



# Memorandum

## AGENDA ITEM 7

**DATE:** August 26, 2021

**TO:** Transportation Authority Board

**FROM:** Eric Cordoba - Deputy Director for Capital Projects  
Anna LaForte - Deputy Director for Policy and Programming

**SUBJECT:** 09/14/21 Board Meeting: Accept Downtown Rail Extension (DTX) Phasing Study Final Report, Support the Phasing Recommendations of the Peninsula Rail Program Executive Steering Committee, and Release \$2,644,557 in Previously Allocated Prop K Sales Tax Funds, with Conditions, for DTX Project Development

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| <p><b>RECOMMENDATION</b>   <input type="checkbox"/> Information   <input checked="" type="checkbox"/> Action</p> <ul style="list-style-type: none"> <li>• Accept the DTX Phasing Study Final Report and support the phasing recommendations of the Peninsula Rail Program Executive Steering Committee (ESC)</li> <li>• Release \$2,644,557 in previously allocated Prop K funds, with conditions, for DTX project development</li> </ul> <p><b>SUMMARY</b></p> <p>In April 2020 through Resolution 20-49, the Transportation Authority Board allocated \$11,906,558 in Prop K funds to the Transbay Joint Powers Authority (TJPA) for DTX project development, with \$8,854,577 placed on reserve to be released upon Board acceptance of the Project Phasing Strategy, among other conditions. On March 23, 2021, through Resolution 21-39, the Board released \$6,210,000 of the reserved funds to initiate certain project development activities not conditioned on the completion of the Phasing Strategy. The remaining \$2,644,557 was kept on reserve, subject to Board release upon Board acceptance of the Phasing Strategy, acceptance of the DTX Interim Budget and Schedule, identification of a permanent DTX Program Director, and progress in meeting funding requirements for the upcoming Federal Transit Administration (FTA) Project Development phase of work. On September 9, 2021, the TJPA Board will consider adopting DTX phasing recommendations prepared by staff from the six DTX partner agencies, including the Transportation Authority. These recommendations reflect the deferral or modification of certain project elements as described below. The other conditions specified for release of the remaining Prop K funds have also been met, including appointment of a permanent project director and</p> | <ul style="list-style-type: none"> <li><input type="checkbox"/> Fund Allocation</li> <li><input type="checkbox"/> Fund Programming</li> <li><input type="checkbox"/> Policy/ Legislation</li> <li><input type="checkbox"/> Plan/ Study</li> <li><input checked="" type="checkbox"/> Capital Project Oversight/ Delivery</li> <li><input type="checkbox"/> Budget/ Finance</li> <li><input type="checkbox"/> Contract/ Agreement</li> <li><input checked="" type="checkbox"/> Other: <u>Release of Reserved Funds</u></li> </ul> |
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| <p>preparation of an Interim Budget and Schedule. TJPA plans to request entry into the FTA project development process in October 2021, in order to keep the project on schedule for a planned August 2023 funding submittal to the FTA New Starts grant program. In September 2021, the San Francisco Board of Supervisors will consider authorizing a bond issuance to fund the required additional \$30 million in work to complete the FTA Project Development phase of work. Transportation Authority and TJPA staff are working with other DTX partner agencies to identify a multi-party funding approach to the subsequent \$20 million FTA Engineering phase of work, which would commence next fiscal year.</p> |  |
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**BACKGROUND**

The DTX is a linchpin transportation project for San Francisco, the Northern California mega-region, and the state. DTX will unlock transit connectivity to the region’s jobs centers in Downtown San Francisco, the Peninsula, and Silicon Valley, and the project is planned for compatibility with future rail expansion across the Bay. The DTX is a longstanding regional priority for transit expansion, reconfirmed through the current Plan Bay Area process.

The DTX consists of the construction of an approximately two-mile rail extension from Caltrain’s current terminus at Fourth and King streets to the new Salesforce Transit Center. The DTX will fully realize investments in the Transit Center, including the underground train station box. The DTX will bring Caltrain from its current north terminal at Fourth and King streets into the heart of downtown San Francisco, and the project will serve as a critical element of the first phase of the California High-Speed Rail Project, linking the Bay Area to the Central Valley and Southern California. The DTX is environmentally cleared at both a state and federal level, and the project received the environmental Record of Decision (ROD) from the FTA in July 2019.

The DTX is led by the TJPA. On April 28, 2020, the Transportation Authority Board approved the Peninsula Rail Program Memorandum of Understanding (MOU) between the major DTX stakeholders: TJPA, Metropolitan Transportation Commission (MTC), Peninsula Corridor Joint Powers Board (Caltrain), California High-Speed Rail Authority (CHSRA), City and County of San Francisco (CCSF), and the Transportation Authority. Under the MOU, these six agencies have agreed to jointly undertake a multi-year effort to develop the DTX to ready-for-procurement status. The MOU codified agreement to pursue most of the recommendations resulting from the 2019 Expert Panel review of current and best practices for governance, oversight, management, funding, and project delivery for the DTX. The MOU also established a new organizational structure to support the efforts of the TJPA in the development of the DTX. Specifically, DTX development efforts are guided by the ESC, composed of senior executives of the MOU agencies, supported by an Integrated Program Management Team (IPMT) of senior management from the agencies.



**Prop K Funds Allocated to TJPA.** On April 28, 2020, the Transportation Authority Board allocated \$11,906,558 in Prop K funds to the TJPA to undertake project development work for DTX, consistent with the work program established in the MOU. The allocation identified a specific scope of work, broken into two Notices-to-Proceed (NTPs). The first NTP (NTP #1), with a budget of \$3,052,001, focused on the preparation of a Phasing Study for DTX, in order to recommend an initial operating phase for the project. The second NTP (NTP #2), with a budget of \$8,854,557, focused on the advancement of preliminary design for DTX. The \$8.85 million in NTP #2 funds were placed on reserve, subject to release by the Transportation Authority Board.

On March 23, 2021, the Transportation Authority Board released a portion of NTP #2 funds and split NTP #2 into two sub-phases, as follows:

- a) *NTP #2A*, released in March 2021 with a budget of \$6,210,000, to fund certain project development activities not conditioned on completion of the DTX Phasing Study, including furthering the design of foundational infrastructure; and
- b) *NTP #2B*, with a budget of \$2,644,557, for project development activity to be initiated following completion of the Phasing Study, with these funds remaining on reserve.

The Transportation Authority Board's March 2021 action specified that future release of NTP #2B funds would remain subject to the originally specified conditions for NTP #2, specifically: Transportation Authority Board acceptance of the Project Phasing Strategy and Interim Budget and Schedule for DTX; and the identification of a new DTX Program Director in accordance with the six-party MOU. In addition, the Board specified that NTP #2B would be contingent upon demonstrated progress in meeting FTA's requirements for securing funding commitments for the FTA-defined Project Development phase of work.

