The Alaskan Way Viaduct & Seawall Replacement Program

Seattle Design Commission

June 18, 2009

U.S. Department of Transportation
Federal Highway Administration

WSDOT

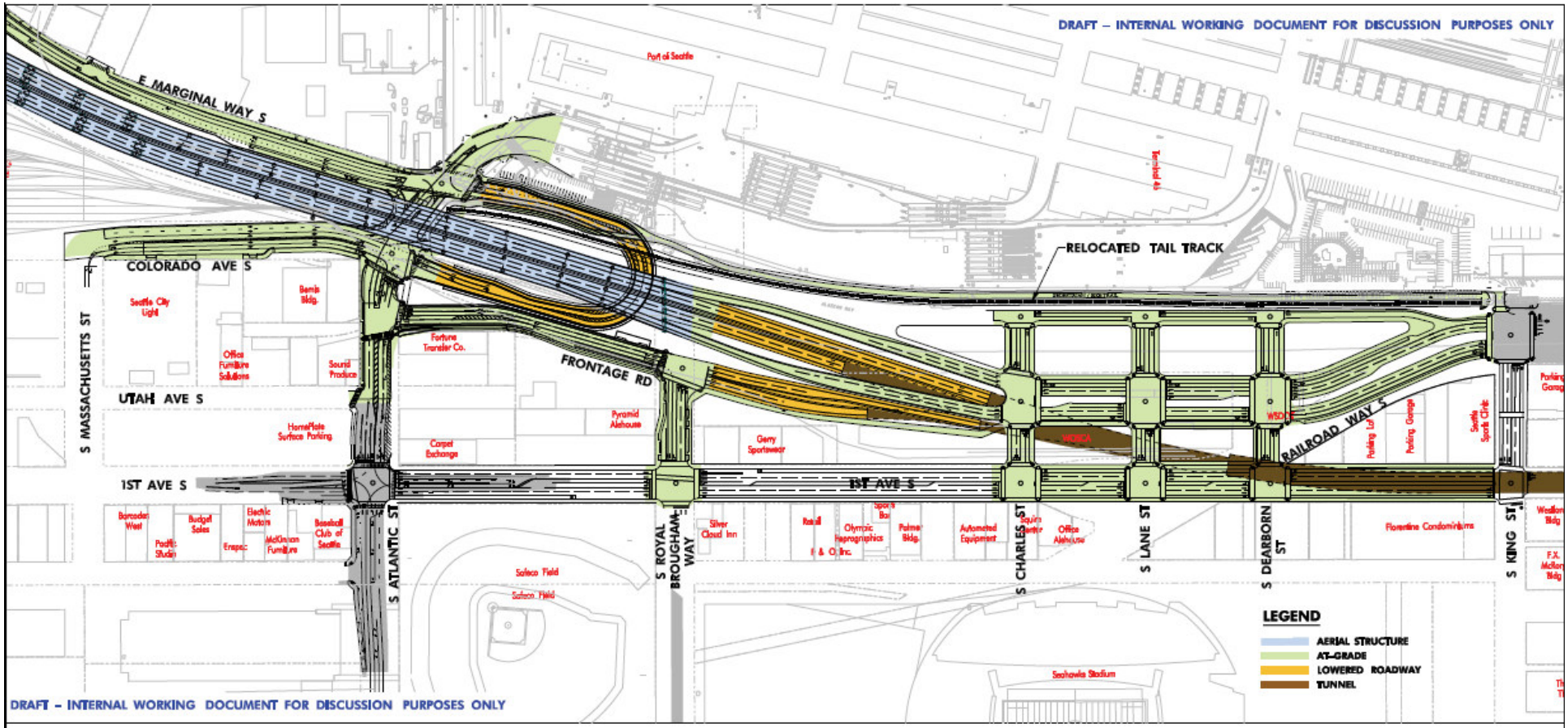
King County

City of Seattle

Portal Goals

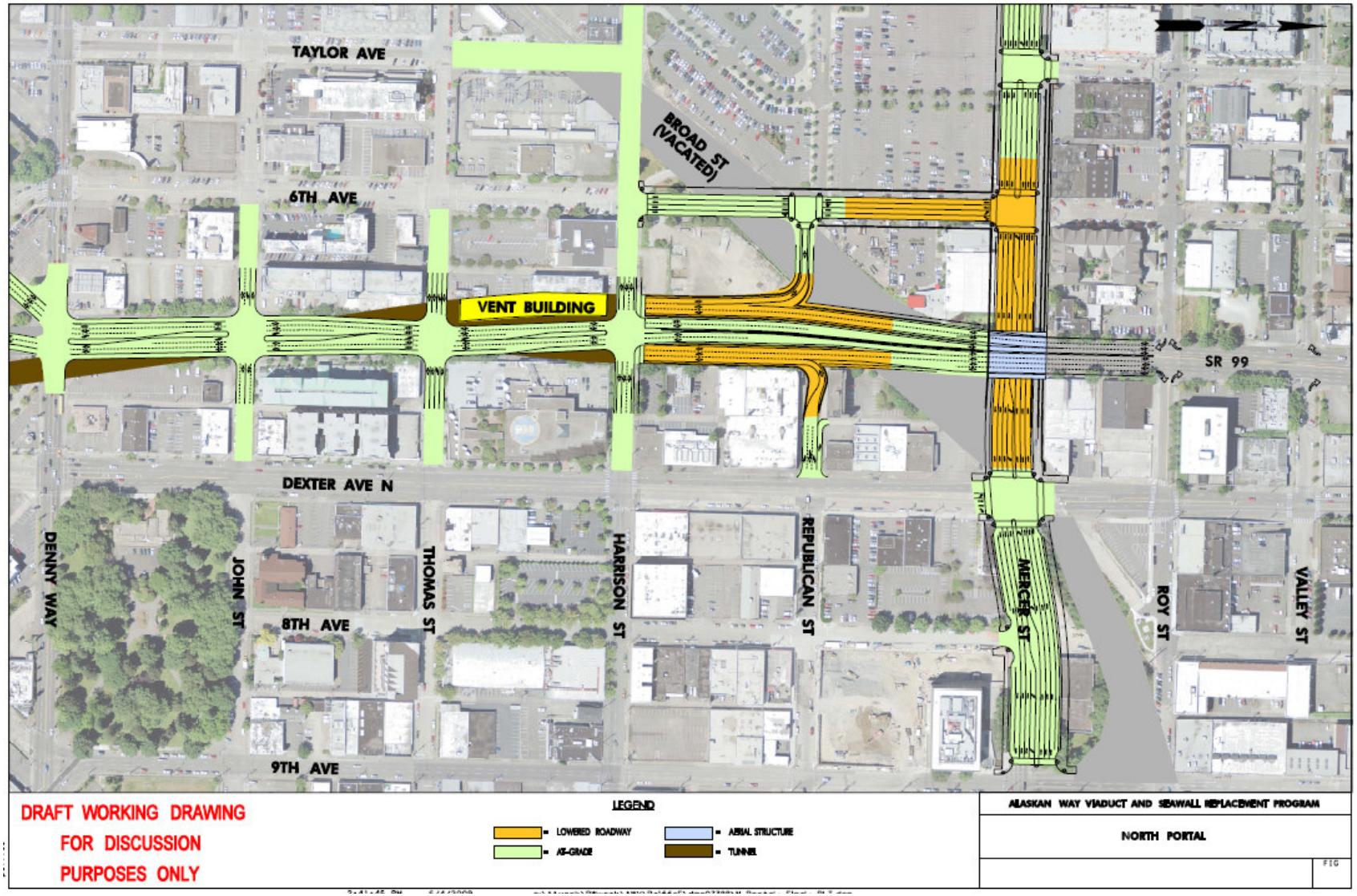
- Keep people and goods moving safely on SR 99.
- Maintain freight access to and from the port and the manufacturing industrial center, and Ballard/Interbay.
- Provide access to/from SR 99 in all directions.
- Maintain access to downtown from Aurora Avenue North
- Maintain efficient operations on the arterial street network.
- Enhance and/or maintain transit service in and through the SR 99 corridor.
- Improve bike and pedestrian connections to and through the area.
- Improve the urban character of the portal area.
- Maintain access to the ferry terminal.
- Open bored tunnel to traffic by the end of 2015.
- Complete improvements within the established budget.
- Minimize construction impacts.

