



RESOLUTION ACCEPTING THE DOWNTOWN RAIL EXTENSION (DTX) PHASING STUDY FINAL REPORT, SUPPORTING THE DTX PHASING STRATEGY OF THE TRANSBAY JOINT POWERS AUTHORITY (TJPA), AND RELEASING \$2,644,557 IN PREVIOUSLY ALLOCATED PROP K FUNDS, WITH CONDITIONS, FOR DTX PROJECT DEVELOPMENT

WHEREAS, the Downtown Rail Extension (DTX) is a project of local, regional, and statewide significance, that will bring Caltrain and future California High-Speed Rail to the Salesforce Transit Center in downtown San Francisco; and

WHEREAS, In November 2019, through approval of Resolution 20-15, the Transportation Authority Board accepted the Final Report of the Peer Review Expert Panel convened to recommend changes to the governance, oversight, management, and project delivery of the DTX; and

WHEREAS, In April 2020, through approval of Resolution 20-48, the Transportation Authority Board authorized the execution of the Peninsula Rail Program Memorandum of Understanding (MOU) between the Transportation Authority and five other parties, to implement many of the recommendations from the Expert Panel and establish a new organizational structure to support the efforts of the Transbay Joint Powers Authority (TJPA) in the development of the DTX to a ready-for-procurement status; and

WHEREAS, The MOU sets out a DTX development work program and establishes both an Integrated Program Management Team (IPMT), consisting of senior staff from all six agencies, to support delivery of the technical work program, and an Executive Steering Committee (ESC), consisting of senior executive leadership from all six agencies, to provide oversight of the work program, with the ESC reporting to the TJPA Board of Directors; and

WHEREAS, In April 2020, through approval of Resolution 20-49, the



Transportation Authority Board allocated \$11,906,558 in Prop K local transportation sales tax funds, with conditions, to the TJPA for DTX Phasing and Partial 15% Design; and

WHEREAS, The April 2020 allocation to TJPA was broken into two Notices to Proceed (NTPs), with the first NTP (NTP #1), valued at \$3,052,001, to be initiated immediately and the second NTP (NTP #2), valued at \$8,854,557, to be subject to later action by the Transportation Authority Board to release reserved funds; and

WHEREAS, In March 2021, through approval of Resolution 21-39, the Transportation Authority Board split NTP #2 into two sub-phases, released \$6,210,000 (NTP #2A) to the TJPA for accelerated development of DTX, and kept the remaining \$2,644,557 (NTP #2B) on reserve subject to later release by the Transportation Authority Board; and

WHEREAS, The Transportation Authority Board specified that future release of NTP #2B funds be conditioned on acceptance by the Transportation Authority Board of the DTX Phasing Strategy and DTX Interim Budget and Schedule, the identification of a new DTX Program Director, and demonstrated progress in meeting the requirements of the Federal Transit Administration (FTA) for securing funding commitments for the FTA-defined Project Development phase of work; and

WHEREAS, The Peninsula Rail Program MOU calls for the preparation of 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"; and

WHEREAS, The IPMT completed the DTX Phasing Study, to evaluate DTX project elements that could be modified or deferred in the first phase of DTX construction; and

WHEREAS, In August 2021 the IPMT brought forward to the ESC the enclosed



Final Report of the DTX Phasing Study and made specific recommendations for phasing of DTX; and

WHEREAS, The ESC recommended to the TJPA Board of Directors the deferral of the DTX BART/Muni Pedestrian Connector, the deferral of the DTX Intercity Bus Facility, and the reduction of the extent of the DTX Train Box Extension; and

WHEREAS, On September 9, 2021, the TJPA Board unanimously approved the ESC's recommendations for phasing of DTX; and

WHEREAS, In April 2021 the TJPA Board approved an updated schedule for DTX, with this schedule reflecting a potential DTX completion date of as soon as 2031, subject to funding availability; and

WHEREAS, The TJPA has prepared an Interim Cost Estimate/Budget for DTX, with this estimate to be comprehensively updated through the upcoming preliminary design phase; and

WHEREAS, The TJPA conducted a search for a DTX Program Director and identified a qualified candidate for the position, with this individual assuming staff leadership of DTX on July 1, 2021; and

WHEREAS, The largest single source of planned funding for DTX is the FTA's New Starts program, and the FTA requires New Starts projects to proceed to through two successive phases of project development, beginning with the FTA Project Development phase, followed by the FTA Engineering phase; and

WHEREAS, DTX requires an additional \$30 million to complete the activities of the FTA Project Development phase and will require approximately \$20 million to undertake the FTA Engineering phase, with these two phases scheduled to occur over the course of Fiscal Years 2021/22 through 2023/24; and

