

ROAD REPAIR AND ACCOUNTABILITY ACT OF 2017
PROJECT BASELINE AGREEMENT

Port of Stockton Rail Bridge Replacement and Rail Improvements

Resolution TCEP-P-2122-02B

(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 *Port of Stockton Rail Bridge Replacement and Rail Improvements*, effective on, January 2022 (will be completed by CTC), is made by and between the California Transportation Commission (Commission), the California Department of Transportation (Caltrans), the Project Applicant, *Port of Stockton*, and the Implementing Agency, *Port of Stockton*, sometimes collectively referred to as the "Parties".

3. RECITAL

- 3.2 Whereas at its December 2, 2020 meeting the Commission approved the Trade Corridor Enhancement Program, and included in this program of projects the *Port of Stockton Rail Bridge Replacement and Rail Improvements*, 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 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 The Port of Stockton agrees to secure funds for any additional costs of the project.
- 4.6 The Port of Stockton 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 Port of Stockton 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) attached to 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

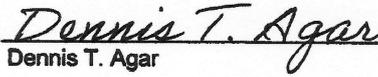
Exhibit B: Project Report

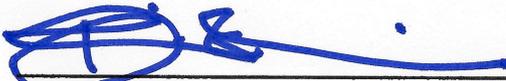
SIGNATURE PAGE
TO
PROJECT BASELINE AGREEMENT

Port of Stockton Rail Bridge Replacement and Rail Improvement
Resolution TCEP-P-2122-02B


Richard Aschieris 3/25/2021
Date
Port Director, Port of Stockton
Project Applicant


Richard Aschieris 3/25/2021
Date
Port Director, Port of Stockton
Implementing Agency


Dennis T. Agar 10/28/21
Date
District Director
California Department of Transportation


Toks Omishakin 2.25.22
Date
Director
California Department of Transportation


Mitchell Weiss 4/28/22
Date
Executive Director
California Transportation Commission

Amendment (Existing Project) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO					Date	01/12/2022 11:49:31	
Programs <input type="checkbox"/> LPP-C <input type="checkbox"/> LPP-F <input type="checkbox"/> SCCP <input type="checkbox"/> TCEP <input type="checkbox"/> STIP <input checked="" type="checkbox"/> Other							
District	EA	Project ID	PPNO	Nominating Agency			
10			T0018	San Joaquin Council of Governments			
County	Route	PM Back	PM Ahead	Co-Nominating Agency			
San Joaquin	VAR			Port of Stockton			
				MPO	Element		
				SJCOG	Rail		
Project Manager/Contact			Phone	Email Address			
Juan G. Villanueva			209-946-0246	jvillanueva@stocktonport.com			

Project Title

Port of Stockton Rail Bridge & Rail Improvements

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

Track rehabilitation, operational and capacity improvements between the Port's West Complex and the BNSF Stockton Subdivision, City of Stockton, San Joaquin County. Track rehabilitation includes upgrading to 136# rail to accommodate heavier trains. Double track lead to minimize delays and accommodate Port future growth. Replacement of existing 1930 swing truss single track bridge with a new fixed span single track bridge to address seismic deficiencies, safety concerns (fire), remove obstacles to larger and heavier loads.

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

Legislative Districts

Assembly:	26	Senate:	5	Congressional:	9,10
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Project Milestone	Existing	Proposed
Project Study Report Approved		
Begin Environmental (PA&ED) Phase		07/27/2020
Circulate Draft Environmental Document Document Type ND/MND		04/30/2021
Draft Project Report		09/30/2021
End Environmental Phase (PA&ED Milestone)		09/30/2021
Begin Design (PS&E) Phase		03/01/2022
End Design Phase (Ready to List for Advertisement Milestone)		11/30/2023
Begin Right of Way Phase		07/01/2023
End Right of Way Phase (Right of Way Certification Milestone)		05/28/2024
Begin Construction Phase (Contract Award Milestone)		06/01/2024
End Construction Phase (Construction Contract Acceptance Milestone)		06/01/2027
Begin Closeout Phase		09/01/2027
End Closeout Phase (Closeout Report)		06/30/2028

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Purpose and Need

Current bridge and track is insufficient to meet future Port rail demands. Bridge structural and functional deficiency, and current Port rail, limits size and type of commodities the Port can accept. Bridge replacement is needed to provide a more reliable and safer crossing for the Port's only rail access to the West Complex.

NHS Improvements YES NO Roadway Class NA Reversible Lane Analysis YES NO
Inc. Sustainable Communities Strategy Goals YES NO Reduce Greenhouse Gas Emissions YES NO

Project Outputs

Category	Outputs	Unit	Total
Rail/ Multi-Modal	Grade separations/ rail crossing improvemnets	EA	1

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Additional Information

Safety - Property damage costs assume fire prevention and bridge maintenance.
Throughput - Additional container traffic assumed on average daily basis.

Additional categories include bridge/tunnel and Operational Improvements.

CHANGE IN FUNDING:

1. ROW is being removed from Cycle 2. Preliminary ROW support engineering and activities beginning in April 2022, but TCEP Cycle 3 acquisitions will occur with TCEP Cycle 3 award for approval. Relying on ROW in TCEP Cycle 3 to begin construction.
2. Added costs were discovered during the ENV process and in communications with UPRR on type of bridge allowed per UP standards. Project construction costs have been updated from previous submittals to account for unit price updates / increases and for design clarifications made to conform to UPRR standards.

Performance Indicators and Measures						
Measure	Required For	Indicator/Measure	Unit	Build	Future No Build	Change
Throughput	TCEP	Change in Rail Volume That Can Be Accommodated	# of Trailers	0	0	0
			# of Containers	110	30	80
Safety	Optional	Number of Property Damage Only and Non-Serious Injury Collisions	Number	0	2,700	-2,700
Economic Development	LPPF, LPPC, SCCP, TCEP	Jobs Created (Direct and Indirect)	Number	12	0	12
Cost Effectiveness	LPPF, LPPC, SCCP, TCEP	Cost Benefit Ratio	Ratio	4.1	0	4.1

District	County	Route	EA	Project ID	PPNO
10	San Joaquin	VAR			T0018

Project Title
 Port of Stockton Rail Bridge & Rail Improvements

Existing Total Project Cost (\$1,000s)									Implementing Agency
Component	Prior	20-21	21-22	22-23	23-24	24-25	25-26+	Total	
E&P (PA&ED)									Port of Stockton
PS&E									Port of Stockton
R/W SUP (CT)									Port of Stockton
CON SUP (CT)									Port of Stockton
R/W									Port of Stockton
CON									Port of Stockton
TOTAL									

Proposed Total Project Cost (\$1,000s)									Notes
Component	Prior	20-21	21-22	22-23	23-24	24-25	25-26+	Total	
E&P (PA&ED)									
PS&E			6,333					6,333	
R/W SUP (CT)									
CON SUP (CT)									
R/W					1,300			1,300	
CON					61,437			61,437	
TOTAL			6,333		62,737			69,070	

Fund #1:	State SB1 TCEP - Trade Corridors Enhancement Account (Committed)								Program Code
Existing Funding (\$1,000s)									Funding Agency
Component	Prior	20-21	21-22	22-23	23-24	24-25	25-26+	Total	
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
Component	Prior	20-21	21-22	22-23	23-24	24-25	25-26+	Total	
E&P (PA&ED)									
PS&E			4,433					4,433	
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL			4,433					4,433	

Fund #2:	Future Need - Future Funds (Uncommitted)								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)									
E&P (PA&ED)									Cycle 3 TCEP for ROW and Construction
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W					910			910	
CON					43,006			43,006	
TOTAL					43,916			43,916	
Proposed Funding (\$1,000s)									
E&P (PA&ED)									Port local funds for ROW and Construction
PS&E			1,900					1,900	
R/W SUP (CT)									
CON SUP (CT)									
R/W					390			390	
CON					18,431			18,431	
TOTAL			1,900		18,821			20,721	

Fund #3:	Local Funds - Port local funds (Uncommitted)								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 Stockton
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL									
Proposed Funding (\$1,000s)									
E&P (PA&ED)									Port local funds for ROW and Construction
PS&E			1,900					1,900	
R/W SUP (CT)									
CON SUP (CT)									
R/W					390			390	
CON					18,431			18,431	
TOTAL			1,900		18,821			20,721	



PROJECT REPORT EQUIVALENT

To

Request Programming
for Design and Right-of-Way Funds

In the **2020 Trade Corridor
Enhancement Program**

On: Port of Stockton, BNSF Stockton Subdivision (MP 1122.24)

Between: Port of Stockton Lead Track in BNSF Mainline

And: Port of Stockton West Complex Yard between Fyffe St. &
McCloy Ave.

Vicinity Map



September 2021

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

Ryan J. Bateman

REGISTERED CIVIL ENGINEER (Structures)

DATE

Jon Marshall

REGISTERED CIVIL ENGINEER (Track)

DATE



TABLE OF CONTENTS

1. Introduction.....	1
2. Project Background.....	2
Port of Stockton’s Existing Rail Network.....	2
Current Rail System Constraints.....	3
3. Need and Purpose	4
Proposed Project Elements	5
Project Construction.....	5
Rail Bridge.....	5
Lead Track Improvements	6
Port Yard Improvements.....	7
4. Alternatives.....	11
Proposed Project Operations.....	11
5. Right of Way preliminary impacts.....	12
6. Community Involvement	12
7. Environmental Determination.....	13
8. Funding.....	13
9. Schedule.....	14

TABLES

Table 1. Project Summary.....	1
Table 2. Port Rail System with and without the Proposed Project	11
Table 3. Project Funding.....	13
Table 4. Project Milestone Schedule.....	14

FIGURES

Figure 1. Project Limits	2
Figure 2. Port Rail Connectivity	3
Figure 3. Bridge Plan and Elevation.....	8
Figure 4. Double Track Long Lead East Complex Layout.....	9
Figure 5: McCloy Classification Yard in West Complex Layout.....	10

ATTACHMENTS

- A. PRELIMINARY PLANS
- B. PRELIMINARY COST ESTIMATES
- C. CEQA ENVIRONMENTAL CHECKLIST
- D. RIGHT OF WAY PRELIMINARY IMPACTS

1. INTRODUCTION

The Port of Stockton (Port) is proposing to improve its rail system through the Rail Bridge Replacement and Rail Improvements Project (proposed project). Table 1 summarizes the proposed project’s components (see Attachment A for project plans).

See the preliminary cost estimate in Attachment B for specific work items included in this project.

Table 1. Project Summary

Component	Description
Project limits	BNSF Stockton Subdivision (MP 1122.24) to Port Lead MP 3.92
Number of alternatives	2 (including No Build)
Capital outlay support for plans, specifications, and estimates (PS&E)	\$6,333,000
Capital construction cost	\$61,437,278
Right of way cost	\$1,300,000
Funding source	Senate Bill 1 Trade Corridor Enhancement Program (TCEP), Port local funds
Type of facility	Rail
Number of structures	3
Anticipated environmental determination or document	Mitigated Negative Declaration (under California Environmental Quality Act, CEQA)

^a The project’s construction components are preliminary estimates and are not suitable for programming purposes.

Under the proposed project, the Port is proposing to replace a functionally obsolete rail bridge and increase the overall efficiency of train operations within the Port to accommodate current and future rail volumes. Work would occur largely within the Port’s rail system and includes replacing an existing rail bridge with a new expanded rail bridge, constructing a new lead track and associated modifications to road under- and overpasses, and constructing a new rail classification yard in the Port’s West Complex.

The proposed project would occur in the Port, in Stockton, California, and includes elements on both the Port’s East Complex and West Complex. The Port’s 600-acre East Complex is bounded by the San Joaquin River on the north and west, the Ort J. Lofthus Freeway (CA-4) on the east, and State Route (SR) 4 on the south. The Port’s 1,400-acre West Complex is bounded by the San Joaquin River on the north and east and Burns Cutoff on the south and west (Figure 1).

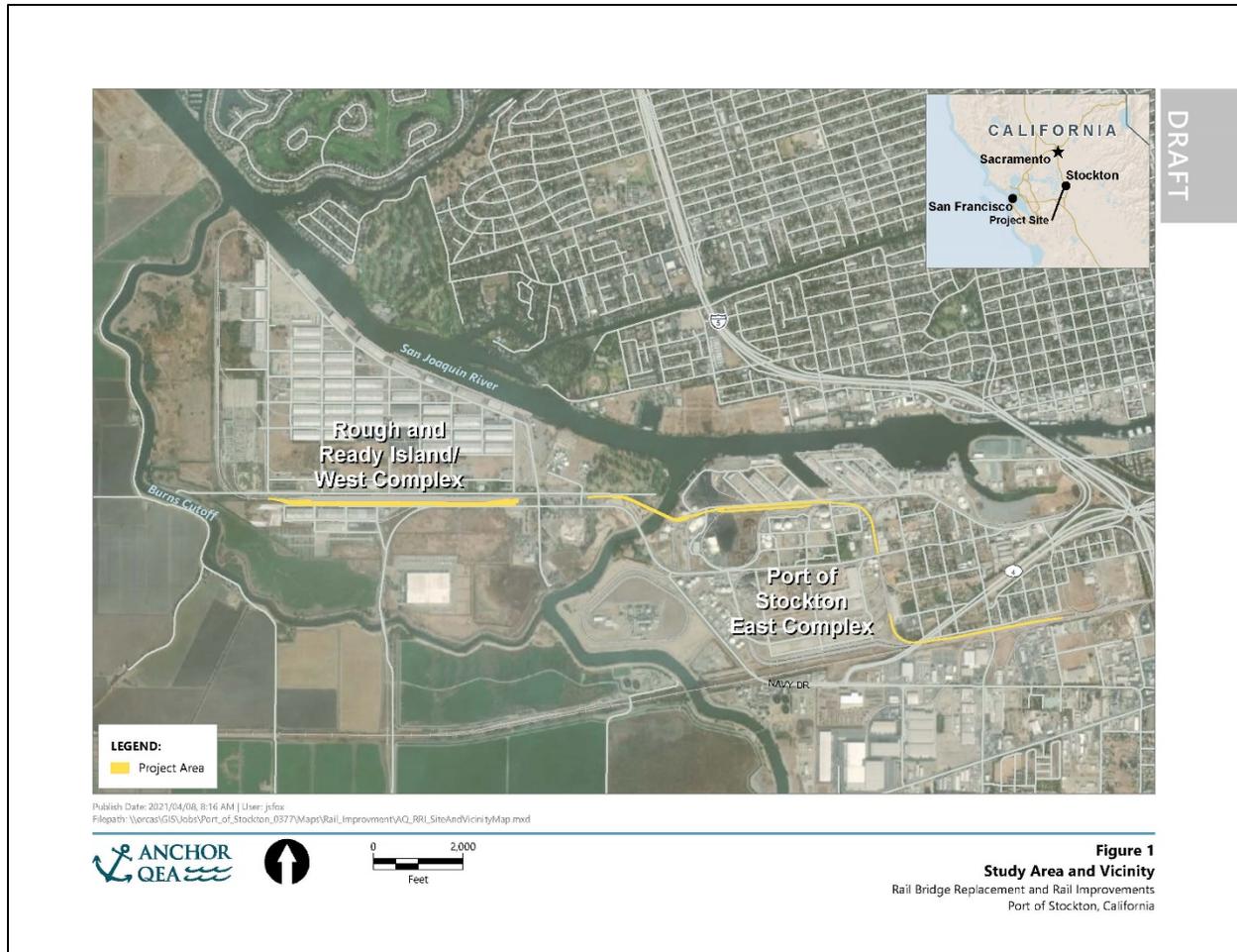


Figure 1
Study Area and Vicinity
 Rail Bridge Replacement and Rail Improvements
 Port of Stockton, California

Figure 1. Project Limits

2. PROJECT BACKGROUND

Port of Stockton’s Existing Rail Network

California’s freight railroad system consists of Class I railroads (BNSF and Union Pacific Railroad [UP]), which transport freight to and from the state over state lines, and Class III railroads, referred to as “short line” railroads, which provide local rail movements. Freight rail is shipped both by manifest and as part of unit trains. Manifest trains are made up of mixed railcars from multiple sources; these railcars are coupled together with other railcars and moved to various regional railyards where they are then assembled into blocks for common destinations. Unit trains have one type of cargo and are sent directly from origin to destination. The Port is served by UP and BNSF, with the Central California Traction Company (CCTC) serving as the short line railroad and switcher at the Port. CCTC manages all rail operations within the Port, including delivering rail cars and/or switching rail cars for the Port’s tenants and customers and managing the schedule for inbound and outbound trains. CCTC uses classification yards (or areas of track used to separate railroad cars) to sort and switch trains.

Inbound trains enter the Port on the Port’s lead track near the terminus of CA-4, between West Scotts Avenue and Navy Drive, and the Port’s internal rail system connects multiple terminals in the East and West Complexes. The lead track is the track that separates from the BNSF mainline and allows Port-bound trains to branch off and enter the Port. Trains then enter the Port and travel either directly to the terminal (in the case of unit trains) or to a classification yard for sorting of manifest rail to be delivered to the terminals. The Port serves both unit trains and manifest rail, with switching occurring at multiple locations within the Port. Trains bound for the West Complex must travel over the existing rail bridge spanning the San Joaquin River. Figure 2 shows the CCTC rail network at the Port, and its connections to the UP and BNSF lines.

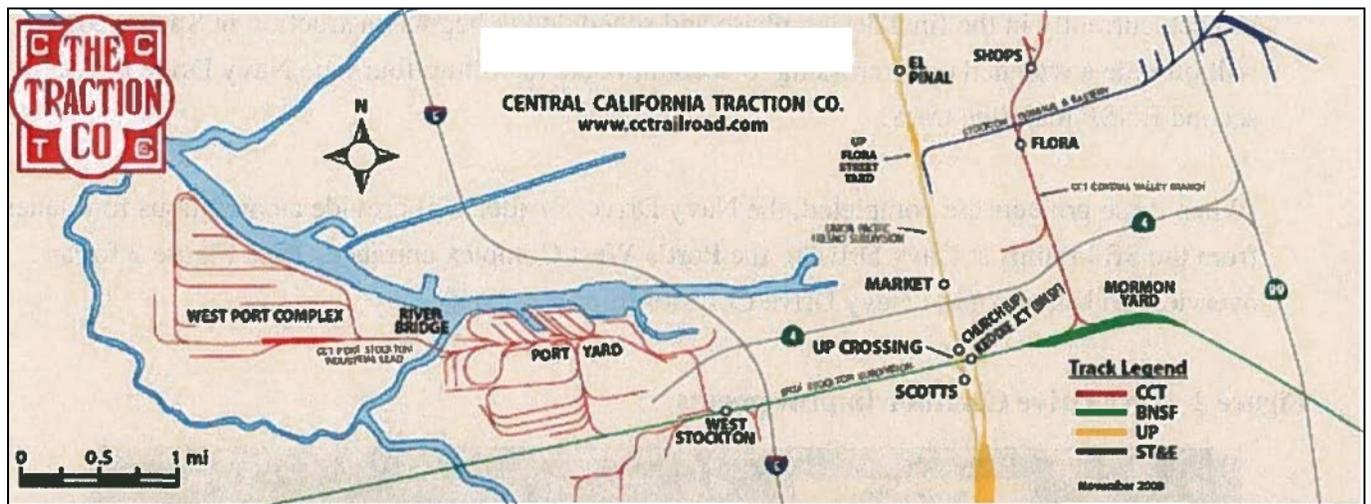


Figure 2. Port Rail Connectivity

Current Rail System Constraints

The Port currently serves 21 trains per week, with an expected operational growth to 34 trains per week by 2026 based on tenant needs. However, several system bottlenecks constrain existing movements, which will continue to cause inefficiencies system wide and limit the Port to serving 28 trains a week.

In recent years, the Port of Stockton has experienced a significant increase in annual rail throughput which has resulted in constrained rail access and switching capacity and reduced rail storage Port-wide. Furthermore, the Port has identified several prospective tenants seeking new rail service with a significant volume identified for the West Complex. Current access to the West Complex is only possible through the East Complex, over the existing San Joaquin River single track rail bridge, and is heavily constrained by switching operations in the East Complex.

Based on the projected customer data identified at present, the Port can expect to more than double their current tonnage and handle an additional 80,000 railcars annually by 2026. These combined factors necessitated a long-term plan for capital improvements.

Rail connection to the West Complex currently occurs on a pre-World War II era wood and steel truss, single-track swing bridge. The existing rail bridge between the East and West Complexes was designed with 1930s rail weight limits and restrictions and was built more than 85 years ago. The bridge now has outdated rail size and weight limitations, and over time has become susceptible to structural deficiencies that could lead to closure. The weight restrictions of the existing bridge only allow for locomotives with enough power to transport 30 to 40 carloads at once. Some tenants at the Port partially fill rail cars because of the weight restrictions to cross the existing bridge; for example, cargo that could fit into four cars is instead loaded into five cars.

The existing rail bridge has only one track; as rail volumes to and from the West Complex grow, delay times are expected for trains waiting for the bridge to be cleared. Additionally, if a rail bridge closure were to occur, there would be no rail service to terminals in the West Complex. In October 2019, a fire on the rail bridge was caused by a spark from a rail car that ignited old creosote-treated wood that is part of the bridge's decking. A modern, expanded rail bridge would allow for heavier locomotives, reduce the additional train movements and additional train cars that are currently needed to accommodate the bridge weight restrictions, improve safety, and remove creosote-treated wood from within and above the San Joaquin River.

In addition to the rail bridge limitations, the Port's lead track is also not long enough to serve trains. Blockages on the lead track cause staging bottlenecks in two locations at the Port: (1) inbound cargo is delayed at the 700 Yard, where outbound staged railcars awaiting departure block the lead track; and (2) delays occur at the Port Yard when CCTC must sort its manifest trains, blocking the Port lead track on average 4 hours per day.

3. NEED AND PURPOSE

The purposes of the proposed project are to replace the outdated rail bridge and accommodate planned capacity needs of the rail infrastructure within the Port, to increase efficiency of train operations within the Port, and to support projected increases in future train volumes.

The LLDT will be crucial to support the additional train operations through East Complex and reduce congestion, and breakdown risks. Results from a Port-wide operations simulation model has illustrated that double tracking the Port lead through East Complex will enable the Port to support six weekly unit train operations in addition to the existing and planned tenants expected to go online by 2026.

Additionally, the Port has identified the need to construct a new classification yard in the West Complex that will provide greater storage capacity and support the expected increase in manifest traffic. A new classification yard will enable the Port to store additional tenant cars and appeal to prospective tenants more effectively. The new yard will also streamline CCTC switching operations and will be a more efficient land-use strategy.

To meet the project purposes, the following objectives were identified for the proposed project:

- Eliminate outbound staging bottlenecks

- Increase efficiency of train operations on the East Complex
- Increase efficiency of train operations between the East Complex and West Complex
- Mitigate the potential risk of bridge closure, including from fires originating on creosote-treated ties on the rail bridge
- Enable the Port to accommodate planned tenants
- Support future growth at the Port

Proposed Project Elements

To address the proposed project's objectives, the following rail improvements are proposed:

- Replace the existing outdated wood and steel truss, single-track rail bridge between the Port's East and West Complexes with a double-track rail bridge. The existing swing bridge would be replaced by two fixed, removable span bridges to accommodate vessels in the event of an upstream levee or flood event. The approach tracks on the East Complex side of the bridge would connect to the double-track Port lead. On the West Complex side of the bridge, the double approach tracks would connect to the existing Port lead just after the Fyffe Avenue overcrossing.
- Add a second Port lead track within BNSF right of way, extending from beyond the 700 Yard switch to the existing Port lead switch, including a new rail underpass (allowing Fresno Avenue to pass under the tracks). This will eliminate outbound staging bottlenecks.
- Add a second Port lead track through the East Complex. This will improve CCTC switching and train operation efficiencies in the East Complex.
- Construct new yard track south of the Port Yard on the East Complex. This will compensate for the capacity loss from converting one of the Port Yard tracks into a second lead track.
- Construct a new rail classification yard on the West Complex. This will provide the Port with additional capacity to sort and store customer manifest railcars.

Project Construction

Rail Bridge

The proposed project would remove the outdated rail bridge that connects the East and West Complexes and replace it with a double-track rail bridge in the same location. The existing, single-track, 296-foot-long rail bridge over the San Joaquin River consists of a 235-foot, two-span, continuous steel swing truss designed to pivot about a central pier near mid-stream, with short timber approach spans at each end.

Removal of the bridge abutments and associated piles would require work on the levees on either side of the bridge, including a small amount of excavation around the piles. The levees would either be restored in their current position or reinforced with additional fill on the back slope, in the vicinity of the proposed abutments, after removal of the existing abutments and associated piles. The existing bridge and all associated piles would be removed as part of the proposed project.

The proposed replacement steel and concrete bridge would measure approximately 324 feet long, and the central span would have a minimum closed vertical clearance of approximately 12 feet

above the mean high water surface. The existing single-track rail bridge would be replaced by two fixed single-track rail bridges—for a double-track bridge—with center spans that would be removable to provide marine vessel navigation in the case of a flood emergency or required levee maintenance. The replacement double-track bridge would be constructed of fabricated steel supported on precast or cast-in-place concrete abutments and cast-in-place concrete pier caps. The substructure for the bridge would be driven steel piles and/or cast-in-steel shell concrete piles.

To maintain continuous train operations and comply with regulatory in-water work restrictions, replacement of the rail bridge would require phased demolition and construction that is expected to span 3 years. In the first year, the bridge for main track two would be constructed to the south of the existing in-service bridge. The demolition of the existing bridge would occur the following year, and then the bridge for main track one would be constructed in the third year.

Figure 3 details the proposed bridge replacement and the proposed horizontal and vertical clearances and dimensions.

Lead Track Improvements

The Port proposes to add a long lead double track (LLDT) to the existing Port rail infrastructure, to start in the BNSF right of way, adjacent to West Scotts Avenue at the intersection with Garfield Avenue. The LLDT would continue west past South Fresno Avenue, where a new rail underpass would be built in the BNSF right of way to accommodate the new tracks (the new LLDT would go over Fresno Avenue consistent with existing conditions). The proposed underpass at Fresno Avenue will closely match the appearance and geometry of the existing underpass. The LLDT would pass under the existing CA-4 overpass, and crash walls would be constructed around the existing support columns for CA-4 to provide column protection according to Class I requirements.

The LLDT would then turn north adjacent to the existing 700 Yard and continue through the East Complex adjacent to the existing lead line. No changes are proposed to any public at-grade crossings; a change may be required to the private at-grade crossings on Port Road 13, and Stork Road.

Where the LLDT and existing Port lead turn west to meet the Port Yard, four new switches would be constructed. Segments of multiple tracks would be shifted or removed to accommodate construction of the LLDT, including segments of tracks 808, 809, 810A, and 850. The existing Port yard east ladder would be modified and a crossover proposed between the two lead tracks to enable CCTC to still switch from the Port yard to track 811.

Two options (north and south) were considered for the LLDT alignment from the Port Yard to the connection to the replacement rail bridge. The north option could include changes to one tenant's turnout and conveyance system. The south option could include changes to several tenants' turnouts, require changes to turnouts on the Port Yard, require relocation of a power pole, and include impacts to the levee. The north option was chosen due to its reduced impacts to

utilities and existing tenant operations.

The proposed LLDT from beyond the 700 Yard switch to the existing Port lead switch would be approximately 4,000 linear feet. The second Port lead track through the East Complex would be approximately 1,500 linear feet. Grades of the proposed LLDT are not expected to exceed current grades for the Port lead track.

Port Yard Improvements

In the East Complex Port Yard, tracks 1 and 2 would be converted to the lead lines leading to the double-track bridge. To accommodate this change, two new segments of yard track would be constructed at the Port Yard, south of the existing Port Yard tracks and adjacent to Port Road A. Three switches and short segments of existing tracks within the Port Yard would be shifted to accommodate the proposed yard track. There is not adequate space between Track 1 and Port Road A to accommodate an additional track to the north.

The Port currently has no designated rail yard in the West Complex, and a new rail classification yard would be constructed between Fyffe Street and McCloy Avenue. This location accommodates the longest tracks and allows for convenient switching operations from the existing Port lead.

The new West Complex rail classification yard would be built adjacent to existing Port tracks and would include five new tracks, totaling approximately 18,000 track feet. Figure 4 provides detail on the LLDT and yard track improvements.

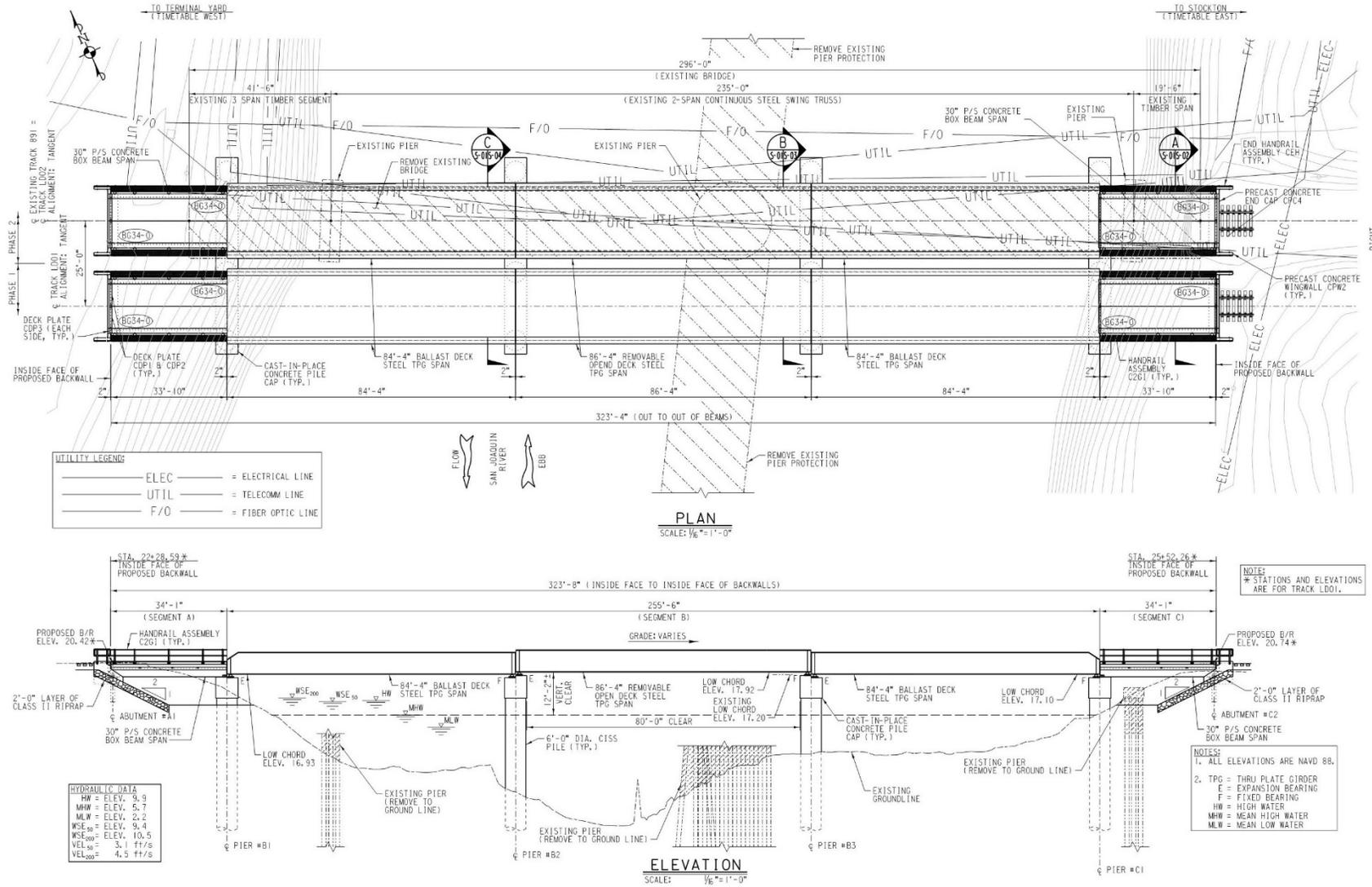


Figure 3. Bridge Plan and Elevation

Port of Stockton Rail Bridge Replacement and Rail Improvements
PR Equivalent

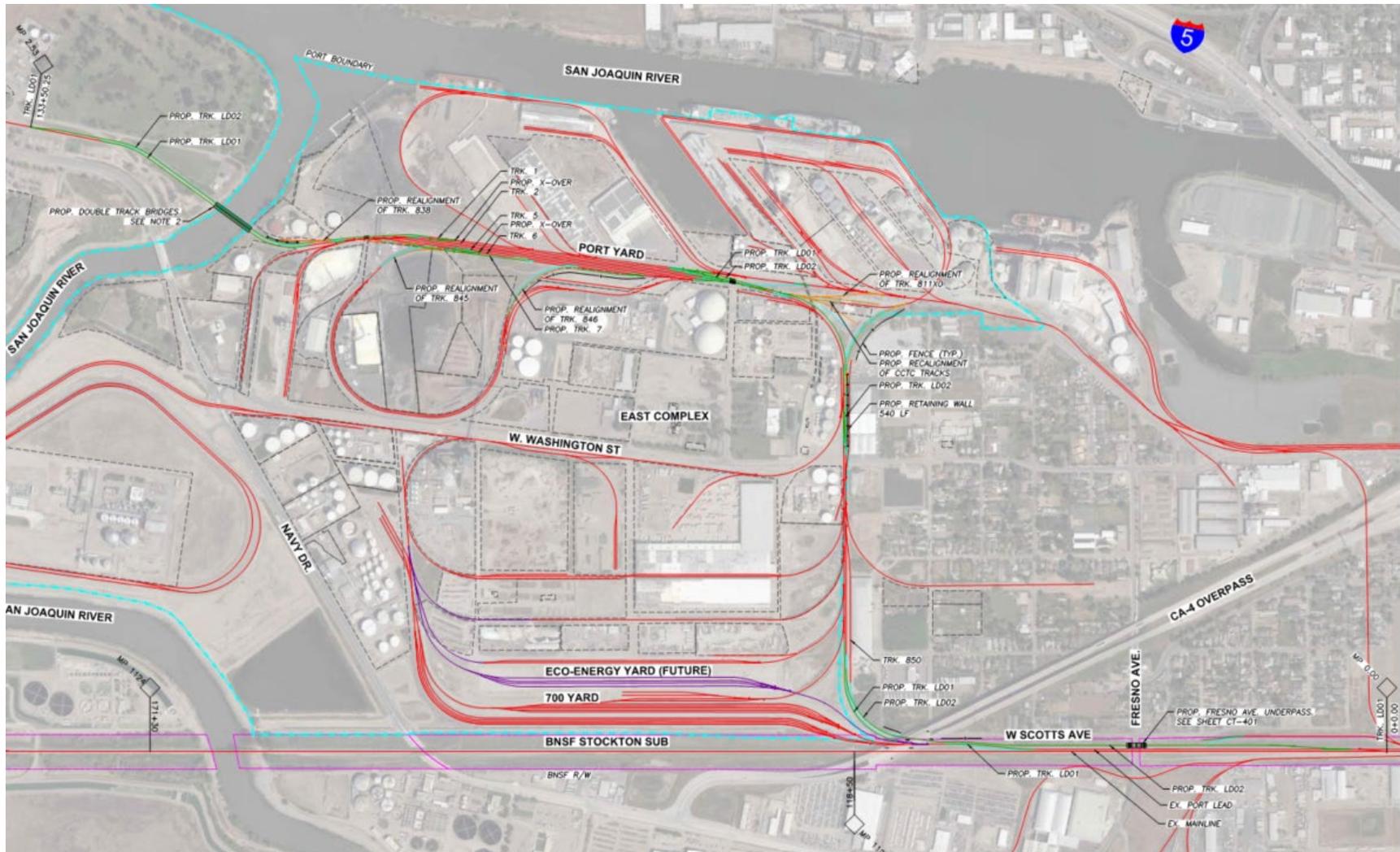


Figure 4. Double Track Long Lead East Complex Layout

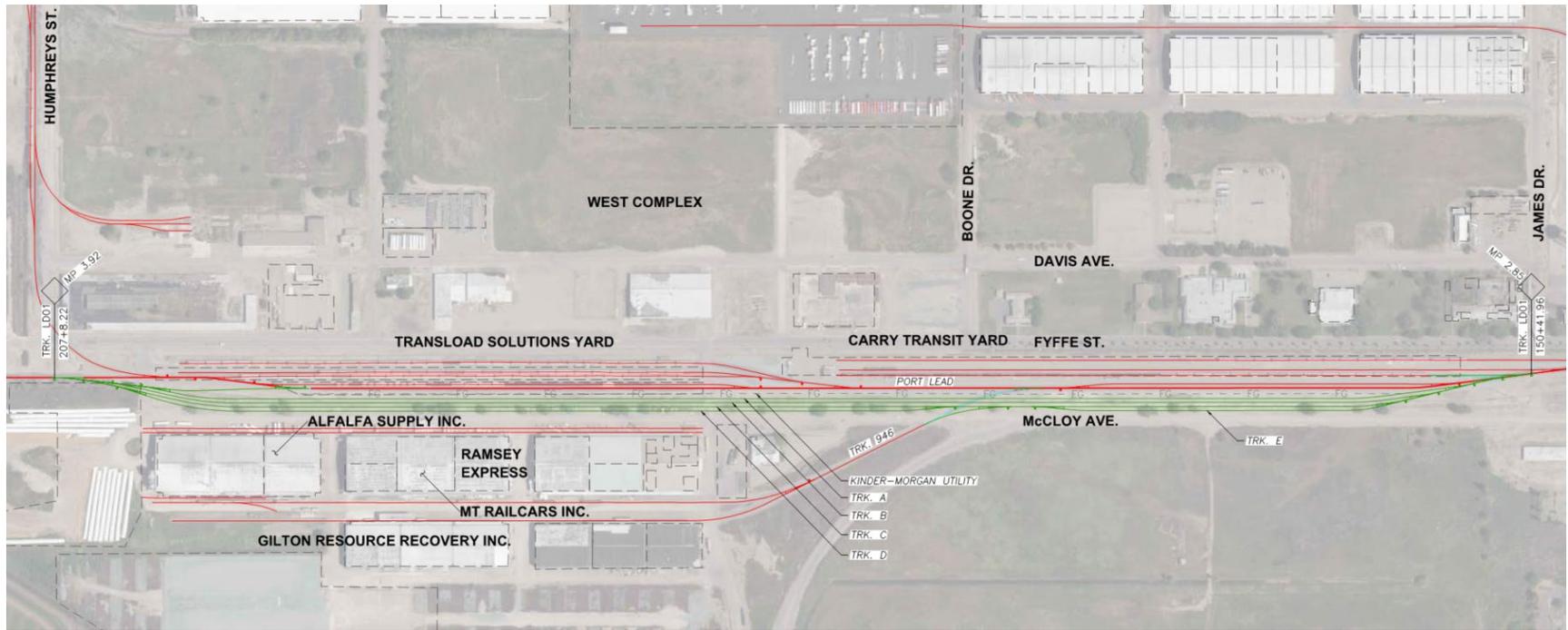


Figure 5: McCloy Classification Yard in West Complex Layout

4. ALTERNATIVES

A No Build Alternative and a Build Alternative are being evaluated. The No Build Alternative assumes no modifications or improvements would be made to the existing Port rail infrastructure. The 700 Yard and Port Lead total weekly blockage time, noted in Table 2, would be significantly higher with the No Build Alternative. Modern train loads would not be accommodated on the existing rail bridge, and safety would remain a concern with the existing bridge wood ties. Future Port operations would not be accommodated by the single track across the San Joaquin River.

The Build Alternative includes the features summarized on the preceding pages, which include improvements and upgrades to the San Joaquin River rail bridge, as well as lead track and Port yard improvements. As discussed in the *Proposed Project Operations* section below, construction of the proposed project would reduce train blockage times and provide operational benefits and resiliency to Port rail infrastructure.

Proposed Project Operations

Table 2 presents the operational changes that would occur as result of the proposed project. As shown, the proposed project would accommodate all of the Port’s projected growth and would reduce system wide blockages.

Table 2. Port Rail System with and without the Proposed Project

Component	2021 Volumes	2026 Volumes	
		No Project	Proposed Project
Total trains per week	21	28	34
Total weekly train travel time within Port (hours)	138	231	280 ^a
Total weekly idle time (hours)	42	55	67 ^a
700 Yard staging total weekly blockage time (hours)	48	64	0
Port Lead total weekly blockage time (hours)	124	140	76

^a Projected values assume the same travel and idle times for future operations.

Many of the operational changes shown in Table 2 would result from the new LLDT, which reduce overall rail congestion in the Port. The new LLDT would provide a parallel lead track that would allow arriving and departing trains to access Port areas and bypass congestion. When outbound staged cars in the 700 Yard spill over onto the existing Port lead, trains can bypass the congestion and travel on the LLDT, which would prevent a blockage from forming in this area. Having a second track would also allow for trains to arrive and depart simultaneously, thereby reducing the overall travel time and the potential for congestion on the lead tracks.

The LLDT will also improve CCTC’s switching efficiency in East Complex. Currently, with a single lead track, CCTC crew must suspend switching operations and steer clear off the lead track to accommodate inbound/ outbound operations. The LLDT will improve CCTC’s switching efficiency by allowing CCTC crew to continue switching maneuvers on the existing

port lead as the new lead track is used for inbound/ outbound operations into West Complex. The new double track rail bridge would allow for trains access to the West Complex in a safe and efficient manner. The new bridge would be designed to meet modern horizontal clearance standards and modern loading standards, including the capacity to handle 286k and 315k unit trains. The new operational improvements would help accommodate the larger and longer unit trains that are projected for the West Complex, continue to support the more efficient movement of cargo by rail instead of trucks, and prevent delays by allowing for more than one train to access the bridge simultaneously.

The new bridge would also increase system resiliency; if a closure of the existing rail bridge were to occur, all cargo would need to move by truck. Constructing a new modern bridge provides for a more resilient rail system and ensures trains are able to access the West Complex under varying conditions.

The new West Complex classification yard would provide additional storage capacity for rail cars in the West Complex but would not change the main line operational capacity. However, McCloy yard will provide an optimal location for CCTC to switch off the port lead for long periods without adversely impacting road traffic in West Complex. Additionally, McCloy yard will be the Port's only yard in the West Complex, thus providing greater flexibility and reducing transit time for CCTC switching to and from tenants in West Complex.

5. RIGHT OF WAY PRELIMINARY IMPACTS

The Double Track Long Lead will be primarily within BNSF right of way, and coordination has taken place with BNSF to secure conceptual approval of the proposed long lead track improvements. The additional bridge required over Fresno Avenue will require a modified easement agreement with the City of Stockton. Track improvements entering the Port's East Complex will require permanent easements or partial right of way acquisitions from an adjacent property owner. The remaining right of way impacts constitute modification of existing lease agreements with Port tenants. See Attachment D for a summary of preliminary right of way impacts, which will be refined and confirmed during PS&E.

6. COMMUNITY INVOLVEMENT

During the environmental and preliminary engineering phase, the Port coordinated improvements with the following stakeholders:

- US Coast Guard (USCG) – The USCG initiated waters users outreach in March 2021, with the close of the public comment period April 21, 2021. Comments received during the outreach will typically inform the preliminary rail bridge horizontal and vertical clearances. However, no comments were received from water way users.
- CCTC, UP, and BNSF – Track geometry and operational considerations are being coordinated with CCTC, as well as the Class I railroads (UP, and BNSF) affected by the proposed improvements.
- Levee Reclamation Districts (RD) 403 and 404 – The Port provided RD 403 and 404 with

preliminary plans to inform them of potential levee impacts associated with construction of the proposed bridge(s) and demolition of the existing rail bridge.

- In early 2021, the Port instituted new CEQA public outreach protocols, including extensive stakeholder outreach efforts and meetings to foster transparency and build trust with the residential communities adjacent to the Port, community businesses, and stakeholder and community groups. The protocols stem from the Port’s participation in the Assembly Bill (AB) 617 process, which focuses on developing and implementing new strategies to measure air pollution and reduce health impacts in communities most impacted by air pollution, and subsequent formation of community engagement groups.
- Adjacent property owners, agencies, tribes, and interested parties were notified of availability of the Draft IS/MND through letters, emails, a legal notice posted in *The Record*, and notice provided through the State Clearinghouse and San Joaquin County Clerk. The Draft IS/MND was made available for print copy review through request from the Port or for electronic review at <https://www.portofstockton.com/ceqa-documents/>.

The draft environmental document was circulated for a 31-day public review and comment period, beginning June 25, 2021, and a virtual public meeting was held on July 14, 2021. An agency coordination meeting was held in advance of the public meeting, to provide regulatory agencies with preliminary design information specific to their respective concerns. Responses were prepared for comments received on the draft environmental document, and were considered by the Port Commission during a regularly scheduled Commission meeting on September 20, 2021.

7. ENVIRONMENTAL DETERMINATION

The Port is the CEQA Lead Agency. The environmental analysis concluded that any potential significant impacts could be reduced to a level that is less than significant with mitigation incorporated. Therefore, a mitigated negative declaration was prepared, in accordance with CEQA guidelines. The Environmental Checklist is included in Attachment C.

8. FUNDING

As shown in Table 3, the PS&E and right of way phases have been awarded funds through the Senate Bill 1 TCEP. The TCEP funds are matched with Port local funds. Funding for construction has not been programmed for the project. The Port intends to pursue future Senate Bill 1 funding, as well as other fund sources, to fully fund the construction phase.

