



JPB Board of Directors
Meeting of February 1, 2024

Supplemental Reading File

<u>#</u>	<u>Subject</u>
1	Receive Update on Caltrain Safety Performance
2	Receive Update on Corridor Crossing Strategy
3	Receive Update on Crossing Optimization Project
4	Receive Update on Customer Experience and Retention Strategy
5	Receive Update on Rail Activation Management Program

**Peninsula Corridor Joint Powers Board
Staff Report**

To: Board of Directors
Through: Michelle Bouchard, Executive Director
From: Mike Meader, Caltrain Safety
Subject: **Receive Update on Caltrain Safety Performance**

Finance Committee
Recommendation

Technology, Operations, Planning,
and Safety Committee
Recommendation

Advocacy and Major Projects
Committee Recommendation

Purpose and Recommended Action

This item is for informational purposes only.

Discussion

This report and accompanying presentation are submitted to keep the Board advised as to the Safety Performance of Caltrain based upon measurement of Key Performance Indicators (KPIs or metrics). Caltrain is committed to providing a safe work environment for our employees and contractors, and safe and efficient train service for our customers. Caltrain is also committed to continuous improvement through the capture and analysis of KPIs. Regularly reviewing these metrics will enable staff to identify areas needing improvement and focus our activities to achieve improved safety performance.

Caltrain will provide quarterly safety reports to the board and will be sharing this same information with employees as we work to build a stronger Safety Culture consistent with our #1 Core Value – **Safety** – First and Always as well as our System Safety Program Plan (SSPP). These reports will include both lagging safety performance indicators reported to the Federal Railroad Administration (FRA) and leading safety performance indicators. While lagging indicators can alert you to a failure in your safety program or to the existence of a hazard, leading indicators allow an organization to take preventive action to address that failure or hazard before it turns into an incident.

Budget Impact

There is no impact on the budget associated with receiving this informational update. Caltrain's ability to further enhance its safety program is contingent on the availability of funding dedicated to that purpose.

Prepared By: Mike Meader

Caltrain Safety Chief

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**Peninsula Corridor Joint Powers Board
Staff Report**

To: Board of Directors
Through: Michelle Bouchard, Executive Director
From: Dahlia Chazan, Deputy Chief, Caltrain Planning
Subject: **Receive Update on Corridor Crossing Strategy**



Finance Committee
Recommendation



Technology, Operations, Planning,
and Safety Committee
Recommendation



Advocacy and Major Projects
Committee Recommendation

Purpose and Recommended Action

This report includes an informational update that requires no action by the Board of Directors (“Board”) of the Peninsula Corridor Joint Powers Board (“JPB” or “Caltrain”). At the May 24, 2023 Caltrain AMP Committee meeting, staff presented an overview of the Caltrain Corridor Crossings Strategy (CCS) program including the purpose, Project Delivery Opportunities, Program Strategy Development, engagement timeline, and an overview of the 4-Track Analysis – the latter to determine the necessary passing track infrastructure to meet the JPB adopted 2040 Long Range Service Vision (Adopted Service Vision). The purpose of this informational report and accompanying presentation is to review the findings on the 4-Track analysis, as part of the Caltrain Corridor Crossing Strategy.

Discussion

As an outcome of the Caltrain Business Plan, the Caltrain Corridor Crossings Strategy (CCS) is an engagement-driven effort to develop a systematic corridor-wide approach to at-grade rail crossings. As Caltrain and other operators plan to increase rail services, Caltrain understands that a coordinated approach to grade separations or closures is needed to unlock regional mobility and safety benefits. The CCS aims to align community partners’ ambitions into balance with an implementable program, addressing funding, organization, and program delivery.

Project staff will provide an update on the findings of the 4-Track Analysis, expanding on the planning efforts completed as part of the 2019 Caltrain Business Plan. Currently, Caltrain operates on a 2-track railroad with two 4-track segments at Bayshore and Lawrence Stations constructed prior to initiation of the Baby Bullet service. The 4-Track Analysis is a planning level effort to refine the identified 4-track segments within the Caltrain Business plan to support the Adopted Service Vision. The Analysis evaluated trade-offs between service, right-of-way (ROW), and engineering design parameters to consider where jurisdictions will need to “not preclude” the implementation of 4-track segments.