South Portal

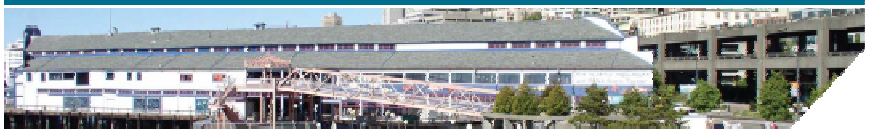


SOUTH PORTAL CONCEPT A

North Portal



Alaskan Way Viaduct & Seawall Replacement Program | Central Waterfront



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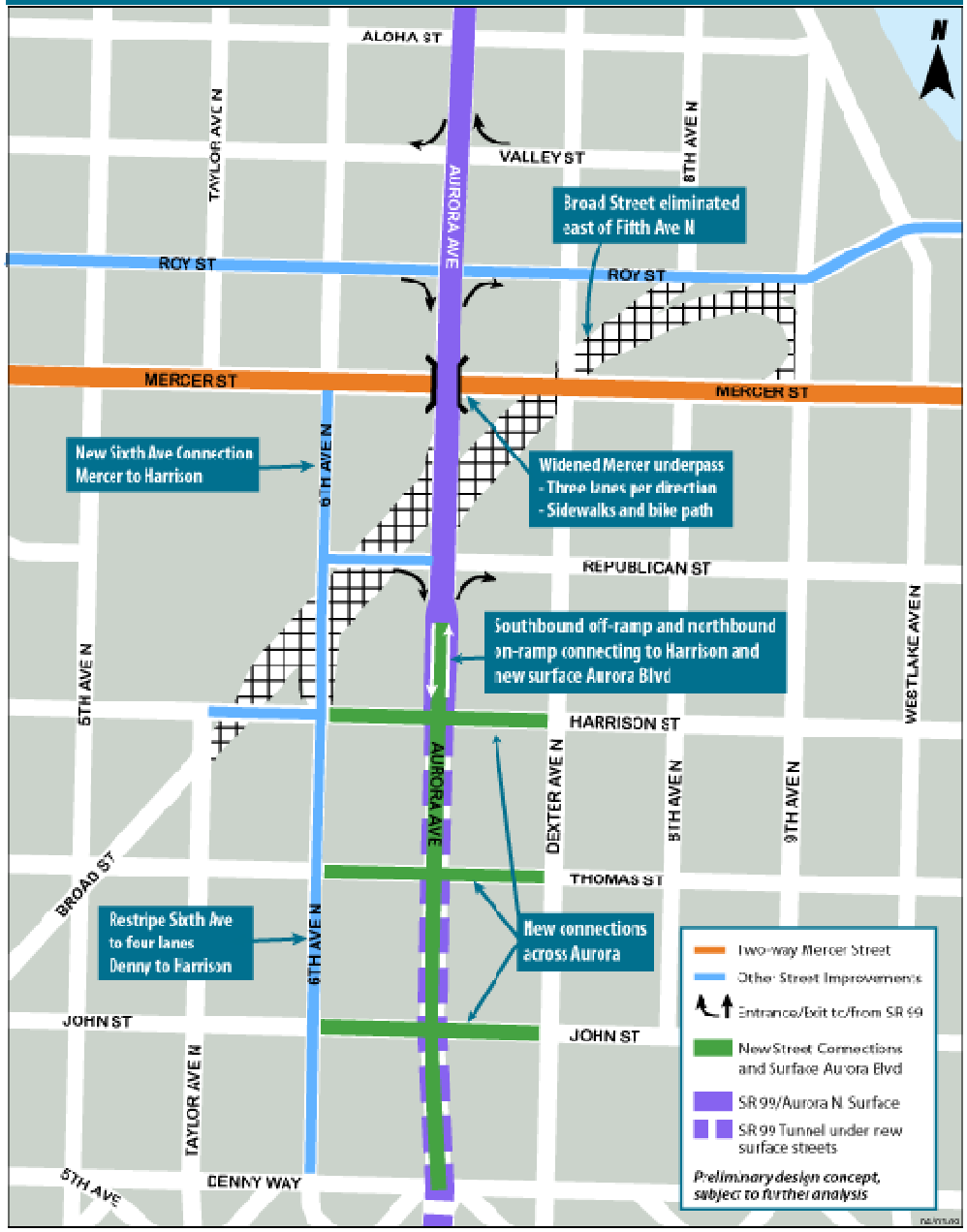
- Transition from tunnel to surface Aurora Avenue N.
- Three new connections and Aurora over the tunnel
- Two-way Mercer Street
  - Underpass widened to six lanes
  - Two-way Roy Street
- Sixth Avenue N.
  - New connection: Mercer to Harrison
  - Re-stripe south of Harrison
- Eliminate Broad Street
- Access to/from SR 99
  - From the bored tunnel
  - To the bored tunnel
  - To and from Aurora Avenue North
    - Valley Street
    - Harrison Street

