

**THIS STAFF REPORT COVERS CALENDAR ITEM NO.: 8
FOR THE MEETING OF: April 19, 2007**

TRANSBAY JOINT POWERS AUTHORITY

BRIEF DESCRIPTION:

This staff report provides the status of a planning feasibility study for a future pedestrian connection tunnel between the Transbay Transit Center and the BART/MUNI Metro stations on Market Street.

SUMMARY:

The TJPA is conducting a study of the feasibility and estimated construction cost for a new pedestrian connection tunnel along one of the following four alternative alignments.

- Beale Street (Alternative 1)
- Fremont Street (Alternative 2)
- First Street (Alternative 3)
- Ecker Place (Alternative 4)

Estimated construction costs vary for each alignment, with the Beale Street and Ecker Place alignments expected to cost less than the Fremont Street or First Street alignments due to the shorter total length of the tunnel structures. There is currently no funding identified for inclusion of the pedestrian connection tunnel in Phase 1 of the Transbay Transit Center Program. Consequently, it remains a “design option” that would be implemented during the Caltrain Downtown Extension project in Phase 2 of the Transbay Transit Center Program, as originally envisioned in the Final Environmental Impact Statement/ Environmental Impact Report (FEIS/EIR). If adequate funding is secured, construction of the pedestrian connection tunnel appears technically feasible along any of the four alignments studied. A study report with input from City and regional stakeholders is planned for consideration by the TJPA Board at its May 2007 meeting.

REPORT:

FEIS/EIR Consideration of a Pedestrian Connection Tunnel

The Locally Preferred Alternative (LPA) that was adopted during the preparation of the FEIS/EIR included a “design option” for a pedestrian connection tunnel below Fremont Street between the train mezzanine level of the new Transit Center and the mezzanine level of the existing BART/MUNI Metro Embarcadero Station, as part of the Caltrain Downtown Extension Project. The tunnel was assumed to be approximately 800 feet long, and cost approximately \$45 million to construct.

The FEIS/EIR indicated that a pedestrian tunnel to Market Street would provide a sheltered passenger connection for transferring passengers between AC Transit bus service, Caltrain and Greyhound at the Transit Center, and the BART/MUNI Metro underground rail lines on Market Street. The pedestrian tunnel is not anticipated to substantially affect street level MUNI bus operations, although the potential exists for bus movements and public traffic on the adjacent

streets to experience fewer pedestrian conflicts and delays at intersections due to reduced pedestrian volumes at surface crosswalks.

The FEIS/EIR also assumed that in addition to transferring passengers, many patrons of the new Transit Center would find the pedestrian connection tunnel a convenient pathway to cross Mission and Market streets in a weather-sheltered environment away from street traffic. In summary, the principal objectives of the pedestrian connector tunnel are to:

- provide a direct intermodal connection for passengers transferring between the Transit Center, principally riders of Caltrain, AC Transit, WestCAT, Golden Gate Transit, SamTrans, Greyhound and the BART/MUNI Metro systems
- reduce passenger walking times during passenger transfers
- provide safe pedestrian passage under Mission and Market streets
- reduce pedestrian traffic congestion at surface crosswalks

The Final EIS/EIR indicates that the availability of funding to construct the pedestrian connection tunnel as an issue to be resolved as the Transit Center Program proceeds.

As detailed programming and concept planning for the Transbay Transit Center Program was underway, it was determined that there was not available funding to include the pedestrian connection tunnel within Phase 1 of the Program. Should adequate funding be secured, the pedestrian connection tunnel could be included in either Phase 1 or Phase 2 of the Transbay Transit Center Program.

Current Planning Feasibility Study

The TJPA is currently underway with a planning feasibility study for the pedestrian connection tunnel. The following four alternative alignments are being studied.

1. Beale Street alignment connecting to the Embarcadero Station (Alternative 1)
2. Fremont Street alignment connecting to the Embarcadero Station (Alternative 2)
3. First Street alignment connecting to the Montgomery Station (Alternative 3)
4. Ecker Place alignment connecting to the Montgomery Station (Alternative 4)

Each of the alignments will require that existing buried utilities be relocated in order to allow for construction of an approximately 30-foot wide tunnel structure in a cut-and-cover construction operation. The estimated cost of construction within each alignment varies depending upon the extent of utility relocation required, and the total length of the tunnel structure.

