

# Toll Bridge Program Report

BATA Oversight Meeting

April 13, 2022



# Schedule of Activities

Activity	Date
Bridge Asset Management Workshop	Mar 23 (completed)
Bridge Condition Report to BATA Oversight	Apr 13
Draft Budget to BATA Oversight Committee	May
Final Budget to BATA for Approval	June
Asset Management progress and recommendation updates	July-Dec 2022

# Outline for Today



## Toll Bridge Conditions

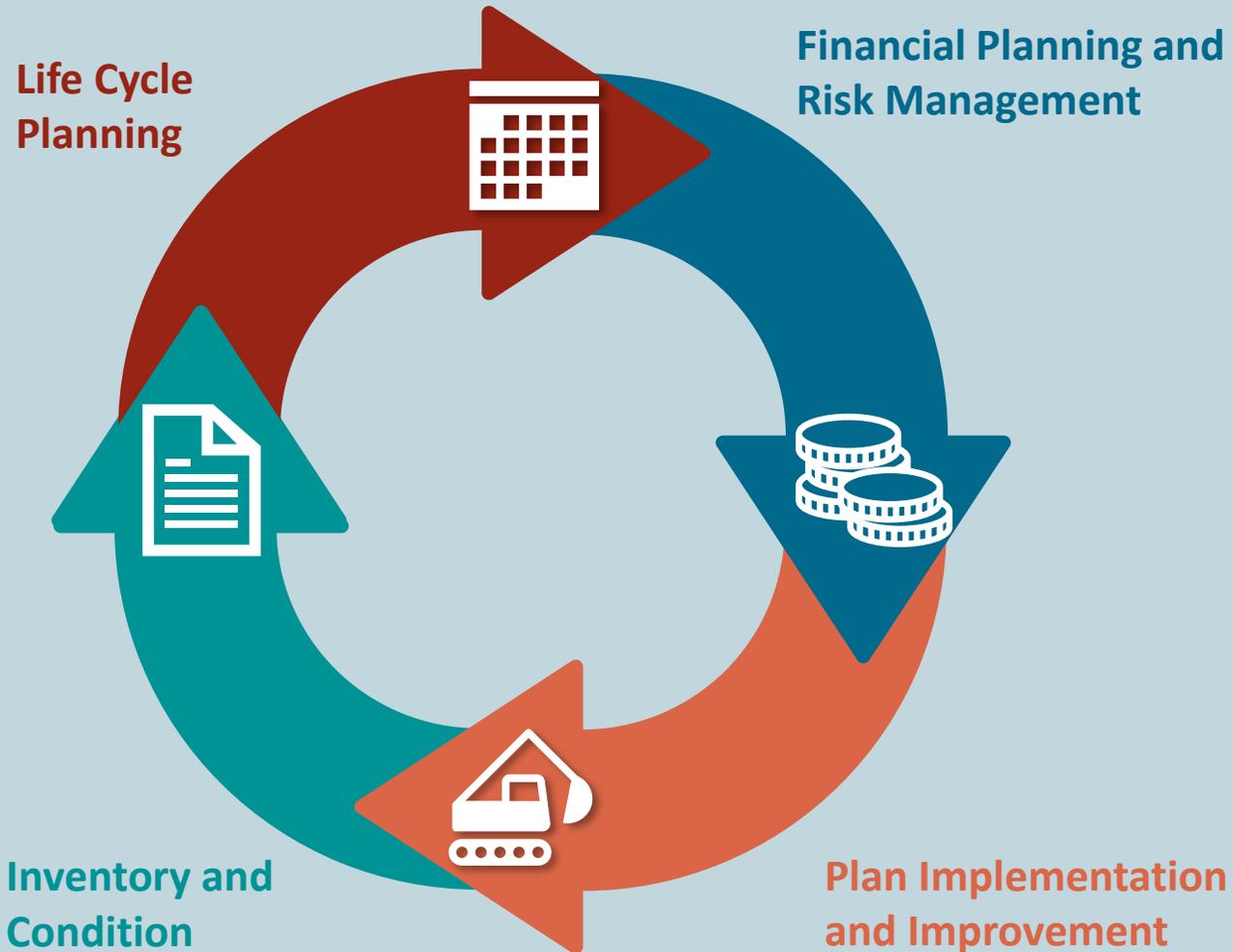
Inspection, analysis, reporting



## Toll Bridge Capital Projects

Key projects in construction and future projects

# BATA/Caltrans Asset Management



## Toll Bridge Program Report highlights:

- Bridge Inspection
- Toll Bridge Overall Conditions
- Projects in Construction
- Future Projects

