Presentation to TJPA Board
Caltrain Downtown Extension
Project Update

July 31, 2009

Transbay Transit Center
Caltrain Downtown Extension Project

Agenda:

• Project Configuration
• Design Contract Task Progress
• TC / DTX Coordination and Interfaces
• DTX Design Criteria
• Contractor Outreach
• Next Steps
Project Configuration

• Coordination with Caltrain and CAHSR to ensure TC is compatible with their operating requirements

• In particular:
  – Provide 1,345 tangent platform length for CAHSR
  – Provide operational flexibility, and operational redundancy for Caltrain

• Accommodating these requirements has necessitated changes in TC configuration
DTX Configuration

- Train box extended to Main Street to provide CAHSR tangent platform length
- Inclusion of tail track to provide Caltrain operational flexibility/redundancy
- Additional crossover introduced at east end of TC
Design Contract Task Progress

- Task 5 – Draft Sixth Street Sewer Relocation
- Task 5 – Draft Traction Power Load Flow
- Task 5 – Draft Water and Air
- Task 6 – Draft Geotechnical Investigation
- Task 7 – Ground Characterization
- Task 7 – Numerical Analysis: Tunnel Initial Support
- Task 7 – Final Lining Analysis
- Task 9 – Updated Traffic Management Plan
Task 5 Traction Power Load Flow

- Simulates the ability of the proposed Caltrain electrification to accommodate Transbay.
- Study determined Caltrain electrification system can accommodate Transbay.
- The addition of DTX does not substantially alter Caltrain operational performance.
- No additional substation is needed to power DTX/TC.
• Determined required tunnel excavation size
• Modeled excavation sequence and initial support requirements:
  – Pipe canopy
  – Rockbolts
  – Lattice Girders
  – Shotcrete
• Determined final lining thickness and reinforcement
Design Contract Task Progress

- Preliminary Engineering design ~ 60% complete
- Significant work in progress ~ 30 subtasks
- Scope, budget and schedule re-baselined:
  - evaluation of TC options for CHSRA
  - additional scope items
- Existing design budget maintained
- Completion within existing contract period
- 30% Preliminary Engineering Substantial Completion planned for May 2010
TC/DTX Coordination & Interfaces

- Top of rail elevation
- Trainbox extension
- Use of area over Second Street ‘throat’
- Seismic compatibility
- Integrated ventilation design
- Communication systems
- Configuration of ventilation ducts and overhead contact system
DTX Design Criteria

- DTX Design Criteria issued May 2009 to design team, Caltrain, CHSRA & stakeholders
- Additional comments to be addressed through errata/addenda/revision process
DTX Contractor Outreach

- Promote industry awareness of project to maximize bidding potential.
- Key presentations given:
  - RETC, Toronto June 2007
  - NAT, San Francisco June 2008
  - APTA, San Francisco, June 2008
  - RETC, Las Vegas, June 2009
- Abstracts Submitted:
  - NAT, Portland, June 2010
  - ITA, Vancouver, June 2010
Next Steps

• Continue Caltrain/CAHSR design interface for Fourth and Townsend UG Station and Fourth and King Station/Yard

• Establish rail operational responsibilities and requirements at the Transit Center facility for station command & control

• Continue task progress

• Finalize scope, budget and schedule
Questions?