WHEREAS, The TJPA plans to submit a request in October 2021 to FTA to



enter DTX into the FTA Project Development phase, and the TJPA must demonstrate to FTA the availability of sufficient funding to complete the activities of the FTA Project Development phase; and

WHEREAS, The FTA Project Development phase is planned to be funded by bond proceeds from the Transbay Community Facilities District, and the FTA Engineering phase is planned to be funded by a combination of grant funds and contributions from DTX partner agencies, including the Metropolitan Transportation Commission (MTC), the Peninsula Corridor Joint Powers Board (Caltrain), the California High-Speed Rail Authority (CHSRA), and the Transportation Authority; and

WHEREAS, There are sufficient funds in the Capital Expenditures line item of the Transportation Authority's approved Fiscal Year 2021/22 budget to cover the proposed actions; now therefore, be it

RESOLVED, That the Transportation Authority hereby accepts the DTX Phasing Study Final Report; and be it further

RESOLVED, That the Transportation Authority hereby supports the DTX phasing recommendations of the ESC; and be it further

RESOLVED, That the Transportation Authority hereby releases \$2,644,557 in previously allocated Prop K local transportation sales tax funds, with conditions, to the TJPA for DTX project development; and be it further

RESOLVED, That the Transportation Authority hereby authorizes the actual cash reimbursement of funds for these activities to take place subject to the Fiscal Year Cash Flow Distribution Schedule approved through Resolution 21-39; and be it further

RESOLVED, That the Capital Expenditures line item for subsequent fiscal year annual budgets shall reflect the maximum reimbursement schedule amounts adopted and the Transportation Authority does not guarantee reimbursement levels



higher than those adopted; and be it further

RESOLVED, That as a condition of this authorization for expenditure, the Executive Director shall impose such terms and conditions as are necessary for the project sponsor to comply with applicable law and adopted Transportation Authority policies and execute a Standard Grant Agreement to that effect; and be it further

RESOLVED, That as a condition of this authorization for expenditure, the project sponsor shall provide the Transportation Authority with any other information it may request regarding the use of the funds hereby authorized; and be it further

RESOLVED, That the Capital Improvement Program of the Congestion Management Program is hereby amended, as appropriate.

Enclosure:
Final Report of the DTX Phasing Study



Memorandum

AGENDA ITEM 8

DATE: September 10, 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 the Downtown Rail Extension (DTX) Phasing Study Final Report, Support the DTX Phasing Strategy of the Transbay Joint Powers Authority, and Release \$2,644,557 in Previously Allocated Prop K Sales Tax Funds, with Conditions, for DTX Project Development

<p>RECOMMENDATION <input type="checkbox"/> Information <input checked="" type="checkbox"/> Action</p> <ul style="list-style-type: none"> • Accept the DTX Phasing Study Final Report • Support the DTX phasing strategy of the Transbay Joint Powers Authority (TJPA) • Release \$2,644,557 in previously allocated Prop K funds, with conditions, for DTX project development <p>SUMMARY</p> <p>In April 2020 through Resolution 20-49, the Transportation Authority Board allocated \$11,906,558 in Prop K funds to the TJPA for DTX project development, with \$8,854,577 placed on reserve to be released upon Board acceptance of the DTX 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 DTX 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 approved the DTX Phasing Study, as recommended by the Peninsula Rail Program Executive Steering Committee (ESC). This phasing strategy reflects 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 preparation of an interim budget and schedule. TJPA plans to request entry into the FTA project</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Fund Allocation <input type="checkbox"/> Fund Programming <input type="checkbox"/> Policy/ Legislation <input type="checkbox"/> Plan/ Study <input checked="" type="checkbox"/> Capital Project Oversight/ Delivery <input type="checkbox"/> Budget/ Finance <input type="checkbox"/> Contract/ Agreement <input checked="" type="checkbox"/> Other: <u>Release of Reserved Funds</u>
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<p>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 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. On September 9, 2021, the TJPA Board unanimously approved the Phasing Study Final Report and its recommendations. The Phasing Study Final Report is provided as an enclosure to this memorandum. The TJPA staff report to the September 2021 TJPA Board meeting regarding the Phasing Study is provided as Attachment 1. The phasing strategy adopted by the TJPA reflects the following changes to the DTX:

- *Deferral of the BART/Muni Pedestrian connector (~\$230 million capital savings)* - this change will 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 and delivered 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. The identified change will reduce the Train Box Extension so as to reduce construction cost and right-of-way requirements and will 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. The phasing approach will defer construction of the Intercity Bus Facility until such time as ridership demand requires.

Pursual of these three phasing concepts will 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 is a permanent change. The Pedestrian Connector and Intercity Bus Facility will remain as unfunded elements of the TJPA Capital Improvement Program, subject to later funding and delivery.

