

Chapter 1 GENERAL CONSIDERATIONS

1-07 REFERENCES

B. General

The following references may also be applicable (with said reference(s) applying to the publications as adopted and amended):

1. [WSDOT Local Agency Guidelines](#)
2. Transportation Improvement Board ([TIB](#)) Guidelines
3. Design criteria of federal agencies including the Federal Housing Administration ([FHA](#)), Department of Housing and Urban Development ([HUD](#)), and the Federal Highway Administration ([FHWA](#)), Department of Transportation
4. A Policy on Geometric Design of Highways and Streets, American Association of State Highway and Transportation Officials ([AASHTO](#))
5. LRFD (Load Resistance Factor Design) Bridge Design Specifications ([AASHTO](#))
6. Standard Specifications for Highway Bridges ([AASHTO](#))
7. Guide Specifications for Design of Pedestrian Bridges ([AASHTO](#))
8. Manual on Uniform Traffic Control Devices ([MUTCD](#)), (U.S. Department of Transportation, as amended and approved by WSDOT)
9. IESNA Roadway Lighting Handbook RP-8-00, (U.S. Department of Transportation)
10. 2005 Revised Draft Guidelines for Accessible Public Rights-of-Way (2005 PROWAG, U.S. Access Board)
11. ADA Standards for Accessible Design (US Department of Justice, 2010)
12. ADA Standards for Transportation Facilities (US Department of Transportation, 2006)
13. Hydraulic Code Rules (Chapter [220-660](#) WAC)
14. Dam Safety Guidelines (Dam Safety Division, Washington State Department of Ecology)
15. Roadside Design Guide ([AASHTO](#))
16. International Building Code (IBC)
17. International Fire Code (IFC)
18. Pedestrian Facilities Guidebook (September 1997, WSDOT, PSRC, CRAB and AWC)
19. Water Crossing Design Guidelines (Washington Department of Fish and Wildlife, May 2013)
20. Low Impact Development: Technical Guidance Manual for Puget Sound (Washington State University Extension and Puget Sound Partnership, December 2012)
21. Guidelines for Geometric Design of Low-Volume Roads (AASHTO)
22. Guide for the Development of Bicycle Facilities (AASHTO)
23. Guide for Design of Pavement Structures (AASHTO)

Chapter 3 – ROAD DESIGN

3-01 ROAD CIRCULATION

B. Layout and Design

The following criteria for circulation shall be used in the layout and design of the county road network:

1. The road network shall be designed to promote a connected and convenient circulation of traffic without reliance on the arterial road system. Circulation and connectivity shall be provided in a manner, where possible, that will allow subsequent developments to meet these standards.
2. The road network is made up of the following road network elements, described further in EDDS Sections 3-04 and 3-05:
 - Public roads
 - Private roads
 - Drive aisles
 - Shared courts
 - Shared driveways
 - Alleys
 - Driveways

County Code requirements for roads and access are contained in Chapter [30.24](#) SCC.

3. The road network shall be designed so that the maximum separation between public roads is approximately 330 to 660 feet in urban areas or approximately 2,640 to 5,280 feet in rural areas. With the Engineer's approval, exceptions to the approximate road separation requirements may be granted when meeting them would be infeasible or impractical due to topography, critical areas, the surrounding road network, soils, hydrology, or other constraints. The public roads defining a block shall comply with the minimum centerline offset standards of EDDS Section 3-09. Access points within a block shall comply with the separation and corner clearance requirements of EDDS Sections 2-04 and 2-05.

3-05 PRIVATE ROAD NETWORK ELEMENTS

B. Private Roads

A private road is a road network element that is privately owned and maintained, located in a tract or easement and designed for access to three or more lots. Private roads do not include "drive aisles." The design standards for private roads, whether urban or rural, are the same as for public roads with corresponding traffic volumes except that private rural roads serving 90 ADT or less shall be designed according to Standard Drawing 3-080. Private road specifications are provided in Standard Drawings 3-060, 3-065 and 3-080. Rural private road intersections shall comply with Standard Drawing 3-100.

A roadway surfacing design prepared by a licensed professional engineer according to the AASHTO Guide for the Design of Pavement Structures can be proposed for the Engineer's approval in place of the public road surfacing requirements in EDDS 4-09. A private road that could be converted to a public road shall be designed according to the public road surfacing standards in EDDS 4-09.