North Portal



North Portal Concept B – Access and Mobility

Advantages:

- Eliminates the weave between traffic entering from downtown and the northbound tunnel traffic exiting in the portal area.
- Eliminates the weave between southbound traffic exiting into downtown and traffic entering the tunnel from the portal area.
- Distributes southbound entrance and northbound exit traffic to two locations north and south of Mercer Street.
- Improves east-west connections, including two-way Mercer Street.
- Creates access to the street grid for traffic traveling from the north on Aurora Avenue to all streets south of Harrison Street.
- Provides freight access to and from the bored tunnel at Republican Street.

North Portal Concept B – Access and Mobility

Advantages:

- Creates three new crossings at John, Thomas and Harrison streets.
- Creates an opportunity for transit priority at Denny Way.
- Creates transit access to South Lake Union and Seattle Center.
- Accommodates truck movements and wide turns at the off-ramp onto Republican Street.

Disadvantages:

- Left-side entrance and exit lanes between Aurora Avenue N. and downtown.

North Portal Concept B – Urban Character

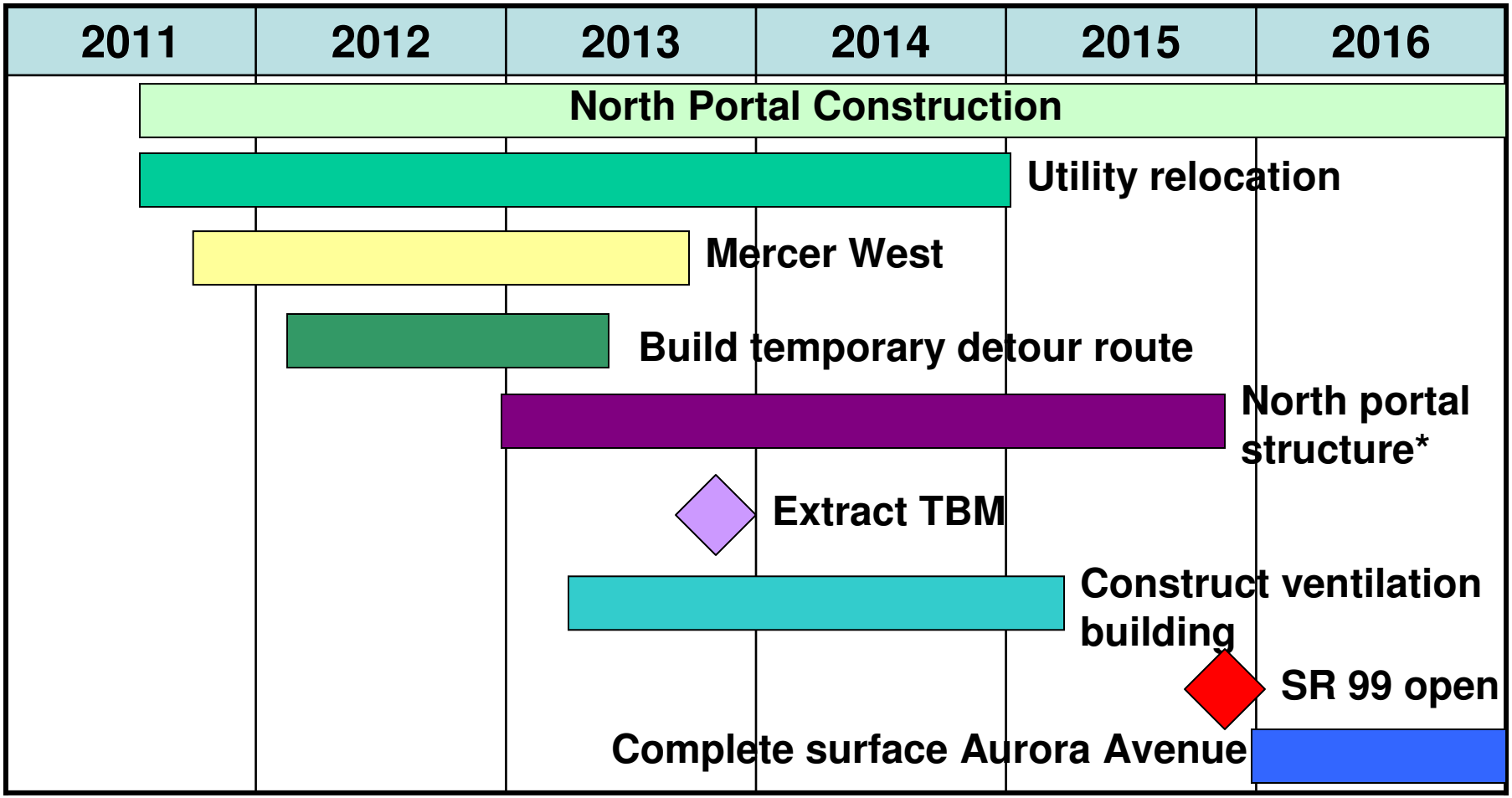
Advantages:

- Creates an urban street grid across, and including, Aurora Avenue.
- Creates three new crossings at existing street grade.
- Develops a new surface Aurora Avenue boulevard from Harrison to Denny streets.
- Enables potential development of surplus properties (needed for construction only).
- Creates enhanced bike and pedestrian connections via the widened Mercer Street underpass.

Disadvantages:

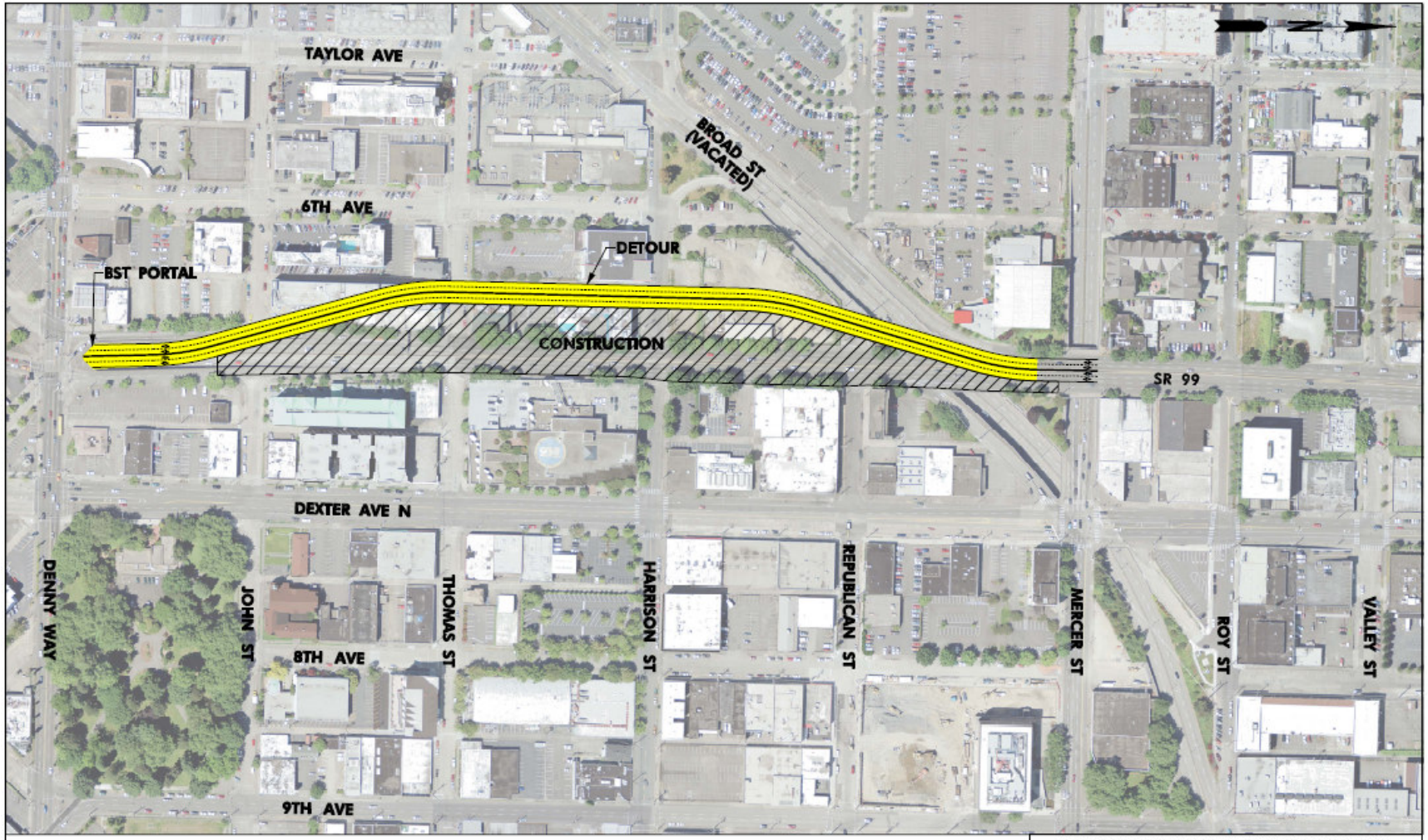
- Would create a narrow sidewalk on the east side of Aurora Avenue north of Harrison Street.
- Aurora Avenue sidewalk would be disrupted at Republican Street.

