

Yesler Way Protected Bike Lane



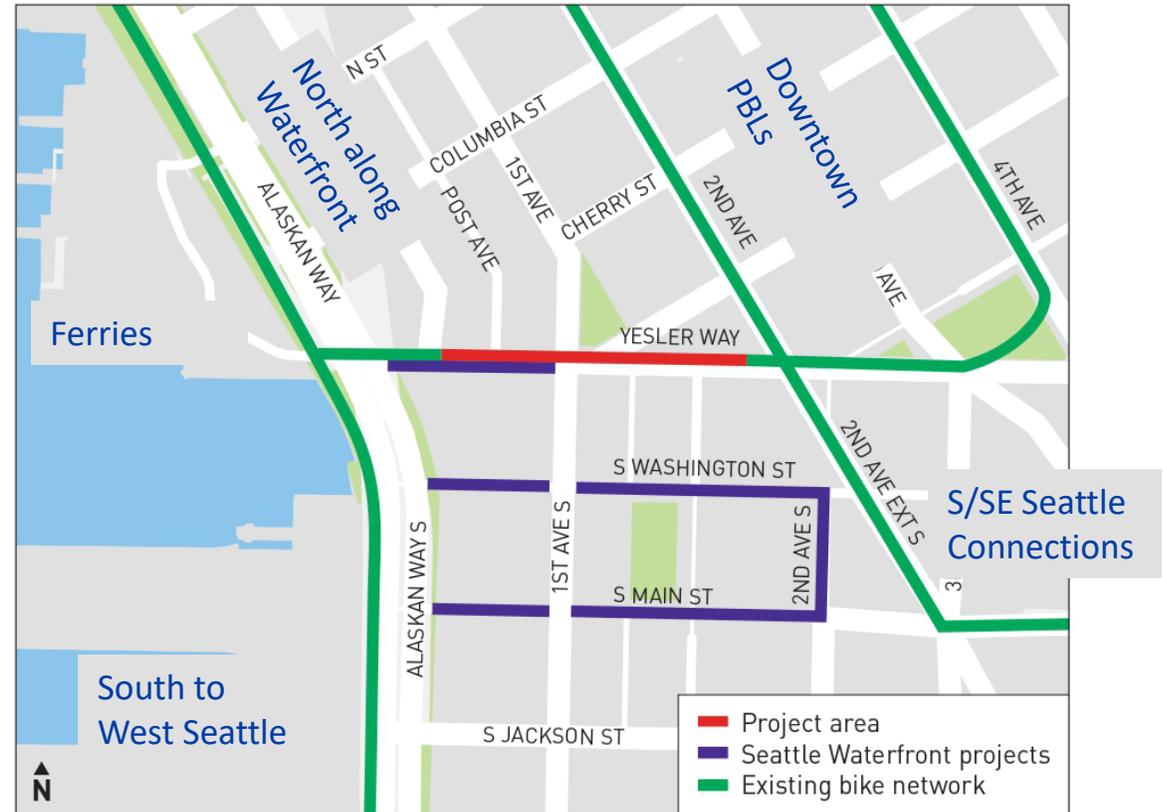
Preservation Board Presentation #2

September, 2024

Project Background

Pioneer Square Bike network

- Yesler Way is commonly used by cyclists, especially people connecting to waterfront and ferries
- Yesler Way is envisioned as the main bike link between downtown and the waterfront, but a gap exists
 - Cost (\$2M+) of retrofitting the signal at 1st and Yesler has been the major barrier
- All other bike facilities in the area are two-way protected bike lanes

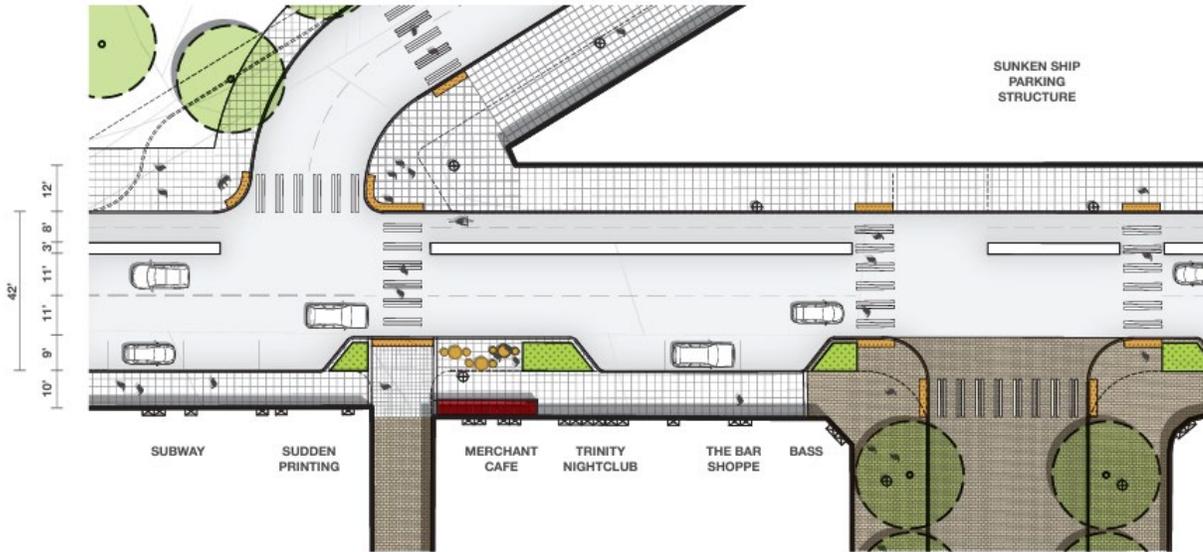


Proposed project

- Fills in short gap in the Yesler Way protected bike lane with a two-way protected bike lane on the north side of the street
- Adds turn restrictions for:
 - Westbound Yesler turning right across PBL at 1st Ave
 - Eastbound Yesler turning left across PBL at James St
- Existing turn restrictions already prohibit eastbound Yesler from turning left across PBL at 1st Ave