## **DISCUSSION**

**DTX Phasing Study.** Under the Peninsula Rail Program MOU, the six DTX partner agencies agreed to: "Prepare a Phasing Plan conforming with technical studies and policy direction on realistic amounts/timing of funding and stakeholder delivery date expectations with an explicit goal to deliver rail service to the Salesforce Transit Center as soon as possible."

In June 2020, the IPMT initiated a Phasing Study workstream to evaluate concepts for deferring or modifying certain elements of the environmentally cleared DTX in order to reduce the capital cost of an initial operating phase. On August 20, 2021, the ESC adopted the IPMT's recommendations as described in the DTX Phasing Study. The TJPA staff report to the August 2021 ESC meeting regarding the Phasing Study is provided as Attachment 1 to this memorandum. The ESC recommended that the TJPA Board approve the following changes to the scope of DTX:

- *Deferral of the BART/Muni Pedestrian connector (~\$230 million capital savings)* - this Phasing Study recommendation would defer construction of the underground



pedestrian tunnel connecting Salesforce Transit Center and Embarcadero Station. The ESC's recommendations call for developing street-level improvements to facilitate safe and convenient passenger transfers between the Transit Center and Embarcadero Station, with these improvements funded as part of DTX. BART is supportive of deferring construction of the Pedestrian Connector and has transmitted a letter to TJPA to this effect, which is provided as Attachment 2 to this memorandum.

- *Reduction of the extent of the Train Box Extension (~\$130 million capital savings)* - the DTX includes an easterly extension of the Train Box in order to accommodate the longer trains planned for operation by CHSRA. This Phasing Study recommendation would permanently reduce the Train Box Extension so as to reduce construction cost and right-of-way requirements and would be facilitated by a modified operational approach agreed to by CHSRA.
- *Deferral of the Intercity Bus Facility (~\$40 million capital savings)* - Intercity bus operators such as Greyhound currently operate from the upper level of the Transit Center, through agreement with AC Transit. In the future, AC Transit plans to increase Transbay service and eventually fully occupy the bus deck. The DTX includes a street-level Intercity Bus Facility, located above the Train Box Extension to serve these operators. This Phasing Study recommendation would defer construction of the Intercity Bus Facility until such time as ridership demand requires.

Pursual of these three phasing concepts would reduce the DTX capital cost by an estimated \$400 million (escalated to an assumed 2027 mid-point of construction) in total, or approximately 8 percent of overall capital cost. The reduced Train Box Extension would be a permanent change. The Pedestrian Connector and Intercity Bus Facility would remain as unfunded elements of the TJPA Capital Improvement Program, subject to later funding and delivery.

The TJPA Board will consider adopting the ESC's phasing recommendations at its September 9, 2021, meeting.

**Interim Budget/Schedule and Program Director.** The prior release of a portion of NTP #2 funds enabled the DTX to proceed with an accelerated schedule for project development and, ultimately, project delivery. On April 8, 2021, the TJPA Board approved an updated schedule for DTX, with this schedule advancing the planned date for making a funding submission to the FTA New Starts program from August 2024 to August 2023. This accelerated schedule identifies a potential DTX completion date as soon as 2031, subject to continued progression of the project and the availability of capital funding. The DTX schedule will be updated periodically as project development continues.

The previous capital cost estimate for the DTX, prepared in 2016, was \$3.9 billion, assuming project completion in 2028. Over the next approximately 9 months, TJPA will prepare a comprehensive refresh of the capital estimate, reflecting updated preliminary design,



quantitative risk analysis, project delivery strategy, and other factors. This estimate will then be peer-reviewed, as part of the FTA oversight process. TJPA has prepared an interim update to the project's estimated capital cost, to reflect the current DTX schedule and other updated assumptions. This interim estimate of capital cost is approximately \$4.5-5.5 billion. This interim estimate is reported as a range, reflecting current uncertainties, and will be updated comprehensively through upcoming project development activities.

Over the course of late 2020 and early 2021, the TJPA undertook a search for a permanent Program Director for DTX. A qualified candidate was identified through this process, and this individual assumed staff leadership of DTX on July 1, 2021.

**FTA New Starts Process.** A New Starts Capital Investment Grant from FTA is the single largest planned source of capital funding for DTX, with a target grant size of \$1.5-2.5 billion. FTA prescribes a structured process for advancing projects through the New Starts program. This process specifies two successive phases of required project development activity:

- *FTA "Project Development"* - In this phase, project sponsors must complete environmental review and prepare preliminary design, among other requirements. The DTX has already completed certain activities required for the FTA Project Development phase. The estimated cost to complete remaining FTA Project Development activities is an additional \$30 million (incremental to previously allocated Prop K funds, including NTP #2B).
- *FTA "Engineering"* - In this phase, project sponsors prepare a project for procurement and delivery, including completion of project design/specifications and development of bid documents, among other requirements. TJPA estimates a cost of \$20 million to undertake the FTA Engineering phase of work, under the baseline assumption of a design-build procurement for DTX.

The DTX schedule calls for the FTA Project Development phase to be initiated this fall, subject to FTA approval of DTX's entry into the New Starts process. Achieving the planned August 2023 date for seeking New Starts funds is dependent on beginning this work this calendar year. The FTA Engineering phase is scheduled to begin in early 2023. Together, the two phases of FTA work represent a three-year program of approximately \$50 million in project development activity from Fiscal Year 2021/22 through Fiscal Year 2023/24.

**Project Development Funding Approach.** As noted above, in October 2021, TJPA plans to submit to FTA a formal request for DTX's advancement into the FTA Project Development phase. Project expenditures following FTA's approval will be counted as local match against an eventual New Starts grant. Approval of the request to enter FTA Project Development requires that TJPA demonstrate sufficient funding to complete the activities of the FTA Project Development phase.

The in-progress DTX work is 100% Prop K-funded. TJPA originally planned to use a portion of the \$325 million in Regional Measure 3 (RM3) bridge toll funds programmed for DTX to



support project development; however, these funds are currently held up by litigation. At the May 13, 2021, TJPA Board meeting, Transportation Authority staff (serving as the MOU-designated lead for the DTX Funding Plan) presented a series of potential options for funding DTX project development. TJPA Board guidance was for staff to work with all MOU agencies to develop a multi-agency funding approach to the upcoming two phases of work required by FTA.

Staff work regarding funding for project development has focused on the following two-pronged approach:

- Prepare to seek authorization in September 2021 by the San Francisco Board of Supervisors for a bond issuance backed by the Transbay Community Facilities District (CFD) Special Tax. This bond issuance would deliver \$30 million in proceeds to TJPA for the FTA Project Development phase of work and would satisfy FTA's requirement for committed and available funds for this phase.
- Seek funding commitments from MOU partner agencies, specifically to fund the \$20 million FTA Engineering phase of work, beginning next fiscal year, with the goal of securing expressions of commitment in advance of San Francisco approval of funding for the FTA Project Development phase.