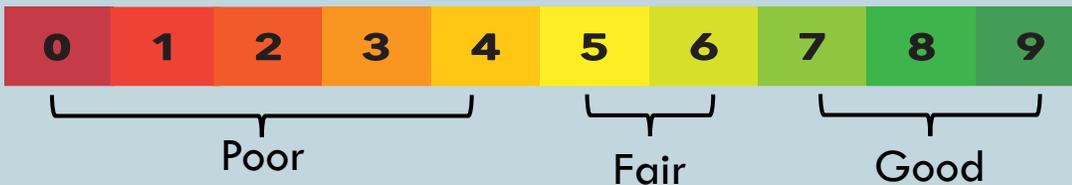
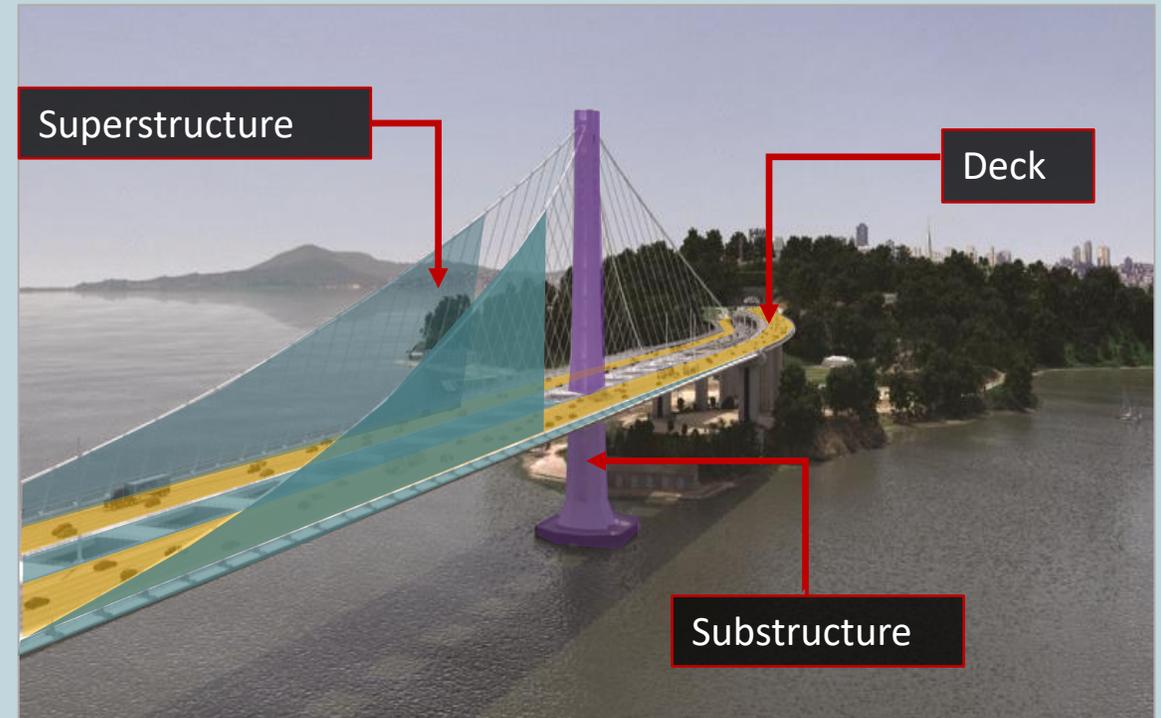
# Bridge Inspection

- Inspectors perform routine inspections of all structural elements:
  - 24-month cycle and as conditions necessitate
- Structure conditions are evaluated in Element Level Inspection (ELI) data and generate the bridge component ratings



