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Remarks and Instructions

What's changed in the Roadside Manual for February 2016?

Roadside Manual changes include the following:

- Chapters were updated for references to other manuals, laws, and policies. For the chapters on environmental topics, the previous chapters have been removed and replaced by links to the Environmental Manual and the Environmental Services Office webpages.

Remove/Insert instructions for those who maintain a printed manual:

CHAPTER	REMOVE PAGES	INSERT PAGES
Title Page	All	i-ii
Foreword	All	iii -iv
Comment Form	All	v-vi
Table of Contents	1-2	1-2
Chapter 100 – Manual Description	All	100-1 – 100-2
Chapter 110 – Roadside Functions	All	110-1 – 110-4
Chapter 120 – Sustainable Roadsides	All	120-1 – 120-2
Chapter 200 – Roadside Policy	All	200-1 – 200-2
Chapter 210 – Federal Legislation and Directives	All	210-1 – 210-6
Chapter 220 – State Legislation and Directives	All	220-1 – 220-6
Chapter 300 – Operational Functions	All	300-1 – 300-4
Chapter 310 – Roadside Safety	All	310-1 – 310-8
Chapter 320 – Signing	All	320-1 – 320-2
Chapter 400 – Environmental Functions	All	400-1 – 400-2
Chapter 410 thru Chapter 460	All	Retired
Index	All	Retired

Revision marks:

- A new date appears on the footer of each page that has changes or different pagination.
- Revision marks (underlines/sidebars) are used as a convenience to show designers what has changed.
- When a chapter is new or substantially rewritten, no revision marks are applied.

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HQ Design Office Signature <i>/s/ Sandy Salisbury</i>	Phone Number 360-705-7245
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**Washington State
Department of Transportation**

Roadside Manual

M 25-30.03

February 2016

Engineering and Regional Operations

Development Division, Design Office

Americans with Disabilities Act (ADA) Information

Materials can be made available in an alternative format by emailing the WSDOT Diversity/ADA Affairs Team at wsdotada@wsdot.wa.gov or by calling toll free: 855-362-4ADA (4232). Persons who are deaf or hard of hearing may contact that number via the Washington Relay Service at 7-1-1.

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Foreword

The *Roadside Manual* has been prepared to coordinate and guide the management of Washington State highway roadsides including planning, design, construction, and maintenance activities.

The intent of this manual is to provide a consistent, coordinated, proactive approach to the treatment of roadsides statewide and to facilitate cost-effective restoration of state roadsides. The policies and guidelines provided here allow room for regional variations within the statewide parameters.

This manual implements the policies found in the *Design Manual* and the *Roadside Policy Manual*.

For further information, to offer comments on the *Roadside Manual*, call the Roadside and Site Development Unit of the Headquarters Design Office at 360-705-7242 or HartwiJ@wsdot.wa.gov.

To order additional copies of the *Roadside Manual* contact Engineering Publications at 360-705-7428.

/s/ Jeff Carpenter

Jeff Carpenter, P.E.

Director & State Design Engineer,
Development Division

Contents

Chapters

100 – Manual Description	100-1
110 – Roadside Functions	110-1
120 – Sustainable Roadsides	120-1
200 – Roadside Policy	200-1
210 – Federal Legislation and Directives	210-1
220 – State Legislation and Directives	220-1
230 – Departmental of Policy and Planning	230-1
300 – Operational Functions	300-1
310 – Roadside Safety	310-1
320 – Signing	320-1
400 – Environmental Functions	400-1
500 – Visual Functions	500-1
600 – Auxiliary Functions	600-1
630 – Parking Area Design	630-1
700 – Soil and Soil Amendments	700-1
710 – Erosion Prevention and Sediment Control	710-1
720 – Contour Grading	720-1
740 – Soil Bioengineering	740-1
800 – Vegetation	800-1
810 – Vegetation Restoration	810-1
820 – Irrigation	820-1
910 – Design Enhancement	910-1

Appendices

Appendix A – Signature Authority	A-1
Appendix B – Slope Visualization Diagram	A-2
Appendix C – Sun Angles and Solar Exposure	A-3
Appendix D – Plant Spacing	A-4

Glossary	G-1
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- 100.01 Purpose
- 100.02 General
- 100.03 Definitions
- 100.04 Format
- 100.05 Revisions

100.01 Purpose

The Washington State Department of Transportation (WSDOT) has developed the *Roadside Manual* to provide coordination between all WSDOT partners responsible for roadside activities, and to establish a common basis for consistent roadside management decisions statewide. It also establishes a convenient and accessible reference for new and previously unpublished material related to roadside management including planning, design, construction, and maintenance. In addition, the manual supplements statewide roadside guidelines established in the *Roadside Policy Manual*.

100.02 General

Roadsides are an important component of highway design, operation, and maintenance because of the operational, environmental, visual and auxiliary functions they provide. Properly designed and maintained, roadsides complement the functions of the roadway, integrate the roadway facility into the surrounding landscape and provide a positive psychological effect on vehicle occupants.

Almost one-third of fatal accidents are single vehicle run-off-the-road accidents. Recognition of this fact has led to roadway, traffic barrier, sign, and lighting standard designs that can reduce the seriousness of roadside encroachments. Roadsides can have a significant effect on errant-vehicle occupant safety. Refer to the *Design Manual* for guidance on roadway and roadside safety design.

Roadsides include virtually every habitat type that occurs in Washington State. They provide for native plant preservation and revegetation, habitat for animal species, and opportunities for stormwater storage and aquifer recharge.

In addition, there is increasing scientific evidence that roadsides can have a psychological effect on vehicle occupants. Nature-dominated roadsides may relieve drive-related stress and may have an immunizing effect on reaction to future drive-related stresses. The inverse has also been shown to be true: drives dominated by human development can increase drive-related stress. These research findings have important implications for management of roadsides. Roadsides are important for both physical safety of, and psychological impact on vehicle occupants.

100.03 Definitions

The roadside is the area outside the traveled way. This applies to all lands managed by WSDOT and may extend to elements outside the right of way boundaries. This includes unpaved median strips and auxiliary facilities such as rest areas, roadside parks, viewpoints, heritage markers, pedestrian and bicycle facilities, wetlands and their associated buffer areas, stormwater treatment facilities, park and ride lots, and quarries and pit sites.

100.04 Format

This manual is organized around a framework of roadside functions: operational, environmental, visual and auxiliary. Each of these functional areas has relevance to planning, design, construction, and maintenance personnel.

To avoid unnecessary duplication, existing WSDOT roadside publications have been outlined, referenced, or transferred to this manual.

Each division in this manual includes the following:

- Resources, including related published material and who to contact for more information.
- Definitions of technical terms specific to the division's subject matter. These and other definitions are also found in the glossary.
- Procedures for accomplishing roadside projects, including coordination and communication procedures, schedules, and required actions. Most chapters include a list of recommended procedures for each subject area.

100.05 Revisions

This manual will continue to present the best and most up-to-date information available. It is vital that you, the user, participate in the revision process by using the form provided at the front of the manual to report flaws and to contribute new material.

110.01 General

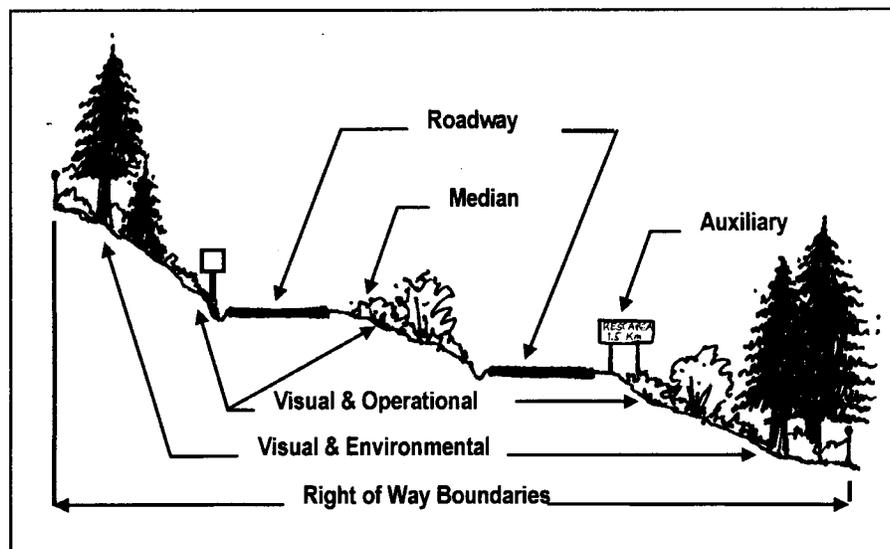
110.02 Roadside Management

110.01 General

The roadway is the portion of a highway, including shoulders, for vehicular use. A divided highway has two or more roadways.

