

Item No.	9b_supp
Date of Meeting	November 9, 2021

Widen Arrivals Roadways

Design Authorization Increase
and Contract Amendment

Presentation Outline

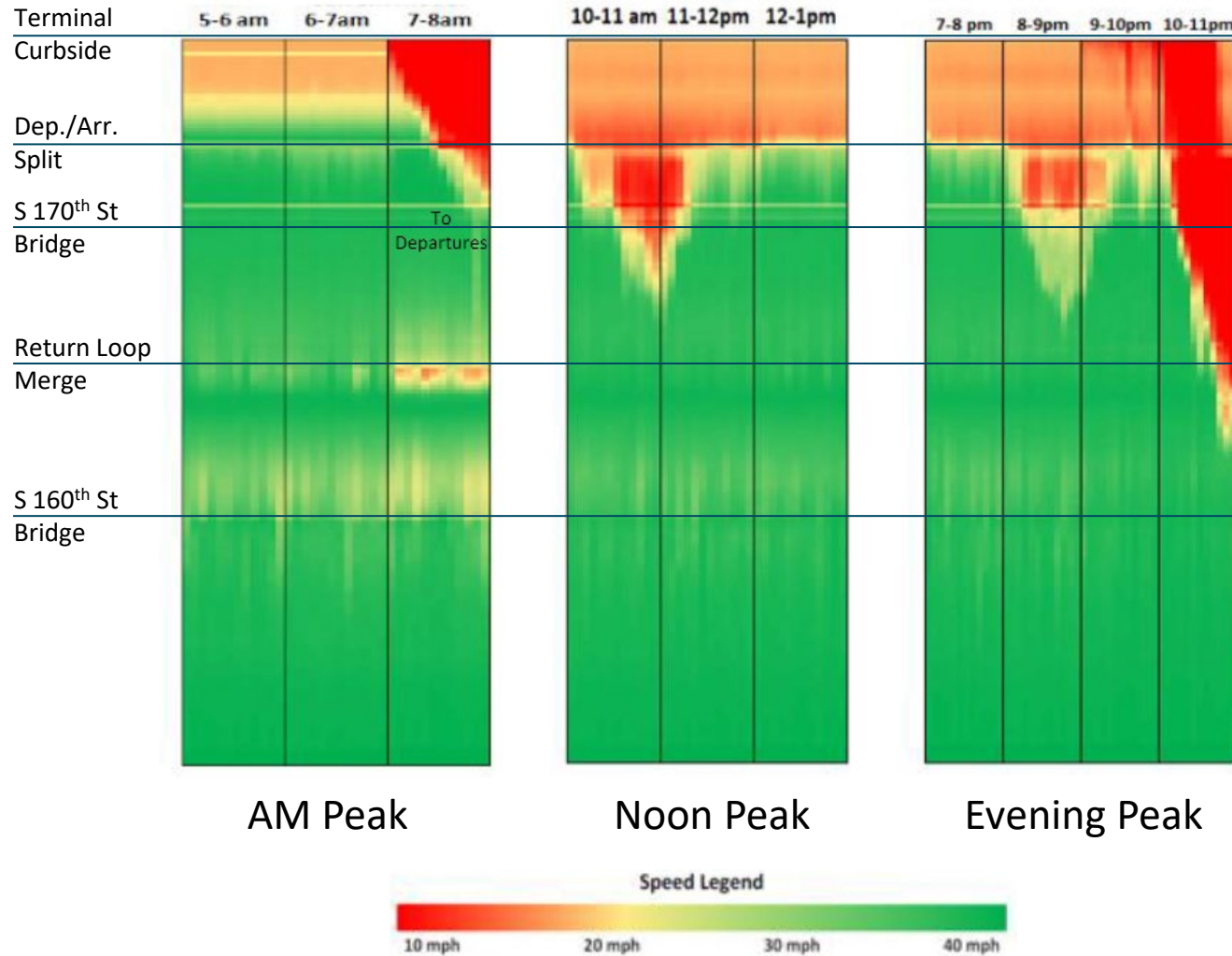
- Commission Questions from previous meeting
 - What is the current and future roadway level of service? What does congestion look like over time?
 - How has lane flexibility (e.g. HOV lane) been integrated with the design effort?
 - Was there an environmental review? What was the result?
 - How does this project relate to the Sustainable Airport Master Plan?
- Review of September presentation (if needed)

Widen Arrivals Roadways – Level of Service

What is the current and future level of service?