Table 3. Project Funding

Fund Source				
Phase	SB1 TCEP	Port Local Funds	Uncommitted Funds	Total
PSE	\$4,433,000	\$1,900,000		\$6,333,000
ROW	\$910,000	\$390,000		\$1,300,000
Construction			\$61,437,278	\$61,437,278
Fund Source Total	\$5,343,000	\$2,290,000	\$61,437,278	\$69,070,278

The level of detail available to develop these capital cost estimates is only accurate to within the above ranges. The cost estimates are useful for long-range planning purposes only. The capital costs shown should not be used to program or commit construction funds. Updated cost estimates will be prepared as the design progresses to support programming the project’s remaining support and capital components.

9. SCHEDULE

Table 4 includes a milestone schedule, consistent with the Port’s Senate Bill 1 Baseline Agreement. As shown, PS&E and right of way are anticipated to be completed in early 2023, with the start of construction planned for summer 2023 (pending available funding).

Table 4. Project Milestone Schedule

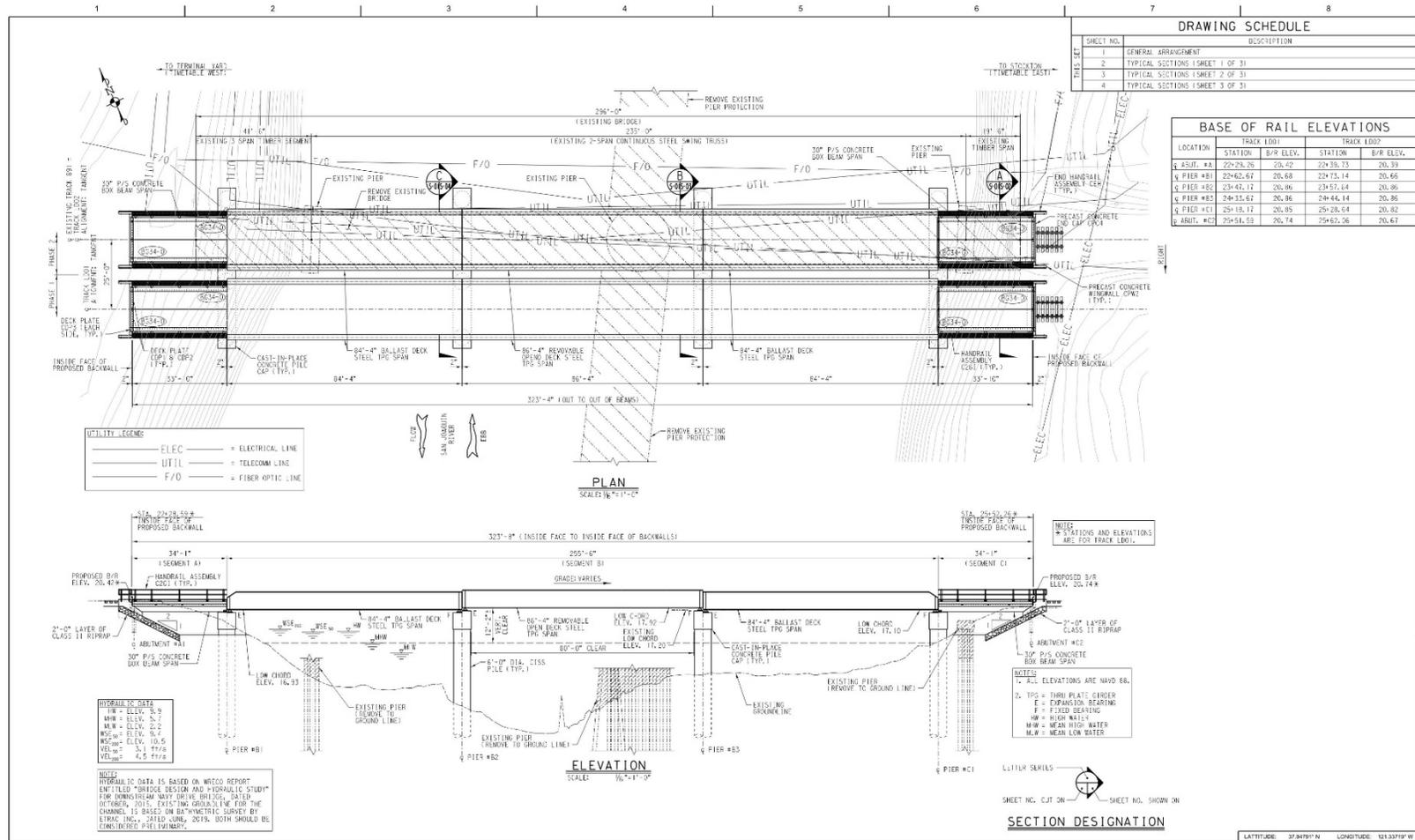
Milestone	Delivery Date (Month, Year)
Begin environmental	07/2020
Circulate draft environmental document	06/2021
Project Approval & Environmental Document	09/2021
Project PS&E	02/2023 ^a
Right of way certification	02/2023
Ready to list	03/2023
Approve contract	08/2023
Contract acceptance	10/2025 ^b
End project	06/2026

^a PS&E completion date assumes PS&E start of 12/21. Delays to start date will extend PS&E schedule.

^b Contract acceptance assumes two in-water work seasons. If three seasons are required, this date will extend by approximately 1 year.

September 2021

ATTACHMENT A
PRELIMINARY PLANS



ISSUE	DATE	DESCRIPTION

PROJECT MANAGER	MICHAEL HIGGINS
DESIGNED BY	RJB
DRAWN BY	BSS
CHECKED BY	BLW
SUBMITTED BY	
PROJECT NUMBER	

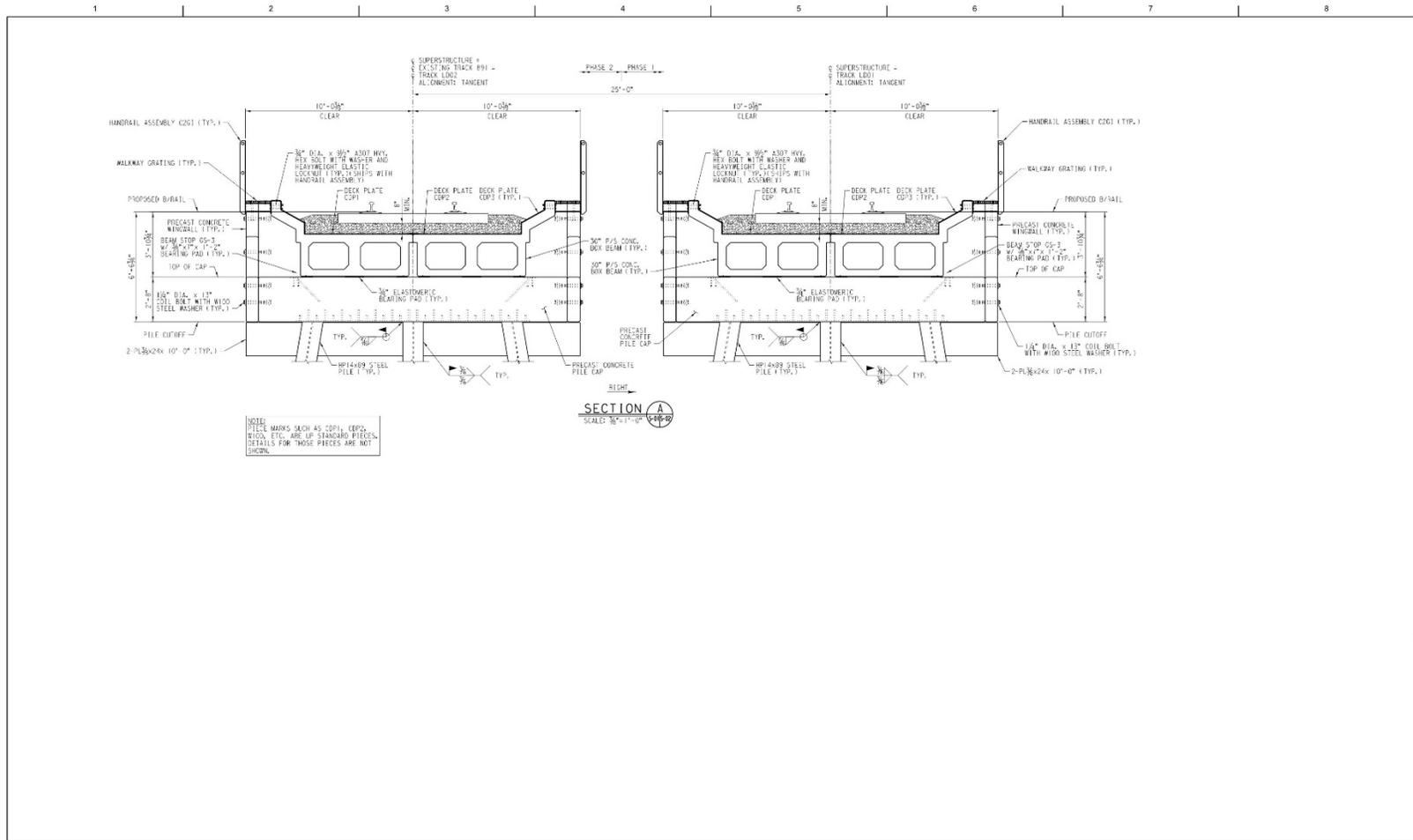
PRELIMINARY
NOT FOR CONSTRUCTION
 DATE: 04/08/2021

PORT OF STOCKTON
SAN JOAQUIN RIVER RAIL BRIDGE REPLACEMENT
GENERAL ARRANGEMENT



Port of Stockton
 CALIFORNIA

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SCALE	AS NOTED	RELATIVE BORDER SCALE	IS IN INCHES



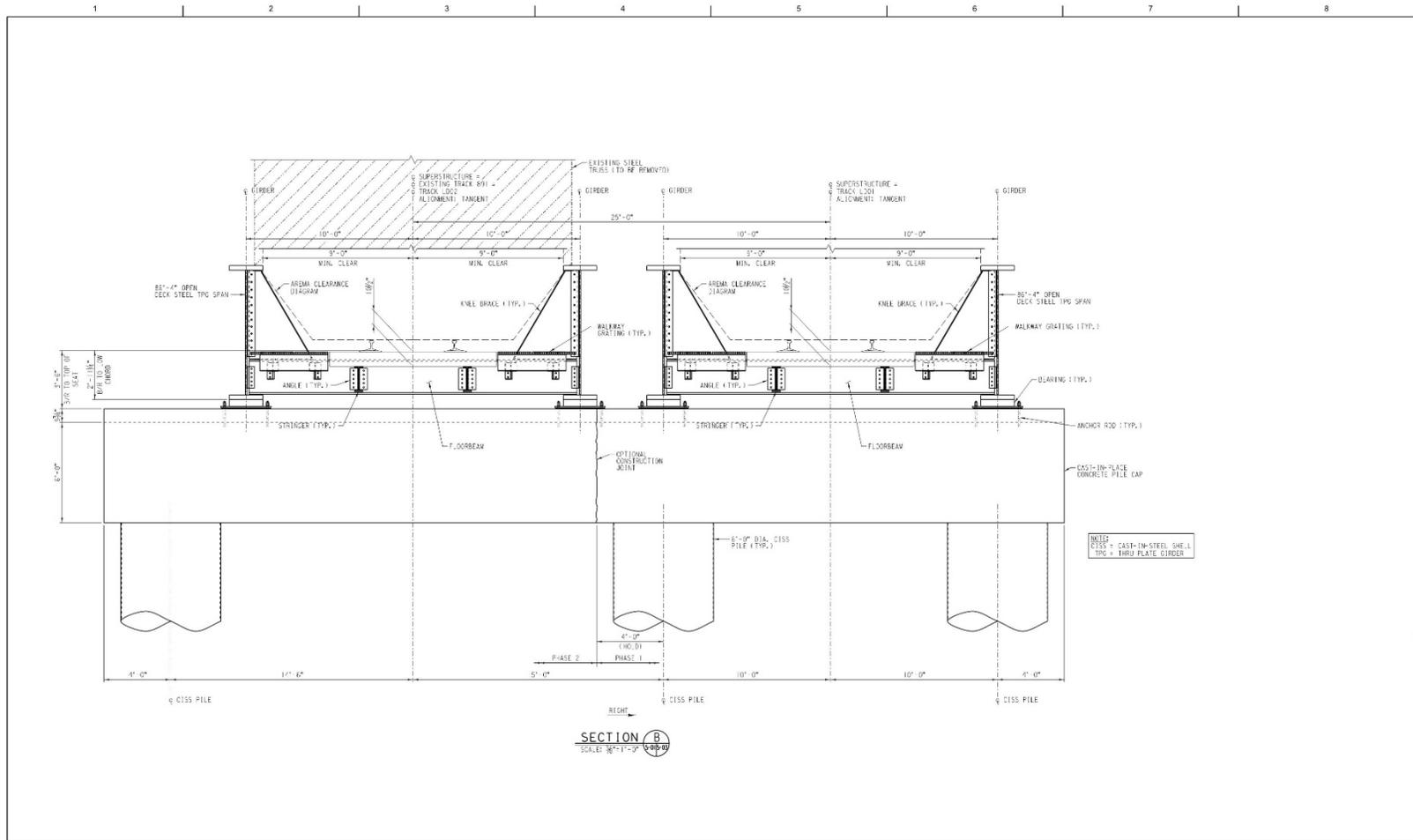
ISSUE	DATE	DESCRIPTION

PROJECT MANAGER	MICHAEL HIGGINS
DESIGNED BY	RJB
DRAWN BY	BSS
CHECKED BY	BLW
SUBMITTED BY	
PROJECT NUMBER	

- PRELIMINARY -
NOT FOR CONSTRUCTION
DATE: 04/08/2021

PORT OF STOCKTON
SAN JOAQUIN RIVER RAIL BRIDGE REPLACEMENT
TYPICAL SECTIONS (SHEET 1 OF 3)

FILENAME: 22X34-HRRR_P01.dwg
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 SHEET: S-02
 RELATIVE BORDER SCALE IS IN INCHES



SECTION B
SCALE: 3/8"=1'-0"



ISSUE	DATE	DESCRIPTION

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DESIGNED BY	RJB
DRAWN BY	BSS
CHECKED BY	
SUBMITTED BY	
PROJECT NUMBER	

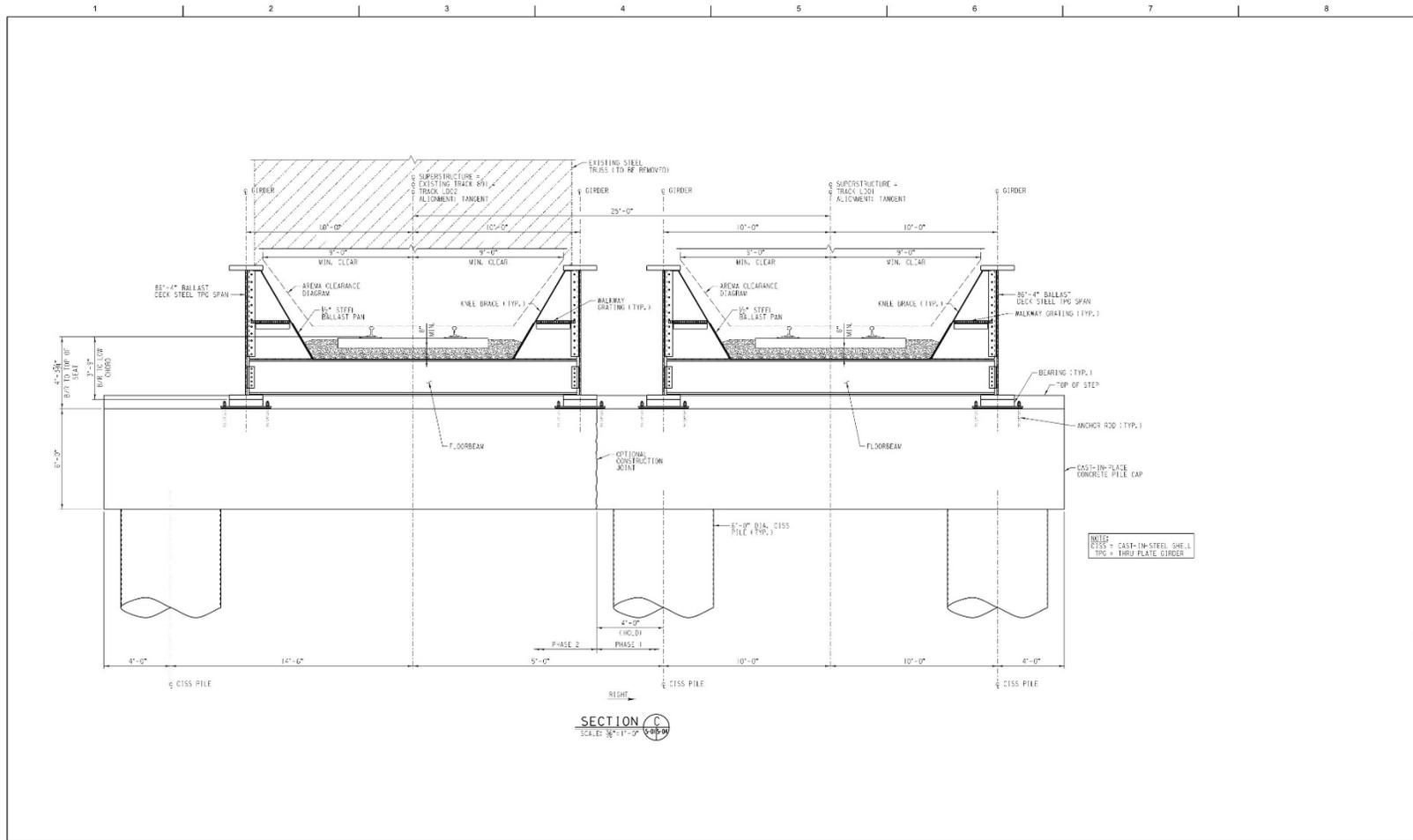
- PRELIMINARY -
NOT FOR CONSTRUCTION
04/08/2021

PORT OF STOCKTON
SAN JOAQUIN RIVER RAIL BRIDGE REPLACEMENT
TYPICAL SECTIONS (SHEET 2 OF 3)



Port of Stockton
CALIFORNIA

FILENAME	22X34-HRRR_P01.dwg	SHEET	S-03
SCALE	AS NOTED		



ISSUE	DATE	DESCRIPTION

PROJECT MANAGER	MICHAEL HODGINS
DESIGNED BY	RJB
DRAWN BY	BSS
CHECKED BY	BLW
SUBMITTED BY	
PROJECT NUMBER	

- PRELIMINARY -
NOT FOR CONSTRUCTION
04/08/2021

PORT OF STOCKTON
SAN JOAQUIN RIVER RAIL BRIDGE REPLACEMENT
TYPICAL SECTIONS (SHEET 3 OF 3)

FILENAME: 22X34-HRRR_P01.dwg
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 SHEET: S-04
 RELATIVE BORDER SCALE IS IN INCHES

PORT OF STOCKTON RAIL CAPACITY IMPROVEMENTS

2201 WEST WASHINGTON STREET
STOCKTON, CA 95203



VICINITY MAP
SCALE: N.T.S.



LOCATION MAP
SCALE: N.T.S.

POINTS OF CONTACT:

- OWNER: PORT OF STOCKTON, JASON KATINDOY; 2201 WEST WASHINGTON ST., STOCKTON, CA-95203; TELEPHONE: (209) 946-0246.
- PRIME CONSULTANT: JMA CIVIL, JON MARSHALL, PE; 383 4TH STREET, STE. 201, OAKLAND, CA 94607; TELEPHONE: (925) 400-4356.
- STRUCTURAL ENGINEER: HDR, INC., MICHAEL HIGGINS, PE; 2379 GATEWAY OAKS, SUITE 200, SACRAMENTO, CA-95833; TELEPHONE: (916) 679-8700.
- LAND SURVEYOR: CONQUINI & PASSARINO, JAMES DICKEY, PLS; 1630 N DUTTON AVE., #150, SANTA ROSA, CA-95401; TELEPHONE: (707) 542-6268.
- RAILROAD: BURLINGTON NORTHERN SANTA FE RAILWAY (BNSF), MICHAEL KEATING; 740 EAST CARNEGIE DRIVE, SAN BERNARDINO, CA 92406; TELEPHONE: (800) 795-2873.
- RAILROAD: CENTRAL CALIFORNIA TRACTION COMPANY (CCTC), RANDY EGUSQUIZA, 2201 WEST WASHINGTON ROAD SUITE #12, STOCKTON, CA-95203; TELEPHONE: (209) 466-6827.

PROJECT DOCUMENTS:

- PROJECT DOCUMENTS: THE FOLLOWING DOCUMENTS ARE INCLUDED IN THE SCOPE OF THE PROJECT:
 - A. BASIS OF DESIGN MEMORANDUM DATED 04/12/2021.

CODES AND STANDARDS:

- GOVERNING CODES AND STANDARDS: THE CURRENT VERSIONS OF THE FOLLOWING STANDARDS, GOVERN THE CONSTRUCTION OF THE WORK EXCEPT AS NOTED OTHERWISE.
 - B. CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS (CALTRANS), LATEST EDITION
 - C. 2019 CALIFORNIA BUILDING CODE
 - D. THE UNION PACIFIC RAILROAD/ BNSF RAILWAY COMPANY TECHNICAL SPECIFICATIONS FOR CONSTRUCTION OF INDUSTRIAL TRACKS, LATEST EDITION
 - E. AMERICAN RAILWAY ENGINEERING AND MAINTENANCE-OF-WAY ASSOCIATION (AREMA) MANUAL FOR RAILWAY ENGINEERING, LATEST EDITION
 - F. THE CALIFORNIA PUBLIC UTILITIES COMMISSION (CPUC) GENERAL ORDERS
 - G. FEDERAL RAILROAD ADMINISTRATION (FRA) RAILROAD SAFETY STANDARDS.
 - H. UPRR/ BNSF GUIDELINES FOR RAILROAD GRADE SEPARATION PROJECTS
 - I. CITY OF STOCKTON DESIGN STANDARDS
 - J. CITY OF STOCKTON MUNICIPAL CODE
- IN THE EVENT OF A CONFLICT BETWEEN THE REFERENCED STANDARDS, FOR RAILROAD WORK: THE MORE STRINGENT OF THE CPUC, AREMA AND THE RAILROAD STANDARD SPECIFICATIONS SHALL GOVERN. IN ADDITION, CONSTRUCTION MUST ADHERE TO ALL FEDERAL RAILWAY ADMINISTRATION (FRA), STATE AND LOCAL REQUIREMENTS.

FOR ROADWAY WORK: CALTRANS SPECIFICATIONS SHALL GOVERN.

FOR UTILITY WORK: THE CITY OF STOCKTON STANDARD DETAILS AND SPECIFICATIONS SHALL GOVERN.

DESCRIPTION OF WORK:

- FINAL ISSUED FOR CONSTRUCTION PLANS: CONSTRUCTION OR PROCUREMENT OF MATERIALS FROM PLANS NOT MARKED "ISSUED FOR CONSTRUCTION" IS AT THE OWNER AND/OR CONTRACTOR'S RISK. ONLY PLANS MARKED "ISSUED FOR CONSTRUCTION" ARE DEEMED COMPLETE AND READY FOR CONSTRUCTION.
- THE FOLLOWING SCOPE OF WORK IS INCLUDED IN THIS CONTRACT:
 - A. SITE CLEARING AND GRUBBING, DEMOLITION, STAKING, ROUGH GRADING, FINAL GRADING, INSTALLATION OF DITCHES AND DRAINAGE FACILITIES AND FINAL PREPARATION OF SUBGRADE
 - B. PLACEMENT OF SUBBALLAST, BALLAST AND ALL TRACK WORK. TRACK WORK WILL INCLUDE A NEW PORT DOUBLE LEAD TRACK IN THE BNSF RIGHT-OF-WAY AND EAST COMPLEX; AND A NEW CLASSIFICATION YARD OFF THE EXISTING PORT LEAD IN WEST COMPLEX.
 - C. RAIL UNDERPASS OVER FRESNO AVENUE
 - D. ON-SITE UTILITIES
 - E. FENCING
 - F. ASPHALT, GRAVEL AND CONCRETE PAVING
 - G. SIGNAGE AND STRIPING

CONTRACTOR RESPONSIBILITIES:

- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRACK CONSTRUCTION WITHIN AND OUTSIDE EXISTING RAILROAD RIGHT-OF-WAY WHICH IS BEYOND THE 13' CLEARANCE POINT OF THE MAIN LINE TURNOUTS. CONTRACTOR SHALL FURNISH AND INSTALL ALL MATERIALS, INCLUDING BALLAST, FOR CONSTRUCTION WITHIN CONTRACTOR'S LIMITS OF WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR STAKING ALL WORK FOR THE PROJECT, INCLUDING ALL WORK TO BE CONSTRUCTED BY THE RAILROAD.
- DESIGN WORK BY OTHERS: THE OWNER WILL BE PROVIDED THE FOLLOWING ADDITIONAL WORK IN A SEPARATE PACKAGE, PREPARED BY OTHERS:
 - A. SAN JOAQUIN RIVER RAIL BRIDGE REPLACEMENT PROJECT
- CONSTRUCTION BY THE RAILROAD: TRACK WORK IN THE RAILROAD RIGHT-OF-WAY FROM THE MAINLINE TO THE 13' CLEARANCE POINT OF THE MAINLINE TURNOUTS WILL BE CONSTRUCTED BY THE RAILROAD. RAILROAD SHALL FURNISH AND INSTALL ALL MATERIALS, INCLUDING MAIN LINE TURNOUT BALLAST, FOR CONSTRUCTION WITHIN RAILROAD'S LIMITS OF WORK.

CAUTION BEFORE EXCAVATION:

- UNDERGROUND UTILITY IDENTIFICATION: SECTION 4216 / 4217 OF THE GOVERNMENT CODE REQUIRES A DIG ALERT IDENTIFICATION NUMBER BE ISSUED BEFORE A PERMIT TO EXCAVATE WILL BE VALID. FOR YOUR DIG ALERT IDENTIFICATION NUMBER, CALL UNDERGROUND SERVICE ALERT 1-800-227-2800 (CENTRAL/NORTHERN CA & NEVADA) FOR UNDERGROUND LOCATING AT LEAST TWO (2) WORKING DAYS BEFORE YOU DIG.

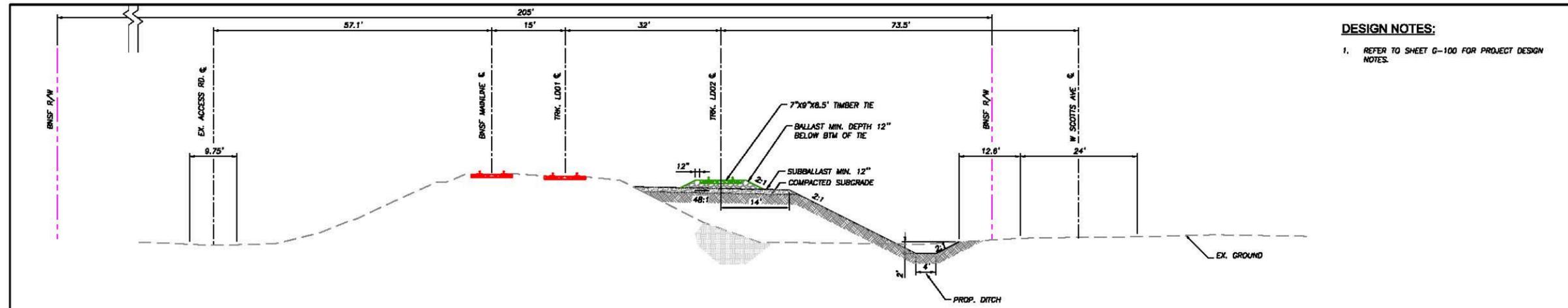
SURVEY NOTES:

- SURVEY NOTES: SURVEY DETAILS AND SURVEY CONTROL ARE SHOWN ON SHEET G-100.
- BASE SURVEY: SEE SHEET G-100.
- PROJECT BENCHMARK: SEE SHEET G-100.
- BASIS OF BEARING: BEING NORTH 10°02'25.4" EAST BETWEEN CORN STATION P257 AND P273, BASED ON COORDINATES PROVIDED BY THE CALIFORNIA SPATIAL REFERENCE CENTER. PROJECT IS BASED ON CALIFORNIA COORDINATE SYSTEM OF 1983, ZONE 3, EPOCH 2017.50.
- VERTICAL DATUM: SEE SHEET G-100.
- HORIZONTAL DATUM: SEE SHEET G-100.
- GRID TO GROUND CONVERSION: ALL COORDINATES SHOWN ON THE DRAWINGS ARE "GRID". THE MEAN COMBINATION FACTOR = 0.9999402009. TO CONVERT FROM GRID TO GROUND, DIVIDE BY THE MEAN COMBINATION FACTOR.

- PROPERTY LINES: ALL PROPERTY AND RIGHT-OF-WAY LINES DEPICTED ON PLANS ARE FOR INFORMATION ONLY. RIGHT-OF-WAY BOUNDARY DATA IN THE FORM OF DRAWINGS AND LEGAL DESCRIPTIONS, SIGNED AND SEALED BY A PROFESSIONAL ENGINEER, WILL BE PROVIDED BY THE OWNER PRIOR TO CONSTRUCTION STAKING.
- ELECTRONIC FILE DATA: MICROSTATION CAD FILES OF THE PLAN VIEW DRAWINGS ONLY WILL BE PROVIDED BY THE ENGINEER ALONG WITH ONE SET OF HARD COPY DRAWINGS. CONVERSION OF DRAWINGS TO OTHER FORMATS IS THE RESPONSIBILITY OF THE CONTRACTOR. ALL ROAD AND RAIL STAKING SHALL BE BASED ON COORDINATE GEOMETRY TABLES, WHEN PROVIDED, VERSUS FROM CAD FILES. IN THE EVENT OF DISCREPANCY BETWEEN CAD FILES AND HARD COPY DRAWINGS, THE HARD COPY DRAWINGS SHALL GOVERN. THE CONTRACTOR SHALL NOTIFY THE OWNER IMMEDIATELY OF ANY DISCREPANCIES. BOUNDARY STAKING SHALL BE BASED ON SIGNED AND STAMPED HARD COPY DRAWINGS ONLY.

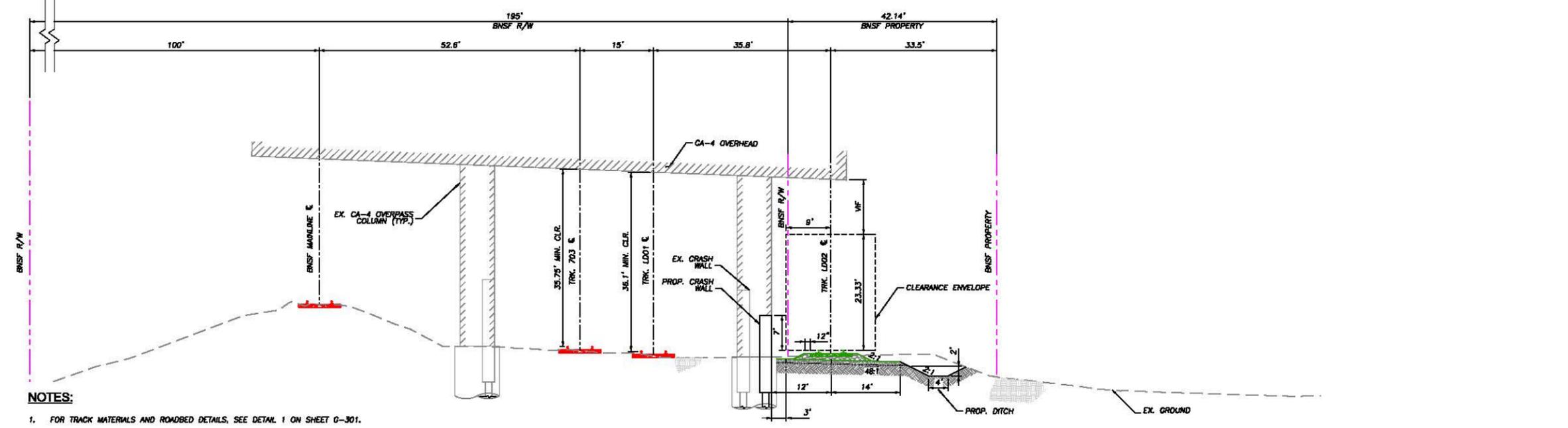
SUBCONSULTANT:		SUBCONSULTANT:		 383 4th Street, Ste. 201 Oakland, CA 94607 T: 925.400.4356 www.jmacivil.com		PROFESSIONAL SEAL:		15% DESIGN - 04/12/21		REVISIONS: <table border="1"> <thead> <tr> <th>MARK</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>		MARK	DATE	DESCRIPTION																															 <p>PORT OF STOCKTON RAIL CAPACITY IMPROVEMENTS</p> <p>2201 W. WASHINGTON STREET STOCKTON, CA 95203</p>		SHEET TITLE: TITLE SHEET		PROJ NO: 16341 SCALE: AS NOTED DATE: 4/13/2021 DESIGNED BY: AG		SHEET NO. G-001 SHEET 1 OF 30	
MARK	DATE	DESCRIPTION																																																		

IF THIS DRAWING IS LESS THAN 22" X 34" IT IS A REDUCED SIZE DRAWING



DESIGN NOTES:
 1. REFER TO SHEET G-100 FOR PROJECT DESIGN NOTES.

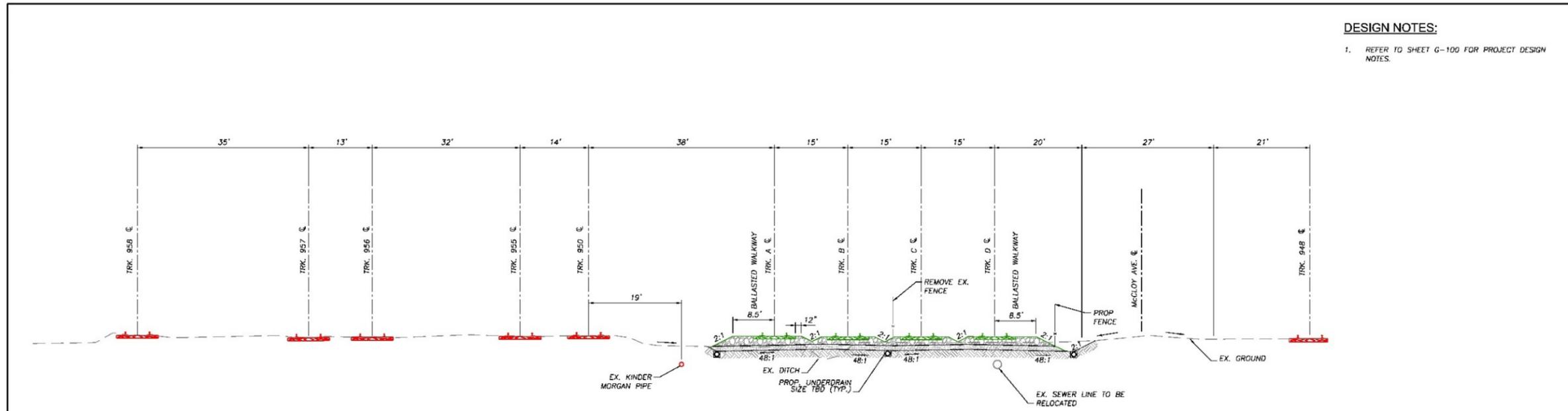
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 SCALE: 1"=10'
 TRK. L002 STA. 11+00.00 TO 23+37.90



NOTES:
 1. FOR TRACK MATERIALS AND ROADBED DETAILS, SEE DETAIL 1 ON SHEET G-301.

2 DOUBLE LEAD TRACKS - CA-4 OVERPASS
 SCALE: 1"=10'
 TRK. L002 STA. 32+90.00

SUBCONSULTANT:		 363 4th Street, Ste. 201 Oakland, CA 94607 T: 925.400.4368 www.jmacivil.com	PROFESSIONAL SEAL:	ISSUE:	15% DESIGN	REVISIONS: <table border="1"> <thead> <tr> <th>MARK</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>	MARK	DATE	DESCRIPTION																 PORT OF STOCKTON RAIL CAPACITY IMPROVEMENTS 2201 W. WASHINGTON STREET STOCKTON, CA 95203	SHEET TITLE:	
MARK	DATE		DESCRIPTION																								
SUBCONSULTANT:		04/12/21	IF THIS DRAWING IS LESS THAN 22" X 34" IT IS A REDUCED SIZE DRAWING	DOUBLE TRACK LONG LEAD TYPICAL SECTIONS		SHEET NO. G-301	PROJ NO: 18941 SCALE: AS NOTED DATE: 4/13/2021 DESIGNED BY: AB	SHEET # OF 30																			

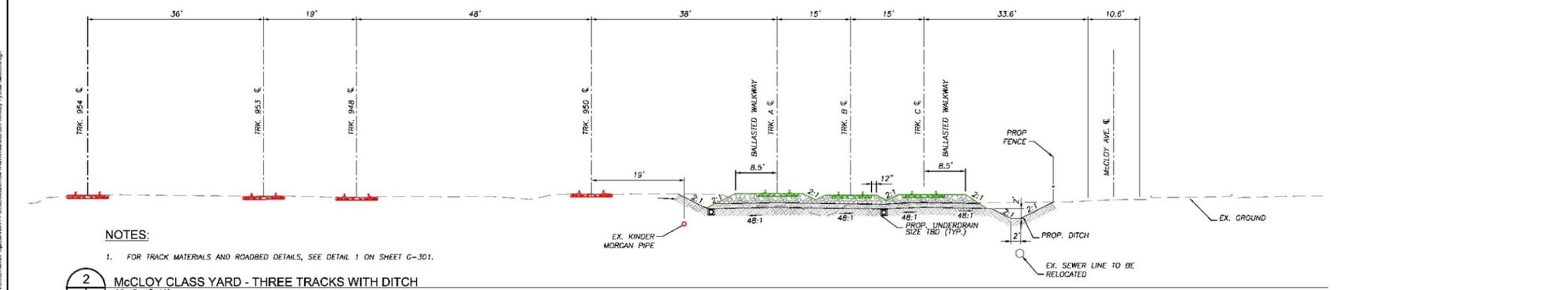


DESIGN NOTES:
 1. REFER TO SHEET G-100 FOR PROJECT DESIGN NOTES.

NOTES:

1. FOR TRACK MATERIALS AND ROADBED DETAILS, SEE DETAIL 1 ON SHEET G-301.

1 McCLOY CLASS YARD - FOUR TRACKS WITH UNDERDRAIN
 SCALE: 1"=10'
 TRK. C STA. 20+00.00 TO 44+50.88



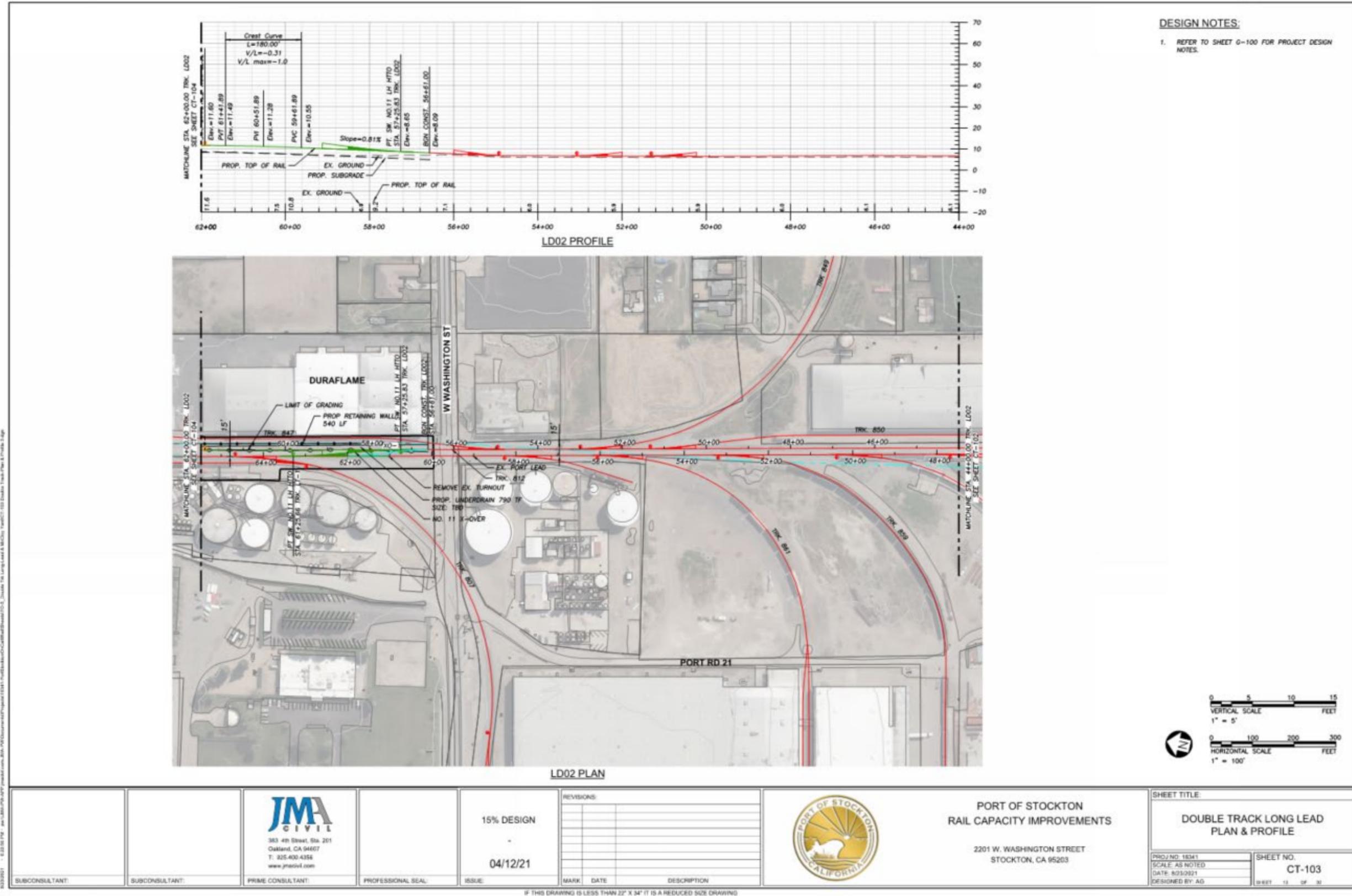
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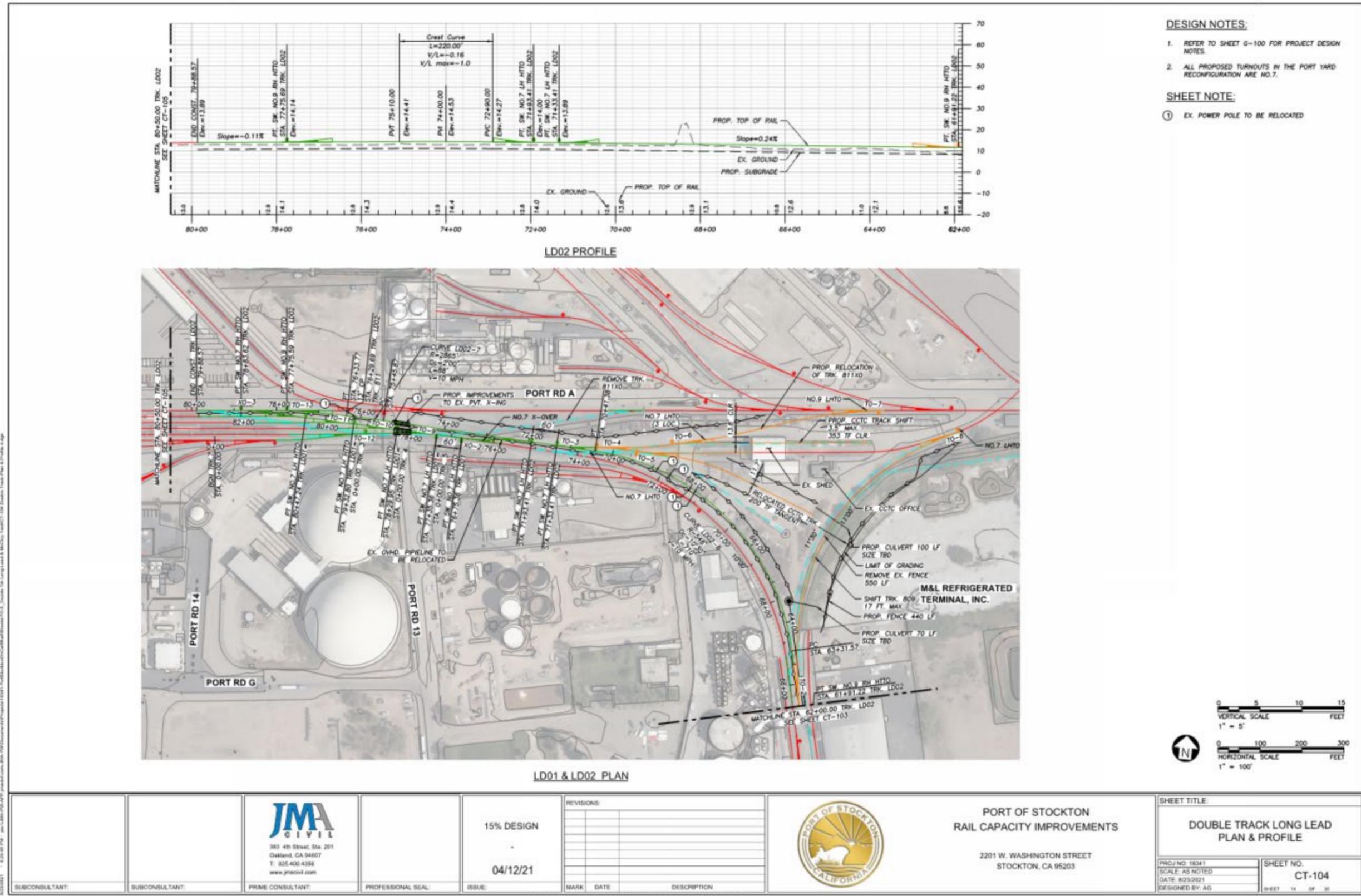
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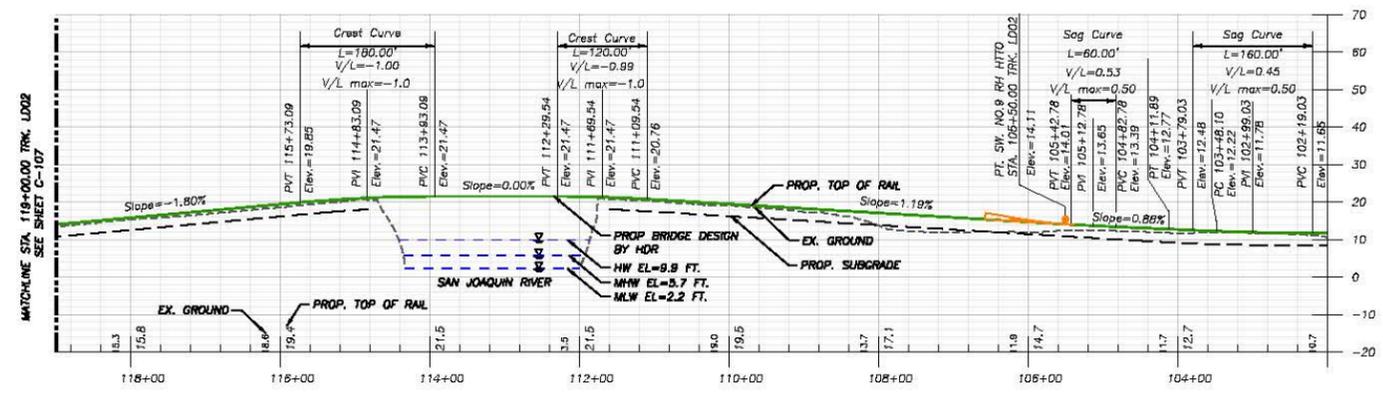
2 McCLOY CLASS YARD - THREE TRACKS WITH DITCH
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 TRK. C STA. 14+94.18 TO 18+67.14