We and TJPA staff have engaged in a series of discussions with staff from Caltrain, MTC, and CHSRA regarding the ability of the DTX partners to participate in funding of the three-year program of DTX project development. Initial discussions have focused on a funding range of approximately \$3-5 million per partner. All three partner agencies, as well as the Transportation Authority, are preparing letters from senior management articulating each agency's support and status of funding commitment to project development. In addition to funding from all MOU agencies, opportunities for state and federal grant funding continue to be pursued, including a planned request of approximately \$7 million for project development funds from the federal Consolidated Rail Infrastructure and Safety Improvements (CRISI) grant program.

**Local Funds for FTA Project Development Phase.** In 2015, the San Francisco Board of Supervisors approved the formation of the Transbay CFD, with the underlying Special Tax to apply to a set of opt-in high-rise parcels in the vicinity of the Transit Center. A portion of these revenues (82.6 percent) are dedicated to TJPA to help fund the Transbay program, including DTX.

On July 27, 2021, legislation was introduced at the Board of Supervisors to authorize a bond issuance, backed by the Transbay CFD Special Tax, to fund the FTA Project Development phase of work for DTX. The bond would be sized at \$35 million, to provide the required \$30 million in funding for project development as well as cost of issuance, debt coverage, and contingency. On August 16, 2021, the City's Capital Planning Committee unanimously endorsed the bond issuance for DTX. The Board of Supervisors Budget and Finance



Committee and full Board of Supervisors are scheduled to consider approval of the bond at their September 15, 2021, and September 21, 2021, meetings, respectively.

## **FINANCIAL IMPACT**

The recommended action would not allocate any additional funds; however, it will allow for expenditure of funds allocated in April 2020. Sufficient funds are included in the Fiscal Year 2021/22 budget to accommodate the recommended action.

## **CAC POSITION**

The CAC will consider this item at its September 1, 2021, meeting.

## **SUPPLEMENTAL MATERIALS**

- Attachment 1 - TJPA Memorandum to ESC Regarding DTX Phasing Study
- Attachment 2 - BART Letter to TJPA Regarding Deferral of BART/Muni Pedestrian Connector
- Phasing Study Final Report: [www.tjpa.org/uploads/2021/08/Item5\\_DTX-Phasing-Study.pdf](http://www.tjpa.org/uploads/2021/08/Item5_DTX-Phasing-Study.pdf)

San Francisco Peninsula Rail Program

**Memorandum**

To: Executive Steering Committee  
From: Alfonso Rodriguez, DTX Project Director  
Stephen Polechronis, Program Manager  
Date: August 20, 2021  
Re: Item 5, Consider Advancing the Integrated Program Management Team’s Downtown Rail Extension Phasing Study, including Results and Recommendations, to the TJPA Board of Directors for Approval

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**RECOMMENDATION:**

Advance the Integrated Program Management Team’s (IPMT) Downtown Rail Extension (DTX) Phasing Study, including results and recommendations, to the TJPA Board of Directors for approval including:

- Defer the BART/Muni Pedestrian Connector
- Adopt the Reduced Train Box Extension
- Defer the Intercity Bus Facility (IBF)

Forward the Executive Steering Committee’s recommendations that staff:

- Work with the City and County of San Francisco to identify streetscape and wayfinding improvements and funding along Beale Street to facilitate safe and convenient passenger transfers between the Salesforce Transit Center and the Embarcadero BART/Muni Metro Station
- Monitor the changes in regional and intercity bus ridership and bus bay demand to determine if a recommendation to reverse the deferral of the IBF should be advanced to the TJPA Board of Directors
- Provide progress reports to the TJPA Board of Directors on the above recommendations not less than annually
- Include the BART/Muni Pedestrian Connector and Intercity Bus Facility as unfunded elements of the TJPA Capital Improvement Program (CIP), such CIP subject to the approval of the TJPA Board of Directors.

**BACKGROUND:**

The San Francisco Peninsula Rail Program Memorandum of Understanding (MOU), effective June 5, 2020, described, in part, an organizational structure to support the efforts of the TJPA to develop the DTX project to ready for procurement status.



San Francisco  
County Transportation  
Authority



Among the elements of the MOU was the requirement to:

Prepare a preferred Phasing Plan conforming with technical studies and policy direction on realistic amounts/timing of funding and stakeholder delivery date expectations with an explicit goal to deliver rail service to the Salesforce Transit Center as soon as possible.

To comply with this requirement, the IPMT commenced a Phasing Study workstream in June 2020 with several workshops, meetings, and technical discussions to define the scope of the study. Early in this process, the IPMT concluded that it was important to consider a number of evaluation criteria beyond capital cost savings associated with potential phasing concepts.

After several discussions and iterations, the following criteria and sub criteria were adopted. Each phasing concept was evaluated against the criteria.

### **Cost and Schedule**

- Capital cost expenditure (CAPEX) deviation (escalated to 2027 dollars)
- Right-of-way
- Cost of future implementation
- Baseline Master Schedule

### **Federal Transit Administration (FTA) New Starts Project Justification Evaluation**

- Land use
- Economic development
- Mobility improvements
- Cost-effectiveness
- Environmental benefits
- Congestion relief

### **Regional Context**

- Benefits
- Effect on regional projects
- Effect on regional significance
- Support for Plan Bay Area 2050
- Effect on passengers' cost of using the service

### **Environmental Effects**

- Consistency with Phase 2 environmental documents
- Community impact
- Dependency on non-environmentally cleared projects

### **Operations**

- Changes to operations cost expenditure (OPEX)
- Effect on service flexibility
- Effect on future service growth
- Effect on service during future retrofit

## **Maintenance**

- Changes to maintenance costs
- Effect on Operations and maintenance (O&M) responsibilities
- Effect on response time for repairs
- Effect on resilience

Concurrent with the development of the evaluation criteria, the IPMT conducted a workshop to develop potential phasing concepts. This activity included lengthy discussions and analysis of the project development process to understand the underlying assumptions for the project definition. The IPMT specifically determined, however, that any element of the project could be considered for deferral, consistent with the MOU Phasing Study requirement.

The evaluation was a collaborative undertaking by the IPMT and the TJPA and its consultants. Reviewers included staff from the operators—Caltrain and the California High-Speed Rail Authority (CHSRA)—and subject matter experts in environmental clearance, regional planning, cost engineering, federal New Starts funding, and program delivery. Except for the cost evaluations, all evaluations were qualitative and reflect a consensus opinion on the effects of a phasing concept relative to each evaluation criterion. Results are expressed as either positive, negative, or not significant, as compared with the current project. Estimated cost savings are based on order-of-magnitude construction cost estimates developed from historic cost estimates and other sources.

Capital costs estimates and associated savings were developed from existing historic cost estimates and newly developed cost estimates, depending upon the specific phasing concept. For comparison purposes, capital costs were normalized to a consistent 2027 mid-point of construction date.