Exhibit 110-1 shows the extent of a typical forested roadside and an example of the possible locations of roadside functional features.

Exhibit 110-1 Roadside functional area examples



The Washington State Department of Transportation (WSDOT) is responsible for the stewardship of approximately 97,500 acres of roadsides along 7,061 miles (in 2001) of state roadway, including hundreds of auxiliary facilities.

Roadside management encompasses planning, design, construction, and maintenance of the roadside environment. The roadside is managed to fulfill four functional categories: operational, environmental, visual, and auxiliary functions. In reality, these functions are interrelated and inseparable, but the four functions help communicate the range of roadside management issues.

The roadside provides the essential area for these functions and contributes to WSDOT's delivery of transportation services. [Exhibit 110-2](#) shows the functions and some examples of those functions.

These examples and their applications are discussed in greater detail in the next several chapters.

Exhibit 110-2 Roadside functions

Function	Examples
operational functions	Those functions that provide safe and multiuse roadsides. Operational functions include access control, and providing recovery areas and sight distances with accommodations for signs and utilities, and snow storage. The <i>Design Manual</i> remains the primary guidance for operational design guidance.
environmental functions	Those functions that protect and enhance our natural and built surroundings. Environmental functions include water quality preservation, protection and improvement, stormwater detention and retention, wetland and sensitive area protection, noxious weed control, noise control, habitat protection, habitat connectivity, air quality improvement, and erosion control.
visual functions	<p>Those functions that are designed and experienced primarily from a visual perspective. Visual functions promote a positive quality of life and are integral to operational, environmental, and auxiliary functions. They include positive guidance and navigation, distraction screening, corridor continuity, roadway and adjacent property buffering, and scenic view preservation.</p> <p>There are two primary roadside views: those from the roadway and those toward the roadway. In addition, many environmental functions, such as noxious weed control, wetland and sensitive area preservation, and habitat preservation are readily perceived and evaluated through sight.</p>
auxiliary functions	Those functions that provide additional operational, environmental, and visual functions for a complete transportation system. Examples of auxiliary facilities are community enhancement areas, safety rest areas, roadside parks, viewpoints, agricultural uses, heritage markers, bicycle and pedestrian facilities, park and ride lots, and quarries and pits.

110.02 Roadside Management

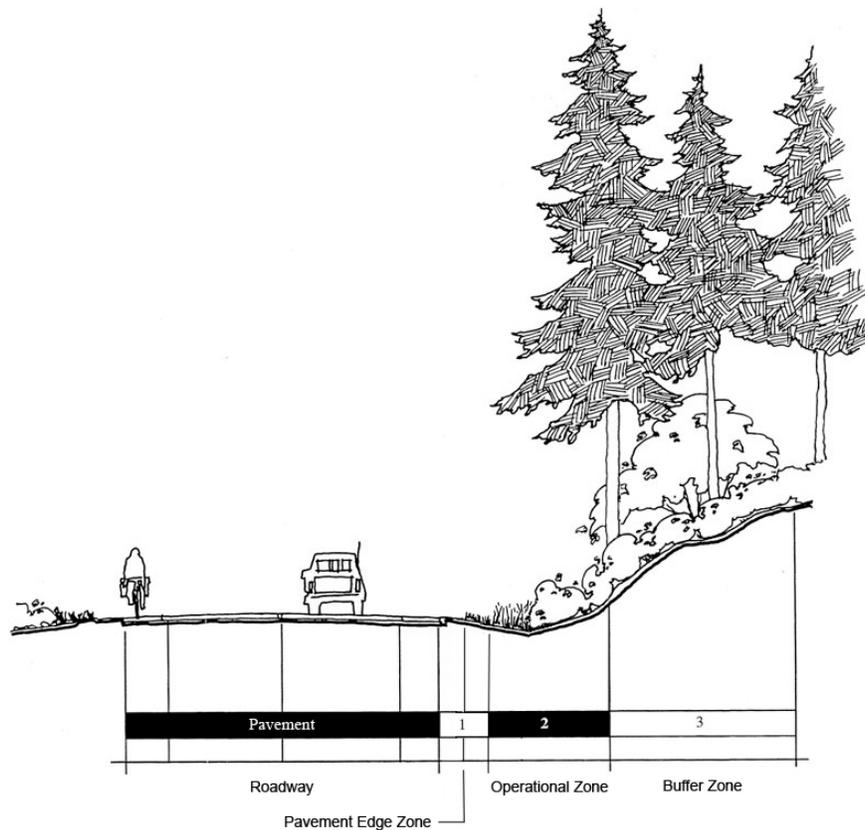
The roadside is managed to fulfill the operational, environmental, visual, and auxiliary functions. Decisions concerning roadside management must be balanced to coordinate and integrate these functions without compromising safety.

Roadside functions vary at different locations according to specific highway and site conditions. Although every area of roadside simultaneously provides many functions, some roadside sections are used primarily to serve very specific functions that are dictated by highway traffic and safety needs, the physical environment, legislated requirements, commitments, and WSDOT policies and programs.

Roadsides are managed in three zones. Zone 1, when present, is a vegetation-free zone immediately adjacent to the roadway. Zone 2 typically contains the clear zone (although in some locations, the Design Clear Zone may extend beyond the right of way line).

Zone 3 extends from Zone 2 to the right of way line, as seen in Exhibit 110-3. Please see the [Maintenance Manual](#) or the [Roadside Policy Manual](#) for more information.

Exhibit 110-3 Roadside management zones



Pavement Edge Zone
Low Growing or Routinely Mowed Vegetation and/or Vegetation-Free Strip
 Maintained using mechanical and/or chemical methods for sight distance, stormwater drainage and filtration, noxious weed control, pavement preservation and roadside hardware maintenance.

Operational Zone
No Vegetation with Stem Diameter Greater than 4"
 Maintained using IVM techniques for sign visibility, sight distance, errant vehicle recovery and weed control.

Buffer Zone
Native or Naturally Occurring Vegetation
 Where adequate right of way exists, maintained using IVM techniques to encourage desirable, self-sustaining plant communities.

- 120.01 General
- 120.02 Reference
- 120.03 Resources
- 120.04 Definition
- 120.05 Managing for Sustainable Roadsides

120.01 General

Roadside management encompasses roadside planning, design, construction, and maintenance. The primary challenge in roadside management is to preserve and restore roadside character and fulfill roadside functions, regardless of fluctuations in funding and personnel. By setting feasible standards and working consistently within long-term goals, roadside management can promote sustainable roadsides.

120.02 Reference

Roadside Vegetation Management Plans

www.wsdot.wa.gov/maintenance/roadside/mgmt_plans.htm

120.03 Resources

- Region Landscape Architects
- Headquarters (HQ) Design Office, Roadside and Site Development Section

120.04 Definition

sustainable roadsides Roadsides that are designed and maintained with the intent of integrating successful operational, environmental, and visual functions with low life cycle costs.

120.05 Managing for Sustainable Roadsides

Sustainable roadsides fulfill roadside design intent and roadside functions over the long term, within present and future available funding, personnel, and equipment allocations and methodologies. To achieve sustainable roadsides, roadside partners must strive to utilize, protect, and support the physical and ecological resources necessary for a fully functioning roadside.