J:\Projects\2021\18341-Port of Stockton Rail Capacity Improvements\18341-Port of Stockton Rail Capacity Improvements\18341-Port of Stockton Rail Capacity Improvements.dgn
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SUBCONSULTANT:		 383 4th Street, Ste. 201 Oakland, CA 94607 T: 925.400.4356 www.jmacivil.com		15% DESIGN 04/12/21		REVISIONS: <table border="1"> <thead> <tr> <th>MARK</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>		MARK	DATE	DESCRIPTION				 PORT OF STOCKTON RAIL CAPACITY IMPROVEMENTS 2201 W. WASHINGTON STREET STOCKTON, CA 95203		SHEET TITLE: McCLOY YARD TYPICAL SECTIONS PROJ NO. 18341 SCALE: AS NOTED DATE: 4/13/2021 DESIGNED BY: AG	
MARK	DATE	DESCRIPTION															
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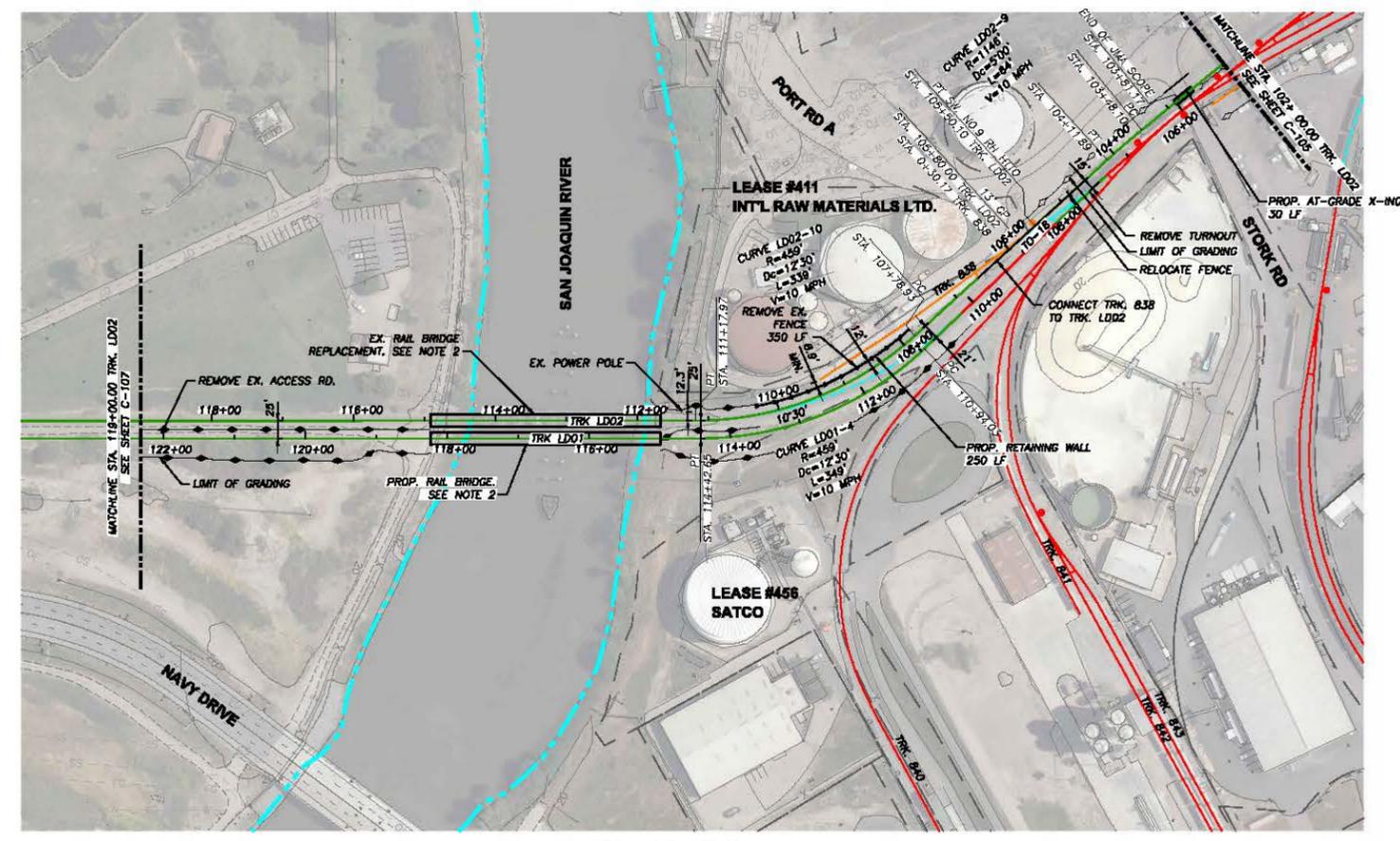




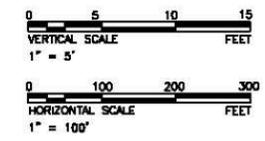


LD02 PROFILE

- DESIGN NOTES:**
1. REFER TO SHEET G-100 FOR PROJECT DESIGN NOTES.
 2. THE PROPOSED TRACK ALIGNMENTS AND PROFILE WEST OF STORK RD. AT-GRADE X-ING ARE BASED ON THE HDR DRAWINGS DATED 04/08/2021. THE VERTICAL DATUM OF THE HDR DRAWINGS IS NAVD83 AND THE HORIZONTAL DATUM IS NAVD83.

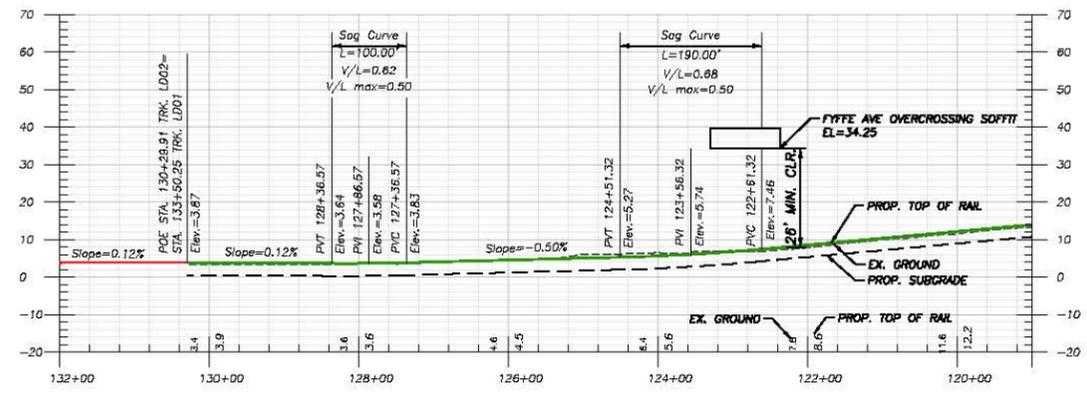


LD01 & LD02 PLAN



		 303 4th Street, Ste. 201 Oakland, CA 94607 T: 925.400.4358 www.jmacivil.com	15% DESIGN 04/12/21	REVISIONS: <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>MARK</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>	MARK	DATE	DESCRIPTION										 PORT OF STOCKTON RAIL CAPACITY IMPROVEMENTS 2201 W. WASHINGTON STREET STOCKTON, CA 95203	SHEET TITLE: DOUBLE TRACK LONG LEAD PLAN & PROFILE PROJ NO: 18341 SCALE: AS NOTED DATE: 4/13/2021 DESIGNED BY: AG
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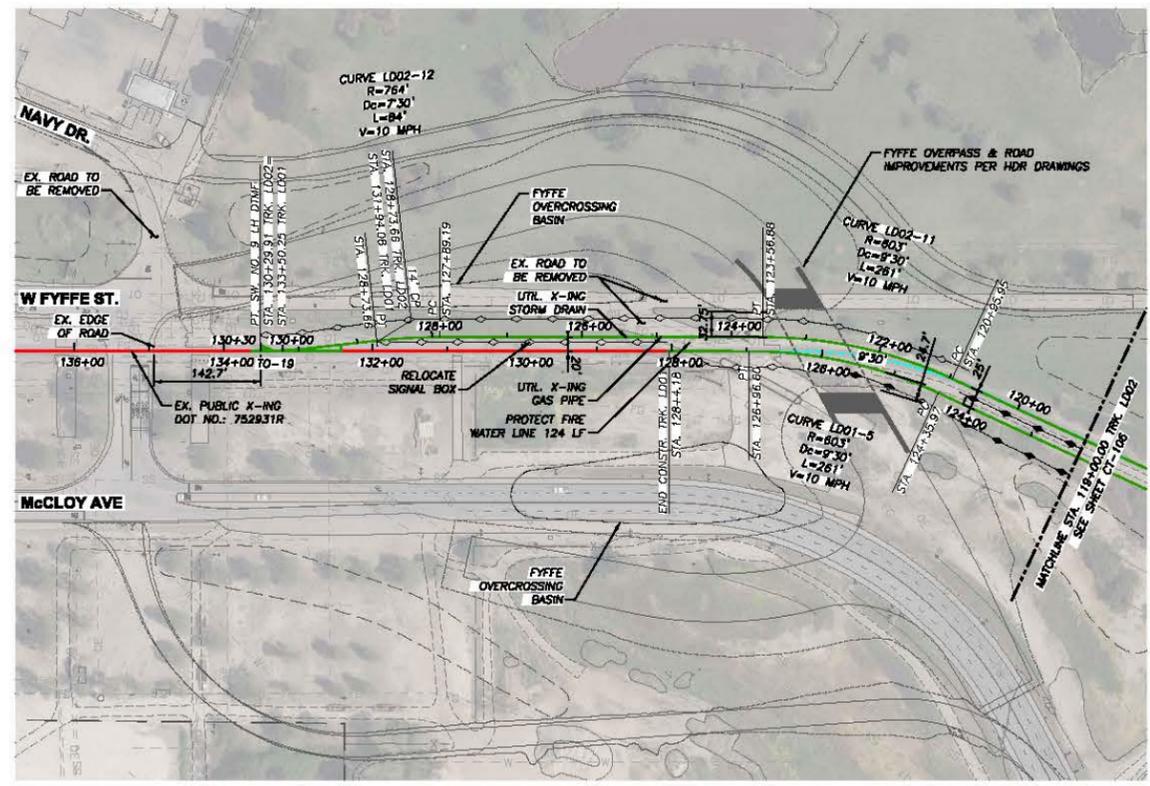
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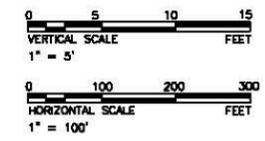
LD02 PROFILE

DESIGN NOTES:

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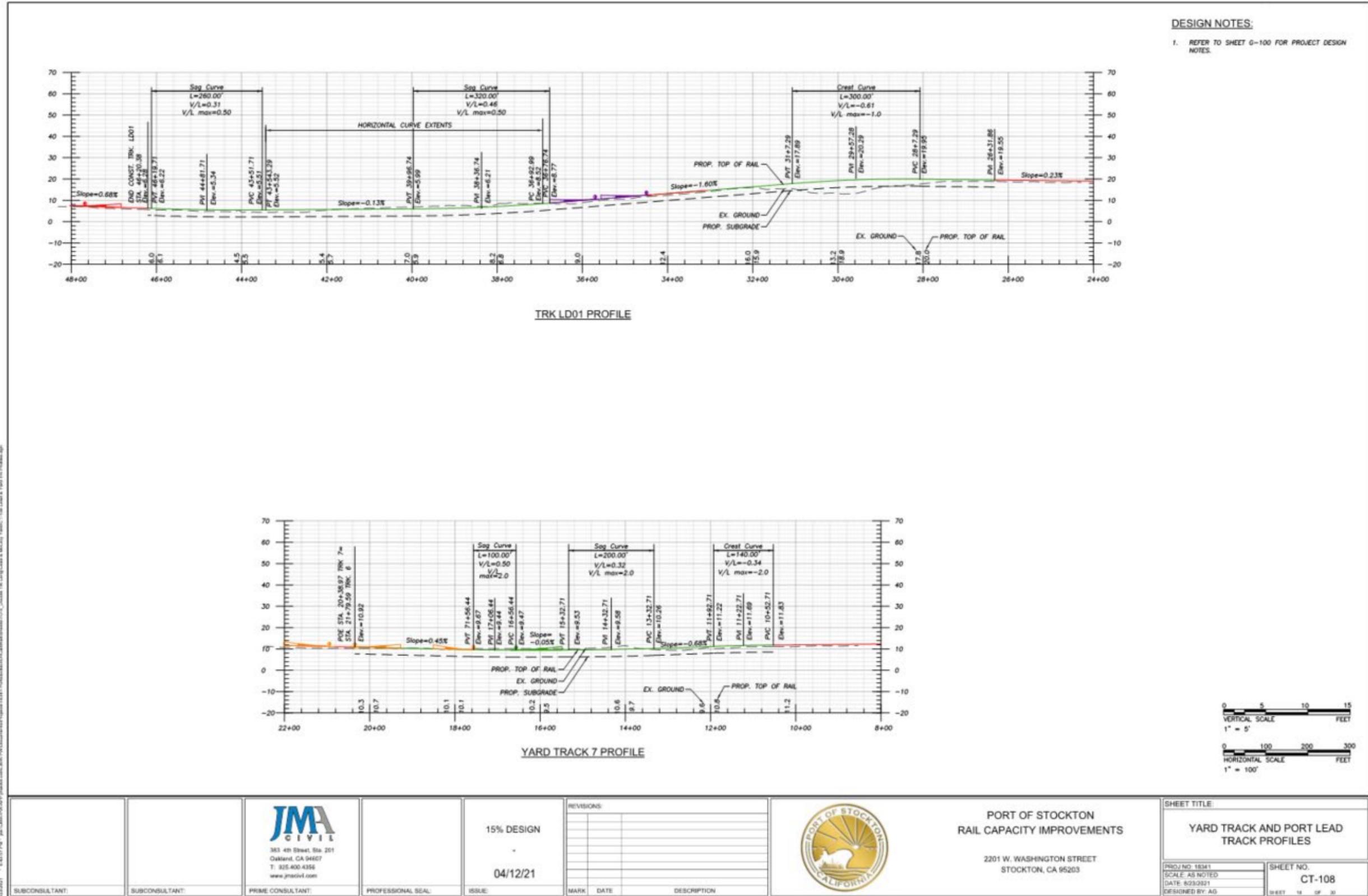
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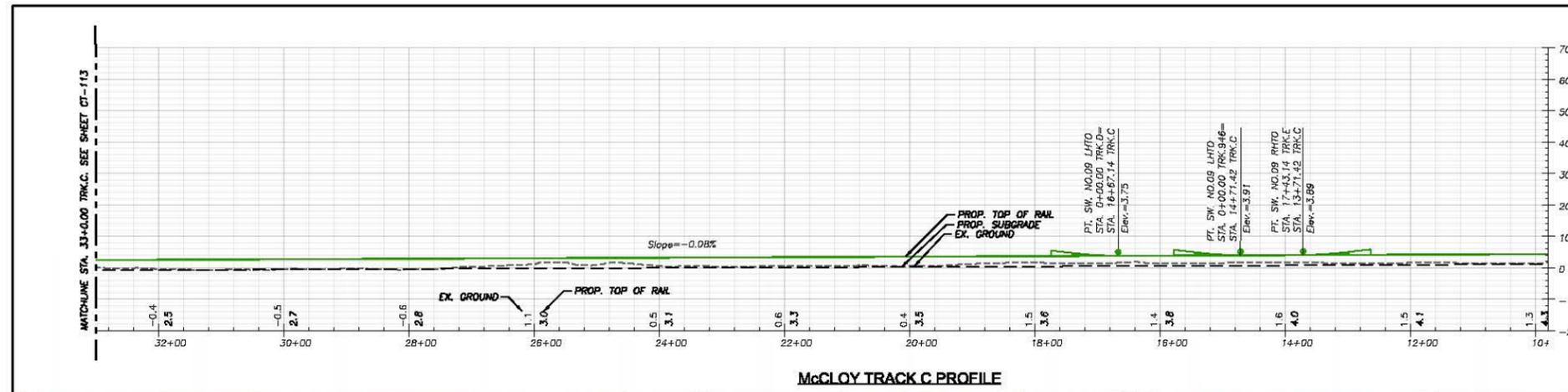


4/13/2021 2:28:14 PM - p:\cadd\p\p\p\18341-PORT OF STOCKTON RAIL CAPACITY IMPROVEMENTS\CT-107 Double Track Long Lead Plan & Profile.dwg

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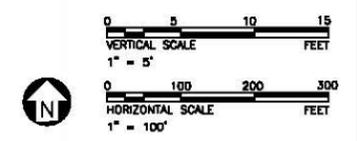
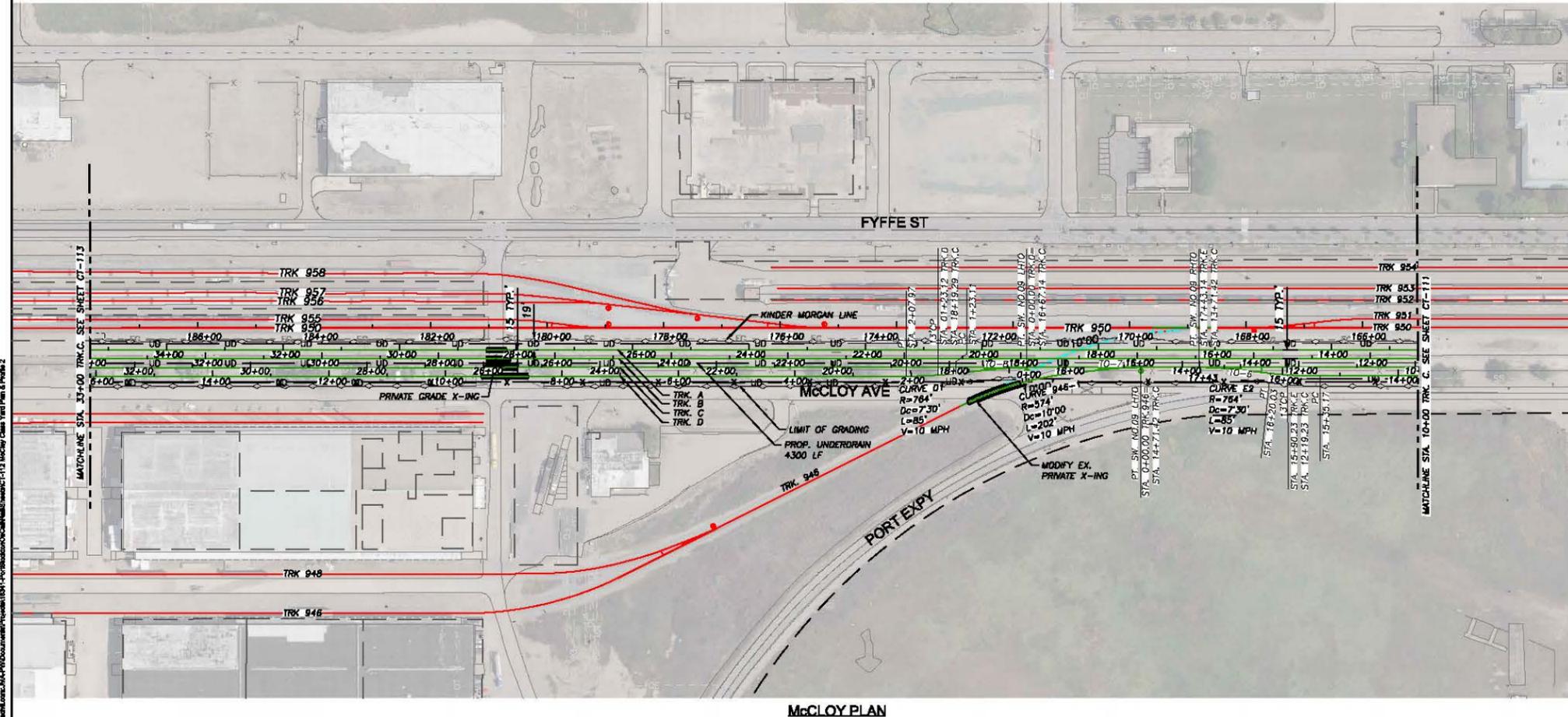
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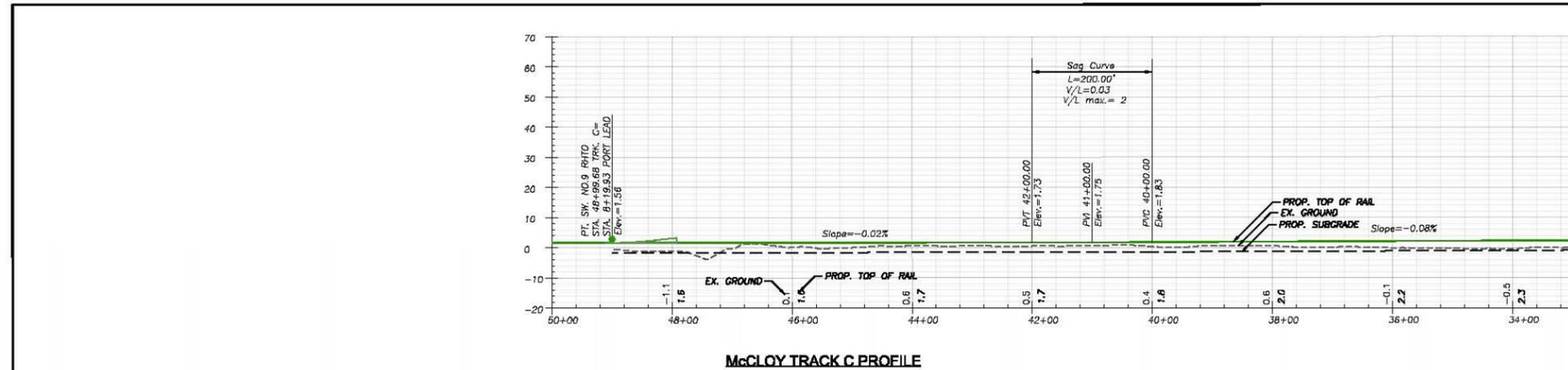
DESIGN NOTES:

1. REFER TO SHEET G-100 FOR PROJECT DESIGN NOTES.



SUBCONSULTANT:		 303 4th Street, Ste. 201 Oakland, CA 94607 T: 925.400.4358 www.jmacivil.com		PROFESSIONAL SEAL:	ISSUE: 15% DESIGN 04/12/21	REVISIONS: <table border="1"> <thead> <tr> <th>MARK</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>	MARK	DATE	DESCRIPTION													 PORT OF STOCKTON RAIL CAPACITY IMPROVEMENTS 2201 W. WASHINGTON STREET STOCKTON, CA 95203	SHEET TITLE: MCCLOY YARD PLAN & PROFILE
MARK	DATE	DESCRIPTION																					
SUBCONSULTANT:		PROJ NO: 18341 SCALE: AS NOTED DATE: 4/13/2021 DESIGNED BY: AG		SHEET NO. CT-112 SHEET 25 OF 30																			

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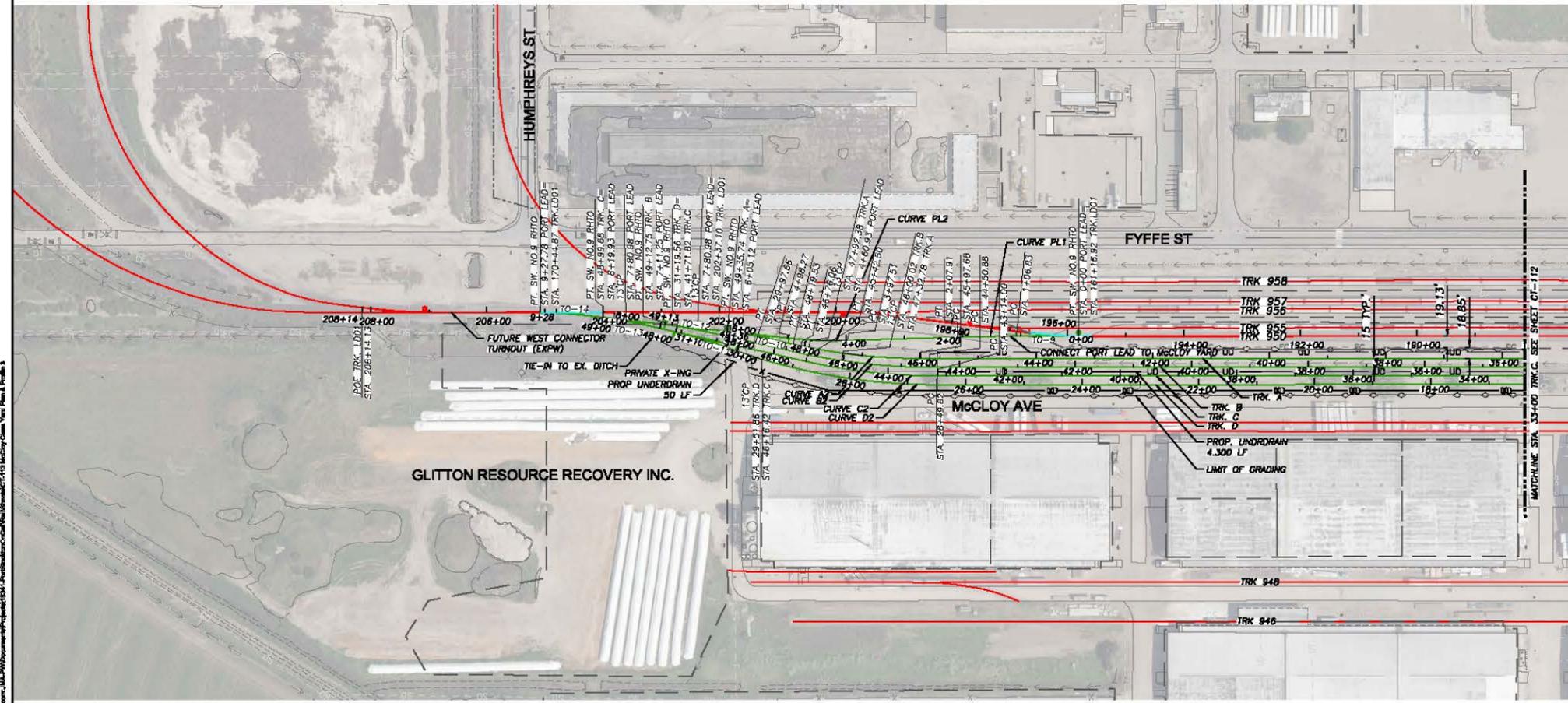
McCLOY TRACK C PROFILE

DESIGN NOTES:

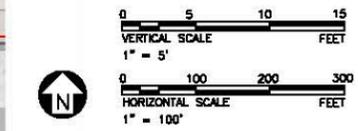
1. REFER TO SHEET G-100 FOR PROJECT DESIGN NOTES.

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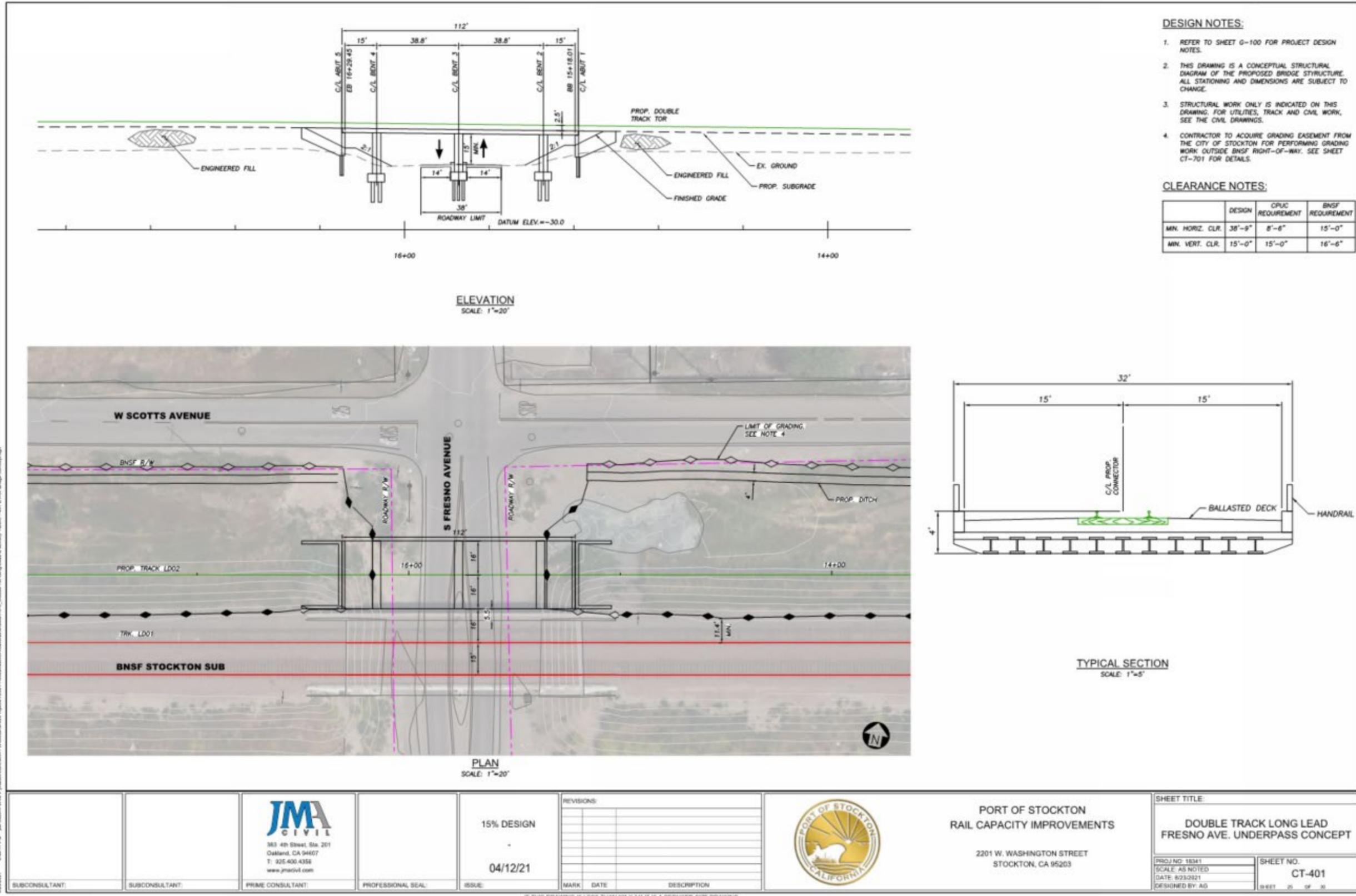
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CURVE A2	R= 1000' Dc= 5'43" L= 222' V= 10MPH
CURVE PL2	R= 717' Dc= 7'39" L= 101' V= 10MPH
CURVE B2	R= 1015' Dc= 5'38" L= 225' V= 10MPH
CURVE C2	R= 1030' Dc= 5'33" L= 229' V= 10MPH
CURVE D2	R= 1045' Dc= 5'30" L= 348' V= 10MPH



McCLOY PLAN



<p>383 4th Street, Ste. 201 Caldwell, CA 94807 T: 925.400.4368 www.jmacivil.com</p>		<p>15% DESIGN</p> <p>04/12/21</p>	<p>REVISIONS:</p> <table border="1"> <thead> <tr> <th>MARK</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	MARK	DATE	DESCRIPTION										<p>PORT OF STOCKTON RAIL CAPACITY IMPROVEMENTS</p> <p>2201 W. WASHINGTON STREET STOCKTON, CA 95203</p>	<p>SHEET TITLE:</p> <p>MCCLOY YARD PLAN & PROFILE</p>
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<p>SUBCONSULTANT:</p>	<p>SUBCONSULTANT:</p>	<p>PRIME CONSULTANT:</p>	<p>PROFESSIONAL SEAL:</p>	<p>ISSUE:</p>	<p>PROJ NO: 18941 SCALE: AS NOTED DATE: 4/13/2021 DESIGNED BY: AG</p>												
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SUBCONSULTANT:		 383 4th Street, Ste. 201 Oakland, CA 94607 T: 925-400-4358 www.jmacivil.com		PROFESSIONAL SEAL:	15% DESIGN 04/12/21	REVISIONS: <table border="1"> <thead> <tr> <th>MARK</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>	MARK	DATE	DESCRIPTION																 PORT OF STOCKTON RAIL CAPACITY IMPROVEMENTS 2201 W. WASHINGTON STREET STOCKTON, CA 95203	SHEET TITLE: DOUBLE TRACK LONG LEAD FRESNO AVE. UNDERPASS CONCEPT PROJ. NO: 18341 SCALE: AS NOTED DATE: 8/23/2021 DESIGNED BY: AG	SHEET NO. CT-401 SHEET 25 OF 30
MARK	DATE	DESCRIPTION																									

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September 2021

ATTACHMENT B
PRELIMINARY COST ESTIMATES

Port of Stockton Rail Bridge & Rail Improvements Construction Cost Estimate			
Section Number	Description	Total	Comments and Other Information
DOUBLE TRACK	STARTUP	\$ 400,000.00	
	SITWORK, UTILITIES, STRUCTURES	\$ 7,800,000.00	Includes Fresno/BNSF bridge and utility casing
	TRACKWORK – BY PORT	\$ 4,700,000.00	
	TRACKWORK – BY RAILROAD	\$ 3,600,000.00	
	SUBTOTAL	\$ 16,500,000.00	
	CONTINGENCY 30%	\$ 4,950,000.00	
	MOBILIZATION 3%	\$ 495,000	
	ANNUAL ESCALATION (MIDPOINT CONSTRUCTION YEAR) 3%	\$ 1,672,453.00	
	DOUBLE TRACK TOTAL	\$ 23,617,453.00	
	MCCLOY YARD – 5 TRACKS	SITE PREPWORK	\$ 1,667,800.00
TRACKWORK BY PORT		\$ 5,255,000.00	
UTILITIES		\$ 1,080,000.00	
SUBTOTAL		\$ 8,002,800.00	
CONINGENCY 30%		\$ 2,400,840.00	
MOBILIZATION 3%		\$ 240,084.00	
ANNUAL ESCALATION (MIDPOINT CONSTRUCTION YEAR) 3%		\$ 806,589.00	10/1/2023
MCCLOY YARD TOTAL	\$ 11,450,313.00		
RAIL BRIDGE	SUPERSTRUCTURE	\$ 3,501,000.00	
	SUBSTRUCTURES AND DEMO	\$ 10,723,980.00	Assumes multiple season Mob and Demo
	SUBTOTAL	\$ 14,224,980.00	
	CONTINGENCY 30%	\$ 4,267,494.00	
	ANNUAL ESCALATION (MIDPOINT CONSTRUCTION YEAR) 3%	\$ 1,294,473.00	
RAIL BRIDGE TOTAL	\$ 19,786,947.00	Includes Track Approach Work	
CONSTRUCTION SUBTOTAL		\$ 54,854,713.00	
	CONSTRUCTION MANAGEMENT	\$ 6,582,565.56	Assumes 12% of Construction
	CONSTRUCTION TOTAL	\$ 61,437,278.56	Includes CM Costs
	PROJECT TOTAL	\$ 61,437,278.56	

September 2021

ATTACHMENT C
CEQA ENVIRONMENTAL CHECKLIST

3 Environmental Checklist

- 1. Project Title:** Port of Stockton Bridge Replacement and Rail Improvements
- 2. Lead Agency:** Port of Stockton
2201 West Washington Street
Stockton, California 95203
- 3. Contact Person:** Jason Cashman
- 4. Project Location:** The proposed project includes locations on the Port’s East Complex, West Complex, the rail bridge across the San Joaquin River between the East and West Complexes, and BNSF right-of-way adjacent to West Scotts Avenue.
- 5. Project Sponsor:** Port of Stockton
- 6. General Plan Designation:** Institutional (West Complex), Industrial (East Complex)
- 7. Zoning:** Port, with limited areas of General Industrial, Low-Density Residential, and undesignated (BNSF right-of-way)
- 8. Description of Project:**

The proposed project would replace a functionally obsolete rail bridge and increase the overall efficiency of train operations within the Port to accommodate projected volumes. The proposed rail improvements include the following:

 - Replacing the existing outdated wood and steel truss, single-track rail bridge between the Port’s East and West Complexes with a double-track rail bridge (two fixed, removable span bridges) to accommodate vessels in the event of an upstream levee or flood event
 - Adding a second Port lead track within the BNSF right-of-way and through the East Complex
 - Constructing new yard track south of the Port Yard on the East Complex
 - Constructing a new rail classification yard on the West Complex

Construction would occur over approximately 3 years and would be expected to begin in summer 2023.
- 9. Surrounding Land Uses and Setting:** Surrounding land uses in the Port are industrial. Surrounding land uses in the City’s urban core are characterized by a mix of heavy industrial uses with limited landscape features, older residential neighborhoods, neighborhood commercial shopping centers, and a variety of other commercial and industrial parcels

10. Other Public Agencies Whose Approval Is Required:

- Bridge permit from USCG
- Permit from the U.S. Army Corps of Engineers
- Streambed Alteration Agreement from CDFW
- Lease from CSLC
- Encroachment Permit from Central Valley Flood Protection Board
- Clean Water Act Section 402 National Pollutant Discharge Elimination System (NPDES) Construction Stormwater General Permit and 401 Water Quality Certification from Central Valley Regional Water Quality Control Board
- Approval from Reclamation Districts 403 and 404
- Grading and land alteration permits from the City
- Grading and land alteration permits from San Joaquin County

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code Section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

Two Native American tribes requested consultation under CEQA guidelines (commonly known as AB 52): the Buena Vista Rancheria of Me-Wuk Indians of California and the Wilton Rancheria Tribe. The Port notified these two tribes—as well as the Tule River Indian Tribe, Confederated Villages of Lisjan, Muwekma Ohlone Indian Tribe of the SF Bay Area, and the Northern Valley Yokuts Tribe—of the proposed project by email on May 28, 2021, and by letter on June 2, 2021, and will provide the IS/MND to the tribes. No tribal cultural resources have been identified in the project area. Consultation will be ongoing.

3.1 Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by the proposed project, involving at least one impact that is potentially significant (after incorporation of mitigation measures) as indicated by the checklist.

- | | | |
|--|---|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forestry Resources | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Energy |
| <input type="checkbox"/> Geology/Soils | <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards and Hazardous Materials |
| <input type="checkbox"/> Hydrology/Water Quality | <input type="checkbox"/> Land Use/Planning | <input type="checkbox"/> Mineral Resources |
| <input type="checkbox"/> Noise | <input type="checkbox"/> Population/Housing | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation | <input type="checkbox"/> Tribal Cultural Resources |
| <input type="checkbox"/> Utilities/Service Systems | <input type="checkbox"/> Wildfire | <input type="checkbox"/> Mandatory Findings of Significance |

3.2 Determination

On the basis of this initial evaluation:

- I find that the proposed subsequent activity COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions to the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect: 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards; and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects: a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards; and b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.



June 25, 2021

Signature

Date

Jason Cashman

Port of Stockton

Printed Name

For

3.1 Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by the proposed project, involving at least one impact that is potentially significant (after incorporation of mitigation measures) as indicated by the checklist.

- | | | |
|--|---|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forestry Resources | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Energy |
| <input type="checkbox"/> Geology/Soils | <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards and Hazardous Materials |
| <input type="checkbox"/> Hydrology/Water Quality | <input type="checkbox"/> Land Use/Planning | <input type="checkbox"/> Mineral Resources |
| <input type="checkbox"/> Noise | <input type="checkbox"/> Population/Housing | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation | <input type="checkbox"/> Tribal Cultural Resources |
| <input type="checkbox"/> Utilities/Service Systems | <input type="checkbox"/> Wildfire | <input type="checkbox"/> Mandatory Findings of Significance |

3.2 Determination

On the basis of this initial evaluation:

- I find that the proposed subsequent activity COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions to the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect: 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards; and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects: a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards; and b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.



June 25, 2021

Signature

Date

Jason Cashman

Port of Stockton

Printed Name

For

3.3 Evaluation of Environmental Impacts

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off site as well as on site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
4. "Negative Declaration: Less Than Significant with Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
 - a. Earlier Analysis Used. Identify and state where they are available for review.
 - b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c. Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used, or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
 - a. The significance criteria or threshold, if any, used to evaluate each question; and
 - b. The mitigation measure identified, if any, to reduce the impact to less than significance.

3.3.1 Aesthetics

Except as provided in Public Resources Code Section 21099, would the project:		Potentially Significant Impact	Less-Than-Significant Impact After Mitigation	Less-Than-Significant Impact	No Impact
a.	Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b.	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings along a scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c.	In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d.	Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.3.1.1 Affected Environment

3.3.1.1.1 Regional Setting

The proposed project is located within the City's urban core, which is characterized by a mix of heavy industrial uses with limited landscape features, older residential neighborhoods, neighborhood commercial shopping centers, and a variety of other commercial and industrial parcels. In most of the areas surrounding the project site, the Port leases property for a variety of industrial uses characterized by storage tanks, railroad facilities, large storage buildings, and stockpiles of various commodities. A residential area, the Boggs Tract neighborhood, is located north and east of portions of the proposed rail improvements. Regional land uses that affect the visual character include residential infill, agricultural lands, industrial and commercial facilities, and the San Joaquin River (serving industrial, recreational, and natural uses).

3.3.1.1.2 Scenic Highways

California's Scenic Highway Program was created by the State Legislature in 1963 with the purpose of protecting and enhancing the natural scenic beauty of California highways and adjacent corridors through special conservation treatment. The state laws governing the Scenic Highway Program are found in the Streets and Highways Code, Sections 260 through 284. The closest scenic highway to the project site is the portion of I-580 from I-5 to I-205, which is located 20 miles southwest of the Port.

3.3.1.1.3 Study Area Setting

The proposed project includes elements on the Port's East Complex and West Complex; the visual landscape in the study area of both comprise largely industrial facilities, roads and railways, and barren parcels planned for development (Photographs 1 through 3). The areas adjacent to the proposed rail bridge include industrial buildings, existing railways, storage tanks, a vehicle parking lot, paved areas, barren land, a retention basin constructed by the Fyffe Avenue Grade Separation project, and the San Joaquin River. The rail bridge site includes an approximately 15-foot-high levee adjacent to each side of the San Joaquin River (Photograph 3). Because the study area is so highly developed with industrial infrastructure, few natural features exist. Vegetation is mostly limited to ornamental native and non-native trees and ruderal grasses, shrubs, and other groundcover.

