



Update on construction risks for Link projects

*System Expansion Committee
August 18, 2022*



What we'll cover today

- **Overview of Link construction challenges**
- **Strategies for managing risks**
- **Action plans for establishing opening dates, with particular focus on East Link and Federal Way**
- **Next steps**

Overview of current challenges

All four Link construction projects face challenges from:

- COVID-19 pandemic
- Supply chain issues
- Staffing shortages
- Four-month concrete delivery strike

On East Link and Federal Way, these factors are compounded by unique and complex design and construction challenges.

Strategies for managing risks

- Recent emphasis: comprehensively analyzing risks for each of the four projects
- Now getting underway: programmatic analysis

***Project risks:
East Link Extension***

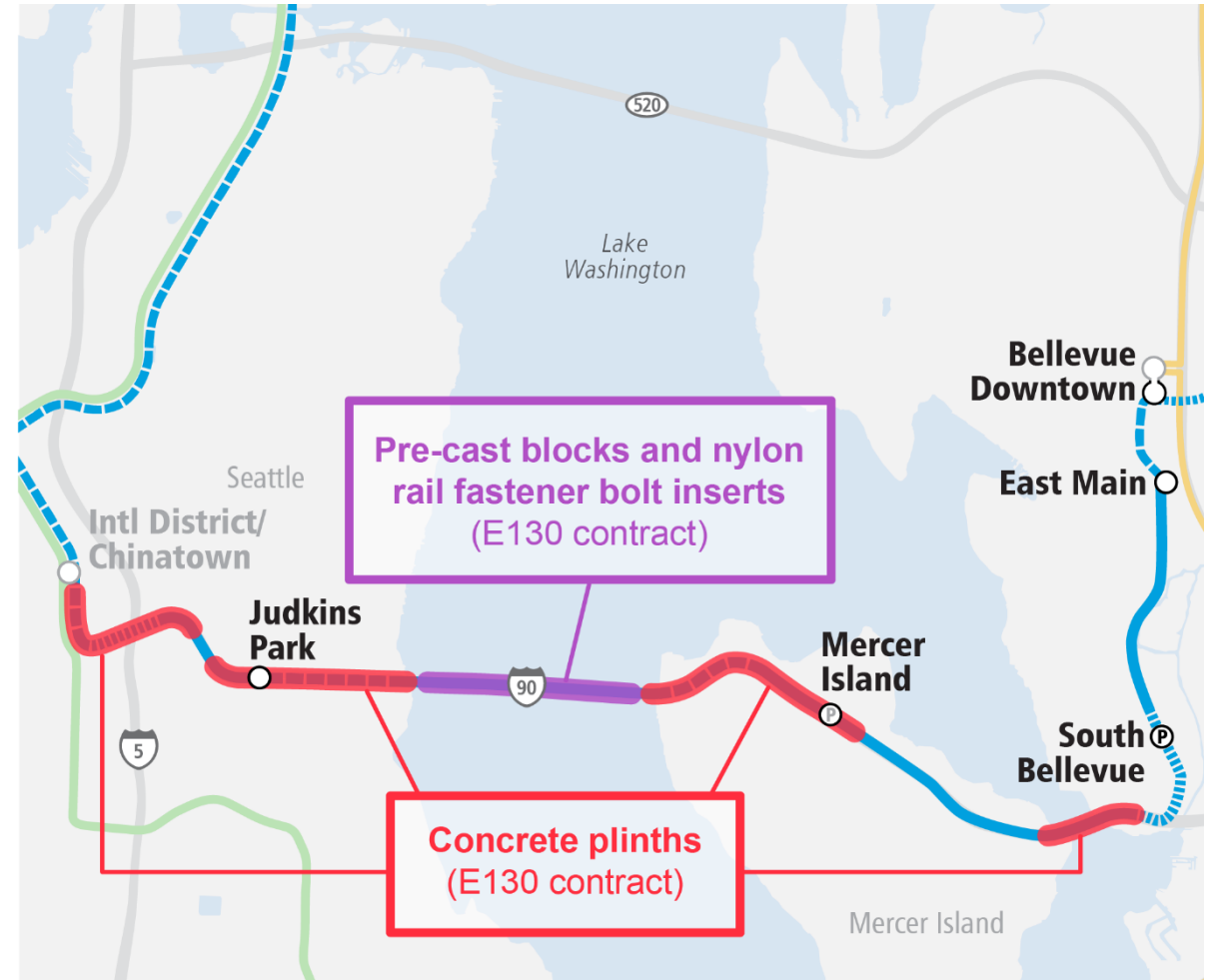


East Link Extension

- Launches new 2 Line with 14 miles of new service
- 19 stations from Redmond to Northgate
- 10 *new* stations in Seattle (1), Mercer Island (1), Bellevue (6) and Redmond (2)

