



### **Capital Program**

- Capital Program Quarterly Report: FY23 Q1
- Negotiated Procurements: Risk Management and Incentive Programs



- Caltrain's Rail Development Team is currently managing 28 capital projects
  - 16 in Design
  - 2 in Bidding
  - 9 in Construction
  - 1 in Closeout
- 9 other projects are in the planning and miscellaneous group



Key Performance Indicator Summary

| Status Light | Safety | Schedule | Budget | Funding |
|--------------|--------|----------|--------|---------|
| Green        | 100.0% | 67.6%    | 94.6%  | 89.2%   |
| Yellow       | 0.0%   | 5.4%     | 0.0%   | 8.1%    |
| Red          | 0.0%   | 27.0%    | 5.4%   | 2.7%    |

(Percentage of projects in each status light by performance category)



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(Percentage of projects in each status light by performance category)

- Schedule KPI
   Significant area of the team's focus
  - 3 improved
  - 4 slipped



Program Trend Summary for Projects in Planning, Design, or Construction

| Status Changes                     | Projects | Pct.<br>Projects |
|------------------------------------|----------|------------------|
| All green                          | 16       | 43.2%            |
| Improved                           | 6        | 16.2%            |
| Got worse                          | 5        | 13.5%            |
| Stayed the same (except all green) | 10       | 27.0%            |
| Total Projects                     | 37       |                  |



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- Mitigation plans being implemented
- Some projects have been re-baselined with changed conditions



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- 4 Schedule increases
- 1 Budget increase



# Capital Program Projects with Mitigation Plans

|          | Project  | Planned Date  | Description                                   |
|----------|--|---------------|---|
|          | Ticket Vending Machine Rehabilitation              | On-going      | Recovering from supply chain delays           |
| <b>✓</b> | Clipper Next Generation Validator Site Preparation | Implemented   | Recovered from contractor submittal delays    |
|          | San Mateo Replacement Parking Track                | 6/28/2023     | CTC allocation of Caltrain's FY23 LPP funding |
|          | Churchill Ave Grade Crossing                       | CPUC Approval | Recover from CPUC approval duration           |
|          | Bayshore Station Overpass Ped Bridge Rehab         | On-going      | Recovering from delay in starting site work   |



## Capital Program Projects to <u>Re-Baselined:</u> Near Term

|          | Project  | Planned Date  | Description  |
|----------|--|---------------|--|
| <b>✓</b> | Guadalupe River Bridge Replacement - Extension               | Implemented   | Updated schedule. Fund activation in November      |
| <b>✓</b> | CCF BCCF Virtualization                                      | Implemented   | With FY23 Construction funding approval - approved |
| <b>✓</b> | San Mateo Grade Crossing Improvements                        | Implemented   | City led final design package complete             |
|          | Automatic Passenger Counter 4 <sup>th</sup> and King Station | October 2022  | Update schedule for closeout                       |
|          | MP-36 Locomotive Mid-Life Overhaul                           | October 2022  | Update schedule, budget, and funding               |
|          | Mini High Platforms  | November 2022 | Update schedule                                    |
|          | Rengstorff Grade Separation                                  | November 2022 | Approval of Cooperation Agreement for final design |
|          | Broadband Wireless Communication System                      | November 2022 | Update schedule/budget at contract award           |



# Capital Program Projects to <u>Re-Baselined:</u> Future

|          | Project                                   | Planned<br>Date | Description   |
|----------|---|-----------------|---|
| <b>✓</b> | CCF BCCF Virtualization                   | Implemented     | With FY23 Construction funding approval - approved  |
|          | San Francisquito Creek Bridge Replacement | TBD             | At approval to proceed with next phase, funding use |
|          | Bernardo Avenue Undercrossing             | TBD             | At approval of next phase by local jurisdiction     |
|          | Whipple Avenue Grade Separation           | TBD             | At approval of next phase by local jurisdiction     |



# Capital Program Projects in Closeout with Variances

|          | Project                                  | Planned<br>Date | Description                                   |
|----------|--|-----------------|---|
|          | South San Francisco Station Improvements | NA              | Extended closeout period – nearing completion |
| <b>✓</b> | Marin and Napoleon Bridge Replacement    | Sept 2022       | Extended closeout period – nearing completion |