The 4-Track Analysis is a focused technical and planning process (as corridor cities advance their grade separation projects) to 1) continue Caltrain’s commitment to a future blended service

developed in partnership with California High-Speed Rail Authority (CHSRA), 2) continue the planning efforts called for in the 2040 Long Range Service Vision, and 3) help clarify the limits of the 4-track segments to be constructed later, when the blended service with the CHSRA is implemented. The 4-Track Analysis validates the location and mile post limits of the 4-track segments that were conceptually identified in the Moderate Growth Scenario adopted by JPB in 2019 as the 2040 Long Range Service Vision (“Long Range Service Vision” or “Adopted Service Vision”).

The identified segments for the Adopted Service Vision include 4-track segments around the Millbrae, Hayward Park/Hillsdale, and Redwood City stations, in addition to options in north Santa Clara County. Previous work identified these 4-track segments, and the 4-Track Analysis confirmed their need. Prior to the 4-Track Analysis, the 4-track segment identified at Castro Street was excluded from the analysis due to the additional operational benefits of having a 4-track segment further north in Santa Clara County. The identified 3-track segment at Blossom Hill was also excluded due to the segment’s location on the UPRR-owned corridor and for serving as a train turnaround point instead of overtakes, among other reasons. As a result of the 4-Track Analysis, Caltrain staff identified California Avenue as the north Santa Clara County segment to support the Adopted Service Vision and to reflect Caltrain’s commitment per Section 5.3.1 of the Project Management and Funding Agreement (PMFA) dated December 16, 2018 to not make the implementation of High-Speed Rail (HSR) “materially more complicated” as part of the agreement with HSR that helped electrify the corridor.

Background

The CCS has been discussed as an agency priority since 2019, when it was first identified within the Caltrain Business Plan Process. Through a series of outreach and blended service planning activities between Caltrain, California High-Speed Rail Authority (CHSRA) and communities along the corridor, the Caltrain Business Plan conceptually identified 4-track segments corresponding to the Moderate Growth and High Growth scenarios. The Moderate Growth scenario (8 Caltrain trains and 4 HSR trains per hour per direction) was adopted by JPB in 2019 as the 2040 Long Range Service Vision (“Long Range Service Vision” or “Adopted Service Vision”) and represents a commitment to blended service for Caltrain and CHSRA.

Next Steps

The Adopted Service Vision 4-track segments will be communicated to community partners and partner agencies in the upcoming months and be included in the Draft Crossings Delivery Guide. A separate memo describing the purpose, process, and findings of the 4-Track Analysis will be available to the public early this year.

The CCS will continue collaboration with community partners and update the website regularly with new materials as the program progresses.

Budget Impact

This informational item has no impact on the budget.

Prepared By: Dahlia Chazan Deputy Chief, Caltrain Planning 650-730-6115

**Peninsula Corridor Joint Powers Board
Staff Report**

To: Board of Directors
Through: Michelle Bouchard, Acting Executive Director
From: Sherry Bullock, CalMod Program Director
Subject: **Receive Update on Crossing Optimization Project**



Finance Committee
Recommendation



Technology, Operations, Planning,
and Safety Committee
Recommendation



Advocacy and Major Projects
Committee Recommendation

Purpose and Recommended Action

This report includes an informational update that requires no action by the Board of Directors (“Board”) of the Peninsula Corridor Joint Powers Board (“JPB” or “Caltrain”).

Staff will provide monthly updates covering Crossing Optimization-related activities during the previous month and a preview of activities anticipated to take place during the current month.

Discussion

The Caltrain Crossing Optimization Project provides an advanced technology solution to improve grade crossing warning time performance. This will be accomplished by reducing crossing warning system activations and the amount of gate downtime at grade crossings resulting from Through Move and scheduled Station Stop trains. This solution is integrated with Caltrain Positive Train Control (PTC) system, which has been operational since September 2019. The project is being implemented using a design-build approach and includes the following deliverables:

- Crossing Optimization Concept of Operations
- Rail capacity, schedule management, and communication studies
- Optimization crossing functional design.
- Proof of concept demonstration
- Testing and Commissioning of Optimized Crossing system

MONTHLY UPDATE

1. **Project Schedule - Major Milestones for Crossing Optimization Implementation as of December 31, 2023:**

