

Transbay Joint Powers Authority Peer Review

Project Management and Oversight

Conducted March 11 - 13, 2019



AMERICAN
PUBLIC
TRANSPORTATION
ASSOCIATION

Peer Review Methodology

The APTA Peer Review process is well established as a valuable resource to the public transit industry.

Highly experienced and respected transit professionals voluntarily provide their time and expertise, offering advice, guidance, benchmarking and best practices.

The panel conducted this peer review through documentation review, a series of briefings and interviews with TJPA staff and field observations.

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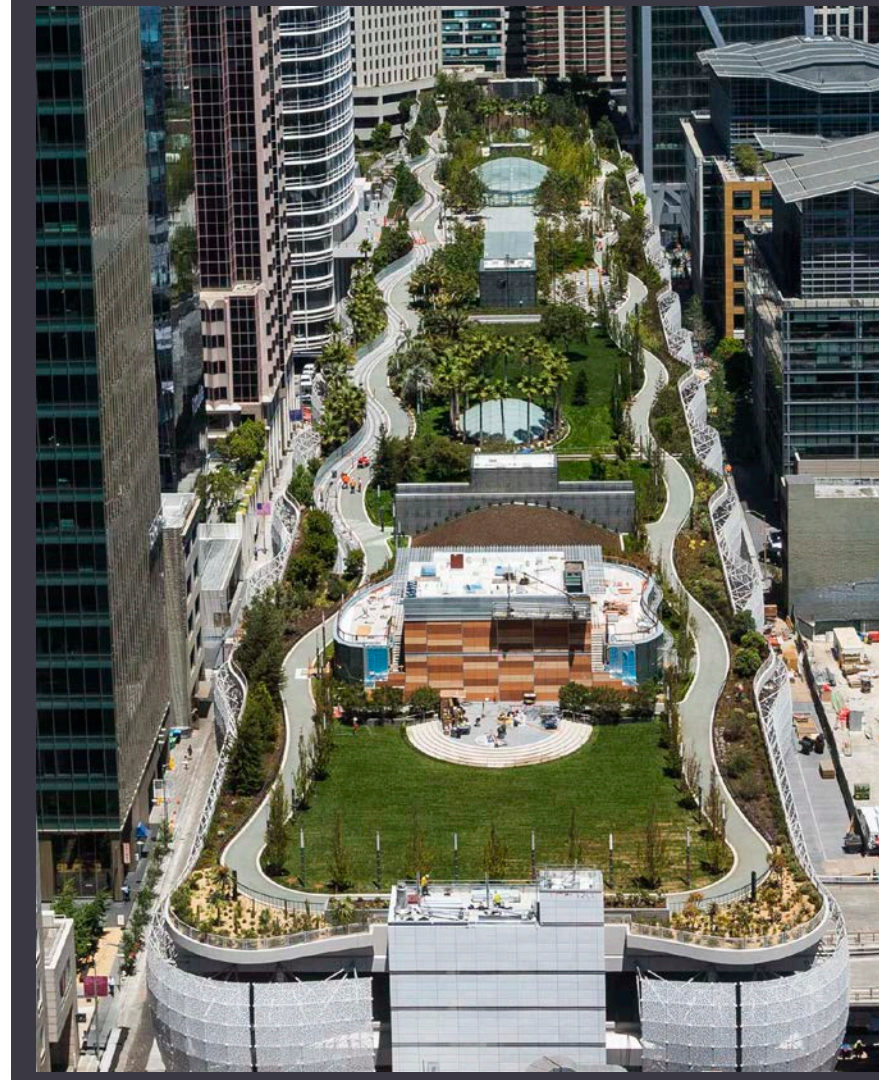
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AGENDA

- Scope of Review
- Peer Review Objectives
- Observations and Recommendations
 - Organizational Structure
 - Project Delivery
 - Oversight and Communication Plan



Scope of Review

The APTA Peer Review Panel was convened at the request of Mark Zabaneh, Executive Director, Transbay Joint Powers Authority (TJPA) to assist the organization in reviewing the management and oversight of Phase 1 of the Transbay Program and its applicability to future Phases 2 and 3.

The observations and recommendations provided through this peer review are offered as an industry resource to be considered by TJPA in support of strengthening the organization's management and oversight of the Program.

Peer Review Objectives

In its request letter, TJPA indicated a particular interest in the following areas.

These served as a guide to the review, but additional and related areas were covered.

Phase 1: Organizational structure in place for the planning, design, construction and facility management of the Salesforce Transit Center

Phases 2 and 3: Organizational and best practices needs and opportunities for the continued planning, funding opportunities and design of the tunnel extension linking Caltrain's current San Francisco station to the transit center and bringing future high-speed rail into the transit center

Opening Comments

- The panel observed that the Program has overcome significant challenges to deliver a state of the art transit center that is functionally and aesthetically pleasing and has spurred economic development in an underdeveloped area of the city
- The stakeholder coordination needed for Phase 1 was extraordinary and well managed
- The financing plan was innovative and forward thinking regarding ROW value capture
- The completed facility seems well-managed from an operational perspective, with capable staff in place

Organizational structure and staffing

OBSERVATIONS:

- Work to construct Phase 1 of the project has been accomplished with a lean TJPA staff
- TJPA has a shallow owner organization with key positions filled by consultants, which contrasts with other similar transit projects with this kind of scope
- When Phase 1 is closed out and a new team of consultants is engaged to restart and continue Phase 2, it will be incumbent upon the small TJPA staff to retain and transfer previous project knowledge and associated documentation to phases 2 and 3.

