

**SEATTLE DEPARTMENT OF TRANSPORTATION (SDOT)  
DEVIATION REQUEST FORM**

Please complete this form and attach materials specified in the Right-of-Way Improvements Manual, Chapter 2.6: Deviation Request Process for Right-of-Way Improvements.

<b>Project Name and Site Address:</b>	<b>Project Name:</b> S HOLGATE ST TO S KING ST VIADUCT REPLACEMENT PROJECT <b>Site Address:</b> New roadway referenced as the "Undercrossing" that provides a grade separated bypass of the RR crossing on S. Atlantic Street west of First Avenue S.
<b>Today's Date:</b>	March 24, 2010
<b>APPLICANT INFORMATION</b>	
<b>Name:</b>	John Fenedick, P.E.
<b>Contact Phone #:</b>	(206) 267-3843
<b>Mailing Address:</b>	999 3 <sup>rd</sup> Ave, Suite 2200 Seattle, WA 98104
<b>SUMMARY OF DEVIATION REQUEST</b>	
<b>Define the existing standard or design criteria to be deviated from:</b> <i>(include specific references to Standard Plans and Specifications and the ROW Manual when appropriate)</i>	Design Radius for roadway horizontal alignment.  Section 4.4.2 (Design Criteria) Seattle Right of Way Improvements Manual.  Section 4.4.2 states that the minimum horizontal radius with a maximum 4% super elevation for urban conditions is 125 feet for a design speed of 20 MPH.
<b>Describe your reasons for the deviation request:</b> <i>(e.g., the standard or design criteria can not be met, deviation design supports overall project proposal)</i>	The desired horizontal radius is not provided due to a combination of several physical constraints. The physical constraints include the following: <ul style="list-style-type: none"> <li>• Intersection locations on S. Atlantic Street (along the south side of the site).</li> <li>• Major underground utilities in S. Royal Brougham Way (along the north side of the site).</li> <li>• Major utilities and Right-of-Way impacts to the Port of Seattle's Terminal 46 (T-46) property (along the west side of the site).</li> <li>• Additional utility and Right-of-Way impacts (along the east side of the site).</li> </ul> <p>The desired horizontal radius is not physically achievable given these constraints that form a tight box for the grade separated RR bypass, also known as the "undercrossing." The undercrossing is a new roadway that is essential to enhance freight mobility as part of the Alaskan Way Viaduct and Seawall Replacement Program (AWVSRP).</p>

<p><b>Summarize the design proposal:</b></p>	<p>S. Atlantic Street, west of First Avenue S. is realigned northward from its current location to connect directly to the Port of Seattle's Terminal 46 (T-46) driveway. The lane channelization and width of S. Atlantic Street are adjusted to provide two lanes in each direction from the existing intersection with First Avenue S., to the relocated T-46 entrance. Additional width is required to incorporate left turn pockets approaching Colorado Avenue S., and also at the approach to a new roadway that replaces the existing Alaskan Way S.</p> <p>A grade separated (underground) RR bypass roadway is provided from the north intersection leg of the S. Atlantic Street and Colorado intersection, to the north intersection leg at the new T-46 entrance (at the intersection of S. Atlantic Street and E. Marginal Way S). This "undercrossing" is a new two-lane, two-way roadway that will facilitate freight and general purpose traffic mobility during closures of S. Atlantic Street due to RR operations. This roadway is approximately 2,000 feet long. The 12-foot lanes and shoulders are designed for a WB-67 truck as the design vehicle.</p> <p>The site constraints limit the design speed to 20 MPH using AASHTO criteria. The City of Seattle guidelines for the 20 MPH minimum horizontal design radius cannot be met within this constrained site.</p>
--	--

<b>JUSTIFICATION</b>	
<p><b>Describe how the proposal differs from the existing standard or design criteria:</b></p>	<p>A 120 feet design radius (with a maximum 4% super elevation) is proposed for the undercrossing horizontal alignment. This proposed radius is less than the minimum horizontal radius of 125 feet (with a maximum 4% super elevation) for a design speed of 20 MPH per the City of Seattle Right of Way Improvements Manual.</p>
<p><b>Describe how traffic safety and operations will not be adversely affected by this deviation:</b></p>	<p>Traffic safety and operations will not be adversely affected by this deviation. The proposed design is sufficient and appropriate for this location and context.</p> <p>The proposed design well exceeds the WSDOT design criteria requiring a minimum 86 feet horizontal curve for a 4% super elevation for low-speed urban roadways (WSDOT Design Manual, Exhibit 1250-5, page 1250-9, June 2009).</p> <p>The same minimum design value of 86 feet with 4% super elevation is established by the 2004 AASHTO Green Book for low-speed urban streets (2004 AASHTO Geometric Design of Highways and Streets, Exhibit 3-16, page 151, Fifth Edition).</p>

<b>Describe how the deviation will not adversely affect maintenance and associated costs:</b>	Maintenance and associated costs will be comparable for roadways with horizontal design radii that range from 120 to 125-feet. This deviation will not affect maintenance and associated costs.
<b>Describe how the aesthetic appearance will be maintained:</b>	See the S HOLGATE ST TO S KING ST VIADUCT REPLACEMENT PROJECT Streetscape Design Report.

Approved by: \_\_\_\_\_ *P.E. (required for engineering improvements)*

SDOT Approval: \_\_\_\_\_ *Street Use Division Manager*

\_\_\_\_\_ *Roadway Design Engineer*

\_\_\_\_\_ *City Traffic Engineer*