The Beale Street alignment (Alternative 1) has the shortest potential length of 900 linear feet of tunnel connecting to the Embarcadero Station, if constructed during Phase 2 when the below ground “train box” is currently planned to be constructed. If the Beale Street tunnel alignment were constructed during Phase 1, an additional 300 foot length of tunnel would be required to extend the tunnel to the main lobby of the new Transit Center between First and Fremont streets.

The Fremont Street alignment (Alternative 2) is approximately 1,100 linear feet in length including a segment below Market Street connecting to the Embarcadero Station. The Fremont Street alignment is more costly than the Beale Street alignment due to greater expected length and cost of tunnel structure.

The First Street alignment (Alternative 3) has the longest potential length of approximately 1,400 linear feet of tunnel connecting to the Montgomery Station. It is expected to have the highest total construction cost, due to the length of tunnel and greater utility relocation costs compared to the other alternatives.

The Ecker Place alignment (Alternative 4) has a total length of approximately 1,400 linear feet of tunnel connecting to the Montgomery Station. There is the potential to route the tunnel through a proposed private development project along First Street between Mission and Stevenson streets that, if feasible, could incorporate a length of tunnel of approximately 380 linear feet into the private development project, reducing the total length of tunnel to be constructed by the TJPA to approximately 1,020 linear feet. Engineering feasibility analyses are still underway for the Ecker Place alignment to identify and estimate necessary utility relocation.

TJPA and PMPC staff have met with the affected stakeholders to review the alternative alignments. Included in these informational meetings were BART, Municipal Transportation Agency (MTA), Caltrain, AC Transit, the Department of City Planning, and the Redevelopment Agency. Staff will continue to work with the stakeholders through further development and refinement of the connector concept.

The planning feasibility study is scheduled to be completed in May 2007, and will document the evaluation of the alternatives considering:

- utility relocation and construction costs
- construction phasing
- potential passenger use
- safety and security issues
- recommendations for project implementation


RECOMMENDATION:

This is an informational item. No action by the TJPA Board is required at this time.

ENCLOSURES:

1. PowerPoint presentation of status report.





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AGENDA

- Background
- Stakeholders
- Objectives
- Scope of Work
- Alternative Tunnel Alignments
- Alternatives Evaluation
- Summary of Construction Costs
- Findings and Recommendations



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Background

MTC studies and FEIS/EIR included in the Locally Preferred Alternative:

A ***design option*** for a pedestrian connection from the train mezzanine underneath Fremont Street to the BART Embarcadero Station... approximately 800 feet long... is estimated to cost \$45.3 million. The decision for this connection versus sidewalks depends in part on available project funding.

(Source: FEIS/EIR, LPA, p. 15)



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Stakeholders

Working group:

- San Francisco Municipal Transportation Agency
- Bay Area Rapid Transit
- Alameda-Contra Costa Transit District
- Peninsula Corridor Joint Powers Board
- San Francisco Planning Department
- San Francisco Redevelopment Agency
- Transbay Joint Powers Authority
- Program Management/Program Controls Consultant

Utility agencies consulted:

DPW, SFPUC, SFFD, PG&E, Comcast, and AT&T



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Objectives

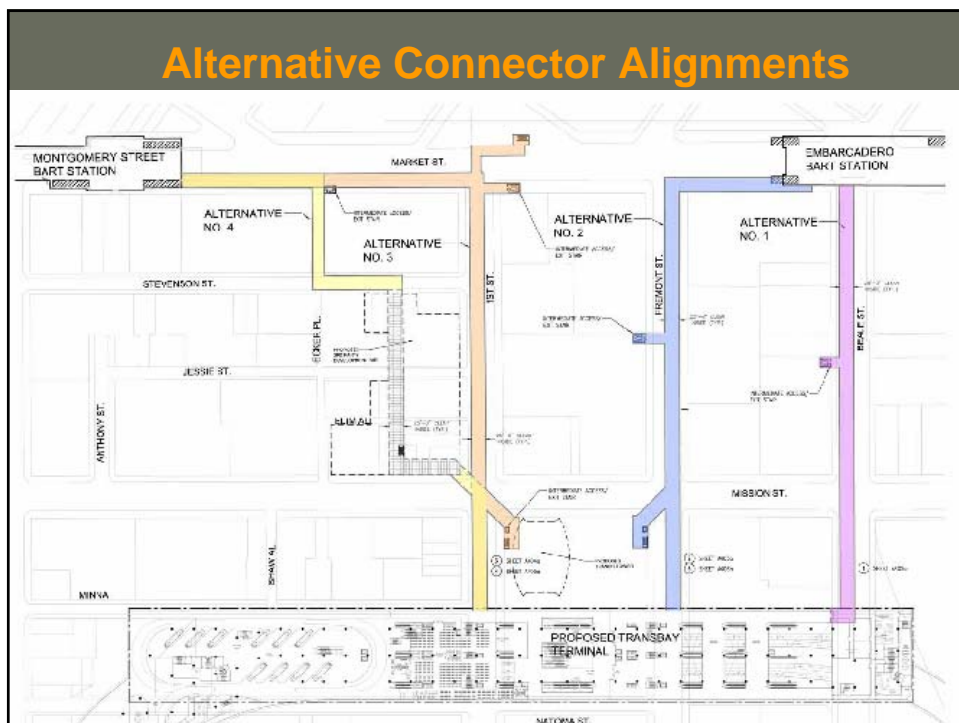
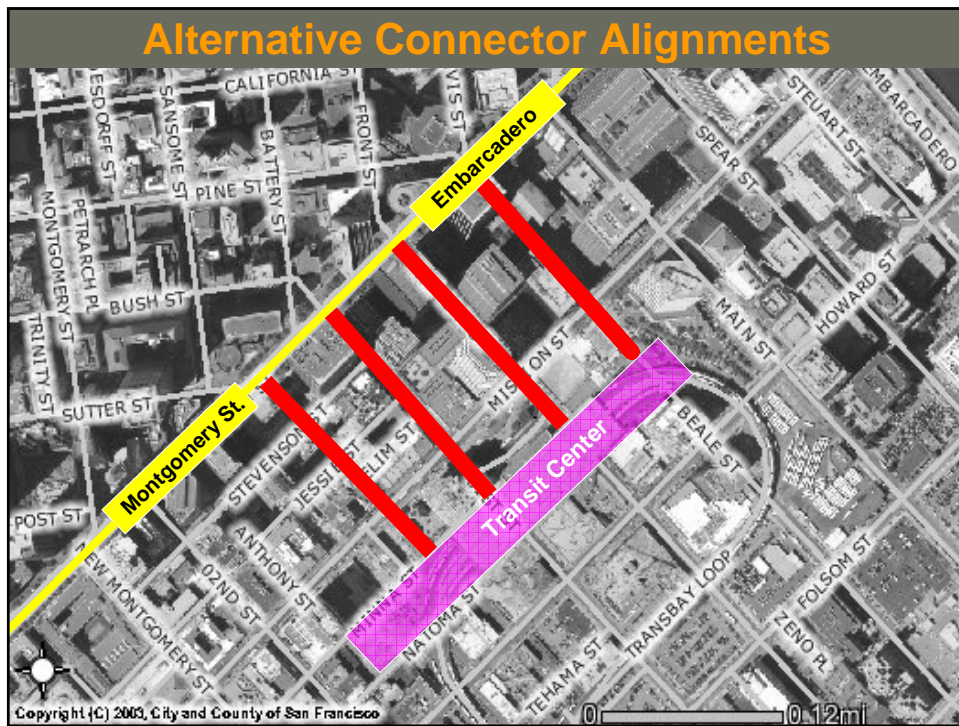
- Provide a direct intermodal connection for passengers transferring between BART/Muni Metro, Caltrain, AC Transit, WestCAT, SamTrans, Golden Gate Transit and Greyhound
- Provide convenient connection for passengers carrying luggage
- Accommodate special needs of elderly and disabled passengers
- Reduce travel time during passenger transfers
- Provide safe passage under Mission Street and reduce pedestrian traffic congestion at surface sidewalks