8-05 UNDERGROUND UTILITY INSTALLATION

C. Restoration Requirements

1. Trenches and Multiple Window Cuts. The restoration of trenches and multiple window cuts shall be as follows, provided that single window cuts made by more than one Utility Purveyor that are associated with a private development project will be considered multiple window cuts for restoration purposes:
 - i. All trench backfill shall be per WSDOT/APWA [Specification](#) 7-08.3(3) and these Standards, using bank run gravel or CSTC conforming to [Specifications](#) 9-03.19 or 9-03.9(3), respectively. Backfill shall be placed to the bottom edge of the existing asphalt or within 6-inches of existing road grade, whichever is greater, in successive layers not exceeding 6 inches in loose thickness. Each layer shall be compacted with mechanical tampers to 95 percent of maximum density as determined in ASTM D1557. Verification of backfill compaction shall be required and shall bear the stamp and signature of a professional engineer licensed in the State of Washington. The verification of backfill compaction test shall be submitted to the County prior to the placement of the overlay required by EDDS Section 8-05.C.1.iii below.
 - ii. After placing a tack coat on the existing asphalt edges, the final patch shall be constructed with 6-inches of compacted HMA placed in the trench cut up to finished grade per WSDOT [Standard Specifications](#) Division 5-04.
 - iii. After the backfill compaction has been verified and placement of the compacted HMA final patch, a full-width overlay consisting of 2-inches of compacted HMA shall be placed per WSDOT [Standard Specifications](#) Section 5-04. In preparation for overlaying an existing asphalt road, the ends of the overlay project and any areas where matching existing curb or pavement will be necessary shall be planed in accordance with Standard Drawing 4-165. Should the final patch not be of satisfactory surface texture and grade, an asphalt pre-level shall immediately be done to ensure a smooth driving surface during the period before the final asphalt overlay.
 - iv. Full-Width Overlay Limits for a Single Lateral Trench
The full-width overlay limits for a single lateral trench extend laterally from the curb line or edge of pavement to curb line or edge of pavement and longitudinally along the roadway from 10 feet before the first pavement cut line of the trench to 10 feet beyond the last pavement cut line of the trench as illustrated in Figure 8 - 1.

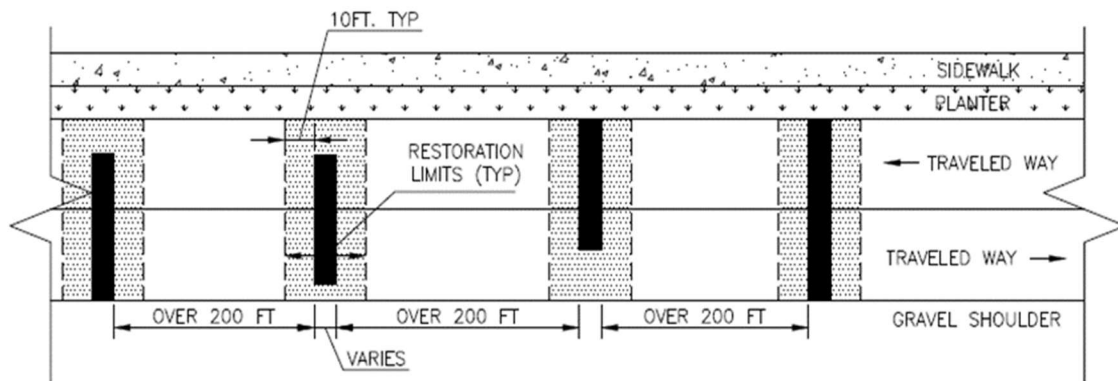


Figure 8 - 1 Full-Width Overlay Limits for Single Lateral Trenches

v. Full-Width Overlay Limits for Trenches and/or Multiple Window Cuts

The full-width overlay limits for trenches and/or multiple window cuts that are less than 200 feet apart extend laterally from curb line or edge of pavement to curb line or edge of pavement and longitudinally along the roadway from 10 feet before the first pavement cut line to 10 feet beyond the last pavement cut line as illustrated in Figure 8 - 2.