The primary management considerations for sustainable roadsides are:

- **Design intent:** Roadside functions (operational, environmental, visual, and auxiliary) and maintenance standards, criteria, and actions are coordinated and balanced to the greatest degree possible to achieve the design intent on all levels. Design to achieve the long-term goals of Integrated Vegetation Management (IVM). Refer to the [Roadside Vegetation Management Plans](#) website.

- **20-year planning horizon:** All roadside management decisions are weighed in their long-term context, including projected land use and public health, safety, and welfare considerations. Address future adjacent land uses and roadside functions when designing present-day projects.
- **Projected life cycle costs:** All roadside management decisions are in keeping with present and future available funding, personnel, equipment, and methodologies. What are the costs of the project over its “lifetime?”
- **Utilize, protect, and support the roadway and roadside infrastructure:** All roadside management decisions are balanced with the need to sustain, and to preserve, restore, and enhance the roadside character and natural environment. The emphasis is on careful management of existing and volunteer native vegetation.
- **Continued cooperative involvement:** Roadside management decisions are based on continued active involvement between all roadside partners within WSDOT. This begins at the earliest planning stages with communication between all affected parties through an open, collaborative management process and designated lines of communication between roadside partners.

This manual presents criteria and details for implementation of the sustainable roadside concept. All documents pertaining to roadside management such as design documents, construction plans, and area maintenance plans shall be created and implemented using the considerations for managing sustainable roadsides.

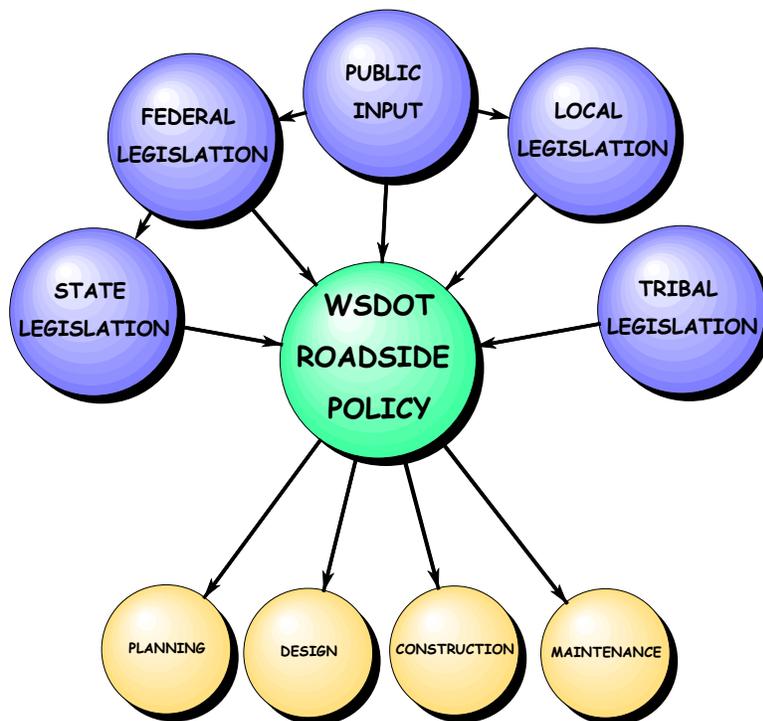
- 200.01 General
- 200.02 Procedures

200.01 General

Washington State Department of Transportation (WSDOT) roadside policy is governed by a web of jurisdictional entities, and affects planning, design, construction, and maintenance.

An activity is directed by department policy and guidelines that are influenced by federal, state, and local legislation and regulations. Roadside policy is also influenced by public input and tribal legislation (see Exhibit 200-1).

Exhibit 200-1 Jurisdictional entities governing roadside policy



200.02 Procedures

200.02(1) Public Involvement

Public involvement in WSDOT roadside activities is conducted in a manner that is consistent with the process established for roadways in general. (See the WSDOT [Design Manual](#), Chapter 210, Public Involvement and Hearings.) It is the department’s goal that decisions be made in the best overall public interest, and that other agencies and the public be involved early enough to influence project decisions.

- 210.01 General
- 210.02 Environmental Preservation and Protection
- 210.03 Visual Quality and Scenic Enhancement
- 210.04 Accessibility
- 210.05 Funding and Planning

210.01 General

Federal legislative acts and policies govern many roadside activities. (See the *Design Manual*, Chapter 220, for documentation requirements.) The *Environmental Manual* contains extensive references to laws and directives applicable to the environment. FHWA's website also contains references to environmental regulations: www.fhwa.dot.gov/environment/env_sum.cfm

Following is a brief summary of the major acts and policies affecting roadsides.

210.02 Environmental Preservation and Protection

210.02(1) *National Environmental Policy Act (NEPA), 42 USC 4321 (1969)*

Established to ensure consideration of environmental factors through a systematic interdisciplinary approach before committing the department and FHWA to a course of action.

Declares that it is the "continuous responsibility" of the federal government to "use all practicable means" to "assure for all Americans safe, healthful, productive, and esthetically and culturally pleasing surroundings."

210.02(2) *Clean Water Act, 33 USC 1251 et seq.*

The Water Pollution Control Act, better known as the Clean Water Act (CWA), was established to restore and maintain the chemical, physical, and biological integrity of the nation's water through the prevention, reduction, and elimination of pollution. [Section 404](#) addresses discharge of dredge and fill in all waters of the United States, including wetlands, and is enforced by the U.S. Army Corps of Engineers and the U.S. Environmental Protection Agency (EPA).

The CWA provides for comprehensive federal regulation of all sources of water pollution. It prohibits the discharge of pollutants from non-permitted sources. The CWA authorizes the EPA to administer or delegate water quality regulations covered under the act. In Washington, the EPA has delegated administrative authority of the CWA to the Washington State Department of Ecology (Ecology) except on tribal and federal lands.

To promote compliance with state surface water quality standards, Ecology issues:

- CWA Section 401 certificates of water quality compliance for each project requiring a CWA Section 404 permit.
- Administrative orders for projects not requiring Section 404 permits.

- National Pollutant Discharge Elimination System (NPDES) Construction individual and general permits.
- NPDES Municipal Permits.

210.02(3) Clean Air Act, 42 USC 7401 et seq.

Established to protect and enhance air quality and to assist state and local governments with air pollution prevention programs.

210.02(4) Endangered Species Act of 1973 as amended, 16 USC 1531-1541

Established to conserve species of fish, wildlife, and plants facing extinction.

210.02(5) Rivers and Harbors Act of 1899, 33 USC 410 et seq.

Protects navigable waters of the United States. It is enforced by the U.S. Army Corps of Engineers.

210.02(6) Noise Control Act of 1972, 42 USC 4901 et seq.

Established to promote an environment free from detrimental noise that jeopardizes the public's health and welfare.

210.02(7) National Forest Management Act (NFMA), 16 USC 1604 (g)(3)(B)

Requires the Secretary of Agriculture to assess forest lands, develop a management program based on multiple-use, sustained-yield principles, and implement a resource management plan for each unit of the National Forest System. The NFMA applies directly to lands administered by the United States Forest Service (USFS), but also provides direction for Bureau of Land Management (BLM) land management plans. The BLM and USFS have integrated National Environmental Policy Act requirements with their land management regulations.

The USFS has developed forest-specific "forest plans" that identify "species of concern" found within each forest.

WSDOT projects that involve federal forest lands must comply with regulations under the NFMA and the Northwest Forest Plan (*Environmental Manual*, Chapter 436).

210.02(8) Preservation of the Nation's Wetlands, EO 11990

Provides policy and implementing procedures that require all agencies to plan, construct, and operate to ensure protection, preservation, and enhancement of the nation's wetlands to the fullest extent practicable.

210.02(9) Prevention of Invasive Species, EO 13112, February 1999

Directs federal agencies to expand and coordinate their efforts to combat the introduction and spread of plants and animals not native to the United States. FHWA has developed guidelines that provide a framework for preventing the introduction of and controlling the spread of invasive plant species on highway rights of way.