The 2027 capital costs were developed by applying escalation to the construction subtotal for fiscal years between 2010 and 2021 based on the Annual Infrastructure Construction Cost Inflation Estimate. Escalation rates for fiscal years between 2006 and 2010 are based on the Department of General Services California Construction Cost Index. The escalation rate of 5 percent annually between 2021 and 2027 is based on the Metropolitan Transportation Commission’s 2015 peer review of the Phase 2–DTX cost estimate. Programwide professional services totaling 22.5 percent and a construction contingency of 10 percent were added to the construction subtotal. A program reserve of 15 percent was added to the phasing concept subtotal.

O&M costs are based on existing DTX O&M cost reports, escalated as appropriate.

## **PHASING CONCEPTS:**

The six phasing concepts and associated IPMT recommendations are presented below.

### **Defer the BART/Muni Pedestrian Connector**

The BART/Muni pedestrian connector is a tunnel linking the mezzanine level of the Embarcadero BART/Muni Metro Station with the lower concourse of the Salesforce Transit Center. The purpose of the connector is to alleviate peak-hour pedestrian traffic congestion on sidewalks between Mission and Market streets caused by passengers transferring between the two stations. The pedestrian connector, currently at the conceptual design level, is independent of other DTX infrastructure and, therefore, could be constructed before, concurrently with, or after the other infrastructure. This phasing concept would defer completing design and construction of the

pedestrian connector but would not change the connector’s environmentally cleared status or its status as a project within the TJPA’s purview.

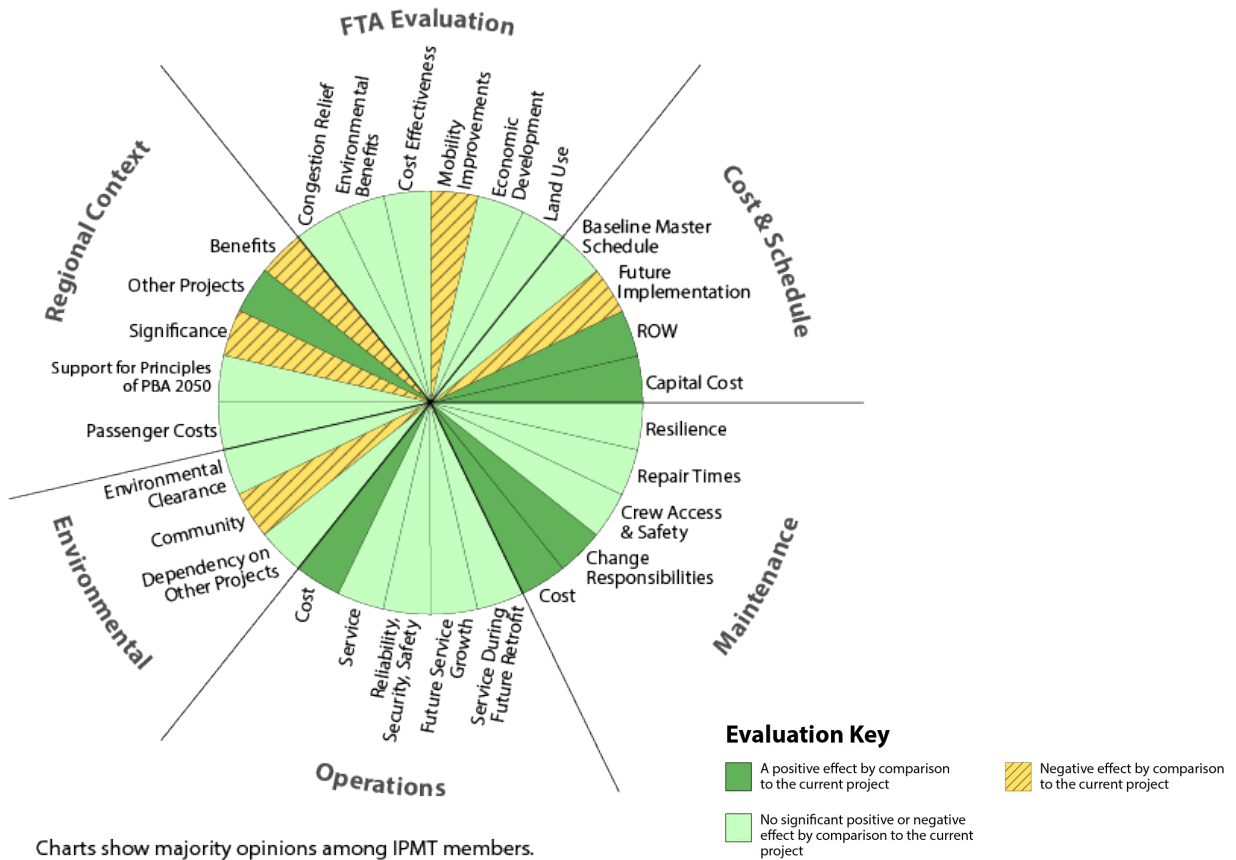
Evaluation Summary

Deferring the connector would save \$221 million (\$2027 year-of-expenditure (YOE)) plus the value of the right-of-way.

Positive effects of deferring the connector are associated with savings to maintenance and operations costs. Deferral also would allow BART time to design planned capacity enhancing station modifications at the Embarcadero Station. Negative effects are associated with reduced mobility, regional connectivity, and pedestrian wayfinding.

Recommendation

Accept deferral, provided that any impact to Caltrain ridership is identified and an environmental review, if required, of street-level mitigations is undertaken.



**Reduce the Train Box Extension**

The existing train box (the shell of the train station at Salesforce Transit Center) extends to the east side of Beale Street. The environmentally cleared train box extension would expand the train box to the east side of Main Street to allow tangent platforms on five of the six tracks to accommodate CHSRA double-consist trainsets. The current design would require purchasing additional right-of-way and demolishing part of the building at 201 Mission Street.

While the train box extension cannot be eliminated altogether, as the space is required for

ventilation and emergency egress, CHSRA will allow several cars of its double-consist trains to extend beyond the platform face if the double-consists do not affect adjacent track movements, which is possible, and would allow for a reduction in the length of the planned extension. This phasing concept would reduce the length of the planned extension permanently.

