUPPLEMENTAL WORK

Item code		Unit	Quantity	Unit Price ($)	Cost
066670	Payment Adjustments For Price Index Fluctuations	LS		x = $	
066094	Value Analysis	LS		x = $	
066070	Maintain Traffic	LS		x = $	
066919	Dispute Resolution Board	LS		x = $	
066921	Dispute Resolution Advisor	LS		x = $	
066015	Federal Trainee Program	LS		x = $	
066610	Partnering	LS		x = $	
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	$ 14,149,000	10% =	$	1,414,900

TOTAL SUPPLEMENTAL WORK	$	1,414,900

PROJECT

EA: 07-318500 PID: 715000304

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	1	x	$ 23,400	=	$23,400
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	$ 46,592	=	$46,592
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		$ 14,149,000		6%	= $	848,940

*Reimbursable work by the State

TOTAL STATE FURNISHED	$919,000

SECTION 12: TIME-RELATED OVERHEAD

Total of Roadway and Structures Contract Items excluding Mobilization $14,149,000 (used to calculate TRO)
Total Construction Cost (excluding TRO and Contingency) $17,897,800 (used to check if project is greater than $5 million excluding contingency)

Estiamted Time-Releated Overhead (TRO) Percentage (0% to 10%) = 10%

Item code		Unit	Quantity		Unit Price ($)		Cost
070018	Time-Related Overhead	WD	250	X	$5,660	=	$1,414,900

TOTAL TIME-RELATED OVERHEAD	$1,414,900

Note: If the building portion of the project is greater than 50% of the total project cost, then TRO is not included.

SECTION 13: ROADWAY CONTINGENCY

Recommended Contingency: (Pre-PSR 30%-50%, PSR 25%, Draft PR 20%, PR 15%, after PR approval 10%, Final PS&E 5%)

Total Section 1-11	$	17,897,800	x	15%	=	$2,684,670

TOTAL CONTINGENCY	$2,684,700

PROJECT

EA: 07-318500 PID: 715000304

II. STRUCTURE ITEMS

DATE OF ESTIMATE	00/00/00		00/00/00		00/00/00
Name	xxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxx
Bridge Number	57-XXX		57-XXX		57-XXX
Structure Type	xxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	0 LF		0 LF		0 LF
Total 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)	xxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxx
Cost Per Square Foot	$0		$0		$0
COST OF EACH STRUCTURE	$0		$0		$0

DATE OF ESTIMATE	00/00/00		00/00/00		00/00/00
Name	xxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxx
Bridge Number	57-XXX		57-XXX		57-XXX
Structure Type	xxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	0 LF		0 LF		0 LF
Total 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)	xxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxx
Cost Per Square Foot	$100		$0		$0
COST OF EACH STRUCTURE	$0		$0		$0

TOTAL COST OF BRIDGES		$0
TOTAL COST OF BUILDINGS		$0
Structures Mobilization Percentage	10%	$0

Recommended Contingency: (Pre-PSR 30%-50%, PSR 25%, Draft PR 20%, PR 15%, after PR approval 10%, Final PS&E 5%)

Structures Contingency Percentage	25%	$0
TOTAL COST OF STRUCTURES		**$0**

Estimate Prepared By — Estimator

5-29-19 — Date

PROJECT

EA: 07-316500 PID: 715000304

III. RIGHT OF WAY

Fill in all of the available information from the Right of Way data sheet.

A)	A1)	Acquisition, including Excess Land Purchases, Damages & Goodwill, Fees	$	7,172,584
	A2)	SB-1210	$	0
B)		Acquisition of Offsite Mitigation	$	0
C)	C1)	Utility Relocation (State Share)	$	0
	C2)	Potholing (Design Phase)	$	0
D)		Railroad Acquisition	$	0
E)		Clearance / Demolition	$	27,500
F)		Relocation Assistance (RAP and/or Last Resort Housing Costs)	$	0
G)		Title and Escrow	$	0
H)		Environmental Review	$	0
I)		Condemnation Settlements 0%	$	0
J)		Design Appreciation Factor 0%	$	0
K)		Utility Relocation (Construction Cost)	$	2,151,375
L)		**TOTAL RIGHT OF WAY ESTIMATE**		**$9,351,439**
M)		**TOTAL R/W ESTIMATE: Escalated**		**$9,753,645**
N)		**RIGHT OF WAY SUPPORT**		**$500,000**

Support Cost Estimate Prepared By	Project Coordinator	714-587-2731	Phone
Utility Estimate Prepared By	Utility Coordinator	714-587-2731	Phone
R/W Acquisition Estimate Prepared By	Right of Way Estimate	714-587-2731	Phone

Attachment H

Negative Declaration

SCH Number: 2018101003

Negative Declaration

Pursuant to: Division 13, Public Resources Code

Project Description

The California Department of Transportation (Caltrans), in cooperation with the City of Los Angeles Harbor Department (LAHD), proposes to reconfigure the existing interchange at State Route 47 (SR-47)/Vincent Thomas Bridge and Harbor Boulevard/Front Street. The project limits on SR-47 extend from approximately Post Mile [PM] 0.3 to PM 0.8 (SR-47 from west of Harker Street to east of North Front Street) in the City of Los Angeles in Los Angeles County, California.

Determination

Caltrans has prepared an Initial Study (IS) for this project and, following public review, has determined from this study that the proposed project would not have a significant impact on the environment for the following reasons.

The proposed project would have no impact on the following resources: Agriculture and Forest Resources, Mineral Resources, Population and Housing, Wild and Scenic Rivers, and Threatened and Endangered Species.

The proposed project would have less than significant impacts to: Land Use and Planning, Coastal Zone, Public Services, Utilities and Service Systems, Transportation/Traffic, Visual/Aesthetics, Cultural Resources, Paleontological Resources, Hydrology and Water Quality, Geology and Soils, Hazards and Hazardous Materials, Air Quality, Noise, Recreation, Biological Resources, and Tribal Cultural Resources.

Ronald Kosinski
Deputy District Director
Division of Environmental Planning, District 7
California Department of Transportation

March 8, 2019
Date of Approval

CALIFORNIA DEPARTMENT OF TRANSPORTATION
FINDING OF NO SIGNIFICANT IMPACT

FOR

State Route 47/Vincent Thomas Bridge and Front Street/
Harbor Boulevard Interchange Reconfiguration Project

The California Department of Transportation (Caltrans), in cooperation with the City of Los Angeles Harbor Department (LAHD), has determined that Alternative 3 (Build Alternative) will have no significant impact on the human environment. This Finding of No Significant Impact (FONSI) is based on the attached Environmental Assessment (EA), which has been independently evaluated by Caltrans and determined to adequately and accurately discuss the need, environmental issues, and impacts of the proposed project, and the appropriate mitigation measures. It provides sufficient evidence and analysis for determining that an Environmental Impact Statement (EIS) is not required. Caltrans takes full responsibility for the accuracy, scope, and content of the attached EA (and other documents as appropriate).

The environmental review, consultation, and any other action required by applicable federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 U.S.C. 327 and the Memorandum of Understanding dated December 23, 2016, and executed by the Federal Highway Administration (FHWA) and Caltrans.

March 8, 2019
Date

Ronald Kosinski
Deputy District Director
Division of Environmental Planning, District 7
California Department of Transportation

Attachment I

Transportation Management Plan (TMP) Data Sheet

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

Co/Rte/PM: 07-LA-47 PM 0.3 - 0.8 EA: 31850 Alternative No. Build

Project Limit: From I-110 Connectors to Vincent Thomas Bridge

Project Description: **Reconfigure existing interchange to create new, separate westbound ramp terminus. Modify and reconstruct eastbound ramps. Modify and reconstruct Harbor Blvd and Front Street between the new and existing termini.**

1) Public Information (by POLA staff and resources)		
☑ a. Brochures and Mailers	$	9,000
☑ b. Press Release	$	0
☑ c. Paid Advertising	$	14,400
☐ d. Public Information Center/Kiosk	$	0
☑ e. Public Meeting/Speakers Bureau	$	0
☐ f. Telephone Hotline	$	0
☑ g. Internet	$	0
☑ h. Other: Social networking portals such as Facebook and Twitter	$	0
2) Motorists Information Strategies		
☐ a. Changeable Message Signs (Fixed)	$	0
☑ b. Changeable Message Signs (Portable)	$	60,000
☐ c. Ground Mounted Signs	$	0
☑ d. Highway Advisory Radio	$	0
☑ e. Caltrans Highway Information Network (CHIN)	$	0
f. Others _____	$	0
3) Incident Management		
☑ a. Construction Zone Enhanced Enforcement Program (COZEEP)	$	46,592
☐ b. Freeway Service Patrol	$	0
☐ c. Traffic Management Team	$	0
☐ d. Helicopter Surveillance	$	0
☑ e. Traffic Surveillance Stations (Loop Detector and CCTV)	$	0
☐ f. Others _____	$	0

4) Construction Strategies

☑	a. Lane Closure Chart	$ 0
☐	b. Reversible Lanes	$ 0
☐	c. Total Facility Closure	$ 0
☐	d. Contra Flow	$ 0
☐	e. Truck Traffic Restrictions	$ 0
☐	f. Reduced Speed Zone	$ 0
☐	g. Connector and Ramp Closures	$ 0
☐	h. Incentive and Disincentive	$ 0
☐	i. Moveable Barrier (included in Section 5 of project Cost Estimate)	$ 0
☐	j. Others _____	$ 0

5) Demand Management

☐	a. HOV Lanes/Ramps (New or Convert)	$ 0
☐	b. Park and Ride Lots	$ 0
☐	c. Rideshare Incentives	$ 0
☐	d. Variable Work Hours	$ 0
☐	e. Telecommute	$ 0
☐	f. Ramp Metering (Temporary Installation)	$ 0
☐	g. Ramp Metering (Modify Existing)	$ 0
☐	h. Others _____	$ 0

6) Alternative Route Strategies

☐	a. Add Capacity to Freeway Connector	$ 0
☐	b. Street Improvement (widening, traffic signal ... etc.)	$ 0
☐	c. Traffic Control Officers	$ 0
☑	d. Parking Restrictions	$ 0
☐	e. Others _____	$ 0

7) Other Strategies

☐	a. Application of New Technology	$ 0
☐	b. Others _____	$ 0

TOTAL ESTIMATED COST OF TMP ELEMENTS = $ 129,992

Project Notes:

PREPARED BY Brad Slawson, PE AECOM **DATE** 5-30-19

APPROVAL RECOMMENDED BY Denis Katayama **DATE** 6/6/19
Denis Katayama, Sr. T.E.,
Caltrans District 7

APPROVED BY **DATE** 6/10/2019
Mort Fahrtash, PhD, P.E.
District Traffic Manager

Attachment J

TASAS TABLE B

OTM22130
12/06/2018
01:27 PM

California Department of Transportation
Table B - Selective Accident Rate Calculation

Event ID: 4065505

Location Description	Rate Group (RUS)	No. of Accidents / Significance							Pers Kid Inj	ADT Main X-St	Total MV+ or MVM	Accident Rates					
		Tot	Fat	Inj	F+I	Multi Veh	Wet	Dark				Actual Fat	Actual F+I	Actual Tot	Average Fat	Average F+I	Average Tot
07 LA 047 R000.348 047/NB OFF TO HARBOR BLVD 0001-0001 2015-01-01 2017-12-31 *36 mo.*	R 62 U	3	0	1	1	1	0	2	0 1	8.7 .0	9.50+	0.000	.11	.32	0.003	.12	.37

Accident Rates expressed as: **# of accidents / Million vehicle miles**

+ denotes that **Million Vehicles** (MV) used in accident rates instead (for intersections and ramps).

For Ramps RUS only considers R(Rural) U(Urban)

Transmittal No. 1

OTM22130
12/06/2018
01:51 PM

California Department of Transportation
Table B - Selective Accident Rate Calculation

Event ID: 4065537

Location Description				Rate Group (RUS)	No. of Accidents / Significance							Pers Kld Inj	ADT Main X-St	Total MV+ or MVM	Accident Rates Actual			Accident Rates Average		
					Tot	Fat	Inj	F+I	Multi Veh	Wet	Dark				Fat	F+I	Tot	Fat	F+I	Tot
07 LA 047 000.768 047/NB ON FR HARBOR BLVD 0001-0001	2015-01-01	2017-12-31	*36 mo.*	R 24 U	3	0	2	2	1	1	1	0 2	5.2 .0	5.67 +	0.000	.35	.53	0.001	.23	.67

Accident Rates expressed as: **# of accidents / Million vehicle miles**

+ denotes that **Million Vehicles** (MV) used in accident rates instead (for intersections and ramps).