210.02(10) Executive Order (EO) 13423 – Strengthening Federal Environmental, Energy, and Transportation Management

Signed by President Bush on January 24, 2007, [EO 13423](#) instructs federal agencies to conduct their environmental, transportation, and energy-related activities under the law in support of their respective missions in an environmentally, economically, and fiscally sound, integrated, continuously improving, efficient, and sustainable manner.

210.02(11) Executive Order 13514 – Federal Leadership in Environmental, Energy, and Economic Performance

Signed by President Obama on October 5, 2009, [EO 13514](#) expands on the energy reduction and environmental performance requirements for federal agencies identified in [EO 13423](#). The goal of this EO is to establish an integrated strategy toward sustainability in the federal government and to make reduction of greenhouse gas emissions a priority for federal agencies.

210.02(12) Presidential Memorandum on Environmentally Beneficial Landscaping, FRL-5054-1 (1994)

Directs federal agencies to lead the country toward more environmentally and economically beneficial landscape practices, including:

- Use of regionally native plants.
- Construction with minimal impact to habitat.
- Reduced use of fertilizers, pesticides, and other chemicals.
- Use of water-efficient and runoff-reduction practices.
- Use of demonstration projects employing these practices.

Pertains to all highway programs using federal funds and provides for the development of implementation guidance.

210.02(13) US DOT Policy Statement on Climate Change Adaptation, June 2011

Based on [EO 13514](#), this policy statement directs that USDOT “shall integrate consideration of climate change impacts and adaptation into the planning, operations, policies, and programs of DOT in order to ensure that taxpayer resources are invested wisely and that transportation infrastructure, services and operations remain effective in current and future climate conditions.”

The policy notes that all modal administrations within the agency have the responsibility to consider the impacts of climate change on their current systems and future investments:

🔗 www.fhwa.dot.gov/environment/climate_change/adaptation/policy_and_guidance/usdot.cfm

210.02(14) Sustainable Highways Program, FHWA

Supports programs and activities conducted across the country to facilitate balanced decision making among “environmental, economic, and social values—the triple bottom line of sustainability.” To read more about the Sustainable Highways Program, visit:

🔗 www.sustainablehighways.dot.gov/

210.03 Visual Quality and Scenic Enhancement

210.03(1) *Highway Beautification Act (HBA) of 1965, 23 CFR 750*

Establishes provisions and controls to protect the public investment, promote safety and recreation, and preserve natural beauty along federal and primary highway system roadsides, including:

- Control of outdoor advertising signs.
- Authorization for information centers at safety rest areas.
- Control of junkyards.

Allocated of 3% of federal-aid funds that were apportioned to states for landscape and roadside development and for acquisition of interest in, and improvement of, strips of land necessary for the restoration, preservation, and enhancement of scenic beauty adjacent to the highways.

210.03(2) *Control of Outdoor Advertising, 23 USC 131*

Congress finds outdoor advertising signs should be controlled in order to promote the safety and recreational value of public travel and preservation of natural beauty.

210.03(3) *Junkyard Control and Acquisition, 23 CFR 751 and 23 USC 136*

Congress finds junkyards should be controlled to promote the safety and recreational value of public travel and preservation of natural beauty.

210.03(4) *Landscaping and Scenic Enhancement, 23 USC 319*

Provides for the acquisition and improvement of strips of land necessary for the restoration, preservation, and enhancement of scenic beauty to federal-aid highways.

Requires the planting of native wildflower seeds or seedlings as part of any Federal-aid Highway landscaping project. At least ¼ of one percent of the funds expended for landscaping projects shall be used for these plantings. WSDOT uses native woody flowering species and flowering forbs to help meet this goal.

210.03(5) *Landscape and Roadside Development, 23 CFR 752*

“Highway esthetics is a most important consideration in the Federal-aid highway program. Highways must not only blend with our natural, social, and cultural environment, but also provide pleasure and satisfaction in their use.... The development of the roadside to include landscape development, safety rest areas, and the preservation of valuable adjacent scenic lands is a necessary component of highway development. Planning and development of the roadside should be concurrent with or closely follow that of the highway.”

210.03(6) *FHWA Scenic Enhancement Initiatives Memorandum, HRW-12 (1990)*

Rescinds a 1977 memorandum permitting selective clearing of right of way vegetation to improve visibility of outdoor advertising structures.

Encourages states to retain excess lands that could be used to restore, preserve, or enhance the scenic beauty and quality of the highway environment, including scenic vistas, wetlands, and preservation of wildlife habitat.

210.04 Accessibility

210.04(1) *Americans with Disabilities Act of 1990*

Requires all services, programs, and activities, when viewed in their entirety, to be readily accessible to, and usable by, people with disabilities: www.ada.gov

210.05 Funding and Planning

210.05(1) [Fixing American's Surface Transportation Act \(FAST Act\)](#)

On December 4, 2015, President Obama signed into law the Fixing America's Surface Transportation Act, or "FAST Act." It is the first law enacted in over ten years that provides long-term funding certainty for surface transportation, meaning States and local governments can move forward with critical transportation projects, like new highways and transit lines, with the confidence that they will have a Federal partner over the long term.

210.05(2) *Federal Highway Administration Strategic Plan*

The vision for this strategic plan is to create the best transportation system in the world by creating the safest, most efficient, and most effective highway and intermodal transportation system for the American people. FHWA's strategic goal for system performance is that the nation's highway system provides safe, reliable, effective, and sustainable mobility for all users: www.fhwa.dot.gov/policy/fhplan.htm

- 220.01 General
- 220.02 Planning
- 220.03 Environmental
- 220.04 Maintenance
- 220.05 Materials
- 220.06 Partnerships
- 220.07 Safety Rest Areas

220.01 General

Refer to the [Design Manual](#) for safety and documentation requirements. The [Environmental Manual](#) contains references to laws and directives applicable to the environment.

Roadside restoration and the correction of unsightly conditions is a highway purpose:

220.02(1) RCW 47.40.010, Improvement and beautification a highway purpose

The planting and cultivating of any shrubs, trees, hedges or other domestic or native ornamental growth, the improvement of roadside facilities and view points, and the correction of unsightly conditions, upon the right-of-way of any state highway is hereby declared to be a proper state highway purpose.

The following is a brief summary of other major state acts and directives affecting roadsides.

220.02 Planning

WSDOT must comply with primary planning statutes and regulations to receive state and federal funds. A complete listing of all planning relevant RCWs and CFRs can be found on the [WSDOT Transportation Planning](#) web page. The following list is specific to Roadside Development.

220.02(1) RCW 47.06, Amended in 1993 by Engrossed House Bill 1007

Directs the Transportation Commission to develop the Transportation Policy Plan for Washington State, and directs WSDOT to develop the Statewide Multimodal Transportation Plan.

220.02(2) Washington State Growth Management Act of 1990 and Amendments

Sets goals to guide planning for growth in all communities exceeding a set threshold. Requires designations of natural resource lands and critical areas. Provides for regional transportation planning program.

Requires state agencies to comply with local comprehensive plans and development regulations. Requires local governments to develop a process for siting “essential public facilities.”

Requires certain cities and counties to designate environmentally sensitive areas, including wetlands, flood plains, and habitat.

220.03 Environmental

The following list includes legislation, regulations, and guidelines most commonly encountered in roadside activities. For more complete information on state environmental legislation, regulations, and guidelines directly affecting WSDOT actions, see the WSDOT [Environmental Manual](#) or contact the Headquarters Environmental Services Office.

220.03(1) General

220.03(1)(a) State Environmental Policy Act (SEPA) and [RCW 43.21C](#)

Declares a state environmental policy and promotes efforts to prevent or eliminate damage to the environment, including visual impacts.

220.03(1)(b) State Environmental Policy Act Rules: [WAC 197-11](#)

Establishes uniform requirements for agencies and developers to comply with SEPA regulations.

220.03(1)(c) Transportation Commission and Transportation Department Environmental Policy Act Rules: [WAC 468-12](#)

Integrates the policies and procedures of SEPA into the programs, activities, and actions of the department.

