Item No. 10a_supp
Meeting Date: July 23, 2024

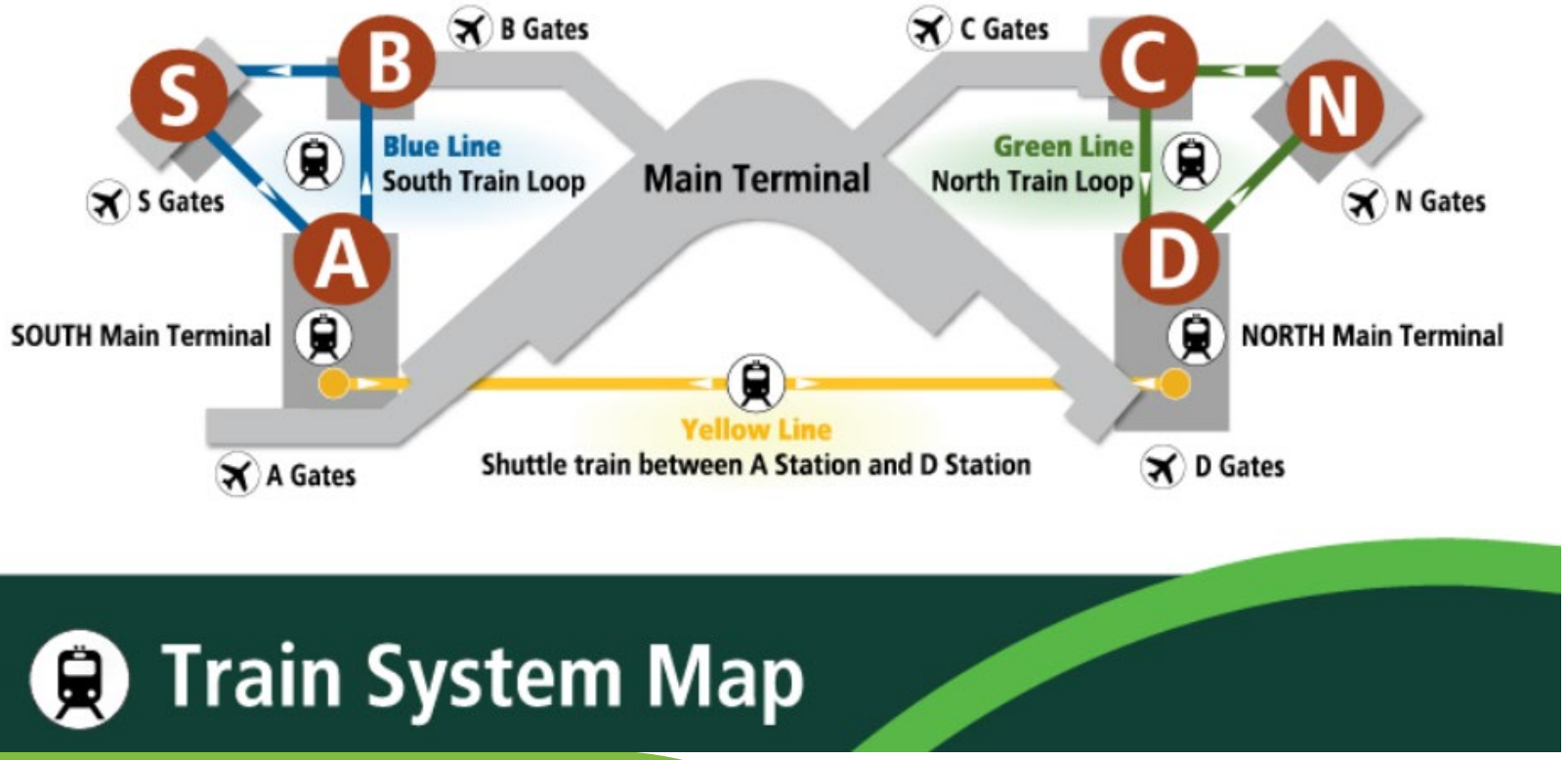
Satellite Transit System Renewal & Replacement

Seattle-Tacoma International Airport

Port of Seattle®

Historical Context - Existing STS

- Satellite Transit System (STS) consists of two loops (North and South Loop) and the shuttle connector.
- STS helps passengers travel to their gates quickly in 2-5 mins and access N and S Concourses.
- STS carried approx. 28 Million Passengers in 2023.