For Ramps RUS only considers R(Rural) U(Urban)

Transmittal No. 1

California Department of Transportation
Table B - Selective Accident Rate Calculation

Location Description				Rate Group (RUS)	No. of Accidents / Significance Tot	Fat	Inj	F+I	Multl Veh	Wet	Dark	Pers Kld Inj	ADT Main X-St	Total MV+ or MVM	Actual Fat	Actual F+I	Accident Rates Average Tot	Average Fat	Average F+I	Average Tot
07 LA 047 R000.349 - 07 LA 047 000.787				.147 MI H	19	0	6	6	18	2	4	0	52.5	8.46	0.000	.71	2.25	0.005	.24	.72
0001-0001	2015-01-01	2017-12-31	36 mo.	U	H99		H97	H97				9								
07 LA 047 R000.349 - 07 LA 047 000.787				.147 MI H	13	0	4	4	12	2	1	0	26.3	4.23	0.000	.95	3.07	0.005	.24	.71
0001-0002	2015-01-01	2017-12-31	36 mo.	NORTH U	H99		H97	H97		H92		6								
07 LA 047 R000.348 - 07 LA 047 000.787				.147 MI H	6	0	2	2	6	0	3	0	26.3	4.23	0.000	.47	1.42	0.005	.24	.71
0001-0003	2015-01-01	2017-12-31	36 mo.	SOUTH U	H90							3								

Accident Rates expressed as: **# of accidents / Million vehicle miles**

+ denotes that Million Vehicles (MV) used in accident rates instead (for intersections and ramps).

For Ramps RUS only considers R(Rural) U(Urban)

Transmittal No. 1

OTM22130
12/05/2018
02:14 PM

California Department of Transportation
Table B - Selective Accident Rate Calculation

Event ID: 4064983

Location Description				Rate Group (RUS)	No. of Accidents / Significance Tot	Fat	Inj	F+I	Multi Veh	Wet	Dark	Pers Kid Inj	ADT Main X-St	Total MV+ or MVM	Actual Fat	Actual F+I	Average Tot	Average Fat	Average F+I	Average Tot
07 LA 047 000.788 - 07 LA 047 000.857				.070 MI H 63	10	0	1	1	7	2	6	0	52.3	4.02	0.000	.25	2.49	0.005	.26	.76
0001-0001	2015-01-01	2017-12-31	*36 mo.*	U	H99					H92	H99	1								
07 LA 047 000.788 - 07 LA 047 000.857				.070 MI H 63	7	0	1	1	6	2	3	0	26.2	2.01	0.000	.50	3.48	0.005	.26	.76
0001-0002	2015-01-01	2017-12-31	*36 mo.*	NORTH U	H99					H97	H95	1								
07 LA 047 000.788 - 07 LA 047 000.857				.070 MI H 63	3	0	0	0	1	0	3	0	26.2	2.01	0.000	.00	1.49	0.005	.26	.76
0001-0004	2015-01-01	2017-12-31	*36 mo.*	SOUTH U							H95	0								

Accident Rates expressed as: **# of accidents / Million vehicle miles**

+ denotes that **Million Vehicles** (MV) used in accident rates instead (for intersections and ramps).

For Ramps RUS only considers R(Rural) U(Urban)

Transmittal No. 1

California Department of Transportation
Table B - Selective Accident Rate Calculation

Location Description	Rate Group (RUS)	No. of Accidents / Significance							Pers Kld Inj	ADT Main X-St	Total MV+ or MVM	Accident Rates Actual		Accident Rates Average			
		Tot	Fat	Inj	F+I	Multi Veh	Wet	Dark				Fat	F+I	Tot	Fat	F+I	Tot
07 LA 047 L000.000 - 07 LA 047 R000.348	.583 MI H	11	1	2	3	8	1	2	1	49.9	31.91	0.031	.09	.35	0.007	.33	.87
0001-0001 2015-01-01 2017-12-31 *36 mo.*	U								3								

Accident Rates expressed as: **# of accidents / Million vehicle miles**

+ denotes that Million Vehicles (MV) used in accident rates instead (for intersections and ramps).

For Ramps RUS only considers R(Rural) U(Urban)

Transmittal No. 1

OTM22130
12/06/2018
03:14 PM

California Department of Transportation
Table B - Selective Accident Rate Calculation

Event ID: 4065638

Location Description				Rate Group (RUS)	No. of Accidents / Significance							Pers Kld Inj	ADT Main X-St	Total MV+ or MVM	Accident Rates Actual		Accident Rates Average		
					Tot	Fat	Inj	F+I	Multi Veh	Wet	Dark				Fat	F+I	Tot	Fat	F+I	Tot
07 LA 047 000.819 047/SB OFF TO HARBOR BLVD 0001-0001	2015-01-01	2017-12-31	36 mo.	R 06 U	2	0	0	0	2	0	0	0 0	8.0 .0	8.78 +	0.000	.00	.23	0.003	.15	.45

Accident Rates expressed as: **# of accidents / Million vehicle miles**

+ denotes that **Million Vehicles** (MV) used in accident rates instead (for intersections and ramps).

For Ramps RUS only considers R(Rural) U(Urban)

Transmittal No. 1

California Department of Transportation
Table B - Selective Accident Rate Calculation

Location Description				Rate Group (RUS)	No. of Accidents / Significance Tot	Fat	Inj	F+I	Multi Veh	Wet	Dark	Pers Kld Inj	ADT Main X-St	Total MV+ or MVM	Accident Rates Actual Fat	F+I	Average Tot	Fat	F+I	Tot
07 LA 047 R000.377 047/SBON FR HARBOR BLVD				R 12	3	0	0	0	2	0	1	0	5.4	5.88 +	0.000	.00	.51	0.002	.21	.60
0001-0001	2015-01-01	2017-12-31	*36 mo.*	U								0	.0							

Accident Rates expressed as: **# of accidents / Million vehicle miles**

+ denotes that Million Vehicles (MV) used in accident rates instead (for intersections and ramps).

For Ramps RUS only considers R(Rural) U(Urban)

Transmittal No. 1

California Department of Transportation
Table B - Selective Accident Rate Calculation

Location Description			Rate Group (RUS)	No. of Accidents / Significance Tot	Fat	Inj	F+I	Multi Veh	Wet	Dark	Pers Kld Inj	ADT Main X-St	Total MV+ or MVM	Actual Fat	Actual F+I	Average Tot	Average Fat	Average F+I	Average Tot
07 LA 047 R000.377 - 07 LA 047 000.818			.150 MI H 63	22	0	6	6	19	3	6	0	52.5	8.63	0.000	.70	2.55	0.005	.26	.76
0001-0001	2015-01-01	2017-12-31	U	H99		H95	H95		H95	H95	9								
07 LA 047 R000.377 - 07 LA 047 000.818			.150 MI H 63	15	0	4	4	13	3	2	0	26.2	4.31	0.000	.93	3.48	0.005	.26	.76
0001-0002	2015-01-01	2017-12-31	NORTH U	H99		H95	H95		H97		6								
07 LA 047 R000.377 - 07 LA 047 000.818			.150 MI H 63	7	0	2	2	6	0	4	0	26.2	4.31	0.000	.46	1.62	0.005	.26	.76
0001-0004	2015-01-01	2017-12-31	SOUTH U	H92						H95	3								

36 mo.

Accident Rates expressed as: **# of accidents / Million vehicle miles**

+ denotes that **Million Vehicles** (MV) used in accident rates instead (for intersections and ramps).

For Ramps RUS only considers R(Rural) U(Urban)

Transmittal No. 1

OTM22130
12/06/2018
09:07 AM

California Department of Transportation
Table B - Selective Accident Rate Calculation

Event ID: 4065283

Location Description				Rate Group (RUS)	No. of Accidents / Significance Tot	Fat	Inj	F+I	Multi Veh	Wet	Dark	Pers Kid Inj	ADT Main X-St	Total MV+ or MVM	Actual Fat	Actual F+I	Accident Rates Average Tot	Average Fat	Average F+I	Average Tot
07 LA 047 000.819 - 07 LA 047 000.857			.039 MI H 63		6	0	1	1	5	1	4	0	52.3	2.24	0.000	.45	2.68	0.005	.26	.76
0001-0001	2015-01-01	2017-12-31	36 mo.	U	H97						H97	1								
07 LA 047 000.819 - 07 LA 047 000.857			.039 MI H 63		4	0	1	1	4	1	2	0	26.2	1.12	0.000	.89	3.57	0.005	.26	.76
0001-0002	2015-01-01	2017-12-31	36 mo.	NORTH U	H97						H92	1								
07 LA 047 000.819 - 07 LA 047 000.857			.039 MI H 63		2	0	0	0	1	0	2	0	26.2	1.12	0.000	.00	1.79	0.005	.26	.76
0001-0004	2015-01-01	2017-12-31	36 mo.	SOUTH U							H92	0								

Accident Rates expressed as: **# of accidents / Million vehicle miles**

+ denotes that Million Vehicles (MV) used in accident rates instead (for intersections and ramps).

For Ramps RUS only considers R(Rural) U(Urban)

Transmittal No. 1

TM22130
/06/2018
:55 PM

California Department of Transportation
Table B - Selective Accident Rate Calculation

Event ID: 4065490

Location Description	Rate Group (RUS)	No. of Accidents / Significance							Pers Kld Inj	ADT Main X-St	Total MV+ or MVM	Accident Rates Actual			Accident Rates Average		
		Tot	Fat	Inj	F+I	Multi Veh	Wet	Dark				Fat	F+I	Tot	Fat	F+I	Tot
LA 047 L000.000 - 07 LA 047 R000.376	.611 MI H	12	1	2	3	9	1	2	1	50.0	33.50	0.030	.09	.36	0.007	.32	.87
001-0001 2015-01-01 2017-12-31 *36 mo.*	U								3								

Accident Rates expressed **# of accidents / Million vehicle miles**

+ denotes that Million Vehicles (MV) used in accident rates instead (for Intersections and ramps).

For Ramps RUS only considers R(Rural) U(Urban)

Transmittal No. 1

Attachment K

Storm Water Data Report (Cover Sheet)

(07-LA-SR-47), (0.3/0.8)
(EA 318500)

Long Form - Stormwater Data Report
(May 2019)

Caltrans

Dist-County-Route: 07-LA-47
Post Mile Limits: 0.3/0.8
Type of Work: Freeway Ramp Modifications/Configurations
Project ID (EA): 0715000304 (318500)
Program Identification: 20.30.600.624
Phase: ☐ PID ☒ PA/ED ☐ PS&E

Regional Water Quality Control Board(s): Region 4, Los Angeles Region
Total Disturbed Soil Area: 13.3 Acres PCTA: 2.2 Acres
Alternative Compliance (acres): 0 Acres ATA 2 (50% Rule)? Yes ☐ No ☒
Estimated Const. Start Date: 10/1/2020 Estimated Const. Completion Date: 9/30/2022
Risk Level: RL 1 ☐ RL 2 ☒ RL 3 ☐ WPCP ☐ Other:
Is MWELO applicable? Yes ☒ No ☐
Is the Project within a TMDL (Total Maximum Daily Load watershed)? Yes ☒ No ☐
TMDL Compliance Units (acres): 10.61
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.

Brad Slawson, PE
Registered Project Engineer

Hamid R. Toossi
Caltrans Designated Oversight Representative
5/31/19
Date

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

John Vassiliades, Project Manager — 6/3/2019 Date

Jose Villasenor, Designated Maintenance Representative — Date

Ron Russak, Designated Landscape Architect Representative — 06/11/19 Date

[Stamp Required at PS&E only]

Sunny Liem, District/Regional Design SW Coordinator or Designee — 06/11/2019 Date

Attachment L

Hazardous Waste Assessment Letter

AECOM
999 W. Town & Country Road
Orange, CA 92868
714 567 2400
www.aecom.com

Technical Memorandum

To	MD Alam (Caltrans)
cc	Sarah Aziz (POLA)
Project	**EA 318500**: SR 47/Vincent Thomas Bridge & Front Street/Harbor Boulevard Interchange Reconfiguration Project
Subject	**Final ISA – Addendum #1**
From	Brad Slawson
Date	September 24, 2018

This memo is to serve as Addendum #1 to the Initial Site Assessment for the SR 47/Vincent Thomas Bridge & Front Street/Harbor Boulevard Reconfiguration Project, signed March 22, 2017.