# National Bridge Inspection Standards (NBIS)

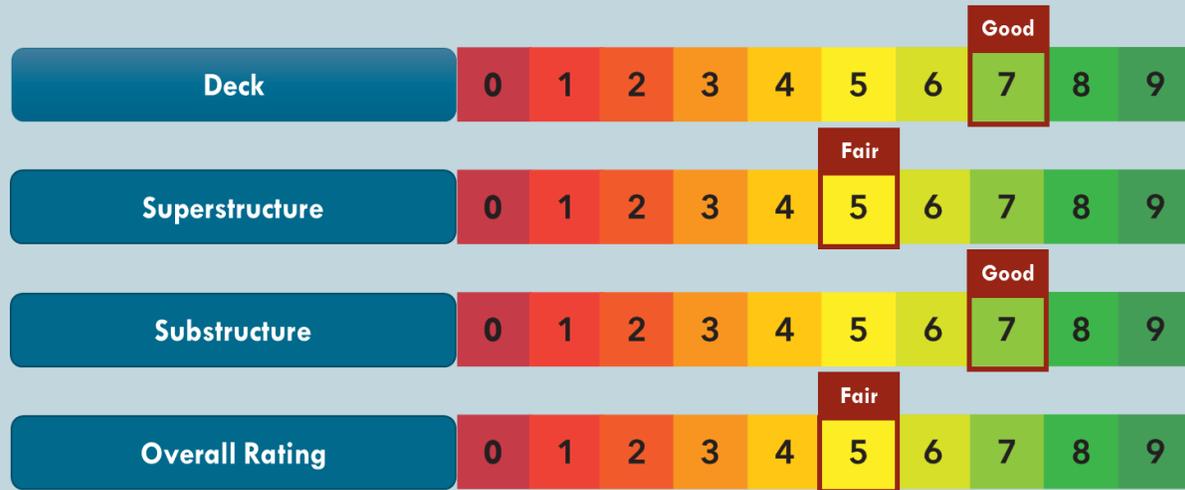
- These ratings help in prioritizing repair work, they are not safety ratings
- Set by FHWA for the proper inspection and evaluation of all highway bridges
- Provides condition rating for three major components of a bridge:
  - Deck
  - Superstructure
  - Substructure
- Lowest component rating determines the overall rating of the bridge



# Overall Condition Ratings Summary

Bridge	Overall Rating	Bridge Condition
Antioch Bridge	7	Good Condition
Benicia-Martinez Northbound (NB) Bridge	7	Good Condition
Benicia-Martinez Southbound (SB) Bridge	5	Fair Condition
Carquinez Eastbound (EB) Bridge	5	Fair Condition
Carquinez Westbound (WB) Bridge	5	Fair Condition
Dumbarton Bridge	6	Fair Condition
Richmond-San Rafael Bridge	5	Fair Condition
San Francisco Oakland Bay Bridge – East Span	7	Good Condition
San Francisco Oakland Bay Bridge – West Span	5	Fair Condition
San Mateo-Hayward Bridge	4	Poor Condition - Deterioration on substructure is consistent with the age of the structure and the marine environment. Repairs to concrete on trestle are underway and expected to raise the condition rating by 2024

# San Francisco-Oakland Bay Bridge-West Span



# San Francisco-Oakland Bay Bridge-East Span

Deck	0	1	2	3	4	5	6	7	8	9
								Good		
Superstructure	0	1	2	3	4	5	6	7	8	9
								Good		
Substructure	0	1	2	3	4	5	6	7	8	9
								Good		
Overall Rating	0	1	2	3	4	5	6	7	8	9
								Good		



