



# *Sound Transit*

## *Leveraging Highway Infrastructure for Better Bus Service*

10/29/2020

 **SOUNDTRANSIT**

# Agenda

- *Service Overview*
- *Opportunities and Challenges with Highway Operations*
- *Transitioning to High-Capacity Transit*
- *Lessons Learned*

# *Service Overview*

# System Overview



ST Express

FAST, FREQUENT REGIONAL BUS SERVICE



Sounder

HIGH CAPACITY COMMUTER RAIL



Link

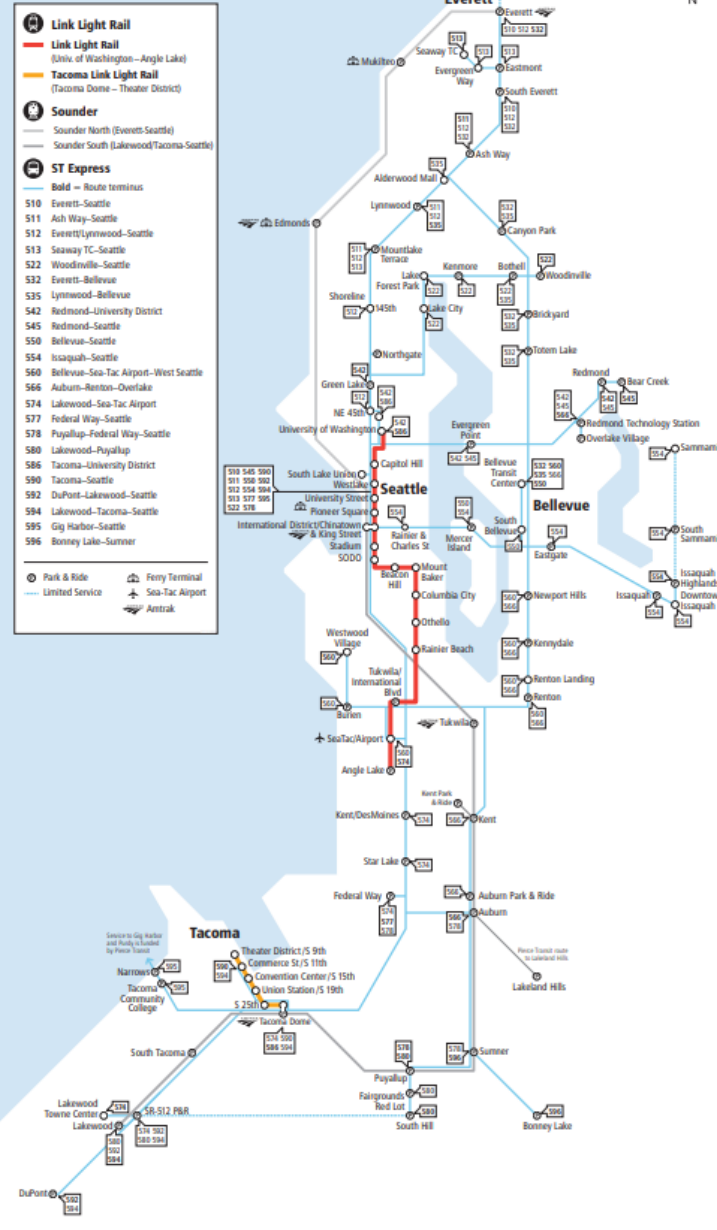
FREQUENT, RELIABLE HIGH-CAPACITY LIGHT RAIL



Tacoma Link

LIGHT RAIL WITH MULTI-MODAL CONNECTIONS

Sound Transit System Map



Sound Transit Future Service



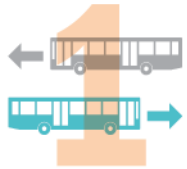


# *ST Express Overview*

- 28 routes spanning 3 counties
  - Regional, Overlay, Connecting
- Fleet of 360 buses, including CNG, diesel, and diesel-electric hybrids
- 70k daily platform hours
- 61k daily riders



# *ST Express Guiding Principles*



- Provide regional express service and work with partners to provide local connections



- Integrate with high-capacity transit and emulate future service



- Connect regional populations and employment centers



- Integrate with other modes to create an all-day, all-week network for customer convenience