- Evening (8pm-11pm) is the peak period of activity
- Existing average August day (51.8 MAP in 2019)
 - LOS F (congested flow with an average travel speed <10 mph)
- Future average August day (61 MAP)
 - No improvements, remains at LOS F
 - With improvements, improves to LOS D (medium flow condition with localized queueing)

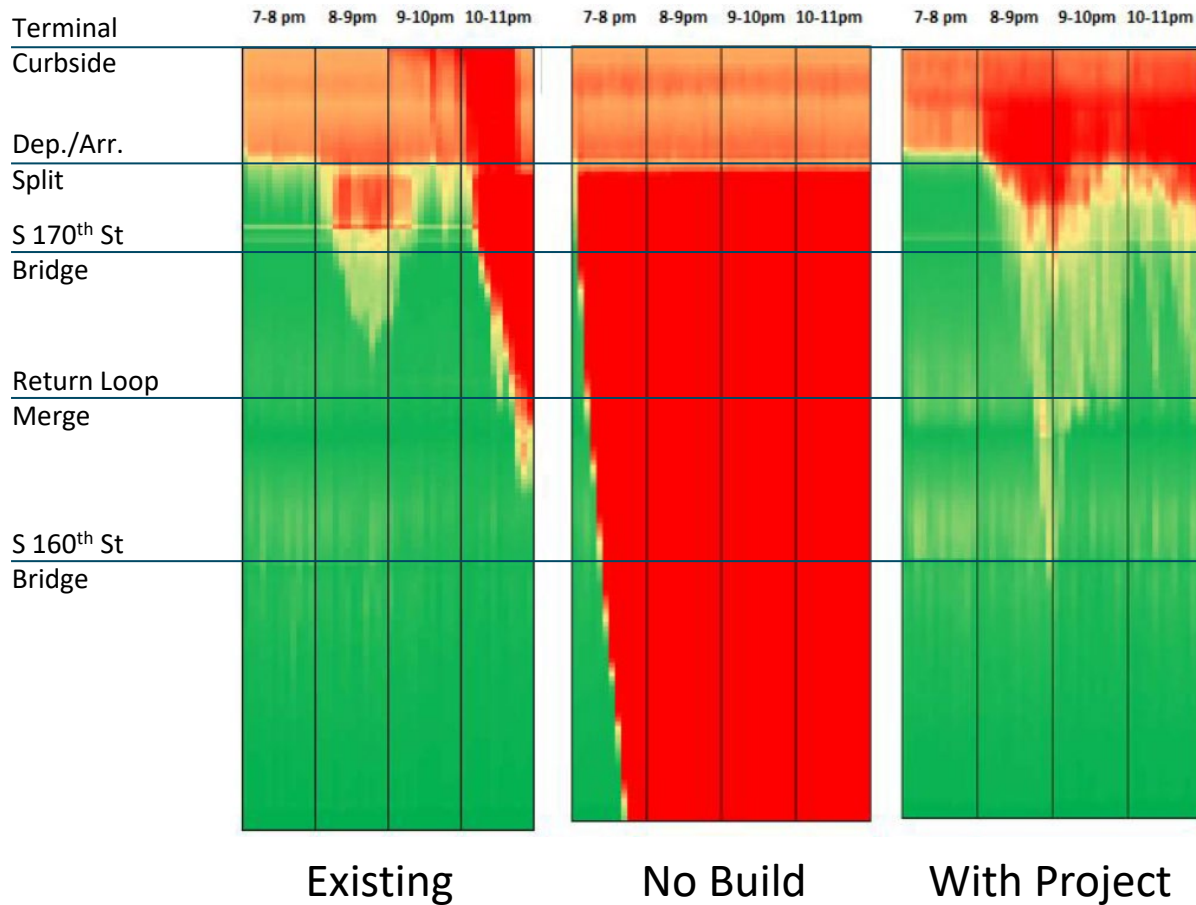
Widen Arrivals Roadways – Congestion (Existing)



Existing Conditions (2019)

- 51.8 Million Annual Passengers
- August average day conditions
- Evening peak is peak period
- Queue starts at Return Loop Merge

Widen Arrivals Roadways – Congestion (Future)



Future Conditions

- 61 Million Annual Passengers
- August average day evening peak conditions
- No Build queue starts at I-5 (2.6 miles)



Widen Arrivals Roadway – Congestion

Average Travel Time from Clock Tower to Curb/Garage

Direction / Location	Existing	Future No Build	Future With Project
To Departures Curbside	5.4	16.2	2.4
To Arrivals Curbside	6.7	15.8	2.7
To Ground Transportation Center	7.2	16.0	2.8
To North Parking Garage Entrance	6.2	15.0	2.4

Note: Travel times are measured in minutes and represent the August average day evening peak period.