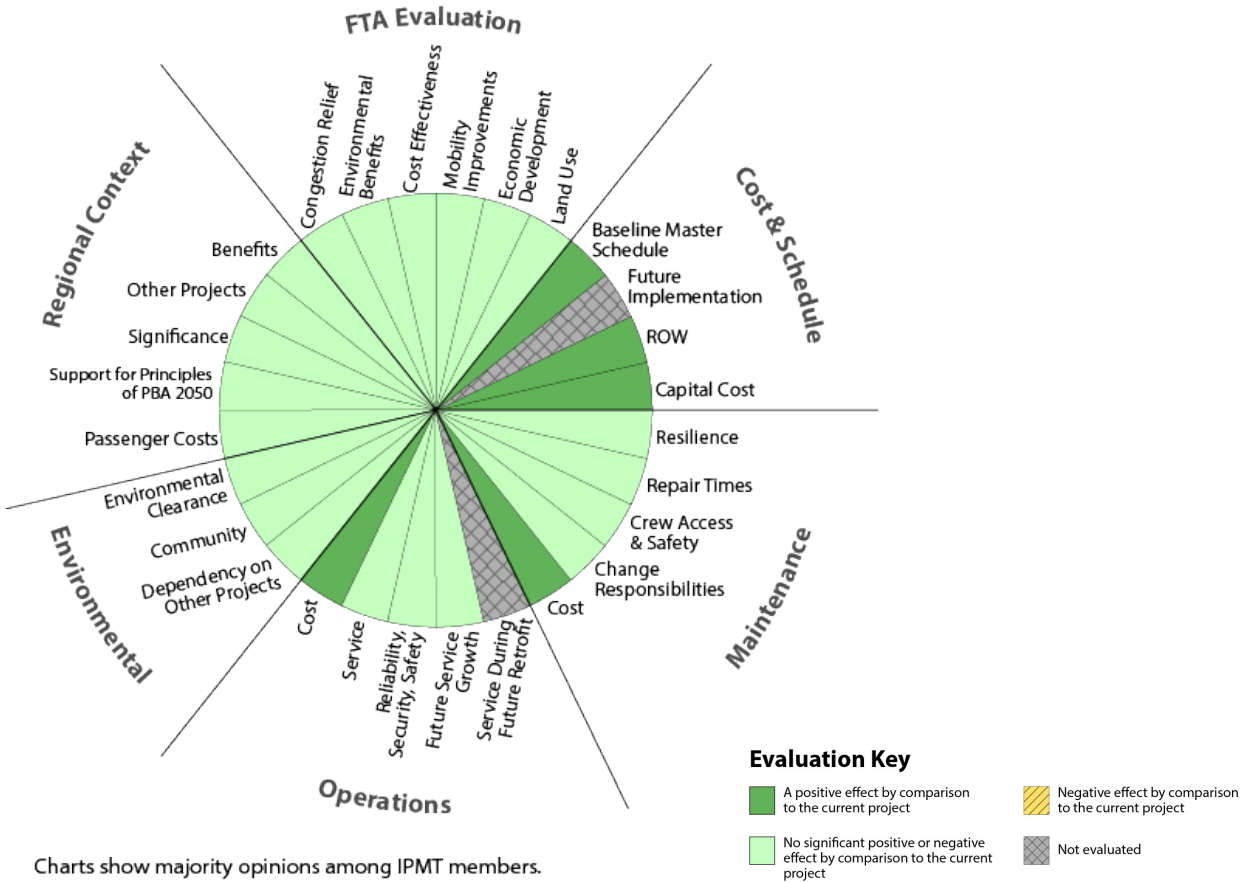
Evaluation Summary

Reducing the train box extension would save \$86.8 million (\$2027 YOE) plus the value of the right-of-way.

Other positive effects are associated with reduced O&M costs. Overall, reducing the extension would not have a significant effect on the DTX.

Recommendation

Accept reduction of the train box extension.



**Defer the Intercity Bus Facility**

The IBF would include ten bus bays dedicated to regional bus services, two floors of office or residential space, and a direct connection to the lower concourse of the Salesforce Transit Center. The facility would be constructed across the street from the east end of the transit center above the train box extension between Beale and Main streets and, therefore, depends on construction of the train box extension, as environmentally cleared, and acquisition of the associated the right-of-way. This phasing concept would defer the construction of the IBF as currently designed.

Regional bus services currently operate from the transit center’s bus deck under lease agreements with AC Transit, the master lease holder. AC Transit anticipates expanding service between 2035 and 2050 and occupying all bus bays on the bus deck. If the transit center bus deck reaches capacity before the IBF is built, then deferral would affect the availability of regional bus services that are interconnected with other services at the transit center. The result could be reduced accessibility and transit ridership.

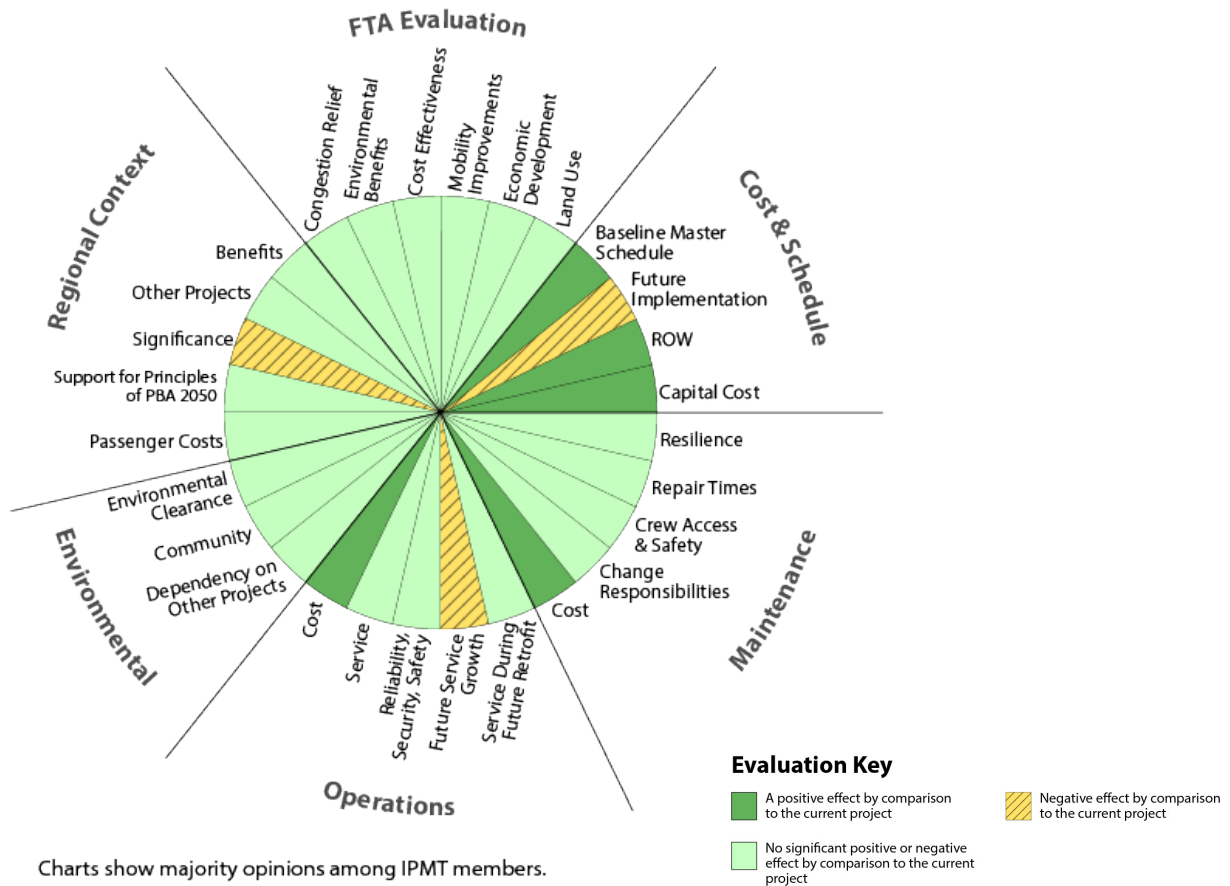
Evaluation Summary

Deferring the IBF would save \$40.3 million (\$2027 YOE).