Summary

Project improvements were refined during the PA/ED phase due to minor modifications to roadway geometry and grading as well as introduction of several feasible noise walls during completion of the Noise Study. Information for these additional parcels have been collected and analyzed; this memo and attachments contain updated tables and figures to supersede those in the original ISA. Review of the updated project area has not changed the original recommendations in the ISA because the additional parcels are not considered to represent potential for environmental concern to the project area.

This memo also adds brief discussion on groundwater.

Environmental Study Area

The project area was updated to reflect minor modifications to roadway geometry and grading as well as the addition of feasible noise walls introduced by the Noise Study. The previous study area encompasses the modified study area and has not changed.

The table below, Parcels Comprising the Project Area, has been updated to reflect these changes and additions. Figure 3, a map of the project area, has been updated and is attached to this memo. Lastly, Table 1, Summary of On-Site EDR Listings, has been updated and is also attached to this memo.

AECOM

Parcels Comprising the Project Area (updated):

(Note: Parcels in BOLD indicate future parcels to be dedicated to Caltrans in part or in whole)

No.	APN No.	Current Use	Proposed Work Affecting the Parcels
1	7440-024-911	Cruise Terminal	Roadway
2	7440-025-904	West Basin Container Terminal	Roadway / Utility
5	7448-034-905	Knoll Hill, Vacant	Roadway Grading
6	7448-034-906	Knoll Hill, Vacant	Roadway and Grading
7	7448-034-913	Knoll Hill, Vacant	Roadway Grading
8	7448-034-916	Knoll Hill, Vacant	Roadway Grading
9	7448-034-918	Knoll Hill, Vacant	Roadway Grading
10	7448-034-919	Knoll Hill, Vacant	Roadway Grading
11	7448-034-920	Knoll Hill, Vacant	Roadway Grading
12	7448-034-921	Knoll Hill, Vacant	Roadway Grading
13	7448-034-923	Knoll Hill, Vacant	Roadway and Grading
14	7448-034-926	Knoll Hill, Vacant	Roadway and Grading
15	7448-034-927	Knoll Hill, Vacant	Roadway and Grading
16	7448-035-901	Knoll Hill, Vacant	Roadway Grading
17	7448 035-905	Port Police Truck Inspection Facility	Roadway / Utility
18	7448-035-906	K9 Training Facility, Dog Park, Truck Inspection	Proposed Ramp / Utility
19	7448-035-907	Sewer Pump Station, Grading	Roadway / Walls / Utility
20	7448-035-908	Knoll Hill, Park and Vacant	Roadway Grading
21	7448-035-913	Knoll Hill, Vacant Land, and Dog Park	Proposed Ramp
22	7448-035-914	Knoll Hill, Vacant Land, and Dog Park	Proposed Ramp
26	7448-035-921	Knoll Hill, Vacant	Roadway Grading
30	7448-035-925	Knoll Hill, Vacant and K9 Training Facility	Proposed Ramp
31	7448-035-926	Knoll Hill, Vacant Land, and K9 Training Facility	Proposed Ramp
32	7448-035-927	UPRR Former Pacific Harbor Line, Vacant Land (Same as Parcel 932)	Proposed Ramp
33	7448-035-930	Knoll Hill, Park and Vacant	Roadway Grading
34	7448-035-932	UPRR Former Pacific Harbor Line, Vacant Land (Same Parcel as 927)	Proposed Ramp
35	7448-035-935	Knoll Hill, Vacant Land, and K9 Training Facility	Proposed Ramp
36	7448-035-936	Knoll Hill, Port Police Truck Inspection Facility	Proposed Ramp
40	7448-034-902	Knoll Hill, Vacant	Roadway Grading
41	7448-034-908	Knoll Hill, Vacant	Roadway Grading
42	7448-034-909	Knoll Hill, Vacant	Roadway Grading
43	7448-034-917	Knoll Hill, Vacant	Roadway Grading
44	7448-034-925	Knoll Hill, NE	Roadway Grading
45	7448-035-928	Pacific Harbor Line sliver right-of-way near Front St. same as 7448-035-933	Roadway / Utility
46	7448-035-900	Knoll Hill, E	Roadway Grading

AECOM

No.	APN No.	Current Use	Proposed Work Affecting the Parcels
47	7448-036-003	Residence on Knoll Hill	Feasible Soundwall
48	7448-036-901	Adjacent to property on Knoll Hill	Feasible Soundwall
49	7448-036-910	Adjacent to property on Knoll Hill	Feasible Soundwall
50	7448-036-912	Adjacent to property on Knoll Hill	Feasible Soundwall
51	7448-036-917	Adjacent to property on Knoll Hill	Feasible Soundwall
52	7448-036-918	Adjacent to property on Knoll Hill	Feasible Soundwall
53	7449-002-001	Residence above EB ramps	Feasible Soundwall
54	7449-002-022	Residence above EB ramps	Feasible Soundwall
55	7449-003-044	Residence above EB ramps	Feasible Soundwall
56	7449-003-039	Residence above EB ramps	Feasible Soundwall
57	7449-003-020	Residence above EB ramps	Feasible Soundwall
58	7449-003-019	Residence above EB ramps	Feasible Soundwall
59	7449-003-048	Residence above EB ramps	Feasible Soundwall
60	7449-003-051	Residence above EB ramps	Feasible Soundwall
61	7449-003-053	Residence above EB ramps	Feasible Soundwall
62	7449-003-052	Residence above EB ramps	Feasible Soundwall
63	7449-007-023	Residence above EB ramps	Feasible Soundwall
64	7449-007-012	Residence above EB ramps	Feasible Soundwall

Groundwater

Shallow groundwater is expected within the project area. Construction activities that may come in contact with groundwater are retaining wall construction and new or modified roadway drainage systems. Off-site removal of any nearby contaminated top-soil is recommended before subsurface activities begin. Although contact with groundwater is not anticipated, dewatering costs have been included in the Project Cost Estimate. Geological boring, including groundwater depth, will be procured during Final Design to assist in retaining wall and grading design. Should the contractor encounter groundwater during construction they are to follow protocol described in the Caltrans "Field Guide to Construction Site Dewatering" and the Construction General Permit.

Recommendations

Parcels 1 and 2 have shown historical presence of soil and groundwater contamination. Depth to groundwater near these parcels has been reported between 4 and 11 feet below ground surface (bgs). The deepest excavations are planned to a depth of approximately 10 feet bgs, therefore it is likely groundwater will be encountered during excavation activities. The recommendations are amended such that soil investigations at or near these parcels will also include groundwater investigation in order to

AECOM

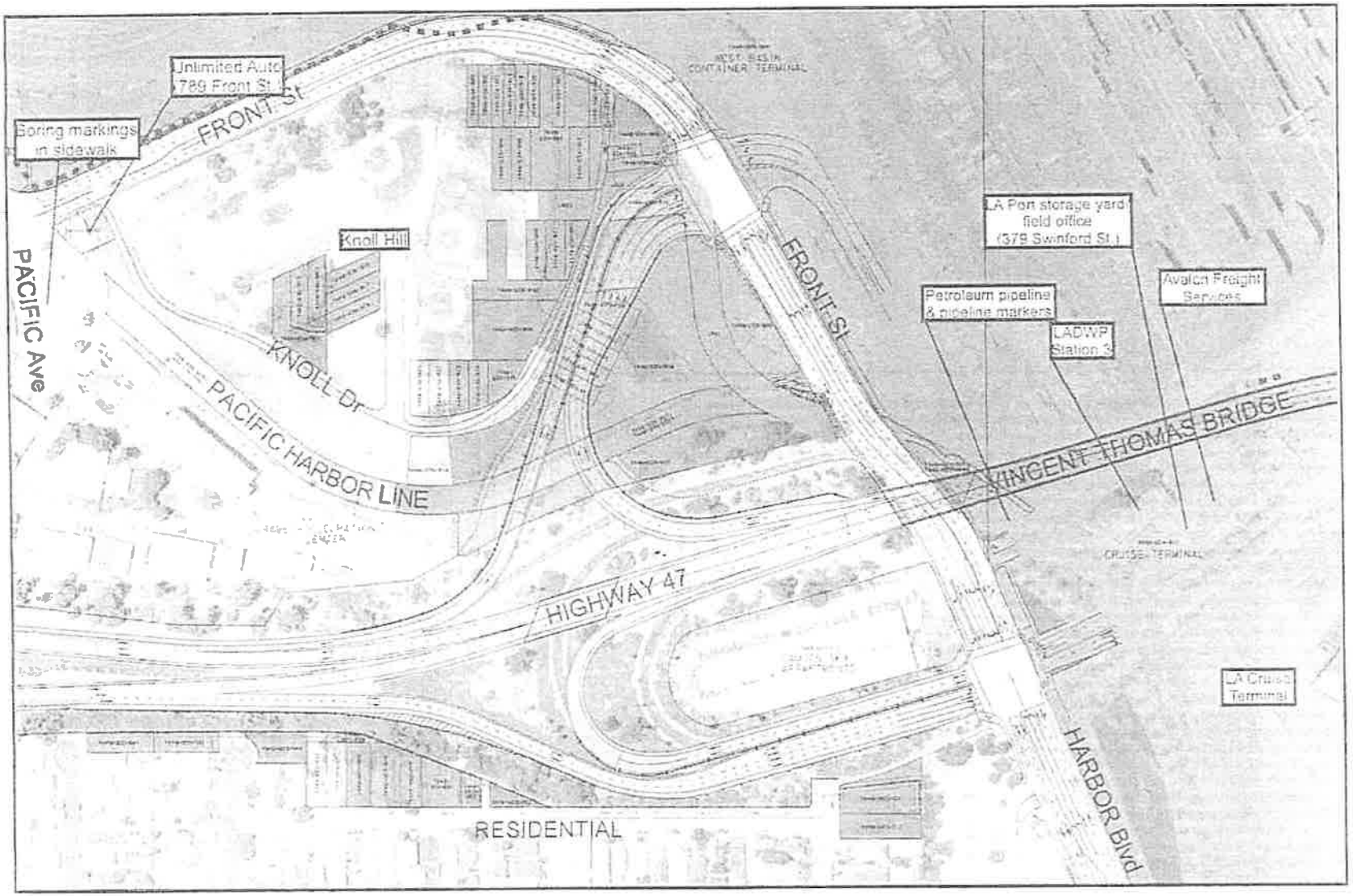
assess the potential presence of hazardous contaminants and to determine disposal options if necessary for any contaminated groundwater.

Regarding parcels planned to be dedicated to Caltrans; further soil, soil vapor, and groundwater testing will be conducted and completed prior to the right-of-way certification phase to identify the presence, nature, and extent of contaminants over the full extent of the property to be dedicated and determine required remediation which may include excavation and disposal of contaminated material. If contamination is identified, a remediation plan will be prepared, implemented, and completed prior to right-of-way certification. The remediation plan will be subject to Caltrans review and approval, and if applicable regulatory agency review and approval, prior to implementation. The Port of Los Angeles acknowledges that the remediation of these parcels must be completed and a site closure document issued by any overseeing regulatory agencies prior to the end of project construction. Following construction of the project, these parcels will be dedicated to Caltrans (see Figure 3).