Photograph 1

View of the Proposed McCloy Rail Classification Yard Site on the West Complex

Looking east from near the intersection of McCloy Avenue and Humphreys Drive



Photograph 2

View of the Existing Rail Embankment and Proposed Starting Location of the LLDT in the BNSF Right-of-Way

Looking west near the intersection of West Scotts Avenue and Garfield Avenue



Photograph 3

View of the Existing Railroad Bridge

Looking east from atop the levee on the western approach to the rail bridge



3.3.1.1.4 *Project Viewshed*

Views throughout the project area are largely obscured by industrial developments, rail lines, and rail cars. The proposed rail bridge is visible to vehicles traveling on Navy Drive and to employees or visitors to adjacent facilities. The nearest residential area to the project area, the Boggs Tract neighborhood, is located approximately 1 mile east of the proposed rail bridge, approximately 300 feet east of portions of the LLDT work between the 700 Yard and the Port Yard, approximately 100 feet north of the LLDT work in the BNSF right-of-way, and approximately 130 feet north of the rail underpass at Fresno Avenue. Residences along the north side of West Scotts Avenue are closest to portions of the project area. Construction of the rail bridge would not be visible from the Boggs Tract neighborhood. Construction and current and proposed operation of portions of the rail line would be visible from portions of the Boggs Tract neighborhood. The closest neighborhood to the rail bridge is approximately 0.5 mile to the north, across the San Joaquin River; construction of and proposed project operations on the rail bridge could potentially be visible from vacant land on the north bank of the San Joaquin River near the intersection of Ryde Avenue and West Fremont Street.

3.3.1.2 **Impact Evaluation**

A: Would the project have a substantial adverse effect on a scenic vista?

No Impact. The existing visual character in the study area is not considered scenic, nor are there any identified scenic vistas within the project area. Therefore, there would be no impact to scenic vistas.

B: Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings along a scenic highway?

No Impact. The proposed project would not affect any rock outcroppings or historic buildings along a scenic highway. Vegetation removal would be limited to grubbing of ruderal vegetation and potentially limited tree removal along McCloy Avenue. There are no designated state scenic highways within the project area, and the visual character of the study area (industrial and Port uses) is consistent with the proposed project. Therefore, there would be no impact to scenic resources.

C: In non-urbanized areas, would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Less-than-Significant Impact. The proposed project is located within the City's urban core and would not conflict with applicable zoning. There are no applicable regulations governing scenic quality at the project site, and the visual character of the study area would not be changed by the proposed project.

Permanent visual changes resulting from the proposed project would occur from replacing the rail bridge and the addition of new rail lines and an additional rail underpass at Fresno Avenue; however, proposed site conditions would be consistent with the existing visual character of the project site and its surroundings, which includes other rail lines and bridges. The proposed project would accommodate a modest increase in rail calls at the Port. Rail operations under the proposed project would be aesthetically similar and consistent with those of existing conditions within the industrialized area. The proposed project would demolish the existing steel and wood single-track rail bridge, which is currently eligible for listing in the National Register of Historic Places (NRHP) as a contributing structure to the National Register-eligible Naval Supply Annex Stockton National Historic District (NHD). The new steel and concrete double-track rail bridge would have a different visual character than the existing bridge; however, this visual change would only be visible to vehicles traveling on Navy Drive and employees of businesses that are adjacent to the bridge.

Many of the short-term construction activities would be obscured from view by on-site and adjoining developments. Construction for the LLDT earthwork and trackwork in the BNSF right-of-way adjacent to West Scotts Avenue, including construction of the additional rail underpass at Fresno Avenue, would be visible to some residents of the Boggs Tract neighborhood. This portion of the work is conservatively estimated to occur over approximately 4 months of the proposed project construction timeline (see Section 2.5). While it would be visible to some residents of the Boggs Tract neighborhood, construction would not alter the visual character of the project site and surroundings due to its location within an industrialized area.

Based on the conditions described above, there would be a less-than-significant impact to the existing visual character or quality of the project site and its surroundings from the proposed project.

D: Would the project create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?

No Impact. Any lighting required for construction would be directed onto the project site and would be the minimum necessary for safety purposes. No new permanent sources of light or glare would be constructed. Therefore, the proposed project would result in no impact to daytime or nighttime views in the study area from new sources of light or glare.

3.3.2 Agricultural and Forestry Resources

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project, and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:		Potentially Significant Impact	Less-Than-Significant Impact After Mitigation	Less-Than-Significant Impact	No Impact
a.	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b.	Conflict with existing zoning for agricultural use or conflict with a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c.	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220[g]), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104[g])?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d.	Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e.	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.3.2.1 Affected Environment

The City's 2040 General Plan (City 2018a) designates the project areas on the East Complex as Industrial and areas on the West Complex as Institutional. The zoning designation for the project area and surrounding parcels is primarily Port, but includes limited areas designated as General Industrial, Low-Density Residential, and undesignated zoning along the BNSF right-of-way (City 2021b). Port areas are designated for the operation of port facilities, including wharves, dockage, warehousing, and related port facilities.

Neither the project site nor the immediate surrounding areas currently support agricultural use or forestry resources. There are no timberland zoned properties within San Joaquin County (Stockton Port District 2012). The nearest forest area is the Stanislaus Forest, which is more than 50 miles away. Property surrounding the project area has been developed for industrial or urban land uses.

3.3.2.2 Impact Evaluation

A: Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

No Impact. The proposed project would not result in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use. Therefore, there would be no impact.

B: Would the project conflict with existing zoning for agricultural use or conflict with a Williamson Act contract?

No Impact. No farmland exists in the project area. The project area is zoned for non-agricultural uses and is actively used for rail transport, which precludes the area from qualifying for Williamson Act contracts. Therefore, there would be no impact.

C: Would the project conflict with existing zoning for, or cause rezoning of forest land (as defined in Public Resources Code Section 12220[g]), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104[g])?

No Impact. The proposed project would not conflict with or change any zoning or use of forest land, timberland, or timberland zoned Timberland Production. Therefore, there would be no impact.

D: Would the project result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. The proposed project would not result in the conversion of forest land or timberland to non-forest use. Therefore, there would be no impact.

E: Would the project involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?

No Impact. No forest or farmlands exist near the project area. Therefore, there would be no impact.

3.3.3 Air Quality

When available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:		Potentially Significant Impact	Less-Than-Significant Impact After Mitigation	Less-Than-Significant Impact	No Impact
a.	Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b.	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c.	Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d.	Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.3.3.1 Affected Environment

3.3.3.1.1 Environmental Setting

The proposed project is located within the San Joaquin Valley Air Basin (SJVAB), which is bordered by the Sierra Nevada to the east, the Coast Ranges to the west, and the Tehachapi Mountains to the South and is made up of eight counties in California's Central Valley: San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, Tulare, and the SJVAB portion of Kern. The climate within the SJVAB is typical of inland valleys in California, with hot, dry summers and cool, mild winters. Daytime temperatures in the summer often exceed 100°F, with lows in the 60s. In winter, daytime temperatures are usually in the 50s, with lows around 35°F. Fog is common in the winter and may persist for days. Winds are predominantly up-valley (from the north) in all seasons, but more so in the summer and spring. Winds in the fall and winter are generally lighter and more variable in direction, but generally blow toward the south and southeast.

Because of the Central Valley's unique physical characteristics, the pollution potential in the area is very high. Surrounding elevated terrain, in conjunction with temperature inversions, frequently restricts lateral and vertical dilution of pollutants. Ozone (O₃), the major component of the Central Valley's summertime smog, is formed via chemical reactions between reactive organic gases (ROG) and nitrogen oxides (NO_x) in the presence of ultraviolet radiation or sunlight. Abundant sunshine and warm temperatures in summer are ideal conditions for the formation of photochemical oxidants, leading to frequent photochemical pollution, or O₃. Tiny particles of solids or liquids (excluding pure water) that are suspended in the atmosphere are known as particulate matter (PM) and are classified according to their diameter in microns as either PM_{2.5} (particulate matter 2.5 microns or smaller in diameter) or PM₁₀ (particulate matter 10 microns or smaller in diameter). PM can be emitted directly

(primary PM, such as dust or soot), or can form in the atmosphere through photochemical reactions or gaseous precursors (secondary PM). Much of the Central Valley's ambient PM₁₀ and PM_{2.5} is secondary PM, formed in atmospheric reactions of NO_x. Due to the combined air pollution sources within the SJVAB and meteorological and geographical effects that limit dispersion of air pollution, the SJVAB can experience high air pollutant concentrations.

3.3.3.1.2 *Regulatory Setting*

The U.S. Environmental Protection Agency (USEPA) enforces federal air quality regulations. The federal Clean Air Act of 1970, amended in 1990, authorized the establishment of national health-based air quality standards, set deadlines for their attainment, and established actions required of areas that exceed these standards. Air agencies in areas that exceed the National Ambient Air Quality Standards (NAAQS) are required to develop state implementation plans (SIPs) to show how they will achieve NAAQS. USEPA's responsibility to control air pollution in individual states is primarily to review submittals of SIPs prepared by each state.

In California, the CARB prepares and enforces federally required SIPs to achieve and maintain NAAQS and California Ambient Air Quality Standards (CAAQS), which were developed as part of the California Clean Air Act adopted in 1988. CAAQS for criteria pollutants are equal to or more stringent than NAAQS and include other pollutants for which there are no NAAQS. In addition, CARB is responsible for assigning air basin attainment and non-attainment designations in California. Air basins are designated as being in attainment if the levels of a criteria air pollutant meet CAAQS for the pollutant and are designated as being in non-attainment if the level of a criteria air pollutant is higher than CAAQS.

The SJVAPCD is the air district for SJVAB, which is where the project site is located. SJVAPCD prepares air quality plans for SJVAB to comply with national and state standards that are used to assess potential air quality impacts. The San Joaquin Valley has been in attainment for carbon monoxide (CO) since 1994 and reached attainment for the federal PM₁₀ standard in 2008. The entire air basin is classified as non-attainment for the CAAQS 24-hour and annual PM₁₀ standards, the CAAQS annual PM_{2.5} standard, and the CAAQS 1-hour and 8-hour O₃ standards. The SJVAB is also classified as non-attainment for the NAAQS 8-hour O₃ standard and the 24-hour and annual PM_{2.5} standards (SJVAPCD 2015a).

The SJVAPCD-recommended thresholds for determining whether projects have significant adverse air quality impacts are provided in its *Guidance for Assessing and Mitigating Air Quality Impacts* (SJVAPCD 2015b). Table 5 shows SJVAPCD thresholds. These thresholds are applied separately to construction emissions, permitted operational emissions, and non-permitted operational emissions.

**Table 5
San Joaquin Valley Air Pollution Control District Significance Thresholds**

Pollutant/Precursor	Emissions (tons per year)
ROG	10
NO _x	10
CO	100
SO _x	27
PM ₁₀	15
PM _{2.5}	15

Source: SJVAPCD 2015b

3.3.3.2 Impact Evaluation

Construction: Construction would occur largely within the Port’s rail system. Construction emissions would be generated by construction equipment and worker vehicles. Construction is expected to occur over 3 years in various areas of the Port. The initial phase of construction would include site preparation activities at all sites. Some work elements related to the rail bridge replacement, LLDT construction, and McCloy rail classification yard construction would occur simultaneously. Equipment lists were provided by engineers; all equipment is conservatively assumed to be diesel-fueled, and construction activities are assumed to occur during the hours of 6:00 a.m. to 9:00 p.m. Emissions are summarized in Tables 6 and 7. A full description of construction assumptions, including equipment horsepower ratings, is provided in Appendix C.

**Table 6
Annual Construction Emissions**

Year	Construction Project	Construction Phase	Construction Emissions (pounds per year)					
			ROG	NOx	CO	SOx	PM ₁₀	PM _{2.5}
2023	Rail Bridge Replacement	Track LD01 Construction	88	853	628	2	56	34
	Second Lead Track	Earthwork	290	2,848	2,484	11	246	122
	McCloy Rail Classification Yard	Earthwork	306	2,216	2,569	6.8	209	108
2024	Rail Bridge Replacement	Track LD01 Construction	35	402	325	1	29	15
	Second Lead Tracks	Track Removal and Reconnection	146	1,262	1,410	4	113	57
	McCloy Rail Classification Yard	Earthwork and Track Removal and Reconnection	245	1,766	2,055	5	161	85
2025	Rail Bridge Replacement	Track LD02 Construction	97	983	833	3	72	39

**Table 7
Annual Construction Emissions, Relative to Thresholds**

Year	Construction Emissions (tons/year)					
	ROG	NOx	CO	SOx	PM ₁₀	PM _{2.5}
2023	0.34	3.0	2.8	0.010	0.26	0.13
2024	0.21	1.7	1.9	0.0056	0.15	0.079
2025	0.049	0.49	0.42	0.0017	0.036	0.020
Threshold	10	10	100	27	15	15

Operations: As discussed in Sections 2.2.1 and 2.6, the Port currently serves 21 trains per week with an expected growth to 34 trains per week by 2026 based on tenant projections. However, absent the proposed rail improvements, the Port’s rail system would be constrained to a maximum of 28 trains per week. The operational air quality assessment considers the emissions change between constrained operations in 2026 (without the proposed rail system improvements) and operations in 2026 (with system improvements). The air quality assessment analyzes the emissions from rail movements within the Port both with and without the proposed project.

As discussed in Section 2.2.1, there are two types of I rail carriers in the Port: the Class I mainline carriers (BNSF and UP) and the Class III short line carriers or “switchers” (CCT at the Port). Class I carriers were assumed in this analysis to have an average of two locomotives while Class III carriers were assumed to have one locomotive. Class I carriers are assumed to make two trips while in the Port’s rail system: one inbound and one outbound trip to deliver cars from the regional rail network to the Port. Class III carriers are assumed to make one to two trips within the Port’s rail system to sort and deliver rail cars to terminals.

To model emissions, hours of operation were allocated to the destination location and locomotive type by number of trips and distance traveled within the Port. The “2026 Conditions without Proposed Project” scenario assumes that the rail system continues to be constrained to 28 trains and the lead track blockages continue. The “2026 Conditions with Proposed Project” scenario assumes that there would be an additional six trains, with two going to the East Complex and four going to the West Complex. Modeled operational emissions using these assumptions are summarized in Table 8. A full description of operational assumptions, including equipment horsepower ratings, is provided in Appendix C.

**Table 8
Operational Emissions**

Scenario	Engine Type	Engine Mode	CAP Emissions (tons per year)					
			ROG	NOx	PM ₁₀	PM _{2.5}	CO	SOx
2026 Conditions without Proposed Project	Class I Mainline Carriers	Running	0.70	11	0.38	0.35	2.9	0.012
		Idling	0.030	0.46	0.016	0.015	0.13	5.4E-04
	Class III Switchers	Running	0.62	15	0.33	0.31	3.5	0.013
		Idling	0.042	1.0	0.023	0.021	0.24	8.7E-04
	Total			1.4	27	0.75	0.69	6.8
2026 Conditions with Proposed Project	Class I Mainline Carriers	Running	0.82	19	0.44	0.41	4.7	0.017
		Idling	0.024	0.56	0.013	0.012	0.13	4.9E-04
	Class III Switchers	Running	0.76	12	0.41	0.38	3.1	0.013
		Idling	0.016	0.25	0.0089	0.0081	0.067	2.9E-04
	Total			1.6	32	0.88	0.81	8.0
Net Change	Class I Mainline Carriers	Running	0.20	4.7	0.11	0.10	1.1	0.0041
		Idling	-0.018	-0.43	-0.010	-0.0091	-0.10	-3.8E-04
	Class III Switchers	Running	0.069	1.0	0.037	0.034	0.28	0.0012
		Idling	-0.014	-0.21	-0.0076	-0.0070	-0.06	-2.5E-04
	Total			0.23	5.10	0.13	0.12	1.20
Threshold			10	10	15	15	100	27
Significant?			No	No	No	No	No	No

A: Would the project conflict with or obstruct implementation of the applicable air quality plan?

Less-than-Significant Impact. SJVAPCD has established thresholds of significance for criteria pollutant emissions, which are based on New Source Review offset requirements for stationary sources. Because the SJVAB is an extreme O₃ non-attainment area, stationary sources in SJVAPCD are subject to some of the toughest regulatory requirements in the Nation. Emission reductions achieved through implementation of offset requirements are a major component of SJVAPCD's air quality plans. Therefore, projects with emissions below the thresholds of significance for criteria pollutants would be determined to not conflict or obstruct implementation of the air quality plans, while emissions exceeding those thresholds would conflict with and obstruct implementation. Tables 6 and 7 present the construction emissions, and Table 8 presents the operational emissions resulting from the proposed project. As shown, emissions would not exceed thresholds.

Because the proposed project would not exceed thresholds, it would not conflict with or obstruct implementation of SJVAPCD's O₃ attainment plans, including its most recent 2016 plan for the 2008 8-hour O₃ standard (SJVAPCD 2016). Impacts would be considered less than significant.

B: Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a non-attainment area for an applicable federal or state ambient air quality standard?

Less-than-Significant Impact. Any project-level significant impacts would be considered significant at the cumulative level. As previously discussed, criteria pollutant emissions would be less than significant and therefore would not contribute to significant cumulative impacts. As discussed below, proposed project activities would neither expose sensitive receptors to substantial pollutant concentrations nor generate objectionable odors. Accordingly, no new or more severe cumulative impacts are anticipated as part of the proposed project. Therefore, impacts would be less than significant.

C: Would the project expose sensitive receptors to substantial pollutant concentrations?

Less-than-Significant Impact. SJVAPCD considers a sensitive receptor to be a residence, hospital, school, or convalescence facility where sensitive individuals could be exposed to substantial pollutant concentrations. Commercial and industrial facilities are not included in the definition of sensitive receptors because employees do not remain on site for a full 24 hours and are not considered sensitive. For the health risk assessment, the nearest sensitive receptors to the project site are residential receptors located approximately 300 feet east of portions of the LLDT on the Port, and approximately 100 feet north of portions of the LLDT in the BNSF right-of-way.

Impacts to sensitive receptors are evaluated in terms of exposure to TACs. Diesel PM emitted by on-road and off-road vehicles is considered the TAC of most concern from motor vehicles. The health

risks of TAC emissions are typically quantified when both of the following apply: sensitive receptors are located within 1,000 feet of an emission source; and exposure would occur over several years.

TACs emitted from construction equipment and switching and mainline locomotives include diesel PM emissions. Appendix C provides additional details on the assumptions and modeling results used to conduct the health risk assessment. Table 9 shows the proposed project’s construction and operational maximum cancer risks and non-cancer health hazards.

**Table 9
Incremental Health Risk Construction and Operations**

Source Category	Source	Excess Lifetime Cancer Risk (in a million)	Chronic Hazard Index
Construction Sources	Off-Road Equipment Exhaust	2.2	0.020
	On-Road Mobile Vehicles	0.0060	1.8E-07
	On-Site Truck Exhaust	0.16	2.1E-04
Operational Sources ¹	Class I Locomotives	0.0022	1.8E-06
	Class III Locomotives	6.3E-04	4.8E-07
Total		2.3	0.020
Significance Threshold		20	1.0
Exceeds Threshold?		No	No

Note:

1. Excess lifetime cancer risk and chronic hazard index from operational sources represent the incremental increase in activity expected as a result of the proposed project (i.e., Future with Proposed Project compared to Future without Proposed Project).

As shown in Table 9, the proposed project would result in a less-than-significant cancer risk and chronic health hazard at the maximally affected individual receptors. Therefore, the proposed project’s health risk impacts would be less than significant.

D: Would the project result in other emissions (such as those leading to odors) affecting a substantial number of people?

Less-than-Significant Impact. Construction and operations could generate odors associated with diesel exhaust from heavy-duty equipment. Odors would be highest near the source and would quickly dissipate off site. As discussed above, the nearest sensitive receptors are residences located approximately 100 feet north of the areas where sources of construction and operational emissions would be located. Odors would be confined to the immediate area where equipment is operating and would not affect these residences. Therefore, odor impacts would be less than significant.

3.3.4 Biological Resources

Would the project:		Potentially Significant Impact	Less-Than-Significant Impact After Mitigation	Less-Than-Significant Impact	No Impact
a.	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b.	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c.	Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d.	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e.	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f.	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.3.4.1 Affected Environment

Biological conditions occurring in the study area were observed during a reconnaissance survey conducted on March 23, 2021, to assess current habitat conditions, determine potential presence of any jurisdictional waters and wetlands, and evaluate the study area's potential to support special-status species or sensitive habitats (Anchor QEA 2021). A search of the California Natural Diversity Database (CNDDDB) was conducted to identify recorded special-status species occurrences within the Stockton West U.S. Geological Survey 7.5-minute quadrangle and surrounding quadrangles (Terminus, Lodi South, Waterloo, Stockton East, Manteca, Lathrop, Union Island, and Holt; CDFW CNDDDB 2021). Fish species potentially present in the project area (specifically within the San Joaquin

River at the location of the proposed rail crossing) were identified based on critical habitat and essential fish habitat (EFH) designations (50 Code of Federal Regulations [CFR] 226; NOAA 2009).

3.3.4.1.1 *Habitat Communities*

The proposed project includes elements on the Port's East Complex and West Complex as well as over the San Joaquin River. Except for the proposed replacement bridge crossing, the entirety of the proposed project alignment is within industrial or urban habitats. Vegetation is mostly limited to ornamental native and non-native trees and ruderal grasses, shrubs, and other groundcover. Non-riverine water or wetland features are limited to several isolated topographical depressions, ditches, or artificial ponds. Given the linear nature of the proposed improvements and the project site's general industrial and urban setting, habitat community descriptions are provided in the following sections for the following lengths of the proposed project's alignment:

- **McCloy rail classification yard.** Includes the proposed McCloy rail classification yard that would be constructed between and parallel to Fyffe Street and McCloy Avenue on the West Complex, approximately between Humphreys Drive and James Drive (Figure 6). Construction staging would occur in areas to the south and southwest along this length of the project site (Figure 7).
- **West Complex rail bridge approach.** Includes the proposed connection from the rail bridge to existing tracks on the West Complex, from the approximate western end of the Port golf course to the top of bank of the western levee of the San Joaquin River, west of the proposed rail crossing (Figure 5a). Construction staging would also occur in this area, both to the north and south of existing rail lines (Figure 7).
- **Rail bridge replacement.** Includes the location of the existing and proposed rail bridges crossing the San Joaquin River (Figures 5a and 5b).
- **East Complex rail bridge approach.** Includes the proposed connection from the rail bridge to existing tracks on the East Complex, from the top of bank of the eastern levee of the San Joaquin River, east of the rail bridge replacement area, to near the intersection of Stork Road and Port Road A (Figure 5a). Construction staging would also occur in this area south of the existing rail line immediately east of the levee (Figure 7).
- **Port Yard improvements.** Includes the proposed segments of track and switches within the Port Yard (Figure 4b). Two small staging areas would also be in this area on the west end of the Port Yard (Figure 7).
- **LLDT improvements between 700 Yard and Port Yard.** Includes the proposed rail improvements along the eastern end of the Port's East Complex, west of the Boggs Tract neighborhood, approximately between the intersection of Port Road A and Port Road J to the existing Crosstown Freeway overpass, and in perimeter areas of undeveloped privately owned property west of Ventura Avenue (Figures 4a and 4b). Several construction staging areas would be located west of the exiting rail lines in this area (Figure 7).

- **East Complex central staging area.** Includes a proposed temporary construction staging area located in the center of the East Complex within a barren but disturbed area immediately west of the Port's Administration Building at 2201 West Washington Street (Figure 7).
- **LLDT improvements adjacent to West Scotts Avenue.** Includes the proposed LLDT parallel to and south of West Scotts Avenue approximately between the existing Crosstown Freeway overpass and the existing Port lead switch near Garfield Avenue, including the new rail underpass at Fresno Avenue and work in the BNSF right-of-way, and potentially within City and San Joaquin County right-of-way, to accommodate the new tracks (Figure 4a). Construction staging would occur adjacent to the existing rail lines in this area (Figure 7).

3.3.4.1.1.1 McCloy Rail Classification Yard

The McCloy rail classification yard portion of the project site includes an approximately 5,600 linear foot length within the industrialized West Complex where the proposed rail classification yard would be constructed. The proposed McCloy rail classification yard would be constructed parallel to and south of existing rail lines in this area. Within or immediately south of the proposed McCloy rail classification yard are the existing McCloy Avenue roadway and roadway shoulders. West of the proposed McCloy rail classification yard is an undeveloped but disturbed area containing yellow star thistle (*Centaurea solstitialis*) and coyote brush (*Baccharis pilularis*) scrub habitat. Temporary construction staging would occur in this area. Other features adjoining the proposed McCloy rail classification yard include warehouse buildings to the south, a small triangular undeveloped area to the south between McCloy Avenue and Port of Stockton Expressway, and an undeveloped but disturbed parcel to the south across McCloy Avenue.

The proposed McCloy rail classification yard footprint area is surfaced in concrete, asphalt, or compacted dirt. There is also a cobble-lined stormwater drainage feature south of the existing rail line parallel to McCloy Avenue. Patchy coverage of ruderal vegetation occurs throughout the length proposed for development; it appears that vegetation management, including herbicide spraying and mowing, occurs in this area. A linear row of mature 20-to-30-foot landscaping trees is present along the length of the proposed McCloy rail classification yard, consisting of cedar (*Cedrus deodara*), cork oak (*Quercus suber*), Monterey pine (*Pinus radiata*), and Siberian elm (*Ulmus pumila*) species (Photograph 4). The undeveloped areas west and south of the proposed rail extension contain dense coverage of ruderal groundcover, grasses, and shrubs.

Photograph 4

View of the Proposed McCloy Rail Classification Yard Site on the West Complex

Looking west along McCloy Avenue and at a typical cedar tree



3.3.4.1.1.2 West Complex Rail Bridge Approach

The West Complex rail bridge approach portion of the project site includes an approximately 1,600 linear foot length within the industrialized West Complex, just south of the existing inactive Port golf course and adjacent to a retention basin being constructed as part of the Fyffe Avenue Grade Separation project. Most of the proposed rail alignment in this area overlaps with an existing active construction site for the Fyffe Avenue Grade Separation project, and at the time of the site visit largely consisted of barren disturbed earth (Photograph 5). The proposed rail alignment would be located adjacent to the existing rail line in this area. The existing rail line is at grade until nearing the western bank of the San Joaquin River crossing, and the tracks gradually rise through the support of a rock ballast levee to meet the grade of the main perimeter levee.

Apart from the disturbed barren construction areas, vegetation within or adjacent to the proposed alignment consisted of Himalayan blackberry (*Rubus armeniacus*) brambles and non-native ornamental trees such as camphor (*Cinnamomum camphora*), black walnut (*Juglans hindsii*), and others. Two small pond areas with standing water were observed within or near the proposed rail

alignment. These features appear to have been constructed as temporary detention basins (Photograph 6).

Temporary construction staging would occur also within the West Complex rail bridge approach area. Staging areas would be located adjacent to the existing rail lines, within the disturbed barren earth area currently used for construction of the Fyffe Avenue Grade Separation project, and inland of the existing San Joaquin River levees in areas containing similar disturbed construction areas or the predominantly Himalayan blackberry bramble vegetation described previously.

Other notable habitat features in this area include the inactive Port golf course north of the proposed rail alignment, which is characterized by turf and ornamental landscape trees. The inactive golf course continues to support numerous ornamental trees and greens, which appear to be maintained with mowing. Within the inactive golf course, there are two artificially created ornamental ponds. The westernmost pond supports a ring of emergent vegetation including cattail (*Typha latifolia*) and bulrush (*Schoenoplectus acutus*) around its shoreline, and its water surface is covered with water fern (*Azolla* sp.). The eastern horseshoe-shaped pond lacks emergent vegetation and supports open-water habitat. Except for the San Joaquin River to the east (described in Section 3.3.4.1.1.3), other habitats surrounding the West Complex rail bridge approach are limited to roadways and developments to the east and the existing, barren, disturbed construction area to the south.

Photograph 5
View Looking East from the West Complex Bridge Approach Area

Including a view of the inactive golf course and active construction site



Photograph 6
View of the Temporary Construction Detention Basin



3.3.4.1.1.3 Rail Bridge Replacement

As described in Section 2.5.2, the proposed replacement steel and concrete bridge would measure approximately 325 feet long, spanning the San Joaquin River, and would replace the existing bridge structure. To accommodate the replacement bridge footings, the top of the levee may need to be excavated and set back approximately 25 to 30 feet, with all excavation occurring above ordinary high water. The rail bridge replacement area lacks dense canopy cover but contains groundcover or shrub vegetation typical of disturbed areas along with sparse coverage of native and non-native trees. At the western side of the rail line crossing, elderberry (*Sambucus mexicana*) shrubs and trees are found on the north bank among Himalayan blackberry, wild rose (*Rosa* sp.) and tobacco tree (*Nicotiana glauca*). On the eastern side of the rail line river crossing, there are ornamental palms, cottonwood (*Populus fremontii*), and non-native tree species including Siberian elm (see Photograph 3 in Section 3.3.1.1.3); Himalayan blackberry brambles drape the bank to the river (Photograph 7). Non-native grasses occur on the eastern slope of the levee at this location. Approximately 350 feet to the east of the river crossing, a cluster of elderberry shrubs occur on the north side of the rail line levee.

Photograph 7

View of Vegetation on the Western Levee Near the Proposed Rail Crossing

Including a view of elderberry shrub and Himalayan blackberry



3.3.4.1.1.4 East Complex Rail Bridge Approach

The existing rail line descends from the levee on the eastern bank of the San Joaquin River crossing to meet the grade to the east where it connects with other rail spurs just west of Stork Road, a length of approximately 600 to 800 feet. The inland levee bank and slopes adjoining the rail line have been colonized by grass and groundcover species common in disturbed areas. The dominant vegetation observed at the site is non-native perennial grasses, in addition to coverage of red stemmed filary (*Erodium cicutarium*), *Epilobium* sp., *Bromus* spp., little mallow (*Malva parviflora*), and ice plant (*Carpobrotus edulis*). Between the eastern levee and Stork Road, the proposed rail alignment area is surrounded by developments consisting of storage tanks, accessory buildings, pipelines, roadways and paving, and a large sulfur stockpile (Photographs 8 and 9). Temporary construction staging would occur between the existing rail lines and the SATCO facility storage tanks, within the undeveloped but disturbed area with common grass and groundcover species.

Photograph 8
View of the East Complex Bridge Approach Area

Looking east toward neighboring tanks and sulfur stockpiles



Photograph 9
View of the East Complex Bridge Approach Area

Looking east near Stork Road



3.3.4.1.1.5 Port Yard Improvements

The Port Yard improvements area includes approximately 3,400 linear feet occurring entirely within a highly industrialized and developed portion of the Port's East Complex (Photograph 10). The proposed rail lines would be constructed adjacent to existing rail lines along this length. This area is devoid of vegetation and developed with hard surfaces or ballast adjoining the existing roadways and rail lines. Surrounding features include Port warehouse buildings, storage tanks, accessory buildings, and roadways. Temporary construction staging would also occur on the western end of the Port Yard improvements area, within undeveloped areas surfaced in concrete or asphalt.

Photograph 10
View of the Existing Port Yard

Looking west



3.3.4.1.1.6 LLDT Improvements Between 700 Yard and Port Yard

The LLDT improvements portion of the project site between the 700 Yard and the Port Yard includes an approximately 3,500 linear foot length at the eastern edge of the Port's East Complex, just west of the Boggs Tract neighborhood (the closest residences in this area are approximately 300 feet east of the proposed rail alignment). The proposed rail improvements would be constructed parallel to existing rail lines in this area, over an approximate length of 2,500 linear feet. Three temporary construction staging areas would be located west of the existing rail lines. The proposed rail improvement and staging areas footprints are entirely developed with rail lines, adjoining compacted surfaces, or rail ballast (Photograph 11). Most of the alignment is devoid of vegetation with the exception of sparse ruderal weeds and some adjoining patches of non-native grasses.

At the southern end of the LLDT improvements between the 700 Yard and the Port Yard area, just northwest of the Crosstown Freeway overpass, there are two notable vegetation communities. The first is an apparent maintained urban forest planted with catalpa (*Catalpa bignonioides*) and mulberry (*Morus* sp.) ranging between 20 to 30 feet tall, fitted with aboveground flexible irrigation piping

(Photograph 12); and the second is a detention basin with cottonwood trees planted throughout (Photograph 13). These vegetation associations occur directly adjacent to the rail line.

The LLDT improvements between the 700 Yard and the Port Yard are entirely surrounded to the west by industrial Port developments and rail storage areas. Immediately east of the LLDT improvements between the 700 Yard and the Port Yard area are several warehouse buildings, a barren but disturbed vacant parcel, and the two vegetation communities noted previously. As previously noted, the Boggs Tract neighborhood is located farther east and north of the proposed alignment.

Photograph 11
View of the Port Lead Track in the East Complex

Looking south toward the Crosstown Freeway overpass



Photograph 12

View of the Catalpa Urban Forest Northwest of the Crosstown Freeway Overpass



Photograph 13

View of the Cottonwood Grove and Topographic Depression near the Crosstown Freeway Overpass



3.3.4.1.1.7 East Complex Central Staging Area

The East Complex central staging area consists of an approximately 5-acre area within the center of the East Complex adjacent to Port Road 14. This area is barren and surfaced in compacted earth and asphalt and includes a small grove of medium-sized trees. Proposed project activities in this area would be limited to temporary construction staging.

3.3.4.1.1.8 LLDT Improvements Adjacent to West Scotts Avenue

The portion of the project site where LLDT improvements would be constructed adjacent to West Scotts Avenue includes an approximately 3,500 linear foot length along West Scotts Avenue, immediately south of the Boggs Tract residential neighborhood (the closest residences in this area are approximately 100 feet north of the proposed rail alignment). Proposed rail improvements and temporary construction staging would occur in this area. This area includes existing above-grade rail lines running parallel to and south of the roadway. Vegetation growth on the rail line berm (Photograph 14) includes non-native annual grasses and weedy tree species, including tree of heaven (*Ailanthus altissima*). Just east of South Merced Avenue, the existing rail line splits into two spurs. The area between the two spurs appears to contain a seasonally inundated depression colonized with (*Bromus* spp.), oats (*Avena* spp.), mustards (*Brassica* spp. and *Raphanus* spp.), and other common weeds (Photograph 15).

Surrounding features include the Boggs Tract residential neighborhood to the north. The area south of the existing rail line contains a narrow corridor of vegetation similarly dominated by non-native annual grassland and common weeds. Beyond this vegetated corridor are commercial and industrial developments characterized by large warehouse buildings, storage areas, roadways, and concrete and asphalt surfaces.

Photograph 14
View of West Scotts Avenue and Existing Rail Lines

Looking east



Photograph 15
View of the Topographic Depression between the Existing Rail Lines

Looking west from the proposed LLDT improvement area adjacent to West Scotts Avenue



3.3.4.1.2 *Wetlands and Jurisdictional Waters*

Potentially jurisdictional water and wetland features were identified during the March 23, 2021, site visit. In addition to the San Joaquin River, which qualifies as a navigable water of the United States and state, potentially jurisdictional features within or near the proposed alignment include the cobble-lined drainage ditch north of McCloy Avenue, the two construction impoundments near the West Complex rail bridge approach, the detention basin with planted cottonwoods northwest of the Crosstown Freeway overpass, and the topographic depression between the two existing rail lines just east of South Merced Avenue. Each of these features are briefly described as follows:

- **San Joaquin River.** The river channel is approximately 325 feet wide in the area of the proposed rail bridge replacement. The riverbanks lack a wetland fringe (i.e., there is no emergent wetland vegetation at or near the high-water mark). The river channel is a traditionally navigable water that would qualify as both a water of the United States and State of California.
- **Cobble-lined drainage ditch.** The cobble-lined drainage ditch extends parallel to the existing rail tracks just north of McCloy Avenue. The ditch was dry at the time of the site visit and devoid of vegetation. This fabricated ditch would most likely not be subject to U.S. Army Corps of Engineers (USACE) jurisdiction under Section 404 of the CWA according to the “Navigable Waters Protection Rule: Definition of ‘Waters of the United States’” (Final Rule) published April 21, 2020, and effective June 22, 2020 (85 Federal Register 22250), because it appears to have been constructed in uplands. The Final Rule clarifies that “ditches that are not traditional navigable waters, tributaries, or that are not constructed in adjacent wetlands” are not considered waters of the United States. Furthermore, the ditch likely does not meet the definition of a wetland under the State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State that was adopted on April 2, 2019, by the State Water Resources Control Board since the ditch is artificial (not a wetland created by modification of surface waters of the state) and is subject to ongoing operation and maintenance (SWRCB 2019).
- **Construction impoundments.** Two small ponded areas were observed in the vicinity of the existing construction area for the Fyffe Avenue Grade Separation project. These ponds appear to have been created to temporarily store runoff or other water encountered during construction. The ponds and immediate surrounding areas were devoid of vegetation other than sparse grasses. The construction impoundments are also unlikely to be waters of the United States or waters of the state for the same reasons as those described for the aforementioned cobble-lined drainage ditch.
- **Detention basin with planted cottonwoods.** This area contains a topographical depression that was dry at the time of the site visit. A culvert outlet conveying drainage from an open drainage channel also outlets to this area. Based on these observed conditions, and the presence of potential wetland vegetation, this area may meet USACE wetland parameters for

soils, hydrology, and vegetation. However, the site does not appear to have any nexus with navigable waters, and therefore would likely only qualify as a water of the state.

- **Topographic depression between rail lines.** This area contains a topographical depression that was dry at the time of the site visit but appears to be seasonally inundated. Coverage of vegetation, including bromes, oats, and mustards, were observed in this area. Similar to the aforementioned detention basin, if this area meets the USACE three-parameter wetland criteria, it would likely only qualify as a water of the state since it lacks connection to any traditionally navigable waters.

3.3.4.1.3 *Special-Status Species*

The CNDDDB identifies 27 special-status (candidate, threatened, or endangered under the federal Endangered Species Act [ESA] or California Endangered Species Act [CESA], state species of special concern, or CDFW fully protected species) wildlife species within the study area, as identified through a search of the proposed project quadrangle and eight surrounding quadrangles (Appendix D; CDFW CNDDDB 2021). Potential species occurrence was determined based on habitat requirements and on-site conditions.

The project site's developed condition and location within a highly industrial and urban area precludes the presence of most terrestrial special-status species, although habitat may be marginally suitable for several species (primarily nesting or foraging birds). This includes Swainson's hawk (*Buteo swainsoni*; CESA threatened), white-tailed kite (*Elanus leucurus*; CDFW fully protected), and Migratory Bird Treaty Act (MBTA)-protected bird species. Other potentially present terrestrial or amphibious species include western pond turtle (*Emys marmorata*; state species of special concern), and valley elderberry longhorn beetle (VELB; *Desmocerus californicus dimorphus*; ESA threatened).

Fish species potentially present in the project area—specifically, within the San Joaquin River at the location of the proposed rail bridge replacement—were identified based on critical habitat and EFH designations (50 CFR 226; NOAA 2009). San Joaquin River waters are within designated critical habitat for delta smelt (*Hypomesus transpacificus*), Central Valley steelhead (*Oncorhynchus mykiss irideus*), and green sturgeon (*Acipenser medirostris*). San Joaquin River waters in the project area are also considered EFH for Pacific salmon and Groundfish and may provide habitat to Central Valley spring-run Chinook salmon (*O. tshawytscha*; CDFW 2019b; NMFS 2021). State-threatened longfin smelt (*Spirinchus thaleichthys*) and Marine Mammal Protection Act protected harbor seals (*Phoca vitulina*) may also inhabit San Joaquin River waters.

These potentially present species or categories of species are described in Sections 3.3.4.1.3.1 through 3.3.4.1.3.13. Potential special-status plant occurrence is also addressed, although habitat conditions likely preclude their presence.

3.3.4.1.3.1 Swainson's Hawk

Swainson's hawk is a long-distance migrant species. Central Valley populations winter primarily in Mexico and arrive at their Central Valley breeding grounds in mid-March to early April. Nests are generally found in scattered trees or along riparian systems adjacent to agricultural fields or pastures. Egg laying generally occurs in April, and young are present in May and June. Most young have fledged the nest by the end of July and are relatively independent of parental protection; however, fledged young remain with their parents until they depart in the fall for migration. Migration to wintering grounds generally occurs around September; however, some individuals or small groups may winter in California (Caltrans and Port 2013).

Swainson's hawks are regularly observed throughout the Port. Mature trees within the project area may provide nesting habitat to Swainson's hawk, and undeveloped areas may provide foraging habitat. Urbanized and developed conditions, including ongoing Port activities, likely diminish the suitability of nesting and foraging habitat throughout the project site. Areas within or near the project area that are most likely to provide Swainson's hawk nesting habitat include large trees, such as those occurring in the inactive golf course area. Swainson's hawk foraging within the project area is most likely to occur in barren undeveloped areas, such as within the inactive golf course, within the undeveloped field south of McCloy Avenue, at the rail bridge replacement area banks and adjoining undeveloped areas, within barren parcels adjacent to the LLDT improvements between the 700 Yard and the Port Yard, and within the maintained urban forest and cottonwood vegetated depression near the Crosstown Freeway overpass. Despite the relative suitability of these habitats compared to developed or hardscaped areas within the Port, habitat remains marginal, particularly compared to available open space such as agricultural fields in proximity to the project site.

3.3.4.1.3.2 White-Tailed Kite

White-tailed kites nest and forage in a variety of settings. They hunt over grassland, savanna, cultivated fields, marshes, and riparian woodland and are also commonly observed foraging along freeway medians and edges. Kites prey primarily on voles and other small rodents but also eat birds, snakes, lizards, frogs, and large insects. They build stick nests in the tops of trees, preferentially near an open foraging area, and typically forage within 0.5 mile of the nest during breeding season, which extends from February through October. The nearest white-tailed kite occurrence was recorded approximately 3 miles southeast of the project area in April 2008 (CDFW CNDDDB 2021).

As with Swainson's hawk, mature trees within the project area may provide nesting habitat for white-tailed kite, and undeveloped barren or vegetated areas may provide suitable foraging habitat. Superior habitat for white-tailed kite is available outside of the Port in proximity to the project site.

3.3.4.1.3.3 Western Pond Turtle

Western pond turtle is a highly aquatic species found in ponds, marshes, rivers, streams, lakes, creeks, and irrigation ditches throughout central and coastal California up to 6,000 feet in elevation. Suitable habitat typically includes aquatic areas with rocky or muddy bottoms, aquatic vegetation, and basking habitat (e.g., logs, rocks, or riprap). The nearest western pond turtle occurrence was recorded approximately 7.5 miles southwest of the project area in April 2005 (CDFW CNDDDB 2021).

Riverbank areas adjacent to the rail bridge replacement area may provide suitable basking habitat for western pond turtle, although rail activity at the existing crossing likely diminishes the quality of habitat relative to nearby areas.

3.3.4.1.3.4 Valley Elderberry Longhorn Beetle

VELB is endemic to the riparian habitats in the Sacramento and San Joaquin valleys where it resides on elderberry plants. VELB are nearly always found on or close to its host plant. Throughout its range, VELB are estimated to inhabit 20% of all suitable elderberry shrubs. Elderberry shrubs are found in or near riparian and oak woodland habitats. The presence of exit holes in elderberry stems indicates previous VELB habitat use (USFWS 2017). The nearest VELB occurrence was recorded approximately 6 miles south of the project area in April 1984 (CDFW CNDDDB 2021).

VELB may be present within elderberry plants in the project area, including those observed on levees adjacent to the rail bridge replacement area.

3.3.4.1.3.5 Green Sturgeon (Southern Distinct Population Segment)

Subadult and adult green sturgeon inhabit nearshore oceanic waters, bays, and estuaries while also migrating to and from freshwater habitats. Freshwater occurrence of this species happens during the early life history stage (less than 4 years old) and later when adults return to freshwater to spawn (spawn age range of 10 to 15 years old). Spawning occurs in the spring and summer, as recorded in the upper Sacramento River and tributaries such as the Feather, Yuba, and American rivers. During the juvenile stage, green sturgeon can be found throughout the freshwater portions of their habitat the entire year. At the proposed rail bridge replacement location, the San Joaquin River is within designated critical habitat for green sturgeon.

There is a small potential for Southern distinct population segment (DPS) green sturgeon to be present in the project area during the in-water construction window (USACE 2015; Anchor QEA 2019; CDFW 2019a) based on past historical conditions, monitoring data, and species characteristics. San Joaquin River waters in the project area may also be frequented during the upstream migration of spawning adults and downstream migration, resting, and foraging of juveniles (Caltrans and Port 2013). The San Joaquin River in this area does not provide suitable spawning habitat for green sturgeon.

3.3.4.1.3.6 Delta Smelt

Delta smelt is a euryhaline fish with a habitat range extending from the lower reaches of the Sacramento and San Joaquin rivers, through the Sacramento-San Joaquin River Delta (Delta), into Suisun Bay. Delta smelt are a relatively small species (2 to 3 inches long) that typically have an annual life cycle, although some individuals may live up to 2 years. Prior to spawning, adult delta smelt tend to migrate upstream into the lower reaches of the Sacramento and San Joaquin River systems, where spawning occurs from approximately February through June, with the greatest spawning activity occurring in April and May. Females deposit adhesive eggs on substrates such as gravel, rock, and submerged vegetation. Eggs hatch in approximately 2 weeks, when planktonic larvae are passively dispersed downstream by river flow. Larval and juvenile delta smelt rear within the estuarine portions of the Delta for a period of approximately 6 to 9 months before beginning their upstream spawning movement into freshwater areas of the lower rivers. San Joaquin River waters within the rail bridge crossing area are within designated critical habitat for delta smelt. The currently authorized work window for delta smelt is from July 1 to November 30.