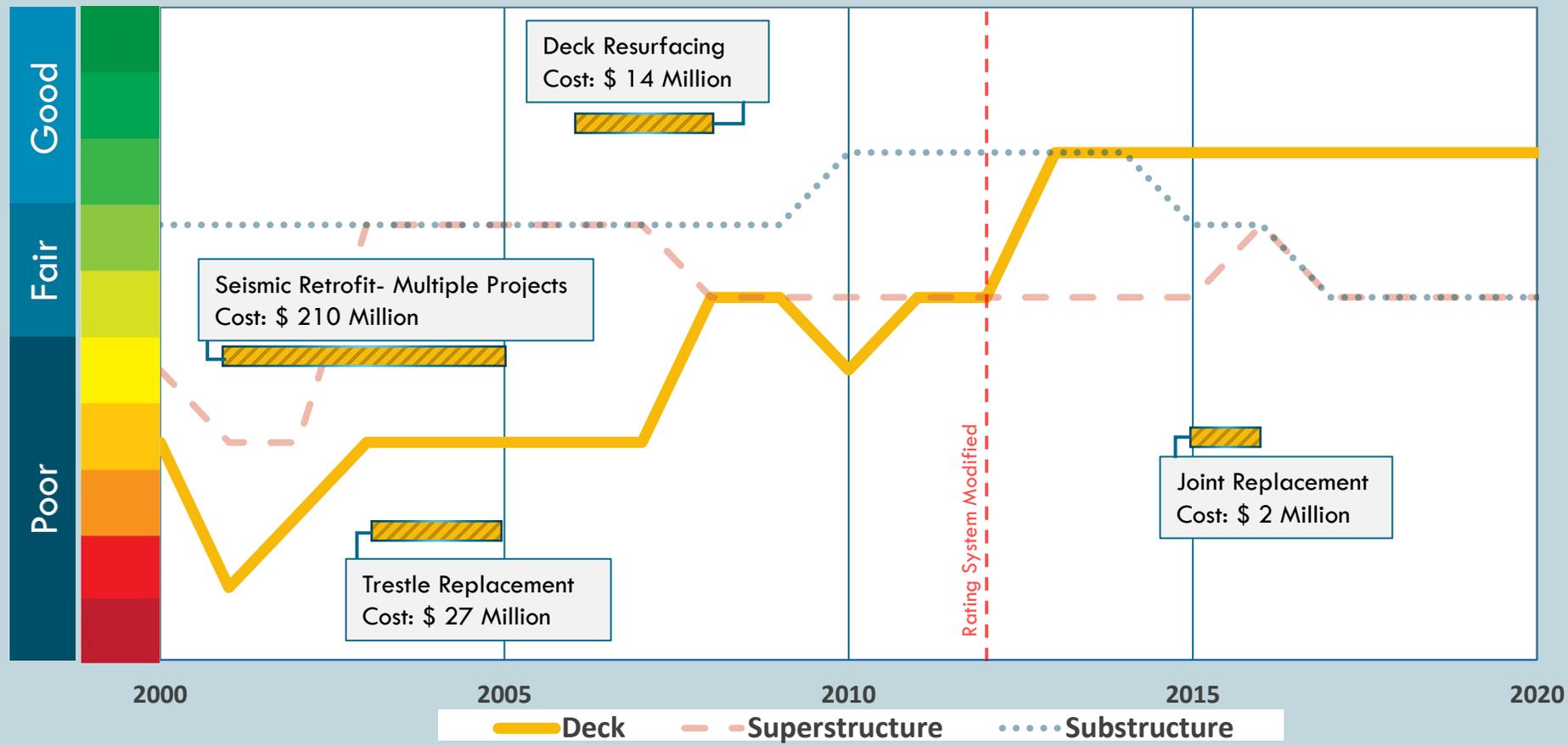
# Richmond-San Rafael Bridge

Deck	0	1	2	3	4	5	6	7	8	9
								Good		
Superstructure	0	1	2	3	4	5	6	7	8	9
						Fair				
Substructure	0	1	2	3	4	5	6	7	8	9
						Fair				
Overall Rating	0	1	2	3	4	5	6	7	8	9
						Fair				