STS Program Goal/ Purpose

- Timely and cost-effective renewal and replacement of STS is required to continue operation and maintain efficient airport.
- The Preferred Solution will accommodate near and long-term demand considering:

1. Replace end of life vehicles and rehabilitate aging STS tunnels.
2. Minimize impact to existing STS infrastructure and operations during construction.
3. Enabling project constructing a new pedestrian connector between N and D Concourse

History of STS

- **1973:** SEA's STS was first implemented with 9 vehicles and was one of the first STS in the US.
- **1982:** 12 additional vehicles were added, totaling to 21 vehicles.
- **2003:** STS was modernized with new 21 vehicles and radio-based train control system.
- **2020-2027:** Replace train control system as it is approaching end of useful life (in construction).
- **2030-2035:** STS vehicles will reach the end of useful life (reaching design mileage of 1 million miles) and must be replaced.

Existing STS Conditions and Challenges

End of Life - STS Vehicles

Vehicle service life will end between 2030-2035

Existing vehicles are discontinued

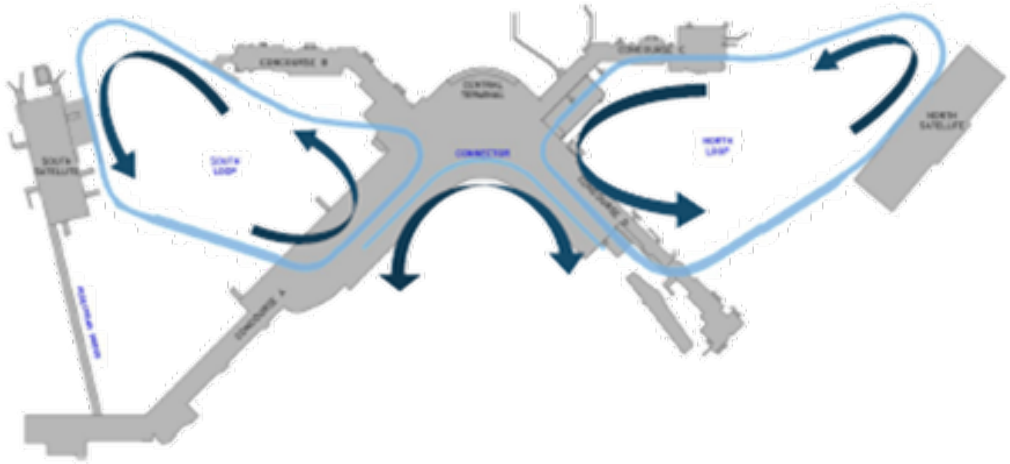
Standard STS vehicles on the market cannot fit in the existing tunnels

Aging STS Tunnel

Major rehabilitation/ replacement of STS tunnels is needed to extend useful life past 2030

Future Growth

North and South Loops cannot serve the forecasted passenger demand without modification