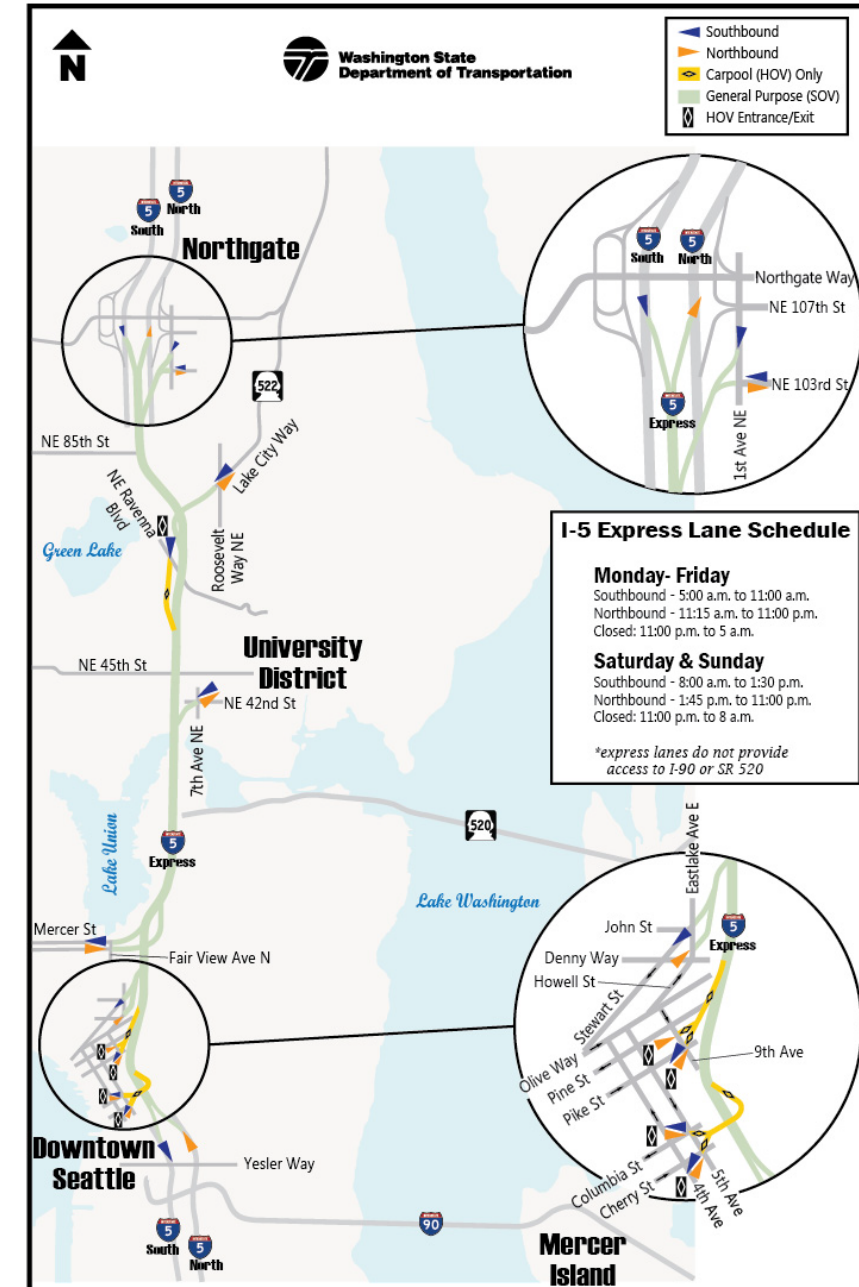
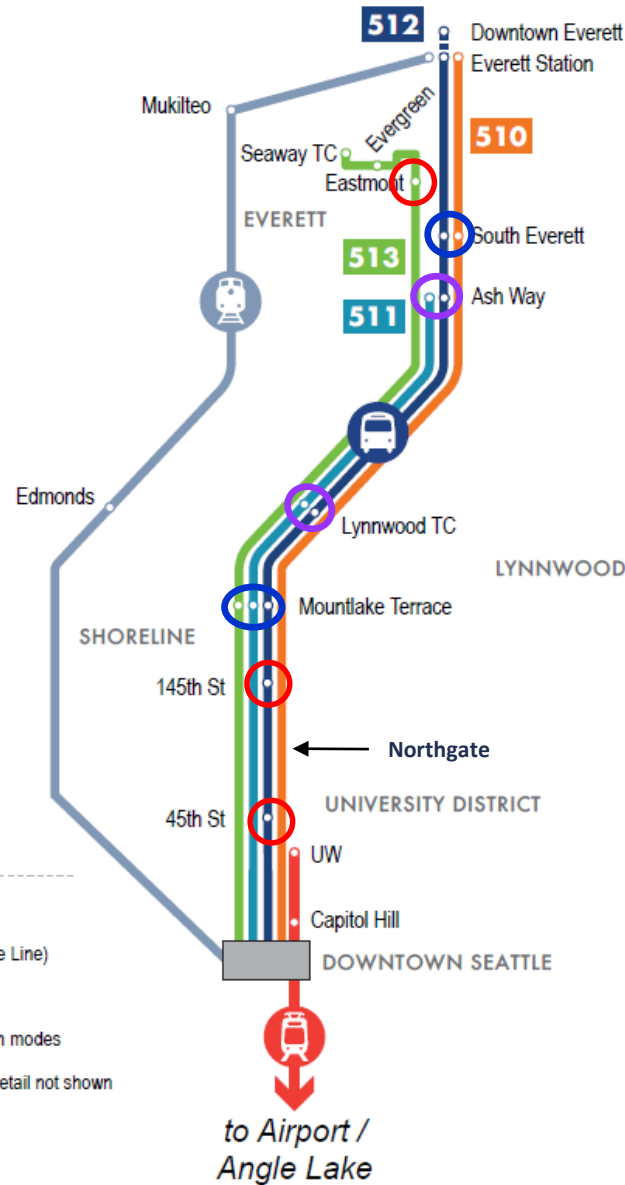
# *Opportunities and Challenges with Highway Operations*