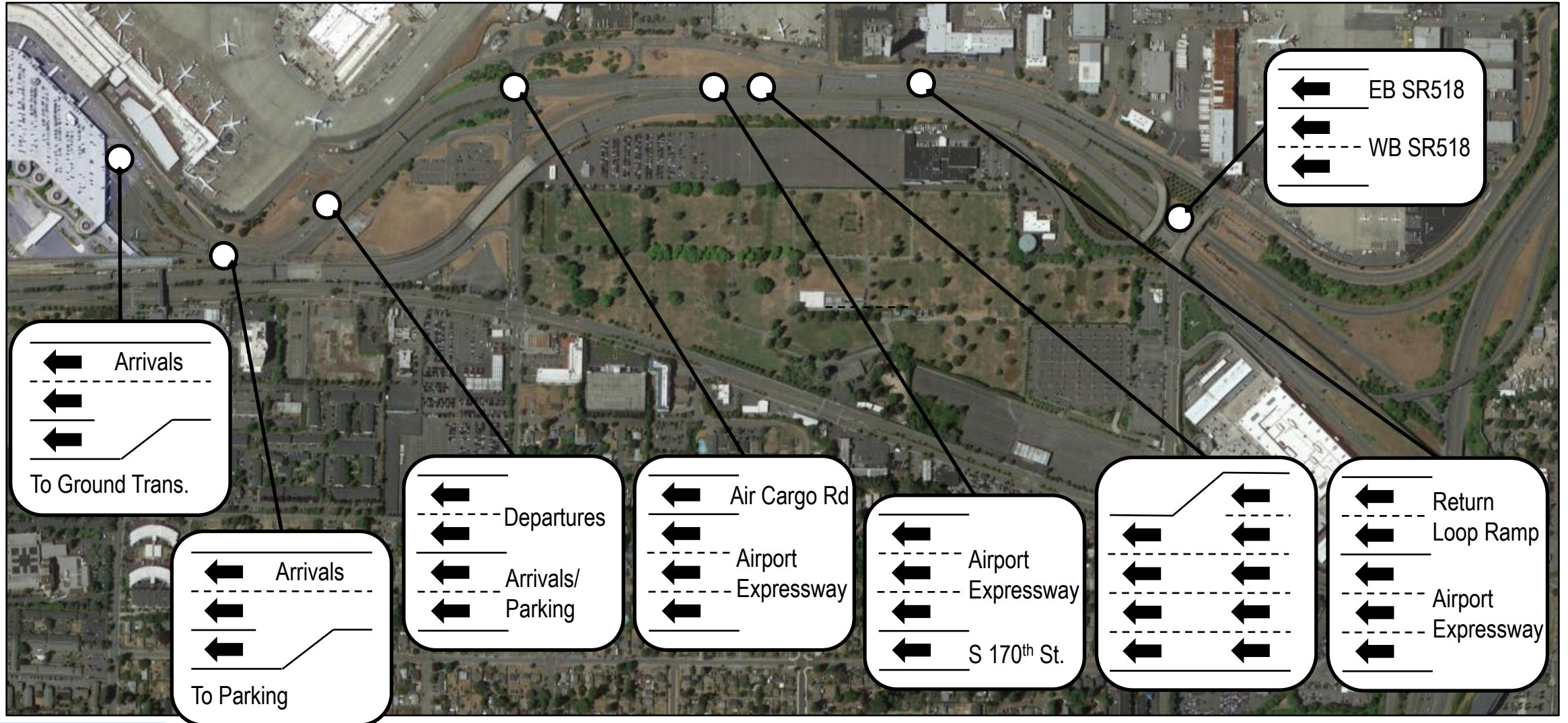
Widen Arrivals Roadways – Lane Flexibility

- Per Chapter 46.61.165 RCW Preferential lanes (e.g., HOV lanes) are limited to:
 - Public transportation
 - Motorcycles
 - Private vehicles carrying specified number of passengers
 - Commercial ground transportation services that have capacity to carry eight or more passengers