PDD Purpose

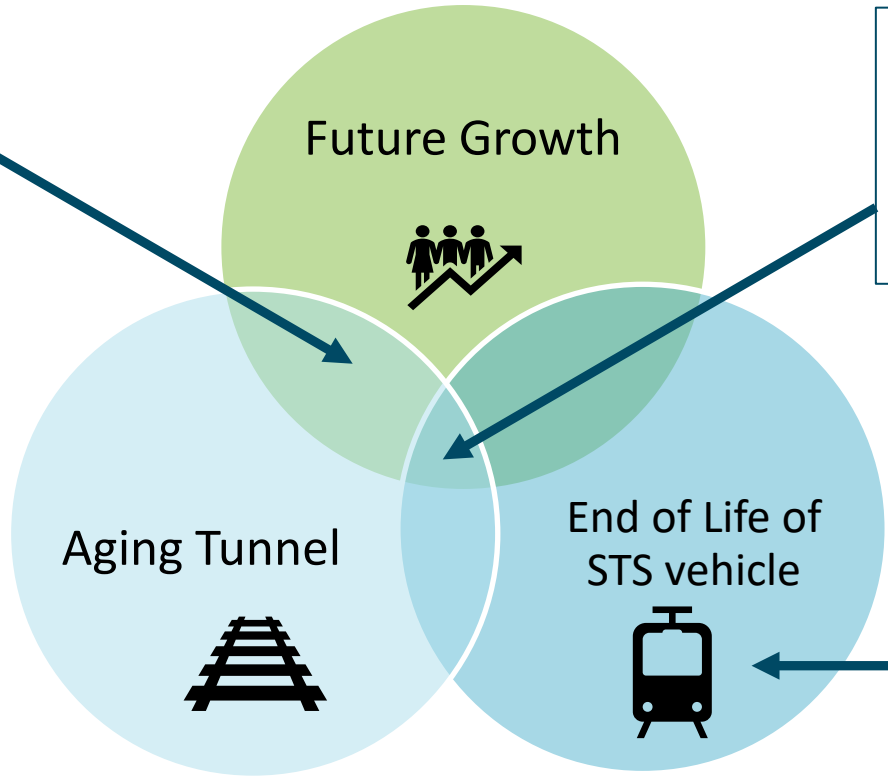
- Project Definition Document (PDD) is required as a bridging document before project design.

Project Scope

- PDD will be used as a starting point to refine the project concept to approx. 15% design level of the Preferred Solution.
- PDD will address sustainability goals.
- The total duration of PDD is 112 weeks.

PDD to address existing STS Conditions and Challenges

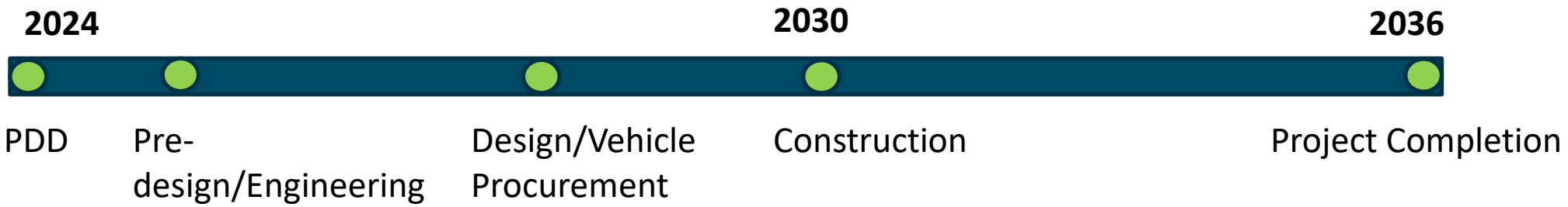
- Evaluate alternative structural rehabilitation concepts
- Develop preferred concept to 15% Design for STS tunnel and North Pedestrian Connector



- Review previous study and analyze existing conditions
- Perform additional site surveys
- Conduct Risk Assessment

- Develop different concepts for STS system replacement

STS Replacement Program Timeline



Requested Action

Request Commission authorization for the Executive Director:

1. Advertise and execute contracts for technical consulting, project definition services, and project management support
2. Prepare pre-design and bridging documents
3. Utilize Port crews, in support of the STS Renewal & Replacement project (CIP #801377) at the Seattle-Tacoma International Airport (SEA).

The amount of this request is $9,000,000.

The total program cost will be determined by the PDD, and the project team will be back at Commission prior to additional authorization.