

MT. BAKER HIGHWAY SCENIC BYWAY MANAGEMENT PLAN

IDENTIFICATION OF NATURAL AND SCENIC VALUES

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Identification of natural and scenic values



Eastbound view on SR 542

The Mt. Baker–Snoqualmie National Forest has dramatic landscapes and climate. The roadway vistas are distinctive and unique and remain untamed. Our goal is to preserve and augment these features along SR 542. The existing ecosystem has provided the environmental context for a natural landscape. When possible, we will create natural-appearing landscapes that blend into to the surroundings.

Distinctive features and landscape

Along SR 542, travelers can view spectacular scenery ranging from dense forests to the rugged peaks of the North Cascades. Much of the road follows the north fork of the Nooksack River, which runs in a gorge 400 feet deep in places. Pullouts along the way allow visitors to stop and admire the view and take pictures. Just before the steep elevation gain up the mountain, watch for a forest of 500-year-old western red cedar. Most of the elevation gain (3,200 feet) occurs in the last 10 miles as the road climbs steeply past the Mt. Baker Ski Area to 5,140-foot Artist Point and grand views of Mount Shuksan.

The Mt. Baker Ranger District has a variety of landscapes from forested slopes that rise to rocky crags and sub-alpine meadows. Heather Meadows offers views of Mt. Shuksan and Mt. Baker, a 10,778-foot active volcano which occasionally emits steam and sulfurous fumes and has active glaciers down to 4,000 feet. Self-guided interpretive trails and a staffed visitor center in a historical setting welcome summer visitors. During the winter months, the Mt. Baker Ski Area offers alpine skiing and snowboarding. The approach to Artist Point is not accessible in the winter and spring months, and requires substantial snow removal to provide access. The area usually opens in July and stays open until the first heavy snowfall in September or early October.

Forest service policy and plan direction

The Mt Baker Scenic Byway is listed as a visual sensitivity level 1, primary viewshed corridor for its high scenic value in the Mt. Baker-Snoqualmie National Forest Land Management Plan (USDA Forest Service 1990). The forest plan states that the scenic quality will be maintained and gradually improved within scenic viewsheds. A goal or “Standard & Guideline” for scenic viewsheds is to: Provide an attractive forest setting, emphasizing the natural appearance of areas as seen from major roads and recreation sites.



To meet the forest plan standards and guidelines, the visual quality objective (VQO) in the foreground-viewing zone (foreground = 0 to ¼ mile from the viewer) along the scenic byway is a “retention” VQO. The Retention VQO requires that projects and management activities are not visually evident by blending in thoroughly with the environment. To meet retention, views are “characterized by a predominately natural or naturally appearing environment generally free from evidence of sights and sounds of human activities” and that “human activities are not evident to the casual forest visitor.” Under Retention, activities may only repeat the form, line, color and texture, found in the characteristic landscape.

Middle-ground viewing zones (middle ground = ¼ mile to 5 miles from the viewer) seen from the highway shall meet a VQO of “Partial Retention”. To meet partial retention, “human activities may be evident but must remain subordinate to the characteristic landscape.”

When assessing visual impacts, the Forest Service considers a bare-ground scenario where topographic features are considered permanent screening for facilities. Vegetative cover may contribute to screening but should not be considered permanent effective cover because it can be removed by human or natural events.

The Roadside Classification Plan (WSDOT 1996), classifies the roadside here as “forest” in character. The forest landscape is predominantly natural or naturalized forest. A roadside classified as forest is characterized by natural-appearing landforms and native trees and/or understory vegetation.

Wild and scenic river

SR 542 is adjacent to and crosses the Nooksack River in several locations. This river system is not restrained in these areas and therefore challenges the integrity of the roadway when high-water events occur. Permits issued in these locations require special consideration so that habitat is not adversely altered.

The north fork of the Nooksack River, from its headwaters in North Cascades National Park downstream to the confluence with the south fork of the Nooksack River (43.3 miles) was recommended for inclusion in the National Wild and Scenic River System in the Mt. Baker-Snoqualmie National Forest Land and Resource Management Plan (ROD p24-25 USDA FS 1990). The recommended classification includes one wild segment, and two segments each of scenic and recreation for a total of five segments.

1. scenic— Mount Baker Wilderness to Nooksack Falls diversion dam
2. recreation— Nooksack falls diversion dam to Nooksack falls power plant
3. scenic— Nooksack Falls power plant to fish hatchery near Kendall
4. recreation— Fish hatchery to confluence S. Fork Nooksack River

In the forest plan, the goal for recommended rivers would be to protect from degradation the outstandingly remarkable values and the wild, scenic and recreation characteristics of recommended rivers and their environments pending a decision on inclusion into the National Wild and Scenic River System.