Other positive effects of deferring the facility are associated with reduced operations and maintenance costs. Negative effects are associated with constraints on service flexibility and fewer regional benefits.

Recommendation

Accept deferral of the environmentally cleared IBF.



**Reduce the Intercity Bus Facility**

This phasing concept would reduce the IBF permanently and defer construction of the reduced IBF until it is operationally required. The reduced IBF concept, with six bus berths and two small buildings for passenger waiting and package storage, represents the maximum footprint for a bus facility on TJPA-owned property. Although reduced, the IBF would provide more bus capacity for regional bus services than is currently provided on the bus deck of the Salesforce Transit Center. Limited vehicle access to the facility and limited back-of-house space could constrain service and

affect operational reliability and potentially security.

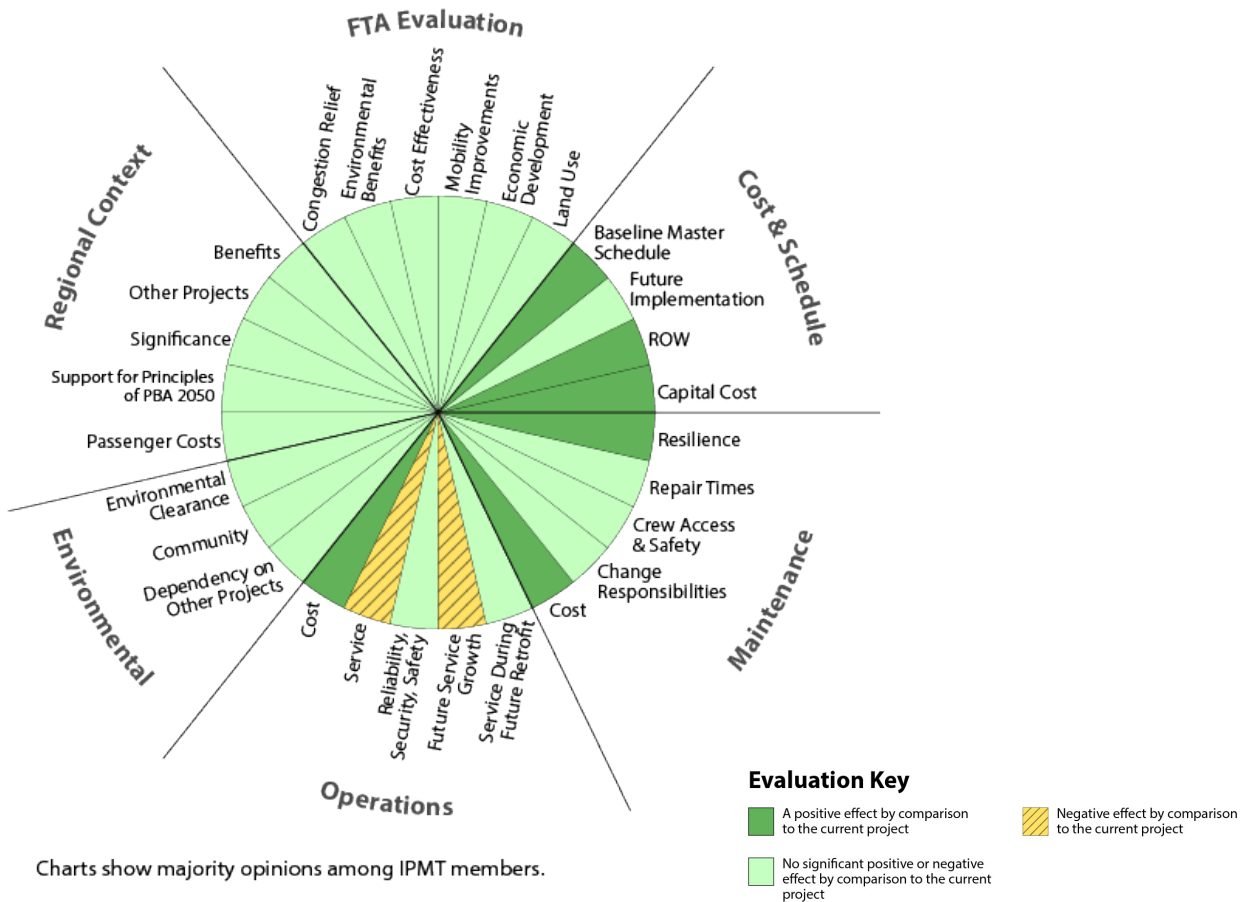
Evaluation Summary

Constructing the reduced IBF would save \$31.4 million (\$2027 YOE).

Other positive effects of reducing the IBF are associated with reduced O&M costs. Resilience of the facility would improve as a result because the reduced footprint would remove the facility from flood and sea-level rise inundation zones. Negative effects are related to constraints on operations and future service growth.

Recommendation

Defer construction of the reduced IBF until it is operationally required, identified through monitoring changes in intercity bus ridership.



## Defer the Fit-out of Fourth and Townsend Street Station

The underground Fourth and Townsend Street Station will serve passengers on trains bound for or returning from the Salesforce Transit Center. The environmentally cleared station includes a concourse mezzanine and a train platform level with three tracks and a center platform. This phasing concept would defer the fit-out of the Fourth and Townsend Street Station. “Fit-out” refers to the center train platform, architectural finishes, and amenities necessary to open the station for passenger revenue operations.

Deferring the fit-out of the station would delay putting the station into revenue service operations as a rail station and make high-speed train service unavailable in the area around Fourth and Townsend. Caltrain would likely need to terminate most of its service at the existing Fourth and King station, providing only limited service to the transit center.