# Operating in HOV and Express Lanes

- Flyer/Off-Ramp Stop
- Freeway-Adjacent TC
- In-Line Freeway Station




## LEGEND

- ST Express regional bus
- Link light rail (Red Line / Blue Line)
- Sounder rail
- Transfer opportunity between modes
- Represents multiple stops, detail not shown
- Stop or station
- Service on select trips only
- Service continues to stated destination





# Benefits and Tradeoffs

	In-Line Freeway Station	Freeway-Adjacent Transit Center	Flyer/Off-Ramp Stop
Benefits	Best use of HOV/express lanes for travel time and reliability	May leverage HOV/express lanes, shortest walk, easier transfers to local service	Most affordable to install, easiest to implement with existing infrastructure
Tradeoffs	Most expensive, difficult transfers to local service	Requires longest deviations	Slower, harder to maintain consistent stop patterns
	 <p>Source: TransitCenter</p>	 <p>Source: Seattle Times</p>	 <p>Source: UW's The Daily</p>



# *In-Line Freeway Station Examples*

## *Eastgate*



## *Mountlake Terrace*

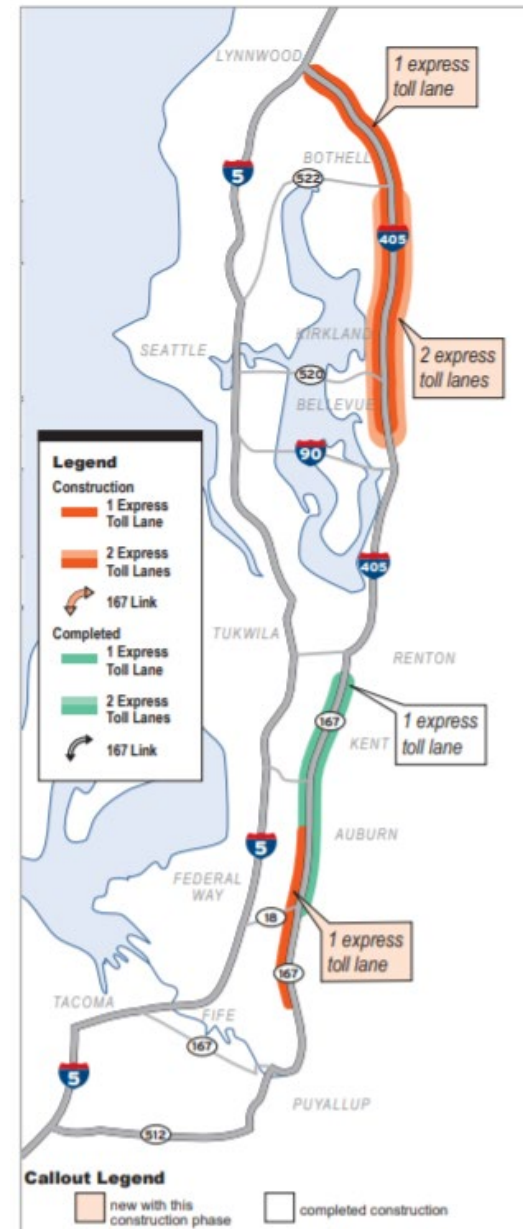


# *Leveraging Highway Projects, Transitioning to HCT*

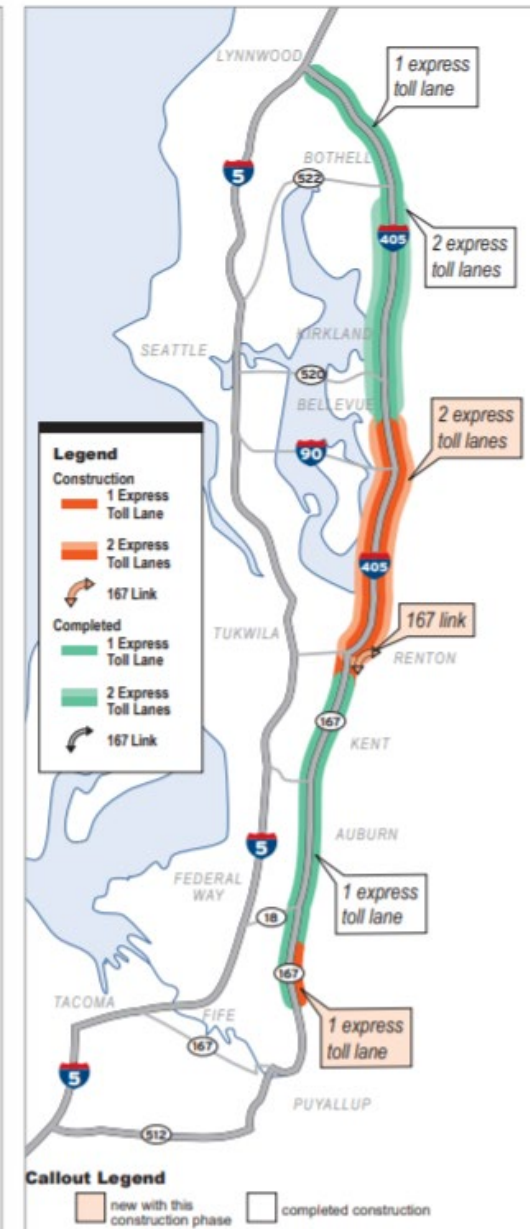
# WSDOT I-405/SR 167 Project

- 50-mile Express Toll Lane System
- Direct Access and Direct Connectors
- P&R + Transit Center Expansions
- Center-running BRT