Prior Planning

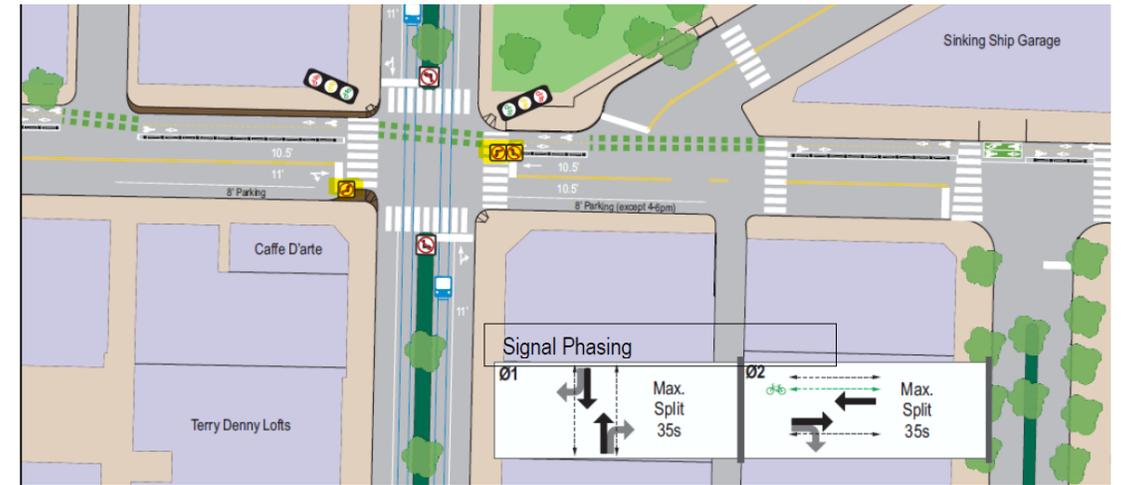


Envisioned as a two-way protected bike lane on north side of the street in the [Pioneer Square Streetscape Concept Plan](#) (Alliance for Pioneer Square, 2015)

Figure 6. Yesler Way/1st Avenue Intersection – Recommended Configuration and Signal Phasing



The optimal solution for the intersection with the PBL is to allow only westbound thru and eastbound thru-right movements on Yesler Way and provide a simple two-phase signal at the intersection in which pedestrians and the PBL proceed with east-west traffic on Yesler Way. The disadvantage with prohibiting turns is that some traffic may be diverted several blocks away from intended destination or route.



Source: Heffron Transportation, Inc. September 2019.

Waterfront Project’s Traffic Analysis recommending turning restrictions at 1st and Yesler in lieu of signal rebuild (Pioneer Square East-West Streets Technical memo, November 2019)

Configuration Background

- A two-way protected bike provides on the north side of Yesler provides seamless connections with other bike facilities and preserves parking on the south side of Yesler
- Two-way protected bike lanes work better with more separation from turning vehicles
- Typically achieved with dedicated signal phases, turning restrictions, or significant geometric/civil changes
 - Signal and street conditions in this location support turning restrictions

PROJECT DESCRIPTION

The Pioneer Square East-West Street's Pedestrian Improvement Project (PSEWS) project's goals are to design and construct pedestrian improvements on portions of South Main, South Washington, South King Streets and Yesler Way between 2nd Avenue and Alaskan Way in Downtown Seattle. The work includes widening the existing sidewalk and repaving portions of the sidewalk and roadway along with landscape and site furnishings for pedestrians. In addition, vehicular traffic flow through the PSEWS project will be revised to create more space for pedestrian access and improve the pedestrian realm. The traffic circulation revisions are anticipated to include:

- Converting South Washington Street to one-way westbound. South Washington would have one travel lane between the 2nd Avenue Extension and Alaskan Way.
- Converting South Main Street to one-way eastbound. It would have one travel lane between Alaskan Way and the 2nd Avenue Extension.
- Retaining two-way operation on Yesler Way, but prohibiting westbound left turns at the 1st Avenue intersection. If and when a protected bicycle lane (PBL) is installed along the north side of Yesler Way (currently planned in the Seattle Bike Master Plan, but not implemented as part of the PSEWS project), westbound right turns and eastbound left turns that would cross the PBL at 1st Avenue should also be prohibited so that the signal can be operated with two signal phases as currently exists.
- Retaining two-way operation on South King Street with pedestrian safety and ADA improvements at 1st Avenue.
- Converting 2nd Avenue South from one-way to two-way operation between Washington and Main Streets and reconfiguring the parking.

Specific Improvements for each corridor that guide the development of this scope include the following.

Project supportive of prior proposal to PSPB ([Office of the Waterfront, 2021](#))

Existing Conditions

Ends of existing bike lanes

Occidental Ave S



Ends at all-way stop, bikes merge into traffic or turn onto Occidental

Western Ave



Ends at all-way stop, bikes must transition diagonally (currently removed due to paving work)

Occidental to 1st Ave

James St



Rough pavement due to utility issues, wide intersection promotes higher speed turns, 2 parking spaces to remove

1st Ave



Signal lacks capacity for additional phases and will not be modified, has existing turn restriction

1st to Western

East of Post Ave



Waterfront project curb extension shown, 4 parking spaces to remove

West of Post Ave



2 load zones and 1 parking space to relocate/remove

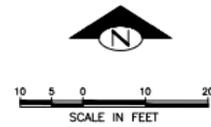
Project Design (100%)