Based on past monitoring data and this species' characteristics, delta smelt are highly unlikely to be present in the project area during the in-water construction window (USACE 2015; Anchor QEA 2019; CDFW 2019a). The proposed rail bridge crossing location has been developed. This area does not provide the shallow edge waters preferred by delta smelt during spawning, which typically occurs in sloughs and shallow edge waters within the upper Delta.

3.3.4.1.3.7 Central Valley Steelhead (Central Valley Distinct Population Segment)

The Central Valley DPS of steelhead includes all populations in the Sacramento and San Joaquin rivers and their tributaries. The current distribution ranges from Keswick Dam in the Upper Sacramento River to the Merced River in the San Joaquin River Basin, with distribution primarily limited by impassable dams. Anadromous adults make their upstream spawning migrations beginning in July (peaking in September and October) after residing in the ocean for 2 to 3 years. Spawning occurs from December through April. Spawning, incubation, and the majority of rearing occurs farther upstream than the project area. Waters in the proposed rail bridge crossing area are within designated critical habitat for this species. The currently authorized work window for steelhead is from July 1 to November 30.

Based on past monitoring data, there exists a very small potential for this species to be present in the project area during the in-water construction window (USACE 2015; Anchor QEA 2019; CDFW 2019a). In addition, steelhead may occur within the proposed rail bridge crossing area during the upstream migration of spawning adults and downstream migration, resting, and foraging of juveniles (Caltrans and Port 2013). The proposed rail bridge crossing area has been developed; this area does not contain river bottom habitat suitable for spawning or incubation.

3.3.4.1.3.8 Chinook Salmon (Central Valley Spring-Run Evolutionarily Significant Unit)

The Central Valley spring-run evolutionarily significant unit of Chinook salmon is one of four distinct runs of salmon that spawn in the Sacramento-San Joaquin River system. Chinook salmon was historically the most abundant salmon species in the Central Valley. Populations remain in some tributaries of the Sacramento River, including Butte, Mill, Deer, Antelope, and Beegum creeks, and the Yolo Bypass. In general, spring-run Chinook salmon are found in the Suisun Marsh/North San Francisco Bay, Delta, Sacramento River, Feather River/Sutter Basin, Butte Basin, and North Sacramento Valley Ecological Zones (CDFG 1998). Spring-run Chinook salmon adults typically migrate upstream to spawn from April to October and from August through October. Chinook salmon alevins have been collected from Suisun Bay in January and February. Larger parr juveniles have been found from April to June. Juvenile life stages are commonly found inshore, in willow water, and throughout estuarine habitat. Some Chinook salmon delay their downstream migration until the early smolt stage. Juvenile out-migration peaks from May to June (USACE 2015). The currently authorized work window for Chinook salmon is from July 1 to November 30.

Based on past monitoring data, this species is highly unlikely to be present in the project area during the in-water construction window (USACE 2015; Anchor QEA 2019; CDFW 2019a). Chinook salmon may, however, migrate, forage, or rest within waters in the proposed rail bridge crossing area. The proposed rail bridge crossing area has been developed; this area does not contain river bottom habitat suitable for spawning or incubation.

3.3.4.1.3.9 Longfin Smelt

Longfin smelt, a small euryhaline and anadromous fish, was historically among the most abundant fish in the Delta. Spawning adults congregate at the upper end of Suisun Bay and in the lower and middle Delta, especially in the Sacramento River channel and adjacent sloughs (USACE 2015). As they mature in the fall, adults found throughout San Francisco Bay migrate to brackish or fresh water in Suisun Bay, Montezuma Slough, and the lower reaches of the Sacramento and San Joaquin rivers.

Based on the past monitoring data and this species' characteristics, longfin smelt are highly unlikely to be present in the project area (USACE 2015; Anchor QEA 2019; CDFW 2019a). The proposed rail bridge crossing area does not provide suitable spawning habitat for this species.

3.3.4.1.3.10 Essential Fish Habitat

The waters in the proposed rail bridge crossing area are within the EFH for the Pacific Coast Salmon and Pacific Groundfish Fishery Management Plans (FMPs). The Pacific Coast Salmon FMP includes Chinook and coho salmon (*O. kisutch*) and occasionally includes pink salmon (*O. gorbuscha*), sockeye salmon (*O. nerka*), and chum salmon (*O. keta*). The Pacific Groundfish FMP is designed to protect habitat for more than 90 species of fish, including rockfish, flatfish, groundfish, some sharks and skates, and other species that associate with the underwater substrate (e.g., rocky and soft

substrates). There is a low likelihood for transitory presence of Pacific salmon and Pacific groundfish FMPs within the aquatic portion of the project area.

3.3.4.1.3.11 Marine Mammal Protection Act Protected Species

Harbor seals are known to occur in the San Joaquin River near the project site. Their presence is largely transitory because there are no rookeries or suitable haul-out sites at or near the proposed rail bridge crossing location. Habitat for harbor seals within the project area is generally low quality relative to the greater Bay-Delta, which can be attributed to the disturbed condition of the San Joaquin River and the high level of vessel traffic in the Stockton Deep Water Ship Channel (DWSC) and near the Port.

3.3.4.1.3.12 Special-Status Plant Species

There are 20 plant species considered rare, threatened, or endangered by the California Native Plant Society (CNPS; a CNPS Rank 1 or 2 species) with recorded occurrences in the vicinity of the project site, as identified through a search of the proposed project quadrangle and eight surrounding quadrangles (Appendix E; CDFW CNDDDB 2021). Of these 20 species, two are state or federal endangered: palmate-bracted bird's-beak (*Chloropyron palmatum*; federal and state endangered) and Delta button-celery (*Eryngium racemosum*; state endangered). Due to the lack of suitable habitat within the project area, none of the special-status plant species with recorded occurrences have the potential to occur within the project site. No CNPS Rank 1 or 2 species were observed during the March 23, 2021, site visit.

3.3.4.1.3.13 Migratory Bird Treaty Act Protected Birds and Raptors

Several species of birds protected by the MBTA may occur in the vicinity of the project area. Although the project area serves industrial functions, MBTA-protected birds could nest in disturbed but barren areas within or near the project site, such as within the inactive golf course, within the undeveloped field south of McCloy Avenue, at the rail bridge replacement area banks and adjoining undeveloped areas, within barren parcels adjacent to the LLDT improvements between the 700 Yard and the Port Yard, and within the maintained urban forest and cottonwood vegetated depression near the Crosstown Freeway overpass. MBTA-protected birds could also roost or nest in mature trees located within or near the project site, particularly within the inactive golf course, maintained urban forest, and cottonwood vegetated depression near the Crosstown Freeway overpass. Several MBTA-protected birds have been observed at the Port, including to the following (Anchor QEA 2018):

- Barn swallow (*Hirundo rustica*)
- Bushtit (*Psaltiriparus minimus*)
- Belted kingfisher (*Megaceryle alcyon*)
- House finch (*Haemorhous mexicanus*)

- Cliff swallow (*Petrochelidon pyrrhonota*)
- White-tailed kite (*Elanus leucurus*)
- Swainson's hawk (*Buteo swainsoni*)
- Common raven (*Corvus corax*)

3.3.4.2 Impact Evaluation

A: Would this project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Less-than-Significant Impact with Mitigation. As described in Section 3.3.4.1, the upland portion of the project site and surrounding areas are heavily urban or industrial and provide only marginal habitats or habitat features suitable for terrestrial special-status species. The project area contains mature trees that may provide suitable nesting habitat for Swainson's hawk, white-tailed kite, or MBTA-protected bird species, particularly in the area of the inactive golf course and the detention basin with planted cottonwoods northwest of the Crosstown Freeway overpass. Ground-nesting birds protected by the MBTA may also be present within or near the immediate project footprint, particularly in disturbed but barren areas such as within the inactive golf course, within the undeveloped field south of McCloy Avenue, at the rail bridge replacement area banks and adjoining undeveloped areas, within barren parcels adjacent to the LLDT improvements between the 700 Yard and the Port Yard, and within the maintained urban forest and cottonwood vegetated depression near the Crosstown Freeway overpass. Undeveloped areas within and near the proposed rail alignment may also provide foraging habitat for special-status bird species. Riverbank areas next to the rail bridge replacement area may provide suitable basking habitat to the aquatic western pond turtle. Elderberry bushes in the project area, including those observed at the rail bridge replacement area, may provide habitat to VELB. As noted, terrestrial habitat within the project area is generally of lower quality than surrounding areas (e.g., compared to agricultural fields south and west of the West Complex) due to Port and urban developments and activities.

Proposed project construction could directly or indirectly affect bird nesting, bird foraging, VELB, or western pond turtles. If present, nesting birds could be directly impacted by tree removal along the proposed project alignment. Ground-nesting birds or western pond turtle could also be directly impacted (e.g., trampled or otherwise injured) if present within the immediate improvement or construction area. VELB could be directly impacted by elderberry shrub removal, if present. Potential indirect impacts from noise, vibration, or other temporary construction effects include disturbance of tree nests, ground nests, or western pond turtle, if present.

The proposed project is unlikely to result in significant long-term adverse impacts to terrestrial or amphibious special-status species or their habitats. Permanent habitat loss would be marginal and limited to low-habitat-value areas next to existing, active rail lines within the industrialized Port area. Loss of trees would be minimal and likely confined to medium-sized (approximately 25 feet or less) ornamental species within the immediate alignment, such as the row of ash, cedar, and cork oaks along McCloy Avenue. Any loss of elderberry bushes suitable for VELB would be minimal and likely limited to the individual shrubs observed on the rail bridge replacement area levees. Loss of levee habitat suitable for western pond turtle basking would be nominal and limited to the proposed bridge abutments and associated excavation—and there would be an environmental benefit from removal of existing creosote-treated piles and reduction in risk by removing the existing, aged rail bridge. Proposed project operations would be consistent with existing Port conditions; the addition of an anticipated six trains per week by 2026 is unlikely to result in direct or indirect adverse effects to terrestrial species or habitats.

The proposed rail bridge replacement location may provide habitat to special-status fish species, including Southern DPS green sturgeon, delta smelt, Central Valley spring-run evolutionarily significant unit Chinook salmon, Central Valley DPS steelhead, and longfin smelt. The project area additionally includes critical habitat for southern DPS green sturgeon, delta smelt, and Central Valley DPS steelhead, and EFH for the Pacific Coast Salmon and Pacific Groundfish FMPs. The project area does not include any spawning habitat for these species or species associated with these FMPs, and their presence in the project area would likely be transitory.

Pile removal, pile driving, and associated excavation may temporarily disturb benthic sediments and increase turbidity and suspended sediment levels in the immediate vicinity of the project area during construction. Turbidity resulting from construction may affect marine organisms and aquatic wildlife during various life stages by affecting respiration (clogging gills), reducing visibility and the ability to forage or avoid predators, and altering movement patterns (due to avoidance of turbid waters). Suspended sediments have been shown to affect fish behavior, including avoidance responses, territoriality, feeding, and homing behavior. Generally, bottom-dwelling fish species are more tolerant of suspended solids, and filter feeder fish species are more sensitive. Motile organisms can generally avoid unsuitable conditions in the field.

Increases in turbidity and suspended sediment levels from proposed project construction would be substantially less significant than similar effects from regular USACE and Port maintenance dredging in the vicinity. The USACE Waterways Experiment Station Technical Report DS-78-5, *Effects of Dredging and Disposal on Aquatic Organisms*, states that: “Most organisms tested are very resistant to the effects of sediment suspensions in the water, and aside from natural systems requiring clear water such as coral reefs and some aquatic plant beds, dredging induced turbidity is not a major ecological concern” (Hirsch et al. 1978). Proposed turbidity and suspended sediment effects to fish

from pile driving or other bottom-disturbing activities are expected to be less than the minor effects from regular USACE and Port maintenance dredging in the vicinity.

Pile driving or other channel-disturbing activities have the potential to release sediment-associated metals and other pollutants by dispersion within the resulting sediment plume. Water quality monitoring and elutriate toxicity testing results from past Port maintenance dredging sediment characterization efforts on the main body of the San Joaquin River have not indicated toxicity concerns (ERS 2012, 2013; Anchor QEA 2017) for sediments in the vicinity of the proposed project. Impacts to fish from uptake of pollutants in disturbed sediment are therefore not anticipated.

Construction has the potential to result in accidental spills if improperly managed. Various contaminants, such as fuel oils, grease, and other petroleum products used in construction activities, could be introduced into the system either directly or through surface runoff. Contaminants may be toxic to fish or cause altered oxygen diffusion rates and acute and chronic toxicity to aquatic organisms, thereby reducing growth and survival. Because the proposed project would include more than 1 acre of ground disturbance, a National Pollutant Discharge Elimination System (NPDES) Construction Stormwater General Permit addressing these types of impacts would be required.

Underwater noise from construction, particularly from pile installation, has the potential to adversely affect fish. This may include mortality, injury, or behavioral impacts if fish are present in proximity to the pile-driving source. The area within which fish have the potential for physical injury associated with increased sound pressure levels during pile driving would be confined by the narrow channel and meandering channel geometry (sound wave propagation stops when the shoreline is encountered); this area of the river and would likely be relatively small in comparison to the size of the San Joaquin River.

In-water construction for the proposed project, primarily pile driving, may temporarily impede localized movement or migration of special-status fish (if present) within the San Joaquin River. Passage within the portion of the San Joaquin River overlapping with the Stockton DWSC and Burns Cutoff would remain unaffected, and fish would remain able to move upstream and downstream along migration corridors. Nominal effects on localized fish movement would also occur if cofferdams are required, but these effects would be confined to the small area of pile removal or installation.

Benthic habitat can provide important foraging areas for special-status species, especially for steelhead, Chinook salmon, green sturgeon, and longfin smelt, which forage in the benthos. Because delta smelt feed in the water column, benthic habitat is less important for this species. During construction, benthic habitat in the project area would be largely unavailable for fish foraging. Following sediment-disturbing activities such as pile driving, disturbed areas are usually recolonized quickly by benthic organisms (Newell et al. 1998).

Some permanent loss of benthic habitat would also result from installation of piles (estimated maximum of 413 square feet). Recent examination of benthic invertebrate communities in the Stockton and Sacramento DWSCs shows strong dominance of Asian clams (*Corbicula fluminea*; USACE 2015), which are a less-favorable prey species. Additionally, the benthic environment in the project area has been severely impacted by historic Port and military operations, USACE operations and maintenance dredging of the Stockton DWSC, and urban development throughout the City. Affected benthic habitat is therefore unlikely to offer high-quality foraging opportunities to special-status species.

Although minor loss of low-quality benthic habitat would occur, it is anticipated that the additional encrusting habitat provided by the proposed piles would offset any loss of foraging opportunities. Minor shading increases may have a net benefit by allowing fish to thermoregulate in the absence of canopy vegetation. The proposed project would also remove existing creosote-treated piles, which would provide an environmental benefit.

The proposed project operations are unlikely to adversely affect aquatic habitat, as there would be no new activity within the San Joaquin River. The projected increase of six trains per week by 2026 would not affect aquatic habitat.

Based on the analysis above, construction of the proposed project has the potential to adversely affect special-status species that could be present in the project area. For terrestrial species, this includes potential direct or indirect impacts during construction such as trampling, removal of host species, or nest disturbance. For aquatic species, temporary construction impacts include the following: 1) potential input of pollutants to the waterway that could affect water quality; and 2) pile driving or other bottom-disturbing activities that could affect water quality or result in injury or mortality of special-status fish. These would constitute potentially significant impacts. Permanent adverse impacts would be minimal and likely limited to loss of marginal terrestrial and aquatic habitat within the immediate footprint of proposed rail improvements.

The following mitigation measures would be implemented during construction to reduce potential impacts:

- **MM-BIO-1: Obtain Coverage under the SJMSCP or Conduct Nesting Bird Surveys; Elderberry Surveys, Setbacks, and Compensation; and Western Pond Turtle Buffer Establishment.** To avoid impacts on potentially present special-status species, the proposed project will apply to obtain coverage under the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP). The SJMSCP is a voluntary program that allows for participants to be issued streamlined ESA and CESA approvals (Incidental Take Permits) and to mitigate for impacts to certain special-status species. The Port will submit an application for coverage to San Joaquin Council of Governments (SJCOG), the agency that

administers the SJMSCP, within 60 days of project construction. SJCOG will review the proposed project, prepare a staff report, and submit the report to the SJMSCP Habitat Technical Advisory Committee, which determines whether the proposed project will be covered under the SJMSCP. Assuming the proposed project is approved for coverage, a SJCOG biologist will conduct a site visit to determine which incidental take minimization measures (ITMMs) included in the SJMSCP are applicable to the project. SJCOG will then execute a final summary of applicable ITMMs for the proposed project. ITMMs will include surveys, monitoring, and applying temporary construction buffers, if determined appropriate by SJCOG. The Port will implement all required ITMMs identified by the SJCOG. Ground disturbance will not occur until the ITMMs have been satisfied.

- If the proposed project is not able to obtain coverage under the SJMSCP, the Port will implement the following avoidance and minimization measures specific to nesting birds, VELB, and western pond turtle:
 - For nesting birds, alternatives to SJMSCP coverage include surveys and avoidance measures consistent with CDFW's standard requirements. If equipment staging, site preparation, or other project-related construction work is scheduled to occur between February 1 and September 15—the nesting season of protected raptors and other avian species—a CDFW-approved biologist will conduct a pre-construction survey of the project area for active nests within 7 days prior to starting project construction. The minimum survey area will be 250 feet for passerines, 500 feet for small raptors, and 1,000 feet for larger raptors. Surveys will be conducted during periods of peak activity (early morning or dusk) and be of sufficient duration to observe movement patterns. If a lapse in project-related work of 15 days or longer occurs, another survey will be performed before construction is re-initiated. If any active bird nests are found, a buffer around the nest will be established by the biologist in coordination with CDFW. The buffer area will be fenced off from work activities and avoided until the young have fledged, as determined by the biologist. The biologist will monitor the active nest until the young have fledged, for at least 2 hours per day when project activities are occurring to observe the behavior of the nesting birds. If the birds show signs of disruption to nesting activities (e.g., defensive flights or vocalizations directed toward project personnel, standing up from a brooding position, or flying away from the nest), the buffers will be expanded by the biologist until no further interruptions to nesting behavior are detectable.
 - For VELB, alternatives to SJMSCP coverage include the following for areas with elderberry bushes identified in pre-construction surveys:
 - If elderberry shrubs are present on the project site, a setback of 20 feet from the dripline of each elderberry bush will be established.

- Brightly colored flags or fencing will be placed surrounding elderberry shrubs throughout the construction process.
- For all shrubs without evidence of VELB exit holes which cannot be retained on the project site as described in the previous two bullets, the Port will count all stems of 1-inch or greater diameter at ground level during preconstruction surveys. Compensation for removal of these stems will be provided by the Port in coordination with the U.S. Fish and Wildlife Service (USFWS) and CDFW.
- For all shrubs with evidence of VELB exit holes, the Port would undertake transplanting of elderberry shrubs displaying evidence of VELB occupation to VELB mitigation sites during the dormant period for elderberry shrubs (November 1 to February 15). For elderberry shrubs displaying evidence of VELB occupation that cannot be transplanted, compensation for removal of shrubs will be provided by the Port in coordination with USFWS and CDFW.
- For western pond turtle, alternatives to SJMSCP coverage will include establishing a 300-foot buffer area between any nesting turtle sites and the wetland located near the nesting site. These buffers will be indicated by temporary fencing if construction has or will begin before nesting periods are ended (the period from egg laying to emergence of hatchlings is normally April to November).
- **MM-BIO-2: Obtain and Implement NPDES Construction Stormwater General Permit.** A NPDES Construction Stormwater General Permit will be obtained for the proposed project, which will require the development of a construction Stormwater Pollution Prevention Plan (SWPPP). The construction SWPPP will include best management practices (BMPs) including or similar to use of barriers (e.g., netting or sandbags) to prevent pollutants from entering the water, equipment inspection for spills, and maintenance and implementation of material spill prevention and cleanup plans. The construction SWPPP will ensure that contaminants are not accidentally introduced into the waterway.
- **MM-BIO-3: Conduct In-Water Construction During Established Window.** All in-water work will be conducted during the annual CDFW, National Marine Fisheries Service, and USFWS approved work window, which is expected to span from July 1 through November 30.
- **MM-BIO-4: Employ Soft-Start Techniques for Impact Pile Driving.** During construction, the Port will implement soft-start techniques for impact pile driving, which is industry standard and will be required per regulatory permits. Soft-start techniques include bringing pile driving or other loud equipment online slowly, providing any fish that are potentially present the opportunity to disperse from the project area.
- **MM-BIO-5: Compliance with Permitting Requirements for In-Water or Riparian Habitat Work.** For work with the potential to affect jurisdictional waters and wetlands, the Port will conduct a delineation of wetlands/waters and comply with permitting requirements from

USACE, Regional Water Quality Control Board (RWQCB), and CDFW to avoid and minimize impacts to jurisdictional waters and riparian habitats. For any unavoidable impacts, compensation for impacts to jurisdictional waters will be provided at agency-approved mitigation ratios. Work occurring in stream-dependent riparian habitats will also occur in compliance with permitting requirements from CDFW. Requirements will likely include implementing erosion controls, designating appropriate staging and fueling areas, requiring equipment inspections and maintenance, and additional standard construction BMPs.

Mitigation measures MM-BIO-1, MM-BIO-3, MM-BIO-4, and MM-BIO-5 would reduce the potential exposure of special-status species to construction impacts to the extent feasible. This includes reducing potential presence of special-status species by completing surveys (MM-BIO-1), establishing buffer zones (MM-BIO-1), complying with in-water construction windows (MM-BIO-3), and providing species with the opportunity to flee the impact area (MM-BIO-4). Mitigation measures MM-BIO-2 and MM-BIO-5 would reduce the potential for pollutant inputs to the waterbody that could adversely impact special-status aquatic species.

For construction during the established in-water construction window (MM-BIO-3), delta smelt and longfin smelt are not anticipated to be present in the project area (as detailed in Sections 3.3.4.1.3.6 and 3.3.4.1.3.9), and would therefore not be affected by impact pile driving noise during this period. Salmonids are similarly unlikely to be present during the construction window. Although some steelhead may migrate early, their likelihood of occurring in the project area during the in-water construction window remains very low and would be confined to the latter portion of the construction window. There is a small potential for green sturgeon to be present in the project area during and outside the construction window, and there is very low risk for green sturgeon injury from pile driving. The use of soft-start techniques during all pile driving (MM-BIO-4) would further reduce the potential for fish to be present and subject to physical injury within the relatively small area of construction impacts anticipated for the proposed project.

With implementation of mitigation measures MM-BIO-1 through MM-BIO-5, impacts would be less than significant.

B: Would this project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Less-than-Significant Impact with Mitigation. The proposed project includes construction on the San Joaquin River levees to construct the rail bridge replacement. This area contains sparse coverage of riparian vegetation including elderberry, tobacco tree, cottonwoods, Siberian elm, and Himalayan blackberry. Some vegetation removal would likely occur incidental to construction of the proposed crossing including excavation of the levee to accommodate the replacement bridge abutments.

The proposed project would occur within areas designated as critical habitat for southern DPS green sturgeon, delta smelt, and Central Valley DPS steelhead; and within EFH for the Pacific Coast salmon and Pacific Coast Groundfish FMPs. Permanent habitat impacts would be limited to negligible loss of low-quality benthic habitat, and minor increase in shading. As described above, temporary impacts would be minimal, including those related to water quality impacts, underwater noise, impediment of localized movement, loss of benthic habitat, and increased vessel traffic.

Based on the analysis presented above, the proposed project would result in adverse impacts to riparian habitat from construction of the rail bridge replacement, and potential adverse impacts to critical habitat or EFH for aquatic species during project construction. Adverse construction impacts to aquatic habitat could occur from pile driving (noise impacts, turbidity increases, benthic habitat loss, localized movement impacts) and potential pollutant inputs from construction. These riparian and special-status aquatic habitat impacts would constitute a potentially significant impact.

Mitigation measures MM-BIO-2, MM-BIO-3, MM-BIO-4, and MM-BIO-5 would be implemented to reduce potential impacts. Implementing MM-BIO-2 and MM-BIO-5 would reduce the potential for pollutant inputs to the San Joaquin River which could adversely impact critical habitat or EFH. MM-BIO-5 would further ensure that any CDFW requirements for addressing potential impacts to riparian habitat are implemented. Implementing MM-BIO-3 would ensure that construction impacts occur when species associated with certain critical habitats and EFH are least likely to be present, while MM-BIO-4 would allow any species present to flee from the impact area.

With implementation of mitigation measures MM-BIO-2 through MM-BIO-5, impacts would be less than significant.

C: Would this project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means?

Less-than-Significant Impact with Mitigation. The proposed project would entail permanent fill and shading of the San Joaquin River, a navigable water, from construction of the rail bridge replacement. Temporary impacts to the San Joaquin River would also occur during construction, as detailed under item A above. Wetland vegetation was not observed on the levees adjacent to the rail bridge replacement area and impacts to wetlands therefore would not occur in association with this proposed improvement.

As described in Section 3.3.4.1.2, the proposed rail alignment may encroach upon two potential wetland features that would likely be under RWQCB jurisdiction. This includes the detention basin with planted cottonwoods northwest of the Crosstown Freeway overpass, and the topographic depression between the two existing rail lines just east of South Merced Avenue. Each of these features exhibited signs of wetland hydrology (topography and drainage features) and potential

wetland vegetation. If determined to be wetlands, they would likely qualify only as waters of the state as they lack a nexus to traditional navigable waters needed to qualify as waters of the United States. Construction adjacent to these areas could also result in adverse impacts if improperly managed (e.g., from runoff or erosion).

Based on the analysis presented above, the proposed project may result in loss of potential wetlands that may be under RWQCB jurisdiction. This would constitute a potentially significant impact.

Mitigation measures MM-BIO-2 and MM-BIO-5 would be implemented to reduce potential impacts. Implementing these measures would reduce the potential for pollutant inputs to potential wetland features. MM-BIO-5 would further ensure that any RWQCB or other agency requirements for addressing potential impacts to wetlands are implemented. With implementation of mitigation measures MM-BIO-2 and MM-BIO-5, impacts would be less than significant.

D: Would this project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Less-than-Significant Impact with Mitigation. Although the project area is along the Pacific Flyway, an established air route of waterfowl and other birds migrating between wintering grounds in Central and South America and nesting grounds in Pacific Coast states and provinces of North America, the developed nature of the project area and small size of the riparian corridor along the San Joaquin River likely preclude migratory bird species from using the project site as a stopover during their migration.

The rail bridge replacement area is not within any nursery sites for special-status fish species, and the proposed project would not substantially impede migration within the San Joaquin River or other waters. Although project construction would temporarily impede localized movement of fish in the San Joaquin River, fish movement throughout the portion of the San Joaquin River that overlaps with the Stockton DWSC and Burns Cutoff would remain unimpeded.

Based on the analysis presented above, the proposed project would result in no impact to native wildlife nursery sites. Proposed project construction may impede localized movement of resident migratory fish, which would constitute a potentially significant impact.

Mitigation measures MM-BIO-3, MM-BIO-4, and MM-BIO-5 would be implemented to reduce potential impacts. Implementing MM-BIO-3 would ensure that construction occurs when special-status fish species are least likely to be present, thereby further reducing any impacts on localized movement. Implementing MM-BIO-4 would ensure that any fish present are able to flee the area of impact in adjoining waters where movement would not be affected by construction noise. MM-BIO-5

may provide additional protections movement of wildlife. With implementation of mitigation measures MM-BIO-3 through MM-BIO-5, impacts would be less than significant.

E: Would this project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact. The proposed project would not require removal of any SMC-defined heritage trees (valley oak [*Quercus lobata*], coast live oak [*Q. agrifolia*], and interior live oak [*Q. wislizenii*]) or street trees (trees within City right-of-way or easements) and would therefore not conflict with the City Heritage Tree Ordinance or SMC pertaining to street trees. Heritage oak trees were not observed within the proposed improvement footprint. Tree removal would occur exclusively within Port property or BNSF right-of-way; therefore, street trees would not be affected. Conformance with the SJMSCP is addressed under item A above. There are no other local policies or ordinances for protecting biological resources that are applicable to the proposed project.

Based on the analysis presented above, the proposed project would result in no impact from conflicting with local policies or ordinances pertaining to biological resources.

F: Would this project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Less-than-Significant Impact with Mitigation. The SJMSCP is the only conservation plan in the project area. As discussed under item A above, mature trees near the project footprint, including large trees within the inactive golf course, may provide suitable nesting habitat for Swainson's hawk, white-tailed kite, or MBTA-protected bird species. Nests of ground-nesting MBTA-protected bird species may also be present in the project area. Western pond turtle may also use riverbank areas adjacent to the rail trestle, and VELB may be present in elderberry bushes observed on the levee. Construction activities associated with the proposed project may directly disturb ground-nesting birds or nesting western pond turtles, directly remove elderberry plants, or indirectly disturb birds nesting in trees away from the project site (e.g., noise disturbance), if present.

Because the proposed project has the potential to temporarily adversely affect special-status species, it has the potential to conflict with biological resource goals and policies from the SJMSCP.

Mitigation measure MM-BIO-1 would be implemented to reduce potential impacts. Implementing MM-BIO-1 includes adherence with SJMSCP requirements or implementation of equivalent avoidance measures. With implementation of this mitigation measure, impacts would be less than significant.

3.3.5 Cultural Resources

Would the project:		Potentially Significant Impact	Less-Than-Significant Impact After Mitigation	Less-Than-Significant Impact	No Impact
a.	Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b.	Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c.	Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.3.5.1 Affected Environment

The Delta has probably been occupied since the late Pleistocene and early Holocene, beginning around 11,000 years ago. However, alluvial processes have likely erased most early archaeological sites. The earliest documented sites in the region date to about 9,000 years ago and are thought to have been mobile communities focused on hunting and fishing (Chartkoff and Chartkoff 1984; Milliken et al. 2007). Warm and dry conditions in the mid-Holocene (about 7,000 to 3,000 years ago) are associated with a change in subsistence focus towards plant gathering; millingstones are common during this period, though communities are still thought to have been fairly mobile (Fagan 2003). Later in this period, a trend towards sedentary communities and economic diversification emerges. The late Holocene is characterized by a continued increase in economic diversity and sociopolitical complexity, with emphasis on long-distance trade (Chartkoff and Chartkoff 1984; Moratto 1984). Cultures from this era correspond with ethnographically described cultures.

The project area is in the traditional territory of the Yokuts tribe and may also have been used or settled by Plains Miwok and Wintun peoples. Yokuts communities were organized into a number of tribes united by a common language (Golla 2007). They lived throughout the San Joaquin Valley and relied on the region's rich fishing and hunting resources (Kroeber 1976). Native American communities were severely impacted by European contact (Milliken 1995). However, Yokuts people have endured and are now members of several federally recognized tribes.

The earliest European contact in the region dates to the late 1500s and was characterized by the establishment of Spanish missions and pueblos. Trappers from the Hudson's Bay Company also settled in the area that would become Stockton in the early 1800s, founding what is still known as French Camp (Wood 1973). The new Mexican government took control of California in 1822 and

began to distribute lands to private owners. In 1842, German immigrant Charles Weber passed through what would become Stockton; he settled there and established a store in 1847 (Wood 1973).

The gold rush that began in 1848 spurred a boom in the Stockton area, and the City incorporated in 1850. Hundreds of vessels, from paddlewheelers to barks, plied the area serving miners. The Swamp Land Act of 1850 (also known as the Overflow Land Act) allowed for the transfer of wetlands from federal to state ownership, which began the process of reclaiming lands through drainage, dredging, levee construction, and fill placement (Garone 2011).

Prior to historic landmaking, the current Port vicinity would have been seasonally inundated (it is mapped as historically “tidal freshwater emergent wetlands” [SFEI-ASC 2018]). There is evidence of industrial and land development in the vicinity since at least the early 1900s, which intensified through the mid to late twentieth century. By 1913, levees had been constructed that channelized the San Joaquin River and allowed for landmaking through filling of adjacent uplands.

Dredging to create the Stockton DWSC began in 1930; the original navigational depth of 15 feet was deepened to 26 feet and the course was straightened. A rail line was constructed in 1932 through the area that would become the East Complex to Rough and Ready Island (now known as the Belt Line rail). The Port was founded immediately afterward, in 1933. The original Port area was the northern and western parts of what is now the East Complex.

The Port became part of the Stockton Ordnance Depot during World War II. After the war, the military began transferring parcels back to the Port, a process that was complete on the East Complex by 1956 (CMM 2016). The transfer included lands on the south and east sides of the East Complex that were previously agricultural and not part of the Port before the war. Industrial development intensified through the mid to late twentieth century.

The U.S. Navy purchased nearly the entirety of Rough and Ready Island in 1944 to serve the expanding needs of the Pacific theater in World War II. The property became the Naval Supply Annex Stockton. Between 1943 and 1946, the island’s northern shoreline was straightened to its current configuration. This change resulted from construction of the Stockton DWSC, which was dredged to a depth of 30 feet. Fill from the dredging project was likely deposited on portions of the project site. Spoils from periodic navigational dredging have also been historically deposited across the island for convenient disposal and land reclamation (Terracon 2018).

Initial Naval development included expanding the Belt Line Railway and building a street grid out from the existing main road (County Road 403, now Fyffe Avenue). The majority of the base, including warehouses, housing, medical facilities, and utilities infrastructure, was constructed between August 1944 and June 1945. Prisoners of war were used as labor in constructing the base

from spring 1945 onward and were said to have laid the drainage ditch system (Uribe & Associates 1996).

Less than 2 months after the Naval Supply Annex Stockton was commissioned, the war ended on August 25, 1945. Immediately post-war, the facility continued to operate, primarily processing returning equipment and supplies. Activity declined at the facility thereafter, with two exceptions: operations during the Korean War in the early 1950s, and the operation of the Naval Communications Station after 1960. The Department of Defense property on Rough and Ready Island was approved for transfer to the Port in 1996 and became the West Complex as property was conveyed to the Port between approximately 2000 and 2010. The remaining buildings and infrastructure of the Naval Supply Annex Stockton and the Naval Communications Station form the Naval Supply Annex Stockton NHD, which has been determined eligible for listing in the NRHP.

Findings from geotechnical studies at various locations around the Port are consistent with the area's environmental and cultural history. On the East Complex at Dock 2, geotechnical investigations revealed 5.5 to 10 feet of artificial fill (Kleinfelder 2019). On the West Complex, investigations for a nearby project to replace the Navy Drive Bridge found 15 feet of fill above stratified clays and silty sands (Kleinfelder 2014). These sediments (possibly native sediments, but more likely dredge spoils) are about 1 foot to 3.5 feet above sea level. Native sediments would have been seasonally inundated.

According to a search of the California Historical Resources Information System, there are three previously recorded cultural resources in the project area, the Naval Supply Annex Stockton NHD, the Belt Line Railroad (P-39-005115), and the rail bridge (P-39-002864). Four cultural resources are recorded within 1 mile of the project area, as follows:

- Site P-39-05238 is a historic refuse scatter along West Charter Way, approximately 0.1 mile southeast of the project area.
- Site CA-SJO-103 is a precontact village site containing burials, is located near the eastern approach of the West Charter Way Bridge (Garwood Bridge) over the San Joaquin River, approximately 0.75 mile south of the project area.
- Sites P-39-004516 and P-39-004517 are the East and West Levees (respectively) of the San Joaquin River south of the confluence with the Stockton DWSC.

No archaeological surveys that include subsurface testing have been conducted in the project area.

3.3.5.2 Impact Evaluation

A: Would the project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

Less-than-Significant Impact with Mitigation. The proposed project would include demolition of the existing Port of Stockton San Joaquin Rail Bridge. The bridge is eligible for listing in the NRHP as

a contributing structure to the National Register-eligible Naval Supply Annex Stockton NHD. Updated Department of Parks and Recreation forms for the bridge are provided as Appendix F. The proposed project's removal of the Port's San Joaquin Rail Bridge would result in an adverse change to the NHD. The McCloy rail classification yard would be added directly south of existing rail lines in an area of the West Complex that is within the boundaries of the NHD. The McCloy rail classification yard is proposed to be constructed between West Fyffe Street and McCloy Avenue, bounded by North Hooper Street to the east and the Humphreys Drive to the west. Construction includes installing rail lines between the current southern extent of the yard, and 100 feet to the south in front of existing warehouses. Although currently vacant, this expansion area has been occupied by various rail configurations in the past, during and after the period of significance of the NHD. The area is shown containing at least one rail siding in a 1946 aerial photograph taken shortly after construction of the Naval Supply Annex Stockton (Figure 8), and two rail sidings are illustrated in the McCloy rail classification yard area on a 1990 Naval Facilities map (Figure 9). The proposed McCloy rail classification yard is expected to be located within the previous footprint of this former rail infrastructure in the NHD. It would be a change from existing conditions, and therefore would be an impact to the NHD. However, it is not expected to be an adverse impact or result in any significant changes to the setting, landscape, or other features of the NHD that contribute to its significance.

The following mitigation measure would be implemented to address potential impacts:

- **MM-CULT-1: Prepare and Approve a Memorandum of Agreement with the State Historic Preservation Officer and Implement Section 106-Directed Mitigation.** The bridge demolition would require a permit from USACE and USCG and would be reviewed under Section 106 of the National Historic Preservation Act. Section 106 requires federal agencies to avoid, minimize, or mitigate adverse effects through a consultation process. USACE or USCG would consult with the State Historic Preservation Officer and other consulting parties to carry out this process. Consultation is expected to result in the development of mitigation measures, documented in a signed Memorandum of Agreement. Section 106-directed measures are expected to include professional recordation of the bridge by a qualified historian, additional historical research, and potential interpretation for the public. This interpretation could include adding information on the bridge to the Port's website and history portal and developing informational brochures or signage on site or in the Port's Administration Building.

With implementation of MM-CULT-1, impacts would be less than significant.

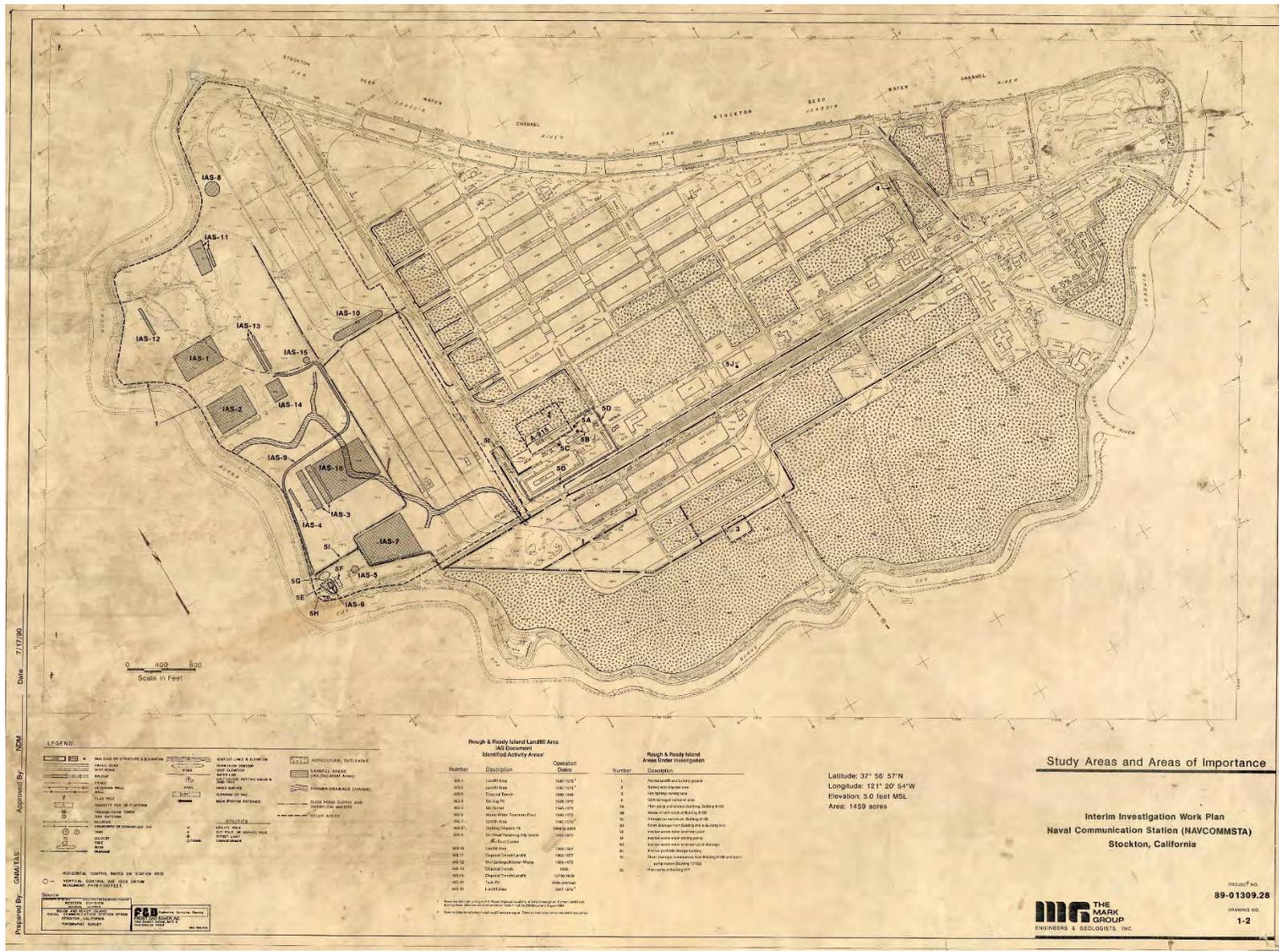


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Figure 8
1946 Aerial Photo, Taken Shortly after Construction of the Naval Supply Annex Stockton

Rail Bridge Replacement and Rail Improvements
 Port of Stockton, California



Filepath: \\sf1\sa\PROJECTS\Port_of_Stockton\Planning-Permitting\Rail Improvements\Project Description\Figures\Figure 9.1990 West Complex.docx



Figure 9
1990 West Complex Naval Facilities Map
 Rail Bridge Replacement and Rail Improvements
 Port of Stockton, California

B: Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Less-than-Significant Impact with Mitigation. Precontact archaeological resources may be encountered where ground disturbance could occur in native sediments with archaeological potential. Historical archaeological resources could also be encountered within historic-age fill. Ground disturbance for the proposed project would be mostly at or adjacent to existing rail and would be generally less than 2 feet below the existing ground surface. This ground disturbance is expected to occur completely within existing fill. Deeper ground disturbance is expected in two areas: at the installation of the new rail bridge, and at the location of the new rail underpass at Fresno Avenue.

At the rail bridge, upland ground disturbance:

- May include excavation of 10 to 15 feet below existing grade in four 20-foot-wide segments of the levees to remove existing abutments and creosote-treated timber piles, and to relocate the crown of the levees 25 to 30 feet landward of current levee crown
- Would include excavation of 6 feet of below existing grade for construction of end bents (to join the second bridge track to the main rail line)

At the bridge excavation locations, thick fill is present over low-lying native soils that would have been seasonally inundated. There is little potential to encounter archaeological materials. At the South Fresno Avenue location, soils have been extensively disturbed by the existing underpass and rail siding. Intact native sediments are unlikely to be encountered.

While unlikely, the following mitigation measure would be implemented to address potential impacts:

- **MM-CULT-2: Implement Provisions for Accidental Discovery During Construction.** If archaeological materials are encountered during construction, the proposed project would comply with state and federal requirements regarding identification, evaluation, and mitigation of impacts to significant archaeological sites, as well as consultation with tribes and agencies. This includes CEQA Guidelines Section 15064.5(f), which requires implementing “provisions for historical or unique archaeological resources accidentally discovered during construction” and Section 15064.5(e)(1), which guides actions following the discovery of human remains.

With implementation of MM-CULT-2, impacts would be less than significant.

C: Would the project disturb any human remains, including those interred outside of dedicated cemeteries?

Less-than-Significant Impact with Mitigation. As described above, the proposed project is unlikely to encounter native sediments with archaeological potential, and therefore is unlikely to encounter human remains. While the proposed project is not expected to encounter archaeological resources, in the unlikely event of such a discovery, the proposed project would implement mitigation measure MM-CULT-2 to avoid the potential for significant impacts. Within implementation of mitigation, impacts would be less than significant.

3.3.6 Energy

Would the project:		Potentially Significant Impact	Less-Than-Significant Impact After Mitigation	Less-Than-Significant Impact	No Impact
a.	Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b.	Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.3.6.1 Affected Environment

Senate Bill (SB) SX1-2 required the State of California to produce 33% of its electricity from renewable sources by December 31, 2020; SB 350 requires that the state produce 50% of its electricity from renewable sources by December 31, 2030; and SB 100 requires that the state produce all electricity from renewable sources by 2045. Local policies pertaining to energy include Policy LU-5.4B of the City’s 2040 General Plan, which mandates “all new development, including major rehabilitation, renovation, and redevelopment, to incorporate feasible and appropriate energy conservation and green building practices” (City 2018a).

