

# **San Francisco Bay Area Rapid Transit District**

*2150 Webster Street, P. O. Box 12688, Oakland, CA 94604-2688*



## **COMMITTEE MEETING AGENDA**

**Wednesday, May 18, 2022**

**4:30 PM**

**via Teleconference Only. Please note that the meeting teleconference information has been updated. You may join the Earthquake Safety Programs Citizens' Oversight Committee Meeting via Teams by calling 1-415-347-8279 and entering Conference ID 652-434-810**

**Citizens' Oversight Committee - Earthquake Safety Program**

Citizens' Oversight Committee  
Meeting Agenda  
Wednesday, May 18, 2022 at 4:30 pm

Please note, pursuant to all necessary findings having been made by the Board of Directors of the San Francisco Bay Area Rapid Transit District (for itself as well as all subordinate legislative bodies) to continue remote public meetings in the manner contemplated under urgency legislation Assembly Bill No. 361, public participation for this meeting will be via teleconference only.

You may join the Earthquake Safety Programs Citizens' Oversight Committee Meeting via Teams by calling 1-415-347-8279 and entering Conference ID 652-434-810 or type the following link into your web browser  
[https://teams.microsoft.com/l/meetup-join/19:meeting\\_zgjjodq4mgmt2ewys00ngq2ltk4m2qtogrim2yyn2ywzmq1@thread.v2/0?context={%22tid%22:%2256c41995-d45f-4669-a533-30fdded094d9%22,%22oid%22:%22bd9b574a-4e26-4bb5-8265-7fa1aecca11a%22}](https://teams.microsoft.com/l/meetup-join/19:meeting_zgjjodq4mgmt2ewys00ngq2ltk4m2qtogrim2yyn2ywzmq1@thread.v2/0?context={%22tid%22:%2256c41995-d45f-4669-a533-30fdded094d9%22,%22oid%22:%22bd9b574a-4e26-4bb5-8265-7fa1aecca11a%22})

**A. Welcome, Roll Call, and Introductions**

1. Roll Call and introduction of BART Citizens' Oversight Committee Members/Alternates present and BART Representatives.
2. Introduction of BART Earthquake Safety Program staff and supporting representatives.

**B. Review of Administrative Matters (For Action)**

1. Review and Approval of the following meeting minutes
  - a. January 19, 2022 Meeting Minutes

**Attachments:** [January 19, 2022 Meeting Minutes - Item B.1.a](#)

**C. Project Update (For Information Only)**

1. Completed Activities
2. Current Activities
3. Upcoming Activities
4. Financial Report

**Attachments:** [Project Update - Item C](#)

**D. Next Meeting**

1. Date and time
2. Agenda items

Finalize the date and time of the next meeting. Committee Members may request to add items to the next meeting's agenda.

**E. Public Comment**

Members of the public may make comments.

F. Adjournment

Attendees with Special Needs: Please refrain from wearing scented products (i.e., perfume, cologne, after-shave, etc.) to these meetings, as there may be people in attendance susceptible to environmental illnesses. BART provides services/accommodations upon request to persons with disabilities and individuals who are limited English proficient who wish to address the Committee. A request must be made within one and five days in advance of the Committee meetings, depending on the service requested. Please contact the Citizens' Oversight Committee Information Line at (510) 874-7478 for more information or to request services.

## Citizens' Oversight Committee Meeting Minutes

Wednesday, January 19, 2022, 4:30 pm

2150 Webster Street, Oakland, CA 94612

Virtual Meeting

Meeting Number Term 7, Meeting 10	Meeting Date January 19, 2022	Meeting Time 4:45 pm – 5:38 pm
Attendees	<i>Current Members</i> <b>Karen Varnado, Vice Chair</b> <b>Eric Tandy</b>	<i>BART Representatives</i> Zecharias “Zach” Amare Chuck Bernardo Raymond Pascual Bianca Mallory Hanna Horning Carl Holmes Mark Salmon Director Raburn
	<i>Alternate Members</i> <b>Thomas Horton</b> <b>Ken Mark</b> <b>Monica Tell</b> <b>Louise Engel</b>	
		<i>Public</i> Ashley Chilka Alfredo Fernandez Erin Huang
Agenda Item	Action Taken	
A. Welcome, Introductions, and Roll Call	Meeting called to order by Vice Chair K. Varnado at 4:30 pm on January 19, 2022.  B. Mallory went over housekeeping items relating to conducting the meeting virtually. B. Mallory took roll call, noted members in attendance, and confirmed there was a quorum of two members in attendance and four alternates. There was a change to the meeting - dealing with the action items at the beginning of each meeting going forward.	
B. Review of Administrative Matters	K. Varnado reviewed the following administrative matters: <ul style="list-style-type: none"> <li>• The January 13, 2021 meeting minutes were approved.</li> <li>• The July 21, 2021 meeting minutes were approved.</li> </ul>	
C. Project Update	Z. Amare, Capital Projects Group Manager, introduced the agenda items, including a presentation by Mark Salmon followed the project update, work progress, and financial report and schedule.	



