STATE OF CALIFORNIA - CALIFORNIA TRANSPORTATION COMMISSION
CTC-0001 (NEW 05/2018)

ROAD REPAIR AND ACCOUNTABILITY ACT OF 2017
PROJECT BASELINE AGREEMENT
Southern California Rail Project

Resolution _____
(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 *Southern California Rail Project*, effective on, _____(will be completed by CTC), is made by and between the California Transportation Commission (Commission), the California Department of Transportation (Caltrans), the Project Applicant, *Los Angeles County Metropolitan Transportation Authority*, and the Implementing Agency, *San Gabriel Valley Council of Governments, City of Los Angeles Harbor Department, City of Long Beach Harbor Department, , Metro*, sometimes collectively referred to as the "Parties".

3. RECITAL

3.2 Whereas at its May 16, 2018 meeting the Commission approved the Trade Corridor Enhancement Program, and included in this program of projects the *Southern California Rail Project*, 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 TCEP-P-1718-01, "Adoption of Program of Projects for the Trade Corridor Enhancement Program", dated May 16, 2018

4.3 All signatories agree to adhere to the Commission's Trade Corridor Enhancement Program, 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 All signatories agree to secure funds for any additional costs of the project.

4.6 All signatories agree 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 All signatories agree 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

None

Attachments:

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

SIGNATURE PAGE
TO
PROJECT BASELINE AGREEMENT
Southern California Rail Project

Resolution _____

Mr. Phillip A. Washington Chief Executive Officer/LA County Metro Project Applicant	Date

SIGNATURE PAGE
TO
PROJECT BASELINE AGREEMENT
Southern California Rail Project

Resolution _____

Mark Christoffels Chief Engineer/San Gabriel Valley Council of Governments SGVCOG Implementing Agency	Date

SIGNATURE PAGE
TO
PROJECT BASELINE AGREEMENT
Southern California Rail Project

Resolution _____

_____ _____

Eugene D. Seroka
Executive Director
City of Los Angeles Harbor Department

Date

SIGNATURE PAGE
TO
PROJECT BASELINE AGREEMENT
Southern California Rail Project

Resolution _____

Mario Cordero Executive Director City of Long Beach Harbor Department	Date

SIGNATURE PAGE
TO
PROJECT BASELINE AGREEMENT
Southern California Rail Project

Resolution _____

Carrie L. Bowen District Director California Department of Transportation	Date

Laurie Berman Director California Department of Transportation	Date

SIGNATURE PAGE
TO
PROJECT BASELINE AGREEMENT
Southern California Rail Project

Resolution _____

Susan Bransen Executive Director California Transportation Commission	Date

Exhibit A

Project Programming Request Forms

STATE OF CALIFORNIA ● DEPARTMENT OF TRANSPORTATION
PROJECT PROGRAMMING REQUEST
DTP-0001 (Revised Feb,20 2018 v7.07) *General Instructions*

Amendment (Existing Project) No					**Date:**	7/3/18
District	**EA**	**Project ID**	**PPNO**	**MPO ID**	**Alt Proj. ID / prg.**	
07	TC006	0018000300	T0006			TCEP

County	**Route/Corridor**	**PM Bk**	**PM Ahd**	**Project Sponsor/Lead Agency**	
LA	POLA Rail			Port of Los Angeles	
				MPO	**Element**
				SCAG	Rail

Project Manager/Contact	**Phone**	**E-mail Address**
Kerry Cartwright	310-732-7702	kcartwright@portla.org

Project Title

Terminal Island Railyard Enhancement Project

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

This project entails the addition of five staging/storage tracks (about 31,000 lineal feet) to the existing Pier 400 railyard, located on Terminal Island, which is also includes a short rail bridge over water. The Pier 400 storage/staging railyard supports on-dock railyards for six terminals in the POLA and POLB.

Component	**Implementing Agency**
PA&ED	POLA
PS&E	POLA
Right of Way	POLA
Construction	POLA

Legislative Districts

Assembly:	70	**Senate:**	35	**Congressional:**	44

Project Benefits

An expanded TI Railyard would provide an increase in on-dock capacity to six terminals in both the POLA and POLB. This capacity/use increase of the Pier 400 on-dock railyard will result in the shifting of these same 525,000 TEU/year from off-dock yards located between 11 and 27 miles away. The project is estimated to reduce 1,520 truck trips, 19,720 truck miles-travelled and 7,980 hours-travelled for all motorists by year 2040. The project is estimated to reduce 8,408 tons/year of of emissions by year 2040.

Purpose and Need

see page 2

Category	**Outputs/Outcomes**	**Unit**	**Total**
Intercity Rail/Mass Trans	Operational improvements	each	1
	Miles of new track	Miles	6
	New bridges	each	1

ADA Improvements No	Bike/Ped Improvements No	Reversible Lane analysis No
Inc. Sustainable Communities Strategy Goals No	Reduces Greenhouse Gas Emissions Yes	

Project Milestone			**Existing**	**Proposed**
Project Study Report Approved			N/A	
Begin Environmental (PA&ED) Phase				07/01/17
Circulate Draft Environmental Document	**Document Type**	ND/FONSI		10/15/18
Draft Project Report				NA
End Environmental Phase (PA&ED Milestone)				11/16/18
Begin Design (PS&E) Phase			07/01/17	
End Design Phase (Ready to List for Advertisement Milestone)				01/02/20
Begin Right of Way Phase				N/A
End Right of Way Phase (Right of Way Certification Milestone)				N/A
Begin Construction Phase (Contract Award Milestone)				06/30/20
End Construction Phase (Construction Contract Acceptance Milestone)				12/31/21
Begin Closeout Phase				01/01/22
End Closeout Phase (Closeout Report)				08/01/22

ADA Notice For individuals with sensory disabilities, this document is available in alternate formats. For information call (916) 654-6410 or TDD (916) 654-3880 or write Records and Forms Management, 1120 N Street, MS-89, Sacramento,

Additional Information

Many intersections, roadways, freeways within the Port, and I 710 Corridor currently operate at unacceptable levels of service. The poor operating conditions are expected to deteriorate within the next 20 years. Given the scarcity of public funds for major roadway improvements, and the lengthy timeframe required for development and implementation, other types of transportation improvements, such as on-dock intermodal railyards, are crucial to ensure the overall economic vitality of the State and the nation. The existing TI Railyard currently serves six on-dock railyards, located in six container terminals in both the POLA/POLB. Currently, on-dock rail capacity at the POLA/POLB is insufficient, forcing cargo to be hauled by truck on highways to railyards outside the ports. At the POLA/POLB, about 33 percent of all containers are loaded onto trains via on-dock and off-dock railyards. Of this 33 percent, about 25 percent is loaded via on-dock railyards

ADA Notice For individuals with sensory disabilities, this document is available in alternate formats. For information call (916) 654-6410 or TDD (916) 654-3880 or write Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814.

STATE OF CALIFORNIA ● DEPARTMENT OF TRANSPORTATION

PROJECT PROGRAMMING REQUEST

DTP-0001 (Revised Feb,20 2018 v7.07)

Date: 7/3/18

District	County	Route	EA	Project ID	PPNO	Alt. ID
07	LA	POLA Rail, ,	TC006	0018000300	T0006	
Project Title:	Terminal Island Railyard Enhancement Project					

Existing Total Project Cost ($1,000s)									
Component	Prior	18/19	19/20	20/21	21/22	22/23	23/24+	Total	**Implementing Agency**
E&P (PA&ED)									POLA
PS&E									POLA
R/W SUP (CT)									POLA
CON SUP (CT)									POLA
R/W									POLA
CON									POLA
TOTAL									
Proposed Total Project Cost ($1,000s)									**Notes**
E&P (PA&ED)		843						843	
PS&E		1,700	549					2,249	
R/W SUP (CT)									
CON SUP (CT)			2,811					2,811	
R/W									
CON			28,112					28,112	
TOTAL		2,543	31,472					34,015	

Fund No. 1:									**Program Code**
Existing Funding ($1,000s)									
Component	Prior	18/19	19/20	20/21	21/22	22/23	23/24+	Total	**Funding Agency**
E&P (PA&ED)									POLA
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL									
Proposed Funding ($1,000s)									**Notes**
E&P (PA&ED)		843						843	
PS&E		1,700	549					2,249	
R/W SUP (CT)									
CON SUP (CT)			2,811					2,811	
R/W									
CON			6,467					6,467	
TOTAL		2,543	9,827					12,370	

Fund No. 2:									**Program Code**
Existing Funding ($1,000s)									
Component	Prior	18/19	19/20	20/21	21/22	22/23	23/24+	Total	**Funding Agency**
E&P (PA&ED)									TCEP
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL									
Proposed Funding ($1,000s)									**Notes**
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON			21,645					21,645	
TOTAL			21,645					21,645	

STATE OF CALIFORNIA ● DEPARTMENT OF TRANSPORTATION

PROJECT PROGRAMMING REQUEST

DTP-0001 (Revised Feb,20 2018 v7.07) *General Instructions*

Amendment (Existing Project) No					**Date:**	7/3/18
District	**EA**	**Project ID**	**PPNO**	**MPO ID**	**Alt Proj. ID / prg.**	
07	TC005	0018000299	T0005			TCEP

County	**Route/Corridor**	**PM Bk**	**PM Ahd**	**Project Sponsor/Lead Agency**	
LA	POLA Rail			Port of Los Angeles	
				MPO	**Element**
				SCAG	Rail

Project Manager/Contact	**Phone**	**E-mail Address**
Kerry Cartwright	310-732-7702	kcartwright@portla.org

Project Title

Alameda Corridor Southern Terminus Gap Closure

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

The proposed project is an extension of the Trapac lead track and San Pedro main line track of approximately 5,000 linear feet and will connect to the Alameda Corridor. Work includes the relocation and/or protection of existing underground utilities and the relocation of power poles, utility meters, and perimeter fencing.