40-mile system: Phase 1



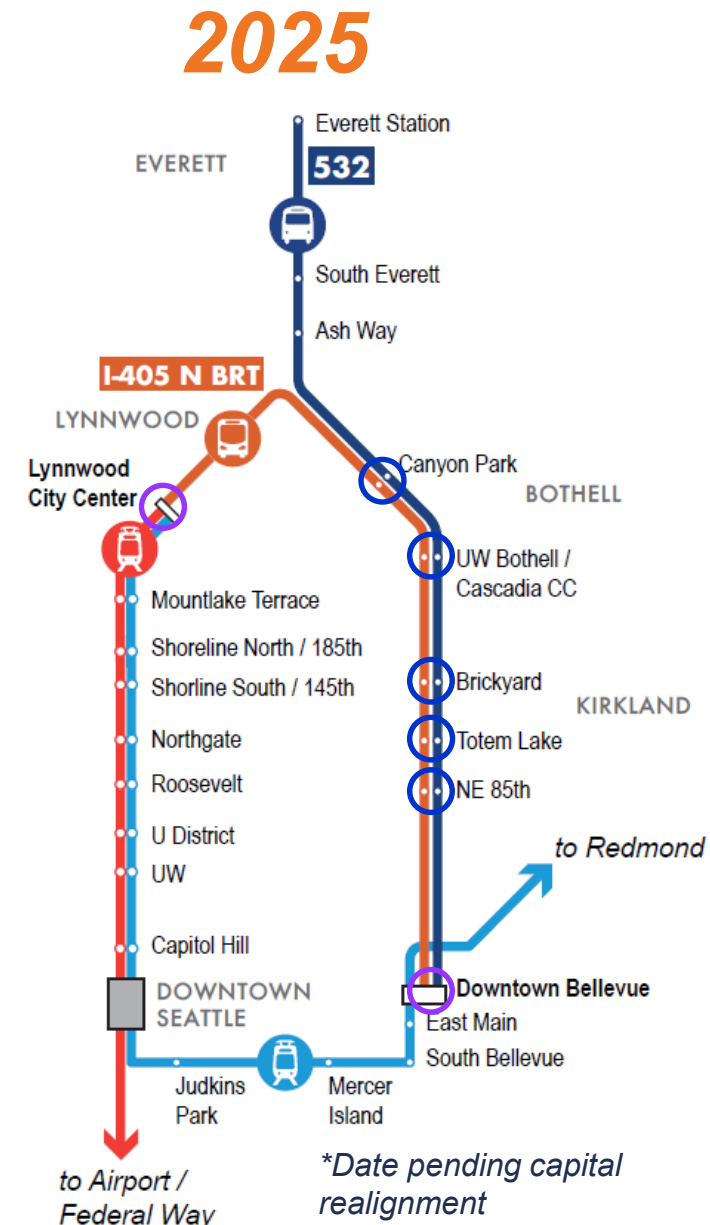
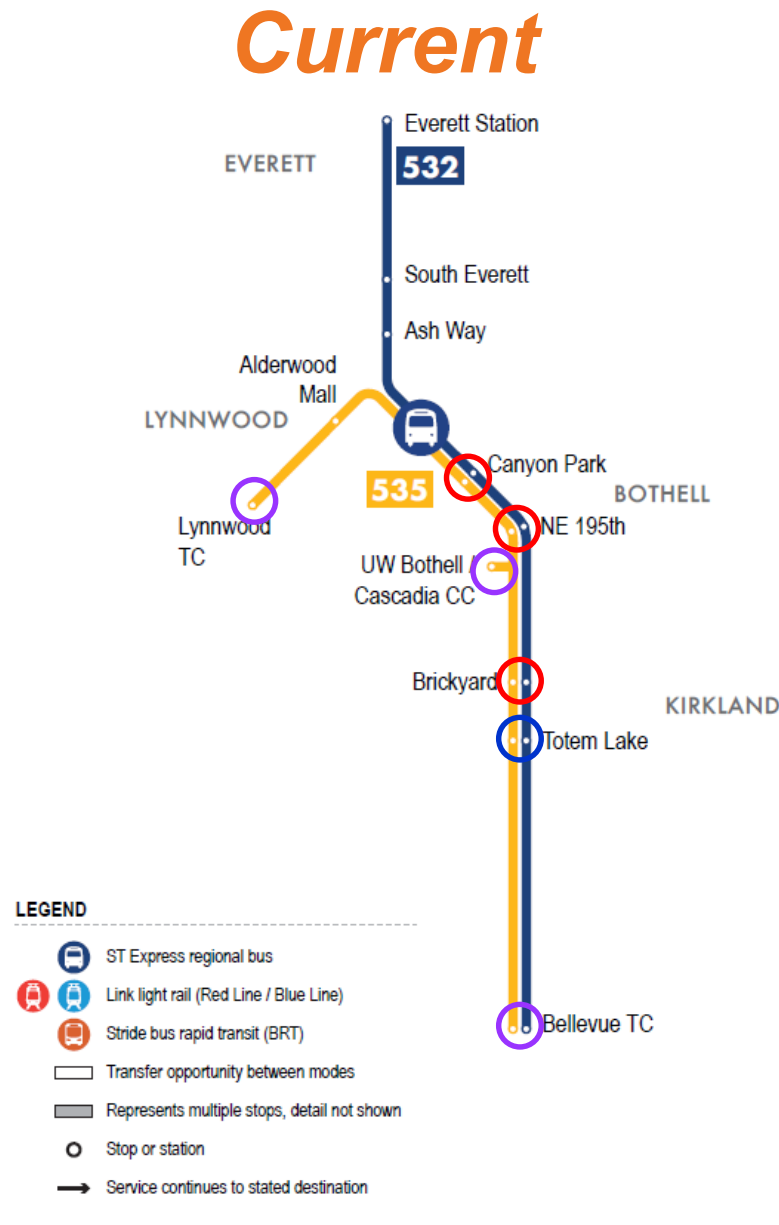
40-mile system: Phase 2