East of 1st

Adds curb bulb to slow turns and reduce crossing distance at James & Yesler

Adds turn restriction

Key:
Green = remove
Red = add



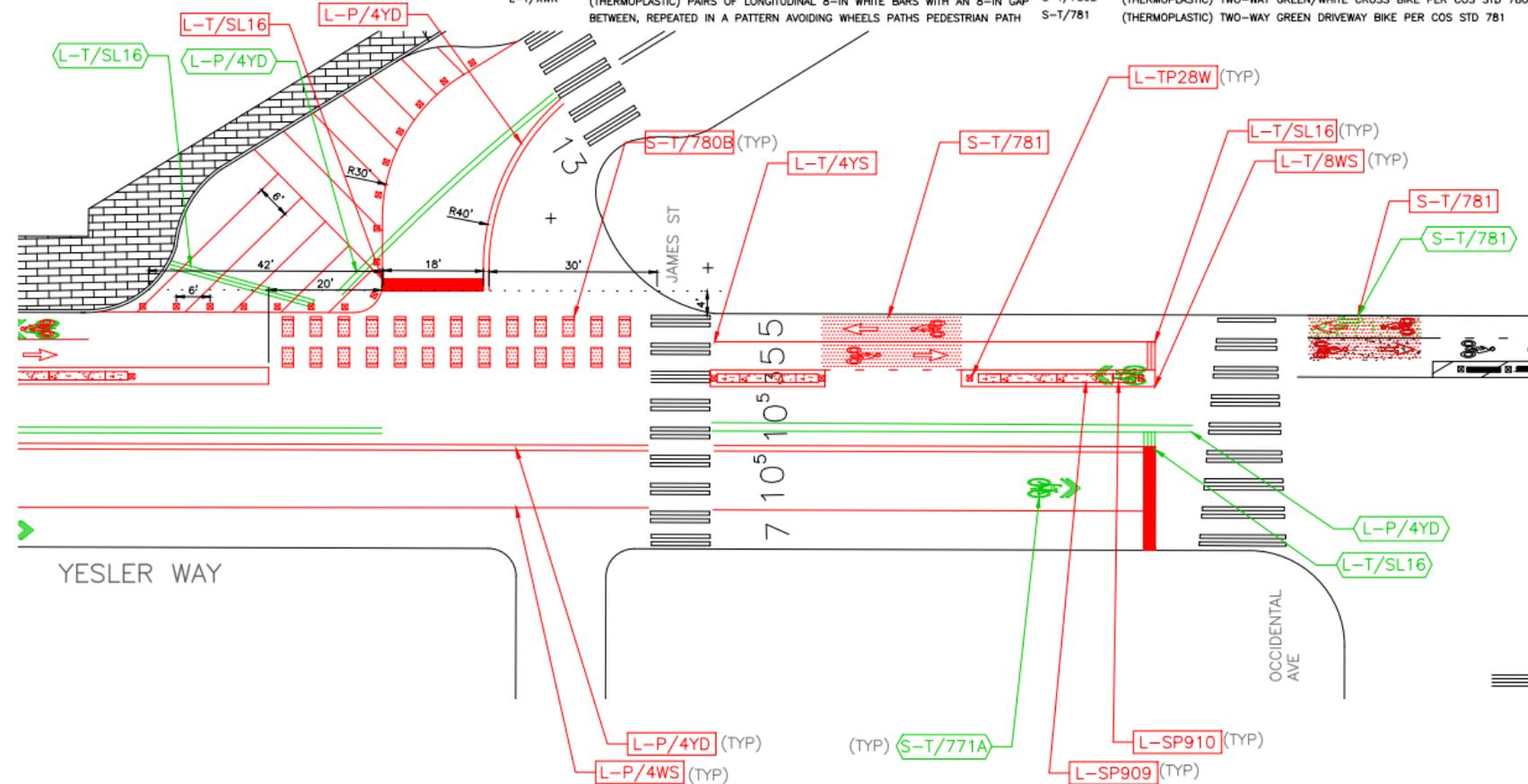
SDOT-TRANSPORTATION OPERATIONS CONCURRENCE PRIOR TO CONSTRUCTION		
ROUTING	DATE	INITIAL

GENERAL NOTES

1. INSTALLATION/REMOVAL SHALL REFER TO THE CONDITIONS IN THE FIELD IF DIFFERS FROM PLANS.
2. REMARK CROSSWALKS/STOP LINES IF IN POOR CONDITION.

CHANNELIZATION LEGEND

L-P/4W2	(PAINT) 4-IN WHITE 2'-4' SKIP LINE	L-TP28W	28-IN WHITE TUFF POST
L-P/4WS	(PAINT) 4-IN WHITE SOLID STRIPE	L-SP909	18-IN BARRIER PER STD 909
L-P/4YD	(PAINT) TWO PARALLEL 4-IN YELLOW SOLID STRIPES WITH 4-IN GAP BETWEEN STRIPES AND A TYPE 2A RPM EVERY 30-FT ON CENTER	L-SP910	18-IN BULLNOSE PER STD 910
L-P/SL16	(PAINT) 16-IN WHITE STRIPE	S-T/720C	(THERMOPLASTIC) RIGHT ARROW SYMBOL PER COS STD 720C
L-P/XWK	(PAINT) PAIRS OF LONGITUDINAL 8-IN WHITE BARS WITH AN 8-IN GAP BETWEEN, REPEATED IN A PATTERN AVOIDING WHEELS PATHS PEDESTRIAN PATH	S-T/721A	(THERMOPLASTIC) LEFT & THROUGH ARROW SYMBOL PER COS STD 721A
L-T/BWS	(THERMOPLASTIC) 8-IN WHITE SOLID STRIPE	S-T/721B	(THERMOPLASTIC) RIGHT & THROUGH ARROW SYMBOL PER COS STD 721B
L-T/SL16	(THERMOPLASTIC) 16-IN WHITE STRIPE	S-T/730A	(THERMOPLASTIC) "ONLY" LEGEND PER COD STD 730A
L-T/4Y3	(THERMOPLASTIC) 4-IN YELLOW 3'-6" SKIP LINE	S-T/770A	(THERMOPLASTIC) HELMETED BICYCLIST SYMBOL WITH ARROW PER COS STD 770A
L-T/4YS	(THERMOPLASTIC) 4-IN YELLOW SOLID STRIPE	S-T/771A	(THERMOPLASTIC) SHARROW SYMBOL PER COS STD 771A
L-T/XWK	(THERMOPLASTIC) PAIRS OF LONGITUDINAL 8-IN WHITE BARS WITH AN 8-IN GAP BETWEEN, REPEATED IN A PATTERN AVOIDING WHEELS PATHS PEDESTRIAN PATH	S-T/780A	(THERMOPLASTIC) ONE-WAY GREEN/WHITE CROSS BIKE PER COS STD 780A
		S-T/780B	(THERMOPLASTIC) TWO-WAY GREEN/WHITE CROSS BIKE PER COS STD 780B
		S-T/781	(THERMOPLASTIC) TWO-WAY GREEN DRIVEWAY BIKE PER COS STD 781