Top risks to East Link schedule

1. **Concrete plinths** on the I-90 segment east and west of Lake Washington
2. **Pre-cast blocks and nylon rail fastener bolt inserts** on the I-90 floating bridge



Risk 1: Concrete plinths on I-90 segment



Risk 1: Discovering further plinth issues



Risk 2: Pre-cast blocks on floating bridge



Steps taken to improve quality

- Sufficient staffing to observe construction
- Focus on training:
 - Ensure understanding of work being completed
 - Use construction mock-ups to show finished product
- Quality control:
 - Check points to review repairs before work continues
 - Third-party experts

***Project risks:
Federal Way Link Extension***

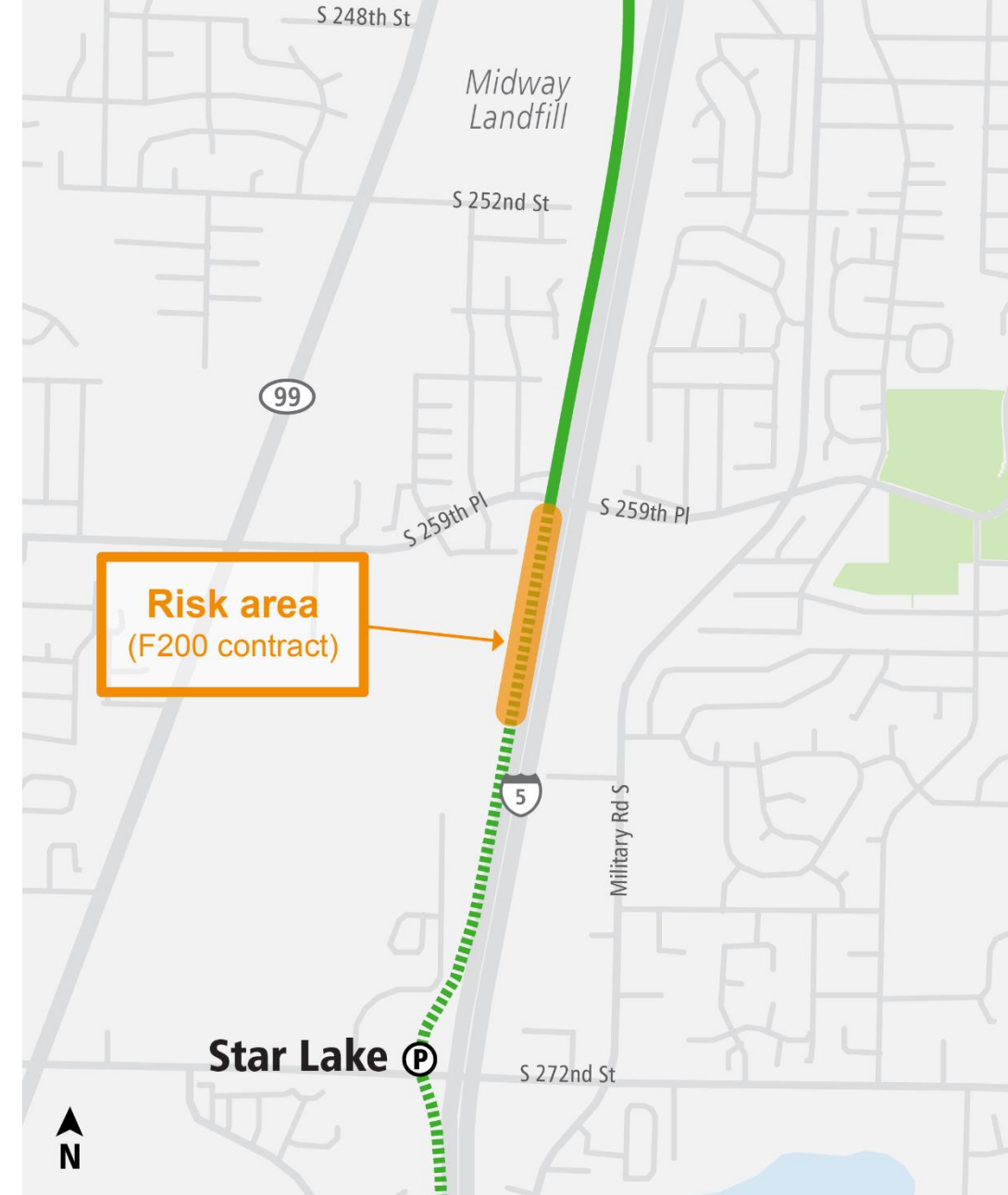


Federal Way Link Extension

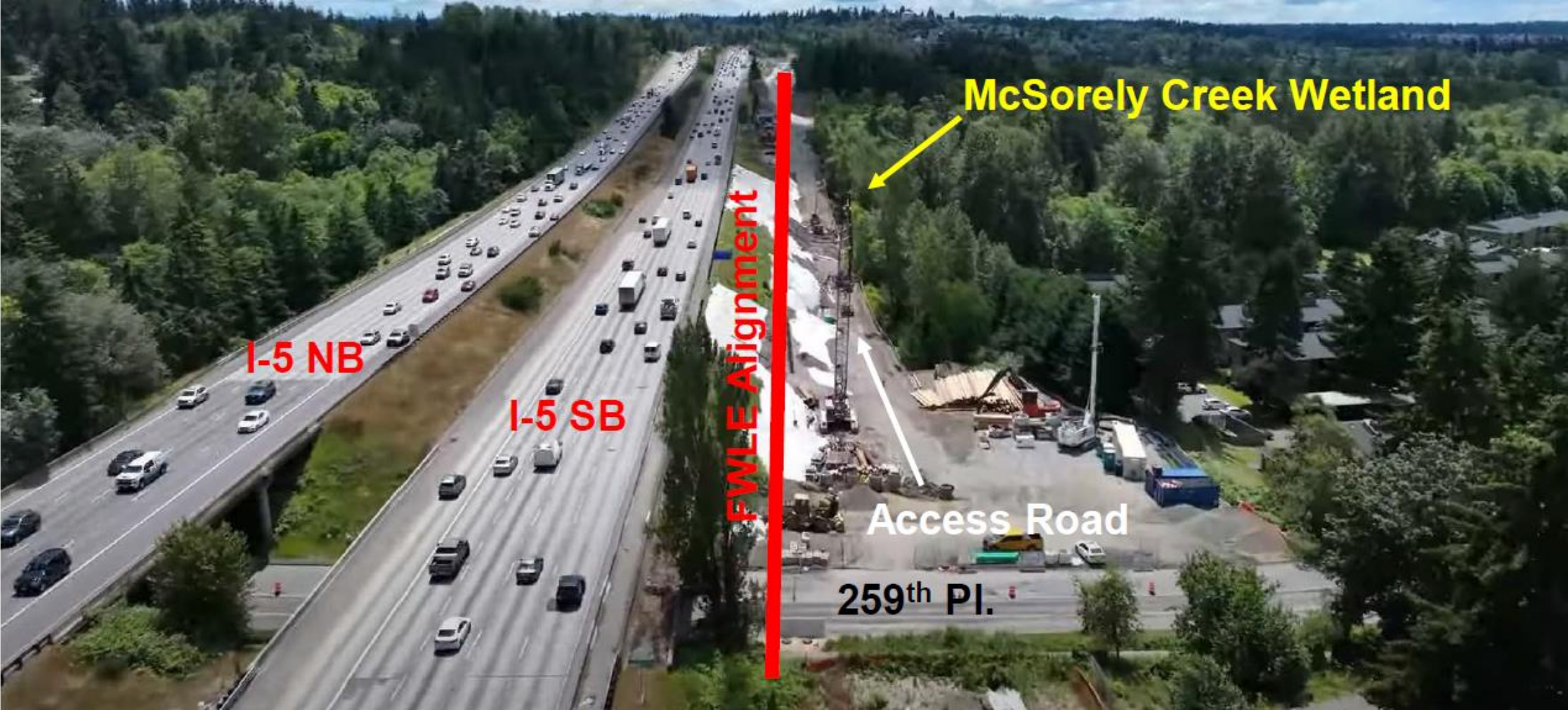
- Three new 1-Line stations: at Kent Des Moines, Star Lake and Federal Way Downtown.
- 7.8 miles

Top risks to Federal Way Link schedule

Recent unstable ground conditions in a liquefaction zone along a section of the alignment in Kent may require a new construction approach.



Top risks to Federal Way Link



***Minor project risks:
Lynnwood and Downtown
Redmond Link Extensions***



Lynnwood Link Extension

- Four new stations in Shoreline (2), Mountlake Terrace and Lynnwood
- Serves both the 1 & 2 Lines
- 8.5 miles
- Concrete strike and pandemic-related impacts
- Limited known project risks



Downtown Redmond Link Extension

- Two additional 2-Line stations at Marymoor Village and Downtown Redmond
- 3.4 miles
- Concrete strike and pandemic-related impacts
- Power connections issues
- Staffing shortages

Programmatic risk assessment

Programmatic risk assessment

- Supports sequencing safe and orderly project openings
- Accounts for operating interdependencies and shared resources
- Examples:
 - Access to operations, maintenance and storage capacity
 - East Link impacts on Downtown Redmond



Next steps

Work necessary to determine new opening dates

- Commitment to open projects as quickly as possible without compromising safety, quality or durability
- More work needed first to determine opening dates
 - Mitigate risks for each project
 - Complete programmatic assessment
- Provide update in Q4 2022

Questions

Thank you.