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, CHSRA and MTC regarding the ability of the DTX partners to participate in funding of the three-year program of DTX project development:

- The acting Caltrain Executive Director has transmitted a letter to TJPA committing to include funds for DTX development in the agency's Fiscal Year 2022/23 budget.
- The CHSRA is preparing a letter to TJPA identifying a commitment of funds for the FTA Engineering phase of work for DTX, subject to the resolution of state-level budget negotiations pertaining to CHSRA.
- The MTC Executive Director has transmitted a letter to TJPA re-confirming the agency's commitment to DTX through RM3 (pending the outcome of litigation). In addition, on September 8, 2021, the MTC Programming and Allocations Committee recommended to the full MTC that the agency contribute \$3 million to DTX development. The contribution from MTC would be provided through a \$3 million reduction in San Francisco's obligation to re-pay a \$34 million advance made by MTC to the Presidio Parkway project in 2012. The MTC contribution is conditioned on a future \$3 million allocation to DTX by the Transportation Authority on MTC's behalf.

We also plan to prepare a letter to TJPA identifying the Transportation Authority's commitment to bring forward an additional \$3 million in a future fiscal year for the FTA Engineering phase of work.

In addition to funding from the MOU agencies, opportunities for state and federal grant funding continue to be pursued, including a planned request 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 proceeds 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 previously allocated funds that have been held on reserve. Sufficient funds are included in the Fiscal Year 2021/22 budget to accommodate the recommended action.

CAC POSITION

The CAC considered this item at its September 1, 2021, meeting, and unanimously adopted a motion of support for the staff recommendation.

SUPPLEMENTAL MATERIALS

- Attachment 1 - TJPA Staff Memorandum to TJPA Board Regarding DTX Phasing Study
- Attachment 2 - BART Letter to TJPA Regarding Deferral of BART/Muni Pedestrian Connector
- Enclosure - DTX Phasing Study Final Report

**STAFF REPORT FOR CALENDAR ITEM NO.: 11
FOR THE MEETING OF: September 9, 2021**

TRANSBAY JOINT POWERS AUTHORITY

BRIEF DESCRIPTION:

Approve the Downtown Rail Extension (DTX) Phasing Study as recommended by the Executive Steering Committee (ESC) under the terms of the San Francisco Peninsula Rail Program Memorandum of Understanding with the Metropolitan Transportation Commission (MTC), the San Francisco County Transportation Authority (SFCTA), the Peninsula Corridor Joint Powers Board (Caltrain), the California High-Speed Rail Authority (CHSRA), and the City and County of San Francisco (Mayor's Office).

EXPLANATION:

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.

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.

Discussion of the Phasing Study Process

To comply with this requirement of the MOU, the Integrated Project Management Team (IPMT) commenced a Phasing Study workstream in June 2020 with several workshops, meetings, and technical discussions to define the scope of the study. The study process involved:

1. Developing evaluation criteria
2. Identifying the elements of the Phase 2–DTX project to include in the study (phasing concepts)
3. Evaluating each phasing concept against the established criteria
4. Achieving consensus on a recommendation on each phasing concept

Each of these is discussed in the following subsections.

Evaluation Criteria

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 IPMT adopted the following criteria and sub criteria. 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 of potential deferral elements was a collaborative undertaking by the IPMT and the TJPA and its consultants. Reviewers included staff from the operators—Caltrain and the 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 estimates developed from historic estimates and other sources.

Capital cost estimates and associated cost reductions were developed from historic cost estimates and newly developed cost estimates, depending upon the specific phasing concept. For comparison purposes, capital costs were normalized to a 2027 mid-point of construction date. Programwide professional services of 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 IPMT identified the following six phasing concepts for evaluation:

- Defer the BART/Muni Pedestrian Connector
- Reduce the Train Box Extension
- Defer the Intercity Bus Facility
- Reduce the Intercity Bus Facility
- Defer the Fit-out of Fourth and Townsend Street Station
- Defer the Infrastructure Fit-out for CHSRA-related Elements

TJPA staff have briefed FTA Region 9 and Headquarter staff on the DTX Phasing Study and evaluation screening process used for the purpose of developing this recommended action. Though a formal DTX project environmental determination by the FTA will occur before the end of the “Engineering” Phase once the project enters the FTA New Starts Program, feedback was favorable on the process implemented as part of the study and a technical memorandum is recommended at this time to document project changes resulting from the Board’s action. Found below is a discussion of each phasing concept, a summary of the IPMT’s evaluation of each concept, and ESC’s recommendations.