Organizational structure and staffing

RECOMMENDATIONS

- TJPA should build a robust management structure, with key positions filled by TJPA and/or stakeholder staff.
- Key in-house positions may include:
 - Phase 2 project director
 - chief engineer/tunneling engineer
 - design manager
 - planning/environmental manager
 - program controls manager and team
 - quality, health and safety managers
 - operations and municipal liaisons

Organizational structure and staffing

RECOMMENDATIONS

- The panel recommends that at least two levels of TJPA in-house staff be assigned
 - Each manager should be supported by one or more professionals to provide depth, continuity and succession planning, as some staff turnover is likely in a 10-year project
- Phases 2 and 3:
 - Since TJPA is procuring a new consultant support and faces the risk of a large amount of institutional knowledge leaving the project, TJPA should prepare for this by having procedures in place for proper knowledge transfer

Project Delivery

OBSERVATIONS: Phase 1

- The project delivery method chosen for phase 1 was Construction Manager/General Contractor (CM/GC)
- The collaborative benefits of the CM/GC delivery method were not fully realized as evidenced by:
 - Poor estimates
 - Untimely scope changes
 - Schedule delays and cost overruns
 - Lack of interest from bidders (low bidder pool) which resulted in high subcontractor bids

Project Delivery

OBSERVATIONS: Phase 2

- Phase 2 - Downtown Rail Extension (DTX)
 - Phase 2 was put on hold in 2010 due to funding constraints
 - Development of Phase 2 has suffered many starts and stops, which typically has major consequences to a project's cost and schedule
 - The current Program management and design consultants have been actively working on Phase 2 and the DTX since 2004, bringing the DTX to 30 percent design

Project Delivery

RECOMMENDATIONS:

- TJPA should perform a thorough evaluation to determine the project delivery methods for phase 2 and 3 work
- Contract packaging decisions should consider the capacity and experience of TJPA staff to manage the work, as well as the potential for future scope and schedule changes
- Delivery methods should be based upon the anticipated risks of the project, the project objectives, and the experience of the staff to manage a delivery method
 - The sooner the delivery method is selected, the sooner the project team can direct subsequent activities consistent with that delivery method.

Project Delivery

RECOMMENDATIONS:

- Consider having a project delivery workshop with the TJPA staff and key consultants
- TJPA should adopt lessons learned from other major transit infrastructure projects and programs (i.e. the Central Subway project and LACMTA)

Project Delivery

RECOMMENDATIONS:

- To support the selection of the appropriate project delivery method for the construction packages for phases 2 and 3. TJPA should produce:
 - new baseline independent cost estimate;
 - new project risk analysis;
 - new baseline program and project-specific schedules
 - construction market conditions analysis;
 - regional analysis of alternative delivery efficacy

Project Delivery

RECOMMENDATIONS:

- Considerations for Phase 2 include the following:
 - Reconsider what scope is built into Phase 2 in light of the current status of high-speed rail
 - Consider phasing of the project components, based on funding availability
 - TJPA should continue to assess value-engineering opportunities throughout the project
 - Explore potential funding opportunity from redevelopment of King Street Yard as part of phase 2, while considering operational impacts

Oversight and Communication Plan

OBSERVATIONS:

- The Transbay Program was designed with the intention to transform downtown San Francisco and its regional transportation network into a vibrant, attractive city center
- Phase 1 consisted of replacing the outdated Transbay Terminal with a modern terminal and creating a transit-friendly neighborhood of residential and mixed-use commercial development
- A strong governance vision with unified champions from all stakeholders will lead to decisive action on phases 2 and 3 that will expedite sound engineering and construction, leading to a better product more expediently and at the lowest responsible cost

Oversight and Communication Plan

RECOMMENDATIONS:

- TJPA should delineate the key elements of the project and the roles and responsibilities of each stakeholder in the future operations and maintenance of the facility and infrastructure
- Governance structure should be refreshed, and a clearly defined path of responsibilities should be established among project team members
- The Program should find a strong external stakeholder champion to promote and support Phase 2 and 3. (Caltrain, CAHSR, city official, etc.)

Oversight and Communication Plan

RECOMMENDATIONS:

- TJPA should explore engaging an independent engineer (IE) to observe and monitor the project and report directly to the board.
 - IE provides third-party oversight for projects, including independent oversight of cost and schedule, technical peer reviews, value engineering processes, and cost recovery
 - IE should be registered as a professional engineer and have significant experience in the construction and supervision of projects with similar scope and complexity
 - IE should enjoy unfettered access to project worksites, documents and correspondence
 - IE should report directly to the highest authority with an annual report and with monthly progress updates

Oversight and Communication Plan

RECOMMENDATIONS:

- Liaisons should be assigned to the project team from key operating stakeholders, including the following:
 - Caltrain
 - CAHSR
 - SFPW
 - BART
 - AC Transit
 - SFMTA

Oversight and Communication Plan

RECOMMENDATIONS:

- TJPA should finalize the scope, schedule and budget for phases 2 and 3, and get stakeholder buy-in before commencing the work
- TJPA should explore options for scope reallocation of phase 2 and 3 work execution, allowing each party to undertake work aligned with its capability and experience.
 - Example: TJPA could manage the civil works for the tunnel and 4th Street Station shell, while Caltrain takes responsibility for the design and construction of track, systems and station buildout (e.g., Seoul Metro model)
- TJPA should document the overall success of Phase 1 in achieving the goal of serving as the catalyst to redevelop downtown San Francisco and share with political, community and business leaders to obtain continued financial and community support.

Concluding Remarks

- The findings provided through this review are intended to assist TJPA in its strategies for continually strengthening its management and oversight as the Program moves to Phases 2 & 3
- The panel sincerely appreciates the support and assistance extended throughout the entire peer review process by the TJPA staff. The panel stands available to assist with any clarification or subsequent support that may be needed