Updated Attachments

Figure 3 – Project Area Detailed Map

Table 1 – Summary of On-Site EDR Listings



Not to scale

N

LEGEND

- Petroleum Pipeline Corridor
- Former Oil & Gas Well
- Parcels proposed to be dedicated in part or in whole to Caltrans as part of the proposed project

Parcels Comprising the Project Area

SR-47 Interchange Project
Los Angeles, California

FIGURE 3

AECOM
Project Number 60451606

Transmittal No. 1

Table 1 - Summary of Onsite EDR Listings
SR-47 Interchange Project
Los Angeles, California

PARCEL ID No.	IMPACT	DISPLACEMENT	NAME-OTHER INFO.	STREET ADDRESS	CITY	AIN	ACRES	Specific Land Use	Risk
1	Partial Take	N	Cruise Terminal	210 E SWINFORD ST 379 E SWINFORD ST 385 E SWINFORD ST 470 E SWINFORD ST	LOS ANGELES	7440-024-911	82.050C	A review of the City of Los Angeles and County Assessor website revealed that Parcel #1 consists of the western portion of APN 7440-024-911 along Harbor Boulevard. Based on a review of on-line maps and photographs, APN 7440-024-911 consists of land east of North Front Street/Harbor Boulevard, and adjacent to the north and south of SR-47, within the Port of Los Angeles. The parcel addresses were not identified in the EDR Report; however, several EDR listings were identified in the area of the parcel, which are associated with the historical use of the area and the Port of Los Angeles. Historically, Van Dave's Service Station (EDR ID #5) at 650 North Harbor Boulevard was located to the west of the project area, on APN 7440-025-904. This address was identified in the EDR Historical Auto Stations data base as an automobile service station for the year 1924. A gasoline station was also depicted on the 1921 and 1950 Sanborn Maps at this address, which would have been located along the east side of Harbor Boulevard, just to south of the current location of SR-47. The Port of Los Angeles - Todd Shipyard located at 100 Regan (EDR ID#41) was identified in the SLIC database and the Former Chevron Marine Terminal at 1510 Swinford Street (EDR ID# 17) was also identified in the SLIC database. According to the EDR Report, the status of SLIC case for the Port of Los Angeles - Todd Shipyard is "Open-Inactive as of 6/24/2014". The potential contaminants of concern (COC) are chromium, copper, lead, and mercury affecting soil. The LARWQCB is the lead agency on this case. According to the online GeoTracker database, in November 1998, the Port of Los Angeles took samples of stockpiles containing dredged sediment from the West Basin Entrance Widening Project. The work was done to assess the nature and extent of potential contamination in the dredged sediments. The results of the sampling indicated that chromium, copper, lead and mercury in soil did not exceed California STLC limits and no further investigation was recommended. No other information is available online. According to the EDR Report, the status of the SLIC case for the Former Chevron Marine Terminal (CMT) is listed as "Open-Assessment & Interim Remedial Action as of 07/30/2010". The CMT operated for approximately 70 years. Facilities included 20 large aboveground fuel storage tanks, associated aboveground and underground piping, and buildings. Primary operations at the CMT included fueling ships with bunker fuel and filling tanker trucks with lube oils and other petroleum products (McLaren/Hart, 1994). The former CMT property previously occupied the Port of LA Berths 97 and 107. The terminal was demolished between 1991 and 1993. Due to the widening of the adjacent turning basin, approximately 9 acres of the northeastern portion of the CMT were removed to a depth of approximately 45 feet below the mean lower low water (MLLW) level. Consequently, the property was reconfigured to its current layout, occupying what is now called Berth 100. The CCT is located on the adjacent property to the south (Berth 96). Environmental investigations performed at both the former CMT and CCT sites indicate that the contaminant plume originating at the former CMT extends onto the adjacent CCT property. The major COCs are petroleum hydrocarbons in soils and groundwater. Additional subsurface investigations are ongoing to completely delineate impacts. Measurable non-aqueous phase liquid (NAPL) was detected on October 10, 2006 in one of the groundwater monitoring wells, MW-3. Recovery activities using bailers were performed from January to April 2007. From May 2007 to the present, oil-absorbent socks (i.e., SoakEase or equivalent) have been used in well MW-03 in order to recover NAPL. Currently, the socks are removed and replaced once a week. The LARWQCB is the lead agency on this case. Based open regulatory case status and on-going remediation, the SLIC listings are expected to create an environmental concern to the project area.	

Transmittal No. 1

Table 1 - Summary of Onsite EDR Listings
SR-47 Interchange Project
Los Angeles, California

	Partial Take	N	West Basin Container Terminal	710 N FRONT ST 680 N FRONT ST	LOS ANGELES	7440-025-904	29.4100	A review of the NavigateLA and County Assessor website revealed that Parcel #2 consists of a portion of APN 7440 025 904 along Front St. Based on a review of on line maps and photographs, APN 7440-025-904 consists of land currently occupied by cargo shipping yards, rail road tracks, and paved parking lots located adjacent to the north and east of N. Front Street in the Port of Los Angeles. According to the NavigateLA website, the parcel is associated with two addresses: 710 N. Front St and 680 N. Front St. The 710 N. Front St address was identified in the EDR Report as Todd Pacific Shipyards Corporation (EDR ID# A1) in the HIST UST, CA FID UST, RCRA NonGen/NLR, and Notify 65 database; at Berth 102 Rear Backland (EDR ID # A3) in the ENVIROSTOR, EMI, HIST CORTESE and NPDES database. According to the EDR Report, the status of the ENVIROSTOR listing is "Inactive-Needs Evaluation" as of 07/02/2005. No contaminants of concern (COC) or potential media affected was identified in the EDR Report. This address was not identified in the online Enviostor database. A review of the online GeoTracker database identified the Former Union Harbor Pipelines (also identified in the SLIC database of the Orphan Summary in the EDR Report) located adjacent to the north and east of N. Front St. According to GeoTracker, the pipeline corridor was located on the Port of Los Angeles property and contained several petroleum pipelines owned and operated by Chevron and Unocal. The pipelines in the corridor were removed or abandoned-in-place due to underground utility conflicts and/or safety concerns between 1995 and 2014. The pipeline corridor passes through two of the Ports redevelopment projects: 1) Front Street Widening and Beautification Project (future project), and 2) Phase II China Shipping Expansion Project (completed in 2103). Results from multiple assessment identified petroleum hydrocarbon in soil and groundwater beneath the pipeline corridor. To date, ten groundwater monitoring wells have been installed along the pipeline corridor. Groundwater was encountered between 4 and 11 feet below ground surface (bgs). A remedial action is being reviewed by the Regional Board staff. The SLIC status is listed as "Open-Assessment & Interim Remedial Action as of 05/15/2012". The primary COCs are crude oil, diesel, gasoline lead, naphthalene, total petroleum hydrocarbons, lead, and arsenic. The LARWQCB is the lead regulatory agency on this case. Based open regulatory case status and available groundwater and soil data, the pipeline corridor listing is expected to create an environmental concern to the project area.	
3	None	N	Partially under Vincent Thomas Bridge, same as 7448-025-905	No address associated		7440-025-905	0.1301	A review of the County Assessor and NavigateLA website revealed that Parcel #3 consists of APN 7448 025-905 (same as 7440-025-903, see below). Based on a review of on-line maps and photographs, Parcel #3 consists of a land occupied by the Pacific Harbor Line right-of-way located east of Front Street and under the Vincent Thomas Bridge. The railroad right-of-way is not currently in use. No EDR listings were identified associated with this parcel.	West of
4	None	N	Partially under Vincent Thomas Bridge, same as 7448-025-905	No address associated		7440-025-909	0.1301	A review of the County Assessor and NavigateLA website revealed that Parcel #4 consists of APN 7448-025-909 (same as APN 7440-025-905, see above). Based on a review of on-line maps and photographs, Parcel #4 consists of a land occupied by the Pacific Harbor Line right-of-way located east of Front Street and under the Vincent Thomas Bridge. The railroad right-of-way is not currently in use. No EDR listings were identified associated with this parcel.	West of
5	Partial Take, TCE Grading		Knoll Hill, multiple properties	236 W VIEWLAND PL 242 W VIEWLAND PL	LOS ANGELES	7448-034-905	0.4262	A review of the County Assessor and NavigateLA website revealed that Parcel #5 consists of APN 7448-034-905 with the associated addresses of 236 West Viewland Place and 242 West Viewland Place. Based on a review of on-line maps and photographs, Parcel #5 consists of a portion of undeveloped land associated with Knoll Hill Park located south of Front Street and north of Knoll Drive. The addresses associated with this parcel were not identified in the EDR Report.	
6	Partial Take	Y	Knoll Hill, multiple properties	226 W VIEWLAND PL	LOS ANGELES	7448-034-906	0.2290	A review of the County Assessor and NavigateLA website revealed that Parcel #6 consists of APN 7448-034-906 with the associated address of 236 West Viewland Place. Based on a review of on-line maps and photographs, Parcel #6 consists of a portion of undeveloped land associated with Knoll Hill Park located south of Front Street and north of Knoll Drive. The address associated with this parcel was not identified in the EDR Report.	
7	TCE Grading	N	Knoll Hill, NF	238 W VIEWLAND PL	LOS ANGELES	7448-034-913	0.1150	A review of the County Assessor and NavigateLA website revealed that Parcel #7 consists of APN 7448 034-913 with the associated address of 238 West Viewland Place. Based on a review of on-line maps and photographs, Parcel #7 consists of a portion of undeveloped land associated with Knoll Hill Park located south of Front Street and north of Knoll Drive. The address associated with this parcel was not identified in the EDR Report.	Low

Transmittal No. 1

Table 1 – Summary of Onsite EDR Listings
SR-47 Interchange Project
Los Angeles, California

8	Partial Take, TCE Grading	Y	Knoll Hill, NE	731 N FRONT ST	LOS ANGELES	7448-034-916	0.0630	A review of the County Assessor and NavigateLA website revealed that Parcel #8 consists of APN 7448-034-916 with the associated address of 731 North Front Street. Based on a review of on-line maps and photographs, Parcel #8 consists of a portion of undeveloped land associated with Knoll Hill Park located south of Front Street and north of Knoll Drive. The address associated with this parcel was not identified in the EDR Report.	Low
9	TCE Grading	N	Knoll Hill, NE	745 N FRONT ST	LOS ANGELES	7448-034-918	0.0730	A review of the County Assessor and NavigateLA website revealed that Parcel #9 consists of APN 7448-034-918 with the associated address of 745 North Front Street. Based on a review of on-line maps and photographs, Parcel #9 consists of a portion of undeveloped land associated with Knoll Hill Park located south of Front Street and north of Knoll Drive. The address associated with this parcel was not identified in the EDR Report.	Low
10	TCE, Grading	N	Knoll Hill, NE	743 N FRONT ST	LOS ANGELES	7448-034-919	0.0730	A review of the County Assessor and NavigateLA website revealed that Parcel #10 consists of APN 7448-034-919 with the associated address of 743 North Front Street. Based on a review of on-line maps and photographs, Parcel #10 consists of a portion of undeveloped land associated with Knoll Hill Park located south of Front Street and north of Knoll Drive. The address associated with this parcel was not identified in the EDR Report.	Low
11	Partial Take, TCE Grading	N	Knoll Hill, NE	741 N FRONT ST	LOS ANGELES	7448-034-920	0.0730	A review of the County Assessor and NavigateLA website revealed that Parcel #11 consists of APN 7448-034-920 with the associated address of 741 North Front Street. Based on a review of on-line maps and photographs, Parcel #11 consists of a portion of undeveloped land associated with Knoll Hill Park located south of Front Street and north of Knoll Drive. The address associated with this parcel was not identified in the EDR Report.	Low
12	Partial Take, TCE Grading	N	Knoll Hill, NE	735 N FRONT ST	LOS ANGELES	7448-034-921	0.0700	A review of the County Assessor and NavigateLA website revealed that Parcel #12 consists of APN 7448-034-921 with the associated address of 735 North Front Street. Based on a review of on-line maps and photographs, Parcel #12 consists of a portion of undeveloped land associated with Knoll Hill Park located south of Front Street and north of Knoll Drive. The address associated with this parcel was not identified in the EDR Report.	Low
13	Partial Take	Y	Knoll Hill, NE	No address associated		7448-034-923	0.0530	A review of the County Assessor and NavigateLA website revealed that Parcel #13 consists of APN 7448-034-923 with no associated addresses. Based on a review of on-line maps and photographs, Parcel #13 consists of a portion of undeveloped land associated with Knoll Hill Park located south of Front Street and north of Knoll Drive. No EDR listings were identified associated with this parcel.	Low
14	Partial Take	Y	Knoll Hill, NE	No address associated		7448-034-926	0.0000	A review of the County Assessor and NavigateLA website revealed that Parcel #14 consists of APN 7448-034-926 with no associated addresses. Based on a review of on-line maps and photographs, Parcel #14 consists of a portion of undeveloped land associated with Knoll Hill Park located south of Front Street and north of Knoll Drive. No EDR listings were identified associated with this parcel.	Low
15	Partial Take	N	Knoll Hill, NE	713 N FRONT ST	LOS ANGELES	7448-034-927	0.0000	A review of the County Assessor and NavigateLA website revealed that Parcel #15 consists of APN 7448-034-927 with the associated address of 713 North Front Street. Based on a review of on-line maps and photographs, Parcel #15 consists of a portion of undeveloped land associated with Knoll Hill Park located south of Front Street and north of Knoll Drive. The address associated with this parcel was not identified in the EDR Report.	Low
16	TCE Grading	N	Knoll Hill, NE	250 W KNOLL DR	LOS ANGELES	7448-035-901	0.0740	A review of the County Assessor and NavigateLA website revealed that Parcel #16 consists of APN 7448-035-901 with the associated address of 250 West Knoll Drive. Based on a review of on-line maps and photographs, Parcel #16 consists of a portion of undeveloped land associated with Knoll Hill Park located south of Front Street and adjacent to the west of Knoll Drive. The address associated with this parcel was not identified in the EDR Report.	Low
17	Partial Take TCE	N	LA Port Police Commercial Truck Inspection Facility	705 N FRONT ST	LOS ANGELES	7448-035-905	0.6000	A review of the County Assessor and NavigateLA website revealed that Parcel #17 consists of APN 7448-035-905 with the associated address of 705 North Front Street. Based on a review of on-line maps and photographs, Parcel #17 consists of an asphalt paved lot located adjacent to the west of Front Street and south of Knoll Drive. The address associated with this parcel was not identified in the EDR Report.	Low