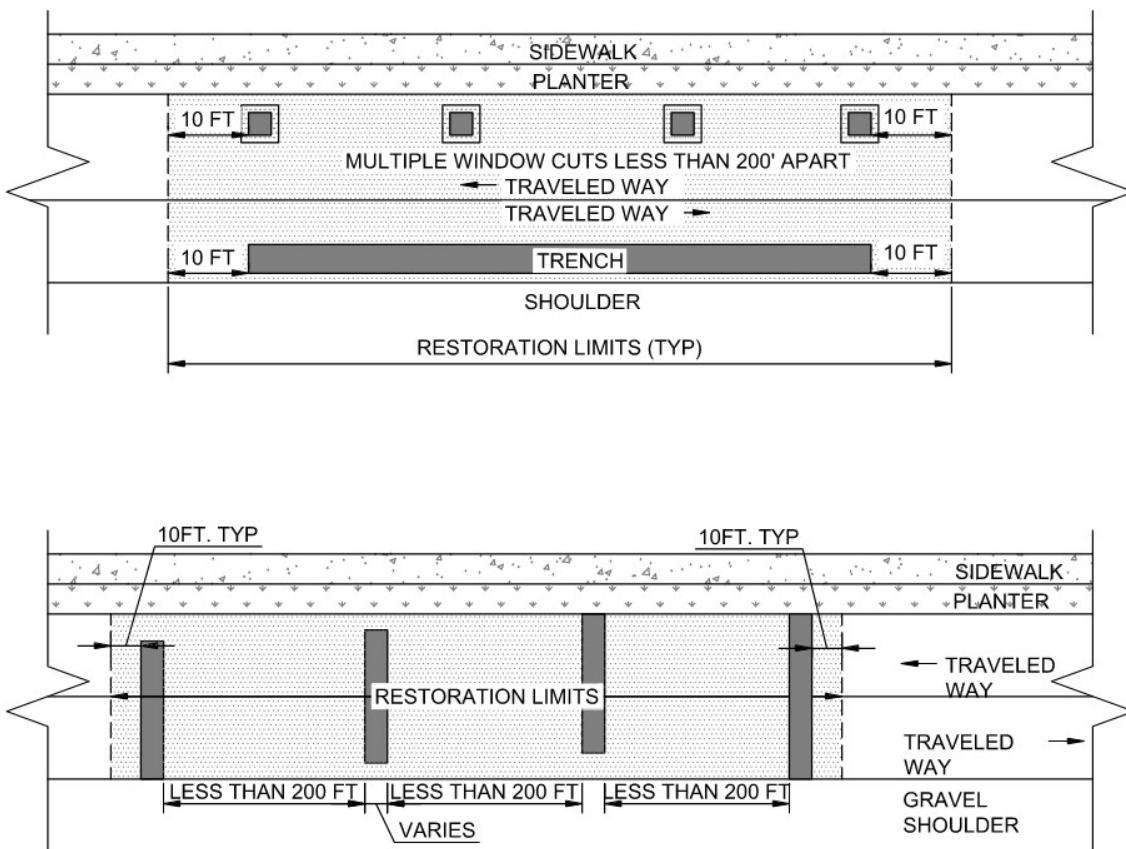


Figure 8 - 2 Full-Width Overlay Limits for Multiple Trenches and Window Cuts

vi. Single Window Cuts by More Than One Utility Purveyor

Single window cuts made by more than one utility purveyor that are associated with a private development project will be considered multiple window cuts for restoration purposes.

viii. Half-Width Overlays

a. Applicability

A full-width overlay shall be reduced to a half-width overlay without the need for an EDDS deviation in each of the following circumstances, provided that no pavement cut line is within 3 feet of the crown of the road:

- A longitudinal trench entirely on one side of the road crown;
- A single lateral trench, or multiple lateral trenches less than 200 feet apart, made by the same utility entirely on one side of the road crown;
- Multiple window cuts less than 200 feet apart made by the same utility entirely on one side of the road crown; or
- A combination of longitudinal trenches, lateral trenches, and/or window cuts made by the same utility entirely on one side of the road crown.

b. Approximating the Crown of the Road

Since the crown of the road is not typically shown on project plans, the pavement centerline will be used to approximate the road crown. If a road is super-elevated, then the pavement centerline shall be used as a substitute for the crown of the road.

c. Half-Width Overlay Limits

The half-width overlay limits extend laterally from the curb line or outside edge of pavement to the crown of the road and longitudinally along the roadway from 10 feet before the first pavement cut line to 10 feet beyond the last pavement cut line.

d. Cuts Within 3 Feet of the Crown of the Road

If a trench comes within 3 feet of the crown of the road, a full-width overlay is required from 10 feet before the first point at which the trench comes within 3 feet of the crown of the road to 10 feet beyond the last point at which the trench comes within 3 feet of the crown of the road as illustrated in the examples in Figure 8 - 3. The remainder of the pavement may be restored as a half-width overlay provided that no other pavement cut comes within 3 feet of the crown of the road.