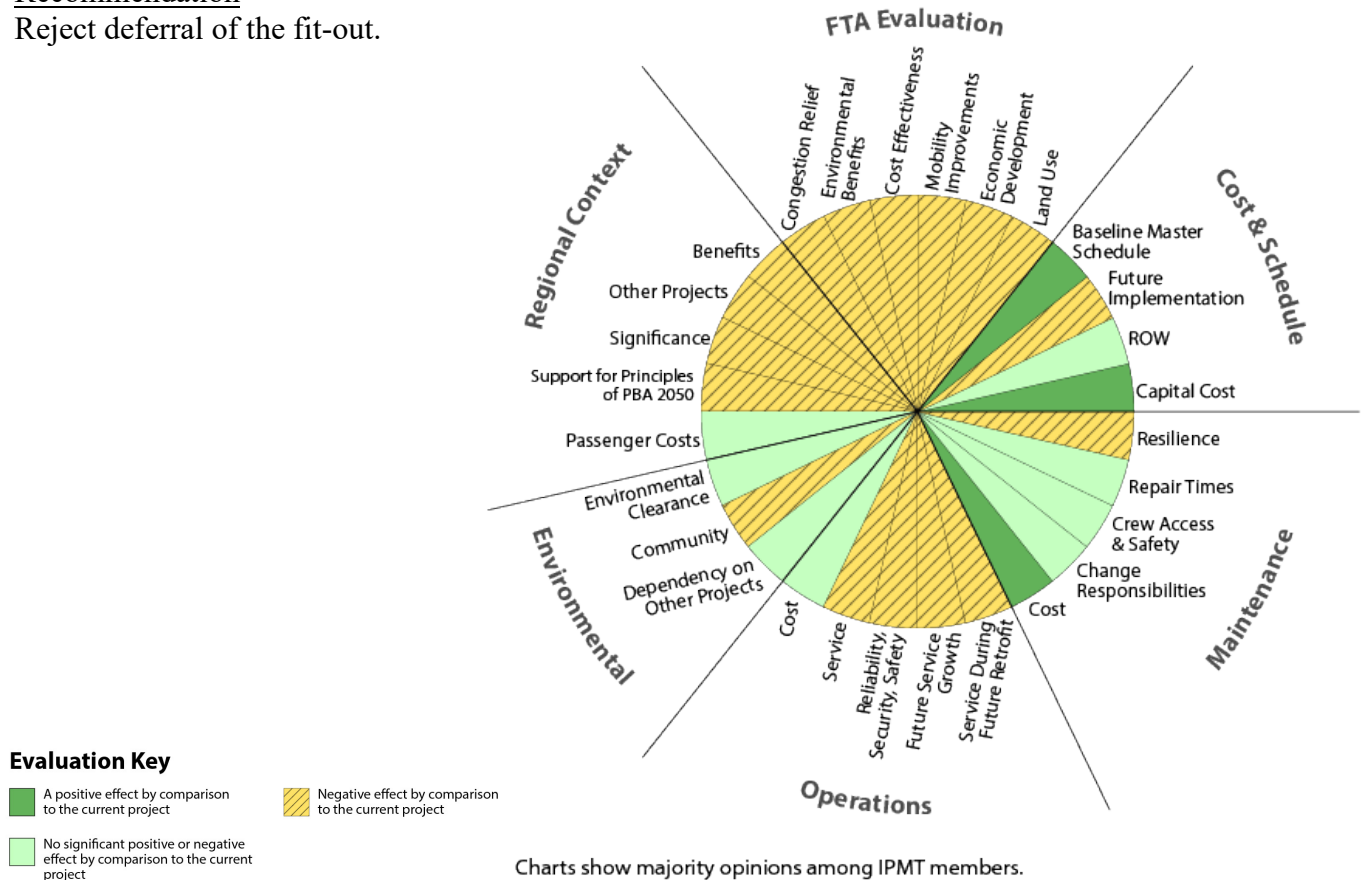
### Evaluation Summary

Deferring fit-out of the station would save \$28.9 million (\$2027 YOE).

Significant constraints on train operations for both operators would diminish nearly all the regional benefits associated with the DTX—interconnectivity with other transit systems and projects, investments in transportation improvements in a priority development area, and overall regional significance. Additionally, deferring operations at the station would have a negative effect on the FTA’s project justification rating. As with other deferral concepts, positive effects are associated with lower capital and maintenance costs and schedule benefits.

### Recommendation

Reject deferral of the fit-out.



## Defer the Infrastructure Fit-out for CHSRA-related Elements

CHSRA anticipates arrival of its high-speed train service to the Salesforce Transit Center in 2031. This phasing concept assesses a scenario in which CHSRA’s operations begin after 2031 and construction or “fit-out” of the infrastructure needed to support revenue service could be deferred until one year prior to the planned start date to allow for testing and commissioning. Deferred infrastructure fit-out includes systems, station platform elements, and some trackwork, including the third track in the DTX tunnel, although a tunnel capable of supporting the third track would still be constructed.

High-speed train service to San Francisco is a contributing factor to the regional significance of the DTX. Thus, deferring revenue operations would also defer the regional and environmental benefits associated with the DTX—providing better transit connections to the City’s financial and employment center, connecting high-speed train service to bus and other rail services at the transit center, and increasing ridership on transit.