Defer the BART/Muni Pedestrian Connector

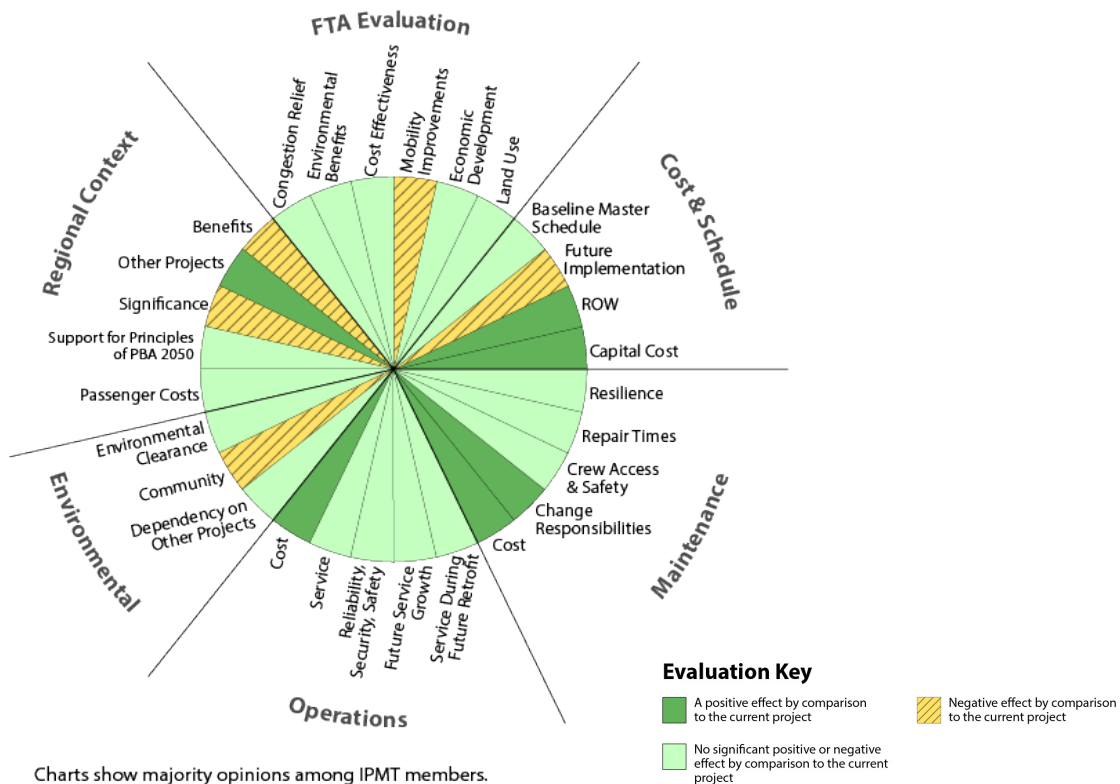
The BART/Muni pedestrian connector is a tunnel linking the mezzanine level of the Embarcadero BART/Muni Metro Station with the lower concourse of the Salesforce Transit Center. The purpose of the connector is to alleviate peak-hour pedestrian traffic congestion on sidewalks between Mission and Market streets caused by passengers transferring between the two stations. The pedestrian connector 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 results in a cost reduction of \$221 million (\$2027 year-of-expenditure (YOE)) plus the value of the right-of-way. Annual O&M costs associated with the connector would also be reduced. Associated negative effects without surface street improvements include reduced mobility, regional connectivity, and pedestrian wayfinding.

BART staff have sent a letter expressing no objection with the deferral of the pedestrian connector, as BART is currently evaluating capacity issues at the Embarcadero station. BART has done planning work on potential options to resolve (pre-pandemic) overcrowding issues at Embarcadero which would involve station platform modifications and as a result, impact the proposed pedestrian connection. Also, BART, in partnership with the Capitol Corridor Joint Powers Authority, has begun planning a regional rail connection from the East Bay that may include a station location in San Francisco that could address these capacity issues. BART indicates it would not be until the 2025-2028 timeframe before a solution is presented to address the issue. Deferral of the pedestrian connector would allow BART time to evaluate planned capacity enhancing station modifications at the Embarcadero Station.

Recommendation. Accept deferral of the pedestrian connector, and 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.

The ESC is recommending 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 as part of the DTX project. Further, staff will include the BART/Muni pedestrian connector in the Transbay Capital Improvement Program (CIP), such CIP being subject to the future approval of the TJPA Board.