220.03(2) Water Quality

220.03(2)(a) Puget Sound Water Quality Authority Act: [RCW 90.70](#)

Established the Puget Sound Water Quality Authority and directed the Authority to develop a Puget Sound Water Quality Management Plan.

220.03(2)(b) Puget Sound Runoff Program: [WAC 173-270](#)

Provides guidelines and criteria for implementation of the program.

220.03(2)(c) Shoreline Management Act of 1971: [RCW 90.58](#)

Manages Washington State's shorelines by planning for and supporting all reasonable and appropriate uses.

220.03(2)(d) State Water Pollution control Act: [RCW 90.48](#)

Protects all surface and underground waters.

220.03(2)(e) Water Resources Act of 1971; [RCW 90.54](#)

Provides for utilization and management of waters in Washington State.

220.03(3) Biology/Wetlands

220.03(3)(a) Hydraulic Code of Washington, [RCW 77.55](#)

Establishes program for regulating activities within the waters of the state for fish protection. Requires hydraulic project approval for actions within the ordinary high

water mark. Administered by the Washington State Department of Fish and Wildlife and the tribes.

220.03(3)(b) Fish Passage – See the [Environmental Manual, Chapter 436](#)

220.03(3)(c) Protection of Wetlands – See the [Environmental Manual, Chapter 431](#)

220.03(4) Noise

220.03(4)(a) Noise Control Act of 1974: [RCW 70-107](#)

Expands efforts to abate and control noise while considering the social and economic impact upon the community and the state.

220.03(4)(b) Sound Level Measurement Procedures: [WAC 173-58](#)

Establishes standardized procedures to measure sound levels from sources including environmental and construction noise.

220.03(4)(c) Maximum Environmental Noise Levels: [WAC 173-60](#)

Establishes maximum noise levels for identified environments.

220.03(5) Visual Quality

220.03(5)(a) Scenic and Recreational Highway Act of 1967: [RCW 47.39](#)

Establishes the Scenic and Recreational (S&R) Highways Program and designates more than 1900 miles of scenic highways.

220.03(5)(b) Roadside Improvement and Beautification: [RCW 47.40](#)

Outlines permit process for persons wishing to use highway right of way for improvement and beautification. Establishes penalty for destroying native flora on state lands. Mandates litter removal and authorizes state and local Adopt-a-Highway programs.

220.03(5)(c) Junkyards Adjacent to Interstate and Primary Highways: [RCW 47.41](#)

Establishes controls for junkyards adjacent to highways.

220.03(5)(d) Highway Advertising Control Act-Scenic Vistas Act of 1971: [RCW 47.42](#)

Amends the Highway Advertising Control Act to include the designated Scenic and Recreational Highways. Controls advertising signs along state highways and their interference with views.

220.03(5)(e) Amended Scenic and Recreational Highway Act of 1967: [RCW 47.39](#) (1990)

Directs WSDOT to develop criteria and a threshold methodology to evaluate highways for possible inclusion in the S&R system. States that scenic and recreational highways are designated because of a need to develop management plans that will protect and preserve the scenic and recreational resources from loss through inappropriate development. States that protection of these resources includes managing land use outside normal highway rights of way, and adds additional routes to the S&R System.

220.03(5)(f) Amended Scenic and Recreational Highway Act of 1967: [RCW 47.39](#) (1993)

Includes 45% of state highways in the Scenic and Recreational Highway (S&R) system. Directs the department to consider the use of the designated system by bicycles and pedestrians. Delegates authority for establishment of planning and design standards for S&R highways.

220.03(5)(g) Scenic Enhancement for Utilities Accommodation on State Highway Rights of Way: [WAC 468-34-330](#)

Describes a scenic classification system for utilities accommodation on state highway rights of way as developed through cooperation of WSDOT and the Aerial Utility Industry.

220.04 Maintenance

The following list includes legislation, regulations, and guidelines most commonly encountered in roadside activities. For more information on processes and guidelines directly affecting WSDOT maintenance actions, see the WSDOT [Maintenance Manual](#) or contact the Headquarters Maintenance Office.

220.04(1) General**220.04(1)(a) Roadway Safety, [RCW 47.32.130](#)**

Provides for the removal of elements, such as vegetation, outside WSDOT right of way to increase roadway safety.

220.04(1)(b) Noxious Weed Control, [RCW 17.10.145](#)

Directs state agencies to control noxious weeds on their lands.

220.04(1)(c) Preservation, restoration and cleanup of areas disturbed through utility installation, maintenance and repairs: [WAC 468-34-340](#)

Outlines criteria for utility use of highway right of way, requires utilities to repair or replace unnecessarily removed or disfigured trees and shrub, and specifies vegetation management practices.

220.04(1)(d) Vegetation Management Program, [WAC 173-270-040](#)

States that the purposes of vegetation management in highway rights of way are to establish and maintain stable plant communities that resist encroachment by undesirable plants, noxious weeds, and other pests; meet WSDOT operational, health, natural resources and environmental standards; be cost effective; and protect the public investment with minimal negative impacts on the environment. Requires a vegetation management program for all state highways with the Puget Sound basin.

220.05 Materials

220.05(1) Compost Products

RCW 43.19A.050 Instructs the department to prepare a strategy to increase purchases of recycled-content products.

- Compost products as a percentage of the total dollar amount (spent on soil cover or soil amendments) on an annual basis:
 - At least eighty percent by 1998

RCW 70.95.030 Defines “compost” and “soil amendment”

220.05(2) Fertilizers **RCW 15.54**

- Requires license for distribution of bulk fertilizers.
- Requires identification of those products that are (i) waste derived fertilizers, (ii) micronutrient fertilizers, or (iii) fertilizer materials containing phosphate.
- Requires a minimum labeling statement that it meet Washington standards for arsenic, cadmium, cobalt, mercury, molybdenum, lead, nickel, selenium, and zinc.

220.06 Partnerships

Partnership opportunities for roadside activities generally occur through the Adopt-a-Highway program. For more information on this program, see the WSDOT [Adopt-a-Highway](#) page or contact the Headquarters Maintenance Office.

220.06(1) *General*

220.06(1)(a) Adopt a Highway, **RCW 47.40.100** and **WAC 468-72**

Establishes and provides guidelines for state Adopt-a-Highway program. The purpose of the program is to provide volunteers and businesses an opportunity to contribute to a cleaner environment, enhanced roadsides, and protection of wildlife habitats.

220.07 Safety Rest Areas

The following list includes legislation, regulations, and guidelines most commonly encountered in roadside activities. For more information on Safety Rest Areas, see the WSDOT [Safety Rest Areas](#) web page.

220.07(1) General

220.07(1)(a) Acquisition of Property for Preservation of Beauty, Historic Sites, Viewpoints, Safety Rest Areas, Buffer Zones: [RCW 47.12.250](#)

Authorizes acquisition of property, or interests, or rights to property adjacent to state highways for the stated purposes.

220.07(1)(b) Roadside Areas-Safety Rest Areas: [RCW 47.38](#)

Directs the development of rules and establishes limitations on use of rest areas and other roadside areas. Authorizes development of information centers. Establishes recreational vehicle sanitary disposal systems.

220.07(1)(c) Uniform Building Code Requirements for Barrier-Free Accessibility: [RCW 19.27](#) and [70.92](#)

Requires all new structures, and those being substantially renovated, be approachable and usable by persons with disabilities.

- 300.01 [Operational Functions](#)
- 300.02 [References](#)
- 300.03 [Design Objectives](#)

300.01 Operational Functions

Roadside operational functions are those that provide for safe, multi-use roadsides. Operational functions include access control, and providing recovery areas and sight distances with accommodations for signs and utilities. They complement roadway operational functions.

The most critical of roadside operational functions are those that affect vehicle occupant safety. These will be covered in the Roadside Safety chapter of this manual. The roadside operational features most seen and used by travelers are informational and instructional signs within the roadside right of way limits. In addition, critical features of roadside design include provisions for bicycle and pedestrian safety, maintenance access, and worker safety.

