Why we are here

Hilltop Tacoma Link Extension Update
• Information only briefing of current project status

Today’s Proposed Board Actions
• To inform the System Expansion Committee for recommendations to Board to increase the project budget, revise revenue service date and increase contingency for construction, vehicles and professional services contracts
Today’s Presentation

• Project Overview
• Financial Snapshot
• Risk and Contingency Management
• Lessons Learned
• Construction Work – Ongoing and Remaining
• Cost and Schedule Drivers
• Key Issues and Challenges
• Questions
Hilltop Tacoma Link Extension (HTLE)

Project Overview

- 2.4 mile extension
- Seven new station platforms
- Five new vehicles
- Operations and Maintenance Facility expansion
- 76% complete
**Current HTLE Financial Snapshot**

<table>
<thead>
<tr>
<th>Project Baseline Budget</th>
<th>$252.7</th>
</tr>
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<tbody>
<tr>
<td>Committed</td>
<td>$226.4</td>
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<tr>
<td>Incurred</td>
<td>$204.0</td>
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- Financials as of December 2021
- Project baselined in September 2017, budget rebaseline June 2020
- Year of Expenditure dollars
- Trends indicate the baseline budget of $252.7M requires more funding to address updated estimate at completion due to delay to completion of the work and start of revenue service.
Risk and Contingency Management

May 2021
• Top Risks
  ✓ Available float
  ✓ LRV
  ✓ Testing and Commissioning
• Post-Primary Mitigation Results
  ✓ Insufficient budget
  ✓ Delay
  ✓ Pandemic

January 2022 - Preliminary
• Top Risks
  ✓ Testing and Commissioning
  ✓ LRV
  ✓ Permanent Power
• Post-Primary Mitigation Results
  ✓ Insufficient budget
  ✓ Delay
  ✓ Pandemic
Cost and Schedule Drivers

• Construction
  o Change orders due to design revisions and contractor performance issues meeting planned production rates delayed substantial completion of the contract.

• Administration and professional services
  o Extended duration of the construction contract requires longer period of service for design support during construction, construction management professional services and Agency staff.

• Tacoma LRV
  o Settlement of claims due to manufacturing delays by car builder and associated longer period of service for testing and inspection support.
Lessons Learned

For at-grade construction in City ROW, the agency should consider:

**Design**
- Engineering procedures
- Civil/systems integration
- Design submittal timelines

**Construction**
- Contract delivery method – allocation of risk
- Change management
- Use of incentives
- Ensure adequate contingencies

**Third Parties**
- Agreements – roles and responsibilities during construction

**Vehicles**
- Allow time for concept verification for car builder
Ongoing - Construction
Ongoing - LRV
Remaining Work

Civil
- Station Finishes
- Curb and gutter; ADA ramps
- Roadway restoration
- 9th and Commerce cutover

Systems
- OCS Wiring and Registration
- TPSS Stations - power
- Signalization

Testing and Commissioning
- Infrastructure
- Light Rail Vehicles

Vehicles

Pre-Revenue Service
Key Issues and Challenges

- Maintaining a high level of safety awareness and accident prevention
- Tight budget and limited contingency
- Likely construction contract claims
- Stakeholder and neighborhood impacts during construction
- Contractor performance
- Public outreach during construction
- Impacts to operations - cutovers
Today’s Proposed Board Actions
Hilltop Tacoma Link Extension

Resolution No. R2022-003
Motion No. M2022-09
Motion No. M2022-10
Motion No. M2022-11

02/10/22
Hilltop Tacoma Link Extension: Baseline Budget: $252.75M

- **Project Development**
  - Agency Admin, PE, Third Party, ROW and System Testing & Startup $31.3M
  - Final Design $14.0M
  - Construction Services $11.5M
  - Vehicles $32.9M

- **Construction**
  - $157.2M

Uncommitted $5.7M

**Allocation**
- $252.75M

**Commitments**
- Approved
- Today’s Action
- Future Action
Hilltop Tacoma Link Extension: Board approves $30M for additional authorized project allocation
Hilltop Tacoma Link Extension: Baseline Budget: $282.75M

Allocation

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<tr>
<th>Year</th>
<th>Project Development</th>
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Commitments

<table>
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<tr>
<th>Year</th>
<th>Construction Services</th>
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<td>2018</td>
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<table>
<thead>
<tr>
<th>Year</th>
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<table>
<thead>
<tr>
<th>Year</th>
<th>Final Design</th>
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<tbody>
<tr>
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<table>
<thead>
<tr>
<th>Year</th>
<th>Construction</th>
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<tbody>
<tr>
<td>2019</td>
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<table>
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<tbody>
<tr>
<td>2020</td>
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Hilltop Tacoma Link Extension: Board approves $18.4M in final design, construction services and vehicles phase
Thank you.