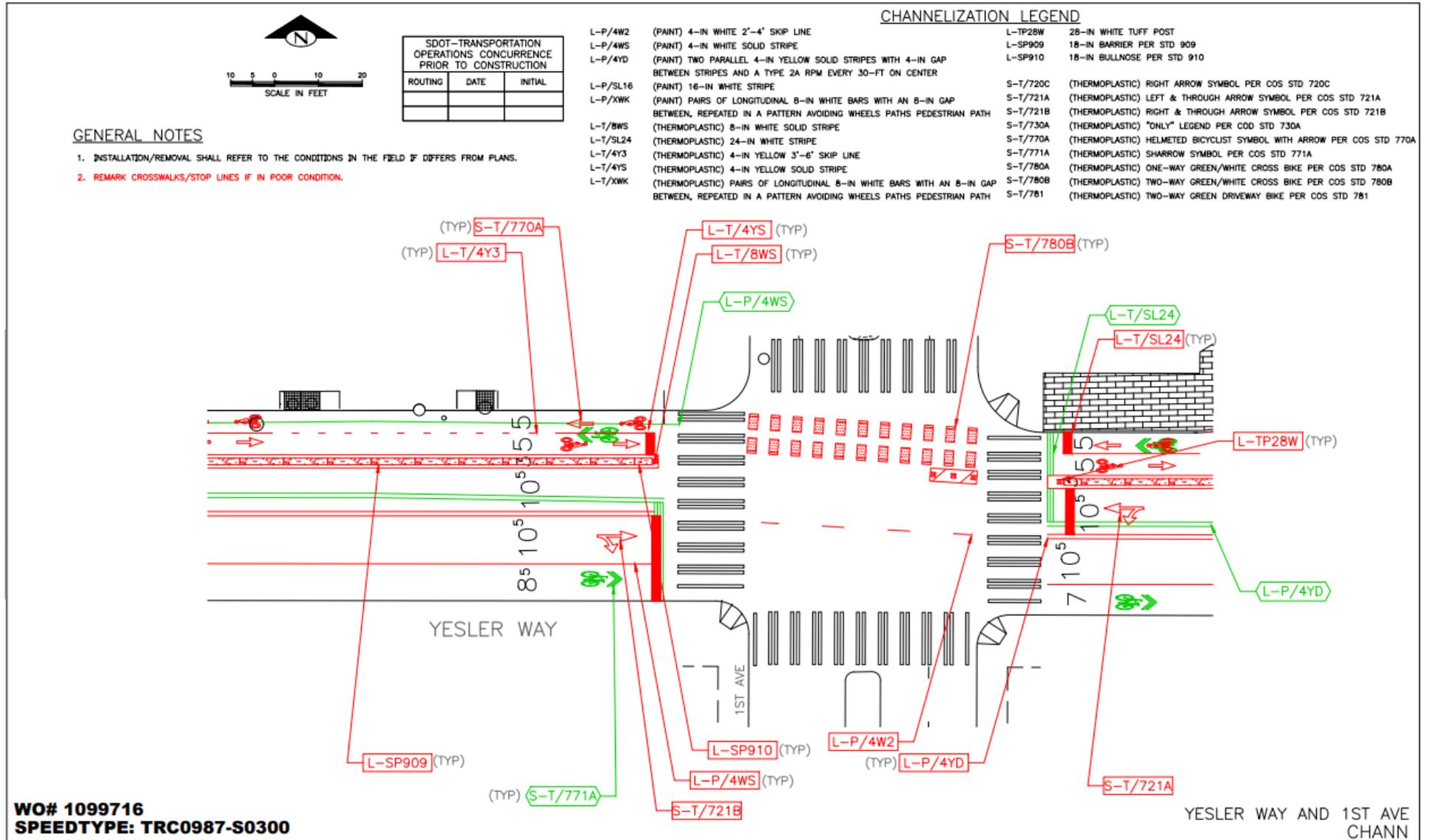
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YESLER WAY AND JAMES ST/OCCIDENTAL AVE CHANN