Although operational functions receive priority consideration in all phases of roadside management, sustainable roadsides require integration of operational features with environmental, visual, and auxiliary functions.

300.02 References

300.02(1) Design Guidance

- [Design Manual](#), M 22-01, WSDOT
- [Highway Runoff Manual](#), M 31-16, WSDOT
- [Hydraulics Manual](#), M 23-03, WSDOT
- [Roadside Policy Manual](#), M 3110, WSDOT
- [Roadside Design Guide](#), AASHTO
- [Traffic Manual](#), M 51-01, WSDOT
- [Utilities Accommodation Policy](#), M 22-86, WSDOT
- [Utilities Manual](#), M 22-87, WSDOT

300.02(2) Supporting Information

- [Landscape Aesthetics: A Handbook for Scenery Management](#), United States Forest Service, Agriculture Handbook Number 701, 1995
- [Manual of Aesthetic Design Practice](#), Province of British Columbia, Ministry of Transportation and Highways, Highway Engineering Branch, 1991

300.03 Design Objectives

The *Design Manual* is the authority for roadside safety. Chapter 310 of this manual discusses aspects of, and possible enhancements to, roadside safety. Chapter 320 discusses signs in the roadside corridor. Following are other operational design objectives.

300.03(1) *Delineation*

300.03(1)(a) Primary Considerations

Design vegetation and grading to help guide traffic through the highway corridor. For example, plantings in median strips, and the use of directional berms help guide the driver along the roadway.

300.03(2) *Hydraulics*

300.03(2)(a) Primary Considerations

Integrate hydraulic elements such as swales, ditches, redirectional berms, and detention/retention basins into roadside designs. Refer to the *Design Manual*, the *Highway Runoff Manual*, and the *Hydraulics Manual* for hydraulic design objectives.

300.03(3) *Snowdrift control*

300.03(3)(a) Primary Considerations

Encourage features that act as a reservoir for snow (such as forest growth) where drifting snow is a problem. Gentle slopes can also be used to reduce the accumulation of drifting snow.

300.03(4) *Snow storage*

300.03(4)(a) Primary Considerations

In snowbelt areas, consider:

- Storage of plowed snow and the direction of snow blown by snow blowing equipment.
- Allowance for snow storage areas in safety rest areas, for example.
- Effect of deicing chemicals on vegetation selected for roadsides in snowbelt areas.

Drainage designs need to consider runoff and snowmelt while snow is in the storage area. If snow is piled over the top of drainage inlets, the inlets will not function. Rain or melting snow runs down the outside of the snow pile to low areas, forming ponds or flowing across the road. This causes a safety problem on the roadway. Consult the *Hydraulics Manual* for drainage design.

300.03(5) Utilities

In most cases, utilities will already be along the corridor. However, in recent years utility companies have been upgrading lines by putting them on larger poles. Refer to the [Roadside Policy Manual](#) for WSDOT policy when there are requests to alter vegetation. We are required by law to accommodate utilities within our right of way. See the [Utilities Accommodation Policy](#) for more information. Under current law, wireless companies are not considered utilities. They operate within our right of way through air space leases. Real Estate Services works with those companies.

WSDOT's goal is to retain the native corridor character while accommodating utilities and air space leases. Use low stature trees and large shrubs under powerlines; and larger trees, where feasible, to screen utility lines and wireless structures.

300.03(5)(a) Primary Considerations

Consider the following for new utility structures within the roadside or that can be viewed from the roadway:

- Preserve existing desirable vegetation to the greatest extent feasible. Follow the policies within the [Roadside Policy Manual](#) when vegetation is impacted.
- Integrate utility structures with adjacent vegetation. Use existing and planted trees as backdrops to, and screening for, utility structures.
- Select colors of utility structures to blend into the background. Refer to [Landscape Aesthetics: A Handbook for Scenery Management](#) (USFS) for examples.
- Minimize disruption of views from the highway by placing utility structures away from significant views.
- Place utilities underground where practical.
- Scale the utility structure to complement the roadway design speed and the scale of the highway.
- Consider vehicle speeds in utility design. A structure becomes more prominent as design speeds decrease.
- WSDOT lighting is compliant with [International Dark Sky Association](#) guidelines. (See the [Design Manual](#) and the [Traffic Manual](#), for lighting information.)

- 310.01 General
- 310.02 References
- 310.03 Resources
- 310.04 Definitions
- 310.05 Safety of Vehicle Occupants
- 310.06 Worker and Pedestrian Safety

310.01 General

Safety is the top priority of the Washington State Department of Transportation (WSDOT).

Roadside safety addresses the area outside of the roadway. It is an important component of total highway design. Since run-off-road accidents comprise almost one third of all motor vehicle accidents, the physical characteristics of the roadside can either reduce, or increase the seriousness of the consequences of vehicles leaving the roadway.

While safety of vehicle occupants is a major consideration in roadside design, the safety of personnel working along the roadside is also a critical consideration. Some of the same mitigation measures that protect vehicle occupants can allow personnel working in roadside areas escape routes, or shields. Those mitigation measures include making the slope traversable, or installing traffic barriers or earth berms.

WSDOT personnel are trained, and are familiar with the dangers inherent in working in roadside areas. Volunteers, such as Adopt-a-Highway groups, and contractors must also be aware of roadside hazards. Anyone working in roadside areas must wear highly visible vests and protective headgear, and use traffic control measures. In addition, make every effort to have workers face oncoming traffic. Check the [Safety Procedures and Guidelines Manual](#) and the [Construction Manual](#) for more detail.

310.02 References

310.02(1) Design Guidance

[Construction Manual](#), M 41-01, WSDOT – Safety issues

[Design Manual](#), M 22-01, WSDOT – Sight distance along the roadway; roadside safety; traffic safety elements; sight distance at intersections; sight distance at road approaches; and sight distance for paths and trails

[Roadside Policy Manual](#), M 3110, WSDOT

[Roadside Design Guide](#), AASHTO

[Safety Procedures and Guidelines Manual](#), M 75-01, WSDOT

[Traffic Manual](#), M 51-02, WSDOT

310.03 Resources

WSDOT Maintenance & Operations Programs (M&OP) Safety Office

WSDOT Headquarters (HQ) Design Office

Regional field offices

WSDOT Adopt-a-Highway coordinator

Landscape Architecture offices

Maintenance offices

Construction offices

310.04 Definitions

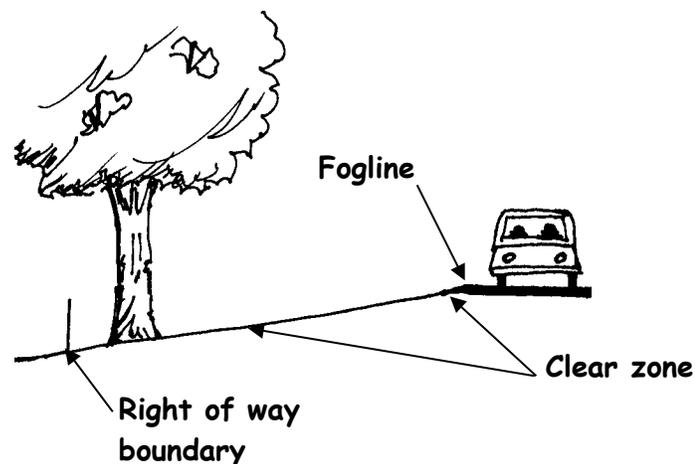
fixed service item A stationary facility or structure such as a utility box or light standard.

maintenance pull-off A widened shoulder area near fixed service items. Suggested width: 12 feet minimum. Suggested length: 100 feet maximum.

solar exposure Refers to the exposure of the road surface to the rays of the sun. Solar exposure can be blocked by landforms, structures, and vegetation adjacent to the roadway.