<u>Key Project Activity</u>	<u>No of Crossing</u>	<u>Planned Completion</u>	<u>Progress as of 12/31/2023</u>	<u>Progress On Track?</u>	<u>Note</u>
220MHZ Study and Approval	n/a	Completed	Completed	Completed	
Crossing Group #1 Pilot Cutover Auzerais, Virginia Street, Center Street, Santa Paula, Mission, 16h street	6	4/27/2022	Completed	Completed	
Crossing Group #2 Cutover Broadway, Morrell Pd and Oak Grove	3	03/09/2023	Completed	Completed	
Crossing Group #3 Cutover Howard Ave, Peninsula Ave, North Lane and Baywater Ave	4	2024Q2	In Planning	On Track	Resequencing and Rescheduling in process due to track access.
Crossing Group #4 Cutover Bellevue, First Ave, Villa Terrace Ave, Second Ave	4	2024Q2	In Planning	On Track	Resequencing and Rescheduling in process due to track access.
Crossing Group #5 Cutover Third Ave, Fourth Ave, Fifth Ave, Ninth Ave	4	2024Q2	In Planning	On Track	Resequencing and Rescheduling in process due to track access.
Crossing Group #6 Cutover Alma St., Churchill Ave	2	2024Q2	In Planning	On Track	Resequencing and Rescheduling in process due to track access.
Crossing Group #7 Cutover Whipple, Brewster, Broadway, Maple St.	4	2024Q2	In Planning	On Track	Resequencing and Rescheduling in process due to track access.
Crossing Group #8 Cutover Rengstorff, Castro St., Mary Ave, Sunnyvale Ave	4	2024Q2	In Planning	On Track	Two out of four planned for the cutover completed on December 16, 2024.
Crossing Group #9 Cutover Encinal, Glenwood, Oak Grove, Ravenwood Ave.	4	2024Q2	In Planning	On Track	Resequencing and Rescheduling in process due to track access.
Crossing Group #10 Cutover South Linden, Scott Street	2	2024Q2	In Planning	On Track	Resequencing and Rescheduling in process due to track access.
Crossing Group #11 Cutover East Meadow Drive, Charleston Rd	2	12-16-2023	Completed	Completed	
Crossing Group #12 Cutover Main St., Chestnut St. Fair Oaks Lane, Watkins Ave.	4	2024Q2	In Planning	On Track	Resequencing and Rescheduling in process due to track access.
Crossing Group #13 Cutover Mission Bay and 16 th Street	2	2024Q2	In Planning	On Track	Resequencing and Rescheduling in process due to track access.
Crossing Optimization Final Acceptance		June 2024		On Track	

2. Cost – Spend vs Budget with Actuals and Accruals through December 31, 2023

Crossing Optimization Budget and Cost (As of Dec 31, 2023)

	(A)	(B)	(C)	(D)		(E)	(F) = (C - E)	(G) = (D / E)
Project Cost Analysis	Original Budget (US\$MM)	Approved Changes (Contractor) (US\$MM)	Project Current Budget (US\$MM)	Expended and Accruals To-Date (US\$MM)	To-Go (US\$MM)	Estimated at Completion (EAC) (US\$MM)	Variance at Completion (US\$MM)	% Expended of EAC
Crossing Contractor - WABTEC	\$ 7.88		\$ 7.88	\$ 6.02	\$ 1.86	\$ 7.88	\$ (0.00)	76.39%
Program Mngt. & Admin Costs	\$ 2.73		\$ 2.73	\$ 1.36	\$ 1.38	\$ 2.62	\$ 0.11	51.73%
Project Contingency	\$ 0.92		\$ 0.92		\$ 0.92	\$ 0.83	\$ 0.09	0.00%
ICAP	\$ 0.45		\$ 0.45	\$ 0.26	\$ 0.19	\$ 0.41	\$ 0.04	62.65%
Potential Changes			\$ -		\$ -	\$ -	\$ -	
Total Crossing Optimization Project	\$ 11.99	\$ -	\$ 11.99	\$ 7.63	\$ 4.35	\$ 11.74	\$ 0.24	65.00%

Note:

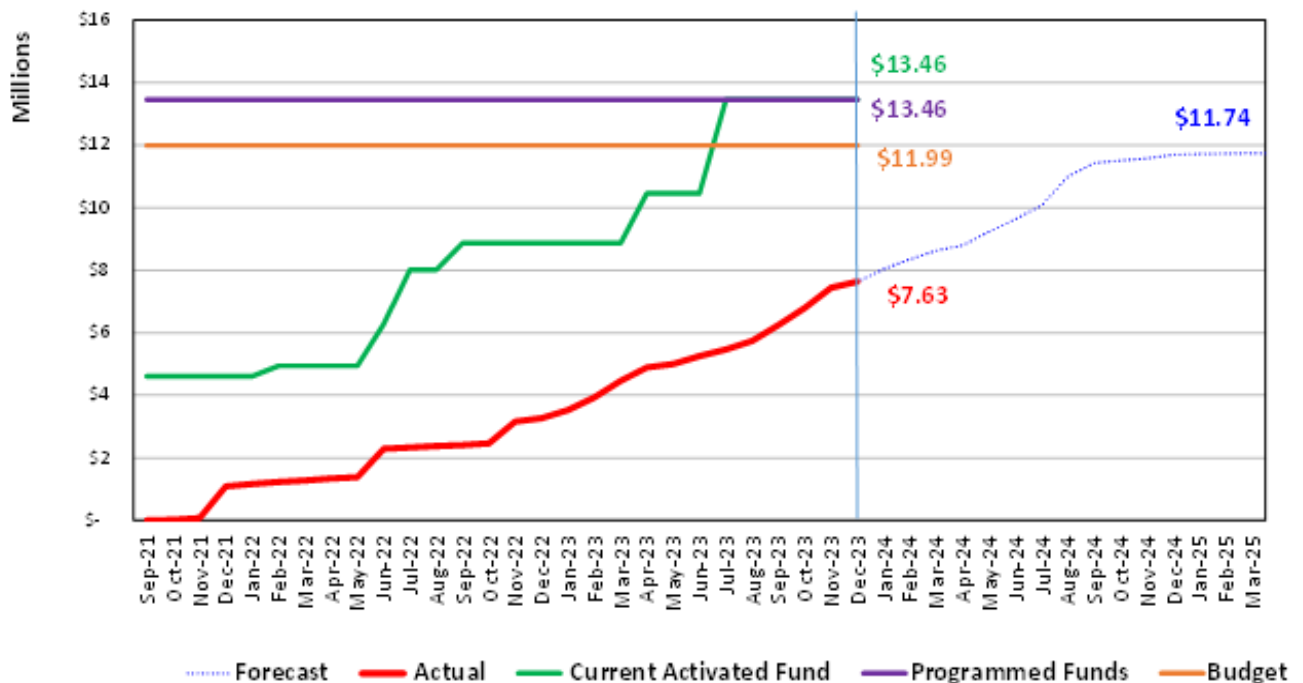
1). Expended and Accruals To-Date is through December 31, 2023;

2). Program Mngt. & Admin Costs includes JPB project oversight costs, TASI support and Other Direct Costs for Crossing project delivery;

3. Cost Curve:

DECEMBER 2023

Crossing Optimization | Expenditure - Planned vs. Actual



4. Major Activities for December 2023:

- Completion of Wayside Software, PTC Subdiv File update, and lab testing.
- Ongoing development of Slot Plan solution and update.
- Ongoing development of Schedule Management (nearside station stop) system.
- Wayside Software, PTC Subdiv File update and lab testing for group #8 & #11.
- Continued CPUC GO-88B submittal process & closeout for completed crossings.
- Completed Cutover for Group #11

5. Upcoming Key Activities in January 2024:

- Performance monitoring for in-service crossings.
- Confirm updated resequencing.
- Confirm track access for re-sequenced crossing cutovers for the remaining groups.
- Review remaining group cutover schedule and coordinate with Rail Operations and PCEP.
- Complete remaining GO-88B applications & start closeout for completed locations.

6. Change Management:

- In June 2022, the JPB approved change order for not to exceed \$4,903,222 to Wabtec contract No. 18-J-T-49 for completion of the crossing optimization work. The Project executed contract Amendment 4 in September 2022.
- In November 2022, the parties executed a \$0 change order (Amendment 5) to modify the payment schedule.
- There have been no further change orders since November 2022.

7. Risk Management:

The following are top five risks for implementation of crossing optimization project:

Risk Descriptions	Mitigation Actions
1. Delays and last-minute changes in PCEP subdiv data required to be included in a crossing optimization subdiv may impact the schedule and cutover dates – Closed.	PCEP Cutover was completed in August 2023 for all signal and crossings
2. Late Receive PCEP Cutover plans and software may impact crossing optimization cutover schedule - Closed	PCEP Cutover was completed in August 2023 for all signal and crossings
3. There may not be enough track availability to perform the crossing optimization cutovers in sequential days due to PCEP OCS Construction delays in Segments 1 and 2, area closures bus bridge weekend and other Caltrain projects and maintenance occupying the tracks	<ul style="list-style-type: none">• Map crossing optimization cutover dates with PCEP path to completion schedule and work with Rail Ops to avoid conflicts and find suitable work windows. Crossing Optimization cutover dates were pushed to later dates since May of 2023 due to PCEP construction needs.• Attend weekly Operations planning meeting including track access planning – On going.• Propose 2024 cutover schedule for the remaining groups and coordinate with all parties to ensure timely execution of the field work. – January 2024