Table 1 - Summary of Onsite EDR Listings
SR-47 Interchange Project
Los Angeles, California

18	Partial Take, TCE	N	K9 Training Facility, Dog Park, Multiple Properties on Knoll Hill	705 N FRONT ST 287 W KNOLL DR 291 W KNOLL DR 295 W KNOLL DR 307 W KNOLL DR 311 W KNOLL DR 317 W KNOLL DR 319 W KNOLL DR	LOS ANGELES	7448-035-906	0.5895	A review of the County Assessor and NavigateLA website revealed that Parcel #18 consists of APN 7448-035-906 with the associated addresses of 705 North Front Street, and 287, 291, 295, 307, 311, 317, and 319 West Knoll Drive. Based on a review of on-line maps and photographs, Parcel #18 consists of a portions of undeveloped land associated with Knoll Hill Park located south of Front Street and north of Knoll Drive and an asphalt paved lot located adjacent to the west of Front Street and south of Knoll Drive. The addresses associated with this parcel were not identified in the EDR Report.	Low
19	Partial Take	N	Sewer Pump Station and area between railroad right-of-way and freeway	675 N FRONT ST 703 N FRONT ST	LOS ANGELES	7448-035-907	1.0983	A review of the County Assessor and NavigateLA website revealed that Parcel #19 consists of APN 7448-035-907 with the associated addresses of 703 and 675 North Front Street. Based on a review of on-line maps and photographs, Parcel #19 consists land that is partially developed and undeveloped located adjacent to the south of the Pacific Harbor Line right-of-way and north of the on-ramp to SR-47 North. The addresses associated with this parcel were not identified in the EDR Report.	Low
20	Possible TCE	N	Knoll Hill, E, multiple properties	270 W KNOLL DR 274 W KNOLL DR 280 W KNOLL DR	LOS ANGELES	7448-035-908	0.3933	A review of the County Assessor and NavigateLA website revealed that Parcel #20 consists of APN 7448-035-908 with the associated addresses of 270, 274, and 280 West Knoll Drive. Based on a review of on-line maps and photographs, Parcel #20 consists of a portion of one of the baseball fields associated with Knoll Hill Park located south of Front Street and west of Knoll Drive. The addresses associated with this parcel were not identified in the EDR Report.	Low
21	Full Take	Y	Knoll Hill, SE below Knoll Dr	281 W KNOLL DR	LOS ANGELES	7448-035-913	0.1100	A review of the County Assessor and NavigateLA website revealed that Parcel #21 consists of APN 7448-035-913 with the associated address of 281 West Knoll Drive. Based on a review of on-line maps and photographs, Parcel #21 consists of portions of land associated with Knoll Hill Dog Park located west of Front Street and east of Knoll Drive. The address associated with this parcel was not identified in the EDR Report.	Low
22	Full Take	Y	Knoll Hill, SE below Knoll Dr.	275 W KNOLL DR	LOS ANGELES	7448-035-914	0.1100	A review of the County Assessor and NavigateLA website revealed that Parcel #22 consists of APN 7448-035-914 with the associated address of 275 West Knoll Drive. Based on a review of on-line maps and photographs, Parcel #22 consists of a portion of land associated with Knoll Hill Dog Park located west of Front Street and east of Knoll Drive. The address associated with this parcel was not identified in the EDR Report.	Low
23	None	N	Knoll Hill, SE	300 W KNOLL DR	LOS ANGELES	7448-035-915	0.1160	A review of the County Assessor and NavigateLA website revealed that Parcel #23 consists of APN 7448-035-915 with the associated address of 300 West Knoll Drive. Based on a review of on-line maps and photographs, Parcel #23 consists of a portion of the land associated with Knoll Hill Park located south of Front Street and west of Knoll Drive. The address associated with this parcel was not identified in the EDR Report.	Low
24	None	N	Knoll Hill, S below Knoll Dr	325 W KNOLL DR 329 W KNOLL DR 333 W KNOLL DR	LOS ANGELES	7448-035-918	0.5910	A review of the County Assessor and NavigateLA website revealed that Parcel #24 consists of APN 7448-035-918 with the associated addresses of 325, 329, and 333 West Knoll Drive. Based on a review of on-line maps and photographs, Parcel #24 consists of undeveloped land located south of Knoll Drive and north of the Pacific Harbor Line right-of-way. The addresses associated with this parcel were not identified in the EDR Report.	Low
25	None	N	Knoll Hill, S	730 N CENTER ST 742 N CENTER ST	LOS ANGELES	7448-035-920	0.1030	A review of the County Assessor and NavigateLA website revealed that Parcel #25 consists of APN 7448-035-920 with the associated addresses of 730 and 742 North Center Street. Based on a review of on-line maps and photographs, Parcel #25 consists of land associated with Knoll Hill Park located north of Knoll Drive and east of Center Street. The addresses associated with this parcel were not identified in the EDR Report.	Low
26	TCE Grading	N	Knoll Hill, E	237 W VIEWLAND PL	LOS ANGELES	7448-035-921	0.1102	A review of the County Assessor and NavigateLA website revealed that Parcel #26 consists of APN 7448-035-921 with the associated address of 237 West Viewland Place. Based on a review of on-line maps and photographs, Parcel #26 consists of a portion of land associated with Knoll Hill Park located south of Front Street and west of Knoll Drive. The address associated with this parcel was not identified in the EDR Report.	Low
27	None	N	Knoll Hill, S	320 W KNOLL DR	LOS ANGELES	7448-035-922	0.1040	A review of the County Assessor and NavigateLA website revealed that Parcel #27 consists of APN 7448-035-922 with the associated address of 320 West Knoll Drive. Based on a review of on-line maps and photographs, Parcel #27 consists of land associated with Knoll Hill Park located north of Knoll Drive and east of Center Street. The address associated with this parcel was not identified in the EDR Report.	Low

Transmittal No. 1

Table 1 - Summary of Onsite EDR Listings
SR-47 Interchange Project
Los Angeles, California

28	None	N	Knoll Hill, S	316 W KNOLL DR	LOS ANGELES	7448-035-923	0.0991	A review of the County Assessor and NavigateLA website revealed that Parcel #28 consists of APN 7448-035-923 with the associated address of 320 West Knoll Drive. Based on a review of on-line maps and photographs, Parcel #28 consists of land associated with Knoll Hill Park located north of Knoll Drive and east of Center Street. The address associated with this parcel was not identified in the EDR Report.	Low
29	None	N	Knoll Hill, S	308 W KNOLL DR	LOS ANGELES	7448-035-924	0.0922	A review of the County Assessor and NavigateLA website revealed that Parcel #29 consists of APN 7448-035-924 with the associated address of 320 West Knoll Drive. Based on a review of on-line maps and photographs, Parcel #29 consists of land associated with Knoll Hill Park located north of Knoll Drive and east of Center Street. The address associated with this parcel was not identified in the EDR Report.	Low
30	Full Take	Y	Knoll Hill, E below Knoll Dr	261 W KNOLL DR	LOS ANGELES	7448-035-925	0.1101	A review of the County Assessor website revealed that Parcel #30 consists of APN 7448-035-925. Based on a review of on-line maps and photographs, Parcel #30 consists of a portion of a grass field and service road associated with Knoll Hill Dog Park at 711 North Front Street, located adjacent to the east of Knoll Drive, west of Front Street, and north of SR-47. The address associated with this parcel was not identified in the EDR Report.	Low
31	Full Take	Y	Knoll Hill, E below Knoll Dr	255 W KNOLL DR	LOS ANGELES	7448-035-926	0.1740	A review of the County Assessor website revealed that Parcel #31 consists of APN 7448-035-926. Based on a review of on-line maps and photographs, Parcel #30 consists of a portion of a grass field associated with Knoll Hill Dog Park at 711 North Front Street, located adjacent to the east of Knoll Drive, west of Front Street, and north of SR-47. The address associated with this parcel was not identified in the EDR Report.	Low
32	Partial Take, TCE	N	Pacific Harbor Line right-of-way, E, same as 7448-035-932	No address associated	LOS ANGELES	7448-035-927	0.5150	A review of the County Assessor website revealed that Parcel #32 consists of APN 7448-035-927 (same as APN 7448-035-932, see below). Based on a review of on-line maps and photographs, Parcel #32 consists of a portion of the Pacific Harbor Line right-of-way, located adjacent to the south of Knoll Drive, west of Front Street, and north of SR-47. The railroad right-of-way is not currently in use. No EDR listings were identified associated with this parcel.	Low
33	Possible TCE	N	Knoll Hill, E, multiple properties	255 W VIEWLAND PL	LOS ANGELES	7448-035-930	0.2796	A review of the County Assessor and NavigateLA website revealed that Parcel #33 consists of APN 7448-035-930 with the associated address of 255 West Viewland Place. Based on a review of on-line maps and photographs, Parcel #33 consists of land associated with Knoll Hill Park located west of Knoll Drive and south of Front Street. The address associated with this parcel was not identified in the EDR Report.	Low
34	Easement, Impact	N	Pacific Harbor Line Line right-of-way, E, same as 7448-035-927	No address associated		7448-035-932	0.5150	A review of the County Assessor website revealed that Parcel #34 consists of APN 7448-035-932 (same as 7448-035-927, see above). Based on a review of on-line maps and photographs, Parcel #34 consists of a portion of the Pacific Harbor Line Railroad right-of-way, located adjacent to the south of Knoll Drive, west of Front Street, and north of SR-47. The railroad right-of-way is not currently in use. No EDR listings were identified associated with this parcel.	Unknown
35	Full Take	Y	Knoll Hill, SE below Knoll Dr	267 W KNOLL DR	LOS ANGELES	7448-035-935	0.1102	A review of the County Assessor website revealed that Parcel #35 consists of APN 7448-035-935. Based on a review of on-line maps and photographs, Parcel #35 consists of a portion of a grass field and service road associated with Knoll Hill Dog Park at 711 North Front Street, located adjacent to the east of Knoll Drive, west of Front Street, and north of SR-47. The address associated with this parcel was not identified in the EDR Report.	Low
36	Full Take	Y	Knoll Hill, E below Knoll Dr , at new intersection	219 W KNOLL DR 711 N FRONT ST 273 W KNOLL DR 707 N FRONT ST 229 W KNOLL DR 235 W KNOLL DR 701 N FRONT ST 241 W KNOLL DR 247 W KNOLL DR	LOS ANGELES	7448-035-936	0.0000	A review of the County Assessor website revealed that Parcel #36 consists of APN 7448 035 936. Based on a review of on-line maps and photographs, Parcel #36 consists of a portion of a grass field and service road associated with Knoll Hill Dog Park at 711 North Front Street, located adjacent to the east of Knoll Drive, west of Front Street, and north of SR-47. The addresses associated with this parcel were not identified in the EDR Report.	Low
37	None	N	Pacific Harbor Line, W same as 7448-036-926	No address associated		7448-036-919	0.5000	A review of the County Assessor website revealed that Parcel #37 consists of APN 7448 035-926 (same as APN 7448 036-919, see below). Based on a review of on-line maps and photographs, Parcel #37 consists of a portion of the Pacific Harbor Line right of way located adjacent to the south of Knoll Drive, east of Pacific Avenue, and north of SR-47. The railroad right-of-way is not currently in use. No EDR listings were identified associated with this parcel.	Low

Transmittal No. 1

Table 1 - Summary of Onsite EDR Listings
SR-47 Interchange Project
Los Angeles, California