To comply with SB SX1-2 and SB 350 standards, the Port has developed and implemented a *Renewable Portfolio Standard Procurement Plan* (Port 2016). In the plan’s most recent iteration, the Port determined the most efficient and cost-effective approach to meeting these standards is through continued purchase of sufficient state-approved renewable energy products from the active California market. For the compliance period from 2021 through 2030, the Port would determine and implement the most cost-effective options for complying with newly codified laws (Port 2016). Other steps that the Port is undertaking to improve energy efficiencies includes purchasing zero-emission electric vehicles, replacing diesel-powered equipment with cleaner electric models, and completing an energy audit to identify areas where energy consumption can be reduced (Port 2021a).

As of July 2019, the Port also offers its tenants financial incentives to install high-efficiency equipment or systems. Incentives are paid on the energy savings and permanent peak demand reduction beyond baseline energy performance, which include state-mandated codes, federal-mandated codes, industry-accepted performance standards, or other baseline energy performance standards (Port 2019).

The proposed project would obtain energy from local providers using existing Port power infrastructure, including electricity from the Pacific Gas and Electric Company.

In addition to these state- and Port-specific measures, the City's 2040 General Plan includes new policies that pertain to energy and resource conservation such as the following:

Policy TR-3.2: Require new development and transportation projects to reduce travel demand and greenhouse gas emissions, support electric vehicle charging, and accommodate multi-passenger autonomous vehicle travel as much as feasible.

Policy CH-5.2: Expand opportunities for recycling, re-use of materials, and waste reduction.

Action CH-5.2A: Use recycled materials and products for City projects and operations where economically feasible, and work with recycling contractors to encourage businesses to use recycled products in their manufacturing processes and encourage consumers to purchase recycled products.

Action CH-5.2B: Continue to require recycling in private and public operations, including construction/demolition debris. (City 2018a)

3.3.6.2 Impact Evaluation

A: Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

No Impact. Proposed project construction would involve equipment that consumes fossil fuels; however, the proposed project would not require any unusual or excessive construction equipment or practices compared to projects of similar type and size. In addition, the proposed project would comply with standard BMPs such as equipment idling restrictions and maintaining equipment according to manufacturers' specifications. As such, construction of the proposed project would not result in wasteful, inefficient, or unnecessary consumption of energy. The completed project would eliminate several Port rail system bottlenecks that currently constrain existing movements and would improve rail car loading. The proposed project would also promote the use of rail at the Port and allow rail to move more efficiently, which would reduce vehicle miles and trips by making rail more desirable for Port tenants. This would be in line with State of California and City goals and policies. Therefore, there would be no impact.

B: Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

No Impact. The Port would employ standard BMPs during construction, and operations would occur in compliance with federal, state, and local regulations pertaining to emissions and efficiency. These

measures would ensure that consumption of fossil fuels occur in compliance with existing plans and regulations.

Continued implementation of the Port's *Renewable Portfolio Standard Procurement Plan* (Port 2016) would ensure that the proposed project does not conflict with state regulations pertaining to renewable energy. As noted, the Port currently operates in compliance with 2020 standards and plans would be developed to ensure compliance with 2030 standards. Therefore, there would be no impact.

3.3.7 Geology and Soils

Would the project:		Potentially Significant Impact	Less-Than-Significant Impact After Mitigation	Less-Than-Significant Impact	No Impact
a.	Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
	i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	ii. Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	iii. Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	iv. Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b.	Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c.	Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d.	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e.	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f.	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.3.7.1 Affected Environment

3.3.7.1.1 Soils

As mapped by the Natural Resources Conservation Service (NRCS), soils occurring in the West Complex portion of the project site mostly include Egbert-Urban land complex (partially drained, 0% to 2% slopes) and Merritt silty clay loam (partially drained, 0% to 2% slopes). Other soil types mapped as occurring over smaller areas within the West Complex include Jacktone-Urban land complex (0% to 2% slopes) and Yellowlark gravelly loam (2% to 5% percent slopes). Merritt silty clay

loam is mapped as occurring near the proposed replacement rail crossing and adjoining levee, while the other soil types occur inland of the levee. Soils mapped as occurring in the East Complex portion of the project site include Yellowlark gravelly loam and Jacktone-Urban land complex. All of these soils are associated with fairly high water tables. Egbert-Urban land complex and Jacktone-Urban land complex are slow-draining soils, while Merritt silty clay loam and Yellowlark gravelly loam are fast-draining (NRCS 2021).

The western edge of the proposed McCloy rail classification yard would be located on Site 19, a remediation site with known soil contamination. Site 19 is a subarea of the larger Naval Computer and Telecommunications Station, San Diego Detachment Stockton (NCTS Stockton; the former Naval site that became the West Complex) site. Site 19 is located west of the existing rail lines in the area of the proposed McCloy rail classification yard, adjacent to the intersection of Humphreys Drive and McCloy Avenue. Site 19 is bounded by a vacant flat site to the west, fencing and existing rail to the north, fencing to the south, and the intersection to the east. A portion of the proposed McCloy rail classification yard would be located in only the eastern edge of Site 19, requiring approximately 1 foot of excavation within that part of Site 19. The known contamination at Site 19 is limited to stockpiles located west of the proposed work area; the proposed project would not impact these stockpiles. There is a California Department of Toxic Substances Control (DTSC) Land Use Covenant (LUC) in place for all of NCTS Stockton, including Site 19. The LUC forbids use of NCTS Stockton as a residence, hospital, school, or day care center for children, or for any use that restricts access of groundwater monitoring wells, restricts investigation, remediation, and long-term maintenance and operations, or, without DTSC permission, alters groundwater conditions. The LUC also requires preparation of a soil management plan (SMP) for DTSC approval, and pre-construction notice prior to any earthwork. The LUC would apply to work on the part of the McCloy rail classification yard that occurs in the edge of Site 19.

Recent geotechnical investigations in the project vicinity have identified potentially liquefiable soils, which may also be present in the project area. Geotechnical borings taken for the Navy Drive Bridge project located approximately 600 feet southwest of the rail bridge replacement portion of the project site, identified thick layers of potentially liquefiable soils within the top 60 feet of soil below the existing levee crown. Exploratory investigations were also conducted for the Endicott Biofuel Production Facility on Navy Drive, planned for construction on the East Complex immediately southwest of Navy Drive Bridge, approximately 600 feet southwest of the proposed replacement rail crossing. The Endicott Biofuel Production Facility investigation also identified potentially liquefiable soils in areas mapped by NRCS as containing Yellowlark gravelly loam soils (Stockton Port District and TRC Solutions 2013). Based on these findings, liquefiable soils may also be present in the vicinity of the proposed replacement rail crossing. However, similar soils characterized for a project on the West Complex near the proposed McCloy rail classification yard found that "soils above the groundwater table primarily consist of interbedded layers of clays and silts," which are usually not

susceptible to cyclic densification, indicating that the likelihood of earthquake-related settlement is likely low (H&A 2020). Geotechnical investigations for the SR 4 Crosstown Freeway project, which extends the Crosstown Freeway west from Fresno Avenue to Navy Drive, also identified some areas prone to liquefaction; these conditions may also be present in the project area adjacent to West Scotts Avenue (Port 2021b).

3.3.7.1.2 Fault Rupture

Surface fault rupture is defined as slip on a fault plane that has spread to the Earth's surface and caused a rupture or disturbance. Fault rupture almost always follows preexisting faults, which are zones of weakness. There are two active known faults within 25 miles of the project area—Great Valley 7 (17.1 miles) and Greenville Connected (23.9 miles)—and numerous other active and potentially active faults farther east and west of the project site (USGS 2008). However, the project site is not located within a currently designated Alquist-Priolo Earthquake Fault Zone (CGS 2019).

3.3.7.1.3 Ground Shaking

Ground shaking is the most widespread effect of earthquakes. The most likely sources of strong ground shaking are from the Hayward, San Andreas, Calaveras, Marsh Creek-Greenville, and Concord-Green Valley faults (County 2010, 2014). The project site is within a region with a moderately low level of earthquake hazard. Regions with this level of hazard are farther away from faults known to be active, and therefore can be expected to experience ground shaking less often and at a lower magnitude. Generally, earthquakes in these regions would damage only weaker masonry buildings, but stronger, very infrequent earthquakes could still cause strong ground shaking (California Department of Conservation 2016). Given the soil depths in the City, ground shaking would mostly affect taller structures (3 to 4 stories high; County 2010).

3.3.7.1.4 Liquefaction

Liquefaction is the transformation of a granular material (sediments or soils) from a solid into a liquefied state, often resulting from strong seismic ground shaking in areas with susceptible soils. Factors known to affect the liquefaction potential of soils are the characteristics of the materials, including grain size distribution, relative density, and degree of saturation; the initial stresses acting on the soils; and the characteristics of the earthquake such as the intensity and duration of the ground shaking. Low-density sandy soils with water tables less than 20 feet below ground surface may be susceptible to liquefaction.

As described in Section 3.3.7.1.1, recent geotechnical investigations suggest that potentially liquefiable soils may be present in the area of the proposed replacement rail crossing and near the proposed LLDT improvements adjacent to West Scotts Avenue. Portions of the project site that are inland on the East and West Complexes, away from the levees, are mapped as mostly containing soils with low liquefaction vulnerability (NRCS 2021). However, fill soils potentially susceptible to

liquefaction are common throughout the Delta. The type of ground motion expected from large earthquakes in San Joaquin County is expected to be a rolling type of motion, which would be less likely to cause liquefaction (County 2010).

3.3.7.1.5 Lateral Spreading

Lateral spreading is a form of liquefaction that results in lateral movement of ground in which cohesive soil layers may fracture, subside, rotate, or disintegrate as a result of seismic activity. During an earthquake, lateral spreading usually takes place along weak shear zones that have formed within a liquefiable soil layer. Lateral spreading has generally been observed to take place in the direction of a free face (i.e., retaining wall, slope, and channel) but has also been observed to a lesser extent on ground surfaces with very gentle slopes. As noted, portions of the project site may be susceptible to liquefaction and therefore may also be susceptible to lateral spreading. The risk of lateral spreading would be highest in areas with steep slopes, such as near levees or elevated rail lines, and reduced in areas with flat topography, as occurs through most of the project site.

3.3.7.1.6 Slope Failure and Slope Stability

Earthquakes can cause significant slope stress, potentially resulting in earthquake-induced landslides. Landslides most commonly occur in areas with steep slopes or within slide-prone geologic units that contain excessive amounts of water. Other factors that affect slope stability include site geology, climate, and human activity. The project site largely has flat topography, although the proposed replacement rail crossing area includes levees with relatively steep slopes. Portions of the rail alignment are also elevated on berms. Landslide hazard zones are not mapped in the project area or in its immediate vicinity (City 2018a).

3.3.7.1.7 Expansive Soils

Expansive soils are high in clay content and increase and decrease in volume upon wetting and drying, respectively. The change in volume exerts stress on buildings and other loads placed on these soils. Expansive soils are common throughout California and can cause damage to foundations and slabs unless properly treated during construction. Site preparations and backfill operations associated with subsurface structures can often eliminate the potential for expansion.

The project site is mapped as containing Egbert-Urban land complex, which is highly expansive (linear extensibility of approximately 7% through the soil column), Jacktone-Urban land complex, which is moderately expansive (linear extensibility of approximately 5.3% through the soil column), and Merritt silty clay loam and Yellowlark gravelly loam, which have low expansivity (linear extensibility of approximately 3.9% through the soil column) (NRCS 2021).

3.3.7.1.8 *Subsidence and Settlement*

Subsidence involves a sudden sinking or gradual settling and compaction of soil and other surface material with little or no horizontal motion. Land surface subsidence can result from natural and artificial phenomena, including tectonic deformation, consolidation, hydrocompaction, collapse of underground cavities, oxidation of organic-rich soils, rapid sedimentation, and the withdrawal of groundwater. Expansive soils and materials, including estuarine sediments, organic detritus, or thick organic deposits, are more susceptible to subsidence. Settlement occurs when ground shaking reduces the amount of pressure existing between soil particles, resulting in a reduction of the volume of the soil. Areas are susceptible to differential settlement if they are underlain by compressible sediments such as poorly engineered artificial fill. Differential settlement can damage structures, pipelines, and other subsurface entities. Earthquakes and seismic activity can accelerate and accentuate settlement. The project site is mapped as containing soils susceptible to expansion or subsidence. However, as discussed previously, because geotechnical investigations for nearby projects found primarily interbedded clay/silt layers, which are usually not susceptible to cyclic densification, the likelihood of earthquake-related settlement is likely low (H&A 2020).

3.3.7.1.9 *Erosion*

Erosion is the detachment and movement of soil materials through natural processes or human activities. The project site resides within a Mediterranean climate, which is exemplified by moist winters and dry summers. Therefore, during the winter, the area is more prone to water erosion, while in the summer the area is more prone to wind erosion. The project site is essentially flat and would not be particularly susceptible to erosion, although the rail bridge crosses a section of the sloped San Joaquin River shoreline. The site does not exhibit evidence of current erosion, and the rail bridge area contains vegetation and riprap that likely provide slope stability. Elevated rail lines within the project area similarly contain vegetated berms, and evidence of erosion was not observed.

3.3.7.2 **Impact Evaluation**

A: Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: 1) rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault (refer to Division of Mines and Geology Special Publication 42); 2) strong seismic ground shaking; 3) seismic-related ground failure, including liquefaction; or 4) landslides?

Less-than-Significant Impact with Mitigation. The project area is not located within a currently designated Alquist-Priolo Earthquake Fault Zone, and no known surface expression of active faults is believed to cross the project site; therefore, fault rupture through the project site is not anticipated, and there would be no impact related to this hazard.

In the event of a major earthquake, San Joaquin County could experience strong ground shaking, which has the potential to damage buildings and structures. Damage to the Port rail system and associated infrastructure would be possible but unlikely in the event of a large earthquake. The proposed rail improvements would be constructed or installed in adherence with applicable City and County Grading Regulations and seismic design parameters from the 2019 California Building Code and American Society of Civil Engineers—and would not increase the potential for human injury or loss of life. Therefore, the proposed project would result in less-than-significant impacts related to seismic ground shaking.

Liquefiable soils may be present in the area of the proposed replacement rail bridge crossing and the LLDT rail underpass at Fresno Avenue, as evidenced by recent geotechnical investigations in the project vicinity. The proposed replacement rail crossing includes levee excavation and installation of bridge abutments and other crossing infrastructure. The LLDT improvements include grading and subgrade preparation. Proposed project improvements would be constructed in compliance with applicable seismic standards. Nonetheless, mitigation measures would be implemented to address potential liquefaction hazards. Levee maintenance and construction also occurs with oversight from Reclamation Districts 403 (West Complex side) and 404 (East Complex side).

The following mitigation measures would be implemented during construction to reduce potential impacts:

- **MM-GEO-1: Reclamation District Coordination.** The Port will coordinate with Reclamation Districts 403 and 404 prior to any levee excavation and will implement any Reclamation District recommended measures for levee failure or flood abatement and avoidance.
- **MM-GEO-2: Geotechnical Investigation and Reinforcement Measures.** The Port will perform a geotechnical investigation in the vicinity of the rail underpass at Fresno Avenue. The geotechnical investigation will identify design measures to minimize or avoid potential soil or geologic hazards including but not limited to liquefaction, which will be implemented by the Port.

To additionally ensure that the proposed levee work does not result in adverse effects related to liquefaction or other seismic hazards, the proposed project would include implementation of mitigation measure MM-GEO-1. Mitigation measure MM-GEO-1 may include installation of rock riprap, compaction grouting and deep soil mixing, construction setbacks, or other design measures to address potential seismic hazards affecting levee stability.

The potential for liquefiable soils and high groundwater table may necessitate pile driving or other potential reinforcement measures for rail underpass at Fresno Avenue. The proposed project would include implementation of mitigation measure MM-GEO-2 to identify and implement these

reinforcement measures. Mitigation measure MM-GEO-2 may include identifying and implementing reinforcement measures such as support piles with pile casings or slurry reinforcement.

The proposed rail improvements would mostly be constructed in existing developed or disturbed areas, including areas with existing subgrades that have been previously prepared for construction in connection with the original installation of rail lines and associated infrastructure. Additional compaction of subgrade soils and installation of base and foundation would occur as necessary to accommodate the proposed improvements, which would reduce the susceptibility of site soils to liquefaction or other seismic stability hazards as compared to existing conditions. In addition, most of the proposed rail improvements would occur in areas with relatively flat topography, with the exception of short rail sections on elevated berms. As noted, existing elevated rail areas have been previously prepared for development and construction in these areas would occur in compliance with applicable building and seismic standards. Therefore, with implementation of MM-GEO-1 and MM-GEO-2, impacts related to liquefaction would be less than significant.

B: Would the project result in substantial soil erosion or the loss of topsoil?

Less-than-Significant Impact with Mitigation. The project site is largely flat and therefore unlikely to experience substantial soil erosion during operations. Relatively steep slopes are present on levees in the proposed replacement rail bridge crossing area, and portions of the proposed rail alignment would be constructed on elevated berms. Improvements in these areas and throughout the project site would comply with the applicable City and County Grading Regulations and design parameters from the 2019 California Building Code and American Society of Civil Engineers, including measures to ensure slope stability and avoid erosion. Project construction would require excavation that could erode soils if improperly managed, which would constitute a potentially significant impact.

Mitigation measures MM-BIO-2, MM-BIO-5, MM-GEO-1, and MM-GEO-2 would be implemented to reduce potential impacts. Mitigation measures MM-BIO-2 and MM-BIO-5, which entail obtaining required permit approvals and implementing avoidance measures including erosion controls, would be implemented to avoid erosion impacts during construction. Topsoil that would be removed during grading or other surface preparation does not serve agricultural purposes or other valuable functions. Although there is unlikely to be substantial soil erosion during operations, the proposed project additionally includes implementation of mitigation measures MM-GEO-1 and MM-GEO-2. MM-GEO-1 entails coordination with Reclamation Districts 403 and 404 for any levee improvements, including implementation of slope stabilization methods such as riprap installation, as needed. MM-GEO-2 entails conducting a site-specific geotechnical investigation in the area of the rail underpass at Fresno Avenue, and implementing identified stabilization measures such as reinforced piles.

With implementation of mitigation measures MM-BIO-2, MM-BIO-5, MM-GEO-1, and MM-GEO-2, impacts related to soil erosion or the loss of topsoil would be less than significant.

C: Would the project be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project and potentially result in an on-site or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

Less-than-Significant Impact with Mitigation. As previously discussed, most of the project site contains flat topography and existing prepared subgrades with low potential for slope failure, landslides, or lateral spreading. In addition, the soil underlying portions of the project site has been previously prepared for construction in connection with the original installation of rail lines and associated infrastructure. Liquefiable soils may however be present in the vicinity of the proposed replacement rail bridge and LLDT improvements near West Scotts Avenue, including the rail underpass at Fresno Avenue, and portions of the rail alignment occur on elevated berms. Some soils mapped as occurring at the project site may be susceptible to liquefaction or subsidence. Fill soils potentially susceptible to subsidence are also common in the area.

Proposed improvements would be constructed or installed in adherence with applicable building and seismic design standards. This would include compaction of subgrade soils and installation of base and foundation as necessary, which would reduce the potential for slope failure or landslides.

As noted above, mitigation measure MM-GEO-1 would be implemented to avoid levee stability impacts from project construction, while MM-GEO-2 would be implemented to identify and implement stabilization measures in the area of the proposed rail underpass at Fresno Avenue. In addition, exposure to unstable geologic hazards would be typical to the region and would not be exacerbated by the proposed project. Therefore, with implementation of MM-GEO-1 and MM-GEO-2, impacts related to unstable geological units or soils would be less than significant.

D: Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

Less-than-Significant Impact. The soils mapped as occurring at the project site include soils that are highly or moderately expansive (Egbert-Urban land complex and Jacktone-Urban land complex; NRCS 2021). As part of the proposed project, site grading and surface preparation would be completed as needed to comply with design standards addressing the potential for expansion. In addition, soils underlying the developed portions of the proposed project footprint have been previously prepared for construction in connection with the original installation of rail lines and associated infrastructure, including compaction of subgrade soils and installation of base and foundation, as necessary. In consideration of the existing developed site conditions and applicable design standards, there would be less-than-significant impacts related to expansive soils.

E: Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater?

No Impact. The proposed project would not require wastewater disposal or generate process or industrial wastewater, and it would neither require the use of septic tanks or alternative wastewater disposal systems nor affect any such systems. Therefore, there would be no impact.

F: Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less-than-Significant Impact. There are no known unique geological or paleontological resources in the project area. Construction of the proposed project would include excavation, fill, and compaction of soils. However, because of its geomorphological history, the project area is not likely to contain any fossils other than invertebrate fossils that are in a redeposited context. Therefore, there would be a less-than-significant impact.

3.3.8 Greenhouse Gas Emissions

Would the project:		Potentially Significant Impact	Less-Than-Significant Impact After Mitigation	Less-Than-Significant Impact	No Impact
a.	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b.	Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.3.8.1 Affected Environment

3.3.8.1.1 Environmental Setting

Global climate change results from GHG emissions caused by several activities, including fossil fuel combustion, deforestation, and land use change. GHGs trap infrared radiation emitted from the Earth's surface, which otherwise escapes to space. The most prominent GHGs contributing to this process include carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O). Certain refrigerants, including chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs), and hydrofluorocarbons (HFCs), also contribute to climate change. The greenhouse effect keeps the Earth's atmosphere near the surface warmer than it would be otherwise and allows for successful habitation by humans and other forms of life.

Fossil fuel combustion removes carbon stored underground and releases it into the atmosphere. Emissions of GHGs are responsible for the enhancement of the greenhouse effect and contribute to what is termed "global warming," a trend of unnatural warming of the Earth's natural climate. Increased concentrations of GHGs in the earth's atmosphere increase the absorption of radiation and further warm the lower atmosphere. This process increases evaporation rates and temperatures near the surface. Climate change is a global problem, and GHGs are global pollutants, unlike criteria pollutants (such as O₃, CO, and PM) and TACs, which are pollutants of regional and local concern (see Section 3.3.3).

Global warming potential (GWP) is a measure of how much a given mass of GHG contributes to global warming. A relative scale is used to compare the gas in question to CO₂ (whose GWP is defined as 1). In this analysis, CH₄ is assumed to have a GWP of 21, and N₂O is assumed to have a GWP of 310. Refrigerants have a GWP ranging from 76 to 12,240. Consequently, using each pollutant's GWP, emissions of CO₂, CH₄, N₂O, CFCs, HCFCs, and HFCs can be converted into CO₂ equivalence (CO₂e).

Recent environmental changes linked to global warming include rising temperatures, shrinking glaciers, thawing permafrost, a lengthened growing season, and shifts in plant and animal ranges (IPCC 1995; CCCC 2012; USGCRP 2014). In California, an assessment of climate change impacts predicts that temperatures will increase between 4.1°F to 8.6°F by 2100, based on low and high global GHG emission scenarios (CCCC 2012). Predictions of long-term negative environmental impacts in California include worsening of air quality problems, a reduction in municipal water supply from the Sierra snowpack, sea level rise, an increase in wildfires, damage to marine and terrestrial ecosystems, and an increase in the incidence of infectious diseases, asthma, and other human health problems (CCCC 2012).

3.3.8.1.2 Regulatory Setting

Executive Order (EO) S-3-05, signed by then-Governor Schwarzenegger on June 1, 2005, established the following GHG reduction targets for California: 1) by 2010, reduce GHG emissions to 2000 levels; 2) by 2020, reduce GHG emissions to 1990 levels; and 3) by 2050, reduce GHG emissions to 80% below 1990 levels. EO S-3-05 also called for the California Environmental Protection Agency to prepare biennial reports on progress made towards achieving these goals, impacts to California from global warming, and mitigation and adaptation plans to combat these impacts.

The California Global Warming Solutions Act of 2006 (AB 32) required CARB to develop and enforce regulations for the reporting and verification of statewide GHG emissions. CARB was directed to set a GHG emission limit, based on 1990 levels, to be achieved by 2020. AB 32 set a timeline for adopting a scoping plan for achieving GHG reductions in a technologically and economically feasible manner. AB 32 also required CARB to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective GHG reductions.

On December 11, 2008, CARB adopted the AB 32 Scoping Plan, which set forth the framework for meeting the state's GHG reduction goal set by EO S-3-05. On October 20, 2011, CARB adopted the final cap-and-trade regulation. CARB also approved an adaptive management plan that monitors the progress of reductions and recommends corrective actions if progress is not as planned or there are unintended consequences in other environmental areas (e.g., concentration of local criteria pollutants).

In 2014, CARB adopted an update to the 2008 AB 32 Scoping Plan that builds upon that initial plan with new strategies and recommendations. The 2008 AB 32 Scoping Plan and 2014 Scoping Plan Update require that reductions in GHG emissions come from virtually all sectors of the economy and be accomplished from a combination of policies, regulations, market approaches, incentives, and voluntary efforts. These efforts target GHG emission reductions from cars and trucks, electricity production, fuels, and other sources.

In 2017, CARB prepared an update to the Scoping Plan. The update established a set goal to reduce GHG emissions to 40% below 1990 inventory levels by 2030 (ARB 2017a).

In August 2008, SJVAPCD adopted the Climate Change Action Plan to assist lead agencies in assessing and reducing the impacts of project-specific GHG emissions on global climate change. The Climate Change Action Plan relies on the use of performance-based standards, otherwise known as Best Performance Standards (BPSs), to assess the significance of project-specific GHG emissions on global climate change. Projects implementing BPS are determined to have a less-than-significant impact. Otherwise, demonstration of a 29% reduction in GHG emissions from business as usual is required to classify a project's impact as less than significant.

In 2009, SJVAPCD adopted the *Guidance for Valley Land-Use Agencies in Addressing GHG Emission Impacts for New Projects Under CEQA* (SJVAPCD 2009a) and the *District Policy: Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA* (SJVAPCD 2009b). SJVAPCD was not able to determine a specific quantitative level of GHG emissions increase above which a project would have a significant impact on the environment, and below which it would have an insignificant impact. SJVAPCD staff concluded that impacts of project-specific emissions on global climatic change are cumulative in nature, and the significance thereof should be examined in that context. SJVAPCD requires all projects to reduce their GHG emissions, whether through project design elements or mitigation. Projects achieving performance-based standards that have been demonstrated to be BPS would be considered to have a less-than-cumulative significant impact on global climate change (SJVAPCD 2009a).

The City updated and adopted its 2040 General Plan on December 4, 2018; it has new GHG measures to comply with a 2008 Settlement Agreement with the state and the Sierra Club that requires the City to address GHG reductions, including through specific provisions in the 2040 General Plan. The 2040 General Plan represents a substantial change in the policy framework for future development in the City compared to the 2035 General Plan (City 2007). The fundamental shift is from emphasizing growth in "outfill" areas at the periphery of the City to focusing new construction and redevelopment in existing "infill" neighborhoods. This change is reflected in the land use map, an associated map depicting the transportation network required to serve future development, and in the goals, policies, and actions throughout the document. In addition, the City's 2040 General Plan includes the following policies regarding GHG and climate change that are applicable to the proposed project:

Policy TR-3.2: Require new development and transportation projects to reduce travel demand and greenhouse gas emissions, support electric vehicle charging, and accommodate multi-passenger autonomous vehicle travel as much as feasible.

Policy CH-5.1: Accommodate a changing climate through adaptation, mitigation, and resiliency planning and projects.

Action CH-5.1B: Maintain and implement the City's Climate Action Plan and update the CAP to include the following:

- Updated communitywide GHG emissions inventory;
- 2030 GHG emissions reduction target, consistent with SB 32;
- Estimated 2030 GHG emissions reduction benefits of State programs;
- Summary of the City's progress toward the 2020 local GHG emissions reduction target;
- New and/or revised GHG reduction strategies that, when quantified, achieve the 2030 reduction target and continue emission reductions beyond 2030; and
- New or updated implementation plan for the CAP.

Policy CH-5.2: Expand opportunities for recycling, re-use of materials, and waste reduction.

Action CH-5.2A: Use recycled materials and products for City projects and operations where economically feasible, and work with recycling contractors to encourage businesses to use recycled products in their manufacturing processes and encourage consumers to purchase recycled products.

Action CH-5.2B: Continue to require recycling in private and public operations, including construction/demolition debris. (City 2018a)

3.3.8.1.3 *Methodology for Determining Impacts*

In determining the significance of a project's impacts, the lead agency may consider a project's consistency with the state's long-term climate goals or strategies, provided that substantial evidence supports the agency's analysis of how those goals or strategies address the project's incremental contribution to climate change and its conclusion that the project's incremental contribution is consistent with those plans, goals, or strategies (CEQA Guidelines Section 15064.4[b][3]).

In December 2018, the California Natural Resources Agency clarified several points regarding the method for determining GHG impacts in CEQA documents. CEQA Guidelines Section 15064.4 includes the following provisions as summarized by the Governor's Office of Planning and Research (OPR 2020):

- "Lead agencies must analyze the greenhouse gas emissions of proposed projects" (CEQA Guidelines Section 15064.4[a]).

- “The focus of the lead agency’s analysis should be on the project’s effect on climate change, rather than simply focusing on the quantity of emissions and how that quantity of emissions compares to statewide or global emissions” (CEQA Guidelines Section 15064.4[b]).
- “Lead agencies may rely on plans prepared pursuant to Section 15183.5 (Plans for the Reduction of Greenhouse Gases) in evaluating a project’s greenhouse gas emissions” (CEQA Guidelines Section 15064.4[b][3]).

Based on the above guidance, the analysis herein analyzes the GHG emissions that would be generated as a result of the proposed project and addresses how potential emissions as well as the project design would compare to state, regional, and local plans to address climate change.

3.3.8.2 Impact Evaluation

Construction: GHG emissions during construction would come from the construction equipment, worker vehicle trips, and energy used on site. As described in Section 2.5, proposed project construction is expected to occur over 3 years in various areas of the Port, largely within the Port’s rail system. Construction emissions would be generated by construction equipment and worker vehicles. The initial phase of construction would include site preparation activities at all sites. Some work elements relative to the rail bridge replacement, LLDT construction, and McCloy rail classification yard construction would occur simultaneously. Equipment lists were provided by engineers for the proposed project; all equipment is conservatively assumed to be diesel-fueled and construction activities are assumed to occur during the hours of 6:00 a.m. to 9:00 p.m. GHG emissions from construction are shown in Table 10. A full description of GHG emission sources, including equipment horsepower ratings, is provided in Appendix C.

**Table 10
Annual Construction Greenhouse Gas Emissions**

Year	Construction Project	Construction Phase	CO ₂ e (metric tons/year)
2023	Rail Bridge Replacement	Track LD01 Construction	98
	Second Lead Track	Earthwork	351
	McCloy Rail Classification Yard	Earthwork	239
	Total		689
2024	Rail Bridge Replacement	Track LD01 Construction	58
	Second Lead Track	Track Removal and Reconnection	145
	McCloy Rail Classification Yard	Earthwork and Track Removal and Reconnection	188
	Total		392
2025	Rail Bridge Replacement	Track LD02 Construction	144

Notes:
Emissions may not precisely sum, due to rounding.
Rail emissions reflect switcher and line-haul locomotives.

Operations: GHG emissions during proposed project operation would originate from rail engines within the Port; all operational emissions would occur within the Port. As discussed in Sections 2.2.1 and 2.6, the Port currently serves 21 trains per week with an expected operational growth to 34 trains per week by 2026 based on tenant projections. However, absent the proposed rail improvements, the Port’s rail system would be constrained to a maximum of 28 trains per week. The operational GHG assessment considers the emissions change between constrained operations in 2026 (without the proposed system improvements) and operations in 2026 (with system improvements). The GHG assessment analyzes the emissions from rail movements within the Port both with and without the proposed project. To model GHG emissions, hours of operation were allocated to the destination location and locomotive type by number of trips and distance traveled within the Port.

GHG emissions from operations are shown in Table 11. The "2026 Conditions without Proposed Project" scenario assumes that the rail system continues to be constrained to 28 trains and that lead track blockages continue. The "2026 Conditions with Proposed Project" scenario assumes rail system improvements are constructed accommodating an additional six trains, with two going to the East Complex and four going to the West Complex. Full GHG emissions modeling results are included in Appendix C.

**Table 11
Operational Greenhouse Gas Emissions**

Scenario	Engine Type	Engine Mode	CO ₂ e (metric tons/year)
2026 Conditions without Proposed Project	Class I Mainline Carriers	Running	1,188
		Idling	52
	Class III Switchers	Running	1,245
		Idling	84
	Total		
2026 Conditions with Proposed Project	Class I Mainline Carriers	Running	1,641
		Idling	47
	Class III Switchers	Running	1,305
		Idling	28
	Total		
Net Change	Class I Mainline Carriers	Running	397
		Idling	-37
	Class III Switchers	Running	117
		Idling	-24
Total			453

Note:
Rail emissions reflect switcher and line-haul locomotives.

A: Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less-than-Significant Impact. The lead agency has discretion to select the model or methodology it considers most appropriate to enable decision-makers to intelligently consider a project's incremental contribution to climate change (CEQA Guidelines Section 15064.4[c]).

SJVAPCD has established GHG thresholds for projects subject to CEQA. For projects implementing SJVAPCD's BPS, quantification of project-specific GHGs is not required (SJVAPCD 2009). SJVAPCD's BPS generally apply to projects with stationary industrial emission sources. Most the proposed project's emissions are from mobile sources; therefore, SJVAPCD's BPS do not apply. SJVAPCD has not established BPS for the wide variety of land use sources that can occur within the San Joaquin Valley. Instead, SJVAPCD recommends determining whether the GHG emissions applied to a project would result in a 29% reduction compared to business as usual. However, the business as usual approach has been invalidated in the 2015 *Center for Biological Diversity v. Department of Fish and Wildlife* California Supreme Court decision.

Several California Air Districts have established a GHG threshold of 1,100 metric tons of CO_{2e} per year for land use plans and 10,000 metric tons per year for stationary sources. However, the proposed project is neither a land use plan nor a stationary source. The South Coast Air Quality Management District (SCAQMD) has established a threshold of 10,000 metric tons per year of CO_{2e} emissions per year for industrial projects, including Port projects which include a number of industrial emission sources. Construction GHG emissions, amortized over the life of a project, are required to be included in a project's annual GHG emissions totals (SCAQMD 2011). For purposes of this analysis, the SCAQMD's industrial project threshold is used to evaluate the significance of the proposed project's GHG emissions. The analysis also considers the proposed project's consistency with applicable provisions of the plans, goals, or strategies identified in Section 3.3.8.1.2.

Tables 10 and 11 show the total proposed project GHG emissions, as estimated using CalEEMod. Construction emissions would occur between 2023 and 2025. Operational emissions include direct emissions from line-haul locomotives and switching locomotives. Detailed emission estimates are summarized in Appendix C. As shown, annual emissions would be less than the threshold of 10,000 metric tons per year and therefore are considered less than significant.

B: Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less-than-Significant Impact. As discussed above, there are numerous statewide regulations and initiatives related to overall GHG reductions. SJVAPCD's BPS generally apply to projects with stationary industrial emission sources. As shown in Table 11 the majority of the proposed project's GHG emissions are from mobile sources and SJVAPCD's BPS do not apply.

The proposed project is subject to future state and local requirements imposed by CARB's 2017 *Climate Change Scoping Plan Update* (CARB 2017a). The *Climate Change Scoping Plan Update* describes how California will reduce its GHG emissions by 40% below 1990 levels by 2030. The proposed project's emission sources are mobile sources that would be captured under state initiatives such as low carbon energy and fuel standards. Therefore, impacts are considered less than significant.

3.3.9 Hazards and Hazardous Materials

Would the project:		Potentially Significant Impact	Less-Than-Significant Impact After Mitigation	Less-Than-Significant Impact	No Impact
a.	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b.	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c.	Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d.	Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e.	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f.	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g.	Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.3.9.1 Affected Environment

3.3.9.1.1 Listed Hazardous Material Sites

Surrounding sites potentially containing hazardous materials were identified through a search of the DTSC EnviroStor (DTSC 2021) and State Water Resources Control Board GeoTracker (SWRCB 2021a) databases. Within a 1-mile radius of the proposed project footprint (including the proposed rail improvements, replacement rail bridge, rail yard, and staging areas), the EnviroStor database lists 13 cleanup sites and the GeoTracker database identifies 74 cleanup sites with active, open, or unidentified statuses (with some sites occurring in both databases).

Thirteen sites listed on the DTSC EnviroStor (DTSC 2021) and GeoTracker (SWRCB 2021a) databases occur within 1,000 feet of the project site. Ten of these sites are parts of NCTS Stockton (EnviroStor has three NCTS Stockton listings, and GeoTracker has seven). The remaining three are the Stockton Ordnance Depot (part of former Naval use of the Port); the Koppel Stockton Terminal site at 2025 West Hazelton Avenue (listed on GeoTracker); and the Newark Group, Inc. Leaking Underground Storage Tank (UST) Case 2 site at 800 West Church Street (listed on GeoTracker). These sites are described in the following subsections.

3.3.9.1.1.1 Naval Computer and Telecommunications Station, San Diego Detachment Stockton

NCTS Stockton is the former Naval outpost, which encompassed the Port's modern West Complex. The U.S. military first occupied the West Complex after World War I and subsequently developed the area into the U.S. Naval Supply Annex, Stockton, during World War II. In the early 1950s, supply depot activity slowed, and command of Rough and Ready Island transferred to NCTS Stockton. NCTS Stockton managed the depot until July 2002, when U.S. Navy operations ceased entirely. The Department of Defense property on Rough and Ready Island was approved for transfer to the Port in 1996 and became the West Complex as property was conveyed to the Port between approximately 2000 and 2010. The West Complex is now used to provide maritime support for the Port.

Portions of the West Complex are identified as existing hazardous materials sites due to soil and groundwater contamination related to Naval use of the site, including for heavy metals, organochlorine pesticides, petroleum and petroleum byproducts, polychlorinated biphenyls, polyfluorinated alkylated substances, polynuclear aromatic hydrocarbons, polynuclear aromatic hydrocarbons, semivolatile organic compounds, and volatile organic compounds. The contaminated portions of the West Complex have been divided into sites based on the nature and source of contamination. GeoTracker lists 35 West Complex sites within 1 mile of the proposed project and EnviroStor lists three (all 38 sites are included in the total identified from the databases in Section 3.3.9.1.1).

The proposed project footprint would include only one West Complex former NCTS Stockton site: the Site 19 construction debris site. Site 19 contains stockpiles of soil and debris with known benzo(a)pyrene contamination; the stockpiles are the only known contamination on Site 19 (SWRCB 2021b). As discussed in Section 3.3.7.1.1, the western edge of the proposed McCloy rail classification yard would be on Site 19.

3.3.9.1.1.2 Stockton Ordnance Depot

The former Stockton Ordnance Depot includes 518.7 acres within the Port's East Complex, West Complex, and within a portion of Robert's Island. A portion of the project footprint would occur adjacent to the East Complex former Stockton Ordnance Depot area. The Stockton Ordnance Depot

was used for military purposes from 1941 through 1973. No hazards or potential environmental liabilities from past use by the Department of Defense remain based upon records research, site inspections, and removal actions (Vincent 2012). However, the GeoTracker database still identifies the site as under investigation with explosives identified as the potential contaminant of concern.

3.3.9.1.1.3 Koppel Stockton Terminal

This site is located at 2025 West Hazelton Avenue. Phytoremediation was initiated at this site in May 1998 for nitrate and ammonium contaminated groundwater. Additional trees were planted in March 2000. In 2014, the stormwater pond met the cleanup goals for soil and groundwater. This cleanup program site remains open.

3.3.9.1.1.4 Newark Group, Inc. Leaking Underground Storage Tank Case 2

This site is located at 800 West Church Street. It is a leaking UST site; petroleum contamination was found in soil and groundwater after removal of site USTs. The site is under monitored natural attenuation and as of 2021 is under RWQCB consideration for closure.

3.3.9.1.2 *Potentially Hazardous Materials On-Site*

Most of the project site consists of existing industrial rail lines, or portions of the Port or BNSF right-of-way that are directly next to existing rail lines. The portions of the proposed project site that are existing rail tracks are not known to have been used historically as a storage location (other than standard industrial hazardous materials related to the historical purposes of the site) or dump site for hazardous materials. However, the western edge of the proposed McCloy rail classification yard would extend into Site 19, which is a stockpile area for known contaminated soil from previous West Complex construction projects. The stockpiles are the only known contamination at Site 19.

The remainder of the project sites includes vacant but disturbed parcels where temporary construction staging would occur, and the San Joaquin River and adjoining levees where the replacement rail crossing would be constructed. These areas are not known to contain hazardous materials.

Port rail lines serve a variety of tenants that manage potentially hazardous commodities, including but not limited to liquid bulk fuels, fertilizers, combustible solids, or caustic materials. The Port maintains contractual requirements for the use, handling, and storage of hazardous materials by all of its tenants, in part through the standard tenant terms and conditions listed in the Port's General Tariff No. 1 (Port 2020a). Per General Tariff No. 1, tenants are required to notify the Port immediately of the presence of any hazardous materials on or below property leased from the Port, must "comply with all affirmative legal requirements concerning Hazardous Materials," and must provide the Port with an up-to-date list of all hazardous materials on leased property at least once per year and before any new hazardous materials are brought onto Port property (Port 2020a). Rail transport of

potentially hazardous materials managed by Port tenants is subject to BNSF or UP hazardous material plans; an overview is provided in the following sections.

3.3.9.1.2.1 BNSF Hazardous Material Plans

BNSF is a partner member of the Responsible Care program, a voluntary chemical safety and handling management system under the auspices of the American Chemistry Council. In addition, BNSF has several internal programs, discussed as follows, to address personnel safety and reduce releases of hazardous materials due to accidents (also called accident releases). BNSF works with customers to reduce non-accident releases by improving packaging and containment. In the event a problem does occur, BNSF's spill response program, discussed as follows, is designed to minimize impact to the environment, the community, and BNSF operations.

A Hazardous Materials Emergency Response Plan is developed for every BNSF facility in the United States. For BNSF facilities located in California, the Hazardous Materials Emergency Response Plans and California Business Plans consist of the following components:

- A list of emergency contact numbers for the following parties: the Emergency Coordinator at the BNSF facility; the local fire and police departments; the County Environmental Health Department; the State Office of Emergency Services; the National Spill Response Center; the USEPA Emergency Reporting Number; the State Water Resources Control Board; the RWQCB; the California Occupational Safety and Health Department; and spill response contractors
- A list of the types and locations of emergency equipment at the BNSF facility
- A County Health Department Business Activities Form that identifies the sizes of storage containers for hazardous materials, including underground and aboveground storage tanks, hazardous wastes, and other regulated substances present at the facility, as well as total volume of materials being stored at the facility
- A facility contingency plan that summarizes emergency response procedures for the proposed project in the event of fire, explosion, or other unauthorized release of hazardous substance(s). The plan also includes the following:
 - Emergency evacuation plan
 - Employee hazardous materials training program
 - Contracts that are prepared and signed by designated qualified emergency response contractors that identify the scope of services, the types of materials to be handled, and the term of the contract

BNSF additionally participates in the Transportation Community Awareness and Emergency Response outreach program. BNSF provides hazardous materials awareness training to the communities where BNSF facilities are located. These programs, which include classroom and hands-on sessions, are designed to promote an understanding of safe transportation of hazardous materials by rail.

BNSF's spill response program delivers resources to the area of the spill in the shortest time possible. The program includes 200 emergency response personnel who are located throughout the BNSF system. All response personnel are required to complete annual responder training. This support team has responsibility for monitoring all emergency responses, mobilizing response and remediation contractors, and lending technical support when necessary. BNSF has also posted a toll-free emergency telephone number at highway/rail crossings to provide the public with a way to contact BNSF immediately in an emergency.

When responding to a spill, information about the spill area and type of material involved is critical. BNSF uses GIS to provide "point-and-click" information about specific track locations, surrounding communities, emergency responders, healthcare facilities, schools, nursing homes, pipelines, and detailed response procedures. The GIS includes a model for simulating chemical concentrations and "footprints" if a release were to occur. Output from the model includes consideration for complex topography, such as mountains and river valleys.

3.3.9.1.2.2 Union Pacific Hazardous Materials Management Group

The UP Hazardous Materials Management Group (HMM) consists of hazardous material experts focused on the following four areas of hazardous material management:

1. **Prevention.** UP's HMM team members regularly inspect tank cars moving on the UP network. HMM is responsible for training employees about hazardous materials safety. U.S. Department of Transportation-defined "hazmat employees" are required to be trained in the safe handling of hazardous materials. Train crews are required to carry a copy of Instructions for Handling Hazardous Materials, provided by HMM, while operating a train carrying hazmat.
2. **Preparedness.** HMM develops the UP Hazardous Materials Emergency Response Plan, a performance-based plan that provides guidance about reporting a release as well as a list of training requirements for those responding to an incident. HMM team members reach out to fire departments on an annual basis to offer training or information to assist fire departments in their preparation for a potential incident.
3. **Response.** The response process used by HMM is designed to be incorporated into public response incident command structure. UP's Response Management Communication Center is an around-the-clock security response center where critical call dispatchers manage calls from the public, law enforcement, and others who are reporting emergencies and other incidents on UP's 32,000-mile network. The Response Management Communication Center follows all regulations regarding notification of local, state, and federal agencies in the event of an accident and works closely with first responders throughout an incident. In addition, UP has approximately 30 highly trained hazardous materials responders. HMM response equipment includes firefighting trailers, foam caches, air monitoring equipment and specialty tools.