310.05 Safety of Vehicle Occupants

Exhibit 310-1 Clear zone example



310.05(1) Clear Zone

The clear zone (see Exhibit 310-1) is the total roadside border area, starting at the edge of the traveled way, available for use by errant vehicles. This area may consist of a shoulder, a recoverable slope, a nonrecoverable slope, and/or a clear run-out area. The clear zone cannot contain a critical slope (slopes steeper than 3(H):1(V) are considered critical slopes). The Design Clear Zone is the minimum target value used in highway design. In areas with an open character, the clear zone may extend beyond the right of way boundary.

310.05(1)(a) Primary Considerations

Provide a clear zone, as discussed in the [Design Manual](#).

On new and major reconstruction projects, grade roadsides to mitigate impacts on errant vehicles whenever reasonable.

- Smooth and flatten slopes so there are no significant discontinuities and the fewest practical protruding fixed objects.
- Round toe of slope to make it traversable, and to assist an encroaching vehicle's contact with the surface.

These actions will have the added visual benefit of a more natural-appearing topography in most regions.

In some instances, removal of all trees within the Design Clear Zone may not be desirable (such as within a forest or park). If the impacts are minimal, a barrier or a deviation may be appropriate. In other cases, removal of trees may be necessary to increase driver safety. In these cases, analyze roadside-encroachment-accident reports to determine if roadside vegetation is contributing to accident rates. If a tree is removed, replace with shrubs or groundcovers according to the ratios found in the [Roadside Policy Manual](#).

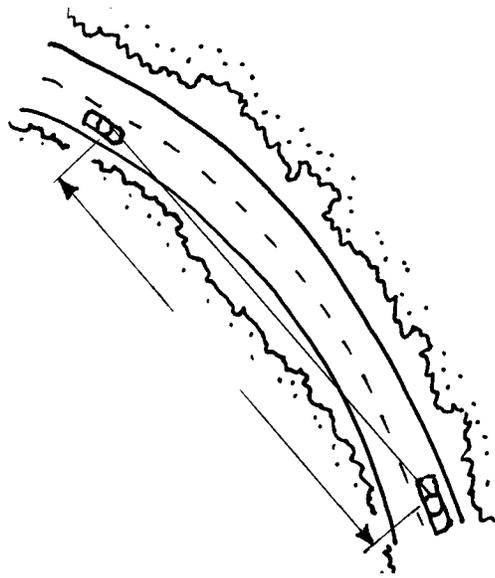
A deviation is required anywhere that a Design Clear Zone is not provided, or the driver is not protected from hazards.

310.05(2) Sight Distance

The sight distance is the length of highway visible to the driver (see [Exhibit 310-2](#)).

The decision sight distance is the sight distance required for a driver to (1) detect an unexpected or difficult-to-perceive information source or hazard, (2) interpret the information, (3) recognize the hazard, (4) select an appropriate maneuver, and (5) complete the maneuver safely and efficiently.

It is essential that the driver of a vehicle be able to see far enough to assess developing situations and take appropriate action. Roadside landforms, signs, structures, and vegetation must be designed, installed, and maintained to facilitate safe driving.

Exhibit 310-2 Sight distance primary considerations**310.05(2)(a) Primary Considerations**

- Allow for adequate sight distance at intersections and at vertical and horizontal curves when designing landforms, and locating signs, vegetation, and other roadside objects. (See the [Design Manual](#) for details.)
- Within sight distance on the inside of horizontal curves or at intersection approaches, select low-growing vegetation that, at maturity, will not obstruct signs or hazards from the view of the driver.
- Maintain vegetation growth in a desirable condition so that signs are not obscured.
- [RCW 47.32.130](#) provides for the removal of vegetation outside WSDOT right of way to increase roadway safety.

310.05(3) Traffic Barriers

A traffic barrier is any type of longitudinal barrier, including bridge rails, guardrails, earthen berms, or impact attenuators used to redirect vehicles from hazards located within the Design Clear Zone; to prevent median crossovers; to prevent errant vehicles from going over the side of a bridge structure; or to protect workers, pedestrians, or bicyclists from vehicular traffic. (See the [Design Manual](#) for details on their use and placement.)

310.05(3)(a) Considerations

There are barrier designs that visually fit into their surroundings. They can be used in sensitive areas, examples are: steel-backed timber rail, weathering steel or coated w-beam, simulated stone concrete barrier, etc. Contact the HQ Design Roadside Safety office for details.

Use these barriers to maintain corridor continuity or where they enhance the existing roadside character, as determined in the [Roadside Policy Manual](#), and where they are evident in, and similar to the adjacent surroundings.

310.05(4) Fire Control

The goal of roadside fire control is to reduce potential fire hazards. One of the objectives of Roadside Management Zone 1 is fire prevention. Grasses native to Eastern Washington with a blue-grey color are generally fire-resistant. Species include: Bluebunch wheatgrass, Sandberg bluegrass, Bottlebrush squirreltail, Common yarrow, Lewis blue flax, Prairie junegrass, and Sand dropseed.

310.05(5) Primary Consideration

Do not block access to fire hydrants when the hydrant is located in the right of way. This is a consideration when locating noise walls or thick hedges.

310.05(6) Roadway Shading

Forested areas are cooler in summer and warmer in winter due to the insulating effect of masses of trees. Removal of vegetation can result in problems with sunlight and headlight glare. Analyze the cause of shading to avoid removing trees unnecessarily. Appendix C shows the relationship of sun angle and vegetation to roadway shading.

- Too much shading might result in frost, snow, and ice remaining on the roadways, prolonging hazardous driving conditions. However, removing too much vegetation from the roadsides can create a sterile and barren appearance and increase solar glare. If it is determined that removing trees will increase solar exposure, re-vegetate the affected area with lower growing vegetation in conformance with the [Roadside Policy Manual](#). Wherever practical, locate structures and trees to limit shading on the road surface during early morning and late evening hours.

310.06(a) Primary Considerations

Consider the following:

- Analyze shading elements before the removal of trees and vegetation to determine if that action is warranted. Removal of vegetation will not increase solar exposure if a land form or structure will still be blocking sunlight.
- Accident history is available for any given location.
 - Use accident history to evaluate whether icing has contributed to accidents in a particular location.
 - Use accident history information to evaluate if shading by the vegetation is contributing to accident rates.
- Talk to maintenance personnel to determine where icing historically occurs.
- Deciduous trees that lose their leaves in winter can be used where solar exposure is desired. Planting evergreens to the north of the roadway will generally block wind without obstructing sunlight.

310.05(7) Sunlight and headlight glare

Glare caused by the low angle of the sun in winter, or during the early or late hours of the day can be a serious problem to the motorist. Glare from oncoming headlights can also be a problem.

310.05(7)(a) Primary Considerations

Locate roadside features to screen reflective objects where practical.

- Glare can be blocked with vegetation, glare screens, berms, walls, etc.
- Vegetation in medians can reduce headlight glare.
- Bright lights from land uses, such as adjacent industrial complexes, can be screened by walls or evergreen trees and shrubs.

Tunnel entrances present a particularly difficult situation where the driver's eye must adjust from the bright glare outside the tunnel to lower light levels inside the tunnel. Upon leaving the tunnel, the driver's eye must readjust from the lower light levels inside the tunnel to the bright glare outside. Each of these situations can present hazardous driving conditions for the driver.

Glare at a tunnel entrance can be mitigated with dark evergreen vegetation that helps the driver's eye transition to the lower light levels in the tunnel.

310.06 Worker and Pedestrian Safety

310.06(1) Maintenance Crew Safety

Maintenance access is especially critical in high traffic volume areas.

310.06(1)(a) Primary Considerations

- Follow the [Safety Procedures and Guidelines Manual](#) for traffic control. (See possible traffic control plans under the [Standard Plans](#).)
- During the planning and design phases of roadway construction, allow for the widest practical shoulder width near fixed service points. (See the [Design Manual](#), Division 12, for shoulder width requirements.)
- Provide for maintenance vehicle access where shoulder area is limited by providing maintenance pull-offs in a nearby location.
- When other options do not exist, design fall-protection fencing or harness tie off points where crews are able to secure themselves while working in areas with vertical elevation changes of 4 feet or more. [WAC 296-155](#) Part C-1 provides requirements for "Fall Restraint and Fall Arrest." The Washington State Department of Labor and Industries enforces this WAC.