8. FRA Coordination Status:

- On-going bi-weekly coordination calls with FRA Test Monitor
- Received Test Request Approved
- Test Plan Approved
- Continue development of combined Safety Case update (Crossing Optimization & PCEP 2SC)
- Continued coordination on site-specific test plan and results submission

Budget Impact

There is no budget impact.

Prepared By: Sherry Bullock

CalMod Program Director

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**Peninsula Corridor Joint Powers Board
Staff Report**

To: Board of Directors
Through: Michelle Bouchard, Executive Director
From: Taylor Huckaby, Deputy Chief Communications Officer
Subject: **Receive Update on Customer Experience and Retention Strategy**



Finance Committee
Recommendation



Technology, Operations, Planning,
and Safety Committee
Recommendation



Advocacy and Major Projects
Committee Recommendation

Purpose and Recommended Action

This item is for informational purposes only. Caltrain, through its Customer Experience Team, has been focused on developing strategies to improve the entire customer experience, increase customer satisfaction, and retain existing riders. This report provides an overview of Caltrain's planned Customer Experience Strategy for the next six to twelve months.

Discussion

This report and accompanying presentation are provided to inform the Board of Caltrain's ongoing customer experience and retention efforts including implementation of a preliminary action plan building on prior initiatives. The execution of these strategies will advance coordination with community partners, improve the value proposition for current customers using Caltrain's service, and offer exciting new ways to engage with the agency and fellow riders.

Action Plan Development

Caltrain's ridership experience and retention action plan has been informed by the following activities:

1. Market research via surveys and focus groups to identify perceptions surrounding public transit including barriers to riding and customer experience improvement priorities;
2. Data analysis related to Caltrain service levels, customer communications, and special events to identify the most significant drivers of ridership historically; and
3. Recommendations provided by the Board, Citizens Advisory Committee, and other key stakeholders.

Customer Experience and Retention Strategy

As further outlined in the accompanying presentation, Caltrain is recommending a combination of near- and mid-term customer strategies to help improve customer sentiment, satisfaction, experience, and retention. These strategies can be grouped into the following categories:

- **Awareness and Discovery:** Improve and expand upon avenues to drive awareness of Caltrain’s services and initiatives. Improve how riders discover and plan journeys and receive support.
- **Rider Experience:** Ridership experience improvements through initiatives that situate Caltrain competitively, engage the community, partner with regional transit agencies, and generate excitement about improved service and amenities.
- **Retention and Advocacy:** Ridership retention through the use of improved technology, enhanced experiences, and events in innovative ways to engage with communities more meaningfully.

Staff continue to gather data on rider preferences and priorities from a variety of sources. This information will be used to adjust the action plan over time. Staff also plan to closely evaluate the impacts of the selected strategies in order to refine them as needed and more effectively deploy limited resources.

Additional Background

Caltrain, like other transit services in the region, experienced a large decrease in ridership during the pandemic. Prior to the pandemic, in FY 2019, Caltrain served between 1.4 and 1.6 million riders in an average month. In FY 2023, Caltrain is averaging approximately 421,000 rides per month, which is approximately 30% of pre-pandemic ridership levels.

Caltrain launched a Customer Communications Task Force in 2023 to focus on near-and mid-term customer opportunities to make Caltrain easy and delightful to use - such as improved station digital signage, SMS & Text service alerts, and enhanced partnerships with communities and transit properties throughout the corridor.

Caltrain is building improved service alerts capability aimed at improving the speed and ease of real-time service alert communication to riders. Additionally, Caltrain expanded its participation in Ambassador outreach programs to drive awareness about electrification as well as support riders during critical bus bridge service changes.

Budget Impact

There is no budget impact associated with receiving this informational update. Caltrain will use its existing budget to fund upcoming service alerts improvements and community engagement activities along the corridor. Anticipated impacts from these initiatives are centered on rider satisfaction, retention, and electrification awareness. We will explore further ways to measure retention and satisfaction in the future.