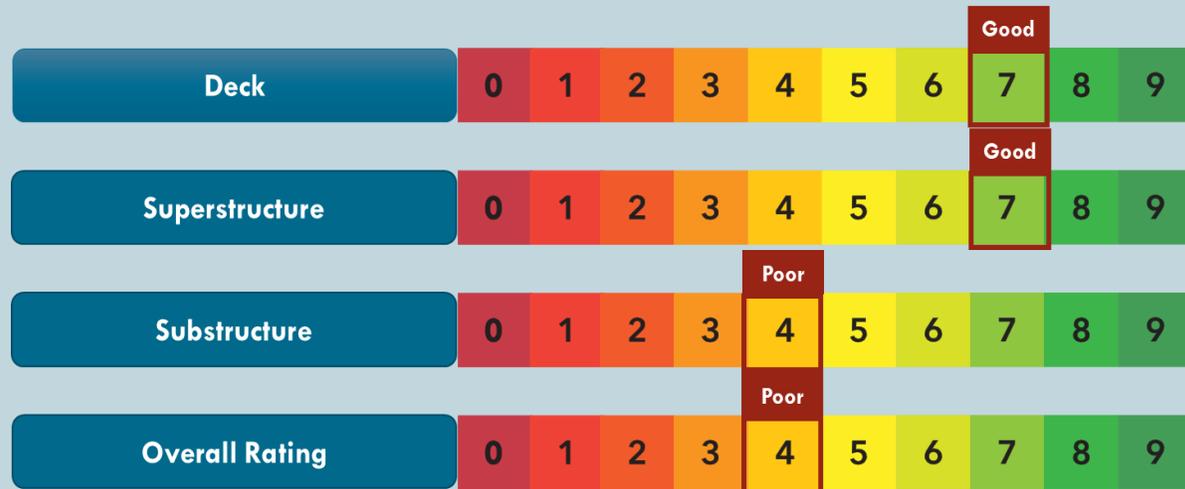


# Richmond San Rafael Bridge - NBIS historical data

- Condition ratings change over the lifecycle of the Bridge
- NBIS represents a discrete moment while deterioration happens over time
- A series of deck rehabilitation projects has improved condition rating over time