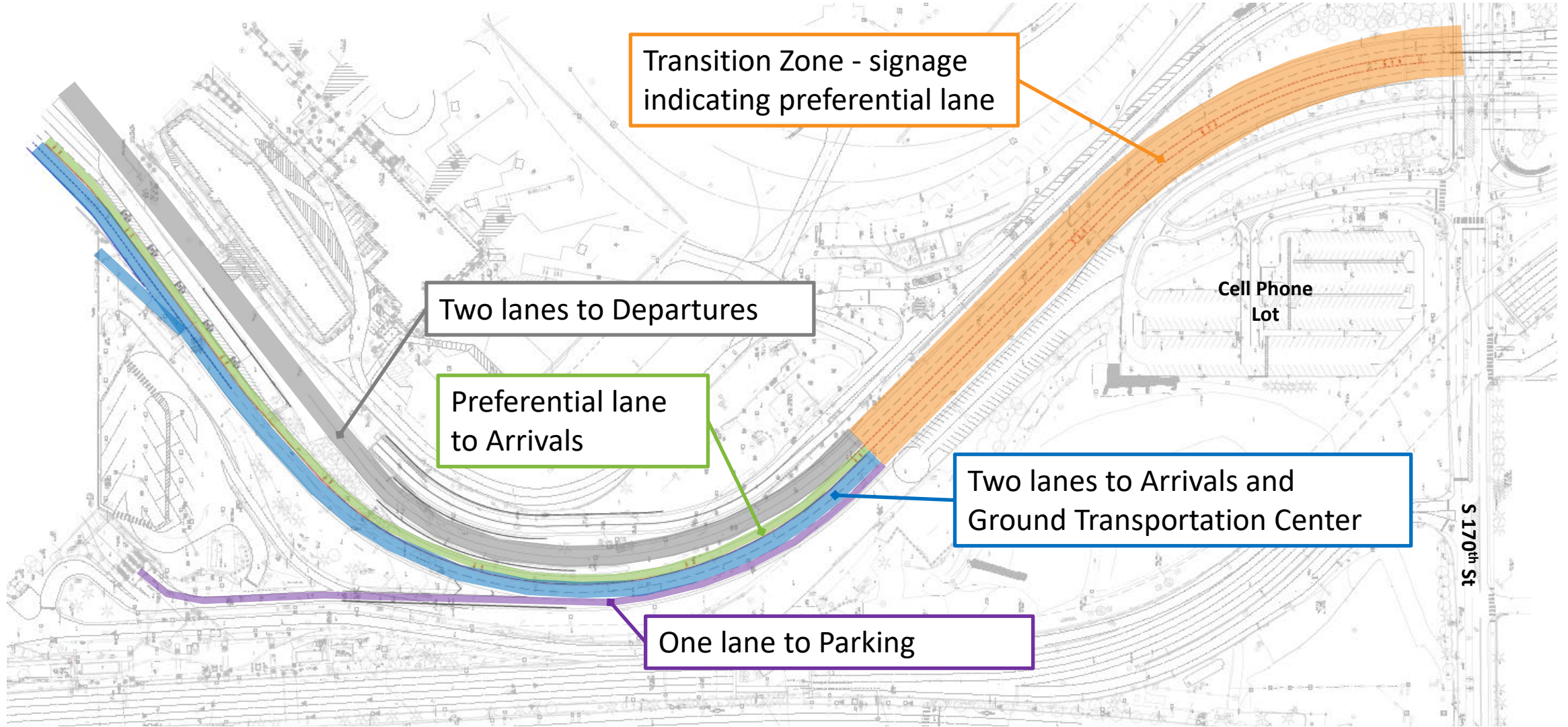
Widen Arrivals Roadways – Lane Flexibility

- The project did not evaluate the use of preferential lanes
- There are challenges at SEA implementing preferential lanes
 - State Route 518 does not have preferential lanes
 - HOV facilities serving the region are typically defined as two or more passengers. The majority of private vehicles entering SEA meet that definition.
 - Number of total travel lanes limited by existing constraints (light-rail transit guideway and airfield)
 - Airport terminal roadway system is complex; continuous preferential lane likely not feasible (merging, diverging, weaving sections)