Component	**Implementing Agency**
PA&ED	POLA
PS&E	POLA
Right of Way	POLA
Construction	POLA

Legislative Districts

Assembly:	70	**Senate:**	35	**Congressional:**	44

Project Benefits

The project increases rail capacity as well as temporary storage thereby decreasing the number of truck trips on congested highways. Because the project will provide double tracking for access to two terminals, potential for collisions will be eliminated. The project is estimated to reduce train delays (moving and idling, in aggregate) inside and outside the Port boundries by about 36 train-hours per day under year 2039 conditions. The project is estimated to reduce 1,636 tons/year emissions by year 2039 (also see page 2)

Purpose and Need

This project will provide separate rail access to two adjacent on-dock railyards, thus eliminating the potential for train collisions. The rail control software/hardware will enable efficient and safe operations, reducing the potential for collisions. The project will also improve the efficiency of on-dock rail operations at two terminals, as well as the entire POLA/POLB rail system. Inbound TraPac and WBCT trains can use the gap closure to land/store inbound trains when trains are being loaded or departed in those respective yards. The new double track segment will also reduce moving train blockages at two immediately adjacent rail crossings on roadways, which also reduces the potential for train-vehicular collisions.Outbound TraPac trains need to be pulled out of the yard, and then pushed back onto the single WBCT lead track in order to stay clear of the Henry Ford Ave crossing, thus, also blocking/delaying WBCT trains. The gap closure enables outbound TraPac and WBCT trains to be built/staged without blocking inbound trains.

Category	**Outputs/Outcomes**	**Unit**	**Total**
Intercity Rail/Mass Trans	Operational improvements	each	1
	Miles of new track	Miles	1

ADA Improvements No	Bike/Ped Improvements No	Reversible Lane analysis No
Inc. Sustainable Communities Strategy Goals	No	Reduces Greenhouse Gas Emissions Yes

Project Milestone			**Existing**	**Proposed**
Project Study Report Approved (NA)				NA
Begin Environmental (PA&ED) Phase			07/01/17	
Circulate Draft Environmental Document	**Document Type**	CE/CE		N/A
Draft Project Report				N/A
End Environmental Phase (PA&ED Milestone) ***Note: CEQA completed***				11/16/18
Begin Design (PS&E) Phase			01/22/16	
End Design Phase (Ready to List for Advertisement Milestone)				08/01/19
Begin Right of Way Phase				NA
End Right of Way Phase (Right of Way Certification Milestone)				NA
Begin Construction Phase (Contract Award Milestone)				01/01/20
End Construction Phase (Construction Contract Acceptance Milestone)				02/28/21
Begin Closeout Phase				03/01/21
End Closeout Phase (Closeout Report)				08/01/22

ADA Notice For individuals with sensory disabilities, this document is available in alternate formats. For information call (916) 654-6410 or TDD (916) 654-3880 or write Records and Forms Management, 1120 N Street, MS-89, Sacramento,

Additional Information

These delays reductions will also have the following safety benefits not monetized in the benefit-cost analysis (BCA):

• Because the project will provide double tracking for access to two terminals, potential for collisions will be eliminated

• Because overall system delay will be reduced, the potential for human error in train dispatching due to attempts to decease headways should be diminished

• Because of reduced hours of operation, the potential for human error in all train operations possibly attributable to crew fatigue should be diminished

• The new double track segment will also reduce moving train blockages at two immediately adjacent rail crossings on roadways, which also reduces the potential for train-vehicular and train-pedestrian collisions

ADA Notice For individuals with sensory disabilities, this document is available in alternate formats. For information call (916) 654-6410 or TDD (916) 654-3880 or write Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814.

STATE OF CALIFORNIA ● DEPARTMENT OF TRANSPORTATION

PROJECT PROGRAMMING REQUEST

DTP-0001 (Revised Feb,20 2018 v7.07)

Date: 7/3/18

District	County	Route	EA	Project ID	PPNO	Alt. ID
07	LA	POLA Rail, ,	TC005	0018000299	T0005	
Project Title:	Alameda Corridor Southern Terminus Gap Closure					

Existing Total Project Cost ($1,000s)									
Component	Prior	18/19	19/20	20/21	21/22	22/23	23/24+	Total	**Implementing Agency**
E&P (PA&ED)									POLA
PS&E									POLA
R/W SUP (CT)									POLA
CON SUP (CT)									POLA
R/W									POLA
CON									POLA
TOTAL									
Proposed Total Project Cost ($1,000s)									**Notes**
E&P (PA&ED)									
PS&E	500	460	9					969	
R/W SUP (CT)									
CON SUP (CT)			1,113					1,113	
R/W									
CON			7,447					7,447	
TOTAL	500	460	8,569					9,529	

Fund No. 1:	**POLA**								**Program Code**
Existing Funding ($1,000s)									
Component	Prior	18/19	19/20	20/21	21/22	22/23	23/24+	Total	**Funding Agency**
E&P (PA&ED)									POLA
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL									
Proposed Funding ($1,000s)									**Notes**
E&P (PA&ED)									
PS&E	500	460	9					969	
R/W SUP (CT)									
CON SUP (CT)			1,113					1,113	
R/W									
CON			1,455					1,455	
TOTAL	500	460	2,577					3,537	

Fund No. 2:	**Proposed Funding (TCEP)**								**Program Code**
Existing Funding ($1,000s)									
Component	Prior	18/19	19/20	20/21	21/22	22/23	23/24+	Total	**Funding Agency**
E&P (PA&ED)									TCEP
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL									
Proposed Funding ($1,000s)									**Notes**
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON			5,992					5,992	
TOTAL			5,992					5,992	

Exhibit B

Project Reports

PROJECT STUDY REPORT EQUIVALENT (PSRE)

THE PORT OF LOS ANGELES

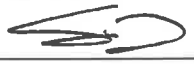
TERMINAL ISLAND RAILYARD ENHANCEMENT PROJECT

Approved by the City of Los Angeles Harbor Department:

July 3, 2018

Goods Movement Director *DATE*

This Project Study Report Equivalent has been prepared under the direction of the following staff authorized by the sponsoring agency to sign for the work. The person signing below attests to and certifies the technical information contained herein and the engineering data upon which the recommendations, conclusions, and decisions are based.



authorized staff

July 3, 2018
DATE

C59048
If applicable California PE Stamp and Lic #

Table of Contents

INTRODUCTION

The **TERMINAL ISLAND RAILYARD ENHANCEMENT PROJECT** is located on Terminal Island in the Port of Los Angeles (POLA). The existing TI Railyard currently serves six on-dock railyards, located in six container terminals in both the POLA/Port of Long Beach (POLB). Figures 1 thru 3 illustrate the movement of goods from both ports as it relates to the national, regional, and subregional intermodal transportation system.