1st & Yesler

Adds turn restrictions

Key:
Green = remove
Red = add

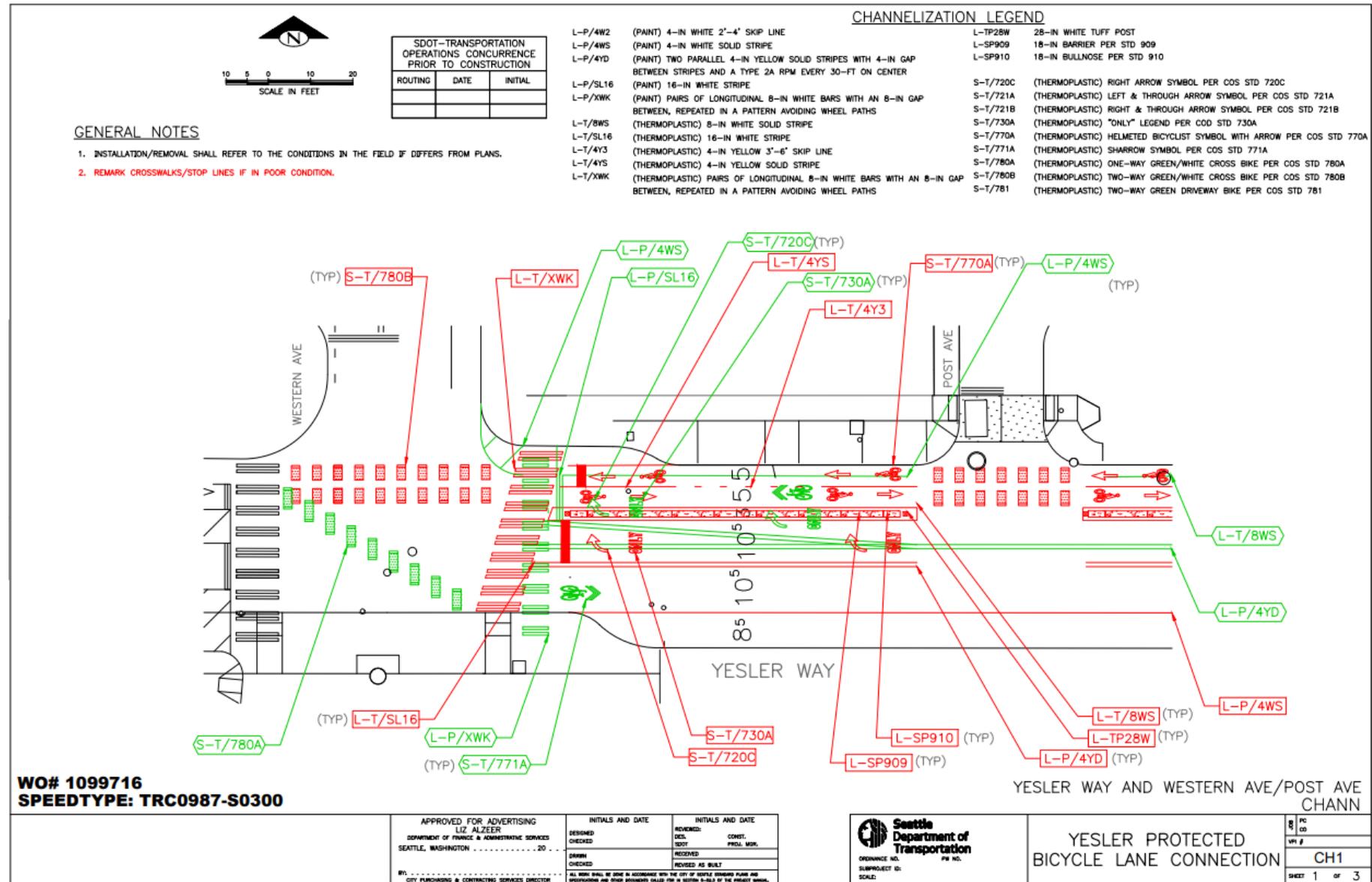


West of 1st

Reflects
Waterfront curb
extension

Removes
diagonal bike
crossing at
Western

Key:
Green = remove
Red = add



Protected Bike Lane Design and Color Standards



Bicycle Lane Legend



Reflective Pavement Mark



Flexible Delineator Post

Protected Bike Lane Design and Color Standards



Green Bicycle Crosswalk
“Crossbike” Color/Design



Protected Bike Lane Yellow Lane Stripe



Bicycle Wayfinding Signage



Barrier Selection for PBL

Low Barriers Preferred by Preservation Board



Larger material, rests on pavement, could attract graffiti, preferred at previous Preservation Board meeting

James & Yesler

Paint and posts to reshape turns (PBL not shown for clarity)



Squaring-off James St slows turns and prevents vehicles from turning into bike lane

Underlying utilities preclude other materials until repair. Space could be used for future park expansion, crosswalk and curb ramps.

Outreach and Schedule

- Prior outreach supporting bike lane in Waterfront project, Seattle Transportation Plan, etc.
- Door to door outreach to direct project neighbors along Yesler
- Meetings with Pioneer Square Alliance
- [Project website](#)
- Social media announcements
- Data Collection and Analysis: November – December 2023
- Planning: January - March 2024
- Design: March – June 2024
- Permits: (Metro and Preservation Board) July – September
- Construction: 1-2 weekends in Fall 2024

Contact Info

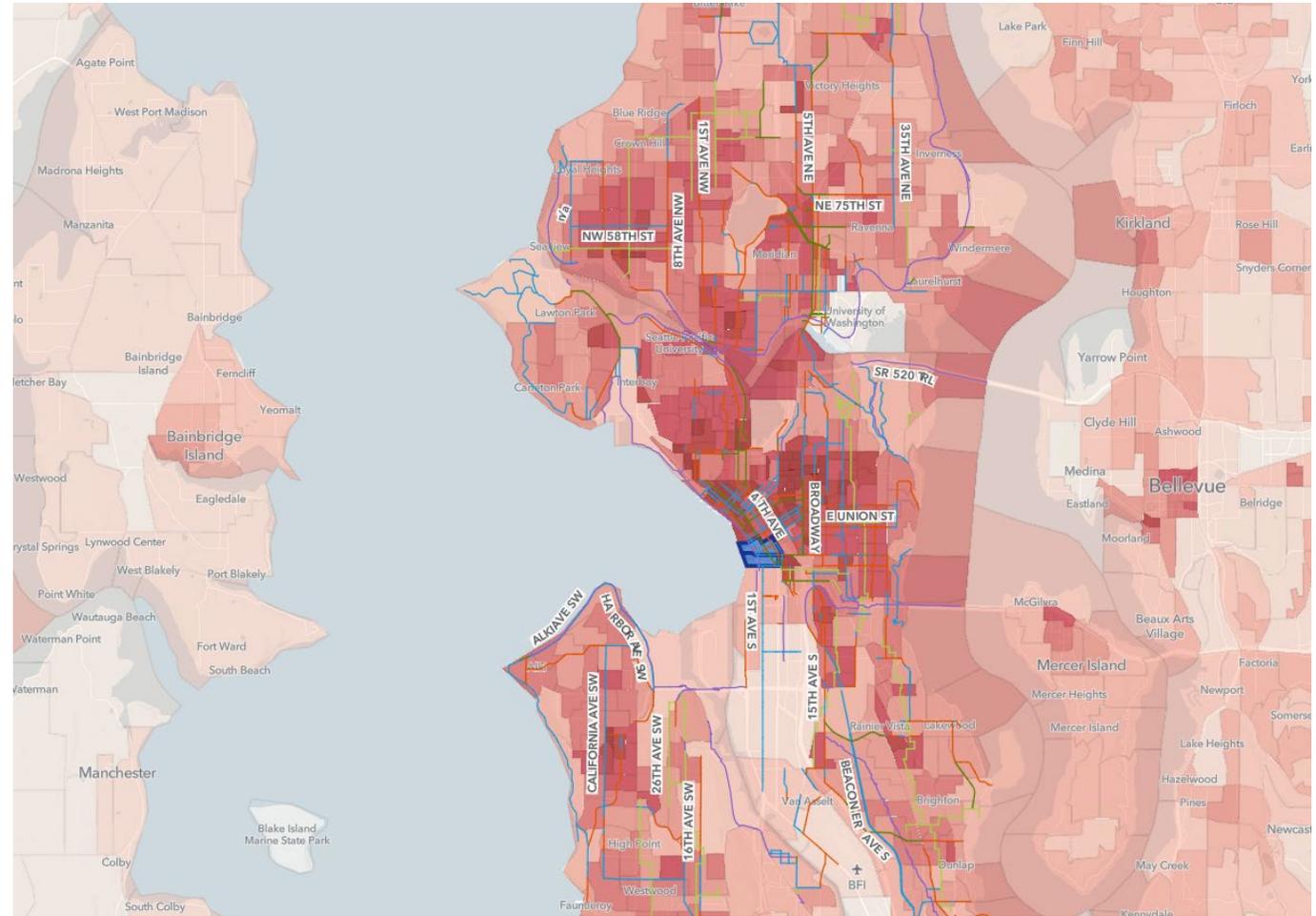
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Additional Info