## San Francisco Bay Area Rapid Transit District (BART) Earthquake Safety Program

M. Salmon gave a presentation about the TBT reanalysis. Recapping where they were a year with the reanalysis to the findings they have concluded now. He began by describing the original construction of the TBT and discussing the current concerns. The structural integrity of the TBT is persevered the concern is water intrusion issues. The reanalysis done by Furgo confirmed the descoping was accurate. M. Salmon discussed the process used to come to this conclusion. They found that the slope movements had new finding that changed there way of analysis and how to more forward. They conducted a leakage hazard analysis that was done in the areas of question and the range to do better decision making for the size and number of cracks in the areas. The work took about a 6-month period of time to evaluate the changes and do peer reviews. M. Salmon shared charts and graphs that he discussed giving the Best Estimates. T. Horton asked what the black line is representative of, is it showing the current retrofit and the impact to the safety of the tube for a safe egress for a thousand-year earthquake? M. Salmon said yes and it is important for the safety training and planning with good signage for egress. T. Horton commented that with the coring they didn't want to be too aggressive and make it look like swiss cheese looking for the welds. M. Salmon commented that Fugro did a great job of challenging the design and analysis on the reanalysis. Z. Amare thanked M. Salmon for his work over the last two years. L. Engel thanked M. Salmon for a clear explanation of the finding and the risk. C. Holmes gave thanks to M. Salmon and team for all the work that has been done on the re-analysis

As part of the Project Update, C. Bernardo provided an overview of the program's progress since the last meeting, noting the completed, current, and upcoming activities, with photos representing construction activity. Below is a summary of the report:

- There is one contract remaining:
  - TBT Retrofit

### TBT Retrofit

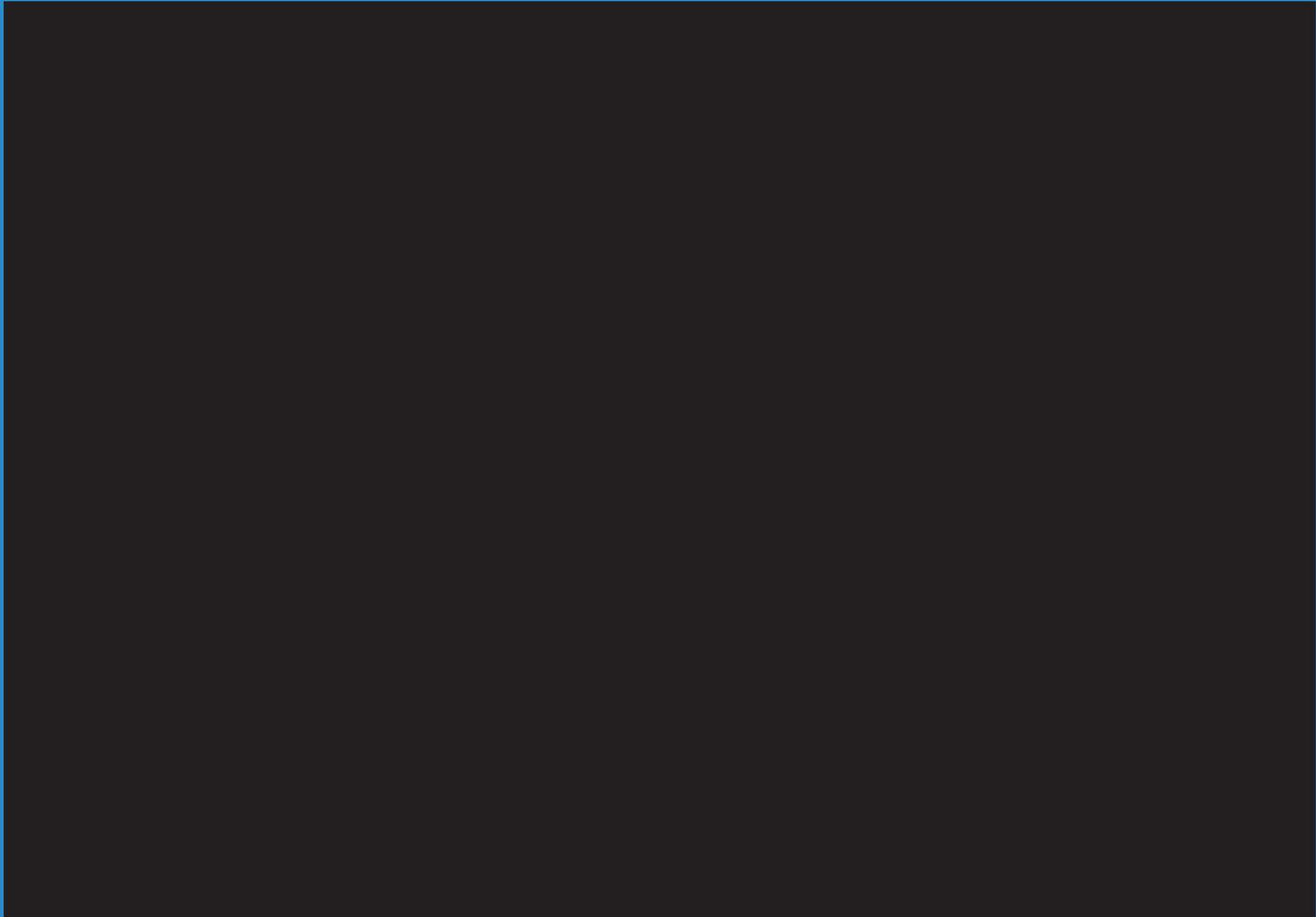
- **Due to the Security Sensitive Information (SSI) nature of the project, details are limited and omitted per BART Attorney from COC Meeting Minutes**

C. Bernardo gave a visual presentation on the work that is being done in the TBT and the status of completion on each element of work. C. Bernardo provided updates on the status of work using the Maintenance Vehicle Consist (MVC) train the main tool used for doing the retrofit work. The MVC production work is 50% done in the bore and the team is moving from M1 to M2. Retrofitting in the bore should be complete at the end of 2022. C. Bernardo described work sequencing, and details about the process of doing the retrofitting in a



## San Francisco Bay Area Rapid Transit District (BART) Earthquake Safety Program

	<p>small area with about 70 to 100 people working at one time. C. Bernardo also reviewed the status of trackwork. Working in an operating environment and train disruption and risk issues are continuously examined and coordinated.</p> <p>C. Bernardo reviewed the status of the Contract Change Orders issued, in progress, and protested.</p>
D. Schedule and Financial Report	<p>C. Bernardo provided an overview of the Program's schedule and finances, noting the following:</p> <ul style="list-style-type: none"><li>• BART has allocated all \$980 million in 2004 Measure AA bond funds (estimate to be used through 2022). COC mission &amp; duration linked to \$980M.</li></ul>
E. Next Meeting	<p>After review of COC member calendars, committee members voted to hold the next COC meeting on Wednesday, May 18, 2021.</p>
F. Public Comments	<p>3 members of the public were present.</p>
G. Adjournment	<p>5:38 p.m.; seconded by E. Tandy; passed unanimously.</p>



**BART** EARTHQUAKE SAFETY PROGRAM  
CITIZENS' OVERSIGHT COMMITTEE MEETING  
Wednesday, May 18, 2022 – 4:30 pm



**EARTHQUAKE  
SAFETY PROGRAM**  
BUILDING A STRONGER SYSTEM



# Agenda

- **Welcome and Roll Call**
  - ✓ **2019-2021 Citizens' Oversight Committee (COC) Members and Alternates**
    - **Derek Schaible** – Seismic Retrofitting (Alternate – Tom Horton)
    - **Clint Loftman** – Auditing (Alternate – Kathy Buckley)
    - **Karen Varnado** – Community-at-Large (Alternate – Monica Tell)
    - **Eric Tandy** – Engineering (Alternate – Ken Mark)
    - **Sang Bak Lee** – Public Finance/Project Mgt. (Alternate – Louise Engel)
  - ✓ **Acknowledgement of attending Members of the BART Board, Staff and Public**
    - **Zach Amare** – BART Representative – Group Manager, Capital Projects
    - **Chuck Bernardo** – BART Representative – Project Manager, Capital Projects
    - **Raymond Pascual** – BART General Council – Attorney
    - **Bianca Mallory** – ESP COC Support – The Allen Group, LLC