Figure1 - Project National Context

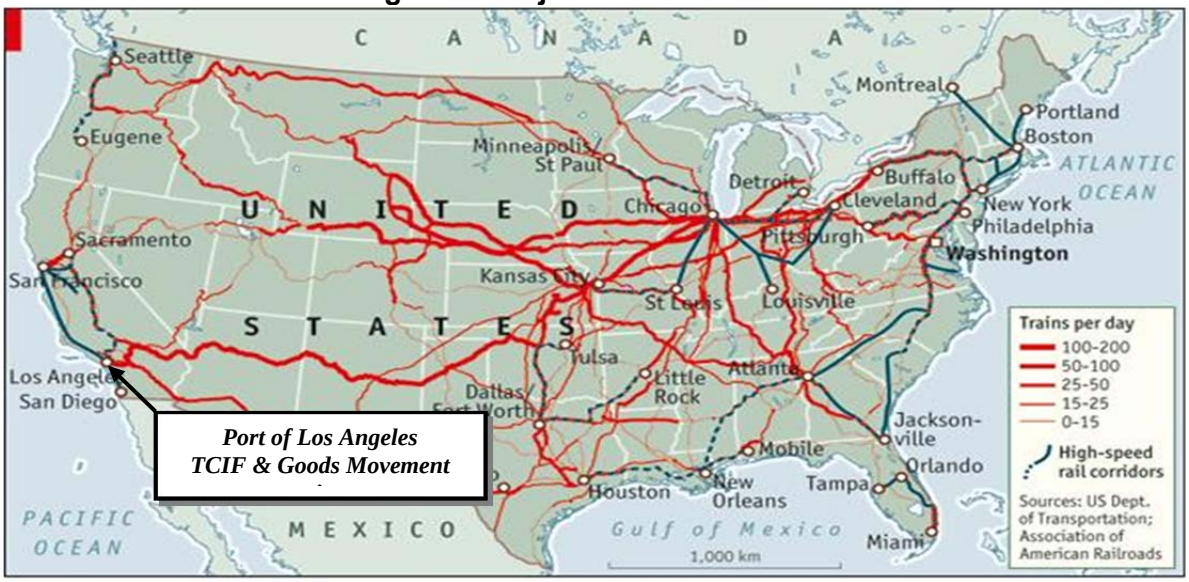


Figure 2 - Project Regional Context

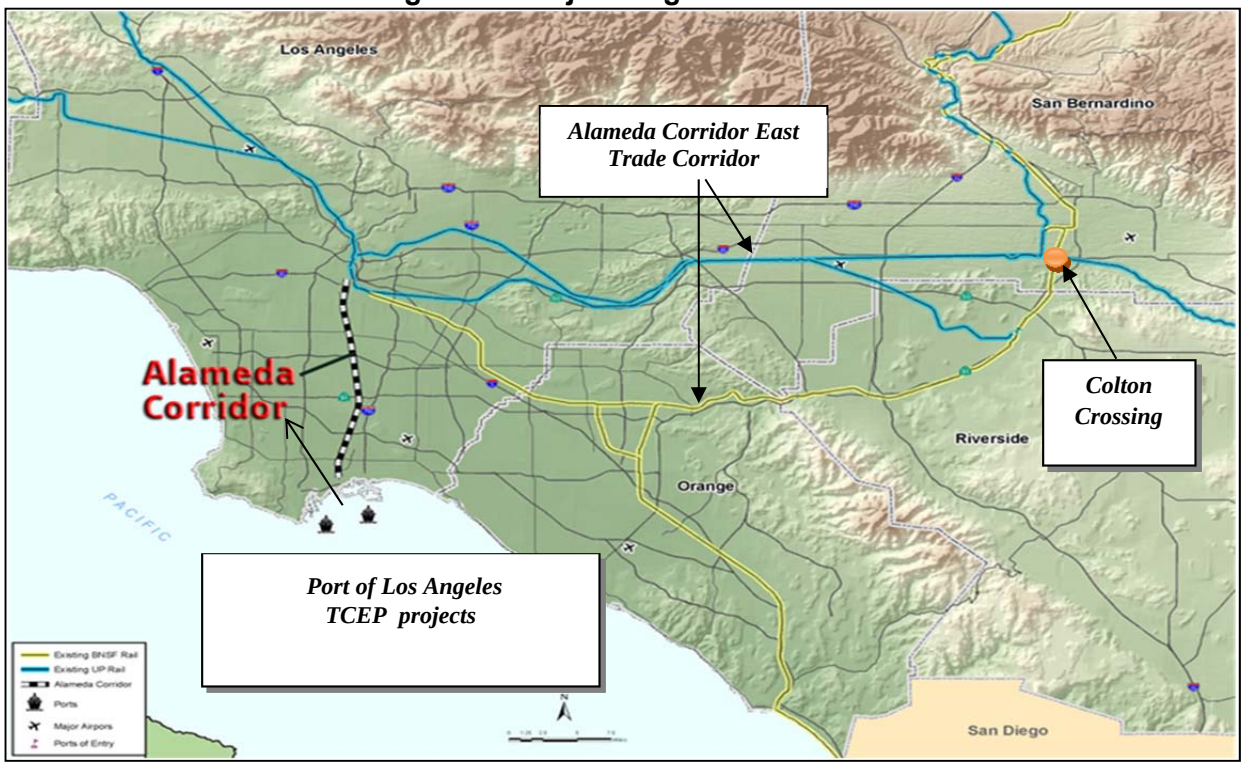
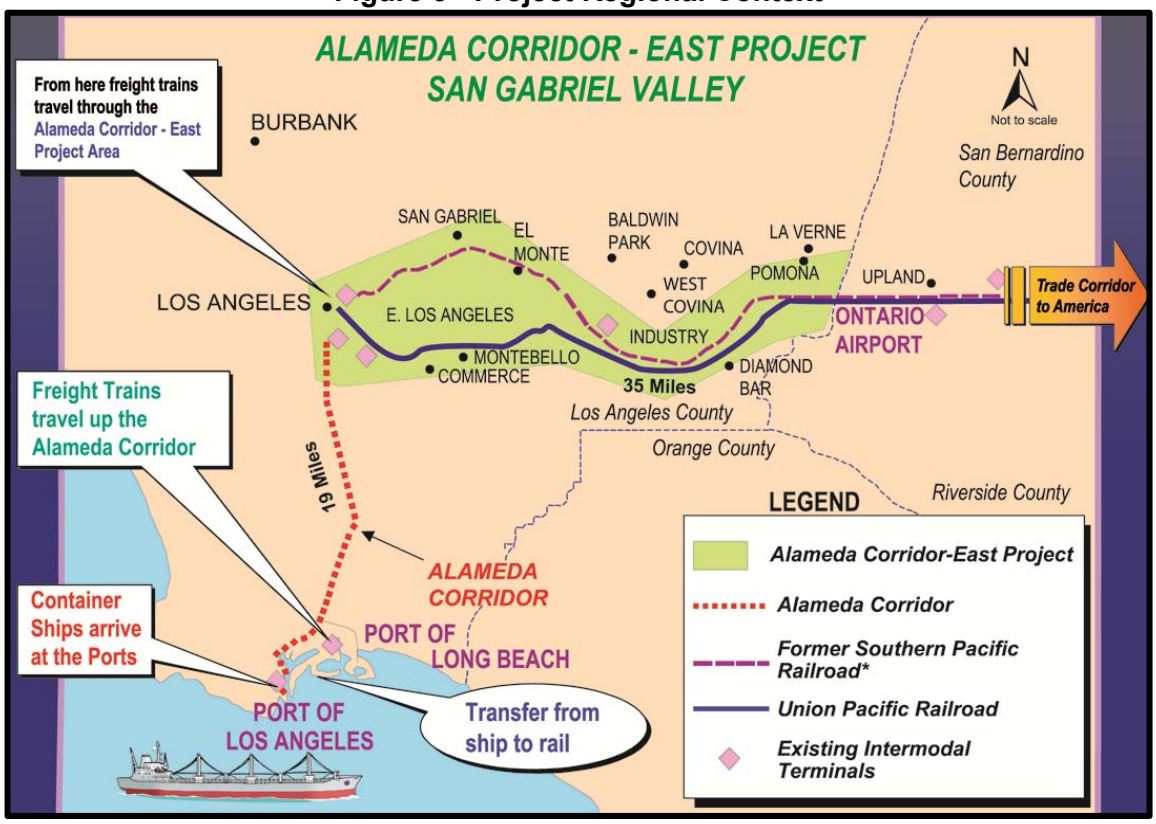


Figure 3 - Project Regional Context



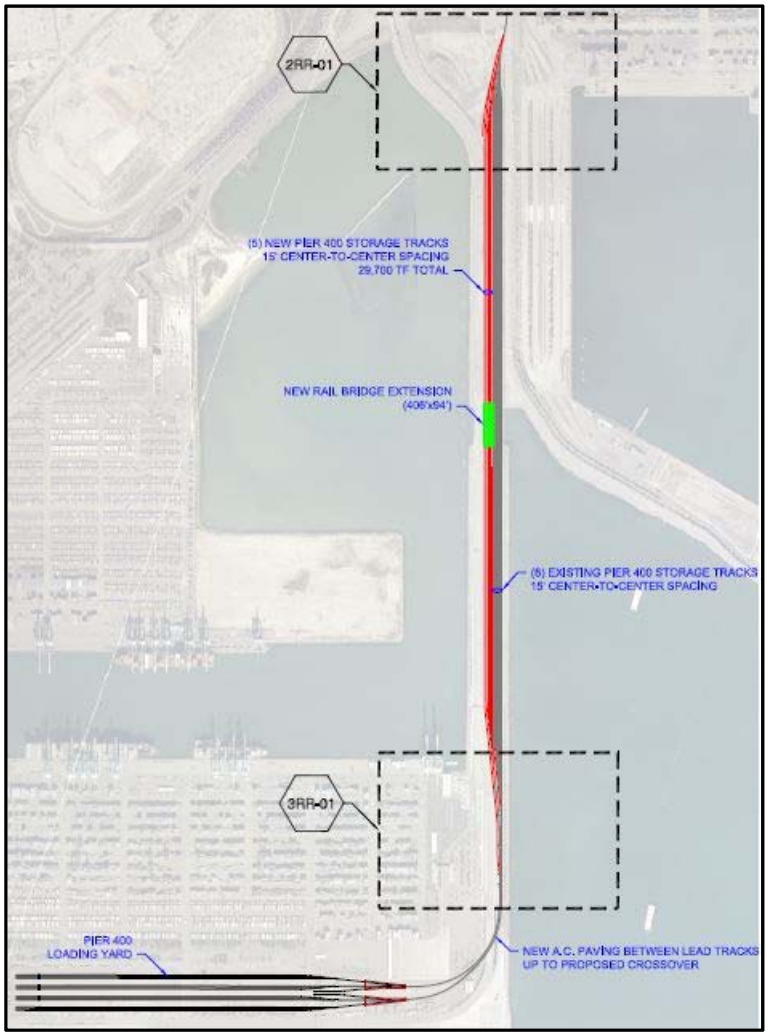
Terminal Island (TI) Railyard Enhancement

Figures 4 and 5 show the project location in the local context. This project (Figure 6) entails the addition of five staging/storage tracks (about 31,000 lineal feet) to the existing Pier 400 railyard, located on Terminal Island. The project also includes a new rail bridge over water, access roadway, rail turnouts, and modification to the existing air compressor system. The existing Pier 400 storage/staging railyard supports on-dock railyards for six terminals in the POLA and POLB. This project will increase its capacity and commensurate use of these on-dock railyards by up to 525,000 Twenty Foot Equivalent Units (TEU) annually, which represents about a ten percent increase in capacity for the POLA as a whole. These on-dock railyards moved close to **5 percent of all waterborne containers entering/exiting the entire United States in the year 2016.** This project component functions as a critical link between the POLA/POLB and the Alameda Corridor, which itself carries about 11 percent of all waterborne containers entering/exiting the entire United States.