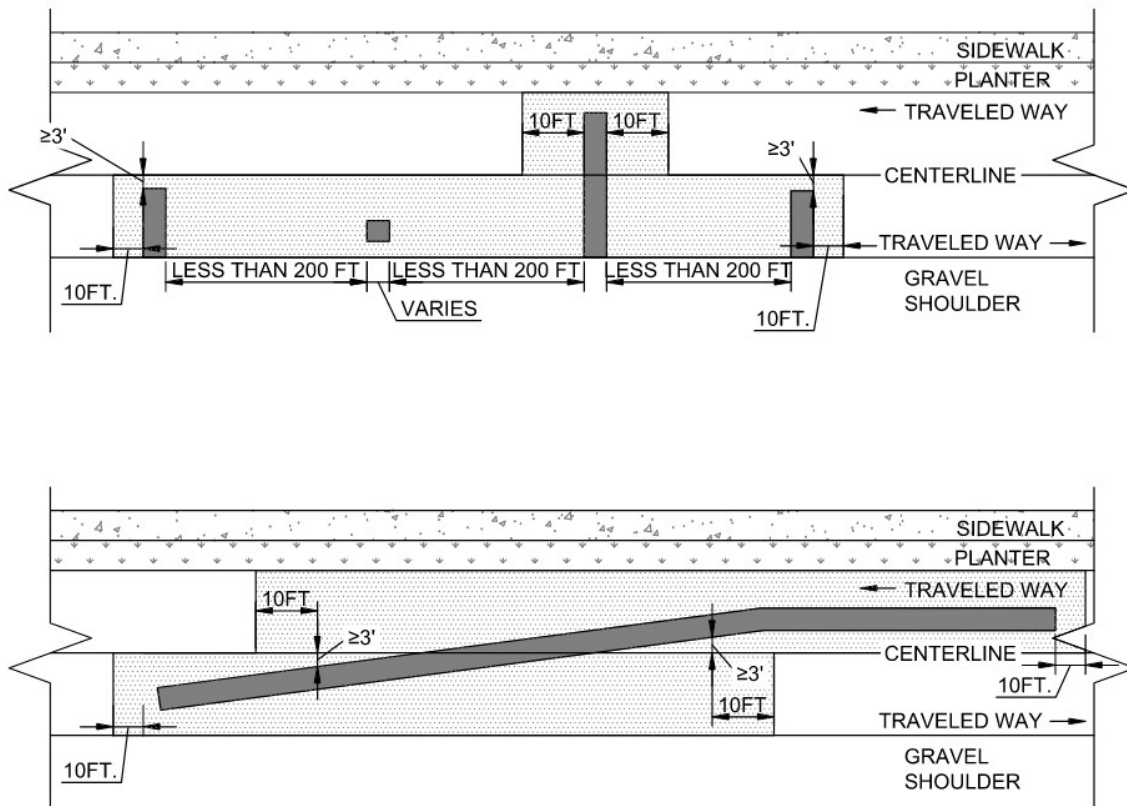


Figure 8 - 3 Overlay Limits for Trenches Within 3 Feet of the Crown of the Road

ix. Lane-Width Overlays

a. Applicability

A half-width overlay shall be reduced to a lane-width overlay on roads with four or more lanes, without approval of an EDDS deviation, in each of the following circumstances, provided that no pavement cut line is within 3 feet of the crown of the road:

- A longitudinal trench entirely within a single lane;
- A single lateral trench, or multiple lateral trenches less than 200 feet apart, made by the same utility entirely within a single lane;
- Multiple window cuts less than 200 feet apart made by the same utility within a single lane; or
- A combination of longitudinal trenches, lateral trenches, and/or window cuts by the same utility entirely within a single lane.

b. Lane-Width Overlay Limits

The lane-width overlay limits extend laterally across the full width of the lane that is cut and longitudinally along the roadway from 10 feet before the first pavement cut line to 10 feet beyond the last pavement cut line.

c. Bike Lane & Paved Shoulders

The bike lane or paved shoulder shall be added to the lane width overlay limits when the adjacent lane is cut and overlaid.

d. Crossing from One Lane to Another

If a trench crosses from one lane to another then the lateral extents of the overlay increase to include the full width of both lanes that are cut from 10 feet before the first point at which the trench crosses a lane line to 10 feet beyond the last point at which the trench crosses a lane line as illustrated in the examples in Figure 8 - 4.

e. Cuts Within 3 Feet of the Crown of the Road

If a trench comes within 3 feet of the crown of the road, an overlay extending laterally across the full width of the cut lane plus the full width of the adjacent lane on the other side of the road crown is required from 10 feet before the first point at which the trench comes within 3 feet of the crown of the road to 10 feet beyond the last point at which the trench comes within 3 feet of the crown of the road. The remainder of the pavement may be restored as a lane-width overlay provided that no other pavement cut comes within 3 feet of the crown of the road.