COC 19-23 Meeting 7.11  
Presentation  
Slide 2





# Agenda

- **Project Update**
- **Financial Report and Project Schedules**
- **Review of Administrative Matters**
  - ✓ Review and Approval of Meeting Minutes: January 19, 2022
- **Next Meeting**
  - ✓ Date and Agenda Items
- **Public Comment**
- **Adjournment**

COC 19-23 Meeting 7.11  
Presentation  
Slide 3





# Project Updates



4 COC 19-23 Meeting 7.11  
Presentation  
Slide 4



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# Project Update: Status of Earthquake Safety Work

As of May 2022





# Change Order Summary

- Change Orders To Date = 246
  - Change Orders Issued = 235
  - Change Orders In Progress = 9
- Change Orders in Protest = 91
- 8 Change Orders Issued since last COC meeting





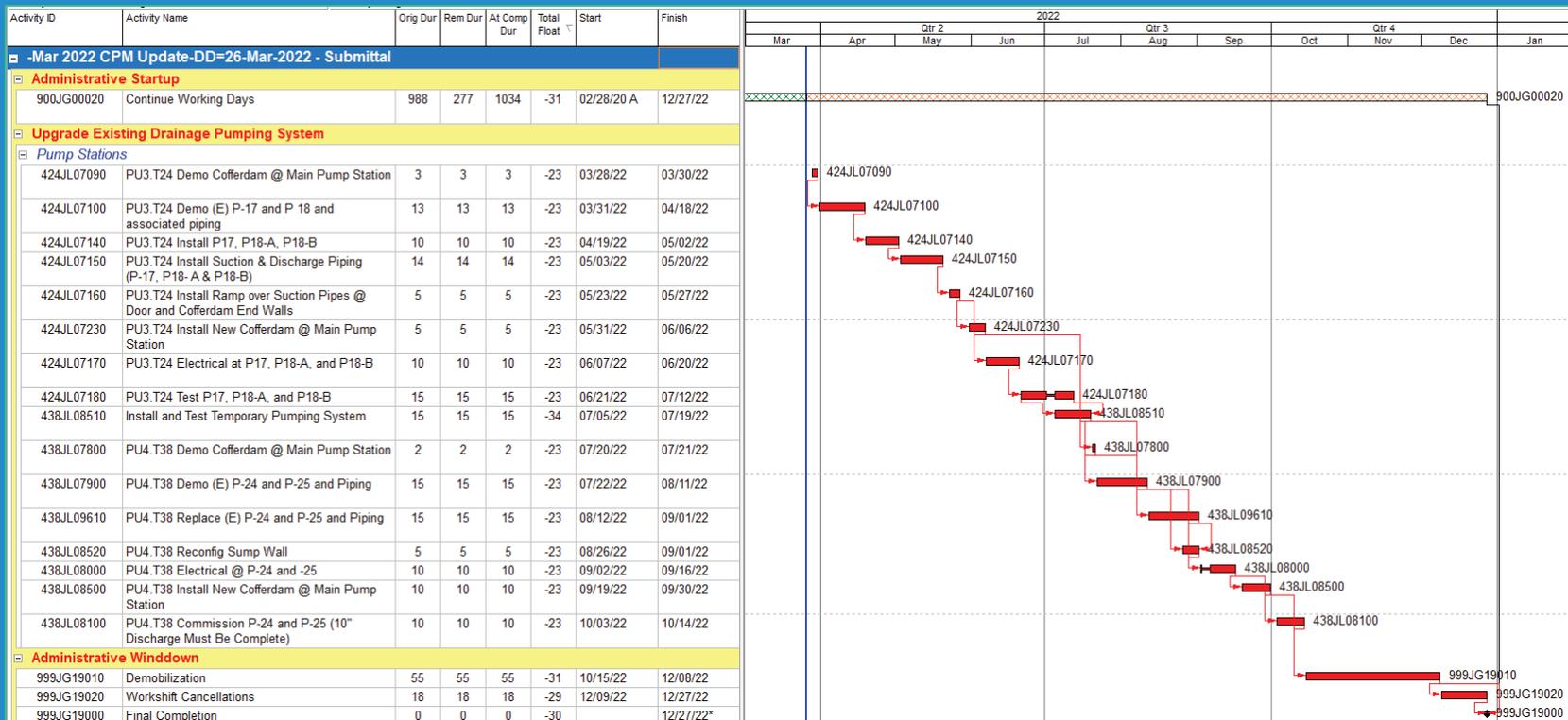
# Schedule Summary

## March 2022 Update (Submittal 923.0)

- 1st Working Day = 2/2/2017
- Contract Time = 1950 CD
  - TIE 1 (CN 27) = 99 CD
  - TIE 2 (CN 37) = 60 CD
  - TIE 6 (CN 208) = 16 CD (Extension for Covid delay)
- Total Contract = 2125 CD
- Approved Completion 11/27/2022
- Forecast Completion 12/27/2022

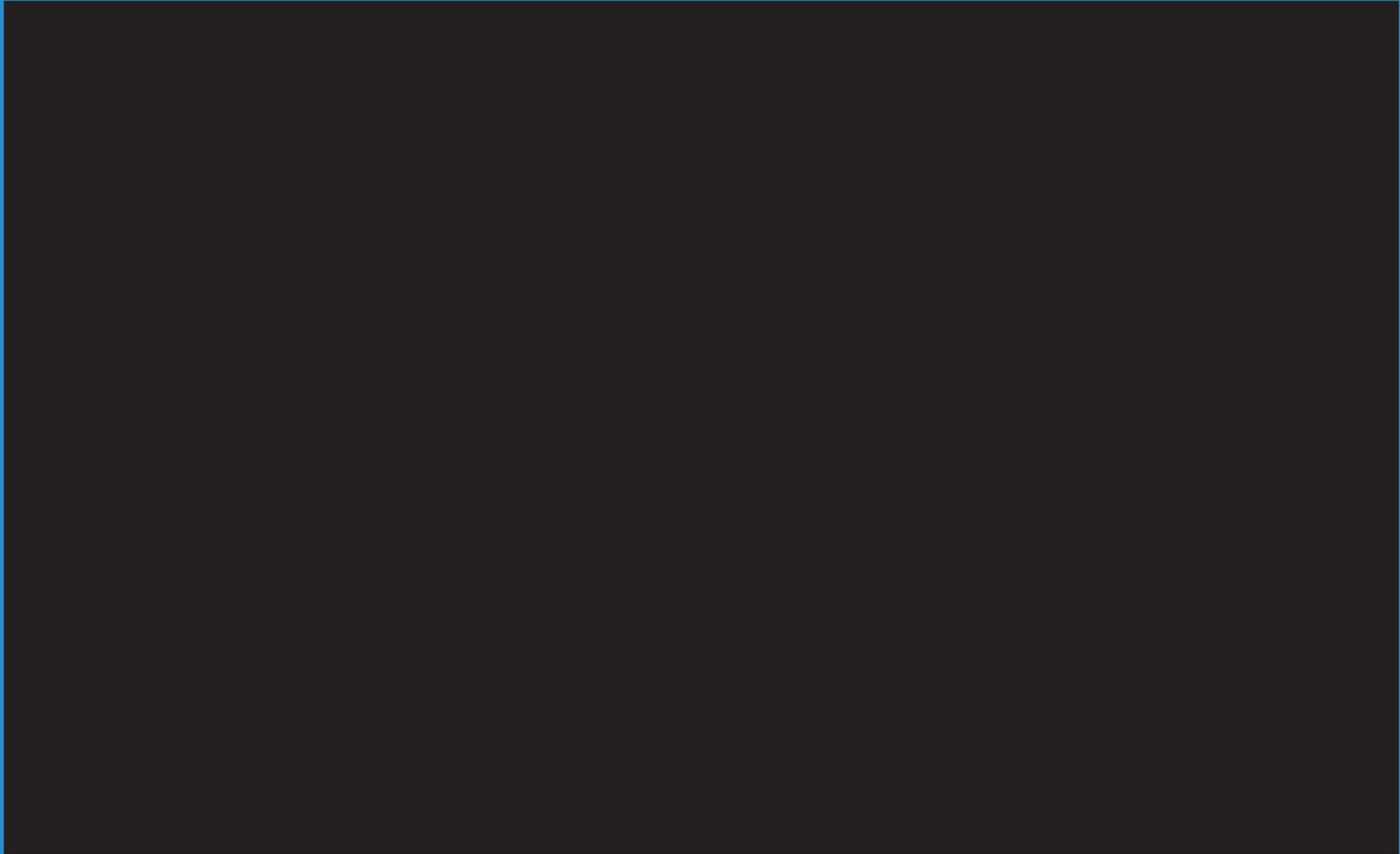
As of 05/18/2022  
 Elapsed Time = 1931 days  
 Time Remaining = 193 days