The forest plan, as amended, stipulates these rivers shall be managed to protect those characteristics that contribute to the eligibility of these rivers at their highest potential classification (Chapter 4, p.4-95 USDA FS 1990). The Forest Plan, as amended, identified the North Fork Nooksack River as having the following outstandingly remarkable values: scenic, recreation, fisheries, wildlife, historical/cultural. (Appendix E, p.E-23, USDA FS 1990).

The desired future condition for recommended recreation rivers is that evidence of a full range of management activities may exist. In addition, the river is readily accessible by roads or railroad and bridge crossings. High water quality is maintained.

The desired future condition for recommended scenic rivers is of lands that appear natural when viewed from riverbanks. The river is accessible by roads which may occasionally bridge the river area. Short stretches of conspicuous or longer stretches of inconspicuous and well-screened roads or railroads paralleling the river area may be permitted.

The desired future condition for recommended wild rivers is that they are generally inaccessible by road, but can be reached by trail or water. The opportunity to interact within a natural environment away from the sights and sounds of man is available. A high degree of challenge is offered to those rafting these areas.

The Forest Plan designates VQOs for the viewsheds of proposed wild and scenic rivers as seen into and from within the river corridor.

River Classification	VQO Classified Corridor (1/4 mile foreground)	VQO Beyond Foreground Sensitivity Level 1
Scenic	Retention Partial retention may be used for necessary structural facilities	Partial Retention – Middle ground Partial Retention - Background
Recreation	Partial Retention Modification may be used for necessary structural facilities	Partial Retention – Middle ground Partial Retention - Background

Cascadian style

Under the Mt. Baker-Snoqualmie Forest Plan, all new facility construction in the forest should employ the Cascadian architectural style. The Cascadian style employs a variety of rustic architectural techniques including heavy timbers, native stone, natural colors and structural forms that respond to the mountainous conditions. To meet the Cascadian architectural style, proposed structures should have a textural pattern and earth-tone colors which match the natural stone and soil colors within the byway. A simulated stone pattern and color will be selected to be used as the standard style for patterned concrete structures in the corridor to provide a consistent look to byway projects over time.

Intrinsic qualities

The features, places and activities that make a scenic highway unique are intrinsic qualities. The Federal Highway Administration (FHWA) ¹ lists each intrinsic quality as follows:

- Scenic
- Natural site detailing
- Recreational
- Historical
- Cultural and Archeological

The definitions provided by FHWA are included below with the goals, objective and strategies for the SR 542 corridor.

Unique qualities and significant resources surround SR 542. It is fortunate to possess intrinsic qualities within all of the five FHWA categories. We are entrusted with the goal to visually elevate the visitor's experience, and through interpretation, broaden awareness and educate. This plan will identify and set goals to protect and enhance the intrinsic qualities along this corridor so these experiences will be improved.

Strategy to enhance visual experience



SR 542 corridor view of Mt. Baker

The visual experience marks every traveler's adventure along this corridor. This section of the plan follows the FHWA standards and provides guidance for how to maintain the scenic character along the roadway. The purpose is to furnish guidelines and prescribe policies that will assist in future highway construction and maintenance.

Cost is always a factor when maintaining this roadway because maintenance and capital construction costs keep rising and funding keeps diminishing. Therefore, cost and visibility need to be included in the final decision when looking at aesthetics along the corridor. Partnerships need to be established to fund projects that add features which go beyond functional reconstruction. Limited funds and safety needs along the corridor will require outside assistance to fund upgrades. In the capital project development section is a list of potential grant sources that could be pursued to help fund future work including the

¹ Adapted from: "National Scenic Byways Program." Federal Register. Vol. 60, No. 96. May 18, 1995.



desired architectural and aesthetic features. WSDOT looks forward to partnering with the Forest Service, Whatcom County and other regional entities to secure the funds to promote these goals.

Below is a list of FHWA's definitions for intrinsic qualities along this corridor, as well as the goals objectives and strategies for enhancing these qualities along SR 542.

Scenic

Scenic quality is the heightened visual experience derived from viewing natural and man-made elements in the visible environment. The characteristics of landscape are strikingly distinct and offer a pleasing and most memorable experience. All elements of landscape: landforms, water, vegetation and man-made development, contribute to the quality of the corridor's visual environment. Everything provides distinctive and memorable views from the roadway or from sites accessed from the road.