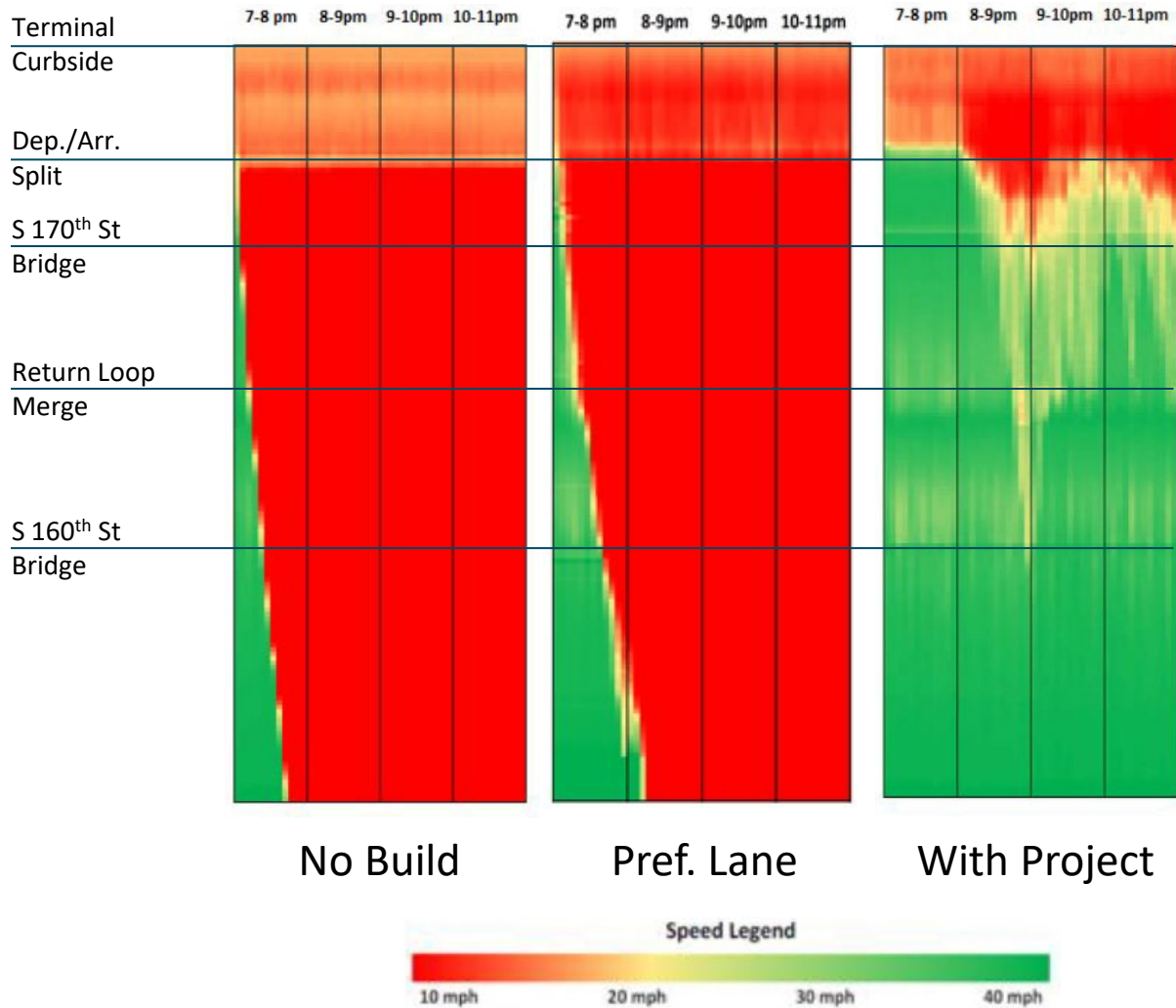
Widen Arrivals Roadways – Lane Flexibility