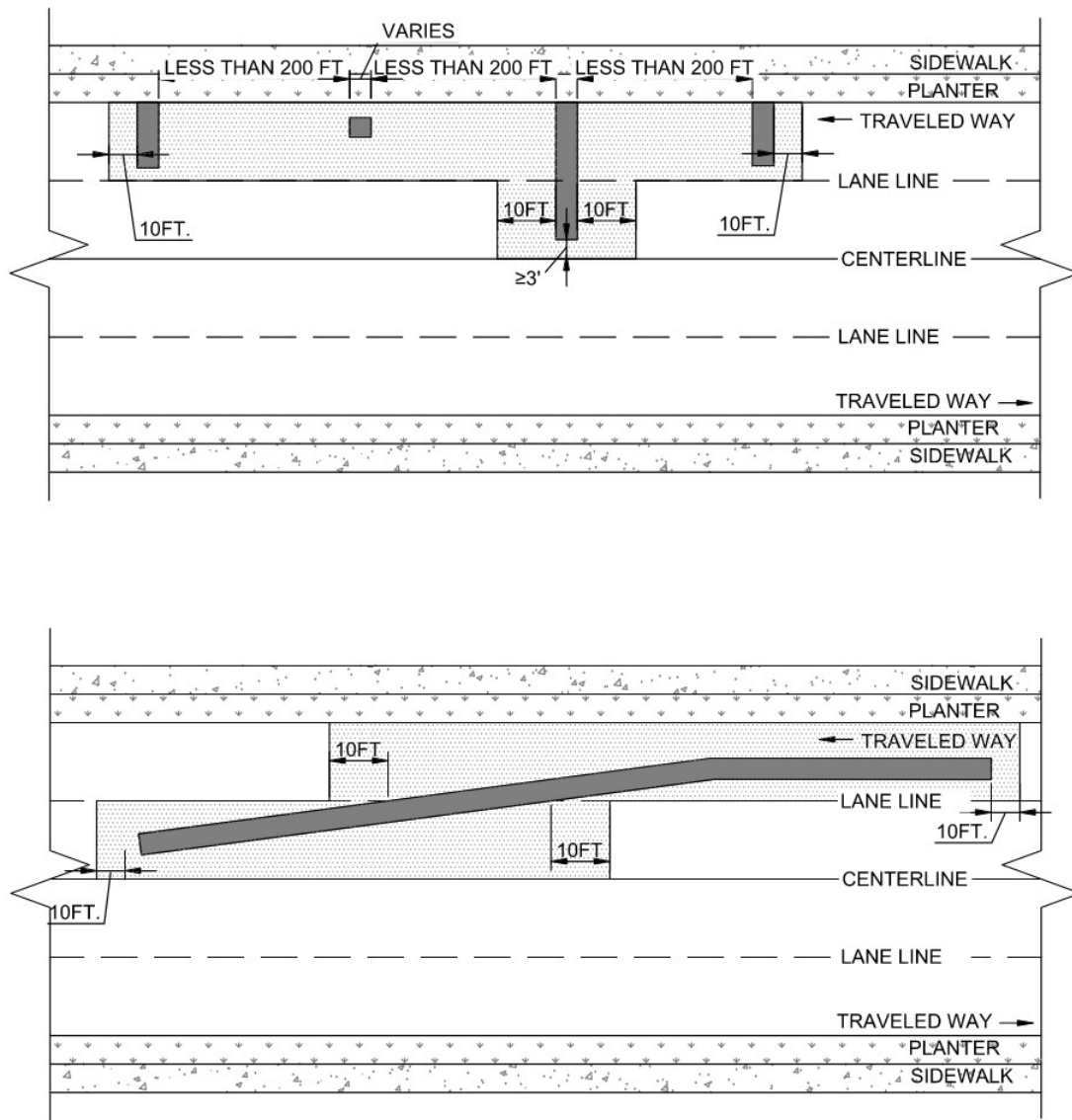


Figure 8 - 4 Overlay Limits for Pavement Cuts that Cross from One-Lane to Another