SR 542 scenic byway goals and strategies:

Goal: Enhance or improve opportunities to experience the views from the highway and within the public lands by providing safe access to viewing locations. (Participating agencies will be the lead for enhancements or improvements on lands they manage).

Strategy: Identify areas that provide exceptional viewing, plan access to meet anticipated need and pursue funding strategies to accommodate construction.

Goal: Encourage partnerships that manage and enhance right-of-way vegetation for safety, noxious weed control and aesthetic reasons by providing appropriate right-of-way vegetation management to optimize native plant propagation and natural surrounding.

Strategies:

- Promote WSDOT's "Adopt a Highway" partnership for weed and litter control
- Follow the WSDOT Area 1 Vegetative Management Plan which supports
 - Vegetation management at key sites, including managing hazard trees
 - Use of vegetation and planting methods that reduce the need for weed control
 - Management of the noxious weeds along the corridor using prescriptive measures along guardrails to facilitate eradication.

Natural site detailing

Natural features such as geologic formations, fossils, landforms, water bodies, vegetation and wildlife are considered natural site detailing. Along SR 542, these features are in a relatively undisturbed state.

Natural site detailing should be the preferred approach in all locations where native site materials can be used to meet design needs and blend with the site. We have identified important corridor characteristics that we strive to protect and enhance. This road corridor goes through areas of dense forest with a turbulent river, and steep and sometimes unstable rocky outcroppings and slopes that have been



altered to accommodate the roadway. These create both maintenance and safety challenges.

SR 542 at MP 33.54 begins in the densely forested foothills at Mount Baker's base. The forests rise out of deep valleys cut by glaciers and further deepened by the Nooksack River and its tributaries. The dense forests are crowded with evergreen and deciduous trees and thickets of hillside shrubs, and ferns. This vegetation is important to maintain along this section of the corridor. The challenge has been to preserve healthy trees and eliminate hazards as well as revegetate the roadside with appropriate native species.



Segments along SR 542- Fall – Winter – Summer- Natural vegetation changes seasonally

As SR 542 winds up Mount Baker, great views of the adjacent ridges, mountains and eventually Mount Shuksan, Mount Baker and the surrounding subalpine forest can be seen from the roadway. The upper Nooksack areas consist of ancient uplifted and deeply dissected and eroded surfaces. To create the roadway, cuts were made into a complex series of granite metamorphic rocks. These areas are also overlaid with early tertiary sandstones, shales and coal beds which occupy the central portion of the Nooksack River basin. These rocky surfaces are challenging when it comes to roadway configuration and maintenance. This segment of the corridor remains narrow, with many steep slopes that limit the ability to change roadway configurations, and falling rock hazards. While these are a challenge to roadway safety, they are also important to preserve as natural and unique site detailing of the area. The USFS and WSDOT continue to work to preserve these features and maintain a safe corridor.

SR 542 natural site detailing goals & strategies:

Goal: Preservation of valuable adjacent scenic lands and roadside detailing in the forest and steep rocky slopes is a priority. The ambiance of the natural settings of the corridor should be maintained when undertaking roadside maintenance.

Strategies: Follow the WSDOT Area 1 Vegetative Management Plan that calls for the

- Revegetation of areas that are disturbed by roadside activity with native species.
- Placement of roadside safety features that blend with the surroundings such as weathering corrugated steel guardrails and wood and “stone” site details.
- Maintain rocky slopes and drainage systems in a manner that safely accommodates the traveling public, and promotes natural detailing.
- Provide roadside eradication of noxious weeds with herbicides that preserve native foliage and respect natural habits of fish and wildlife.



Recreational

Outdoor activities directly associated with and dependant upon the natural and cultural elements of the corridor's landscape are considered recreational. Recreational activities provide opportunities for active and passive experiences, including but not limited to bird and wildlife watching, hiking, camping, snowboarding, snowmobiling, skiing, rafting, horseback riding, hunting and rock-climbing. Recreational experiences may be seasonal, but the quality and importance of the experience is well recognized. Recreation is one of the major draws of this area, and safe access from SR 542 is essential.

SR 542 scenic byway recreational goals and strategies:

Goal: Enhance or maintain recreational opportunities. Encourage construction or improvement of access points to recreational opportunities at safe locations.

Strategy: Support funding applications that encourage construction of safe sites that accommodate the traveling public's access to recreational opportunities throughout the corridor. Support the inclusion of interpretive facilities that enhance the visitors' understanding of the corridor and its resources.