Widen Arrivals Roadways – Lane Flexibility



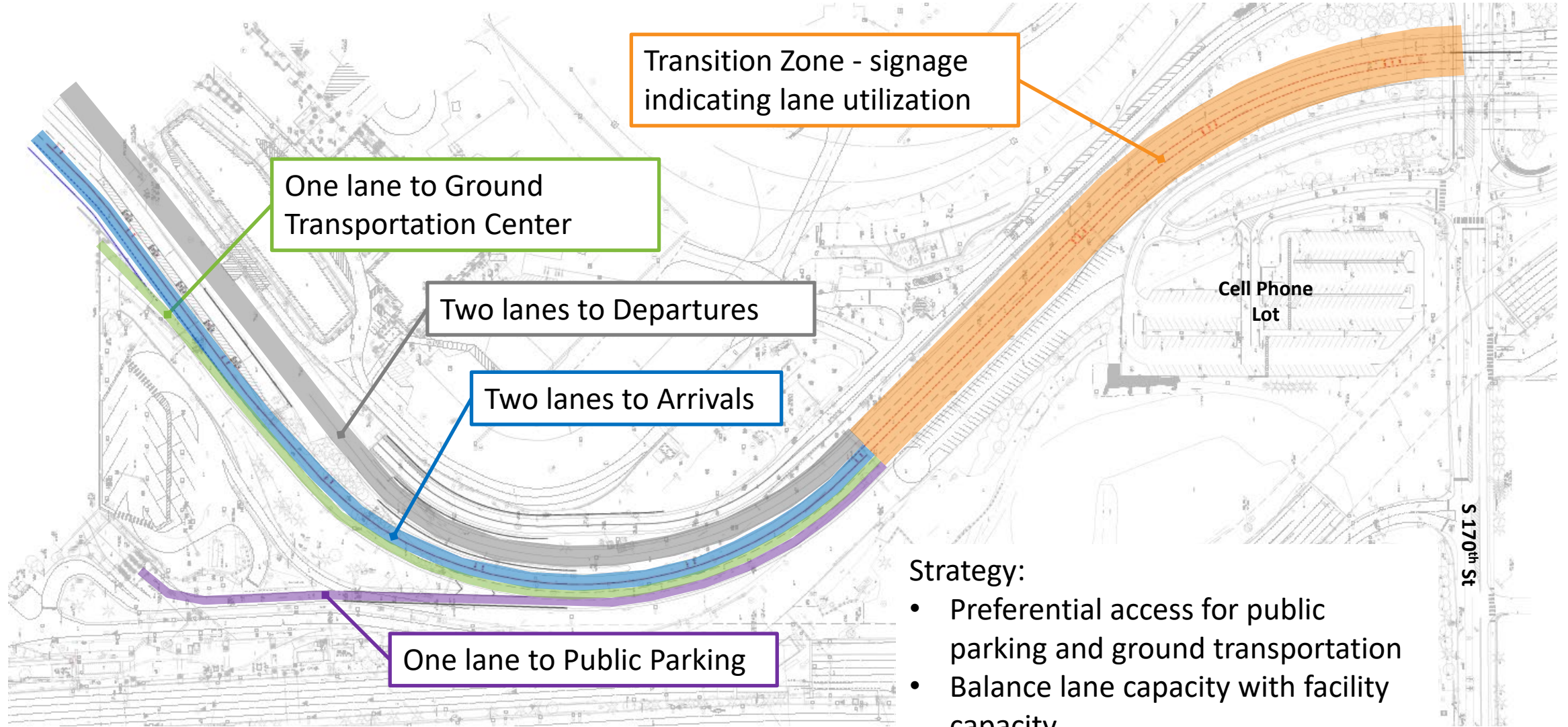
Widen Arrivals Roadway – Lane Flexibility



Future Conditions

- 61 Million Annual Passengers
- August average day evening peak conditions
- No Build queue extends to I-5
- Preferential lane queue extends onto SR518 towards I-5

Widen Arrivals Roadways – Lane Flexibility



Strategy:

- Preferential access for public parking and ground transportation
- Balance lane capacity with facility capacity

Widen Arrivals Roadways – Environmental Review

Was there an environmental review? What was the result?

- SEPA checklist completed May 13, 2021
- Port issued a determination of non-significance June 9, 2021
- Only one comment was received
 - Department of Ecology letter identifying that contamination may be encountered from the historic Asarco Smelter

Sustainable Airport Master Plan (SAMP)

- Widen Arrivals Roadways is independent of SAMP NTP
 - Widen Arrivals Roadways addresses existing demand
 - SAMP NTP addresses future demand
- Removed from SAMP NTP environmental review

“The Project is an independent action but will be designed to accommodate the NTPs (e.g., room for a potential expanded utility corridor under the Project and design consistent with the horizontal and vertical alignments of the proposed North Airport Expressway relocation). With or without the SAMP NTPs, this Project would occur and will be constructed independently. Construction of this Project does not impact Port choices or decisions regarding whether and what SAMP NTP projects may occur.”