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Study Scope of Work

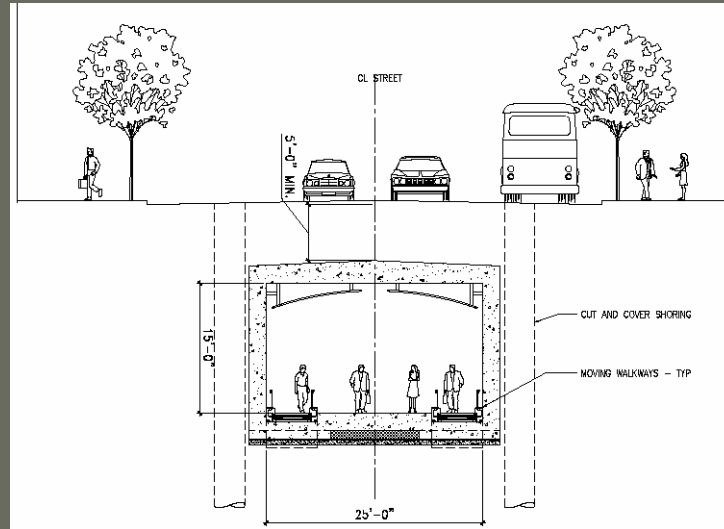
- Update estimate of transfer passengers
- Study alternative tunnel alignments
- Analyze construction cost, schedule and phasing
- Recommend implementation plan





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Typical Tunnel Section



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United Airlines Tunnel Chicago O'Hare Airport





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Pedestrian Tunnel Detroit Metro Airport



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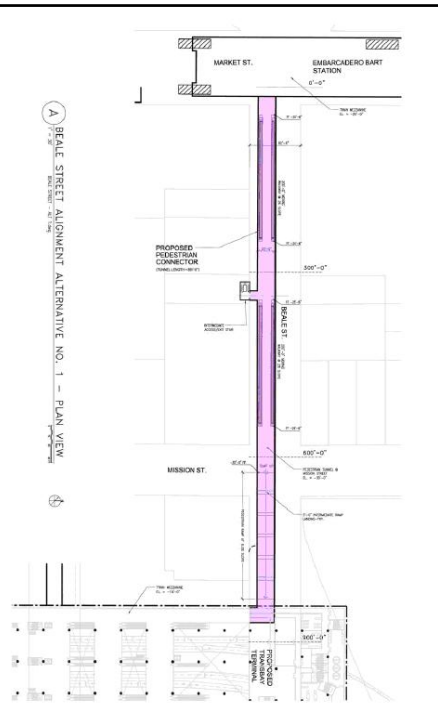
Powell St./Westfield Entrance



Alternative 1 Beale St. Phase 1

- Direct connection to Embarcadero Metro Station
- If included in Phase 1
Tunnel Length: 1,212'
- If included in Phase 2
Tunnel Length: 900'
- Available ROW Width: 82.5'
- Estimated Cost:

\$ 8M	Utility Relocation
\$ 65M	Construction
\$ 32M	Other Project Costs
\$105M	Total Cost

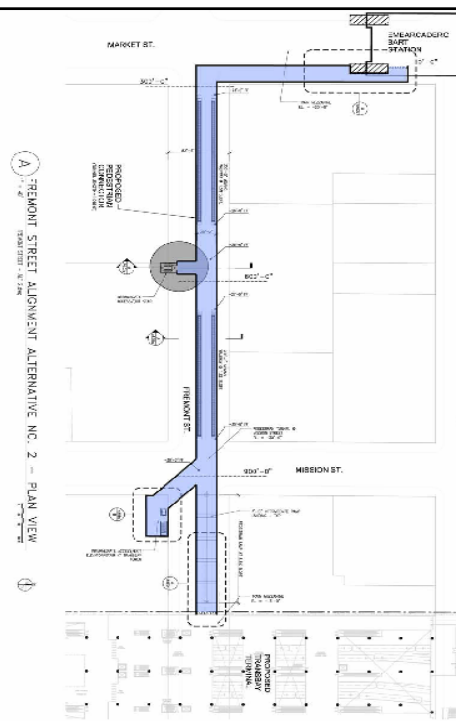


Beale Street slide
corrected 13April2007

Alternative 2 Fremont St.