- 90% Time Spent
- Delay in Completion





# MVC Production Work



COC 19-23 Meeting 7.11  
Presentation  
Slide 8

**Security Sensitive Information**



# M2 Bore Plate Installation

All Retrofit Plates Erected  
Start: 10/31/2021  
End: 03/01/2021



COC 19-23 Meeting 7.11  
Presentation  
Slide 9

**Security Sensitive Information**



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# M2 Bore Plate Welding



Walkway Plates



Arch Plates

COC 19-23 Meeting 7.11  
Presentation  
Slide 10

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# M2 Bore Trackway Concrete

Demolition 100%  
Anchor Hole Drilling 50%



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Presentation  
Slide 11

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# M2 Bore Trackway Concrete



Demolition



Temporary Track Installation

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Presentation  
Slide 12

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# M2 Bore Trackway Concrete

Anchor Core  
Drilling Operation



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Presentation  
Slide 13

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# Discharge Pipe Installation



Installation



Supports

COC 19-22 Meeting 7.10  
Presentation  
Slide 14

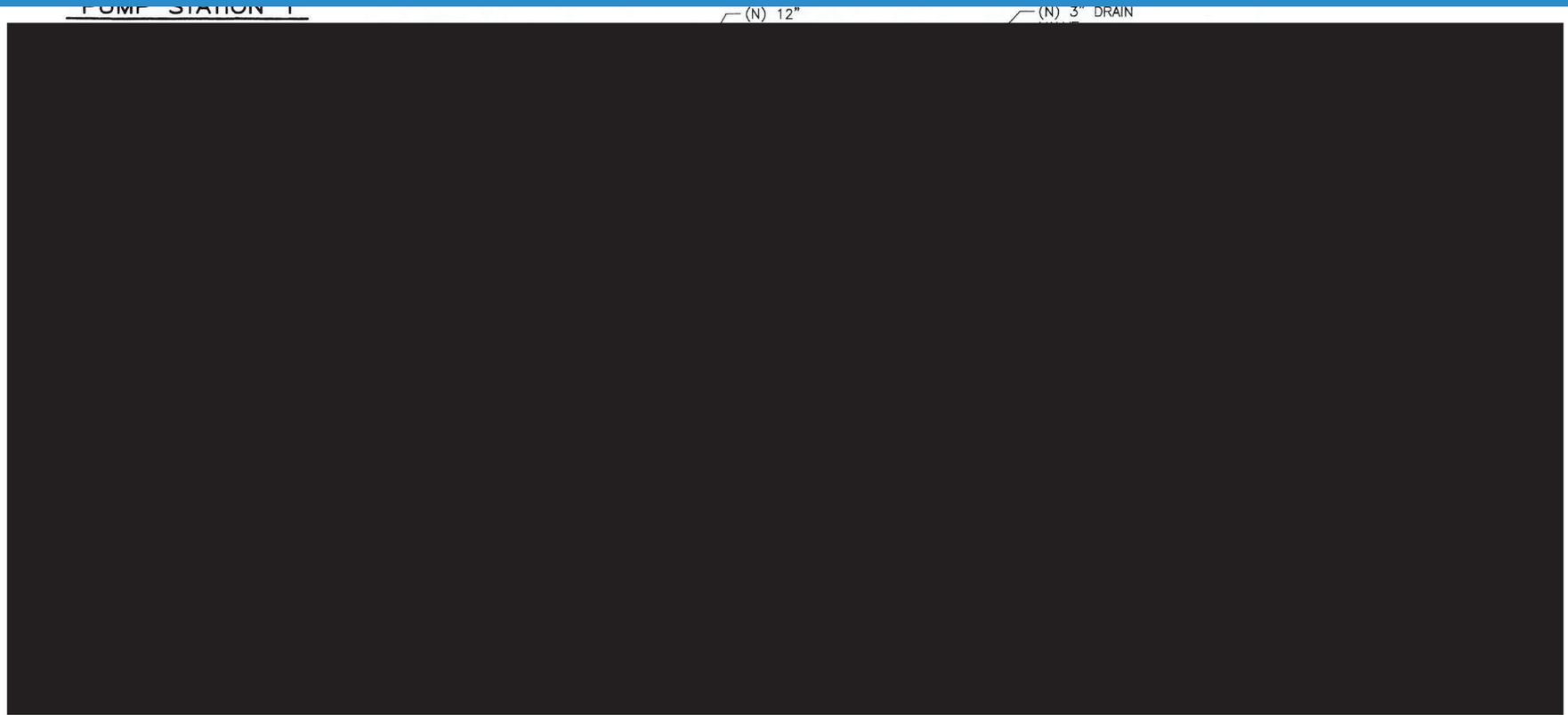
**Security Sensitive Information**



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# Pump Station No. 03



PS-03 Line Diagram

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Presentation  
Slide 15

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# Pump Station No. 03



Walkway Pumps

COC 19-23 Meeting 7.11  
Presentation  
Slide 16

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# Pump Station No. 03

Gallery  
Pumps

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Presentation  
Slide 17

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# SF Ventilation Discharge Piping



COC 19-23 Meeting 7.11  
Presentation  
Slide 18

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# Financial Forecast

Description*	Baseline Budget	Funded Budget	Expended ITD	Cost to Complete (Incl. Contingency)	Forecast at Completion	% of Construction	% of Total