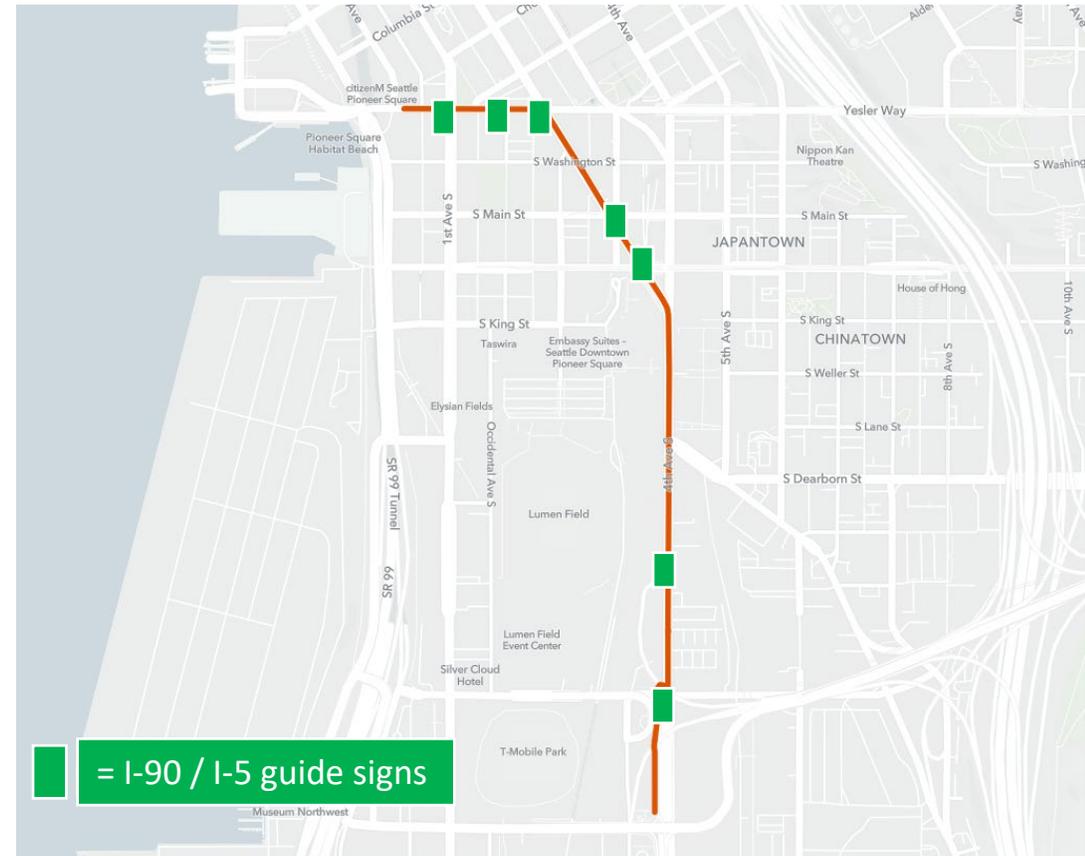
Origin/Destination

- Map to right shows origin points for Pioneer Square workers
- Large clusters of commuters in areas well-connected to Pioneer Square by bike facilities:
 - Capitol Hill, North Beacon Hill, Fremont, West Seattle
- Source: Seattle Bicycle Network along with Census LEHD O/D data



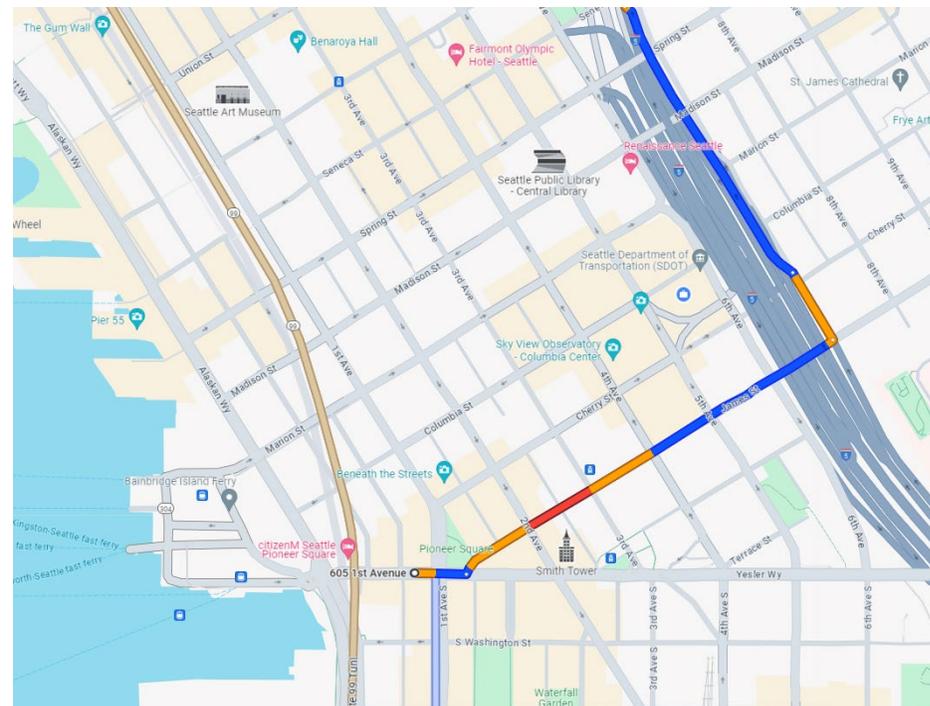
Signed route for people driving

- An existing system of guide signs routes drivers to the I-90 and I-5 interchange
 - Routing will remain accurate following this and other Pioneer Square and Waterfront projects
- This is not the fastest route to I-5 North, but does provide a direct route to both directions of I-5 for drivers without GPS
 - SDOT recommendation is not to install new guide signs so long as existing ones are accurate



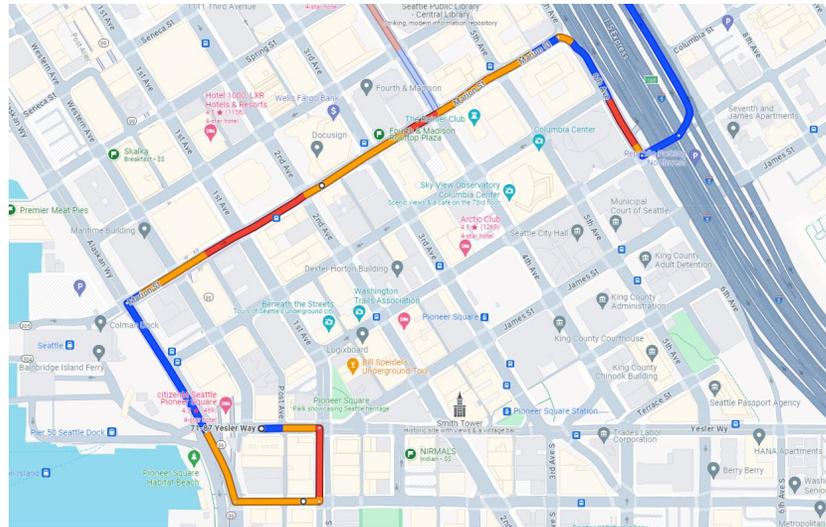
I-5 north from Yesler today

- Mapping services often route drivers onto James St, an unsignalized left turn from Yesler that this project would restrict
- This turn can back up during busy times, especially after major stadium events.
 - Backups extend onto 1st Ave S and Yesler Way
 - Introducing the left turn restriction at this location will likely improve traffic flow after events