Figure 4 - Project Local Setting-A

Figure 5 – Terminal Island Railyard Enhancement Site Location

Figure 6 – Terminal Island Railyard Enhancement Conceptual Drawing



TRANSPOTATION CHALLENGES/PROJECT NEED

TRANSPORTATION

For a number of economic, environmental, and efficiency reasons, the San Pedro Bay Ports have committed to a goal of maximizing on-dock rail use. On-dock rail enables cargo containers to be moved to/from vessels and trains, within the confines of the port terminals, thus minimizing truck trips inside the terminals, and outside on the State Highway System and NHFN-PHFS. The POLA/POLB handled 16.9 million twenty-foot equivalent units (TEUs) in 2017. By 2035, the POLA/POLB is projected to handle over 35 million TEUs, which will further strain the nation's most important freight transportation network.

Terminal Island Railyard Enhancement

The existing TI Railyard currently serves six on-dock railyards, located in six container terminals in both the POLA/POLB. Currently, on-dock rail capacity at the POLA/POLB is insufficient, forcing cargo to be hauled by truck on highways to railyards outside the ports. At the POLA/POLB, about 33 percent of all containers are loaded onto trains via on-dock and off-dock railyards. Of this 33 percent, about 25 percent is loaded via on-dock railyards.

As documented in the recently released "I-710 Corridor Project Recirculated Draft Environmental Impact Report/Supplemental Draft Environmental Impact Statement (State of California, July 2017; http://www.dot.ca.gov/d7/env-docs/docs/710corr-eir/) and numerous POLA documents (https://www.portoflosangeles.org/environment/public_notices.asp), many intersections, roadways, freeways within the Port, and I-710 Corridor currently operate at unacceptable levels of service. The poor operating conditions are expected to deteriorate within the next 20 years. Given the scarcity of public funds for major roadway improvements, and the lengthy timeframe required for development and implementation, other types of transportation improvements, such as on-dock intermodal railyards, are crucial to ensure the overall economic vitality of the State and the nation.

Project Parties, Operations & Maintenance

The POLA owns the rail infrastructure planned to be modified with these projects and will be the sole sponsoring/implementing agency. These facilities are entirely within the legal boundaries of the POLA, and thus no approvals from any other entity (including the railroads) to construct these projects are needed (the Ports of Los Angeles is an official departments of the City of Los Angeles). The State of California, SCAG, METRO, POLB, ACECA, BNSF Railway, UPRR, and PHL are all endorsing agencies/entities. The BNSF, UP, and PHL will all have operating rights on the new track. These operating rights are defined by existing operating agreements with all three rail providers, which will be amended to include the new rail infrastructure. Additionally, the POLA contracts directly with the PHL to operate on all trackage in the POLA. The PHL in turn contracts with non-container customers, the BNSF, and UP for switching services with and adjacent to the POLA. The PHL will be responsible for all maintenance of this new track as required in their contract with POLA.

PROJECT BENEFITS

Throughput/Velocity/Congestion Reduction

Based upon detailed capacity modeling and intermodal analysis, the expanded TI Railyard would provide an increase in on-dock capacity and commensurate use of 525,275 TEU/year. The capacity modeling also entailed use of the "Rail Traffic Controller" (RTC) simulation model, a model utilized universally by Class I railroads, ports, and commuter passenger rail agencies throughout North America. To yield conservative results, the increase in capacity due to the additional staging/storage tracks was attributed to only one terminal, the directly adjacent Pier 400/APMT terminal. However, these tracks will serve six terminals in both the POLA and POLB. This capacity/use increase of the Pier 400 on-dock railyard will result in the shifting of these same 525,275 TEU/year from off-dock yards located between 11 and 27 miles away. Using comprehensive port-specific truck trip generation and travel demand models (see Appendix 1 for more details), this shifting of containers will reduce truck trips, truck-miles traveled, which in turn increase speed and thus reduces travel time for all other motorists, as shown on the following table.

Table 1 - Daily Mobility Benefits (Trip, Miles-Traveled, and Hours-Traveled Reductions)

TI Railyard Enhancement Daily Reductions Truck Trips, Truck Miles-Traveled & Hours-Traveled (for all motorists)			
Year	Trips	Miles	Hours
2021	-560	-7,220	-350
2040	-1,520	-19,720	-7,980

The reduction in truck trips on adjacent roadways/freeways will result in improved safety, reliability, and reduced wear on the State Highway System and NHFN-PHFS routes. The TI Railyard project will also improve the movement of trains on Terminal Island, thus reducing train delays (operating hours), but has not been quantified.

Environmental Sustainability/Emission Reduction

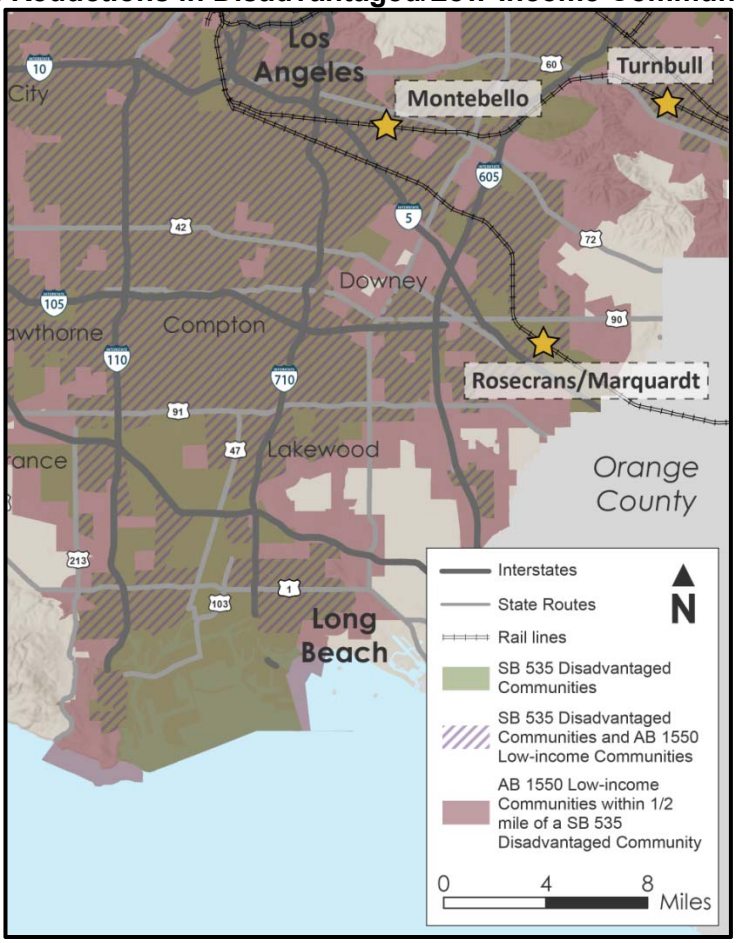
The POLA is located in the South Coast Air Basin (SCAB), an extreme nonattainment area. This basin has some of the worst air quality in the nation, which represents a serious health concern for its residents. Currently, the SCAB is designated by the U.S. Environmental Protection Agency as being in nonattainment of the National Ambient Air Quality Standards for ozone and for particulate matter less than 2.5 microns ($PM_{2.5}$). Additionally, the project is located in one of the most "disadvantaged" communities in the entire State and nation. Studies show that tens of thousands of people living in communities around the ports face an increased risk of cancer, asthma, birth defects, and decreased lung function. These communities are also heavily populated by immigrants, minorities, and economically disadvantaged people.

As shown in Table 6 and Figure 13, the project will reduce emissions in numerous State designated "Disadvantaged" and "Low Income Communities around the POLA/POLB and throughout the South Bay and Gateway Cities subregions, including but not limited to San Pedro, Wilmington, Long Beach, Carson, and all cities abutting the I-710 and I-110. These two POLA rail projects are key strategies of the POLA/POLB 2017 CAAP. The CAAP involved extensive community/public outreach over two years, with the involvement of CARB, SCAQMD, and EPA.

Table 2 - Annual Emission Reductions (tons) - Terminal Island Railyard Enhancement

	CO	CO_2	NO_X	PM_{10}	SO_X	VOC	$PM_{2.5}$
2021	**-**	**2,608.9**	**7.3**	**0.2**	**0.03**	**0.03**	**0.01**
2040	**10.1**	**8,375.9**	**21.7**	**0.8**	**0.06**	**0.08**	**0.20**

Figure 6 - Emission Reductions in Disadvantaged/Low-Income Communities



Economic/Jobs Growth

In the year 2015, a total volume of 598.3 million tons of freight valued at $1.7 trillion moved throughout Southern California across the various modes of transportation, a daily average of 1.6 million tons. The POLA/POLB is the largest port complex in the western hemisphere, moving 16.9 million TEUs in 2017. About 40 percent of our country's imports and about 25 percent of exports move through the POLA/POLB. About $312 billion worth of goods move in these containers. Nationwide, these container volumes generate 2.7 million jobs (see Figure 14 below). Along with the Alameda Corridor Southern Terminus Gap Closure (other TCEP funded project), this project can accommodate approximately **6 percent of all waterborne containers entering/exiting the entire United States.** The APMT facility, which is served by the TI Railyard Enhancement, just alone is the largest container terminal in all of the Americas. The construction of the POLA projects will create an estimated 540 direct/indirect/induced jobs (one year per full-time equivalent) in Disadvantaged and Low Income Communities.

