Hilltop Tacoma Link Extension

System Expansion Committee

02/10/2022



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

Project Baseline Budget	\$252.7
Committed	\$226.4 90%
Incurred	\$204.0 ^{80%}

- 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

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

Administration and professional services

 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

 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

Third Parties

 Agreements – roles and responsibilities during construction

Construction

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

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

Testing and Commissioning

- Infrastructure
- Light Rail Vehicles

Systems

- OCS Wiring and Registration
- TPSS Stations power
- Signalization

Vehicles





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



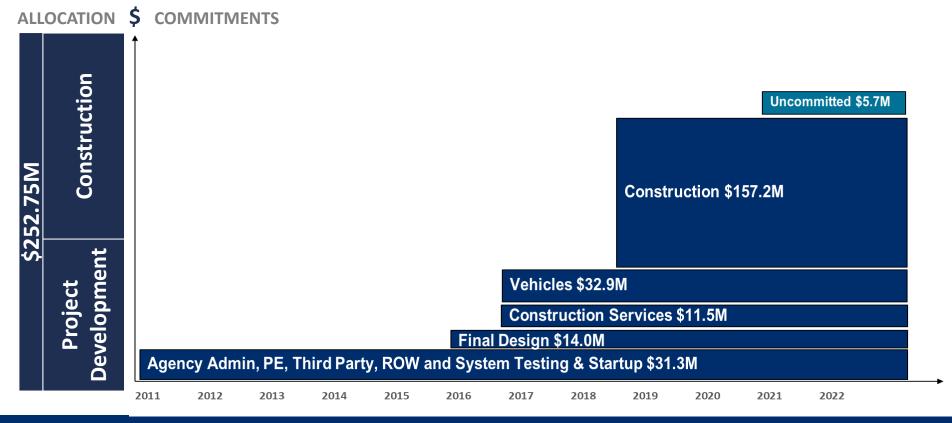
Today's Proposed Board Actions

Hilltop Tacoma Link Extension

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



Hilltop Tacoma Link Extension: Baseline Budget: \$252.75M



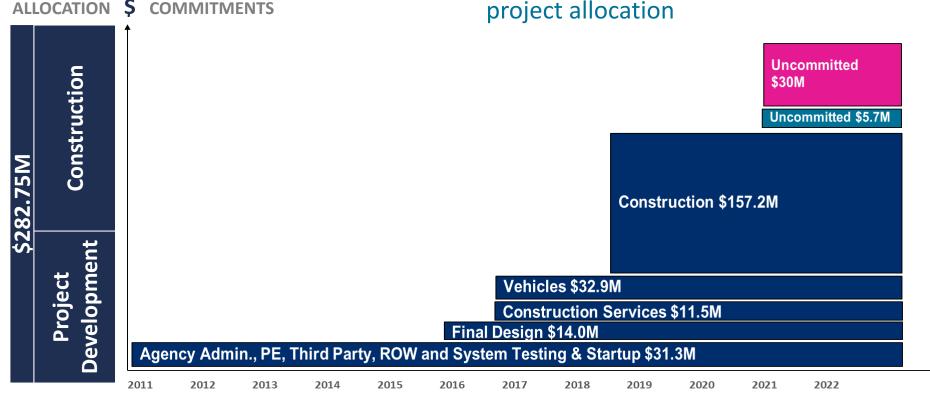








Hilltop Tacoma Link Extension: Board approves \$30M for additional authorized ALLOCATION \$ COMMITMENTS project allocation





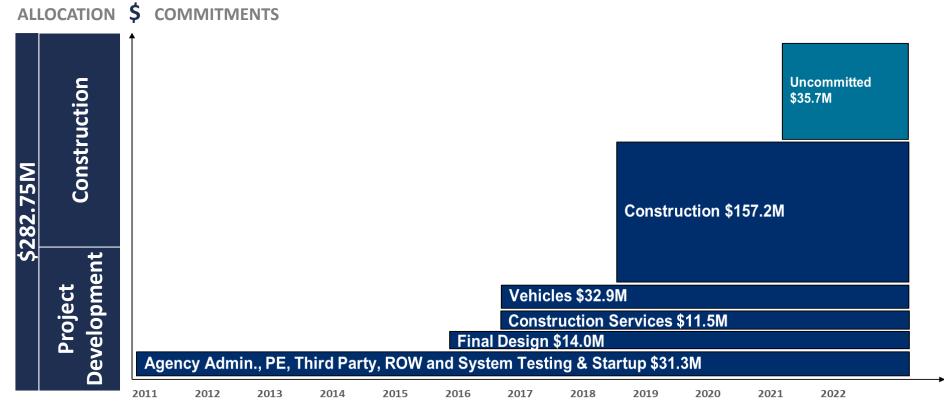








Hilltop Tacoma Link Extension: Baseline Budget: \$282.75M





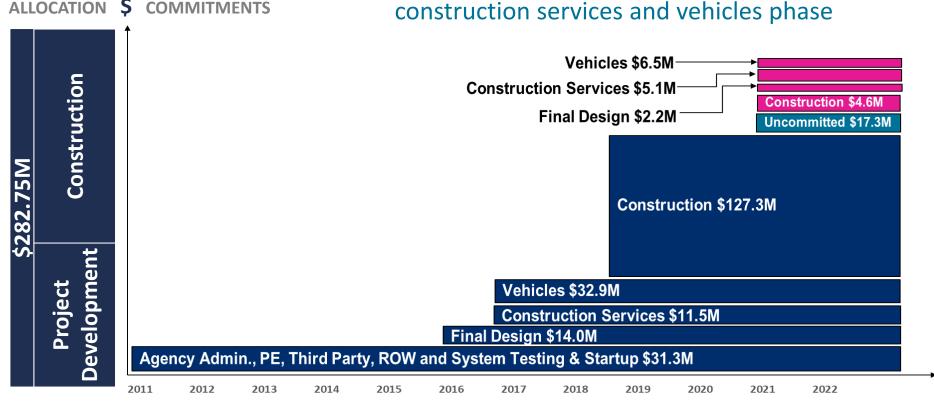








Hilltop Tacoma Link Extension: Board approves \$18.4M in final design, construction ALLOCATION \$ COMMITMENTS











Thank you.



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