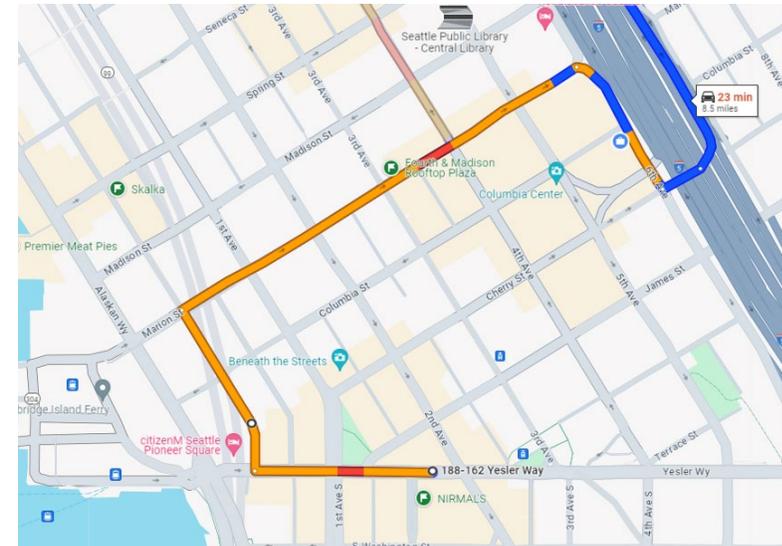


I-5 north from Yesler & Ship Garage ~~per~~ installation

People driving eastbound may find right turns reorienting to Alaskan or 1st will be fastest way to I-5 N