Historical

This encompasses legacies of the past that are distinctly associated with physical elements of the landscape, whether natural or man-made, and that are of such historic significance that they educate the viewer and stir an appreciation of the past. The historic elements reflect the actions of people and may include buildings, settlement patterns and other examples of human activity. Historic features can be inventoried, mapped and interpreted. They possess integrity of location, design, setting, material, workmanship, feeling and association.

The development of travel information is encouraged as an effective method of providing necessary information to the traveling public.

SR 542 scenic byway historical goals and strategies:

Goal: Enhance opportunities for the traveling public to understand the history along the corridor.

Strategy: Support funding applications that maintain and refurbish CCC and other historically relevant sites. Support the inclusion of interpretive facilities that include historic content.



Archeological/ cultural

These include the evidence and expressions of the customs or traditions of a distinct group of people. Cultural features include but are not limited to artifacts, ruins, or historic trade routes of extinct human groups.

SR 542 scenic byway archeological/ cultural goals and strategies:

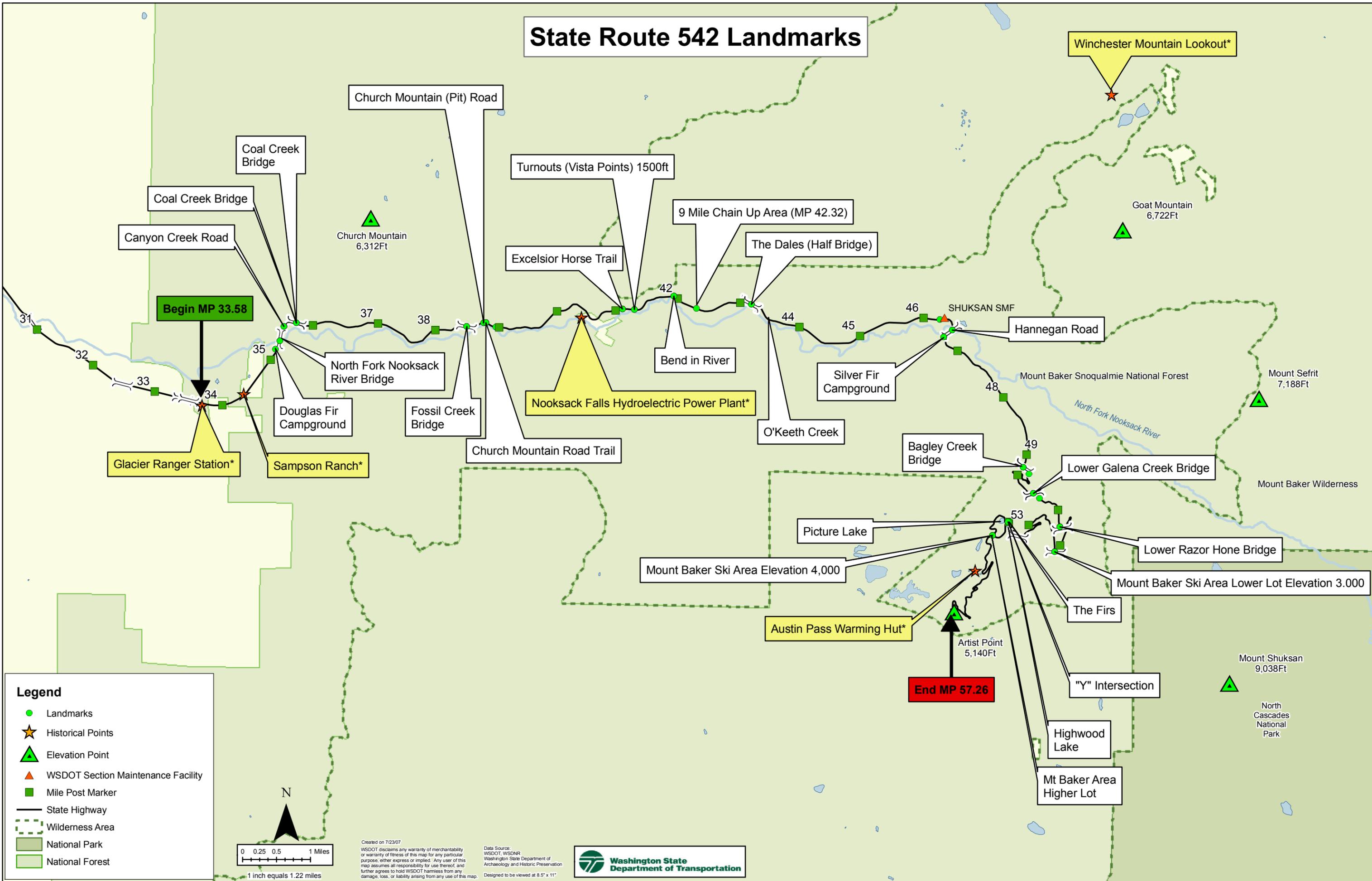
Goal: Encourage strategies and plans that acknowledge and celebrate the different cultures in the corridor that benefit the jurisdictions, tribes, communities, and visitors to the Mount Baker area.