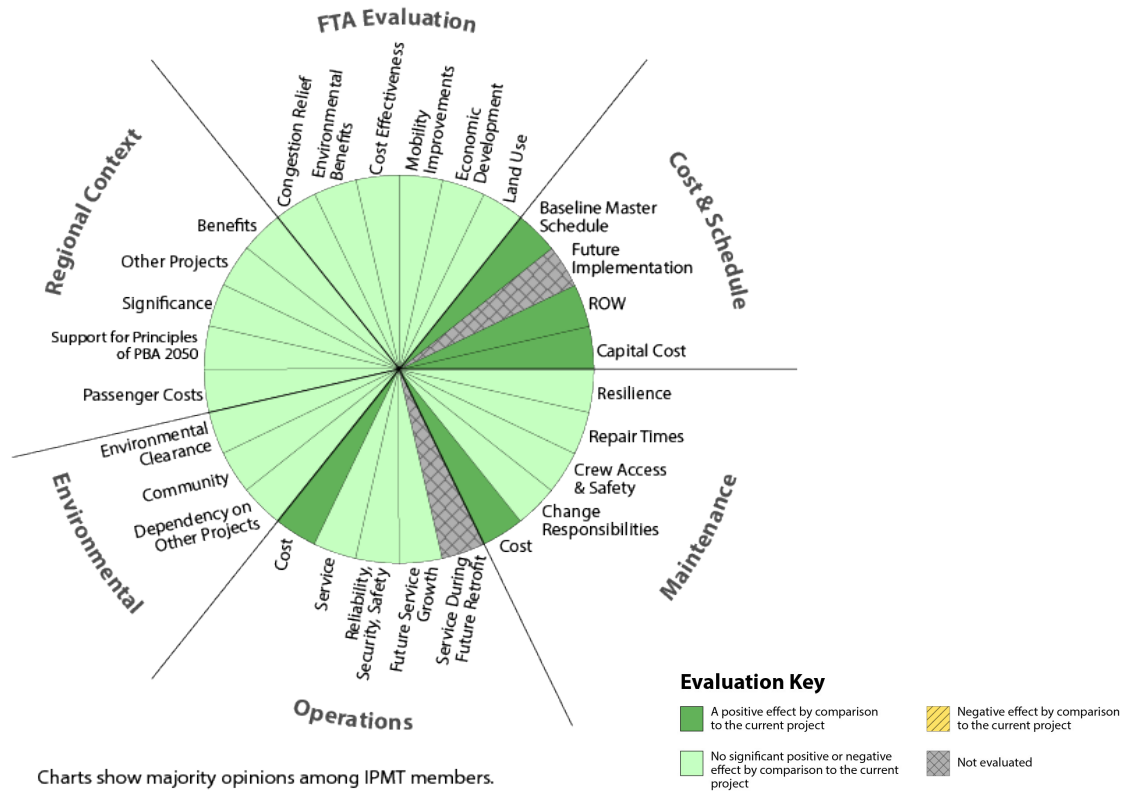
Reduce the Train Box Extension

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 by approximately 250 feet. This phasing concept would reduce the extension permanently.

Evaluation Summary. The ESC recommends approval of reducing the train box extension. The action would result in a cost reduction of \$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.



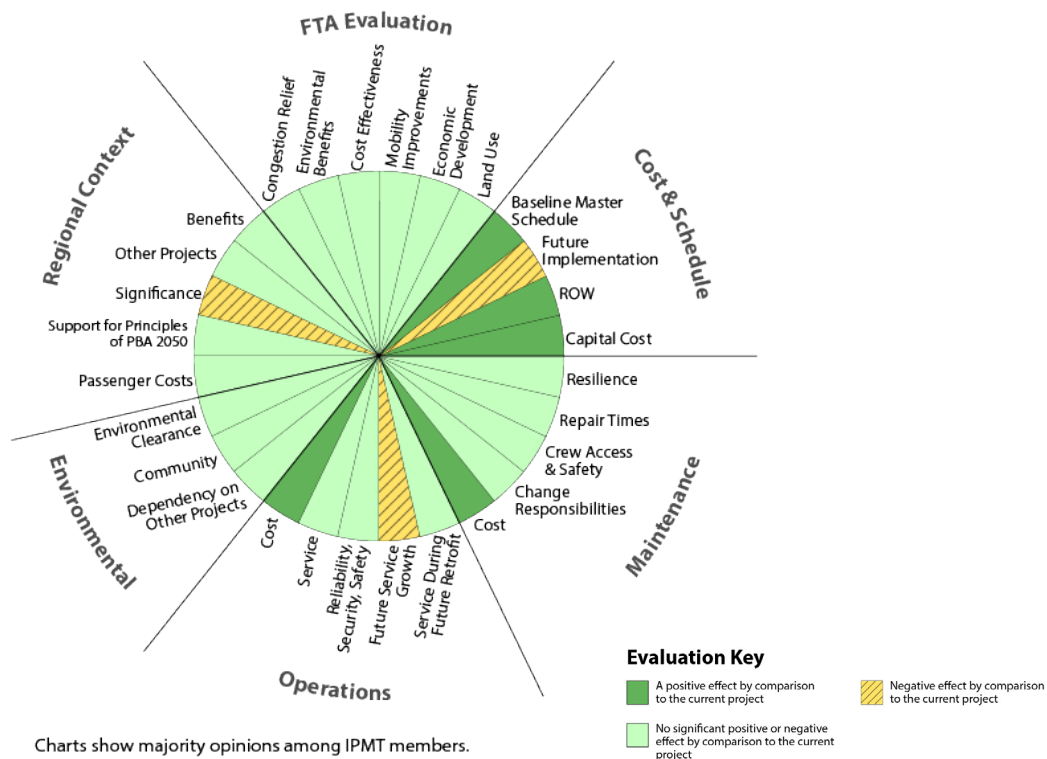
Defer the Intercity Bus Facility (IBF)