This project improves the velocity and reliability of cargo transportation for shippers, which in turn reduces the costs of goods by reducing transportation and inventory carrying costs. These truck trip reductions lessen congestion on freeways/roads in the region, which also improves velocity and reliability of domestic and regionally consumed international goods. For exporters in

particular, lower transport costs will improve the competitiveness of U.S. products in world markets. Moreover, reductions in logistics costs have been found in numerous studies to generate significant increases in industrial output, improvements in industry productivity, and reductions in production costs. Such increases in industrial output and productivity lead to both increased hiring of workers as well as higher worker wages. These trip reductions will also improve mobility for commuters (workers).

Without the POLA/POLB Rail Project elements, about $129 billion per annum in trade is disrupted due to the train delays throughout the POLA/POLB, and the inability to accommodate 2 million additional TEU via on-dock railyards. The containerized imports moving through the POLA/POLB system include not only final consumer goods, but also intermediate goods that go into products manufactured in the United States. This rail project expands and improves the POLA/POLB rail infrastructure, which is critical to accommodating intermodal containers that could otherwise divert to other ports outside of the United States. Failure to implement improvements in the United States rail network will make routes through the Canadian Pacific Northwest and through Mexico's west coast more attractive for international intermodal traffic.

This project also improves the operations of the POLA's short-line railroad, which operates a classification yard located directly east of these tracks. This classification yard facilitates the movement from train to vessels of such key exports as automobiles (the yard directly serves an automobile terminal that exported 22,600 autos in 2016); waste paper products that are ultimately used to manufacture imports and their packaging materials; scrap metal that is ultimately used to manufacture imports; transportation equipment; chemicals and plastics; grains, fabrics including raw cotton; and animal feeds.

SCHEDULE, COST ESTIMATE, AND FUNDING

The tables below show the estimated schedule, cost estimate, and funding plans for the project.

Table 3 – Project Schedule

Task	Start	Finish
Environmental	07/01/2017	11/16/2018
Plans, Specifications, and Estimates	07/01/2017	01/01/2020
Advertise, Bid, and Award	01/02/2020	06/30/2020
Construction	07/01/2020	12/31/2021

Table 4 – Project Cost Estimate/Funding

	FY 18	FY 19	FY 20	FY 21	FY 22	Total
Costs (CY18; millions)						
PA/ED and PS&E	$2.257	$.835	-	-	-	$3.092
Construction	-	-	$5.155	$20.613	$5.155	$30.923
Totals	**$2.257**	**$.835**	**$5.155**	**$20.613**	**$5.155**	**$34.015**
Funding Sources (millions)						
TCEP Request (70%Construction)	-	-	**$3.609**	**$14.429**	**$3.609**	***$21.646***
POLA	$2.257	$.835	$1.547	$6.184	$1.547	$12.369
Totals	**$2.257**	**$.835**	**$5.155**	**$20.613**	**$5.155**	**$34.015**

PROGRAMMING DATA

Programming data can be found in Exhibit B of Transmittal 1.

ALTERNATIVES

Refer to the Project Benefits section for information on the project as a build option.

The tables and section below summarize the quantification of the various evaluation criterion, and the resulting benefit-cost results of the proposed project.

Table 5. Benefits/Costs – Terminal Island Railyard Enhancement

$ CY16 millions)			
Need	**Project Effect/Remedy**	**Benefit**	**4% Discount**
Roadway congestion/delay: impedes cargo movement & all roadway motorists On-dock capacity to reduce delay of cargo movement	Additional rail track: increases on-dock use/decreases off-dock use; reduces truck trips/miles-traveled & delay for all other motorists (vehicle hours-traveled), and level of service on Primary Highway Freight System	Freight System: • Reduces roadway O&M costs (private logistics costs and transit time are reduced but not quantified in BCR) • Reduces fossil fuel consumption for trains & vehicles	$58.595
		Transportation System • Improves safety/reduces accident potential – Delay/accident reduction eliminates recurrent/non-recurrent bottlenecks • VHT reductions	$326.570
		Community Impact • Noise/emission reductions	$15.433
		PV Benefits	$400.598
		PV Costs (accounts for residual value of infrastructure)	$26.673
		Net Present Value	$373.925
		Benefits/Costs	**15.0**

Safety

The TI Railyard Enhancement will reduce truck-miles traveled, which thus will reduce the potential for accidents, which when trucks are involved, often result in injuries and fatalities. The estimated accident reduction benefit for both projects are summarized above. The anticipated reduced vehicular delay on roadways attributable to these truck trip reductions will also decrease the potential for accidents. However, this latter accident potential reduction has not been monetized in the BCA

The project reduce operations & maintenance costs, as they reduce operating hours of trains and trucks on the transportation system. Consequently, they extend the useful life of the asset. Additionally, by lessening the pavement and rail track wear, they could potentially lessen the potential for accidents. These potential secondary safety benefits have not been included in the benefit-cost calculations.

SYSTEM PLANNING

Interregional Benefits

The project will have a significant and measurable impact on both inter-regional and national transportation system efficiency and reliability, allowing the West Coast to continue to serve as the primary gateway for national and international trade, as the most attractive, resilient, and competitive option. Continued investment in California's premier corridor is necessary to continue to support the ancillary investments made regionally through warehousing, transloading, and distribution centers. The improvements will improve efficiency for the movements of freight and people. Increasing capacity and reducing travel times on both systems will provide more choices for freight shippers and commuters. If shippers have more options for moving goods, competition increases between modes, and long-term costs will be reduced, creating a more efficient operating environment for both trucking and rail.

PROJECT STUDY REPORT EQUIVALENT (PSRE)

THE PORT OF LOS ANGELES

ALAMEDA CORRIDOR SOUTHERN TERMINUS GAP CLOSURE

PSRE
ALAMEDA CORRIDOR SOUTHERN TERMINUS GAP CLOSURE

Approved by the Port of Los Angeles:

July 3, 2018

Agency Chief Executive (i.e. Mayor, City Manager, CEO, CAO, PW Dir, City Eng., Gen. Mgr., or equivalent)

DATE

This Project Study Report Equivalent has been prepared under the direction of the following staff authorized by the sponsoring agency to sign for the work. The person signing below attests to and certifies the technical information contained herein and the engineering data upon which the recommendations, conclusions, and decisions are based.

July 3, 2018

C 63774

Authorized Staff

DATE

If applicable California PE Stamp and Lic #

Table of Contents

INTRODUCTION

The **ALAMEDA CORRIDOR SOUTHERN TERMINUS GAP CLOSURE** is located in the Port of Los Angeles (POLA). The project will provide separate rail access to two adjacent on-dock railyards, thus improving the efficiency of on-dock rail operations at two terminals, as well as the entire POLA/Port of Long Beach (POLB) rail system. Figures 1-3 illustrate the movement of goods from both POLA and Port of Long Beach, as they relate to the national, regional, and sub regional intermodal transportation system.

