

The bored tunnel will be two lanes in each direction with shoulders on each side.

## All tunnels are not the same: SR 99 deep bored tunnel vs. the waterfront tunnel

WSDOT, King County and the City of Seattle plan to replace the central waterfront portion of the Alaskan Way Viaduct and Seawall with an approximately 1.7 mile-long deep bored tunnel beneath downtown, a new waterfront surface street, transit investments, and downtown city street improvements.

While this bored tunnel and the cut-and-cover tunnel considered by Seattle voters in March 2007 are both “tunnels,” they are vastly different. Their location, construction methods, length and degree of public disruption, and environmental effects bear little relation to each other.

### Location and depth

The cut-and-cover tunnel would have roughly followed the path of the existing viaduct. The bored tunnel will be located several blocks inshore under First Avenue, bypassing the Battery Street Tunnel.

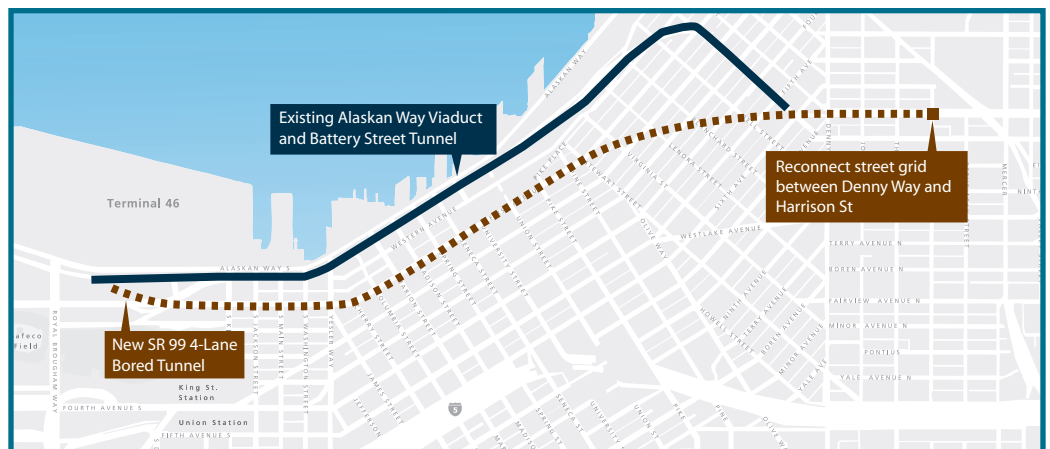
The bored tunnel will be at depths of 100-200 feet, while the cut-and-cover tunnel would have required excavation of 30-50 feet of soil.

### Construction method and timeline

The bored tunnel will be drilled by a large tunnel boring machine, and most of the construction operations will occur from one location near the stadiums. The tunnel boring machine will be a new machine built specifically for this tunnel. Constructing the cut-and-cover tunnel would have meant digging up the entire street along Alaskan Way, temporarily rebuilding

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- Column Safety Repairs
- Electrical Line Relocation
- South End: S. Holgate Street to S. King Street Viaduct Replacement Project
- Transit Enhancements and Other Improvements



The bored tunnel will be located several blocks inshore under First Avenue.



## For More Information:

### Visit the Web site at:

[www.alaskanwayviaduct.org](http://www.alaskanwayviaduct.org)

### Call the hotline:

1-888-AWV-LINE

### Send an e-mail to:

[viaduct@wsdot.wa.gov](mailto:viaduct@wsdot.wa.gov)

### Send a letter to:

Alaskan Way Viaduct and Seawall  
Replacement Program  
c/o Washington State  
Department of Transportation  
999 Third Avenue, Suite 2424  
Seattle, WA 98104

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the street surface, then excavating beneath using conventional construction equipment.

The cut-and-cover excavations would have required substantial relocations of all the various utilities and piping buried beneath Alaskan Way. This is normally a time-consuming, expensive, and disruptive construction operation. The bored tunnel will be drilled well below existing utilities for most of its length, with utility relocations taking place only at the two entrances.

Because of utility relocation and early removal of the viaduct, construction activities for the cut-and-cover tunnel itself would take about twice as long as bored tunnel construction.

## Disruptions to the public

The public will experience much less disruption during bored tunnel construction, since the only openings to the surface will be at the ends of the tunnel. With cut-and-cover tunnel construction, we would have to temporarily dig up the entire waterfront surface street.

The bored tunnel concept will allow traffic on the viaduct while the tunnel is being constructed. The cut-and-cover

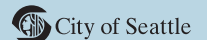
tunnel would have required demolishing the viaduct first and rerouting traffic to city streets for several years. Overall, the bored tunnel will result in significantly less traffic disruption both in length of time and intensity.

## Environmental and archaeological impact

Because of its depth, the environmental and potential archaeological impact of a bored tunnel will be considerably less than that associated with a cut-and-cover tunnel.

Since cut-and-cover requires excavating the upper soils, we would have encountered difficult ground conditions along the tunnel's entire length. These conditions would have included very soft soils, miscellaneous man-made rubble, abundant old timbers, and a considerable volume of contaminated soil and groundwater.

The bored tunnel is expected to encounter uncontaminated dense natural glacial soils throughout most of its length. Construction activities will encounter challenging soil conditions primarily at its south entrance, which would have been true for the cut-and-cover tunnel as well.



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