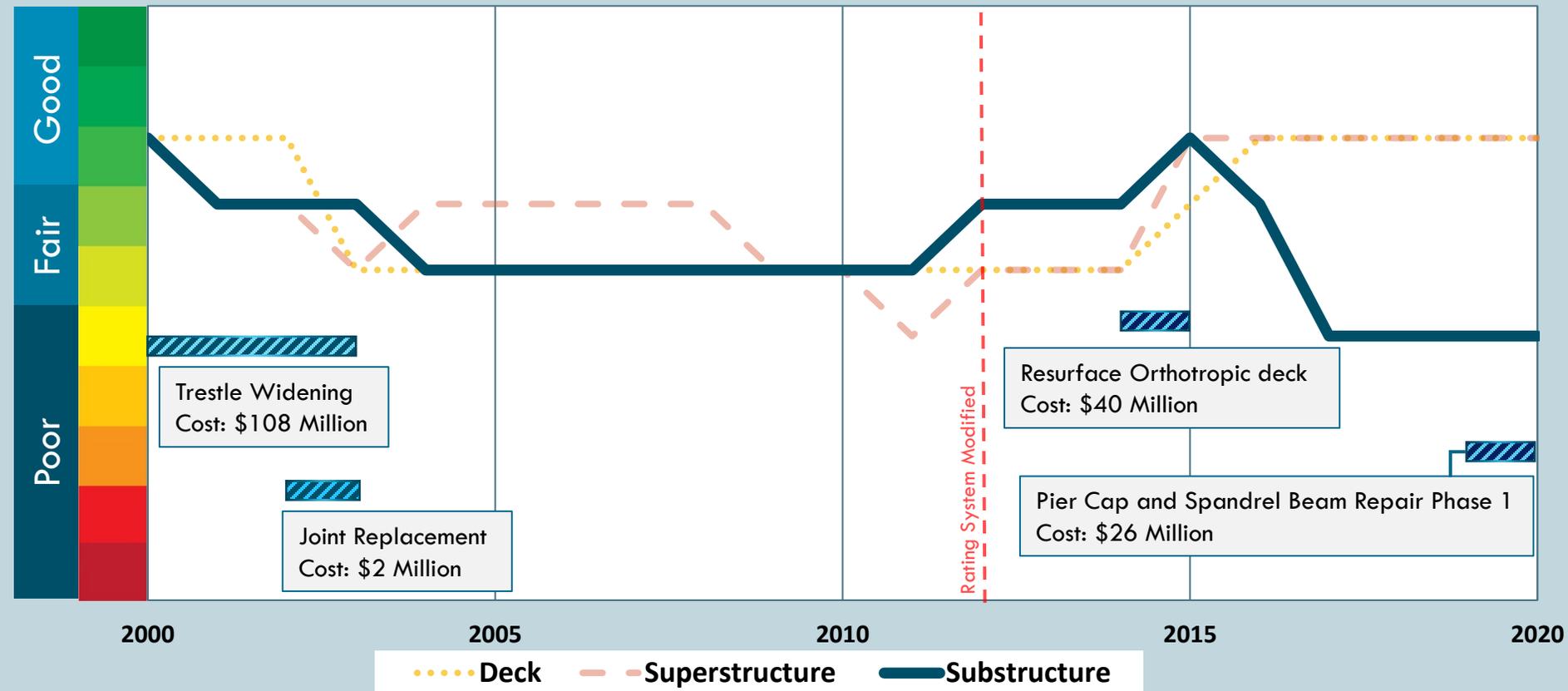


# San Mateo-Hayward Bridge



# San Mateo-Hayward Bridge - NBIS historical data

- Funding rehabilitation and maintenance projects improves condition over time
- Bridges are complex and different maintenance strategies have different costs and results
- Repairs are underway to address the substructure condition



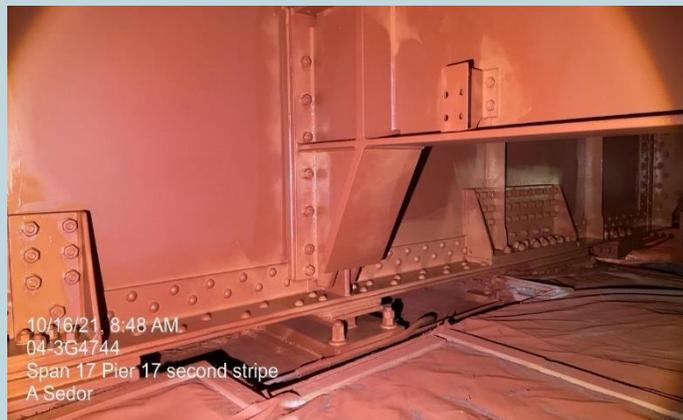
# Projects in Construction

- Per BATA Resolution No. 144 - FY 2021-22 Operating and Capital Budgets:

Bridge	Project Description	Budget (Includes Support Cost)	2022	2023	2024	2025	2026	2027
Richmond-San Rafael	Structural steel paint repair	\$43 Million	██████████					
Richmond-San Rafael	Gusset Plate Strengthening	\$20 Million	██████					
San Francisco- Oakland	Replace Seismic Dampers – West Span (WS)	\$32 Million	██████					
San Francisco- Oakland	Rehabilitate Fire Protection System at Yerba Buena Island (YBI) Tunnel	\$22 Million	██████					
San Francisco- Oakland	Interim Repair of the SFOBB West Span Fender System	\$9 Million	██████					
San Mateo-Hayward	Pier Cap and Spandrel Beam Repair-Phase 1	\$36 Million	██████████					

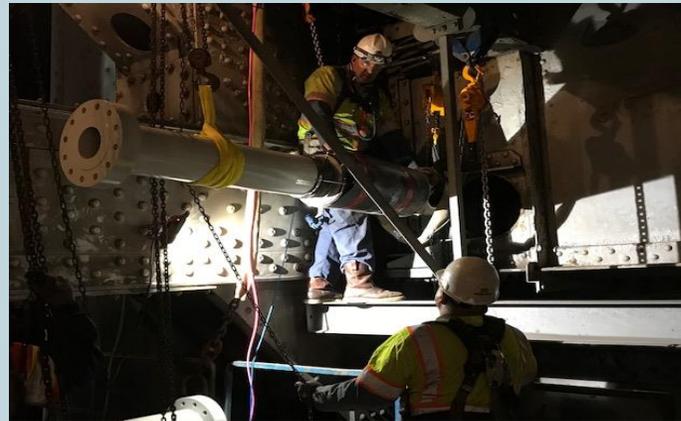
# Richmond-San Rafael Bridge Structural Steel Paint Repair