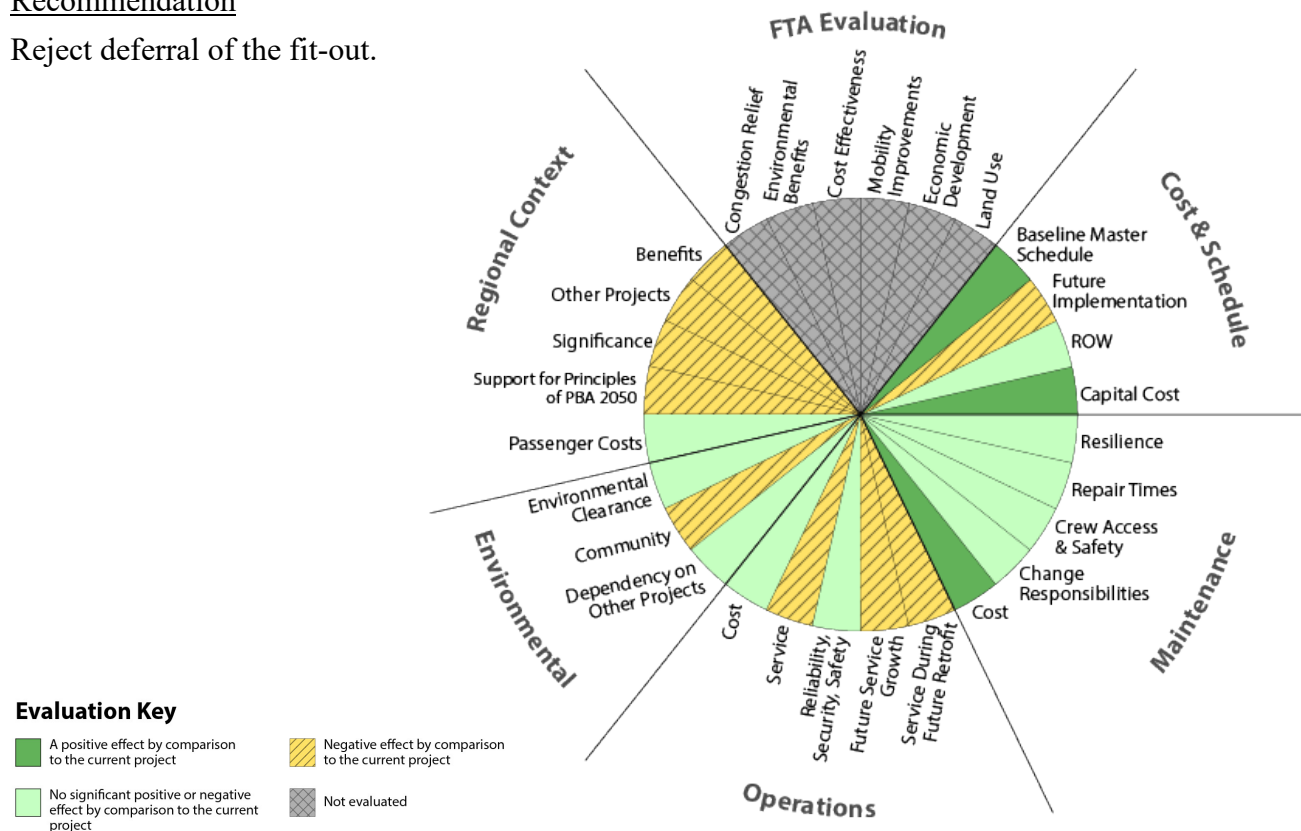
### Evaluation Summary

Deferring the fit-out of CHSRA elements at Salesforce Transit Center would save \$38.0 million (\$2027 YOE).

Significant negative effects are associated with operations, especially service and future service growth both during the interim condition without the high-speed infrastructure and during construction of the infrastructure, which would affect Caltrain operations. The regional significance and benefits associated with the DTX would, likewise, be diminished.

### Recommendation

Reject deferral of the fit-out.



Charts show majority opinions among IPMT members.



**COST SAVINGS:**

**Summary of Cost Savings (escalated to 2027 mid-point of construction)**

| <b>Phasing Concept</b>                | <b>Capital Cost Savings</b> | <b>Operating Cost Savings</b> |
|---------------------------------------|-----------------------------|-------------------------------|
| Defer BART/Muni Pedestrian Connector  | \$228M                      | \$0.5M                        |
| Construct Reduced Train Box Extension | \$133M                      | \$1.7M                        |
| Defer Intercity Bus Facility          | \$40M                       | \$0.6M                        |
| <b>TOTAL</b>                          | <b>\$401M</b>               | <b>\$2.8M</b>                 |

The peer-reviewed total project capital cost will be updated in the summer of 2022, based on the 30 percent design refresh. However, based on the current 2016 cost estimate, escalated to the assumed 2027 mid-point of construction, the total capital cost reduction associated with the recommended deferrals equates to approximately 8 percent.

**COST OF FUTURE IMPLEMENTATION:**

The IPMT estimated the future cost of implementation for the recommended deferral concepts. Future costs were escalated at an assumed annual 5 percent per year and are shown in the Downtown Rail Extension Phasing Study

**Attachment:** Downtown Rail Extension Phasing Study



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Mark Foley  
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Rebecca Saltzman  
3RD DISTRICT

Robert Raburn, Ph.D.  
4TH DISTRICT

John McPartland  
5TH DISTRICT

Elizabeth Ames  
6TH DISTRICT

Lateefah Simon  
7TH DISTRICT

Janice Li  
8TH DISTRICT

Bevan Dufty  
9TH DISTRICT

October 1, 2020

Skip Sowko, Senior Design and Managing Engineer  
Transbay Joint Powers Authority  
425 Mission Street, Suite 250  
San Francisco, CA 94105

Subject: Response on Transbay Program Phase 2/DTX Phasing Options

Dear Skip:

This is in response to your letter of August 28, 2020. In that letter, you noted that TJPA and your partners on the Caltrain Downtown Extension Project (DTX) are considering phasing options for scope elements originally included in the approved environmental documents for the DTX. One of the elements being considered for phasing is the proposed pedestrian tunnel between the Salesforce Transit Center (STC) and BART's Embarcadero Station, which would be constructed under Beale Street. You requested BART's reaction to a proposal to defer the design and construction of this tunnel to a later phase, in order to conform the project to the available funding. BART has no objections to deferring the design and construction of the pedestrian tunnel to a later phase of DTX.

BART supports the DTX project as an important regional rail connection, and as an important precursor project for an eventual regional rail connection across the Bay. As you know, BART is partnering with the Capitol Corridor Joint Powers Authority (CCJPA) on the New Transbay Rail Crossing (NTRC), which is seeking to build a regional rail connection from the East Bay to San Francisco, connecting to the STC. BART understands the need to examine all scope elements with an eye toward phasing elements of the project, anticipating the need to conform the project to expected funds available.

BART understands that the pedestrian connector was originally conceived as the primary regional connection between Caltrain and HSR at STC, and BART and Muni at Embarcadero for travel further on to the East Bay, or throughout San Francisco. Now that planning for the NTRC is proceeding, the need for a BART-to-regional rail connection via the pedestrian tunnel at STC may be lessened, assuming STC accommodates a regional rail connection to the East Bay in the future.

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Prior to the COVID crisis, BART experienced capacity issues at Embarcadero Station. Problems have included overcrowded platforms, longer dwell times than scheduled, inadequate stair and escalator capacity, and other issues resulting from crowding. BART has done planning work on potential options at Embarcadero to resolve capacity issues. One option that may be needed in the future is for BART to construct side platforms at Embarcadero, which would require new access to the side platforms via stairs, escalators, and elevators. We have been concerned that a potential pedestrian tunnel could conflict with the locations needed for vertical circulation to the side platforms. BART has done some preliminary planning work on the locations of the access to the side platforms, but BART needs to keep options open for access to the side platforms until such time as any other potential solutions are resolved.

The other potential solution to crowding at Embarcadero Station is that the BART portion of the NTRC project may alleviate the crowding at Embarcadero, depending on whether or not a new BART station as part of NTRC will be located close enough to Embarcadero. If that were to happen, we anticipate that sufficient passenger demand may be diverted to the new station, reducing the passenger demand and crowding issues at Embarcadero.

BART and CCJPA have begun planning the NTRC, but will not have an alignment selected with station locations for several years. We expect to have a preferred project selected in late 2025, and to have completed environmental review by late 2028. It would be in the 2025-2028 timeframe that BART/CCJPA will likely be able to make a determination if the alignment of the new crossing will address the capacity issues at Embarcadero, and thus if the side platforms will be required. Until that time, BART needs to make sure that the ability to construct and operate the side platforms is not precluded.

Based on the preceding, BART has no objections to deferring the design and construction of the pedestrian tunnel to a later phase of the DTX project. As we have outlined, BART needs to be further along in NTRC planning to be able to make an informed decision as to the feasibility of the pedestrian connector project. Potential ownership, maintenance and security issues related to the pedestrian tunnel could be discussed at that time.

We would be happy to discuss with the TJPA team if you have questions.

Sincerely,



Val Joseph Menotti  
Chief Planning & Development Officer

cc: D Watry  
S Poliwka  
C Tsao, CCJPA