Figure 1 - Project National Context

Figure 2 - Project Regional Context

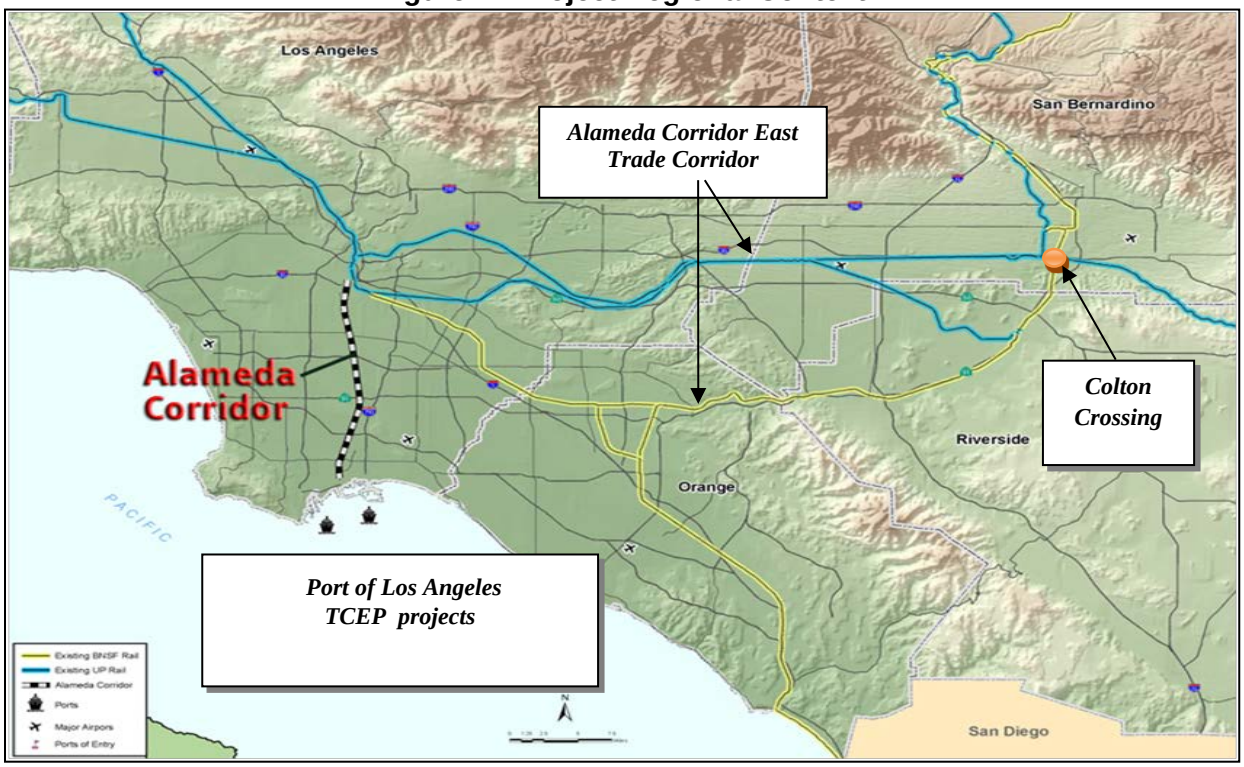
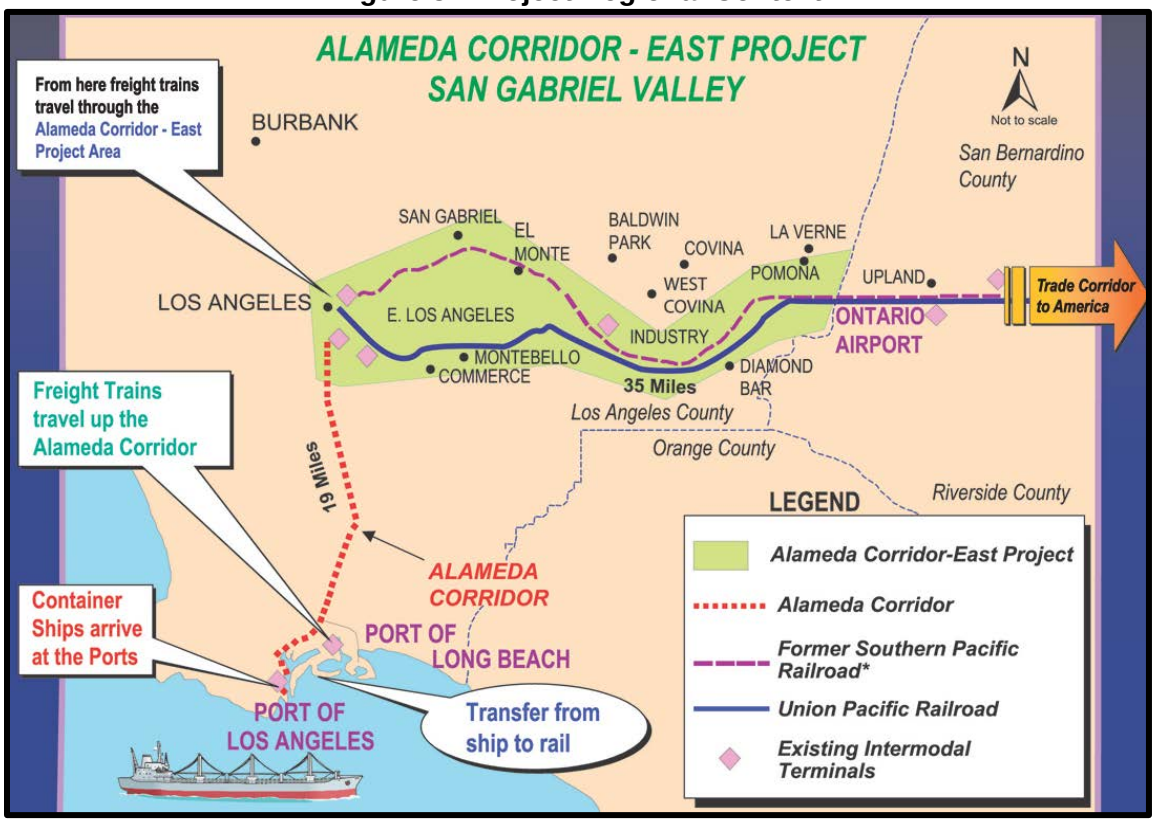


Figure 3 - Project Regional Context



Alameda Corridor Southern Terminus Gap Closure

Figures 4-6 shows the project location in the local context. This project entails construction of 5,000 feet of mainline track and crossovers in the POLA, which eliminates a short gap of single track serving the TraPac and West Basin Container Terminal (WBCT) on-dock railyards. The project also includes automated train control hardware and software. The construction work will also entail: grading, paving, drainage, utility relocation/modifications, striping, relocation of an existing fence, and third-party utility modifications, relocations or removals, as needed. The project is at the 80% design level. The second track provides simultaneous and unimpeded movements to/from both of these on-dock railyards and the Alameda Corridor, thus eliminating the potential for train collisions. The new double track segment will also reduce train blockages at two adjacent rail crossings on roadways, which also reduces the potential for train-vehicular collisions. Two Class I railroads, the BNSF and UPRR, and one short-line railroad, Pacific Harbor line (PHL), use these tracks. Based upon detailed micro-simulation, this project is estimated to reduce train delays (moving and idling, in aggregate) inside and outside the POLA/POLB by about 21 and 36 train-hours per day1, under year 2020 and 2039 conditions, respectively. This delay reduction will also further reduce the potential for train collisions.

Figure 4 – Alameda Corridor Southern Terminus Gap Closure Site Location-A

Figure 5 – Alameda Corridor Southern Terminus Gap Closure Site Location-B

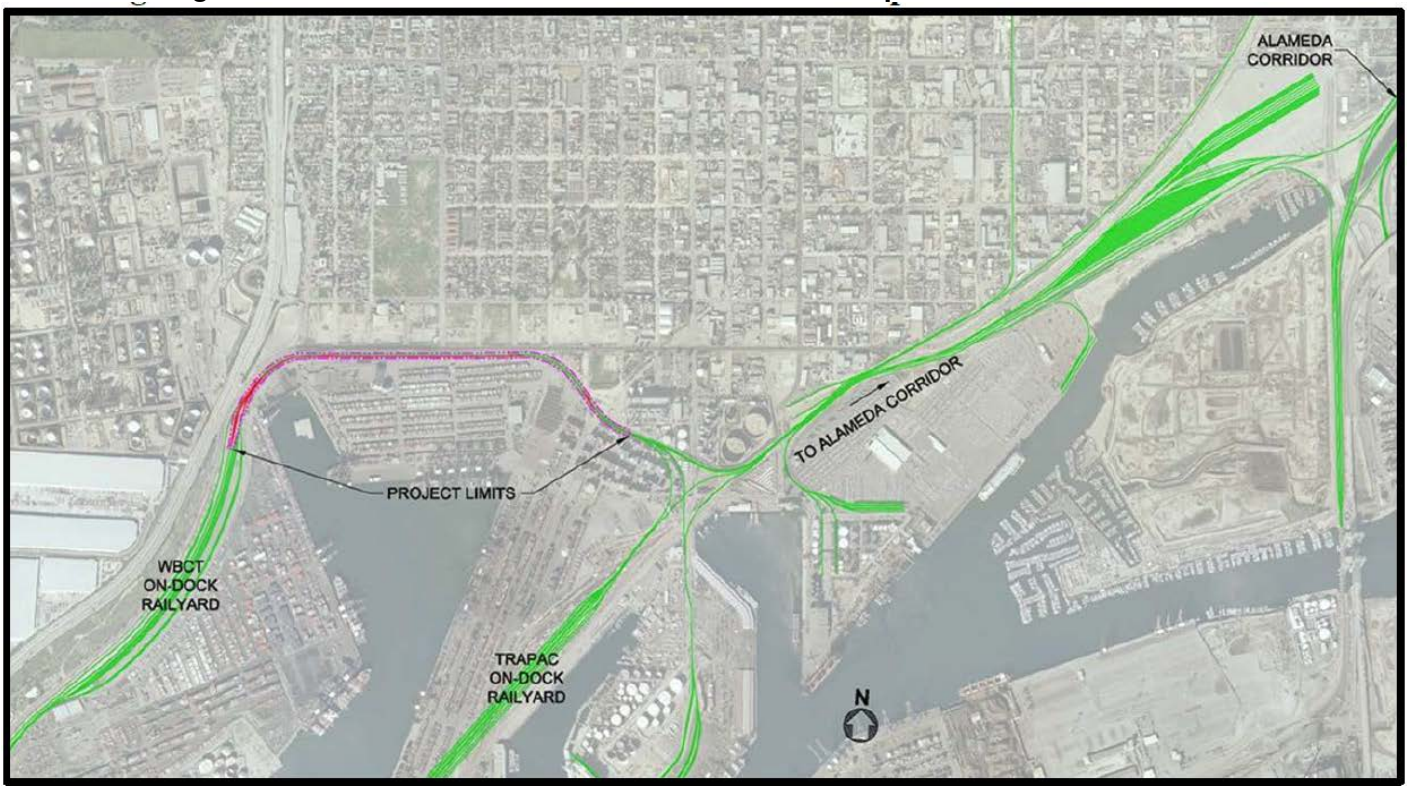
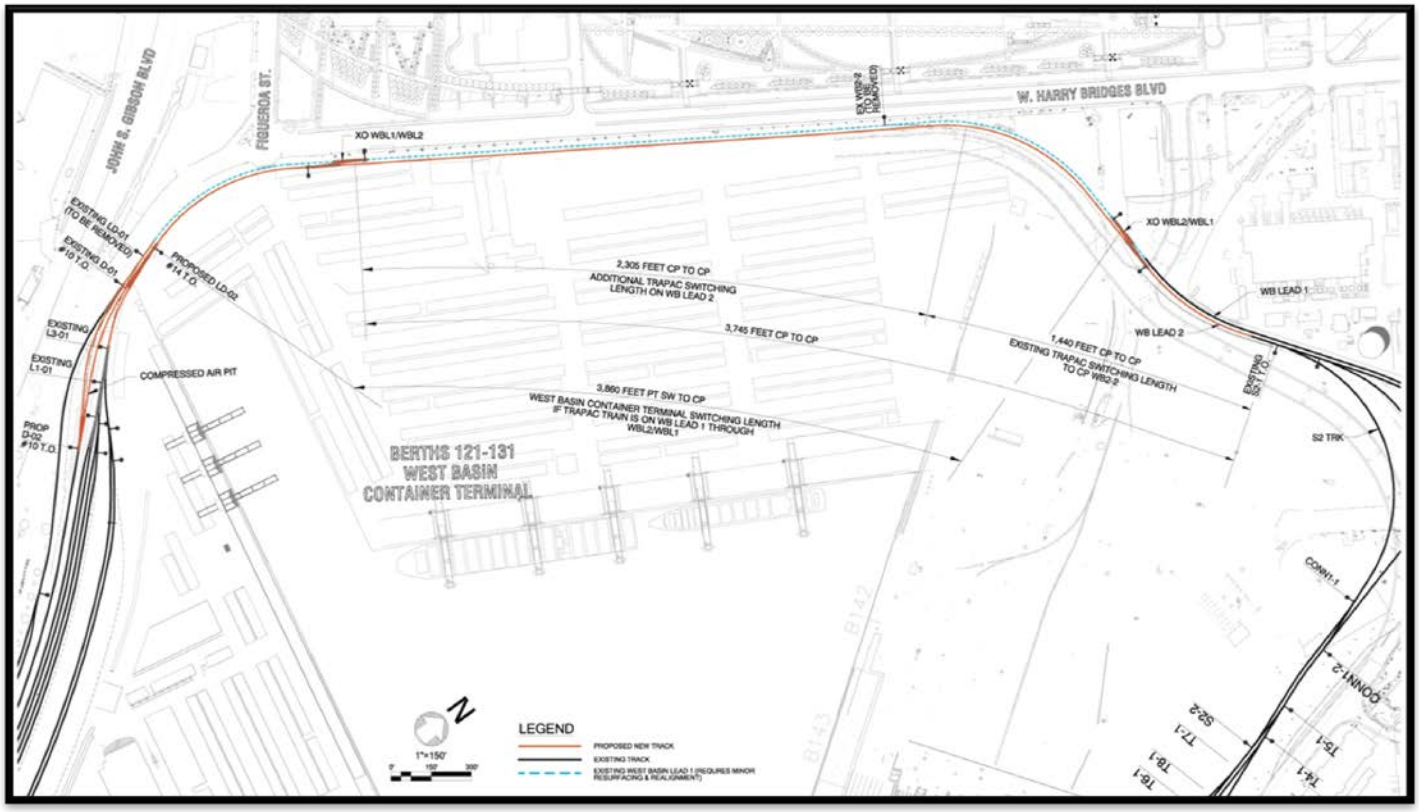