- Connection to Embarcadero Metro Station
- Tunnel Length: 1,100'
- Available ROW Width: 82.5'
- Estimated Cost:

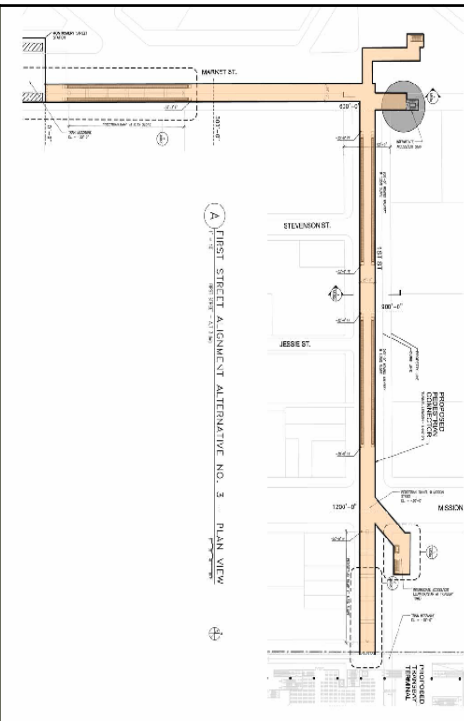
\$ 9M	Utility Relocation
\$ 85M	Construction
\$ 38M	Other Project Costs
\$132M	Total Cost



Alternative 3 First St.

- Connection to Montgomery Metro Station
- Tunnel Length: 1,400'
- Available ROW Width: 82.5'
- Estimated Cost:

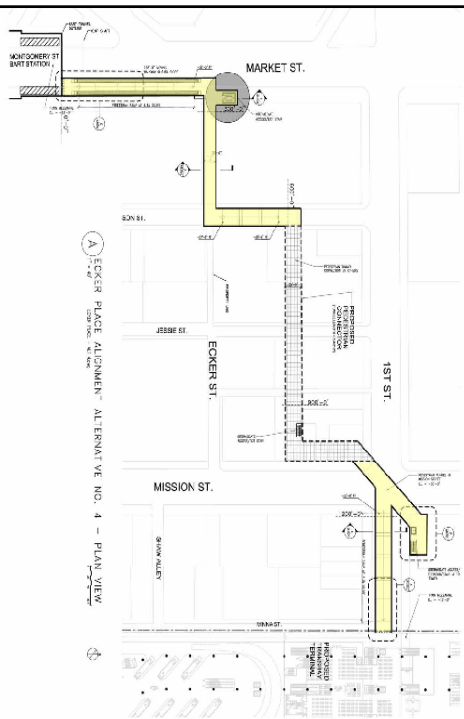
\$ 31M	Utility Relocation
\$ 98M	Construction
\$ 58M	Other Project Costs
\$187M	Total Cost



Alternative 4 Ecker Place (Partial)

- Connection to Montgomery Metro Station
- Tunnel Length: 1,020'
- Available ROW Width: Varies
- Estimated Cost:

\$ 18M	Utility Relocation
\$ 72M	Construction
\$ 40M	Other Project Costs
\$130M	Total Cost





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Alternatives Evaluation

Discussion Points

- Working Group Input
- Potential Use
- Safety & Security
- Utility and ROW Constraints
- Schedule/Phasing



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Summary Construction Cost (in \$ Millions)

	Alignment 1 Beale St.	Alignment 2 Fremont St.	Alignment 3 First St.	Alignment 4 Ecker Pl.
Utility Relocation	7.8	8.6	31.4	17.9
Tunnel Construction	64.6	84.9	97.8	71.5
Other Program Costs	32.3	38.2	58.2	40.1
TOTAL	104.7 Lowest Cost	131.7	187.4 Highest Cost	129.5



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Present Findings & Recommendations in May

- Complete Alternatives Evaluation
- Present Study Report
- Recommend Implementation Plan