The proposed 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 trainbox extension between Beale and Main streets and, therefore, depends on construction of the full 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 sublease agreements with AC Transit, the master lease holder. AC Transit had anticipated 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. However, this impact could be mitigated through the construction of a smaller IBF, as described in the next deferral item.

Evaluation Summary. The ESC recommends approval of this action. Deferring the IBF would result in a cost reduction of \$40.3 million (\$2027 YOE). Other positive effects of deferring the facility are associated with reduced O&M costs. Negative effects are associated with potential constraints on service flexibility and a potential reduction in regionals benefits should growth in bus service require more bus bays than the transit center alone can supply.

Recommendation. Accept deferral of the environmentally cleared IBF.



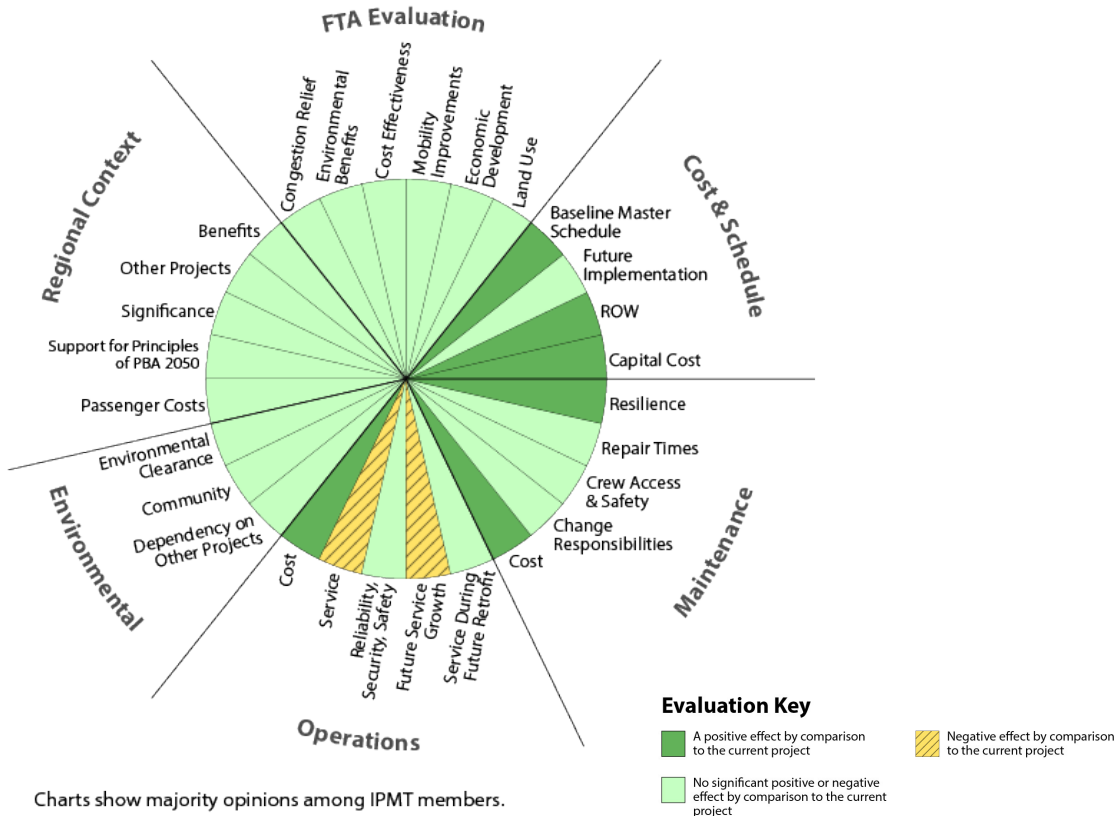
Reduce the Intercity Bus Facility (IBF)

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 currently-owned TJPA property. Although reduced, the smaller 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 may constrain service and affect operational reliability.

Evaluation Summary. The ESC recommendation to defer the reduced IBF includes monitoring changes in regional and intercity bus ridership and bus bay demand to determine if future implementation of the reduced IBF is warranted. Constructing the reduced IBF would result in a cost reduction of \$31.4 million (\$2027 YOE). It should be noted that this cost reduction is in lieu of, not in addition to, the cost savings attributed to the deferral of the full IBF discussed above.