Figure 6 – Alameda Corridor Southern Terminus Gap Closure Site Plan



This Gap Closure project has been developed in conjunction with, and to complement numerous directly adjacent transportation, emission reduction, and community enhancement/access projects in the Wilmington Community, which is State designated Disadvantaged and Low Income Community. The following briefly lists these related projects that involved extensive community input over many years:

- Wilmington Waterfront Park (completed 2011). This is a 30-acre park/open space area located across the street from these mainline tracks. The park includes a 6-acre flat open lawn, event plazas, gathering areas, water features, children's play areas, walkways, and trails. The southern edge of the park is elevated along Harry Bridges Boulevard, with a landscaped slope extending north towards C Street, to provide a buffer for noise, air quality, and visual impacts from Port operations. The park was planned through collaboration numerous community organizations.

- South Wilmington Grade Separation (completed 2015). The South Wilmington Grade Separation was completed in 2015 and provides vehicular access over the two mainline tracks associated with this TIGER grant project. This roadway, which is grade separated with these mainline tracks, connects the community of Wilmington with the Wilmington Waterfront.

- TraPac Automated Terminal (completed March 2017). The TraPac terminal is the first one in North America to operate an automated (and electrified) container terminal and on-dock intermodal yard. This project almost entirely eliminates all terminal equipment emissions; the remaining emissions are those attributable to the automated straddle carriers, which are diesel powered. Hence, the quality of life is improved for workers and area residents.

- Avalon Promenade and Gateway project (in design, to be completed in 2021). The Avalon Promenade and Gateway Project involves the construction of a pedestrian bridge along Avalon Boulevard to provide pedestrian access to the future Wilmington Waterfront Promenade over the existing tracks and planned Alameda Corridor Gap Closure track. Construction is expected to begin in 2019 at a total project cost of $14.9 million.

TRANSPORTATION CHALLENGES/ PROJECT NEED

For a number of economic, environmental, and efficiency reasons, the San Pedro Bay Ports have committed to a goal of maximizing on-dock rail use. On-dock rail enables cargo containers to be moved to/from vessels and trains, within the confines of the port terminals, thus minimizing truck trips inside the terminals, and outside on the State Highway System and NHFN-PHFS. The POLA/POLB handled 16.9 million twenty-foot equivalent units (TEUs) in 2017. By 2035, the POLA/POLB is projected to handle over 35 million TEUs, which will further strain the nation's most important freight transportation network.

Alameda Corridor Southern Terminus Gap Closure

This project will provide separate rail access to two adjacent on-dock railyards, thus improving the efficiency of on-dock rail operations at two terminals, as well as the entire POLA/POLB rail system. This project will also eliminate the potential for train collisions. The rail control software/hardware will enable efficient and safe operations, reducing the potential for collisions. The following briefing describes the need and benefit of this gap elimination's operations:

- The TraPac terminal on-dock railyard is the first fully automated on-dock railyard in North America, with operations commencing in June 2016. The TraPac terminal on-dock railyard has stub-end tracks. This requires all inbound trains from the Alameda Corridor to be turned around first, to enable the front-end locomotives to push the train into the TraPac on-dock railyard. Inbound TraPac trains can only turn around via the LAXT loop on Terminal Island (which requires the train to move across the Badger Avenue Bridge twice, and then be pushed into the yard, or by pulling trains past the adjacent wye (triangular rail junction) west of Fries Avenue onto the single existing lead track for the WBCT on-dock railyard. The LAXT loop movement causes unacceptable rail system wide delay. Therefore, the only viable route for inbound trains is via the single WBCT lead track, which inevitably blocks/delays WBCT trains. *Inbound TraPac and WBCT trains can use the gap closure to land/store inbound trains when trains are being loaded or departed in those respective yards. The new double track segment will also reduce moving train blockages at two immediately adjacent rail crossings on roadways, which also reduces the potential for train-vehicular collisions.*

- Outbound TraPac trains need to be pulled out of the yard, and then pushed back onto the single WBCT lead track in order to stay clear of the Henry Ford Ave crossing, thus, also blocking/delaying WBCT trains. The gap closure enables outbound TraPac and WBCT trains to be built/staged without blocking inbound trains.

Table 1 below summarizes the volume of cargo served by the AC Gap Closure.

Table 1. Container and Train Volumes

	POLA-POLB		WBCT		TraPac	
Year	On-Dock Trains/day	On-Dock TEU/Year	On-Dock Trains/day	On-Dock TEU/Year	On-Dock Trains/Day	On-Dock TEU/Year
2021	48	5,078,000	4	469,800	3	326,000
2040	85	9,145,000	8	912,000	5	480,000

It should be emphasized that this project not only reduces delay for specific terminals, but because of the manner in which trains are moved by the railroads, this project reduces delays throughout the entire rail system in and outside the POLA/POLB, including on the 20-mile Alameda Corridor. The Port has conducted a detailed rail simulation using the RTC model to quantify the benefits of eliminating the track gap. This project is estimated to reduce cumulative train delays (moving and idling, in aggregate) inside and outside the POLA/POLB as shown in Table 2 below.

Table 2. Rail Delay Reductions - Alameda Corridor Southern Terminus Gap Closure

Year	System Delay (Hours/Day) Without Project	System Delay (Hours/Day) With Project	Delay Reduction
2020	70	49	21
2039	120	84	36

These delays reductions will also have the following safety benefits not monetized in the benefit-cost analysis (BCA):

- Because the project will provide double tracking for access to two terminals, potential for collisions will be eliminated

- Because overall system delay will be reduced, the potential for human error in train dispatching due to attempts to decease headways should be diminished
- Because of reduced hours of operation, the potential for human error in all train operations possibly attributable to crew fatigue should be diminished
- The new double track segment will also reduce moving train blockages at two immediately adjacent rail crossings on roadways, which also reduces the potential for train-vehicular and train-pedestrian collisions

PROJECT BENEFITS

Throughout/Velocity/Reliability

The AC Gap Closure project will improve rail throughout, rail cargo velocity, and reliability by providing separate rail access to two adjacent on-dock railyards, thus improving the efficiency of on-dock rail operations at two terminals, as well as the entire POLA/POLB rail system. This project is estimated to reduce train delays (moving and idling, in aggregate) inside and outside the POLA/POLB by about 21 and 36 train-hours per day[1], under year 2020 and 2039 conditions, respectively, as shown previously in Table 2.