- **Bridge:** Richmond-San Rafael Bridge
- **Contract No:** 04-3G4744
- **Approved budget:** \$39.2 Million
- **Contractor:** Allied Painting, Inc.
- **Construction Begins:** January 2021
- **Construction Ends:** June 2023
- **Percent Completed:** 63%



# San Francisco-Oakland Bay Bridge Replace Seismic Dampers

- **Bridge:** San Francisco-Oakland Bay Bridge
- **Contract No:** 04-3G4424
- **Approved budget:** \$17.6 Million
- **Contractor:** California Engineering Contractors, Inc
- **Construction Begins:** March 2018
- **Construction Ends:** May 2022
- **Percent Completed:** 96%



# San Mateo-Hayward Bridge

## Pier Cap and Spandrel Beam Repair- Phase 1

- **Bridge:** San Mateo-Hayward Bridge
- **Contract No:** 04-3G4544
- **Approved budget:** \$26 Million
- **Contractor:** Golden State bridge, Inc
- **Construction Begins:** December 2019
- **Construction Ends:** October 2023
- **Percent Completed:** 62%



# Future Projects

- Per BATA Resolution No. 144 - FY 2021-22 Operating and Capital Budgets:

Bridge	Project Description	Begin Capital Spending	Budget (Includes Support Cost)
San Francisco- Oakland	Main Cable Wrap Investigations (Phase 1)	2022	\$24 Million
San Mateo-Hayward	Structural Steel Paint Repair (Towers)	2022	\$10 Million
San Mateo-Hayward	Trestle Repairs (Phase 2)	2024	\$69 Million
Richmond-San Rafael	Replace Existing Damper	2025	\$6 Million
San Francisco- Oakland	Replace Fender System and Skirt Modifications	2026	\$149 Million
Richmond-San Rafael	Structural Steel Paint Repair, Superstructure and Upper Towers - Rehab	2027	\$73 Million
San Francisco- Oakland	Structural Steel Paint Repair, Floor System, Deck, Towers and Deck Rehabilitation Projects	2028	\$133 Million
San Francisco- Oakland	Main Cable Wrap West Span (Phase 2)	2030	\$30 Million

# Toll Bridge Asset Management

## Next Steps – 2022

Actions from Ad Hoc Working Group Action Plan	Next Steps - 2022
<p><b>Undertake Focused Review – Define Rehabilitation Needs</b></p> <ul style="list-style-type: none"> <li>• Complete high-level asset management review</li> </ul>	<p><b>April BATA Oversight Committee: Release first Toll Bridge Program Report</b></p> <ul style="list-style-type: none"> <li>• FHWA NBIS condition rating, programmed projects and inspection history</li> </ul>
<p><b>Implement Deep-Dive Asset Management</b></p> <ul style="list-style-type: none"> <li>• Develop detailed Bridge Asset Management Plans</li> <li>• Institute best practices (ISO 55000 or comparable)</li> </ul>	<p><b>Spring 2022: Toll Bridge Asset Management Plans</b></p> <ul style="list-style-type: none"> <li>• Scope and cost</li> <li>• Contract approvals for consultant support</li> </ul> <p><b>Later in 2022: Asset management process improvement review</b></p> <ul style="list-style-type: none"> <li>• Update on progress and recommendations</li> </ul>

# Ad Hoc Recovery Group Recommendations on Asset Management – June 2021

## Next Steps – 2022

### A. Track Traffic & Revenue

- May/June review in conjunction with FY 2022/23 Budget

### C. Complete High-Level Asset Management Review



### B. Pursue Cost Savings

- Continue to seek relief from administrative overhead rate

### D. Review Revenue Options

- Workshops on revenue – deep dive later in 2022.

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# Questions ?