COMMISSION PRESENTATION SLIDES FROM SEPTEMBER 28, 2021

Project Scope

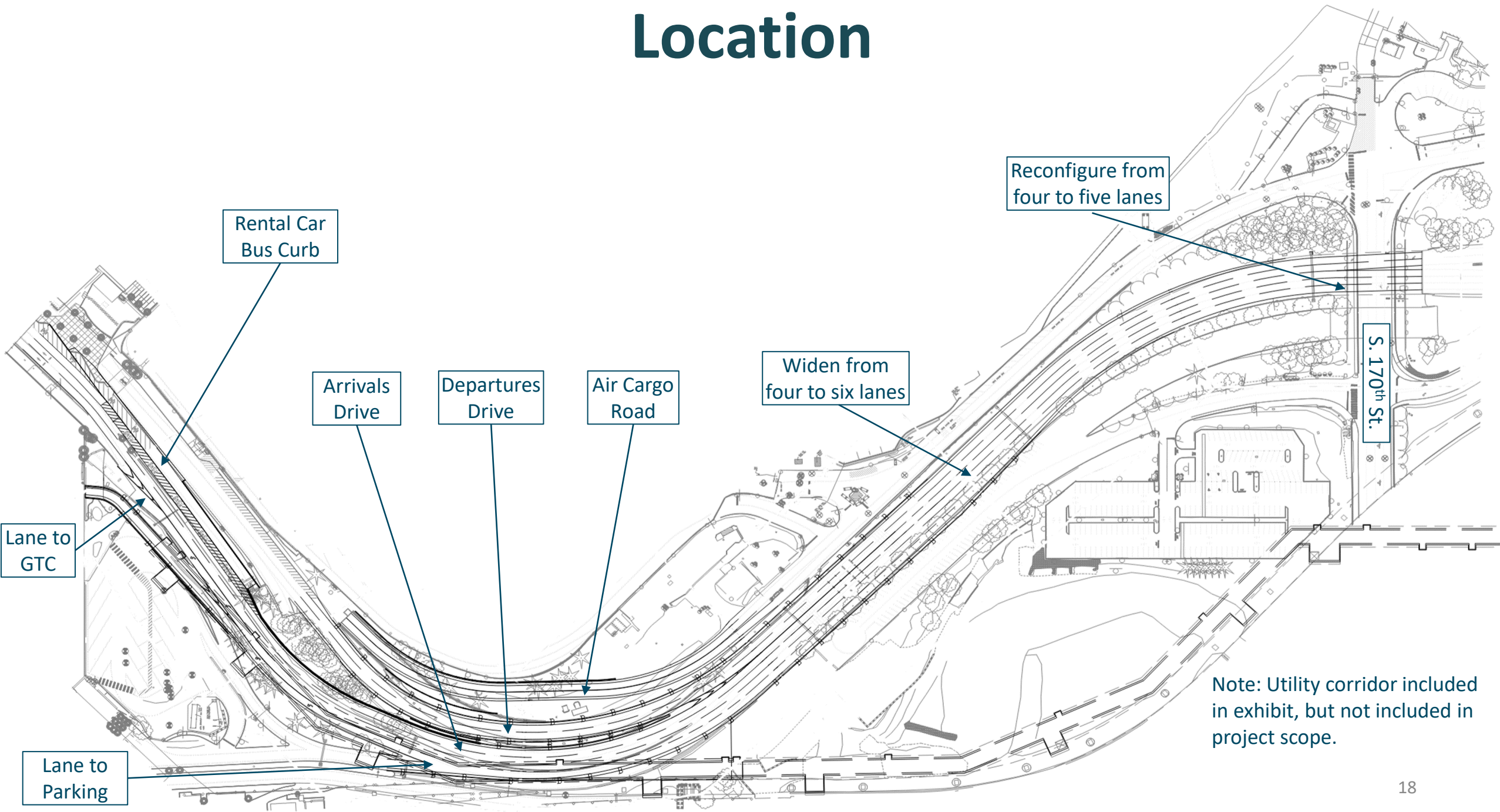
Scope Items:

- Provide an additional two lanes for a total of six lanes from S 170th Street into the Departures and Arrivals curbsides and Main Garage
- Relocation of utility infrastructure systems to support widening
- Relocate the rental car bus curb to the north
- Demolish the bridge from Departures drive to the Main Garage
- Complete seismic retrofit of north portal of Service Tunnel
- Replacement of power and water utility infrastructure systems that are past their useful life

Justification

- Original roadway system designed to support overall activity level of 25 million annual passengers (MAP)
- In 2019 (51.8 MAP) significant roadway congestion and queueing occurred during peak periods
- With return of airport activity levels congestion and queueing has returned during peak periods
- Queueing could reach I-5/I-405 interchange on a regular basis during summer months in the near-term

Location



Note: Utility corridor included in exhibit, but not included in project scope.

Resolution of Scope Risk

Airport Utilities Master Plan

- Utility Corridor required to support SAMP near-term projects
 - Not included with Widen Arrivals Roadways Project
 - Designing improvements to support future construction
- Utility infrastructure system expansion to support SAMP near-term projects
 - Not included with Widen Arrivals Roadways Project (outside limits)
- Replacement of aging utility infrastructure systems
 - Portion included within Widen Arrivals Roadways Project