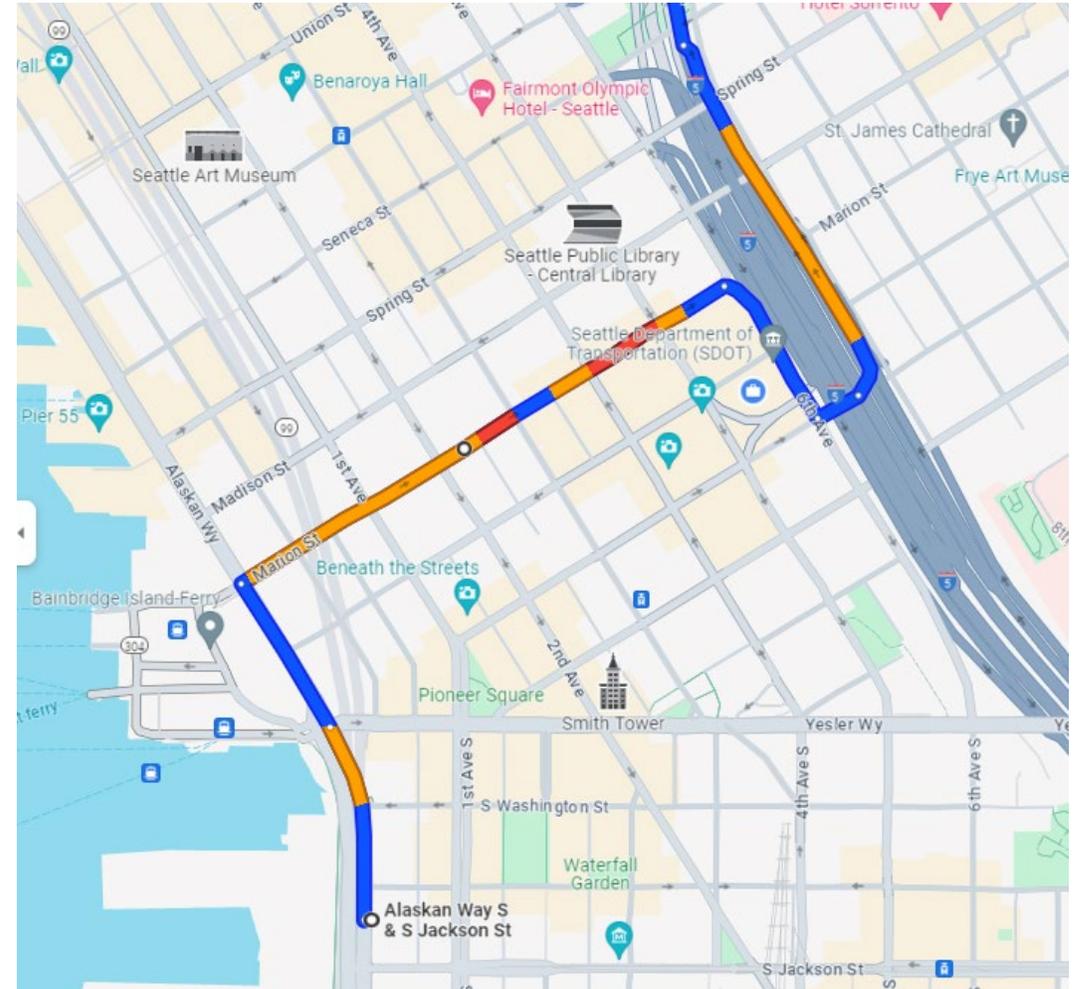


People driving westbound can use James, Western Ave or Waterfront to reach I-5



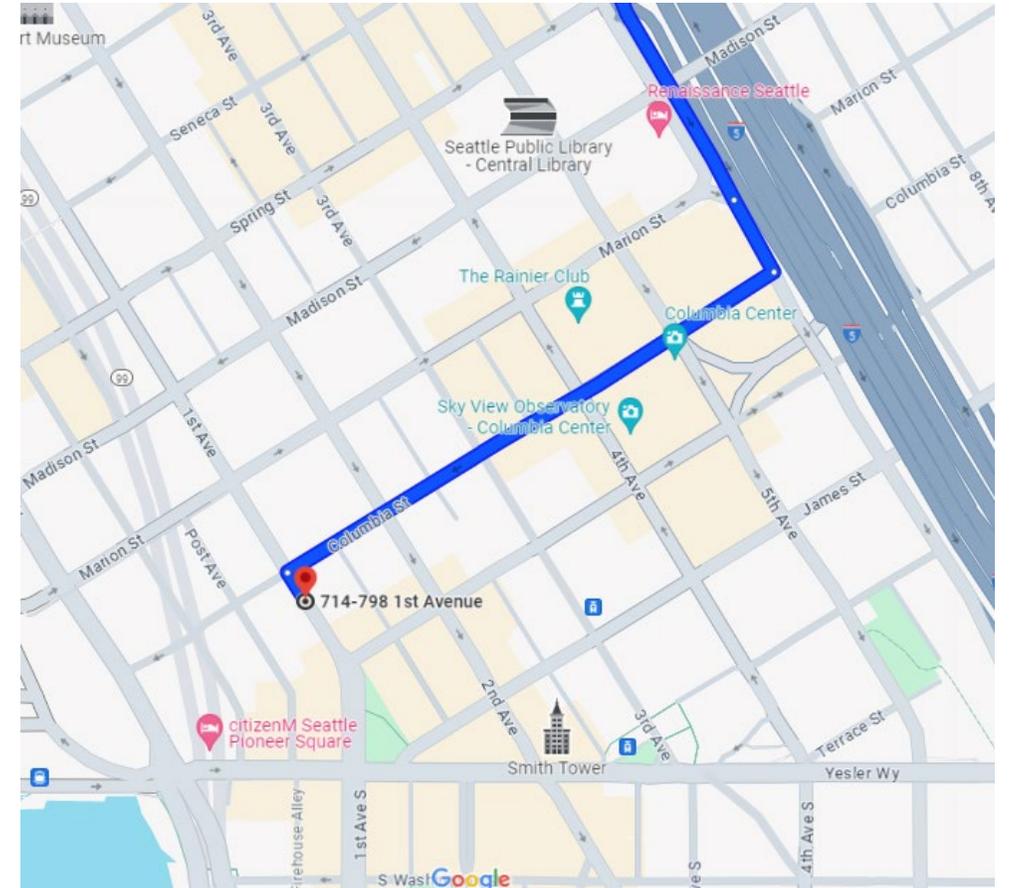
I-5 north from Waterfront

- Today, drivers from elsewhere in Yesler and Pioneer Square are also sometimes routed to James Street via Yesler
- Following the installation of this project, it's likely that people will route to use Marion Street if they are starting along the waterfront
 - People exiting ferries by car are already prohibited from using Yesler Way and will not be affected



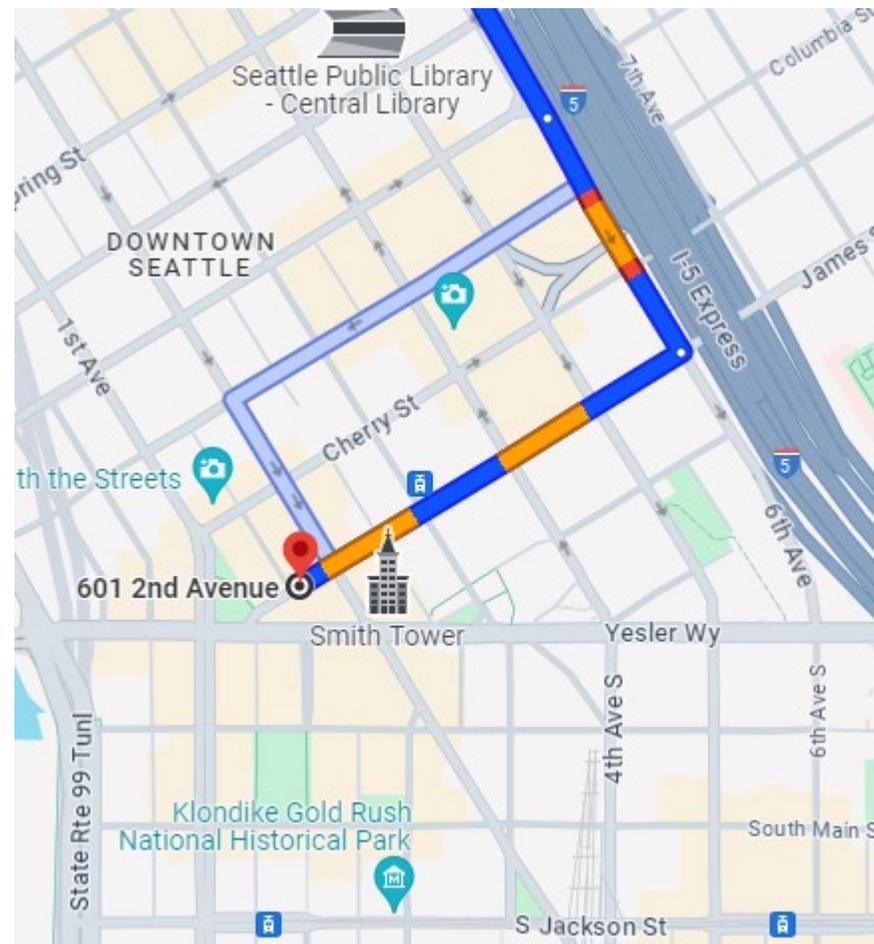
I-5 to 1st/Columbia Garage

- No impact for 1st & Columbia Garage, Columbia St and Cherry St still provide access off of 1st Ave



I-5 to Butler Garage

- Preserving James St as open for two-way traffic maintains access for Butler Garage
 - Alternate routes on S Columbian and S Cherry St



Routing Summary

- The Pioneer Square PBL project would complete an interim link between the downtown bike network and the waterfront
 - Building the project this fall at tail end of Waterfront work avoids additional construction impacts
- Vehicle routing for trips starting on Yesler Way would be affected, but right turns only add 1-2 minutes over a trip today
- Existing guide signs along Yesler Way will remain accurate and in place for drivers without navigation apps
- Vehicle trips starting elsewhere in Pioneer Square and the Waterfront will likely be routed to Marion St or Cherry St



I-5 / I-90 guide signs along current construction on Yesler Way