38	None	N	Pacific Harbor Line right-of-way, W same as 7448-036-919	No address associated		7448-036-926	0.5000	A review of the County Assessor website revealed that Parcel #38 consists of APN 7448-036-919 (same as APN 7448-036-926, see above). Based on a review of on-line maps and photographs, Parcel #38 consists of a portion of the Pacific Harbor Line right-of-way located adjacent to the south of Knoll Drive, east of Pacific Avenue, and north of SR-47. The railroad right-of-way is not currently in use. No EDR listings were identified associated with this parcel.	Low
39	None	N	Sampan Sea Apartments	651 N HARBOR BLVD	LOS ANGELES	7449-005-010	2.6100	A review of the County Assessor website revealed that Parcel #39 consists of APN 7449-005-010. Based on a review of on-line maps and photographs, Parcel #39 consists of a multi-family residential property (Samoan Sea Apartments) located adjacent to the south of SR-47. The address associated with this parcel was not identified in the EDR Report.	Low
40	TCE	N	Knoll Hill, NE	749 N FRONT ST	LOS ANGELES	7448-034-902	0.0724	A review of the County Assessor website revealed that Parcel #40 consists of APN 7448-034-902 with the associated address of 749 North Front Street. Based on a review of on-line maps and photographs, Parcel #40 consists of a portion of undeveloped land associated with Knoll Hill Park located south of Front Street and north of Knoll Drive. The address associated with this parcel was not identified in the EDR Report.	Low
41	TCE	N	Knoll Hill, NE	248 W VIEWLAND PL	LOS ANGELES	7448-034-908	0.1148	A review of the County Assessor website revealed that Parcel #41 consists of APN 7448 034 908 with the associated addresses of 248 West Viewland Place. Based on a review of on-line maps and photographs, Parcel #41 consists of a portion of undeveloped land associated with Knoll Hill Park located south of Front Street and north of Knoll Drive. The addresses associated with this parcel were not identified in the EDR Report	Low
42	TCE	N	Knoll Hill, NE	254 W VIEWLAND PL	LOS ANGELES	7448-034-909	0.1146	A review of the County Assessor website revealed that Parcel #42 consists of APN 7448 034 909 with the associated addresses of 254 West Viewland Place. Based on a review of on-line maps and photographs, Parcel #42 consists of a portion of undeveloped land associated with Knoll Hill Park located south of Front Street and north of Knoll Drive. The addresses associated with this parcel were not identified in the EDR Report	Low
43	TCE	N	Knoll Hill, NE	747 N FRONT ST	LOS ANGELES	7448-034-917	0.0725	A review of the County Assessor website revealed that Parcel #43 consists of APN 7448-034-917 with the associated addresses of 747 North Front Street. Based on a review of on-line maps and photographs, Parcel #43 consists of a portion of undeveloped land associated with Knoll Hill Park located south of Front Street and north of Knoll Drive. The addresses associated with this parcel were not identified in the EDR Report.	Low
44	TCE	N	Knoll Hill, NE	751 N FRONT ST	LOS ANGELES	7448-034-925	0.0724	A review of the County Assessor website revealed that Parcel #44 consists of APN 7448 034 925 with the associated address of 751 North Front Street. Based on a review of on-line maps and photographs, Parcel #44 consists of a portion of undeveloped land associated with Knoll Hill Park located south of Front Street and north of Knoll Drive. The address associated with this parcel was not identified in the EDR Report.	Low
45	Partial Take	N	Pacific Harbor Line (river right-of-way) near Front St, same as 7448-035-933	No address associated	LOS ANGELES	7448-035-928	0.0337	A review of the County Assessor website revealed that Parcel #45 consists of APN 7448-035-928 (same as APN 7448-035-933, see below). Based on a review of on-line maps and photographs, Parcel #45 consists of a portion of the Pacific Harbor line right of way, located adjacent to the west of Front Street, south of the dog park entrance, and north of SR-47. The railroad right-of-way is not currently in use. No EDR listings were identified associated with this parcel.	Low
46	TCE	N	Knoll Hill, E	243 W VIEWLAND PL	LOS ANGELES	7448-035-900	0.1102	A review of the County Assessor website revealed that Parcel #46 consists of APN 7448 035 900 with the associated address of 243 West Viewland Place. Based on a review of on-line maps and photographs, Parcel #46 consists of a portion of land associated with Knoll Hill Park located south of Front Street and west of Knoll Drive. The address associated with this parcel was not identified in the EDR Report	Low
47	TCE	N	Res. dwelling on Knoll Hill	321 W VIEWLAND PL	LOS ANGELES	7448-036-003	0.1008	A review of the County Assessor website revealed that Parcel #47 consists of APN 7448-036-003 with the associated address of 321 West Viewland Place. Based on a review of on-line maps and photographs, Parcel #47 consists of a single family residential structure on Knoll Hill Park located south of Viewland Place, North of Knoll Drive, and west of Center Street. The address associated with this parcel was not identified in the EDR Report	Low
48	Partial Take	N	Adjacent to property on Knoll Hill	333 W VIEWLAND PL	LOS ANGELES	7448-036-901	0.2479	A review of the County Assessor website revealed that Parcel #48 consists of APN 7448-036-901 with the associated address of 333 West Viewland Place. Based on a review of on-line maps and photographs, Parcel #48 consists of a portion of land associated with Knoll Hill Park located south of Viewland Place, west of Center Street, and north of Knoll Drive. The address associated with this parcel was not identified in the EDR Report.	Low

RECEIVED

Transmittal No. 1

Table 1 - Summary of Onsite EDR Listings
SR-47 Interchange Project
Los Angeles, California

49	Partial Take	N	Adjacent to property on Knoll Hill	771 N CENTER ST	LOS ANGELES	7448-036-910	0.1007	A review of the County Assessor website revealed that Parcel #49 consists of APN 7448-036-910 with the associated address of 771 N Center Street. Based on a review of on-line maps and photographs, Parcel #49 consists of a portion of land associated with Knoll Hill Park located south of Viewland Place, west of Center Street, and north of Knoll Drive. The address associated with this parcel was not identified in the EDR Report.	Low
50	Partial Take	N	Adjacent to property on Knoll Hill	327 W VIEWLAND PL	LOS ANGELES	7448-036-912	0.1006	A review of the County Assessor website revealed that Parcel #50 consists of APN 7448-036-912 with the associated address of 327 West Viewland Place. Based on a review of on-line maps and photographs, Parcel #50 consists of a portion of land associated with Knoll Hill Park located south of Viewland Place, west of Center Street, and north of Knoll Drive. The address associated with this parcel was not identified in the EDR Report.	Low
51	Partial Take	N	Adjacent to property on Knoll Hill	767 N CENTER ST	LOS ANGELES	7448-036-917	0.1007	A review of the County Assessor website revealed that Parcel #51 consists of APN 7448-036-917 with the associated address of 767 N Center Street. Based on a review of on-line maps and photographs, Parcel #51 consists of a portion of land associated with Knoll Hill Park located south of Viewland Place, west of Center Street, and north of Knoll Drive. The address associated with this parcel was not identified in the EDR Report.	Low
52	Partial Take	N	Adjacent to property on Knoll Hill	763 N CENTER ST	LOS ANGELES	7448-036-918	0.1007	A review of the County Assessor website revealed that Parcel #52 consists of APN 7448-036-918 with the associated address of 763 N Center Street. Based on a review of on-line maps and photographs, Parcel #52 consists of a portion of land associated with Knoll Hill Park located south of Viewland Place, west of Center Street, and north of Knoll Drive. The address associated with this parcel was not identified in the EDR Report.	Low
53	TCE	N	Residence above EB ramps	572 HARKER ST	LOS ANGELES	7449-002-001	0.1247	A review of the County Assessor website revealed that Parcel #53 consists of APN 7449-002-001 with the associated address of 572 Harker Street. Based on a review of on-line maps and photographs, Parcel #53 consists of a single family residential structure on the hill located south of SR-47 and east of Harker Street. The address associated with this parcel was not identified in the EDR Report.	Low
54	TCE	N	Residence above EB ramps	623 N MESA ST	LOS ANGELES	7449-002-022	0.1378	A review of the County Assessor website revealed that Parcel #54 consists of APN 7449-002-022 with the associated address of 623 N Mesa Street. Based on a review of on-line maps and photographs, Parcel #54 consists of a single family residential structure on the hill located south of SR-47 and west of Mesa Street. The address associated with this parcel was not identified in the EDR Report.	Low
55	TCE	N	Residence above EB ramps	616 N MESA ST	LOS ANGELES	7449-003-044	0.1572	A review of the County Assessor website revealed that Parcel #55 consists of APN 7449-003-044 with the associated address of 616 N Mesa Street. Based on a review of on-line maps and photographs, Parcel #54 consists of a single family residential structure on the hill located south of SR-47 and east of Mesa Street. The address associated with this parcel was not identified in the EDR Report.	Low
56	TCE	N	Residence above EB ramps	No address associated	LOS ANGELES	7449-003-039	0.0290	A review of the County Assessor website revealed that Parcel #56 consists of APN 7449-003-039 with no associated address. Based on a review of on-line maps and photographs, Parcel #56 consists of a plot of land between the single family residences north of Amar, south of the hill south of SR-47 and east of Mesa Street. The address associated with this parcel was not identified in the EDR Report.	Low
57	TCE	N	Residence above EB ramps	364 W AMAR ST	LOS ANGELES	7449-003-020	0.2478	A review of the County Assessor website revealed that Parcel #57 consists of APN 7449-003-020 with the associated address of 364 Amar Street. Based on a review of on-line maps and photographs, Parcel #57 consists of a a single family residential structure on the hill located south of SR-47, north of Amar Street and east of Mesa Street. The address associated with this parcel was not identified in the EDR Report.	Low
58	TCE	N	Residence above EB ramps	352 W AMAR ST	LOS ANGELES	7449-003-019	0.1784	A review of the County Assessor website revealed that Parcel #58 consists of APN 7449-003-019 with the associated address of 352 Amar Street. Based on a review of on-line maps and photographs, Parcel #58 consists of a a single family residential structure on the hill located south of SR-47, north of Amar Street and east of Mesa Street. The address associated with this parcel was not identified in the EDR Report.	Low
59	TCE	N	Residence above EB ramps	340 W AMAR ST	LOS ANGELES	7449-003-048	0.1124	A review of the County Assessor website revealed that Parcel #59 consists of APN 7449-003-048 with the associated address of 340 Amar Street. Based on a review of on-line maps and photographs, Parcel #59 consists of a a single family residential structure on the hill located south of SR-47, north of Amar Street and east of Mesa Street. The address associated with this parcel was not identified in the EDR Report.	Low

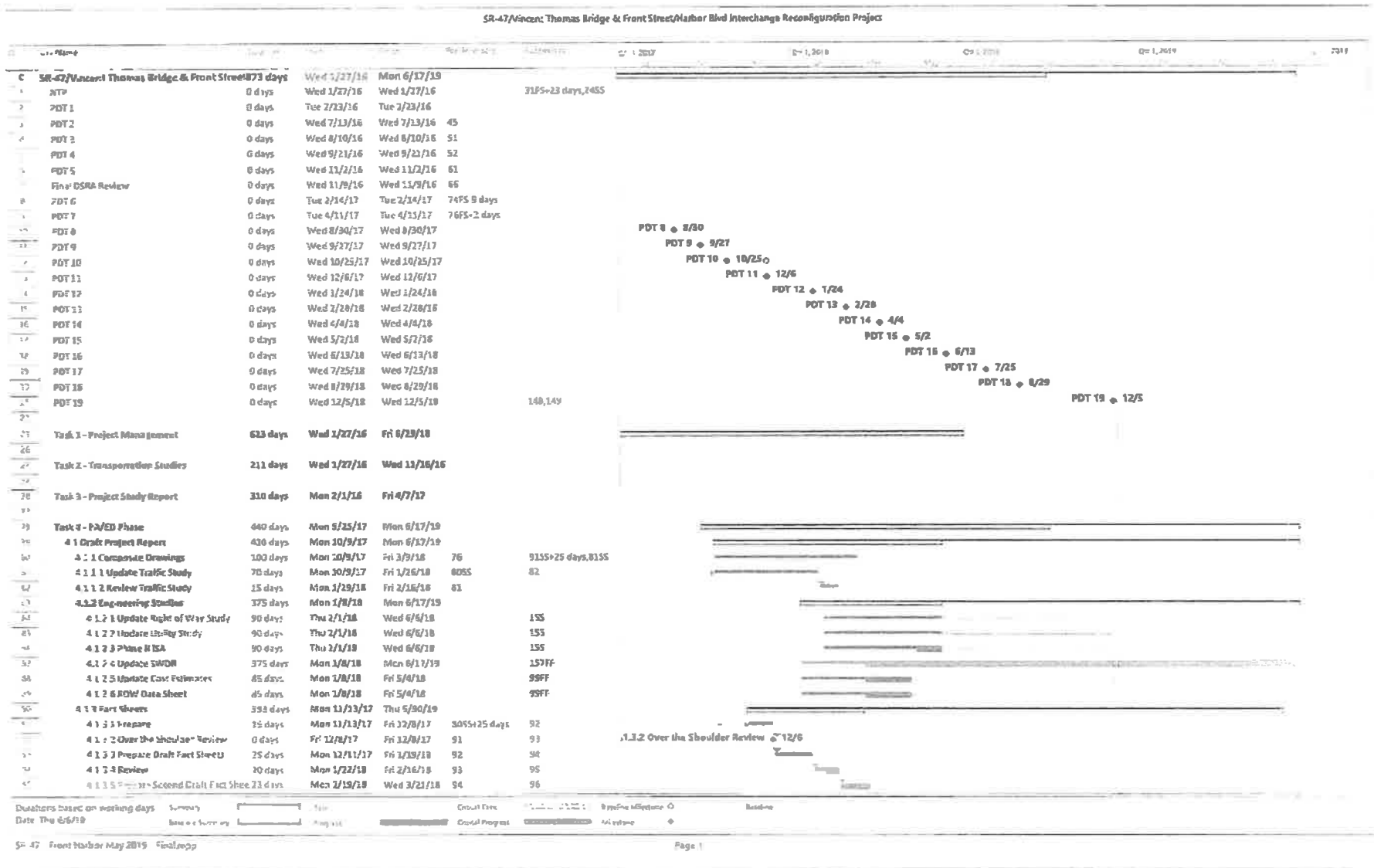
Table 1 - Summary of Onsite EDR Listings
SR-47 Interchange Project
Los Angeles, California