Budget Increase

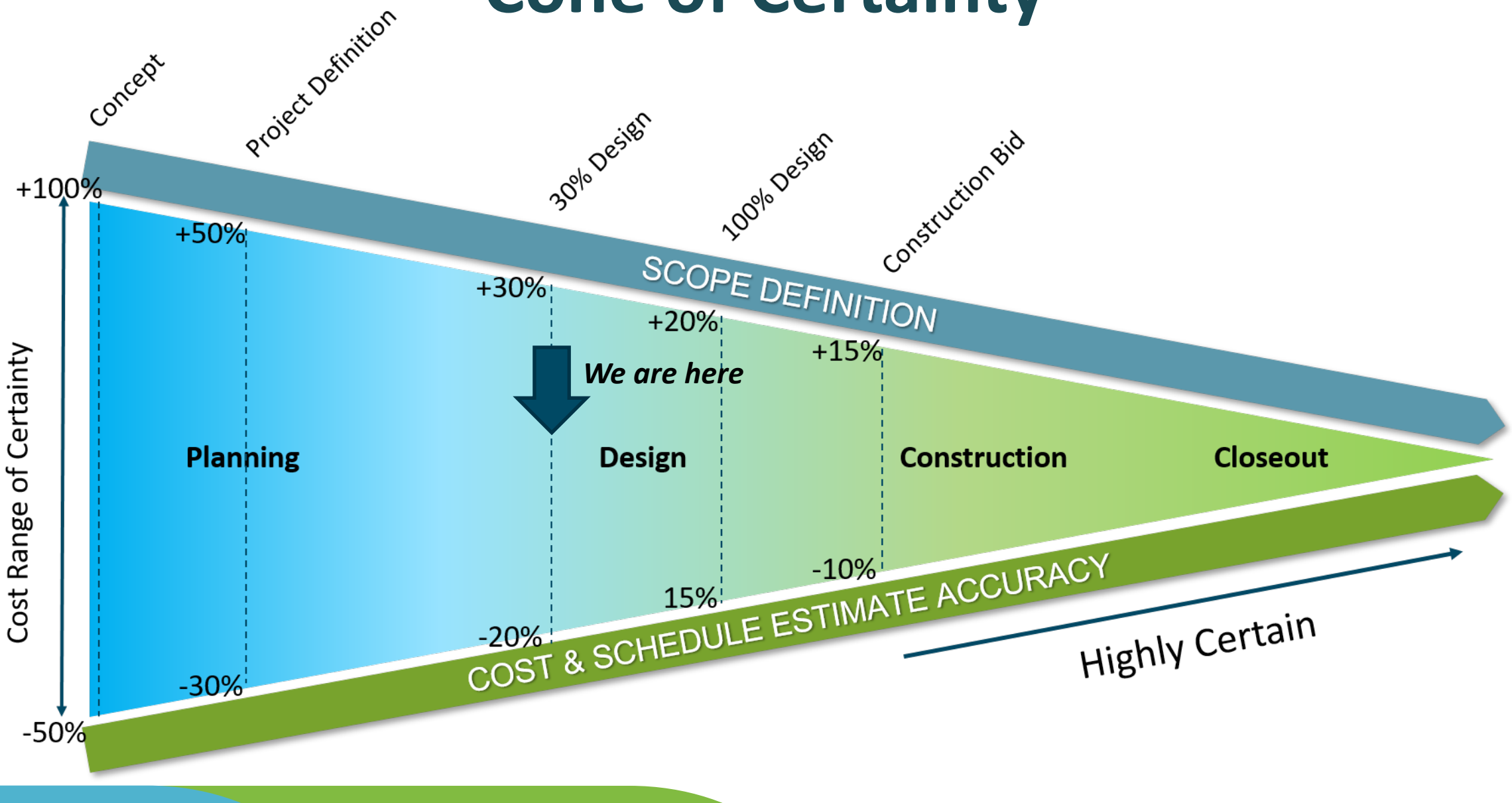
Overall project budget increased to \$79.3 million

Project Schedule

Project will be delivered through two phases

- Early Work – Bridge Demolition
 - Design Complete: Q4 2021
 - Construction Start: Q2 2022
 - In-Use Date: Q3 2022
- Main Contract
 - Design Complete: Q4 2022
 - Construction Start: Q2 2023
 - In-Use Date: Q4 2025

Cone of Certainty



Project Risks

RISK	DESCRIPTION	PROBLEM	IMPACT	MITIGATION PLAN
Fuel Farm Monitoring Wells	If no further action letter from the DOE, existing wells may have to be relocated at an expense to the project.	M	M	Working with Environmental to abandon as many wells as possible.
FAA Fiber	No impacts anticipated to existing FAA fiber but will be working around it.	L	H	Pothole FAA fiber to confirm location.
Tax Rule 171	Project assumed it was eligible for sales tax exemption.	L	M	Submitted determination request to DOR to confirm.
Access Fees	Port moving toward an access fee and may request additional scope to support.	L	M	Work though the change process if needed.
Design Risks	Project proceeds design for SAMP near-term projects. Changes for forward compatibility are probable.	H	H	Track projects and assess changes as they develop.