<b>BART Costs</b>	\$93,790,000	\$156,260,352	\$133,634,167	\$18,638,739	\$152,272,906	20%	11%
<b>Engineering</b>	\$171,010,000	\$237,024,952	\$237,024,952	\$0	\$237,024,952	32%	16%
<b>DSDC</b>	\$28,110,000	\$51,322,431	\$42,568,904	\$8,137,110	\$50,706,014	7%	4%
<b>CM</b>	\$56,210,000	\$134,962,292	\$119,120,007	\$19,512,755	\$138,632,762	19%	10%
<b>Construction</b>	\$855,240,000	\$754,530,528	\$693,903,837	\$54,160,800	\$748,064,637		52%
<b>Insurance</b>	\$40,590,000	\$76,494,075	\$71,468,843	\$2,382,662	\$73,851,505	10%	5%
<b>ROW</b>	\$12,600,000	\$18,405,369	\$16,965,487	\$1,266,788	\$18,232,275	2%	1%
<b>Bond Issuance &amp; Elec</b>	\$21,000,000	\$21,000,000		\$21,000,000	\$21,000,000	3%	1%
<b>Total</b>	<b>\$1,278,550,000</b>	<b>\$1,450,000,000</b>	<b>\$1,314,686,197</b>	<b>\$125,098,853</b>	<b>\$1,439,785,051</b>		<b>100%</b>

COC 19-23 Meeting 7.11  
 Presentation  
 Slide 19



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# Financial Report

- **Measure AA Bond Total: \$980,000,000**
  - **Inception-to-Date Expensed: \$970,968,100**
  - **Remaining GOB Funding: \$9,031,900**
- **General Obligation Bond Interest: \$62,550,300**
  - **Inception-to-Date Expensed: \$28,533,400**
  - **Remaining GOB Interest: \$34,016,900**
- **Measure RR Bond Total: \$194,000,000**
  - **Inception-to-Date Expensed: \$77,588,000**
  - **Remaining Measure RR Funding: \$116,412,000**
- **FHWA, RM2, STIP, Prop 1B, FEMA & Other Funds: \$213,450,000**
  - **Inception-to-Date Expensed: \$213,450,000**
  - **Remaining Funding: \$0**





# Public Comment



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Presentation  
Slide 21



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# Contacting the Committee

Information about the Citizens' Oversight Committee is included on the Earthquake Safety page of the BART website.

- **Visit the Website:** [www.bart.gov/earthquakesafety](http://www.bart.gov/earthquakesafety)
- **Email the Committee:** [eqcommittee@bart.gov](mailto:eqcommittee@bart.gov)
- **Call the Committee:** (510) 874-7478

Voicemail and email inboxes are checked regularly for messages and coordinated response.

COC 19-22 Meeting 7.10  
Presentation  
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