#### **Next steps:**

- Final Phase/Gate approval from Management Committee report on project metrics
- Conduct lessons learned
- Remove project from Quarterly Report



**Table S3. Individual Projects** 

| Project         |  | Saf | ety | Sche | dule | Bud | dget | Fun | ding |      |
|-----------------|--|-----|-----|------|------|-----|------|-----|------|------|
| Number          | Title  | Q4  | Q1  | Q4   | Q1   | Q4  | Q1   | Q4  | Q1   | Page |
| CONSTRUCTI      | CONSTRUCTION/IMPLEMENTATION                              |     |     |      |      |     |      |     |      |      |
| Grade Separa    | ations   |     |     |      |      |     |      |     |      |      |
| 002088          | 25th Avenue Grade Separation                             | 0   |     |      |      | 0   |      |     |      | 7    |
| Stations        |  |     | ,   |      |      |     |      |     |      |      |
| 002146          | South San Francisco Station Improvement                  |     |     |      |      | 0   |      |     |      | 13   |
| ROW Bridges     |  |     |     |      |      |     |      |     |      |      |
| 100439          | Bayshore Station Overpass Pedestrian Bridge Rehab        | 0   |     | 0    | 0    | 0   |      |     |      | 19   |
| ROW Commu       | inications & Signals                                     |     |     |      |      |     |      |     |      |      |
| 100278          | Mary Avenue Traffic Signal Preemption                    | 0   |     |      |      | 0   |      |     |      | 25   |
| Fare Collection | on   |     |     |      |      |     |      |     |      |      |
| 100240          | Ticket Vending Machines (TVM) Rehab                      | 0   |     | 0    |      |     |      |     |      | 30   |
| 100574          | Clipper Next Generation Validators Site Preparations     | 0   |     |      |      | 0   |      |     |      | 35   |
| Miscellaneou    | is   |     |     |      |      |     |      |     |      |      |
| 100233          | MP-36 Locomotive Mid-Life Overhaul Project               |     |     |      |      |     |      |     |      | 40   |
| 100430          | CCF BCCF Virtualization                                  |     |     |      |      |     |      | 0   |      | 44   |
| 100445          | Automatic Passenger Counters at San Francisco 4th & King |     |     |      |      |     |      |     |      | 48   |
|                 | Station  |     | 212 | l    |      | l   |      | I   |      | l    |

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Full report on Caltrain's web site



### **Capital Program**

- Capital Program Quarterly Report: FY23 Q1
- Negotiated Procurements: Risk Management and Incentive Programs



### **Procurement Types**

#### Public Works

- Erection, construction, alteration, repair, or improvement of any structure, building, road, or other improvement of any kind
- Invitation for Bids (IFB) (Over \$10,000)
  - Lowest responsive and responsible bidder
- Alternative contract delivery using Request for Proposal (RFP)
  - Negotiated procurements using best value with negotiated price and terms
  - Construction Manager/General Contractor (Public Utilities Code Section 103394-103399.1 requirements)
  - O Design Build (Public Contract Code Section 22160 22169 requirements)



## **Procurement Types Incentive and Risk Programs**

- Invitation for Bids (IFB) (Over \$10,000)
  - Only allowed if included with bid documents
    - Example: established dollar value for completion a set number of days early
- Alternative contract delivery using Request for Proposal (RFP)
  - Best management practice state intent to include in contract with RFP
    - Negotiated during BAFO (Best and Final Offer) phase for Design Build
    - Negotiated during TCP (Total Contract Price) phases for Construction Manager General Contractor
  - Must not be a cardinal change
  - In the public's interest



#### Risk

Broadly includes any item that has the potential to threaten the project's <u>baseline</u> scope, schedule, or budget

#### Contingency

 Used to monetize the level of risk inherent for a project's baseline scope, schedule and budget



#### **Risk Management programs**

- Identify the what
- Assess likelihood and impact
- Respond the action plan
  - Avoid
  - o Reduce
  - Transfer
  - Retain
- Manage the time-based action plan