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 as identified in the SEIS/EIR. 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

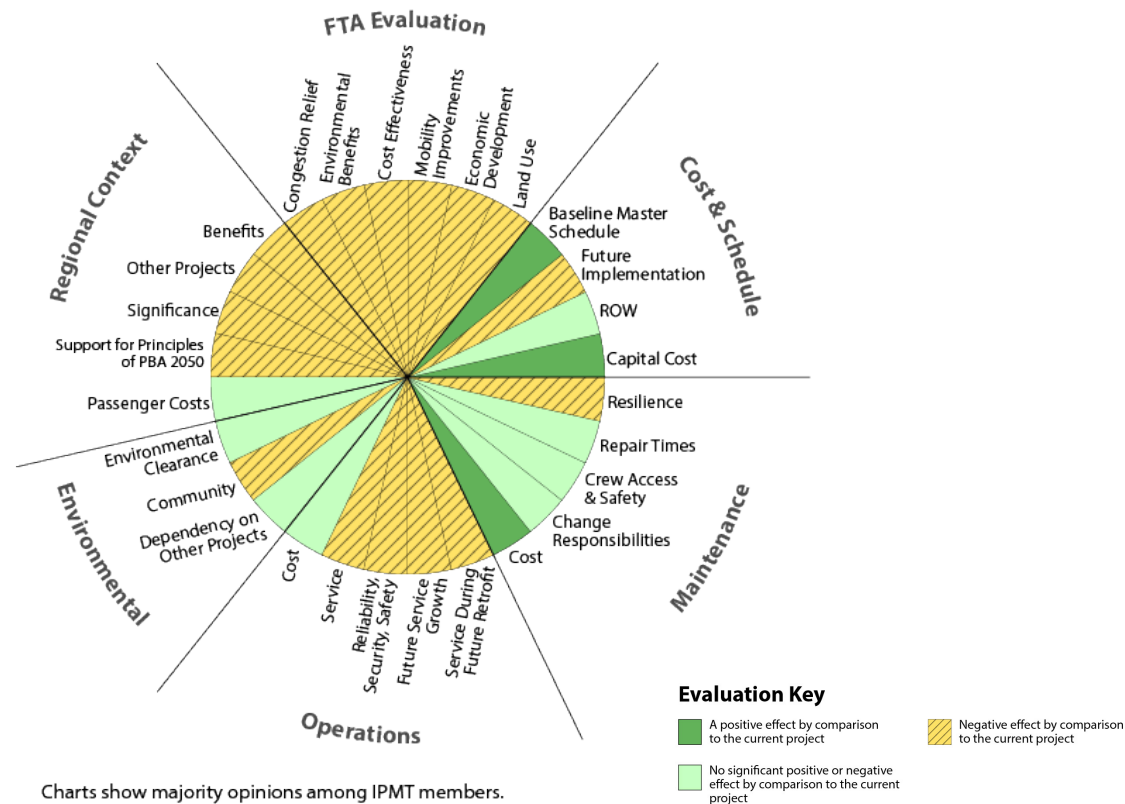
The underground Fourth and Townsend Street Station will serve passengers on trains bound for or returning from the Salesforce Transit Center. The environmentally cleared station includes a concourse mezzanine and a train platform level with three tracks and a center platform. This phasing concept would 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 Salesforce Transit Center. Thus, the full capacity of the Transit Center may not be utilized if deferral of the fit-out occurred.

Evaluation Summary. The ESC recommends maintaining station fit-out elements within the DTX project. 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 O&M costs, and schedule benefits.

Deferring fit-out of the Fourth and Townsend Street Station would result in a cost reduction of \$28.9 million (\$2027 YOE).

Recommendation. Reject deferral of the fit-out of Fourth and Townsend Street Station.