Preliminary North Portal Construction Stages and Timeline



*Includes cut-and-cover structure, John Street to Denny Street roadway, and Harrison and Thomas street grid connections.

North Portal Detour Route



DRAFT WORKING DRAWING
FOR DISCUSSION
PURPOSES ONLY

ALASKAN WAY VIADUCT AND SEAWALL REPLACEMENT PROGRAM

NORTH PORTAL

FIG

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SR 99 Traffic and Detour Planning

Detour and traffic goals:

- Maintain connection to Battery Street Tunnel.
- Maintain 2 lanes of traffic in each direction.
- Provide access to and from downtown.
- Provide access in portal area.
- Maintain transit reliability to and from downtown.

Construction Sequencing

- Begin utility construction.
- Complete Mercer West.
- Build detour.
- Start construction of portal walls.
- Extract TBM.
- SR 99 mainline, ramps, and Harrison and Thomas streets.
- Open bored tunnel.
- Complete surface Aurora Avenue.

Environmental Analysis

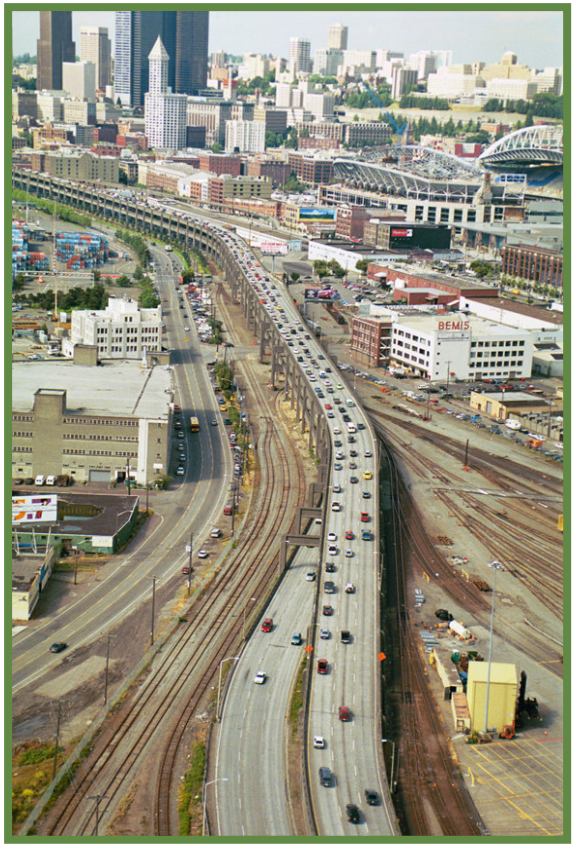
The environmental analysis for the bored tunnel and north and south portals will include:

- Air quality
- Traffic
- Aquatic resources
- Water quality/stormwater
- Economics
- Noise and vibration
- Historic/archaeological
- Land use
- Visual quality
- Construction effects

Pre-construction activities

- Safety is a priority as we prepare to construct the SR 99 bored tunnel.
- Crews are drilling for geotechnical samples along the alignment to provide valuable information about soil conditions.
- Teams will survey 300 buildings along the alignment to identify mitigation measures to ensure buildings are not adversely impacted during construction.

Alaskan Way Viaduct and Seawall Replacement Program



Follow our progress: www.alaskanwayviaduct.org