4. **Recovery.** In the event of a hazardous material incident, UP is equipped to transfer any liquid or compressed gas from damaged tanks and clean and purge any damaged cars. The UP Site Remediation Group is responsible for remediation and closure with regulatory agencies.

3.3.9.1.3 Regional Emergency Response Plans

Regional emergency response plans are detailed in the 2008 San Joaquin County Office of Emergency Services' *Hazardous Materials Area Plan* (SJCOES 2008). The plan discusses topics such as natural hazards, emergency management, mitigation programs, emergency preparedness, and state roles and responsibilities. Under the plan, considerations have been made for the area, including for hazardous materials. Additionally, Appendix 5 of the plan addresses non-routine emergency responses, including responses to industrial chemical hazards and terrorist chemical release (SJCOES 2009). Other hazard plans for the region and throughout California would also apply to the proposed project.

3.3.9.1.4 Sensitive Receptors

There are no schools, airstrips, airports, or other sites potentially sensitive to hazards or hazardous materials within 1 mile of the proposed McCloy rail classification yard (which is near known contamination at Site 19), or within 1 mile of the rail bridge construction site (which would involve longer periods of construction equipment use). The school that is nearest to the project area is George Washington Elementary School, located approximately 1,500 feet north of portions of the LLDT work in the BNSF right-of-way; this portion of the project area is not known or anticipated to contain hazardous materials. George Washington Elementary is approximately 2 miles east of the proposed McCloy rail classification yard and 1.3 miles to the east of the rail bridge. Victory Elementary School is located approximately 1.3 miles to the northeast of the rail bridge. The nearest airport is the Stockton Municipal Airport, located approximately 5 miles southeast of the project area.

3.3.9.1.5 Wildfire Hazards

The project site is not within any fire hazard severity zones (Los Padres ForestWatch 2020; CAL FIRE 2021). There are no wildlands within the project area, and wildland fires do not pose a risk to the project site.

3.3.9.2 Impact Evaluation

A: Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less-than-Significant Impact with Mitigation. Proposed project operations would not create any new uses of hazardous materials, although there may be an increase in rail transport of potentially hazardous materials commensurate with the anticipated increase of six trains per week by 2026. Rail

transport would remain subject to hazardous material plans and procedures implemented by BNSF and UP, and regional emergency response plans would also remain applicable. Tenant compliance with General Tariff No. 1 mandating hazardous material inventories and management per legal requirements would continue to occur. The minor increase in weekly trains would not affect tenant or Port compliance with these plans and procedures, or otherwise create a significant hazard to the public or the environment through routine transport of hazardous materials.

Proposed project operations may require use, storage, and management of common industrial materials such as lubricants and fuels. Public and environmental risk from these materials is low because the quantities of these industrial materials would be limited, and any use of such materials would be per manufacturer procedures compliant with relevant regulations. There would not be a substantial increase in use of common industrial materials compared to baseline conditions.

Potentially hazardous building materials may be encountered during demolition and construction, which could be hazardous to the environment or persons if improperly managed. This may include creosote-treated piles, asbestos, or lead paint. Removal of creosote-treated piles could pollute the San Joaquin River, and creosote can be toxic to aquatic organisms. Construction workers can be exposed to lead during the removal, renovation, or demolition of structures painted with lead pigments. Workers may develop a variety of ailments from substantial lead exposure, such as neurological effects, gastrointestinal effects, anemia, and kidney disease. Asbestos exposure can occur during removal, renovation, or demolition of asbestos containing materials such as insulation for pipes, floor tiles, and building materials. Breathing asbestos fibers can result in asbestosis (buildup of scar-like tissue in the lungs), loss of lung function, lung cancer, mesothelioma, and even death. These hazards are typically addressed through Occupational Safety and Health Administration (OSHA) regulations, and risk of exposure can be evaluated through pre-construction hazardous material surveys.

Construction activities would involve the use of equipment that contains oil, gas, or hydraulic fluids that could be spilled during normal usage or during refueling. Spilled industrial materials can pose a hazard to construction workers, as well as to the environment, including potentially impacting water quality in the San Joaquin River.

A portion of the proposed project (the western edge of the proposed McCloy rail classification yard) would extend onto the Site 19 hazardous materials site, which is a stockpile area for known contaminated soil from previous West Complex construction projects. The stockpiles are the only known contamination at Site 19. Proposed project construction in Site 19 would take place to the east of the stockpiles and would not affect the stockpiles. As discussed in Section 3.3.7.1.1, Site 19 has an LUC in place over the entirety of the site. Compliance with this LUC requires preparation of an SMP for DTSC approval prior to any earthwork.

The impacts from proposed project construction could be potentially significant. The following mitigation measure would be implemented during construction to reduce potential impacts:

- **MM-HAZ-1: Work Restrictions at Site 19.** Prior to construction work requiring earthwork in Site 19, the Port will prepare an SMP covering the Site 19 work and submit it to DTSC for approval. Ground disturbance in Site 19 will not begin until DTSC has approved the SMP. Construction work, including ground disturbance or excavation, on Site 19 will not extend into the stockpile portion of the site.

Mitigation measure MM-HAZ-1 would be implemented, including restricting work to the non-stockpile portion of Site 19 and preparation of an SMP for DTSC approval prior to construction. In addition, the Port would implement mitigation measures MM-BIO-2 and MM-BIO-5 to ensure spill controls, erosion controls, or similar actions are in place to minimize or avoid adverse impacts to the environment or human beings from construction. With implementation of mitigation measures MM-HAZ-1, MM-BIO-2, and MM-BIO-5, impacts would be less than significant.

B: Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less-than-Significant Impact with Mitigation. As described, the proposed project would result in an increase in rail transport (six trains per week by 2026), and potentially a commensurate increase in transport of hazardous materials such as combustible or caustic commodities. Small quantities of common industrial materials may also be used during proposed project operations. Compliance with OSHA regulations would avoid or minimize the potential for worker exposure to hazardous materials during demolition or construction.

A portion of the proposed project (the western edge of the proposed McCloy rail classification yard) would extend onto the Site 19 hazardous materials site, which is a stockpile area for known contaminated soil from previous West Complex construction projects. For the same reasons as outlined above under item A, potential impacts from project construction associated with Site 19 could be potentially significant.

Mitigation measures MM-HAZ-1, MM-BIO-2, and MM-BIO-5 would be implemented during construction to reduce potential impacts. Hazards associated with Site 19 would be addressed through mitigation measure MM-HAZ-1, which prohibits construction in the contaminated stockpile portion of Site 19 and requires the Port to prepare an SMP prior to initiating ground disturbance in Site 19. Implementation of mitigation measures MM-BIO-2 and MM-BIO-5 would avoid or minimize impacts to persons and the environment from accidental spills during construction. With implementation of mitigation measures MM-HAZ-1, MM-BIO-2, and MM-BIO-5, impacts would be less than significant.

C: Would the project emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?

Less-than-Significant Impact. No school is proposed within the 0.25-mile radius of the project site, and no school is located within 1 mile of portions of the project area that are anticipated to contain hazardous materials. Because of the bulk of the project area's zoning (Port Area), it is unlikely that a school would be constructed within this radius. The nearest school is George Washington Elementary School, which is approximately 1,500 feet north of portions of the LLDT work in the BNSF right-of-way, 1.3 miles to the east of the rail bridge, and 2 miles east of the proposed McCloy rail classification yard. Construction activities for the LLDT work in the BNSF right-of-way may involve the use of hazardous materials and substances. Although this construction would not occur within 0.25 mile of the school, due to the relative proximity, impacts would be considered less than significant related to hazardous material emissions or handling in the vicinity of a school.

D: Would the project be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Less-than-Significant Impact with Mitigation. Part of the proposed project is located on the Port's West Complex, which was formerly used as a Naval base. Portions of the West Complex are included on the Cortese list and are active hazardous materials sites. The majority of the proposed project footprint within the West Complex would occur outside of hazardous materials sites. However, the western edge of the proposed McCloy rail classification yard would extend into Site 19, which is a stockpile area for known contaminated soil from previous West Complex construction projects. For the same reasons as outlined above under item A, potential impacts from project construction associated with Site 19 could be potentially significant.

Mitigation measure MM-HAZ-1 (work restrictions at Site 19) would be implemented to reduce potential impacts. With implementation of mitigation measure MM-HAZ-1, impacts related to hazards from known hazardous materials sites would be less than significant.

E: For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

No Impact. The project site is not located within an airport land use plan area, and the nearest airport or airstrip is located approximately 5 miles southeast of the project area. Therefore, the proposed project would result in no impact related to aviation.

F: Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

No Impact. The Port, BNSF, and UP have emergency response or evacuation plans in place, which would apply to the proposed project. Regional emergency response plans, including but not limited to the San Joaquin County *Hazardous Materials Area Plan* (SJCOES 2008), were developed in consideration of activities occurring within industrial areas of the City. The proposed project improvements and anticipated train throughput increase (six trains per week by 2026) would not interfere with emergency plan implementation or effectiveness. Therefore, there would be no impact related to impairment of emergency plans.

G: Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

No Impact. The project site is not within any fire hazard severity zones, and there are no wildlands or other areas susceptible to wildfire in the project area. Therefore, there would result be no impact related to wildland fires.

3.3.10 Hydrology and Water Quality

Would the project:		Potentially Significant Impact	Less-Than-Significant Impact After Mitigation	Less-Than-Significant Impact	No Impact
a.	Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b.	Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
	i. Result in a substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	iv. Impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d.	In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e.	Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.3.10.1 Affected Environment

3.3.10.1.1 Surface and Stormwater

The proposed project footprint is primarily within the footprint of the existing Port rail system, which comprises soil compacted and prepared for rail installation. The portions of the proposed project footprint that are not existing rail are either vacant land or concrete pads for existing structures. Temporary construction staging would occur in several locations throughout the East and West Complexes, mostly within barren but disturbed areas with compacted earth, asphalt, or ruderal vegetation. The proposed rail bridge replacement area is located above the San Joaquin River.

On the West Complex, stormwater is conveyed through a system of open, channelized earthen stormwater drainage ditches that convey stormwater to a single pump-controlled discharge point on

the west side of the West Complex. Once stormwater reaches this discharge point, it is held in a stormwater retention basin on the western end of the West Complex; when the basin reaches a high level, it is then pumped into Burns Cutoff. On the East Complex, stormwater is conveyed via a system of drainage ditches and channels before being pumped into the stormwater retention basin immediately west of Navy Drive. Drainage ditches on the East Complex are generally open, with culverts beneath road crossings or other developments. During years when the retention basin reaches a high level, stormwater is pumped to the San Joaquin River (Stockton Port District 2006). Stormwater falling in the area of the replacement rail bridge and adjoining levees drains directly to the San Joaquin River.

3.3.10.1.2 Flood Hazards

San Joaquin County maintains Flood Insurance Rate Maps, as required by the Federal Emergency Management Agency (FEMA). These Flood Insurance Rate Maps indicate the potential of flooding for various locations. Except for the proposed rail crossing over the San Joaquin River, the project site is located in a "Zone X Other Flood Area," which indicates an area with 0.2% annual chance of flood or an area with 1% annual chance of flood with average depths of less than 1 foot or with drainage areas less than 1 square mile, as well as areas protected by levees from a 1% annual chance of flood (FEMA 2009).

Upstream dam failures could cause flooding in the project area, which is within the dam inundation zone of three major dams, the New Malones, Camanche, and New Hogan dams (City 2018a). Failure of any of these dams would give residents about 7 hours to evacuate. Other major regional dams could also affect the City but would have longer evacuation lead times (City 2018a). California SB 92 (2017) requires emergency action plans for all dams, except those classified as "low hazard."

The project area is protected by a levee system along the San Joaquin River and Burns Cutoff. Levee failure has a relatively small probability of occurrence. The Port is responsible for the levee system and has established an annual levee monitoring and inspection program intended to determine whether reinforcement of the structural integrity of the perimeter levee is required (Stockton Port District 2012). Levee monitoring occurs in collaboration with Reclamation Districts 403 and 404. FEMA has certified and accepted most of the levees within the City as meeting minimum standards (City 2007). Tsunamis and seiches are not considered to be significant threats in the Stockton area (City 2007).

3.3.10.1.3 Groundwater

The project area occurs within the San Joaquin Valley Groundwater Basin, which is a subsection of the Greater Central Valley Basin. Groundwater in the area is recharged by local precipitation and through percolation from the surrounding surface waters. Groundwater overdraft conditions have

existed in the San Joaquin County Basin since the 1920s, although elevations have recovered and stayed relatively constant since 1999 (Stockton Port District 2012).

Runoff on the West Complex drains through the drainage ditch system to the retention basin on the western end of the West Complex, while East Complex runoff is pumped to the stormwater retention basin immediately west of Navy Drive. Once runoff reaches one of these retention basins, it may percolate into the groundwater table. Runoff from the proposed rail bridge replacement and adjoining levee areas is conveyed directly to the San Joaquin River.

3.3.10.1.4 San Joaquin River

The proposed replacement rail crossing is located above the San Joaquin River that extends southward from the river's main channel. The San Joaquin River is approximately 325 feet wide in the area of the proposed rail bridge replacement. The river channel substrate in the project area contains mud and silt, and water quality is characterized by low dissolved oxygen levels and high water temperatures during the late summer and early fall. Water quality monitoring and elutriate toxicity testing results from past Port maintenance dredging sediment characterization efforts have not indicated toxicity concerns (ERS 2012, 2013; Anchor QEA 2017) for sediments within the project area.

3.3.10.1.5 Port of Stockton's Storm Water Development Standards Plan

The Port's Storm Water Development Standards Plan (Port 2009) covers new and substantial redevelopments of properties within three subareas to ensure compatibility with the California State Water Resources Control Board-issued Municipal Separate Storm Water Sewer System NPDES Permit. Port Storm Water Development Standards Plan review includes assessment of technical stormwater submittals from project proponents.

3.3.10.2 Impact Evaluation

A: Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less-than-Significant Impact with Mitigation. Construction activities associated with the proposed project would include excavation and grading of soils throughout the Port, and the proposed project includes construction above and adjacent to the San Joaquin River. These activities could pose the potential for water quality impacts during construction. Because the proposed project would include more than 1 acre of ground disturbance, a NPDES Construction Stormwater General Permit addressing these types of impacts would be required. In-water work for replacement of the rail bridge, including pile driving, would also be conducted in line with relevant regulatory requirements for work in jurisdictional waters.

Construction activities would not occur in areas known to be contaminated. A portion of the proposed project (the western edge of the proposed McCloy rail classification yard) would extend

onto the Site 19 hazardous materials site. As described in Section 3.3.9.1, Site 19 is a stockpile area for known contaminated soil from previous West Complex construction projects. The stockpiles are the only known contamination at Site 19, and they are located west of the proposed project work areas. The proposed project would comply with the LUC in place for Site 19, including preparation of an SMP for DTSC approval prior to any earthwork, as described in Section 3.3.9.2, avoiding or minimizing the potential for water quality impacts associated with known hazardous material sites.

Proposed project operations may require use, storage, and management of common industrial materials such as lubricants and fuels. The risk for these hazards is low because the quantities of these industrial materials would be limited, and any use of such materials would be per manufacturer procedures compliant with relevant regulations. There would not be a substantial increase in use of common industrial materials compared to baseline conditions.

Water quality impacts from project construction could be potentially significant. Mitigation measures MM-BIO-2, MM-BIO-5, and MM-HAZ-1 would be implemented to reduce potential impacts. Mitigation measures MM-BIO-2 and MM-BIO-5 would be implemented avoid or minimize water quality impacts during construction. MM-BIO-2 and MM-BIO-5 would ensure implementation of spill controls, erosion controls, or similar actions that would minimize or avoid adverse water impacts from construction. MM-BIO-5 would also minimize or avoid construction water quality impacts to other potentially jurisdictional waters or wetlands, such as the potential state-jurisdictional wetlands described in Section 3.3.4. Mitigation measure MM-HAZ-1 would ensure the proposed project would comply with the LUC in place for Site 19, including preparation of an SMP for DTSC approval prior to any earthwork, avoiding or minimizing the potential for water quality impacts associated with known hazardous material sites.

With implementation of these mitigation measures, impacts to water quality would be less than significant.

B: Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Less-than-Significant Impact. The proposed project footprint occurs within the developed East and West Complexes, in areas surfaced with existing rail lines, compacted dirt, or other low to moderately permeable surfaces. The additional rail lines would add nominal areas of impermeable surfaces but would have little or no effect on groundwater recharge. Underdrains would be installed along the rail lines to collect and transport rain runoff away from the rail embankment. Stormwater runoff from existing and proposed rail lines would continue to sheetflow away from the slightly elevated rail lines before either percolating directly into the groundwater table or being conveyed to the larger stormwater conveyance system for eventual discharge to the San Joaquin River or return to the

groundwater table. Similarly, stormwater within the area of the proposed replacement rail crossing would continue to be conveyed to the San Joaquin River.

Construction of the proposed McCloy rail classification yard would involve placement of import borrow and crushed surfacing base course (subballast) fill, which would reduce permeability but would not render the ground impermeable. Small impermeable concrete pads may also be installed. The decrease in permeability from the McCloy rail classification yard would not interfere substantially with overall groundwater recharge; water would still infiltrate through areas with new fill, any runoff would be conveyed to the existing stormwater retention basins, where percolation into the groundwater table would continue to occur.

Riprap placed on the excavated levee slopes would have a nominal effect on stormwater runoff but would not affect groundwater recharge. Stormwater would penetrate gaps in the riprap or would sheetflow directly into the San Joaquin River, thereby being available for groundwater recharge.

In consideration of the projects minor effects on permeable surfaces and the continued conveyance of stormwater throughout the Port's existing drainage systems, there would be a less-than-significant impact pertaining to groundwater recharge.

C: Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: i) result in a substantial erosion or siltation on- or off-site; ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or iv) impede or redirect flood flows?

Less-than-Significant Impact After Mitigation. The proposed project would have little or no effect on drainage patterns throughout the project site. Although there would be a nominal increase in impermeable surfaces or decrease in surface permeability from new track installation and construction the McCloy rail classification yard, stormwater would continue to drain into the Port's system of stormwater ditches and channels and into the West and East Complex retention basins. The existing channelized systems have sufficient capacity to accommodate the projects nominal increase in stormwater. Given the relatively flat topography under existing and proposed conditions, and presence of vegetation on elevated rail line slopes, nominal increases in stormwater runoff are unlikely to result in substantial siltation or erosion, and the Port regularly maintains the drainage system throughout the East and West Complexes.

Replacement of the rail bridge and associated levee construction would have little or no effect on drainage patterns. The proposed crossing would not impede or redirect flows in the

San Joaquin River. Levee excavation would occur above the ordinary high water elevation, and similarly would not affect drainage patterns. Installation of riprap would not substantially affect runoff compared to existing conditions.

Potential flood hazards from levee failure are addressed through Port and Reclamation Districts 403 and 404 monitoring and collaboration, which would continue to occur with implementation of the proposed project.

The proposed project may require incidental installation of storm drains, rail line underdrains, or other minor stormwater conveyance infrastructure, which would tie into the existing Port stormwater conveyance systems. Any such improvements would be designed and implemented in compliance with the Port's Storm Water Development Standards Plan (Port 2009) to ensure that adverse water quality or drainage impacts are avoided.

As noted previously, project construction could result in adverse impacts if surface runoff were to be improperly managed. Mitigation measures MM-GEO-1, MM-BIO-2, and MM-BIO-5 would be implemented to reduce potential impacts. Potential flood hazards from levee failure are addressed through Port and Reclamation Districts 403 and 404 monitoring and collaboration, which would continue to occur with implementation of the proposed project. To additionally ensure that the proposed levee excavation would not result in flood hazards, the proposed project includes implementation of mitigation measure MM-GEO-1. MM-GEO-1 may include flood abatement or avoidance measures such as installation of rock riprap, construction setbacks, or design measures for continued access and maintenance. Mitigation measures MM-BIO-2 and MM-BIO-5, which entail obtaining required permit approvals and implementing avoidance measures such as erosion and spill controls, would be implemented to avoid or minimize the potential for polluted runoff during construction.

In consideration of the minor effects on localized drainage patterns, and with implementation of mitigation measures MM-GEO-1, MM-BIO-2, and MM-BIO-5, impacts would be less than significant.

D: Would the project, in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

No Impact. The project area is within the dam inundation zone for several dams, and levee systems protect the project site from inundation. There is a low probability for failure of existing dams and levees, and existing inspection and response plans are in place to address these hazards. The upland portion of the project site is not within a FEMA-designated flood hazard area. Therefore, the proposed project would not exacerbate risks related to flood hazards or the risk of stormwater contamination during flooding, and there would be no impact.

E: Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less-than-Significant Impact. As previously described, the proposed project would result in only less-than-significant water quality or groundwater impacts. In addition, the proposed project would be subject to Port review for compliance with its Storm Water Development Standards Plan (Port 2009). Therefore, there would be a less-than-significant impact.

3.3.11 Land Use and Planning

Would the project:		Potentially Significant Impact	Less-Than-Significant Impact After Mitigation	Less-Than-Significant Impact	No Impact
a.	Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b.	Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.3.11.1 Affected Environment

The City's 2040 General Plan (City 2018a) designates the project site for the operation of Port facilities and designates the project areas on the East Complex as Industrial and areas on the West Complex as Institutional. The zoning designation of the project area is primarily "Port," but includes limited areas designated as General Industrial, Low-Density Residential, and undesignated zoning along the BNSF right-of-way (City 2021b). There is no housing within the project site. The closest residential area, the Boggs Tract neighborhood, is located approximately 1 mile east of the proposed rail bridge, approximately 300 feet east of portions of the LLDT work between the 700 Yard and the Port Yard, approximately 100 feet north of the LLDT work in the BNSF right-of-way, and approximately 130 feet north of the rail underpass at Fresno Avenue; residences along the north side of West Scotts Avenue are closest to portions of the project area.

3.3.11.2 Impact Evaluation

A: Would the project physically divide an established community?

No Impact. As noted above, the majority of the project area is zoned as Port. Construction would also occur in limited areas within the BNSF right-of-way adjacent to West Scotts Avenue, in perimeter areas of undeveloped privately owned property west of Ventura Avenue, and potentially within City and San Joaquin County right-of-way adjacent to Ventura Avenue and West Scotts Avenue, respectively. The project footprint does not include any residences, hospitals, schools, convalescent facilities, or other features that would constitute an established community. The proposed project is a Port use, which is consistent with the site's current zoning and existing use. Modifications to existing road underpasses and overpasses would not impact access to or result in any divisions of the nearby Boggs Tract neighborhood, which is an established community. Therefore, there would be no impact relative to dividing communities.

B: Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

No Impact. Development and operation of the replacement rail bridge and increasing the efficiency of train operations to accommodate projected rail volumes is consistent with the existing zoning. Accordingly, the proposed project would be consistent with applicable land use plans and policies, and there would be no impact.

3.3.12 Mineral Resources

Would the project:		Potentially Significant Impact	Less-Than-Significant Impact After Mitigation	Less-Than-Significant Impact	No Impact
a.	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b.	Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.3.12.1 Affected Environment

Important extractive resources in San Joaquin County include sand, gravel, and natural gas; however, the project area is within the mineral resource zone (MRZ) designation MRZ-1, meaning that sufficient information exists to conclude that no significant mineral deposits are present (City 2007). Historic mineral extraction in the southwest sector of San Joaquin County included silver, coal, and placer gold, but no mineral resources are currently mined within Stockton, including within the project area (City 2007).

3.3.12.2 Impact Evaluation

A: Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

No Impact. The proposed project is located in MRZ-1; as such, continued development of the area would not limit access to any known mineral resources. The proposed project would neither interfere with any existing extraction operations nor reduce the availability of any known mineral resources. Therefore, there would be no impact.

B: Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

No Impact. The project area does not include a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. Therefore, there would be no impact.

3.3.13 Noise

Would the project result in:		Potentially Significant Impact	Less-Than-Significant Impact After Mitigation	Less-Than-Significant Impact	No Impact
a.	Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b.	Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c.	For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.3.13.1 Affected Environment

3.3.13.1.1 Noise Fundamentals

Sound may be thought of as mechanical energy of a vibrating object transmitted by pressure waves through a medium to the human ear. Noise is most simply defined as unwanted sound. Sound is measured in decibels (dB) and accounts for variations such as frequency and amplitude using a relative scale adjusted to the human range for hearing (referred to as the A-weighted decibel [dBA]). More specifically, dBA measures sound reflective of how the average human ear responds to sound; human hearing typically ranges from 0 dBA (the threshold of hearing) to about 140 dBA (the threshold for pain). Table 12 presents typical sound levels of some familiar noise sources and activities.

Table 12
Typical Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	110	Rock Band
Jet flyover at 1,000 feet		
	100	
Gas lawnmower at 3 feet		
	90	
Diesel truck at 50 feet at 50 mph		Food blender at 3 feet
	80	
Noisy urban area, daytime		
Gas lawnmower at 100 feet	70	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	60	
		Larger business office
Quiet urban daytime	50	Dishwasher in next room
Quiet urban nighttime	40	Theater, larger conference room (background)
Quiet suburban nighttime		
	30	Library
Quiet rural nighttime		Bedroom at night, concert hall (background)
	20	
		Broadcast/recording studio
	10	
	0	

Source: Caltrans 2013

Acceptable noise levels during the day are higher than during the night, and industrial land use in urban areas has a higher limit than residential land use in rural areas. The average healthy ear can barely perceive changes of 3 dBA; a change of 5 dBA is readily perceptible, and an increase (or decrease) of 10 dBA sounds twice (or half) as loud (Caltrans 2013).

Noise can be generated by both mobile (i.e., cars, trucks, and rail) and stationary (i.e., construction equipment and operational machinery) sources. Mobile sources typically attenuate (reduce volume) at a rate of 3.0 to 4.5 dBA per doubling of distance, depending on the ground surface and obstructions between the noise source and the receiver. Hard and flat surfaces, such as concrete or asphalt, typically have an attenuation rate of 3.0 dBA per doubling of distance. Soft surfaces, such as

uneven or vegetated terrain, typically have an attenuation rate of 4.5 dBA per doubling of distance. Noise generated by stationary sources typically attenuates at a rate of 6.0 to 7.5 dBA per doubling of distance.

Noise is measured using several measurements, including the following:

- **Equivalent Sound Level (L_{eq})** is the constant noise level that would result in the same total sound energy being produced over a given period. It is useful for representing a varying sound source over time as a single number.
- **Maximum Sound Level (L_{max})** is the maximum sound level.
- **Statistical Sound Level (L_n , e.g., L_{min} , L_{90} , L_{50} , L_{10})** is the percentile-exceeded noise level, designated as L_n , describing the noise level that is met or exceeded by a fluctuating sound level n-percent of a stated time period. For example, L_{50} is the sound level that is equaled or exceeded for 50% of the time period (equivalent to 30 minutes in an hour), and L_{10} is the sound level that is equaled or exceeded for 10% of the time period (equivalent to 6 minutes in an hour).
- **Day/Night Average Sound Level (L_{dn})** is the average noise level over a 24-hour period. The noise level measurements between the hours of 10:00 p.m. and 7:00 a.m. are artificially increased by 10 dB before averaging.

3.3.13.1.2 *Groundborne Vibration Fundamentals*

Groundborne vibration is an oscillatory motion that can be described in terms of displacement, velocity, or acceleration. Each of these measures can be further described in terms of frequency and amplitude. Displacement is the easiest descriptor to understand; it is simply the distance that a vibrating point moves from its static position (i.e., its resting position when the vibration is not present). Velocity describes the instantaneous speed of the movement, and acceleration is the instantaneous rate of change of the speed.

Although displacement is fundamentally easier to understand than velocity or acceleration, it is rarely used for describing groundborne vibration for the following reasons: human response to groundborne vibration correlates more accurately with velocity or acceleration; the effect on buildings and sensitive equipment is more accurately described using velocity or acceleration; and most transducers used in the measurement of groundborne vibration actually measure either velocity or acceleration. For the proposed project's analysis, velocity was the fundamental measure used to evaluate the effects of groundborne vibration.

Vibration can be described using various metrics. The Federal Transit Administration's (FTA's) *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018) uses peak particle velocity (PPV), defined as the maximum instantaneous positive or negative peak amplitude of the vibration velocity, to assess the potential for damage to buildings. PPV is usually expressed in the United States in inches

per second (in/sec). FTA uses the vibration velocity level to assess vibration-related annoyance to people. The vibration velocity level expresses vibration in vibration decibels (VdB) rather than in/sec to compress the range of numbers required to describe vibration.

3.3.13.1.3 Environmental Setting

Existing noises in the project vicinity can be attributed to various stationary and mobile anthropogenic sources. Anthropogenic sources include ship traffic, tractor-trailer truck traffic, rail activity, heavy industry, and agricultural processing equipment. Other less dominant sources of existing noise in the project vicinity include nearby general neighborhood sounds (music, chickens, conversations, general home and yard maintenance) and local and regional roadway traffic on nearby roads and highways (i.e., I-5, CA-4, and SR 4).

Land uses that are sensitive to increases in ambient noise can include residences, schools, libraries, and hospitals. Sensitive receptors that may be impacted by project-generated noise or vibration include mobile homes located near Ryde Avenue and West Freemont Street approximately 2,800 feet north of the proposed rail bridge replacement; single-family homes, a park, a community center, and a community garden, which are located in the Boggs Tract neighborhood at various distances north and east of the proposed LLDT; and a single-family home located at 1708 South Woodsbro Road, which is approximately 3,140 feet southwest of the proposed McCloy rail classification yard.

Ambient noise measurements were taken in the vicinity of the project site to quantify the existing noise environment. Measurements included two long-term noise measurements (24 hours) and six short-term (1 hour) noise measurements. A long-term noise measurement was taken at South Ventura Avenue and West Hazelton Avenue (location LTNM1) between April 1 and April 2, 2021. This location is near the community garden that is surrounded by the Boggs Tract Park to the east, agricultural land uses to the west, and residential land uses to the north and south. The dominant sources of noise at LTNM1 included traffic on the Crosstown Freeway, passing trains, idling trucks in the parking lot of PS Bajwa (located at 601 Ventura Street), and off-gassing noise associated with an agricultural processing facility located northwest of PS Bajwa.

A long-term noise measurement was also taken at the north end of North Ventura Street (location LTNM2) between April 2 and April 3, 2021, approximately 125 feet south of an existing rail yard. Noise levels measured at LTNM2 are considered representative of typical rail yard activities (i.e., rail engine noises, train building clang noises, rail squeals, and other miscellaneous activities).

Six short-term noise measurements were taken during daytime hours, three of which were taken from locations in the Boggs Tract neighborhood, north and east of the proposed LLDT. Noise levels at the measurement locations in the Boggs Tract neighborhood (locations STNM1 through STNM3) ranged between 52 dBA and 64 dBA hourly L_{eq} . The fourth short-term noise measurement was taken near a single-family residence located at 1708 South Woodsbro Road (location STNM4), where the

hourly L_{eq} was 48 dBA. Two additional short-term noise measurements were taken on Port property at the site of the proposed McCloy rail classification yard (location STNM5, hourly L_{eq} of 62 dBA) and near a meeting hall approximately 450 feet north of the rail bridge, just south of the Lindley House (location STNM6, hourly L_{eq} of 49 dBA). The Lindley House is an on-site facility and is not treated as a sensitive receptor for this analysis; this noise measurement was taken for reference.

Table 13 provides a summary of both long-term and short-term noise measurement data. A detailed summary of sound level measurement data and field notes are provided in Appendix G.

Table 13
Summary of Noise Measurements

Site Location	Date	Time Started	Measurement Duration	L_{eq}	L_{max}	L_{min}	L_2	L_8	L_{25}	L_{50}
STNM1	April 1, 2021	4:25 p.m.	1 hour	52	74	40	59	55	50	47
STNM2	April 1, 2021	3:17 p.m.	1 hour	61	79	46	67	64	61	59
STNM3	April 1, 2021	2:07 p.m.	1 hour	64	86	44	64	58	56	53
STNM4	April 1, 2021	12:34 p.m.	1 hour	48	62	37	56	52	46	44
STNM5	April 1, 2021	11:18 a.m.	1 hour	62	90	39	71	66	54	47
STNM6	April 1, 2021	9:48 a.m.	1 hour	49	87	42	53	51	49	47
LTNM1	April 1–2, 2021	10:00 a.m.	24 hours	55	87	59	56	55	53	52
LTNM2	April 2–3, 2021	12:08 a.m.	24 hours	55	73	59	56	55	54	54

3.3.13.1.4 Regulatory Setting

OSHA has established acceptable occupational noise exposure levels (29 CFR 1910.95). These regulations state that employees must not be exposed to occupational noise levels greater than 90 dBA without adequate hearing protection. If occupational noise levels exceed 85 dBA, the employer must establish a hearing conservation program as described under 29 CFR 1910.95(c-o). For occupational noise exposure levels greater than 90 dBA, the daily period of noise exposure must be decreased from 8 hours, as described in 29 CFR 1910.95(b).

FTA has established vibration impact assessment criteria for use in evaluating vibration impacts associated with developments in close proximity to rail lines (FTA 2018). The FTA vibration impact criteria are based on maximum overall levels for a single event. The impact criteria for groundborne vibration are shown in Table 14. Note that there are criteria for frequent events (more than 70 events of the same source per day), occasional events (30 to 70 vibration events of the same source per day), and infrequent events (less than 30 vibration events of the same source per day). The frequency of rail usage for the proposed project would be in the “infrequent” category. The applicable

threshold for groundborne vibration related to passing trains is 80 VdB or 0.04 PPV for residential uses.

Table 14
Groundborne Vibration Impact Criteria

Land Use Category	Groundborne Vibration Impact Levels (VdB re 1 micro-inch/second)		
	Frequent Events ¹	Occasional Events ²	Infrequent Events ³
Category 1: Buildings where vibration would interfere with interior operations	65 VdB ⁴	65 VdB ⁴	65 VdB ⁴
Category 2: Residences and buildings where people normally sleep	72 VdB	75 VdB	80 VdB
Category 3: Institutional land uses with primarily daytime uses	75 VdB	78 VdB	83 VdB

Notes:

Source: FTA 2018

1. "Frequent Events" are defined as more than 70 vibration events of the same source per day. Most rapid transit projects are in this category.
2. "Occasional Events" are defined as between 30 and 70 vibration events of the same source per day (most commuter trunk lines).
3. "Infrequent Events" are defined as fewer than 30 vibration events of the same kind per day. This category includes most commuter rail branch lines.
4. Approximate threshold of perception for most people.

The *State of California General Plan Guidelines* (OPR 2017) also provide guidance for projects within areas exposed to specific noise levels. For areas zoned for industrial, manufacturing, utilities, and agricultural land uses, the normally acceptable level of community noise exposure is less than 75 Community Noise Equivalent Level (CNEL), with 70 to 80 CNEL considered conditionally acceptable (OPR 2017). The *State of California General Plan Guidelines* also present adjustment factors that may be used to further define noise acceptability standards reflective of noise control goals of a community and the community's sensitivity to noise (OPR 2017).

SMC Title 16, Division 3, Chapter 16.60.010 "provides community noise control regulations and standards which are consistent with, or exceed, the guidelines of the State Office of Noise Control and the standards adopted by the Federal Highway Administration (FHWA), California Department of Transportation (Caltrans), or other government or regulatory agencies." Regarding construction, the City prohibits "operating or causing the operation of tools or equipment on private property used in alteration, construction, demolition, drilling, or repair work between the hours of 10:00 p.m. and 7:00 a.m., so that the sound creates a noise disturbance across a residential property line, except for emergency work of public service utilities."

The Noise Element of the City's 2040 General Plan establishes goals, policies, and criteria for determining land use compatibility with major noise sources within the community (City 2018a). The

2040 General Plan includes Policy SAF-2.5, which states “Protect the community from health hazards and annoyance associated with excessive noise levels” (City 2018a).

To achieve compliance with Policy SAF-2.5, the City’s 2040 General Plan includes the following five actions:

Action SAF-2.5A: Prohibit new commercial, industrial, or other noise-generating land uses adjacent to existing sensitive noise receptors such as residential uses, schools, health care facilities, libraries, and churches if noise levels are expected to exceed 70 dBA [...] when measured at the property line of the noise sensitive land use.

Action SAF-2.5B: Require projects that would locate noise sensitive land uses where the projected ambient noise level is greater than the “normally acceptable” noise level indicated [in the 2040 General Plan to provide an acoustical analysis].

Action SAF-2.5C: Require noise produced by commercial uses to not exceed 75 dB L_{dn}/CNEL at the nearest property line.

Action SAF-2.5D: Grant exceptions to the noise standards for commercial and industrial uses only if a recorded noise easement is conveyed by the affected property owners.

Action SAF-2.5E: Require all new habitable structures to be set back from railroad tracks to protect residents from noise, vibration, and safety impacts. (City 2018a)

The 2040 General Plan also establishes acceptable noise levels (L_{dn}) for various land use types. For industrial areas, this includes “normally acceptable” L_{dn} of 0 to 70 dBA and “Conditionally Acceptable” L_{dn} of 71 to 80 dBA. To be “Conditionally Acceptable” in this noise range, new construction or development should be undertaken only after “a detailed analysis of the noise reduction requirements is made and needed insulation features have been included in the design” (City 2018a). L_{dn} of 81 dBA or higher are considered “unacceptable.” In addition, if “existing noise standards are currently exceeded, a proposed project shall not incrementally increase noise levels by more than 3 dBA” (City 2018a).

SMC also establishes criteria for vibration. City Ordinance 16.32.100 prohibits land uses from generating ground vibration that is perceptible without instruments by the average person at any point along or beyond the property line of the parcel containing the activities. SMC does not provide a specific vibration level for analysis, but groundborne vibration is considered “distinctly perceptible” at level of 0.25 PPV for transient sources and at a level of 0.04 PPV for continuous/frequent

intermittent source (Caltrans 2020). The City’s standard only applies to non-construction-related on-site vibratory sources that do not leave the site. Vibration from temporary construction and demolition, and vehicles that leave the subject site (i.e., trucks, trains, and aircraft) are exempt from the City’s vibration standards. Construction is exempt from this standard.

3.3.13.2 Impact Evaluation

Construction activities typically require the use of numerous pieces of noise-generating equipment. All equipment is conservatively assumed to be diesel-fueled, and construction activities are assumed to occur during the hours of 6:00 a.m. to 9:00 p.m. A list of compiled noise levels associated with commonly used construction equipment is provided in Table 15.

**Table 15
Construction Equipment Sound Levels**

Equipment Description	Sound Level at 50 feet (dBA)	Acoustical Use Factor (%)
Backhoe	78	40
Compactor (ground)	83	20
Compressor (air)	78	40
Concrete Saw	90	20
Crane	81	16
Dozer	82	40
Drill Rig Truck	79	20
Dump Truck	76	40
Excavator	81	40
Forklift ^{1,2}	61	50
Front End Loader	79	40
Generator	81	50
Grader	85	40
Hydra Break Ram	90	10
Lift	75	20
Impact Pile Driver	101	20
Paver	77	50
Pumps	81	50
Roller	80	20
Tractor	84	40
Welder	74	40

Notes:

Source: FHWA 2006

1. Strautins 2014

2. Data provided L_{eq} as measured at the operator. Sound level at 50 feet is calculated using inverse square law.

For the purposes of this assessment, three phases of construction were evaluated for potential construction noise impacts: rail bridge replacement, LLDT construction, and construction of the new McCloy rail classification yard.

The Federal Highway Administration (FHWA) Roadway Construction Noise Model (FHWA 2006) was used to estimate construction noise associated with each proposed project element by phase (or subphase), as received at the nearest sensitive receptors. As a conservative measure, for each construction noise model scenario, it was assumed that all equipment within each phase or subphase would operate continuously on the same day. Noise sources were assumed to be located within the center of each construction site because the center of a site represents the approximate average location that equipment would operate (i.e., center of the nearest and farthest regions of each site within which equipment would be expected to operate). To evaluate proposed project construction noise with FTA Construction Noise Criteria, the 8-hour L_{eq} and the 30-day average L_{dn} were calculated using Roadway Construction Noise Model output (L_{eq}) and existing measured hourly data from LTNM1. Worst-case construction L_{eq} values were assigned to construction hours, and existing measured noise levels were applied to non-construction hours. Details of the construction noise modeling scenarios, including assumptions of equipment usage rates, and output are provided in Appendix G.

As discussed in Sections 2.2.1 and 2.6, the Port currently serves 21 trains per week, with an expected operational growth to 34 trains per week by 2026 based on tenant projections. However, absent the proposed rail improvements, the Port's rail system would be constrained to a maximum of 28 trains per week. The operational noise assessment considers the emissions change between constrained operations in 2026 (without the proposed system improvements) and operations in 2026 (with system improvements).

As discussed in Section 2.2.1, there are two types of rail carriers in the Port: the Class I mainline carriers (BNSF and UP) and the Class III switchers (CCT at the Port). Class I carriers were assumed in this analysis to have an average of two locomotives while Class III switchers were assumed to have one locomotive at the Port. Class I carriers are assumed to make two trips while in the Port's rail system: one inbound and one outbound trip to deliver cars from the regional rail network to the Port. Class III carriers are assumed to make one to two trips within the Port's rail system to sort and deliver rail cars to terminals.

A: Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less-than-Significant Impact.

Construction. Construction activities would occur intermittently on the project site over a 60-week period and would result in intermittent and temporary increases to ambient noise levels. Noise levels would vary, primarily depending on the construction phase, equipment type, duration of equipment use (i.e., percent use per hour and hours per day), distance between the noise source and receptor, and presence or absence of intervening buildings, topography, or noise barriers.

The loudest construction activity during rail bridge replacement would be construction of the temporary work platforms. The closest sensitive receptors to this activity are located along West Fremont Street, near Ryde Avenue, approximately 2,800 feet north of the rail bridge replacement. Existing noise levels in the vicinity of these receptors are approximately 66 dBA L_{eq} during daytime hours, and noise levels may reach up to 60 dBA $L_{eq}/63 L_{dn}$. The loudest construction activity during LLDT construction would be construction of the new rail underpass at Fresno Avenue, adjacent to the existing underpass south of the intersection of West Scotts Avenue and South Fresno Avenue. Construction equipment associated with underpass construction would include a crane, a pile driver, a generator, a loader, air compressors, and fork-lifts. A pile driver would be the loudest piece of equipment (101 dBA at 50 feet), followed by a crane (81 dBA at 50 feet). The closest residential property line is 120 feet north of construction of the new rail underpass at Fresno Avenue (the closest residence is approximately 130 feet from this point). Noise levels associated with construction of the underpass, which includes pile driving, may reach up to 86 dBA $L_{eq}/82 L_{dn}$ at the nearest residential property line. The nearest sensitive receptor to construction of the new McCloy rail classification yard is a single-family home located approximately 3,140 feet to the southwest. Construction noise at this location is expected to reach up to 55 dBA $L_{eq}/63 L_{dn}$. Table 16 presents the results of the construction noise analysis.

**Table 16
Construction Noise Analysis Results Summary**

Construction Phase	Pile Driving Included? (Y/N)	Calculated 8-hour L_{eq} (dBA)	Calculated 30-day L_{dn} (dBA)
Rail Bridge Replacement			
Rail Bridge Replacement	Y	60	63
LLDT Construction			
Underpass Construction at 25 Feet	Y	86	82
Underpass Construction at 270 Feet	Y	85	81
Earthwork and Trackwork at 25 Feet	N	84	80

Construction Phase	Pile Driving Included? (Y/N)	Calculated 8-hour L_{eq} (dBA)	Calculated 30-day L_{dn} (dBA)
Earthwork and Trackwork at 270 Feet	N	70	68
Earthwork and Track Construction Port	N	69	67
Construction of McCloy Rail Classification Yard			
Port Yard Construction	N	55	63

Project construction would result in temporary increases in truck traffic along haul routes for off-hauling excavated and demolished materials and for delivering materials to the site. Construction materials and trucks removing debris for the rail bridge replacement would travel southeast from the rail bridge site on Navy Drive to SR 4/West Charter Way to access I-5. There are no noise sensitive land uses along this route. Construction materials and trucks removing debris for the McCloy rail classification yard construction would arrive and depart the West Complex along McCoy Avenue and then along the Port of Stockton Expressway to access SR 4. There are no sensitive receptors located along these haul routes.

During construction of the proposed LLDT, approximately 32,000 cubic yards of material would be hauled off-site and approximately 30,000 cubic yards of fill material would be hauled on-site, resulting in up to 3,750 truck trips or 750 average daily trips (assuming trips are evenly split over a 5-day work week). The existing daytime noise measurement near the intersection of West Scotts Avenue and South Fresno Avenue was 52 dBA L_{eq} . The L_{dn} associated with 750 truck trips per day was modeled using FHWA methodology (FHWA 1979, 1995). Construction truck noise can be expected to reach up to 70 dBA L_{dn} at a distance of 25 feet from the centerline of the roadway.

As discussed in Section 3.3.13.1.4, the City prohibits construction between the hours of 10:00 p.m. and 7:00 a.m. but does not include construction standards. As noted, an L_{dn} of 81 dBA or higher is considered “unacceptable” in industrial settings for new construction. However, the proposed project is construction to support existing infrastructure and therefore would not be considered new construction. While not required, several mitigation measures have been included to further reduce the potential for noise, especially during construction of the LLDT. The following mitigation measures would be implemented during construction to further reduce the potential for impacts:

- **MM-NOI-1: Equipment Noise Limitations.** Generators will not exceed 70 dBA at a distance of 50 feet; dozers will not exceed 80 dBA at a distance of 50 feet. Verification will be provided to the City prior to approval of grading plans.
- **MM-NOI-2: Stationary Equipment Limitations.** Generators, compressors, and other noisy stationary equipment will be placed as far away from occupied residential properties as is practicable.