Defer the Infrastructure Fit-out for CHSRA-related Elements

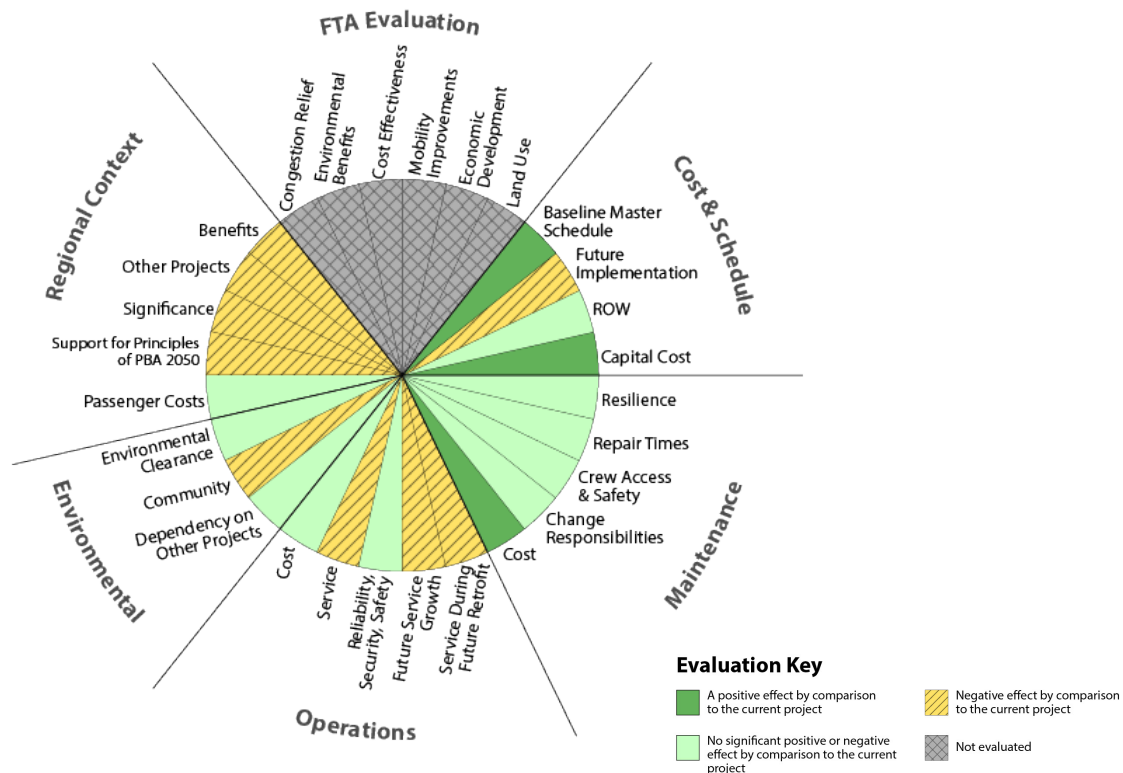
CHSRA anticipates arrival of its high-speed train service to the Salesforce Transit Center in 2031. This phasing concept assesses a scenario in which CHSRA’s operations begin after 2031 and construction or “fit-out” of the infrastructure needed to support revenue service could be deferred until one year 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 downtown area, connecting high-speed train service to bus and other rail services at the transit center, and increasing ridership on transit.

Evaluation Summary. The ESC recommends maintaining CHSRA related infrastructure fit-out elements within the DTX project. 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.

Deferring the fit-out of CHSRA related elements at Salesforce Transit Center would result in a cost reduction of \$38.0 million (\$2027 YOE).

Recommendation. Reject deferral of Infrastructure Fit-out for CHSRA-related Elements.



Charts show majority opinions among IPMT members.

Summary of ESC's Recommendations

Phasing Concept	Recommendation
Defer BART/Muni Pedestrian Connector	Accept*
Reduce Train Box Extension	Accept
Defer Intercity Bus Facility	Accept
Reduce Intercity Bus Facility & defer if, or until, operationally required	Accept
Defer Fit-out of Fourth and Townsend Street Station	Reject
Defer Fit-out for CHSRA-related elements	Reject

* work with the City and County of San Francisco on street-level mitigations

Cost Reduction

Summary of cost reduction (escalated to 2027 mid-point of construction):

Phasing Concept	Capital Cost Reduction	Annual Operating Cost Reduction
Defer BART/Muni Pedestrian Connector	\$228M	\$0.5M
Construct Reduced Train Box Extension	\$133M	\$1.7M
Defer Intercity Bus Facility	\$40M*	\$0.6M
TOTAL	\$401M	\$2.8M

*The Intercity Bus Facility and Reduced Intercity Bus Facility deferral concepts are alternatives to one another. The capital cost savings associated with each are therefore not additive, but rather in lieu of each other. This value represents the maximum capital construction cost reduction.

The peer-reviewed total project capital cost will be updated in the summer of 2022, based on the 30 percent design refresh within the upcoming Project Development phase workplan. 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 of the total project cost.

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 DTX Phasing Study report.

Executive Steering Committee Review and Recommendation

The ESC unanimously recommended adoption of the DTX Phasing Study by the TJPA Board with the following conditions and direction to TJPA 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 (TJPA Board).
- Provide progress reports to the TJPA Board on the above recommendations annually or as development warrants.
- Include the BART/Muni pedestrian connector and reduced intercity bus facility as elements of the Transbay Capital Improvement Program (CIP), such CIP being subject to the future approval of the TJPA Board.

RECOMMENDATION:

Consider approving the DTX Phasing Study as recommended by the ESC and IPMT under the terms of the San Francisco Peninsula Rail Program Memorandum of Understanding.

ATTACHMENTS:

1. Resolution
2. Downtown Rail Extension Phasing Study



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2020

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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.

October 1, 2020

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

Page 2

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