Prepared By: Taylor Huckaby Deputy Chief Communications Officer 650-508-6256

**Peninsula Corridor Joint Powers Board
Staff Report**

To: Board of Directors
Through: Michelle Bouchard, Executive Director
From: John Hogan, Chief Operating Officer
Subject: **Receive Update on Rail Activation Management Program**

Finance Committee Recommendation Technology, Operations, Planning, and Safety Committee Recommendation Advocacy and Major Projects Committee Recommendation

Purpose and Recommended Action

This report is an informational item that provides an update on Caltrain’s Rail Activation Management Program (RAMP), which is an ongoing effort to manage all revenue start-up activities for the transition from electrification construction to electrified operations. It requires no action by the Board of Directors. The purpose of this month’s report is to review the RAMP scorecard that will be included in the accompanying presentation. The scorecard tracks progress of critical activities essential for start of electric train service in Fall 2024.

Discussion

1. Rail Activation Background and Scope:

The Peninsula Corridor Electrification Project (PCEP) will upgrade 51 miles of diesel service to electrified service from San Francisco to San Jose (Tamien Station). The PCEP scope of work includes design and construction of an overhead contact system, traction power facilities, modification of the existing signaling and grade crossing protection system to make it compatible with the electrified railroad, improvements at Pacific Gas and Electric (PG&E) substations, and modifications at existing tunnels and Caltrain’s maintenance facility. It also includes the design, manufacturing, assembly, testing, and delivery of the Electric Multiple Units (EMUs).

A Rail Activation Committee (RAC) has been established to manage the successful launch of electrified revenue service following PCEP substantial completion by developing a guiding program for commissioning, systems integration, safety certification, testing, training, and overall resource planning. The RAC meets on a weekly basis, and its purpose is to:

- establish clear goals, roles and responsibilities to ensure readiness for electrified passenger service;
- develop a comprehensive understanding of all necessary start-up activities for revenue service; and

- ensure buy-in from full organization for the transition from construction to operations and maintenance.

The weekly RAC meetings also include a two to four week lookahead of upcoming activities to ensure items remain on track and deadlines do not slip.

Key RAMP focus areas included, but are not limited to:

- Safety and Security
 - System safety certification
 - Vehicle storage and disposition plans
 - Emergency preparedness
 - First responder training
 - Isolation protection services
- Revenue Service Readiness
 - Training, certification, and hiring
 - Operations & Maintenance plans
 - Legacy fleet retirement
 - Service planning
- Community Outreach
 - Public tours
 - Safety campaigns
 - Marketing
- Financial Plan
 - Start-up costs
 - Energy procurement strategy

2. *Rail Activation Roles:*

The RAC is led by a Director of Rail Activation and Transition with dedicated engineering and project management support.

Caltrain's Operations and Maintenance (O&M) department along with the JPB's rail service contractor, TransitAmerica Services, Inc. (TASI), are also heavily involved in the start-up efforts to ensure that the Electrification Program, once in revenue service, meets all Caltrain's benchmarks for safe, reliable, and efficient operations. To that end, Caltrain O&M staff participate in the RAC and work closely with the PCEP project team and contractors on development of the Overhead Contact System (OCS)/Traction Power System (TPS) maintenance program, training, and pre-revenue service planning.

Rail Activation is a collective effort that includes support from nearly every department and shared service function throughout the organization. These include Caltrain Planning, Design and Construction, Safety and Security, Human Resources, Finance, Budgets, Contracts and

Procurement, Communications, Government and External Affairs, Information Technology, People and Culture and Real Estate and Grants.

3. *Next Steps:*

Upcoming RAMP activities include:

- Developing Pre-Revenue Operations & Maintenance plan and various Standard Operating Procedures.
- Determining detailed scheduled and list of activities for End-to-End testing.
- Finalizing initial grading of identified Rail Activation risks and implement mitigation strategies.
- Identifying comprehensive list of “start-up” costs needed to procure additional equipment, materials, and facilities as well as implement necessary modifications and mitigations for a successful transition from construction to operation.

Budget Impact

Funds to support OCS and TPS maintenance and additional personnel hiring are included in JPB’s Fiscal Year 2024 and 2025 adopted operating budgets. However, as with any major construction project, there is the possibility of experiencing unexpected costs and requirements during the commissioning period and transition to operations. The RAC is currently identifying potential start-up costs and funding sources for necessary Rail Activation activities that extend beyond the PCEP scope.

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