60	TCE	N	Residence above EB ramps	324 W AMAR ST	LOS ANGELES	7449 003-051	0.1643	A review of the County Assessor website revealed that Parcel #60 consists of APN 7449-003-051 with the associated address of 324 Amar Street. Based on a review of on-line maps and photographs, Parcel #60 consists of a a single family residential structure on the hill located south of SR-47, north of Amar Street and east of Mesa Street. The address associated with this parcel was not identified in the EDR Report.	Low
61	TCE	N	Residence above EB ramps	318 W AMAR ST	LOS ANGELES	7449-003-053	0.0622	A review of the County Assessor website revealed that Parcel #61 consists of APN 7449-003-053 with the associated address of 318 Amar Street. Based on a review of on-line maps and photographs, Parcel #61 consists of a a single family residential structure on the hill located south of SR-47, north of Amar Street and east of Mesa Street. The address associated with this parcel was not identified in the EDR Report.	Low
62	TCE	N	Residence above EB ramps	314 W AMAR ST	LOS ANGELES	7449-003-052	0.0722	A review of the County Assessor website revealed that Parcel #62 consists of APN 7449-003-052 with the associated address of 314 Amar Street. Based on a review of on-line maps and photographs, Parcel #62 consists of a a single family residential structure on the hill located south of SR-47, north of Amar Street and east of Mesa Street. The address associated with this parcel was not identified in the EDR Report.	Low
63	Partial Take	N	Residence above EB ramps	600 N PALOS VERDES ST	LOS ANGELES	7449-007-023	0.2231	A review of the County Assessor website revealed that Parcel #63 consists of APN 7449-007-023 with the associated address of 600 N Palos Verdes Street. Based on a review of on-line maps and photographs, Parcel #63 consists of a a single family residential structure on the hill located south of the eb SR-47 exit, west of Harbor Blvd, and east of Palos Verdes Street. The address associated with this parcel was not identified in the EDR Report.	Low
64	TCE	N	Residence above EB ramps	536 N PALOS VERDES ST	LOS ANGELES	7449-007-012	0.1938	A review of the County Assessor website revealed that Parcel #64 consists of APN 7449-007-012 with the associated address of 536 N Palos Verdes Street. Based on a review of on-line maps and photographs, Parcel #64 consists of a a single family residential structure on the hill located south of the eb SR-47 exit, west of Harbor Blvd, and east of Palos Verdes Street. The address associated with this parcel was not identified in the EDR Report.	Low

Transmittal No. 1

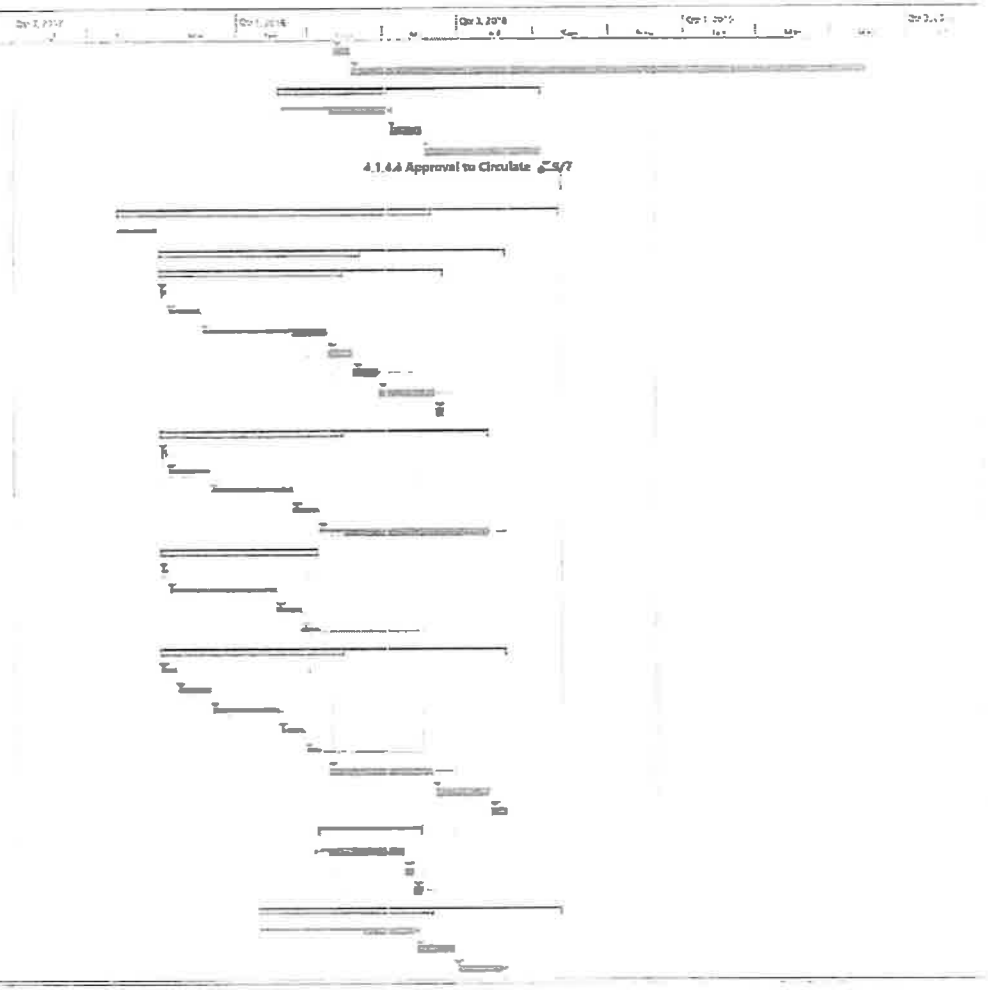
Attachment M

Project Schedule



Transmittal No. 1

96	4.1.3.6 Review	20 days	Thu 3/22/18	Wed 4/18/18	95	97	
97	4.1.3.7 Prepare Final Fact Sheet	300 days	Thu 4/5/18	Thu 5/30/19	96	157FF	
98	4.1.4 Prepare DPR	155 days	Mon 2/5/18	Fri 9/7/18			
99	4.1.4.1 Admin Draft	55 days	Mon 2/5/18	Fri 5/4/18	88FF,89FF	100	
100	4.1.4.2 Agency Review	20 days	Mon 5/7/18	Fri 6/1/18	99	101	
101	4.1.4.3 Final DPR / Fact Sheets	70 days	Mon 6/4/18	Fri 9/7/18	100	102	
102	4.1.4.4 Approval to Circulate	0 days	Fri 9/7/18	Fri 9/7/18	101	146	
103							
104	4.2 Draft Environmental Document	250 days	Mon 9/25/17	Fri 9/21/18			
105	4.2.1 Study Area / Footprint	25 days	Mon 9/25/17	Fri 10/27/17		108,116,121,122	
106	4.2.2 Update Environmental Studies	193 days	Mon 10/30/17	Wed 8/8/18			
107	4.2.2.2 Noise Study	156 days	Mon 10/30/17	Mon 6/18/18			
108	Work Plan	5 days	Mon 10/30/17	Fri 11/3/17	105	109	
109	Field Study and Modeling	15 days	Mon 11/6/17	Fri 12/1/17	108	110	
110	Draft Report	69 days	Mon 12/4/17	Thu 3/15/18	109	111,132,136	
111	Review	15 days	Fri 3/16/18	Thu 4/5/18	110	112	
112	Final Report	15 days	Fri 4/6/18	Thu 4/26/18	111	140FF,113	
113	Prepare NADR	32 days	Fri 4/27/18	Mon 6/11/18	112	114,142	
114	Review NADR	5 days	Tue 6/12/18	Mon 6/18/18	113		
115	4.2.2.3 Air Quality Study	183 days	Mon 10/30/17	Wed 7/25/18			
116	Work Plan	5 days	Mon 10/30/17	Fri 11/3/17	105	117	
117	Field Study and Modeling	20 days	Mon 11/6/17	Fri 12/8/17	116	118	
118	Draft Report	43 days	Mon 12/11/17	Wed 2/14/18	117	119	
119	Review	15 days	Thu 2/15/18	Wed 3/7/18	118	120	
120	Final Report	100 days	Thu 3/8/18	Wed 7/25/18	119	142FF	
121	4.2.2.4 Biological Studies	83 days	Mon 10/30/17	Wed 3/7/18			
122	Field Study	5 days	Mon 10/30/17	Fri 11/3/17	105	123	
123	NES Draft Report	53 days	Mon 11/6/17	Wed 1/31/18	122	124	
124	Review	15 days	Thu 2/1/18	Wed 2/21/18	123	125	
125	NES Final Report	10 days	Thu 2/22/18	Wed 3/7/18	124	140FF+10 days	
126	4.2.2.5 Cultural Studies	193 days	Mon 10/30/17	Wed 8/8/18			
127	APE Coordination	10 days	Mon 10/30/17	Fri 11/10/17	105	128	
128	Records Search	15 days	Mon 11/13/17	Fri 12/8/17	127	129	
129	Paleo Draft Report	35 days	Mon 12/11/17	Fri 2/2/18	128	130	
130	Review	15 days	Mon 2/5/18	Fri 2/23/18	129	131	
131	Paleo Final Report	10 days	Mon 2/26/18	Fri 3/9/18	130	140FF+10 days	
132	Prepare HAER	61 days	Fri 3/16/18	Fri 6/8/18	110	142,133	
133	Review HAER	33 days	Mon 6/11/18	Wed 7/25/18	132	134	
134	Final HAER	10 days	Thu 7/26/18	Wed 8/8/18	133		
135	4.2.2.6 Visual Impact Assessment	61 days	Thu 3/8/18	Wed 5/30/18			
136	VIA Draft Memo	50 days	Thu 3/8/18	Wed 5/16/18	110	137	
137	VIA Review	5 days	Thu 5/17/18	Wed 5/23/18	136	138	
138	VIA Final Memo	5 days	Thu 5/24/18	Wed 5/30/18	137	143	
139	4.2.3 Prepare Draft PSR/EA	177 days	Thu 1/18/18	Fri 9/21/18			
140	4.2.3.1 Admin Draft	91 days	Thu 1/18/18	Thu 5/24/18	112FF,125FF+10 d	141	
141	4.2.3.2 District Q	22 days	Fri 5/25/18	Mon 6/25/18	140	142	
142	4.2.3.3 2nd Admin Draft	27 days	Thu 6/28/18	Fri 8/3/18	141,138,132,113,1143		



Durations based on working days | Summary | Split | Deadline | Baseline Milestone | Baseline
Date: Thu 6/6/19 | Inactive Summary | Progress | Critical Progress | Inactive | Milestone