310.06(1)(b) Recommendations

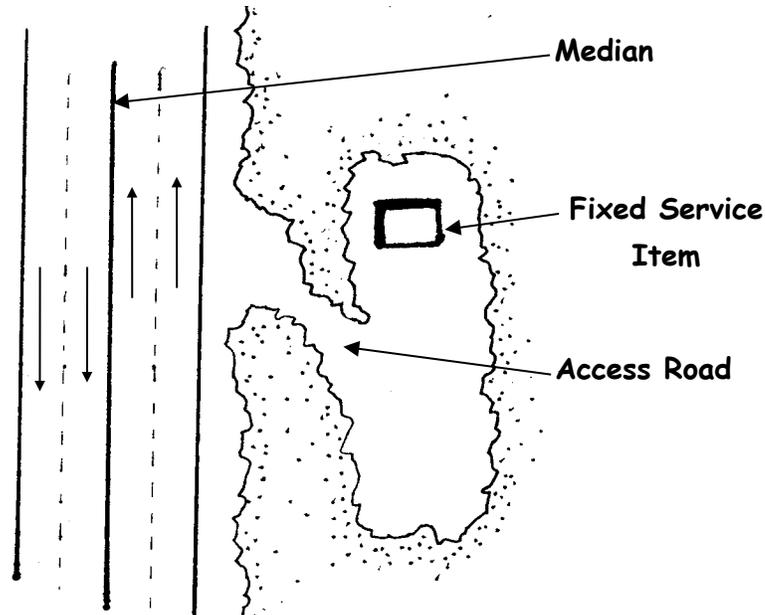
Coordinate with the regional Traffic Engineer.

When incorporated into designs, where practical, the following recommendations will enhance worker safety:

- Provide Maintenance pull-off areas or wide shoulders (minimum 12 feet) adjacent to a device or item requiring regular service. Near utility poles, sign bridges, pull-boxes, and junction boxes (fixed service points), the ideal shoulder width is 20 feet.

- o **Note:** Design these maintenance pull-off areas to support vehicles with a wide-stance and outriggers (Sign Trucks, aerial manlifts, portable VMS trailers). Balance this cost against the future cost of extensive lane and traffic control, the hazard of road crew exposure to traffic, and restriction of traffic flow.
- o Fill material for these shoulders must be flat, located above the Ordinary High Water Level of nearby surface waters, and be firm enough to support the weight of a 41,000 GVW maintenance vehicle. The footprint of these vehicles is 35 feet long by 12 feet wide.
- Place junction boxes, vaults, and other fixed service points on the right side of the roadway (rather than in median strips) as much as practical, with as much parking and re-entry area as practical.
- When fixed service points such as transmitters, cabinets, camera poles and sediment ponds are more than 24 feet from the roadway edge, provide an access support road capable of supporting large (17.5 ton) service vehicles. The configuration in Exhibit 310-3 is not as noticeable to passing motorists.
- When long stretches, 2,500 feet or more, of guardrail are used in areas with limited shoulder, provide a maintenance parking area adjacent to either end, where practical.

Exhibit 310-3 Possible maintenance access road configuration



310.06(2) Security

To minimize security problems at pedestrian areas (trails, safety rest areas, and viewpoints), it is essential to provide clear visibility into the facility from adjacent areas, and within the facility itself.

310.06(2)(a) Primary Considerations

- Locate buildings and other structures to provide the maximum practical visibility from other areas.
- At Safety Rest Areas, locate “Free Coffee” shelters to provide visibility to the largest area possible.
- Locate auxiliary structures (local information boards, panels, etc.) to allow maximum visibility of site.
- Where practical, install lighting and Emergency (911) cellular phone linkages to discourage vandalism, theft, and person-to-person crimes.

The following are general recommendations for areas where security concerns regarding vegetation are present. These actions have been used successfully in a number of areas to alleviate security concerns while minimizing impacts on existing vegetation. These actions are only applicable to an existing security concern, and are not intended as a standard treatment for every roadside or pedestrian area!

- Analyze the area to determine the security concern source and extent. Tailor all actions to preserve as much vegetation as possible while alleviating the security concern.
- Complete removal of all vegetation (clearing) is not an acceptable method of alleviating every security concern.

Where vegetation is reducing desired visibility, consider the following actions:

- Limb branches of large evergreen trees (Western Red Cedar, Douglas fir, etc.) to approximately 10 feet above ground level. Since branches of these trees tend to droop down, prune off the ends of branches that hang lower than 6 feet above ground level.
- Prune smaller deciduous trees to encourage an open habit with leaves above a 6-foot elevation (Hazelnut, Serviceberry, Vine Maple, etc.). Remove only branches that are within the direct line of vision.
- Trim shrubs and groundcover to 2 feet in height and do not allow them to grow higher than 3 feet in height (Salal, Snowberry, Nootka Rose, etc.).
- Limit the use of shrubs in areas directly adjacent to paths, parking areas, and remote picnic sites. Use groundcover plants instead.

Consult with the region’s Landscape Architecture Office or the HQ Roadside and Site Development Section for site and species specific pruning methods.

- 320.01 General
- 320.02 References
- 320.03 Resources
- 320.04 Primary Considerations

320.01 General

It is essential that the driver of a vehicle be able to gather information in time to make careful decisions. Roadside signs and adjacent vegetation must be designed, located and maintained to facilitate safe driving. WSDOT does not remove or trim vegetation to increase visibility of signs that are physically located outside of the right of way.

Signs both on and off the right of way are strictly regulated by an array of statutes and regulations to assure that motorists receive proper warning, guidance, and services information while maintaining the integrity of the roadside environment.

320.02 References

320.02(1) Design Guidance

Design Manual, M 22-01, WSDOT

[Motorist Information Sign Program, WSDOT](#)

[Highway Advertising Control Program, WSDOT](#)

Roadside Policy Manual, M 3110, WSDOT

Scenic Byway Logo Signing Guidelines, M 3001, WSDOT

Traffic Manual, M 51-02, WSDOT

320.03 Resources

Regions' and HQ Traffic Office

Headquarters (HQ) Design Office

Regional and HQ Real Estate Services Offices

Maintenance Offices

For gateway signing, refer to the Roadside Policy Manual, and Design Manual, Chapter 950, for signs that exceed the allowable limit found in the Traffic Manual.

320.04 Primary Considerations

- Consult signing specialists and outdoor advertising representatives in the region's and HQ Traffic Office about signing related procedures and issues.
- Establishing access control can affect legally permitted outdoor advertising signs located on adjacent private property. The region's and HQ Real Estate Services offices are responsible for compensation procedures.
- Integrate sign locations with existing and proposed conditions.
 - Consider existing vegetation when placing signs.
 - Coordinate sign location with the region's Traffic Engineer.
- Coordinate new plantings with the region's Landscape Architect.

To decide whether a sign is needed, given a certain set of roadway and traffic conditions, the engineer must rely on judgment and consistent criteria that is based on:

- An understanding of the road user's information needs and how road users acquire information.
- A vision of traffic control, wherein individual traffic signs are viewed as part of a larger system of signs, signals and markings that provide clear and timely information to the road user.
- Accepted procedures and devices resulting from traffic control engineering studies.

400.01 General

400.01 General

Environmental functions include water quality preservation, protection and improvement; stormwater detention and retention; wetland and sensitive area protection; noxious weed control; noise control; habitat protection; habitat connectivity; air quality improvement; and erosion control.

Environmental functions are inseparable from operational, visual and auxiliary functions. For example, a central median can provide visual screening from oncoming traffic, reduce headlight glare to improve safety, provide habitat for certain wildlife, and provide a location for stormwater collection.

Information previously found in the Roadside Manual chapters 410 through 460 is now found through the [Environmental Services Office](#) webpages and the [Environmental Manual](#). Those chapters have been removed from this manual.