- **MM-NOI-3: Construction Staging Limitations.** Construction staging will not be located within 70 feet of occupied residential properties.
- **MM-NOI-4: Dozer and Excavator Limitations.** Use of dozers and excavators will be limited where feasible within 70 feet of residential property lines.
- **MM-NOI-5: Develop and Implement a Construction Truck Route Map.** A construction truck route will be developed that avoids sending trucks north of West Scotts Avenue on South Fresno Avenue. Additionally, the route will minimize the number of truck trips accessing the proposed LLDT and underpass sites via West Scotts Avenue by using the existing access road south of the rail line, within the rail right-of-way.
- **MM-NOI-6: Quiet Pile Driving Technologies.** “Quiet” pile-driving technology (such as pre-drilling of piles, use of vibratory or sonic pile drivers, and use of more than one pile driver to shorten the total pile driving duration) will be employed where feasible, in consideration of geotechnical and structural requirements and conditions. Pre-drilling piles does not generate high impact-type noises, as emitted during impact pile driving. Noise emissions from pre-drilling activities typically are from diesel-engines and occasional clangs from auger equipment. Where and when feasible, piles driven by a vibratory hammer generally do not generate measurable off-site noise beyond typical construction noises. The Port may elect to limit impact pile driving to only a portion of the total piles driven at the project site, and, if possible, use limited impact pile proofing, only in combination with a vibratory installation process. Other technologies that may reduce impact pile-driving noise include inserting wood blocks between the pile and driver and using acoustic blankets that are suspended around the location of the pile strike.
- **MM-NOI-7: Timing Restrictions.** The Port will require that the construction contractor limit the timing of pile-driving activity to result in the least possible disturbance. SMC allows for construction 7 days per week between the hours of 7:00 a.m. and 10:00 p.m. However, as a mitigation measure, the Port will limit the times and days of pile-driving activities (i.e., between the hours of 9:00 a.m. and 5:00 p.m. and limit the work to only occur on weekdays). Imposing these additional limits may reduce the potential for disturbance of nearby residences during times of day and/or hours of day when noise-sensitive receptors may have higher sensitivities to impact-type noises.

While not required, mitigation measures MM-NOI-1 through MM-NOI-7 have been included to further reduce the potential for noise impacts; accordingly, impacts related to construction noise would be less than significant.

Operations

Train travel on the new LLDT has the potential to increase noise levels at sensitive receptors located north and east within the Boggs Tract neighborhood. The predicted future rail noise level, as modeled with FTA’s CREATE Rail model (FRA 2006), is 64 dBA L_{dn} at 94 feet (the distance from the rail

line to the nearest noise-sensitive residential receptors). A predicted level of 64 dBA L_{dn} would not exceed the City's 65 dBA L_{dn} exterior noise standard and is not expected to exceed the 45 dBA L_{dn} interior noise standard at typical residential structures (i.e., typical residential construction provides at least 20 dB of exterior to interior noise reduction). Therefore, operational impacts would be less than significant.

B: Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

Less-than-Significant Impact. Unless heavy construction activities are conducted extremely close (within a few feet) to neighboring structures, vibrations from construction activities rarely reach levels that damage structures. Typical vibration levels associated with construction equipment are provided in Table 17. Heavy equipment (e.g., a large bulldozer) generates vibrations levels of 0.089 in/sec PPV at a distance of 25 feet.

**Table 17
Vibration Velocities for Construction Equipment**

Equipment	PPV at 25 feet (in/sec)
Loaded Trucks	0.076
Jackhammer	0.035
Small Bulldozer/Backhoe	0.003

Source: FHWA 2006

City Ordinance 16.32.100 prohibits activities that generate groundborne vibration that is perceptible without instruments by the average person at any point along or beyond the property line of the parcel containing the activities. The City's standard only applies to non-construction-related on-site vibratory sources that do not leave the site. Vibration from temporary construction and demolition and vehicles that leave the subject site (i.e., trucks, trains, and aircraft) are exempt from the City's vibration standards. Construction is exempt from this standard.

For construction activities, an assessment was completed to determine the potential for construction-related vibrations to result in structural damage. The assessment of the potential for structural damage was based on the Caltrans groundborne vibration threshold criteria of 0.25 PPV, the threshold beyond which older structures may sustain building damage (Caltrans 2020). Ground vibration levels produced by typical construction equipment can reach up to 0.64 in/sec PPV for a pile driver, 0.21 in/sec PPV for a vibratory roller, and 0.003 in/sec PPV for small bull dozers, each at a distance of 25 feet. The nearest structure to proposed pile driving activities is approximately 130 feet north of the new rail underpass at Fresno Avenue near West Scotts Avenue and South Fresno Avenue. At this distance, groundborne vibration levels may reach up to 0.05 in/sec PPV, below the

0.25 in/sec PPV threshold for older structures. All other equipment would generate lower levels of vibration well below 0.25 in/sec PPV, as received at the nearest existing structures.

FTA has established vibration impact assessment criteria for use in evaluating groundborne vibration impacts associated with developments in proximity to rail lines based on maximum overall levels for a single event (FTA 2018). The vibration level associated with rail operations on the new alignment was calculated at the closest sensitive receptor, a single-family residence located north of the portion of the proposed LLDT that would run parallel to West Scotts Avenue. Using FTA methods, freight train operational vibration levels were predicted to reach up to 75 VdB. Existing groundborne vibration levels are estimated at 73 VdB based on current rail usage. Therefore, groundborne vibration levels at the nearest sensitive receptor are projected to increase by 2 VdB during operation of the new LLDT.

Because the construction and operational-related vibration would not exceed FTA thresholds, the proposed project would result in a less-than-significant impact related to vibration.

C: For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. There is no public airport within 2 miles of the project site. The closest airport is the Stockton Municipal Airport, located approximately 5 miles southeast of the project area. Therefore, the proposed project would not expose people residing or working in the project area to excessive noise levels associated with public airport activities.

3.3.14 Population and Housing

Would the project:		Potentially Significant Impact	Less-Than-Significant Impact After Mitigation	Less-Than-Significant Impact	No Impact
a.	Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b.	Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.3.14.1 Affected Environment

The City’s 2040 General Plan (City 2018a) designates the project area on the East Complex as Industrial and areas on the West Complex as Institutional. The zoning designation for the project area and surrounding parcels is primarily Port, but includes limited areas designated as General Industrial, Low-Density Residential, and undesignated zoning along the BNSF right-of-way (City 2021b). There is no housing within the project area.

The project site includes rail improvements on the Port’s East and West Complexes and accommodates the Port’s projected growth. Growth at the Port is expected to increase direct employment opportunities. However, the increase in employment is not expected to result in population growth in the vicinity of the proposed project.

The project area is in the vicinity of the Boggs Tract neighborhood. Residences along West Scotts Avenue are approximately 100 feet from the project area, east of CA-4.

3.3.14.2 Impact Evaluation

A: Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

No Impact. No new homes, businesses, or roads would be built as part of the proposed project, and the proposed project would not affect population growth in the area. Therefore, there would be no impact.

B: Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. A portion of the proposed project occurs adjacent to the residential area of the Boggs Tract neighborhood, but there are no housing units within the project area. The proposed project would not displace any people or housing, and the site's zoning precludes the potential for future housing developments. Therefore, the proposed project would have no impact on housing.

3.3.15 Public Services

Would the project:		Potentially Significant Impact	Less-Than-Significant Impact After Mitigation	Less-Than-Significant Impact	No Impact
a.	Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
	Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.3.15.1 Affected Environment

3.3.15.1.1 Fire Protection

The City's Fire Department provides fire protection to the City and contiguous areas, including the project site. The department has 12 fire stations, and each fire station has one fire engine. The department's goal for response time, per the 2040 General Plan (City 2018a), is to arrive at fire suppression incidents within 4 minutes of notification. Nearby fire stations include Station 6 at 1501 Picardy Drive (1.5 miles northeast of the rail bridge) and Station 2 at 110 West Sonora Street (2.5 miles east of the rail bridge; City 2018b).

3.3.15.1.2 Police Protection

The Port maintains the Port Police Department, an independent certified police agency (Port 2020b). The Port Police Department patrols on a 24-hour basis and is currently served by 13 staff. At least three Port police officers are on duty simultaneously (two on patrol and one in charge of communications). The Port Police Department has mutual aid agreements with the City Police Department, the San Joaquin Sheriff's Department, and the California Highway Patrol in case additional police response is needed (Port 2004). The Stockton Police Department, maintained by the City, also provides police service throughout the City and has an officer to citizen ratio of about 1 to 650 (City 2021c). The department responds to emergencies within approximately 3 to 5 minutes, depending on time of day, location, and the number of requests for services (Stockton Port District 2012).

3.3.15.1.3 Schools

The Stockton Unified School District is divided into seven trustee areas and includes 37 Head Start classes, 53 state preschool classes, three First 5 Preschool classes, 41 K-8 schools, eight high schools,

a special education school, an adult education school, and five charter schools (SUSD 2019). A number of colleges, universities, and vocational training schools are located in Stockton, including California State University, Stanislaus's Stockton Center, the San Joaquin Delta College, the University of the Pacific, Humphreys University, Christian Life College, and UEI College (Stockton Port District 2012). The nearest schools are George Washington Elementary School (approximately 1,500 feet north of portions of the LLDT work in the BNSF right-of-way, 1.3 miles east of the rail bridge, and 2 miles east of the proposed McCloy rail classification yard) and Victory Elementary School (approximately 1.3 miles northeast of the rail bridge).

3.3.15.1.4 Parks

The City's 2040 General Plan (City 2018a) designates the project area as Institutional (West Complex) and Industrial (East Complex). Nearby parks include Louis Park (approximately 0.4 mile north of the McCloy rail classification yard, on the opposite bank of the San Joaquin River from the West Complex) and Boggs Tract Park (900 feet north of the LLDT at West Scotts Avenue).

3.3.15.2 Impact Evaluation

A: Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services: 1) fire protection; 2) police protection; 3) schools; 4) parks; or 5) other public facilities?

No Impact. The proposed project would not result in increased demand on any existing facilities or services, including fire protection, police, schools, or parks. The project area is adequately served by the City Fire Department, City Police Department, and Port police. There would be no impact to fire protection, police, schools, parks, or other public facilities.

3.3.16 Recreation

Would the project:		Potentially Significant Impact	Less-Than-Significant Impact After Mitigation	Less-Than-Significant Impact	No Impact
a.	Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b.	Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.3.16.1 Affected Environment

The City operates and maintains 66 parks ranging in size from 2 to 64 acres. Recreational facilities can also be found on the waterways in the region, which includes natural rivers and creeks; manufactured canals, channels, sloughs, and ditches; and the Delta (City 2015). Several parks and recreational facilities exist in the vicinity of the project area, including Boggs Tract Park (900 feet north of the Port lead tracks at West Scotts Avenue); Van Buskirk Municipal Park golf course (1.4 miles south of the Port lead tracks); and Louis Park and Stockton Rod and Gun Club (both are approximately 0.4 mile north of the McCloy rail classification yard on the opposite bank of the San Joaquin River from the West Complex). Recreational use of the surrounding San Joaquin River north of the project area includes primarily recreational boating and fishing (Stockton Port District and TRC Solutions 2013). There is no public access to the active Port, and the portion of the river directly adjacent to the proposed project is not a popular recreational area due to the Port's operating industrial berths.

3.3.16.2 Impact Evaluation

A: Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

No Impact. Neither construction nor operation of the proposed project would increase the use of existing neighborhood and regional parks or other recreation facilities. Therefore, there would be no impact.

B: Would the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

No Impact. The proposed project does not include the construction or expansion of any recreational facilities and would not result in increased demand or other effects to recreational facilities.

Therefore, the proposed project would result in no impact to recreational facilities.

3.3.17 Transportation

Would the project:		Potentially Significant Impact	Less-Than-Significant Impact After Mitigation	Less-Than-Significant Impact	No Impact
a.	Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b.	Conflict or be inconsistent with CEQA Guidelines Section 15064.3(b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d.	Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e.	Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.3.17.1 Affected Environment

This section discusses the transportation-related context in which the proposed project would be constructed and would operate, including the street and rail network that serves the area; existing transit service, bicycle, and pedestrian facilities near the proposed project; and a summary of current conditions.

3.3.17.1.1 Regional Highway and Roadways

The Port is served by a number of regional freeways and highways, namely I-5, the Crosstown Freeway, and SR 4, with local roads serving the terminals and wharves. I-5, Fresno Avenue, Center Street, and El Dorado Street serve the major north-south movements of traffic in the proposed project vicinity, and Washington Street, Navy Drive, and Charter Way serve the east-west flow of traffic in the area. Existing roadways are described as follows:

- **I-5** provides local, regional, and statewide access to the proposed project. It is an eight-lane freeway with a freeway-to-freeway interchange at the confluence of I-5 and SR 4.
- **SR 4** is an east-west highway with four through-lanes. Immediately west of I-5, SR 4 is also called Charter Way, and is an east-west arterial with two lanes. Surrounding land uses are mainly industrial, with some commercial uses at major intersections. The second part of SR 4, known as the Crosstown Freeway, begins at Fresno Avenue, has an interchange with I-5, and continues east. This section of SR 4 is a divided freeway with two to four lanes in each direction, plus auxiliary lanes.
- **Ort J. Lofthus Freeway** is the Crosstown Freeway extension project that Caltrans opened in 2016, which extended the Crosstown Freeway west from Fresno Avenue to Navy Drive. The extension is elevated and crosses over Fresno Avenue, creating a grade separation that prohibits highway traffic from entering the Boggs Tract neighborhood at Fresno Avenue. It

also crosses over the BNSF tracks and Port lead tracks near their junction with the BNSF tracks.

- **Navy Drive** is a four-lane roadway with a partial interchange, which integrates the Crosstown Freeway Extension with a direct route into the Port's West Complex that improves traffic flow, decreases idle times, and improves safety.
- **Washington Street** is a two-lane east-west collector and an arterial, which begins west at Navy Drive and terminates at the Weber Avenue intersection. Washington Street was previously the major east-west route through the Port area and the residential area east of the Port. However, following the opening of the Crosstown Freeway Extension, Washington Street from the railroad tracks west is now a private Port road.
- **Fresno Avenue** is a north-south roadway from north of Washington Street through the residential area south of Charter Way. The roadway is two lanes wide. Between Hazelton Avenue and Charter Way, Fresno Avenue is surrounded by mainly industrial land uses.

3.3.17.1.2 *Rail Network*

California's freight railroad system consists of Class I railroads (BNSF Railway and UP), which transport freight to and from the state over state lines, and Class III railroads, referred to as short line railroads, which provide local rail movements. Both UP and BNSF lines serve the Port. BNSF operates the Stockton Intermodal Facility on the southeast edge of the City, and UP operates a major intermodal facility and other terminal operations in Lathrop, California. In northern California, the Martinez Subdivision, Feather River Canyon, and Donner Pass routes serve the ports of Oakland and Stockton and are owned and dispatched by UP but serve BNSF through trackage right agreements.

Several short line railroads also operate in Stockton. CCTC, jointly owned by BNSF and UP, operates 52 miles of freight service between Stockton and Lodi and is the short line operator for the Port. CCTC connections are made with BNSF, UP, and the Stockton Terminal and Eastern Railroads, which runs from Stockton to Linden (City 2018). The Port provides its own internal railway system with CCTC handling all switching and local movements within the Port; however, some tracks are owned and maintained by their respective customers.

3.3.17.1.3 *Regulatory Setting*

Traffic analyses in California are overseen by the California Department of Transportation and local jurisdictions. This agency has developed a *Guide for the Preparation of Traffic Impact Studies* (Caltrans 2002) to provide a summary of goals and policies. SJCOG has developed a Regional Transportation Plan (RTP; SJCOG 2018), which guides the region's transportation development over a 20-year period and covers all modes of transportation. The RTP is updated every 3 years to reflect changes in available funding, economic, activity and population and to incorporate findings from corridor studies and major infrastructure investments. The projects included in the RTP are also assessed for their effect on air quality, as the RTP is used in the SIP to ensure states are meeting

federal conformity standards. If a project is included in the RTP, its effect on regional conformity goals has been accounted for. The current RTP was adopted by the SJCOG Board of Directors.

SB 743, signed by former Governor Brown in 2013, is intended to better align congestion management with statewide goals related to infill development, promotion of public health through active transportation, and reduction of GHG emissions. SB 743 set the stage for moving away from Level of Service (LOS)—which measures delay to motorists—to vehicle miles traveled (VMT) as the metric to evaluate transportation network performance and land use and transportation planning decisions, with investments oriented toward reducing VMT. SB 743 created a process to change the way that transportation impacts are analyzed under CEQA. Specifically, SB 743 requires the Governor’s Office of Planning and Research to amend the CEQA Guidelines to provide an alternative to LOS for evaluating transportation impacts. Particularly within areas served by transit, those alternative criteria must “promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses” (PRC 21099[b][1]). Measurements of transportation impacts may include “vehicle miles traveled, vehicle miles traveled per capita, automobile trip generation rates, or automobile trips generated” (PRC 21099[b][1]). Once the CEQA Guidelines are amended to include those alternative criteria, auto delay will no longer be considered a significant impact under CEQA (PRC 21099[b][2]). Transportation impacts related to air quality, noise, and safety must still be analyzed under CEQA where appropriate (PRC 21099[b][3]). SB 743 also amended congestion management law to allow cities and counties to opt out of LOS standards within certain infill areas.

Per the 2018 CEQA Guidelines Update, CEQA analyses must consider the amount and distance of automobile travel attributable to a project. Other relevant considerations may include a project’s effects on transit and non-motorized travel. Consistent with the 2018 CEQA Guidelines and SB 743, the City is updating its traffic guidelines. While LOS is no longer a CEQA threshold, the City is continuing to assess increases in traffic levels in addition to VMT to adequately plan and manage traffic congestion on the City’s roadways and intersections. Accordingly, traffic impact analyses are conducted for projects generating 100 or more vehicle trips during the morning or evening peak hours. The City is also in the process of developing regional VMT thresholds and guidance.

The City’s 2040 General Plan includes the following policies for integrating SB 743 into future planning:

Policy TR-4.1: Utilize Level of Service (LOS) information to aid understanding of potential major increases to vehicle delay at key signalized intersections.

Action TR-4.1A: Strive for Level of Service (LOS) D or better for both daily roadway segment and peak hour intersection operations, except when doing

so would conflict with other land use, environmental, or economic development priorities, and with the following additional exceptions:

- In the Greater Downtown, strive for LOS E or better, but LOS F may be acceptable after consideration of physical or environmental constraints and other City goals and policies. [...]
- Roadway segments determined to be operating at deficient LOS by the San Joaquin Council of Governments in the Regional Congestion Management Program.
- Accept worse than adopted-standard LOS at intersections where widening the intersection would reduce bicycle and pedestrian safety and/or increase pedestrian crossing times such that they would create longer traffic delays due to signal timing.

Action TR-4.1B: Amend the City's Transportation Impact Analysis Guidelines to reflect the updated LOS goals under Action TR-4.1A and to refine the threshold at which a project needs to evaluate LOS impacts.

Policy TR-4.2: Replace LOS with: 1) vehicle miles traveled (VMT) per capita; and 2) impacts to non-automobile travel modes, as the metrics to analyze impacts related to land use proposals under the California Environmental Quality Act, in accordance with SB 743.

Action TR-4.2A: To evaluate the effects of new development and determine mitigation measures and impact fees, require projects to evaluate per capita VMT and impacts to transit, bicycle, and pedestrian modes.

Action TR-4.2B: Amend the City's Transportation Impact Analysis Guidelines to include alternative travel metrics and screening criteria.

Policy TR-4.3: Use the threshold recommended by the California Office of Planning and Research for determining whether VMT impacts associated with land uses are considered significant under State environmental analysis requirements.

Action TR-4.3A: Amend the City's Transportation Impact Analysis Guidelines to:

- Establish a threshold of 15 percent below baseline VMT per capita to determine a significant transportation impact under the California Environmental Quality Act.
- Identify screening criteria that will streamline certain types of development and/or development in certain areas by not requiring a VMT analysis. (City 2018a)

The California Public Utilities Commission (CPUC) has legal regulatory authority over rail safety within California, including operations and grade crossings throughout the state. CPUC is the state agency with exclusive jurisdiction over rail crossings in California. CPUC engineers evaluate the safety of rail crossings and review proposed construction where roadways or pathways cross railroad or rail transit tracks.

3.3.17.2 Impact Evaluation

A: Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

Less-than-Significant Impact. Except for the initial movement of any construction materials to the project site at the start of construction and eventual movement from the project site at the end of construction, the proposed project would not affect roads or highways. Construction would result in minimal trips and would be well under the threshold of 100 trips during peak hours. As discussed in Section 2, no new on-road operational trips would be generated because of the proposed project. Accordingly, a traffic study is not required for the proposed project, and operation of the proposed project would not conflict with the City's 2040 General Plan or any other plans, ordinances, or policies. Therefore, there would be a less-than-significant impact to traffic from operations.

As discussed in Sections 2.2.1 and 2.6, the Port's rail system currently has several system bottlenecks that constrain existing rail movements within the Port. The existing single-track swing rail bridge between the East and West Complexes has outdated rail size and weight limitations; over time, the rail bridge has become susceptible to structural deficiencies that could lead to closure. Weight restrictions mean that some Port tenants partially fill rail cars. In addition, rail service to the West Complex would be halted if the rail bridge's single track were to require closure. The Port's lead track is also not long enough to serve existing trains. Further, blockages on the lead track cause staging bottlenecks in two locations at the Port: 1) inbound cargo is delayed at the 700 Yard where outbound staged rail cars awaiting departure block the lead track; and 2) delays occur at the Port Yard when CCTC must sort its manifest trains, blocking the Port lead track an average of 4 hours per day. The proposed project would address the current constraints and result in system-wide efficiencies. In addition, no changes are proposed to any public at-grade crossings. Therefore, the proposed project would not conflict with any other plans, ordinances, or policies related to rail circulation.

B: Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3(b)?

No Impact. CEQA Guidelines Section 15064.3(b) describes specific considerations for evaluating a project's transportation impacts and notes that VMT is the most appropriate measure of transportation impacts consistent with SB 743. CEQA Guidelines Section 15064.3(a) defines VMT as "the amount and distance of automobile travel [specifically for cars and light trucks] attributable to a

project.” As discussed in Section 2.6, no new operational on-road trips would be generated under the proposed project, and therefore there would be no changes to VMT as a result of the proposed project. As the proposed project increases the efficiency of rail operations within the Port, the proposed project adheres to the goals of SB 743 by reducing the number of vehicles on the road that would be needed to transport goods. Therefore, the proposed project would not conflict with, or be inconsistent with, CEQA Guidelines Section 15064.3(b).

C: Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less-than-Significant Impact. Washington Street, Navy Drive, SR 4, and Harbor Street all provide primary access to the project site from the interstate highway system and are all designated to accommodate construction trucks. Any construction deliveries and staging would be limited to the routes designed and designated to accommodate commercial trucks carrying heavy loads.

As discussed in Section 2 and item A above, the Port’s rail system currently has several system bottlenecks that constrain existing rail movements and lead to hazards within the Port. The proposed project would address existing rail blockages and access limitations, leading to safer and more efficient operations. The new LLDT would provide a parallel lead track that would allow arriving and departing trains to access Port areas and bypass congestion. When outbound staged cars in the 700 Yard spill over onto the existing Port lead, trains would be able to bypass the congestion and travel on the LLDT, which would eliminate a blockage from forming in this area. Having a second track would also allow for trains to arrive and depart simultaneously, thereby reducing the overall travel time and the potential for congestion on lead tracks.

The new double-track rail bridge would allow for train access to the West Complex in a safe and efficient manner. The new bridge would be designed to meet modern horizontal clearance standards and modern loading standards, including the capacity to handle 286k and 315k unit trains. The new operational improvements would help accommodate the larger and longer unit trains that are projected for the West Complex, continue to support the more efficient movement of cargo by rail instead of trucks, and prevent delays by allowing more than one train to access the bridge simultaneously. Track geometry and operational considerations have been coordinated with CCTC, as well as the Class I railroads (UP and BNSF) affected by the proposed improvements. The proposed rail alignments would not sharpen any existing curves through which the trains in the Port currently operate.

While the proposed project would address existing design constraints, construction may result in times of delayed service and disruption. Because the new rail bridge would be built parallel to the existing rail bridge, and the existing rail bridge would continue to operate while the new bridge is under construction, no disruptions to rail services to the West Complex are expected. During

construction of the proposed LLDT, some disruptions to existing rail operations and routes are expected. Construction plans and schedules would be coordinated with CCTC, as well as the Class I railroads to minimize disruptions. Therefore, impacts are considered less than significant.

D: Would the project result in inadequate emergency access?

No Impact. The proposed project would result in no new traffic within an existing industrial area served by existing emergency vehicles. The Port has developed an emergency response plan to address emergency needs Port-wide and maintains its own Police Department, which is responsible for providing security protection of Port tenants on a 24-hour basis. Additionally, the closest fire station to the project site is approximately 3.5 miles to the east of the site at 110 West Sonora Street. There are two additional fire stations located at 3499 Manthey Road and 1501 Picardy Drive, approximately 4 miles south and northeast of the project site, respectively. Because the proposed project is not expected to increase the need for emergency services or block any emergency access routes, the proposed project is expected to have no impact related to emergency access.

3.3.18 Tribal Cultural Resources

Would the project:		Potentially Significant Impact	Less-Than-Significant Impact After Mitigation	Less-Than-Significant Impact	No Impact
a.	Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
	i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in Public Resources Code Section 5024.1(c)? In applying the criteria set forth in Public Resource Code Section 5024.1(c), the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.3.18.1 Affected Environment

The project site is in the traditional territory of the Yokuts Tribe and may also have been used or settled by Plains Miwok and Wintun peoples. Yokuts communities were organized into a number of tribes united by a common language (Golla 2007). They lived throughout the San Joaquin Valley and relied on the region’s rich fishing and hunting resources (Kroeber 1976). Native American communities were severely impacted by European contact (Milliken 1995). However, Yokuts people who have endured are now members of several federally recognized tribes.

Two Native American tribes have requested consultation under the CEQA Guidelines (commonly known as AB 52)—the Buena Vista Rancheria of Me-Wuk Indians of California and the Wilton Rancheria Tribe. The Port also consults with four other tribes—the Northern Valley Yokuts Tribe, the Tule River Indian Tribe, Muwekma Ohlone Indian Tribe of the SF Bay Area, and the Confederated Villages of Lisjan. The Port notified these five tribes of the proposed project by email on May 28, 2021, and by letter on June 2, 2021, and will provide the Draft IS/MND to the tribes. No tribal cultural resources have been identified in the project site. Consultation will be ongoing.

3.3.18.2 Impact Analysis

Ai: Would the proposed project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?

Less-than-Significant Impact with Mitigation. There are no known sites, features, places, or cultural landscapes that are listed or eligible for listing in the California Register of Historical Resources or in a local register of historical resources in the project area. Previously unrecorded archaeological resources or human remains could potentially constitute tribal cultural resources. However, potential to encounter archaeological resources is low, as described in Section 3.3.5. While the potential is low, native sediments may contain a previously unrecorded archaeological site or human remains that could be tribal cultural resources. Therefore, because the proposed project includes disturbance of soil through direct removal, if archaeological materials or remains are present in previously undisturbed native sediments, they could potentially be disturbed during construction.

If archaeological materials that could be tribal cultural resources are encountered during construction, the proposed project would implement mitigation measure MM-CULT-2. This includes CEQA Guidelines Section 15064.5(f), which requires implementing “provisions for historical or unique archaeological resources accidentally discovered during construction.” Within implementation of mitigation, impacts would be less than significant.

Aii: Would the proposed project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in Public Resources Code Section 5024.1(c)? In applying the criteria set forth in Public Resource Code Section 5024.1(c), the lead agency shall consider the significance of the resource to a California Native American tribe.

Less-than-Significant Impact with Mitigation. There are no known sites, features, places, or cultural landscapes that have been determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in PRC 5024.1(c) in the project area. Previously unrecorded archaeological resources or human remains could potentially constitute

tribal cultural resources. However, potential to encounter archaeological resources is low, as described in Section 3.3.5. While the potential is low, native sediments may contain a previously unrecorded archaeological site or human remains that could be tribal cultural resources. Therefore, because the proposed project includes disturbance of soil through direct removal, if archaeological materials or remains are present in previously undisturbed native sediments, they could potentially be disturbed during construction.

If archaeological materials that could be tribal cultural resources are encountered during construction, the proposed project would implement MM-CULT-2. This includes CEQA Guidelines Section 15064.5(f), which requires implementing “provisions for historical or unique archaeological resources accidentally discovered during construction.” Within implementation of mitigation, impacts would be less than significant.

3.3.19 Utilities and Service Systems

Would the project:		Potentially Significant Impact	Less-Than-Significant Impact After Mitigation	Less-Than-Significant Impact	No Impact
a.	Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b.	Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c.	Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d.	Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e.	Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.3.19.1 Affected Environment

3.3.19.1.1 Stormwater

As detailed in Section 3.3.10.1.1, on the West Complex, stormwater is conveyed through a system of open, channelized earthen stormwater drainage ditches that convey stormwater to a single pump-controlled discharge point on the west side of the West Complex. Once stormwater reaches this discharge point, it is held in a stormwater retention basin on the western end of the West Complex; when the basin reaches a high level, it is then pumped into Burns Cutoff. On the East Complex, stormwater is conveyed via a system of drainage ditches and channels before being pumped into the stormwater retention basin immediately west of Navy Drive. Drainage ditches on the East Complex are generally open, with culverts beneath road crossings or other developments. During years when the retention basin reaches a high level, stormwater is pumped to the San Joaquin River (Port 2009). Stormwater falling in the area of the replacement rail bridge and adjoining levees drains directly to the San Joaquin River. Stormwater from the proposed project would be conveyed to the Port's existing stormwater drainage system.

3.3.19.1.2 Water Supply

Water service providers in the Stockton metropolitan area include the Stockton Municipal Utilities Department and the California Water Service (City 2018a). Approximately 22% of the City’s water supply originates from groundwater wells, with the remaining water supply from treated surface water supplied by the Stockton East Water District (Cal Water 2016). The Delta Water Supply Project was completed in 2012 to provide the City with a reliable water supply to meet both current and future water needs (City 2020). California Water Service provides domestic water in the area. Non-potable water obtained directly from the San Joaquin River is used for most non-domestic Port development needs.

3.3.19.1.3 Wastewater Infrastructure

The Stockton Regional Wastewater Control Facility (located just off SR 4 on both sides of the San Joaquin River) provides secondary and tertiary treatment of municipal wastewater throughout the City. The Stockton Regional Wastewater Control Facility is a tertiary treatment facility that handles 55 million gallons per day. The facility serves the City and outlying San Joaquin County areas and currently processes an average of 33 million gallons per day (City 2019).

3.3.19.1.4 Solid Waste

Solid waste within the City and Port is transported and disposed of primarily in the privately owned Forward Landfill and the San Joaquin County-owned Foothill Sanitary Landfill and North County Landfill & Recycling Center. The City’s *Envision Stockton 2040 General Plan Update and Utility Master Plan Supplements Draft EIR* indicates that all three landfills have sufficient capacity to serve the region’s needs (City 2018c). The most recently reported remaining capacity and acceptable waste types for these facilities are listed in Table 18.

Table 18
Project Vicinity Landfills

Landfill	Remaining Capacity	Waste Type
Forward Landfill	Unit 1: 22,100,000 cubic yards (reported December 31, 2012) Unit 3: 40,031,058 cubic yards (reported June 1, 2002)	Agricultural, asbestos, friable, ash, construction/demolition, contaminated soil, green materials, industrial, mixed municipal, sludge (biosolids), tires, shreds
Foothill Sanitary Landfill	125,000,000 cubic yards (reported June 10, 2010)	Agricultural, construction/demolition, dead animals, industrial, mixed municipal, tires, wood waste
North County Landfill & Recycling Center	35,400,000 cubic yards (reported December 31, 2009)	Construction/demolition, industrial, mixed municipal, tires, other designated, agricultural, metals, wood waste

Source: CalRecycle SWIS 2021

3.3.19.1.5 Utilities

The Pacific Gas and Electric Company services the area of the proposed project with overhead electrical distribution lines and underground gas transmission lines.

3.3.19.2 Impact Evaluation

A: Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

No Impact. The proposed project would not require relocation or construction of any new water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities. Therefore, there would be no impact.

B: Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?

No Impact. The proposed project would have no connection to Port water facilities. Any requirement for water on site during construction of the proposed project (for example, for dust control) would be temporary and intermittent. Therefore, there would be no impact to water supplies.

C: Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

No Impact. The proposed project would not result in an increase in wastewater, nor would it require new water or wastewater treatment facilities. Runoff would continue to be conveyed to the existing drainage system, and the proposed project would not contribute additional runoff to this system. Therefore, there would be no impact.

D: Would the project generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less-than-Significant Impact. The proposed project would require demolition of the existing rail bridge, which would produce used steel, creosote-treated wood, and soils that would need to be disposed of. In addition, the proposed project would require excavation and disposal of materials for construction of the new bridge, LLDT, and rail underpass at Fresno Avenue. The landfills in the area have adequate capacity to meet the region's need and are authorized to accept waste materials that may be generated during construction of the proposed project. The proposed project would not

affect solid waste collection from the Port as a result of construction or operation. Impacts associated with solid waste would be minimal and less than significant.

E: Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

No Impact. The proposed project would be constructed within the parameters of applicable federal, state, and local solid waste regulations. As described, area landfills are authorized to accept the types of waste potentially generated by proposed project construction and operation. Therefore, there would be no impact.

3.3.20 Wildfire

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:		Potentially Significant Impact	Less-Than-Significant Impact After Mitigation	Less-Than-Significant Impact	No Impact
a.	Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b.	Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c.	Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d.	Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.3.20.1 Affected Environment

According to the Fire Hazard Severity Zone Maps maintained by the California Department of Forestry and Fire Protection, the project area and other nearby communities within San Joaquin County are outside of zones that present moderate to very high fire hazard severity risk. Therefore, the project area and nearby communities are generally considered to have lower wildfire risk (Los Padres ForestWatch 2020).

Fire response in the project area is in a local responsibility area (CAL FIRE 2021). Existing fire response services are described in Section 3.3.15.

3.3.20.2 Impact Evaluation

A: If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

No Impact. The proposed project is located in a local responsibility area and is outside of areas designated as very high fire hazard severity zones. The proposed project would not impair implementation of, nor interfere with any adopted emergency response plan nor emergency evacuation plan. Because the proposed project is not expected to result in new traffic, increase the need for emergency services, nor block any emergency access routes (see Section 3.3.17), there would be no impacts to emergency response.

B: If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

No Impact. The risk of wildfire is related to a variety of parameters, including fuel loading (vegetation), fire weather (winds, temperatures, humidity levels, and fuel moisture contents), and topography. For instance, steep slopes can contribute to fire hazard by intensifying the effects of wind and making fire suppression difficult (Estes et al. 2017). Fuels, such as grass, are highly flammable (Estes et al. 2017). The proposed project site is located in an area that is industrialized, generally flat, and contains very limited vegetation, which is not considered to pose a significant risk of wildfire. The proposed project would be located in a local responsibility area, not a state responsibility area, and would not be in or near lands classified as very high fire hazard severity zones (Los Padres ForestWatch 2020). Although flammable materials may be present during construction and operation of the proposed project, adequate fire response services are in place to respond during an emergency; therefore, there would be no impact.

C: If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

No Impact. The proposed project is located in a local responsibility area and is outside of areas designated as very high fire hazard severity. Therefore, there would be no impact.

D: If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

No Impact. The proposed project is located in a local responsibility area and is outside of lands classified as very high fire hazard severity. Furthermore, the proposed project would not expose people or structures to significant risks, nor would it result in drainage changes, landslides, nor downstream flooding. Therefore, there would be no impact.

3.3.21 Mandatory Findings of Significance

		Potentially Significant Impact	Less-Than-Significant Impact After Mitigation	Less-Than-Significant Impact	No Impact
a.	Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b.	Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c.	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.3.21.1 Impact Evaluation

A: Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Less-than-Significant Impact After Mitigation. The potential impacts of the proposed project on fish, wildlife, and other biological resources are described in detail in Section 3.3.4. The upland portions of the project area are heavily urban or industrial and provide only marginal habitats or habitat features suitable for terrestrial special-status species. Undeveloped areas may provide habitat for special-status bird species, and riverbank areas may provide basking habitat for the aquatic western pond turtle. Elderberry bushes in the project area, including those observed at the rail bridge replacement area, may provide habitat to VELB. Terrestrial habitat within the project area is generally lower quality than surrounding areas (e.g., compared to agricultural fields south and west of the West Complex) due to Port and urban developments and activities. Waters at the proposed rail bridge replacement location may provide habitat to fish species and benthic habitat.

Construction of the proposed project has the potential to adversely affect species that could be present in the project area. For terrestrial species, this includes potential direct or indirect impacts during construction such as trampling, removal of host species, or nest disturbance. For aquatic species, temporary construction impacts include potential input of pollutants to the waterway that could affect water quality, and pile driving or other bottom-disturbing activities that could also affect water quality or result in injury or mortality of special-status fish. If they were to occur, these would constitute potentially significant impacts. Permanent adverse impacts would be minimal and likely limited to loss of marginal terrestrial and aquatic habitat within the immediate footprint of proposed rail improvements. Mitigation measures MM-BIO-1 through MM-BIO-5 would be implemented to reduce potential impacts (see Section 3.3.4.2). With implementation of these mitigation measures, there would be less-than-significant impacts to biological resources.

The potential impacts of the proposed project on historical resources are described in detail in Section 3.3.5. The proposed project would include demolition of the existing Port of Stockton San Joaquin Rail Bridge, which is eligible for listing in the NRHP as a contributing structure to the National Register-eligible Naval Supply Annex Stockton NHD. Removal of the Port of Stockton San Joaquin Rail Bridge would result in an adverse change to the NHD. The proposed project would also include construction of the McCloy rail classification yard in an area of the West Complex that is within the boundaries of the NHD. The McCloy rail classification yard would be a change from existing conditions, and therefore would be an impact to the NHD; however, this is not expected to be an adverse impact or result in any significant changes to the setting, landscape, or other features of the NHD that contribute to its significance. Section 106 of the National Historic Preservation Act requires federal agencies to avoid, minimize, or mitigate adverse effects through a consultation process. USACE or USCG would consult with the State Historic Preservation Officer and other consulting parties to carry out this process. Consultation is expected to result in the development of mitigation measures, documented in a signed Memorandum of Agreement. Mitigation measure MM-CULT-1 would be implemented to reduce potential impacts (see Section 3.3.5.2). With implementation of this mitigation measure, there would be less-than-significant impacts to historical resources.

B: Does the project have impacts that are individually limited but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

Less-than-Significant Impact. The proposed project would result in minimal less-than-significant impacts, mostly temporary impacts associated with construction, some of which require mitigation. One of the purposes of the project is to increase efficiency of train operations within the Port. The new LLDT would reduce overall rail congestion and train travel times in the Port. The operational improvements to reduce staging bottlenecks and increase the efficiency of train operations at the

Port would help accommodate the larger and longer unit trains that are projected for the West Complex, continue to support the more efficient movement of cargo by rail instead of trucks, and prevent staging delays. These operations are designed to accommodate the Port's projected growth and reduce system-wide blockages, thus avoiding significant air quality, GHG, and transportation impacts. Therefore, the proposed project would result in less-than-significant cumulative impacts.

C: Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?

Less-than-Significant Impact After Mitigation. As noted in item B above, the project purpose and operational improvements are designed to accommodate the Port's projected growth, reduce system-wide blockages, and avoid significant air quality, GHG, and transportation impacts. Those environmental factors would not have substantial adverse effects on human beings, nor would they have impacts that require mitigation. The proposed project would also have minimal less-than-significant impacts, some of which require mitigation, related to aesthetics, geology and soils, hydrology and water quality, tribal cultural resources, and utilities and service systems. There would be no impacts from the proposed project related to agricultural and forestry resources, energy, land use and planning, mineral resources, population and housing, public services, recreation, and wildfire.

Construction of the proposed project has the potential to generate noise, particularly during construction of the new rail underpass at Fresno Avenue, adjacent to the existing underpass south of the intersection of West Scotts Avenue and South Fresno Avenue. This construction would be relatively close to some residences along West Scotts Avenue, in the Boggs Tract neighborhood. While not required, several mitigation measures—MM-NOI-1 through MM-NOI-7 (see Section 3.13.2)—have been included to further reduce the potential for temporary construction noise to disturb people near the construction sites, especially during construction of the LLDT and associated rail underpass at Fresno Avenue. Accordingly, impacts related to construction noise would be less than significant.

Construction of the proposed project has the potential to encounter potentially hazardous materials during demolition and construction, which could be hazardous to human beings if improperly managed. Mitigation measures MM-HAZ-1, MM-BIO-2, and MM-BIO-5 (see Section 3.3.9.2) would be implemented to reduce potential impacts by prohibiting construction in the contaminated stockpile portion of Site 19, requiring an SMP prior to ground disturbance in Site 19, and implementing measures to avoid or minimize the potential for impacts to persons and the environment from accidental spills during construction. With implementation of these mitigation measures, there would be less-than-significant impacts related to hazards and hazardous materials.

Therefore, the proposed project would result in less-than-significant impacts associated with environmental effects that could adversely affect human beings.

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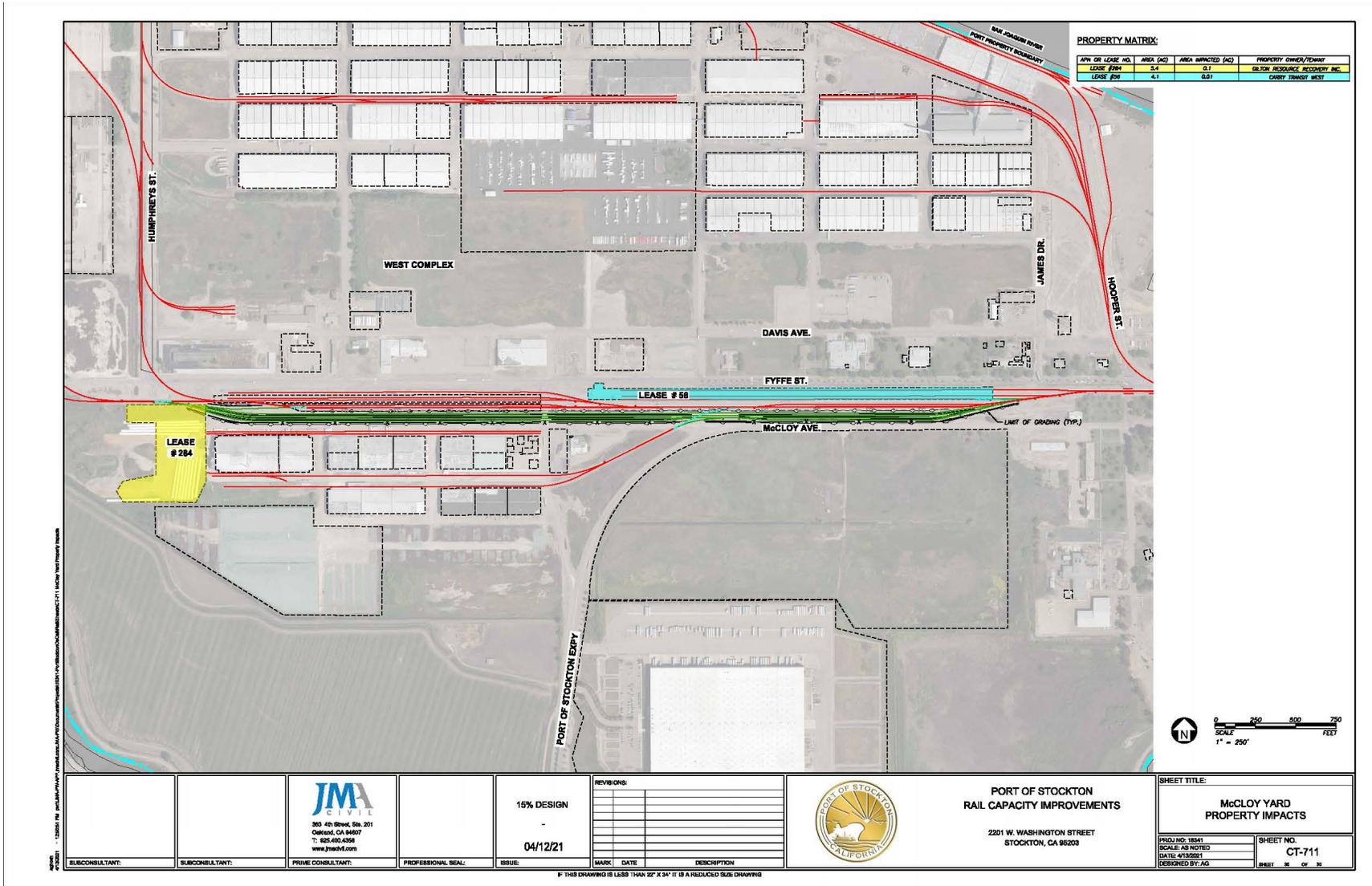
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ATTACHMENT D
PRELIMINARY RIGHT OF WAY IMPACTS



Port of Stockton Rail Bridge Replacement and Rail Improvements
PR Equivalent