# S2: BRT on I-405 North

- Flyer/Off-Ramp Stop
- Freeway-Adjacent TC
- In-Line Freeway Station

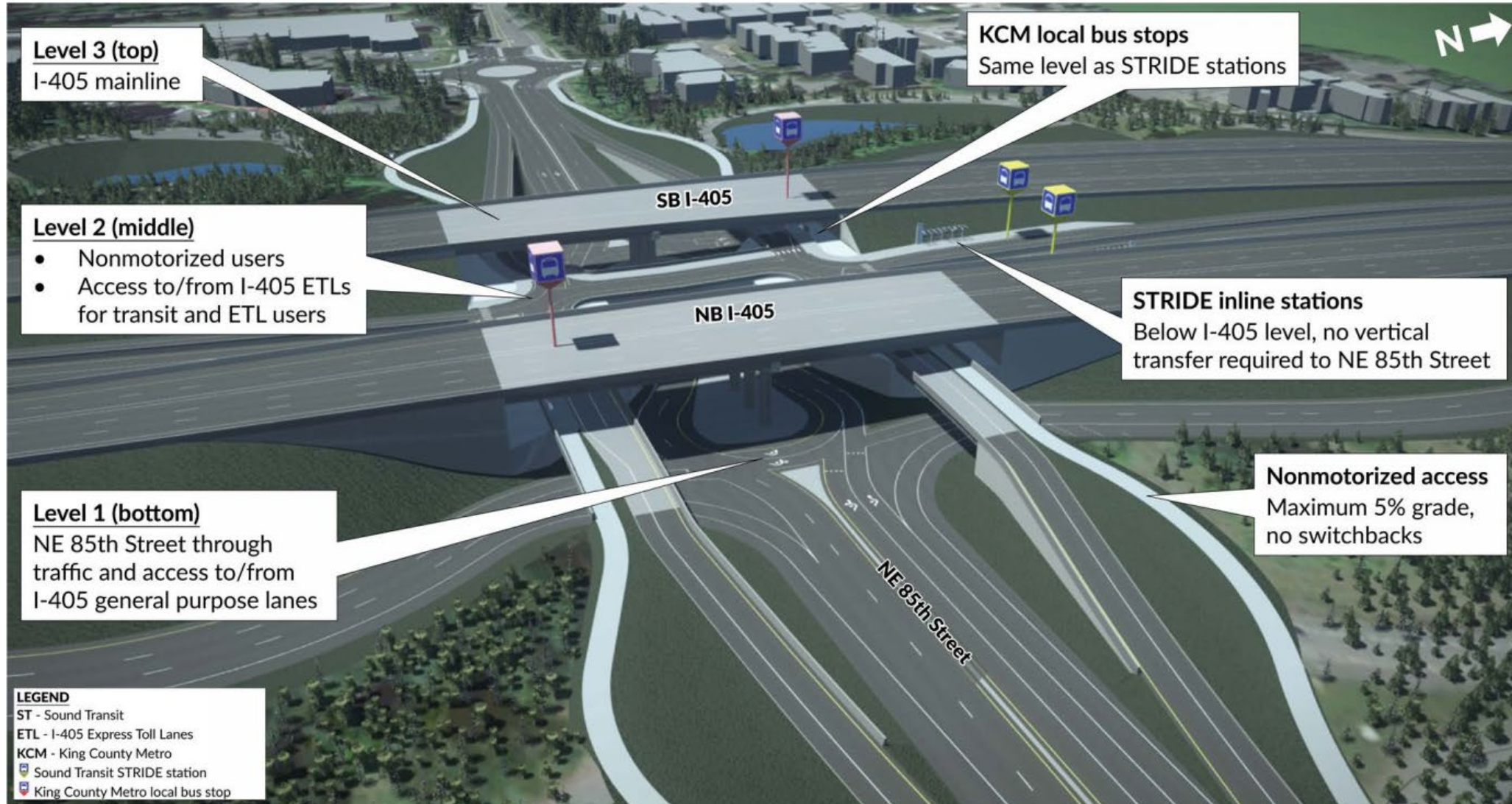






## BRT STATION

# NE 85th Street (Kirkland)



# I-405 BRT travel times

## AM peak hour travel times to Bellevue

### North Line – Lynnwood to Bellevue



### South Line – Burien to Bellevue



\*Preliminary travel time estimates for planning purposes, subject to change. Existing travel times are average times. Year 2025 estimates assume new express toll lanes are open between Renton to Bellevue. Updated information will be provided prior to beginning service.

# *Lessons Learned*

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- Make ongoing improvements with future projects and goals in mind
- Leverage partners, their projects, and political champions
- Don't make bike/ped and bus connections an afterthought
- Don't wait till it's perfect: build markets and support now

*Thank you.*

*Lucien.Bruno@soundtransit.org*



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