SR-47 - Front Harbor May 2019 | Timeline

ID	Task Name	Duration	Start	Finish	Predecessors	Successors
143	4.2.3.4 Final District QC	33 days	Mon 8/6/18	Wed 9/19/18	142	144
144	4.2.3.5 Approval to Circulate IS/EA	2 days	Thu 9/20/18	Fri 9/21/18	143	146
145	4.3 Circulate DED / Public Comment	53 days	Mon 9/24/18	Wed 12/5/18		
146	4.3.1 Public Circulation	23 days	Mon 9/24/18	Wed 10/24/18	144,102	147
147	4.3.2 Response to Public Comments	22 days	Thu 10/25/18	Fri 11/30/18	146	151,155,153
148	4.3.3 Select Preferred Alternative	1 day	Wed 12/5/18	Wed 12/5/18	21	
149	4.3.4 ADCA/FHWA	1 day	Wed 12/5/18	Wed 12/5/18	21	
150	4.4 Final Documents	140 days	Mon 12/3/18	Mon 6/17/19		
151	4.4.1 Prepare Draft MND/FONSI	10 days	Mon 12/3/18	Fri 12/14/18	147	152
152	4.4.2 Agency Review	12 days	Mon 12/17/18	Wed 1/2/19	151	154
153	4.4.3 FHWA Approval	20 days	Mon 12/3/18	Mon 12/31/18	147	154FF
154	4.4.4 Final MND/FONSI	8 days	Thu 1/3/19	Tue 1/15/19	152,153FF	158
155	4.4.5 Prepare Draft Final Project Report	10 days	Mon 12/3/18	Fri 12/14/18	147,84,85,86	156
156	4.4.6 Agency Review	12 days	Mon 12/17/18	Wed 1/2/19	155	157FF
157	4.4.7 Final Project Report	60 days	Mon 3/11/19	Mon 6/17/19	156FF,93FA,80FF	158
158	4.4.8 Final Documents	0 days	Mon 6/17/19	Mon 6/17/19	154,157	

Duration based on working days
Date: Thu 6/6/19

Summary | Task | Inactive Task | Deadline
Inactive Summary | Progress | Inactive Milestone

Transmittal No. 1

Attachment N

Risk Register

Transmittal No. 1

LEVEL 2 RISK REGISTER	Route(s):	SR-47	Project Description: SR-47 / Vincent Thomas Bridge and Harbor Boulevard / Front Street Interchange Reconfiguration	DIST-EA: 07-311500	Project Manager:	Sarah Aziz	Construction Capital Cost	$21.5M	Total Capital Cost	[illegible]
	Post Mile(s):	[illegible]			Risk Manager:	Sarah Aziz	Right of Way Capital Cost	$8.4M	Construction Duration	[illegible]

Project Summary: Reconstruction of interchange ramps to provide new westbound ramp terminus.

Risk No.	Status	Type	Category	Title	Risk Statement	Current Status/Assumptions	Probability	Cost Impact	Cost Score	Time Impact	Time Score	Rationale	Strategy	Response Actions	Risk Owner	Updated
Risk Identification							**Risk Assessment**					**Risk Response**				
1	Active	Threat	ENV	Construction Impacts to Community Resources	Community reaction to temporary or permanent impacts to Dog Park could delay project approval	Community was generally receptive to impacts to the Dog Park during the public circulation.	2-Low	2-Low	[illegible]	4-Moderate	[illegible]	Property to be relocated/rebuilt. Mitigation through relocation could delay construction	Mitigate	Engage community input through currently scheduled regular neighborhood meetings	POLA	[illegible]
2	Active	Threat	DSN	Knoll Hill Access	[illegible] circulation to and from Knoll Hill [illegible] construction by City of Los Angeles or [illegible]	It is assumed that minor roadway signing and striping will allow for satisfactory circulation to and from Knoll Hill under proposed conditions.	2-Low	4-Moderate	[illegible]	1-Very Low	[illegible]	Design refinements may be required to satisfy City as to circulation to and from Knoll Hill. These refinements could have construction and/or design cost impacts	Mitigate	Review new Knoll Hill access with City of Los Angeles as well as community representatives	POLA	[illegible]
3	Active	Threat	ROW	Proposed ROW Dedication is Delayed	Results of further site investigations may delay dedication of Port owned properties to Caltrans during the ROW certification process	ISA soil testing results were inconclusive on contaminants/contamination. Further site testing required during ROW phase to determine remediation required for dedication	3-Moderate	2-Low	[illegible]	4-Moderate	[illegible]	Initial Site Assessment of the properties was inconclusive but showed some signs of contamination. CT will only take 'clean' property. Dedication of property could be delayed.	Mitigate	Work closely with Caltrans Hazardous Waste Group prior to any investigation activities.	POLA	[illegible]
4	Active	Threat	DSN	Utility Relocation	As a result of a detailed site investigation, the need to relocate utilities outside the project area may arise [illegible] schedule delays	Underground utilities along existing Knoll Drive will require relocation due to changes in grade and retaining wall construction. Above ground utilities along the west side of Front Street and along the rail right-of-way are in conflict [illegible]	2-Low	2-Low	[illegible]	2-Low	[illegible]	Most adjacent property is City or Port owned, such that relocation opportunities are likely plentiful.	Mitigate	Review possible utility conflicts and conduct potholing to identify all utilities during the PS&E Phase. Once identified, contact utility companies and monitor progress	POLA	[illegible]
5	Active	Threat	DSN	Utility Relocation Delayed	As a result of [illegible] utility companies [illegible] schedule delays	PS&E Utility work has not begun	3-Moderate	1-Very Low	[illegible]	2-Low	[illegible]	Caltrans cannot influence utility company response times	Mitigate	Work with utility companies as early as possible to avoid or minimize delays	POLA	[illegible]
6	Active	Threat	DSN	Changes in BMP Design	As a result of a limited survey, infiltration and [illegible] additional land and proposed [illegible] increasing project costs and duration	The project conceptual design allows for the use of BMP [illegible] Maintenance Unit will occur during final design. Construction activities involving [illegible] as much as practical	3-Moderate	2-Low	[illegible]	2-Low	[illegible]	The outcome of boring/infiltration tests will determine the type of BMPs. Will complete surveys and all functional test units to confirm proposed device feasibility, BMP types and locations	Mitigate	[illegible] required for the project, it will identify construction site BMPs to reduce water quality impacts. Bioswales and infiltration basins are currently proposed as part of the project BMPs. Any design issues during final design [illegible] for ease of BMP maintenance and to prevent future maintenance and/or safety problems as well as [illegible]	POLA	[illegible]
7	Active	Threat	STR	Impacts to existing [illegible]	Alterations in the alignment of the SR-47 eastbound and [illegible] may alter the grading at the [illegible] alignment in the southeast corner of the structure, which may negatively impact the structure or columns and cause cost increases and schedule delays	This alteration is not expected to negatively impact the structure or columns.	2-Low	4-Moderate	[illegible]	2-Low	[illegible]	Detailed grading during PS&E will discover any grading overlap with existing structure elements. Unique grading designs may be employed to preserve existing infrastructure	Mitigate	Special attention must be paid to the grading design around the existing-to-remain structure including the abandoned westbound offramp. Sheet piling and other specialties [illegible] conditions for nearby ramps to not negatively affect the existing abutments or columns	POLA	[illegible]
8	Active	Threat	ADM	Permits & Agreements	As a result of time needed to secure the concurrence of stakeholders and get the required design approvals and permits, an extended and lengthy design process may [illegible] process, which would lead to schedule delays and increased project costs	Permits are anticipated during the preliminary engineering, project design, and construction phases. Also POLA and Caltrans are currently developing a cooperative agreement to address design, right of way, and construction. In addition, the roles and responsibilities for the maintenance and operation of the Front Street and Harbor Boulevard [illegible] will be addressed in separate maintenance agreements. A superseding freeway agreement is [illegible] Front Street interchange [illegible]	2-Low	1-Very Low	[illegible]	2-Low	[illegible]	Agreements are underway between the two main stakeholders. Design reviews between Caltrans and the City [illegible]	Mitigate	Maintain lock-step design review between City/Port and Caltrans design approvals to lock down the critical design elements. Finalize cooperative and freeway agreements.	POLA	[illegible]
9	Active	Threat	[illegible]	Ramp Closures/Detours	As a result of the extended ramp closures needed during construction, inconvenience to the public may occur [illegible] the City and lead to increased project costs and schedule delays	Access into the West Basin Container Terminal is likely [illegible] during construction, but coordination with Port staff may provide alternate routes or alternate gates to reduce traffic through the intersection during construction. Overnight closures may be required during reconstruction of the westbound gores. Ramp closure detours are available using Gaffey Street or John S. Gibson Boulevard interchanges. Once the westbound ramps are functioning, the existing westbound ramp may be removed and the new alignment for the eastbound onramp may be constructed. Once again, overnight closures for the eastbound onramp may be required for reconstruction of the gore area	2-Low	2-Low	[illegible]	2-Low	[illegible]	Gaffey St and John S Gibson offer adjacent access to residential, businesses and Port commercial users during short term closures.	Mitigate	Maintain communication with City and affected Port departments to inform of upcoming construction impacts and where possible adjust schedule to affected Port users.	POLA	[illegible]

LEVEL 2 RISK REGISTER	Route(s)	SR-47	Project Description: SR-47 / Vincent Thomas Bridge and Harbor Boulevard / Front Street Interchange Reconfiguration	DIST-EA: 07-318300	Project Manager:	Sarah Aziz	Construction Capital Cost	$21.5M	Total Capital Cost	[illegible]
	Post Mile(s)	0.3-0.5			Risk Manager	Sarah Aziz	Right of Way Capital Cost	[illegible]	Construction Duration	[illegible]

Scope Summary: [illegible]

Risk Identification							Risk Assessment					Risk Response				
ID #	Status	Type	Category	Title	Risk Statement	Current Status/Assumptions	Probability	Cost Impact	Cost Score	Time Impact	Time Score	Rationale	Strategy	Response Actions	Risk Owner	Updated
	Retired	Threat	OGN	Chose Preferred Alternative	Right-of-way issues related to the former Pacific Harbor Line could delay choice of Preferred Alternative	POLA believes ROW issue has resolved, Alt 2 (avoidance) has been dropped for PA/ED.	2-Low	5-High	[illegible]	4-Moderate	[illegible]	If Port is unable to secure full right-of-way, design modification to bridge property will be required.	Mitigate	Monitor other similar projects throughout Port of Los Angeles where this facility is being impacted	POLA	5/2/2018
	Retired	Threat	ENV	Community Reaction to Proposed Sound Walls	Mixed community reaction to proposed soundwalls may be diverse. Some owners may not want property or visual impacts while others do.	Most affected residents did not respond to survey; those that did were mainly opposed. Walls have been dropped from project.	3-Moderate	2-Low	[illegible]	2-Low	[illegible]	Community reaction to noise walls on adjacent project was noted. Some residents chose to reject improvements opted against adjacent walls.	Mitigate	Monitor community for any reaction to the ultimate determination to drop walls from project.	POLA	12/14/2018

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

RISK REGISTER CERTIFICATION (ACCOUNTABILITY CHECKPOINTS) FORM

PPM-D07-0001 (REV 09/2018)

The risk register is to be approved and signed-off by the District Deputies listed below for all scalability levels. By signing this form, you are certifying that you have reviewed the risks documented in the register and agree that they have been managed to the extent possible by the PDT.

Project Information	☒Capital Project ☐Major Maintenance Project (Check One)	Total Estimated Cost: $41M
Project ID/District-EA	318501	
Project Description	SR 47/Vincent Thomas Bridge & Front St./Harbor Blvd. Interchange Reconfig.	
Project Manager	Sarah Aziz	
Project Risk Manager	Sarah Aziz	
☐No Risk Register Certification Required - - Check box if project is less than $1 million in total cost and risk register not prepared. Sign below and submit this form with PID, PA&ED, PS&E submittal, and RE Handoff File (as applicable)		
Project Manager Signature		Date: 5/14/19
PID (Recommended for Capital Projects Only excluding Minor Projects)		
Project Manager		Date:
Deputy District Director, Planning		Date:
Deputy District Director, Design		Date:
Deputy District Director, Traffic Operations		Date:
Deputy District Director, Maintenance		Date:
Deputy District Director, Project Management		Date:
PA&ED (Required for Capital Projects Only)		
Project Manager		Date: 5/14/19
Deputy District Director, Environmental		Date:
Deputy District Director, Design		Date:
Deputy District Director, Traffic Operations		Date:
Deputy District Director, Maintenance		Date:
Deputy District Director, Project Management		Date:
Prior to PS&E (Required for Capital Projects and Major Maintenance Projects)		
Project Manager		Date:
Deputy District Director, Design		Date:
Deputy District Director, Construction		Date:
Deputy District Director, Right of Way		Date:
Deputy District Director, Environmental		Date:
Deputy District Director, Traffic Operations		Date:
Deputy District Director, Maintenance		Date:
Deputy District Director, Project Management		Date:
RE File Hand-off (Recommended for Capital Projects and Major Maintenance Projects)		
Project Manager		Date:
Deputy District Director, Design		Date:
Deputy District Director, Construction		Date:
Deputy District Director, Traffic Operations		Date:
Deputy District Director, Maintenance		Date:
Deputy District Director, Project Management		Date:

Attachment O

Design Resource Worksheet