Environmental Sustainability/ Emission Reduction

The POLA is located in the South Coast Air Basin (SCAB), an extreme nonattainment area. This basin has some of the worst air quality in the nation, which represents a serious health concern for its residents. Currently, the SCAB is designated by the U.S. Environmental Protection Agency as being in nonattainment of the National Ambient Air Quality Standards for ozone and for particulate matter less than 2.5 microns ($PM_{2.5}$). Additionally, the project is located in one of the most "disadvantaged" communities in the entire State and nation. Studies show that tens of thousands of people living in communities around the ports face an increased risk of cancer, asthma, birth defects, and decreased lung function. These communities are also heavily populated by immigrants, minorities, and economically disadvantaged people.

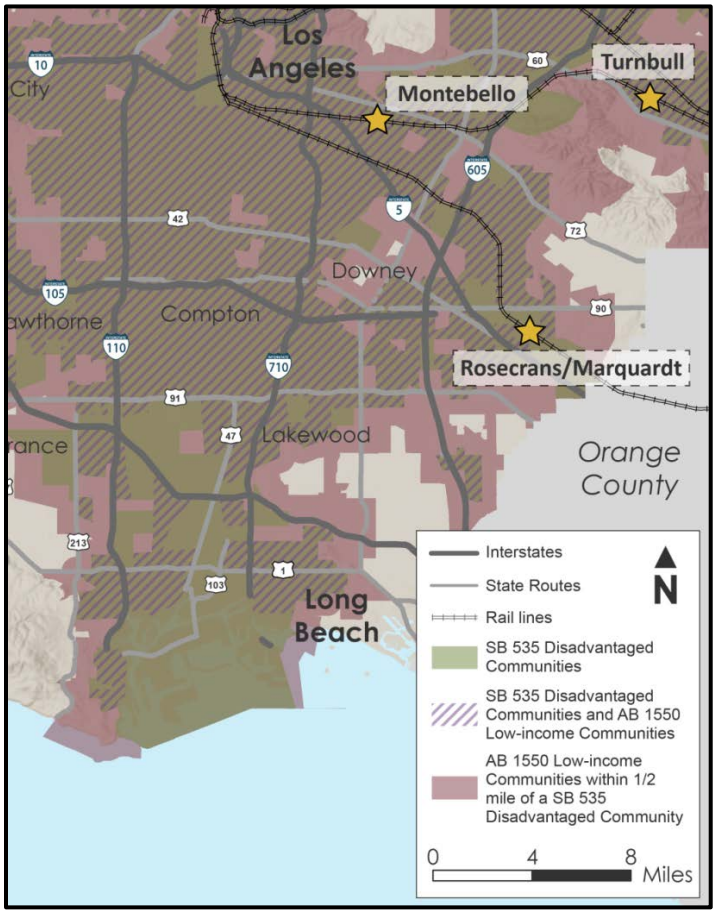
As shown in Table 3 and Figure 7, the AC Gap Closure project will reduce emissions in numerous State designated "Disadvantaged" and "Low Income Communities around the POLA/POLB and throughout the South Bay and Gateway Cities sub regions, including but not limited to San Pedro, Wilmington, Long Beach, Carson, and all cities abutting the I-710 and I-110. This POLA rail project is one of the key strategies of the POLA/POLB 2017 CAAP. The CAAP involved extensive community/public outreach over two years, with the involvement of CARB, SCAQMD, and EPA.

Table 3. Annual Emissions Reductions (tons) - AC Southern Terminus Gap Closure

	CO	CO_2	NO_X	PM_{10}	SO_X	VOC	$PM_{2.5}$
2020	**1.4**	**992.6**	**11.2**	**0.3**	**0.01**	**0.7**	**0.2**
2039	**1.8**	**1,628.4**	**5.6**	**0.2**	**0.02**	**0.3**	**0.1**

[1] One train delayed **one** hour = one train-hour of delay.

Figure 7. Emission Reductions in Disadvantaged/Low-Income Communities



The table below summarizes the project benefits.

Benefits	Eligibility
▪ Highway and freight capacity improvements (POLA project reduces truck trips, and thus creates capacity for other vehicles),	✓
▪ Freight rail system improvements (POLA project efficiency on on-dock operations)	✓
▪ Truck corridor improvements (POLA project reduces truck trips along key corridors including I-710, I-110, and SR 47)	✓
▪ Port capacity and efficiency projects (POLA project's automation provides faster movement of cargo).	✓
▪ State Goods Movement Action Plan Technology Element (both projects): – Faster turnaround times for calling vessels – Shorter dwell times for containers and cargo – Optimal use of port resources such as yard space and cranes – Safe handling of cargo (particularly hazardous cargo) – Enhanced facilities and services for users – Effective management of large volumes of information – Improved ability to mitigate public health and environmental impacts in adjacent communities – Improved energy efficiency of goods movement	✓

Economic/ Jobs Growth

In the year 2015, a total volume of 598.3 million tons of freight valued at $1.7 trillion moved throughout Southern California across the various modes of transportation, a daily average of 1.6 million tons. The POLA/POLB is the largest port complex in the western hemisphere, moving 16.9 million TEUs in 2017. About 40 percent of our country's imports and about 25 percent of exports move through the POLA/POLB. About $312 billion worth of goods move in these containers. Nationwide, these container volumes generate 2.7 million jobs (see Figure 14 below). Along with the Terminal Island Railyard Enhancement (other TCEP funded project), this project can accommodate approximately **6 percent of all waterborne containers entering/exiting the entire United States.**

This project improves the velocity and reliability of cargo transportation for shippers, which in turn reduces the costs of goods by reducing transportation and inventory carrying costs. These truck trip reductions lessen congestion on freeways/roads in the region, which also improves velocity and reliability of domestic and regionally consumed international goods. For exporters in particular, lower transport costs will improve the competitiveness of U.S. products in world markets. Moreover, reductions in logistics costs have been found in numerous studies to generate significant increases in industrial output, improvements in industry productivity, and reductions in production costs. Such increases in industrial output and productivity lead to both increased

hiring of workers as well as higher worker wages. These trip reductions will also improve mobility for commuters (workers).

Without the POLA/POLB Rail Project elements, about $129 billion per annum in trade is disrupted due to the train delays throughout the POLA/POLB, and the inability to accommodate 2 million additional TEU via on-dock railyards. The containerized imports moving through the POLA/POLB system include not only final consumer goods, but also intermediate goods that go into products manufactured in the United States. This rail project expands and improves the POLA/POLB rail infrastructure, which is critical to accommodating intermodal containers that could otherwise divert to other ports outside of the United States. Failure to implement improvements in the United States rail network will make routes through the Canadian Pacific Northwest and through Mexico's west coast more attractive for international intermodal traffic.

This project also improves the operations of the POLA's short-line railroad, which operates a classification yard located directly east of these tracks. This classification yard facilitates the movement from train to vessels of such key exports as automobiles (the yard directly serves an automobile terminal that exported 22,600 autos in 2016); waste paper products that are ultimately used to manufacture imports and their packaging materials; scrap metal that is ultimately used to manufacture imports; transportation equipment; chemicals and plastics; grains, fabrics including raw cotton; and animal feeds.

- Net new construction jobs (one year/full-time equivalent) in an "Economically Distressed Area" with 13% unemployment: 750 direct & indirect combined

- Net new permanent jobs (by the year 2026; full-time equivalent): 2,250 direct & indirect combined

SCHEDULE/COST ESTIMATE/FUNDING

The tables and exhibits below show the estimated schedule, cost estimate, and funding plans for the project.

Table 4- Project Schedule

Task	Start	Finish
1. Environmental	01/22/2016	11/16/2018
2. Plans, Specification, & Estimates	01/22/2016	04/30/2019
3. Construction Bid and Award	08/01/2019	01/31/2020
4. Construction	02/01/2020	01/31/2021

Table 5- Project Cost Estimate/ Funding

	FY 2015	FY 2016	FY 17	FY 18	FY 19	Total
PA/ED and PS&E	$0.160	$0.310	$0.030	$0.469	–	$0.969
Construction		–	–	–	$8.560	$8.560
Totals	**$0.160**	**$0.310**	**$0.030**	**$0.469**	**$8.560**	**$9.529**
Funding Sources (millions)						

TCEP Request (70% Construction)		–	–	–	$ 5.992	$ 5.992
POLA	$ 0.160	$ 0.310	$ 0.030	$ 0.469	$ 2.568	$ 3.537
Totals	**$ 0.160**	**$ 0.310**	**$ 0.030**	**$ 0.469**	**$ 8.560**	**$ 9.529**

PROGRAMMING DATA

See Exhibit B of Baseline Agreement for the Project Programming Request (PPR)

ALTERNATIVES

Refer to the Project Benefits Section for information on the Alameda Corridor Southern Terminus Gap Closure as a Build Option.

SYSTEM PLANNING

Interregional Benefits

The project will have a significant and measurable impact on both inter-regional and national transportation system efficiency and reliability, allowing the West Coast to continue to serve as the primary gateway for national and international trade, as the most attractive, resilient, and competitive option. Continued investment in California's premier corridor is necessary to continue to support the ancillary investments made regionally through warehousing, transloading, and distribution centers. The improvements will improve efficiency for the movements of freight and people. Increasing capacity and reducing travel times on both systems will provide more choices for freight shippers and commuters. If shippers have more options for moving goods, competition increases between modes, and long-term costs will be reduced, creating a more efficient operating environment for both trucking and rail.