**Appropriate** management and allocation of risks a critical success factor for project delivery



- Alternative contract delivery models provide opportunity for <u>early contractor involvement</u>
- This early involvement provides the opportunity to **enhance** the **effectiveness** of risk management
- Owner Design Contractor collaboratively develop a comprehensive list of risks risk register
- During design phase, the team seeks to avoid and reduce risks



#### For construction phase risks that are retained or transferred

- <u>Develop</u> the **monetized value** of the risk
- <u>Determine</u> who is **best suited** to manage the risk
  - Owner held risk
  - Contractor held risk
  - Shared risk
- Establish a Risk Table
  - Prior to construction defining the value and responsibility
  - Define rules for over and under runs



#### Risk Responses

- Transfer
  - By contract or agreement transfer to another party
  - Guiding principles
    - Transfer to those best capable of managing
    - Equitable allocation of risk
    - Transferring risk is not free
  - Example
    - TriMet's Orange Line East Segment property acquisition
    - Property acquisition delays may impact efficient construction
    - Contractor paid \$1.2m to accept risk



#### Risk Responses

- Transfer (shared)
  - By contract or agreement transfer <u>portion</u> to another party
  - Example
    - TriMet's Tilikum Crossing
    - Cable stayed structure across Willamette River
    - On critical path of \$1.49 billion project
    - Risk pool for unforeseen subsurface conditions for 10' diameter deep shafts
      - \$4 m risk pool: any underrun split 75% owner 25% contractor
      - 5 \$4 m \$10m: cost split 75% owner 25% contractor
      - Over \$10m: costs 100% owner



#### Risk Responses

- Retain
  - Retain and protect against it
    - Risks are unavoidable like contaminated media
    - Action
      - Establish contingencies that can absorb realized risks



#### **Both negotiated procurement methods** provide the ability to allocate risk

- CM/GC
  - Risk Tables during TCP negotiations
- Design Build
  - Seek input on risks from construction community prior to RFP
    - Request for Industry Comment identify top 10 risks
  - Discussion on risks during confidential one-on-ones with short listed teams
  - Defined risk table as part of BAFO for all short-listed teams



Structured program with the intent to drive performance on elements critical to Caltrain's business needs

- Elements vary and are selected based on **unique character** of each project
- Criteria evaluation may be quantitative and/or qualitative
- Portion of Contractor's fee put "at-risk" (67%-75% Contractor funded, example \$2m)
- Incentive pool increased with **Caltrain funds** (25%-33% Caltrain funded, example \$1m)
- "B" level performance Contract earns their "at-risk" fee back
- Performance above a "B" level Contractor earns supplemental Caltrain funds



#### Example Criteria

- Safety
  - o Recordable Incident Rate, Loss Time
  - Near Miss Reporting, Safety walks, Site cleanliness
- Schedule Control, Impact to Traveling Public
  - Impact to Caltrain operation, roadways, adjacent transit service
  - Interim milestones
  - Final completion



#### Example Criteria

- Cost Control
  - Duration of processing change order
  - Percent of increase in Contract value for non Caltrain added items
- Quality
  - Non-Conforming Reports duration to resolve items
- Diversity Contracting
  - Exceeded RFP commitment, mentoring new skills



#### Two Teams participate in Quarterly Review Sessions to evaluate performance

- Project Team:
  - Contractor Construction Manager
  - Caltrain Construction Manager
- Incentive Program Leadership Team
  - Contractor Senior Executive
  - Caltrain Senior Executive
  - External Senior Level Stakeholder Representative (example: Chair of Business Association) Calitral



#### Quarterly Review Sessions to evaluate performance

- Project Team
  - Contractor and Caltrain Construction Manager each prepare and present a written report detailing performance against criteria
- Incentive Program Leadership Team
  - Deliberate and reach consensus on score for each review criteria
  - Earned funds are distributed next pay request
  - Unearned funds are deducted from Contract at project close out
  - Discussion at executive level linked to fee drives field performance



### Re-tooled Capital Program

#### Changes

- Evaluate construction delivery options to select the most appropriate method to minimize construction impacts, enhance cost and schedule certainty, and effectively manage risk – in place
- Evaluate construction contracts for appropriate use of risk and/or incentive programs to support effective delivery add to low bid contracts



### Questions



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