Strategies: Work to preserve all identified resources. Upon discovery of any new archeological resources, WSDOT will comply with the Act for the Preservation of American Antiquities approved June 8, 1906 (34 Stat. 225, 15 U.S.C. 432-433), and the Archeological Resource Protection Act of 1979 (93 Stat. 721, 16 U.S.C. 470aa-47011), and state laws where applicable so as not to disturb, or to detract from the observations that can be made and preserved. Work with tribal, cultural and natural resource experts, local agencies, resource agencies, and affected landowners in all stages of identification, interpretation and possible conservation of special sites, themes, and landscapes. Support the inclusion of interpretive facilities which include cultural / archeological content.

Built site detailing

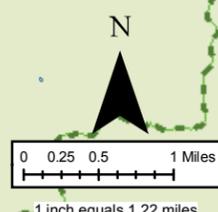
The design of the buildings constructed by the Conservation Corps (“CCC”) in the 1930s showcase the Cascadian theme. These structures have been converted to serve the public traveling along SR 542 and have been maintained and enhanced by the USFS. These buildings convey a unique context within the landscape that adds to how the visitor perceives and remembers the byway and its history. These elements are identified regionally as the *Cascadian architectural style*. These structures enhance the identity and visual experience of this corridor. Building development along the corridor, while unlikely, would occur outside the easement, so would be undertaken by the USFS. Goals and strategies for potential structures fall outside the scope of the easement and so are not included in this review. Map 3 shows the location of significant landmarks that have been identified along the corridor.

State Route 542 Landmarks



Legend

- Landmarks
- ★ Historical Points
- ▲ Elevation Point
- ▲ WSDOT Section Maintenance Facility
- Mile Post Marker
- State Highway
- - - Wilderness Area
- National Park
- National Forest



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Data Source:
 WSDOT, WSDNR
 Washington State Department of Archaeology and Historic Preservation
 Designed to be viewed at 8.5" x 11"



Map 3: SR 542 Identified landmarks

Aesthetics

Aesthetic requirements include consideration of the wall face material, the top profile, the terminal, and the surface finish and the texture, color and pattern of transportation structures along the corridor. Where appropriate they contain planting areas to visually soften and blend walls in adjacent areas. Approval from the WSDOT State Bridge and Structures Architect is required on all retaining wall aesthetics including finishes, material and configuration.

“Retaining walls and slopes can have a pleasing appearance that is compatible with the surrounding terrain and other structures in the vicinity. To the extent possible within functional requirements and cost effectiveness criteria, aesthetic goals are to be met for all visible retaining walls and reinforced slopes.” This information is taken from the Design Manual page 1130-4, and will be augmented by incorporating appropriate *Mather Memorial Parkway Guideline* features.

Development guidelines for SR 542

SR 542 has many of the features, qualities and attractions that encourage both tourists and long-term residents to travel this highway. Our goal in maintaining the roadway will be to preserve the intrinsic qualities unique to this scenic byway. The easement specifies that the theme or style established for the parkway is “rustic Cascadian,” which is characterized by native materials, primarily quarried stone and timber. The corridor has many areas that currently don’t have this theme incorporated in transportation-related construction, but the theme should continue to be the guide for modifications of site and architectural detailing and new construction throughout the byway.

Corridor recommendations from the Mather Memorial Parkway Guidelines

Aesthetic treatments along this corridor follow the *rustic Cascadian* theme. Guidelines developed to promote this appearance have been developed for State Route 410 in the Mount Rainier National Park. These are referred to as “*The Development Guidelines for the Mather Memorial Parkway*” (hereinafter referred to as *the Mather Guidelines*) and have been referred to in the easement for use when promoting specific design detail. The excerpts below are from this document. They, along with safety considerations, set the standard for construction design decisions along this corridor.

Development Guidelines

Mount Rainier National Park
Mount Baker-Snoqualmie National Forest
Wenatchee National Forest

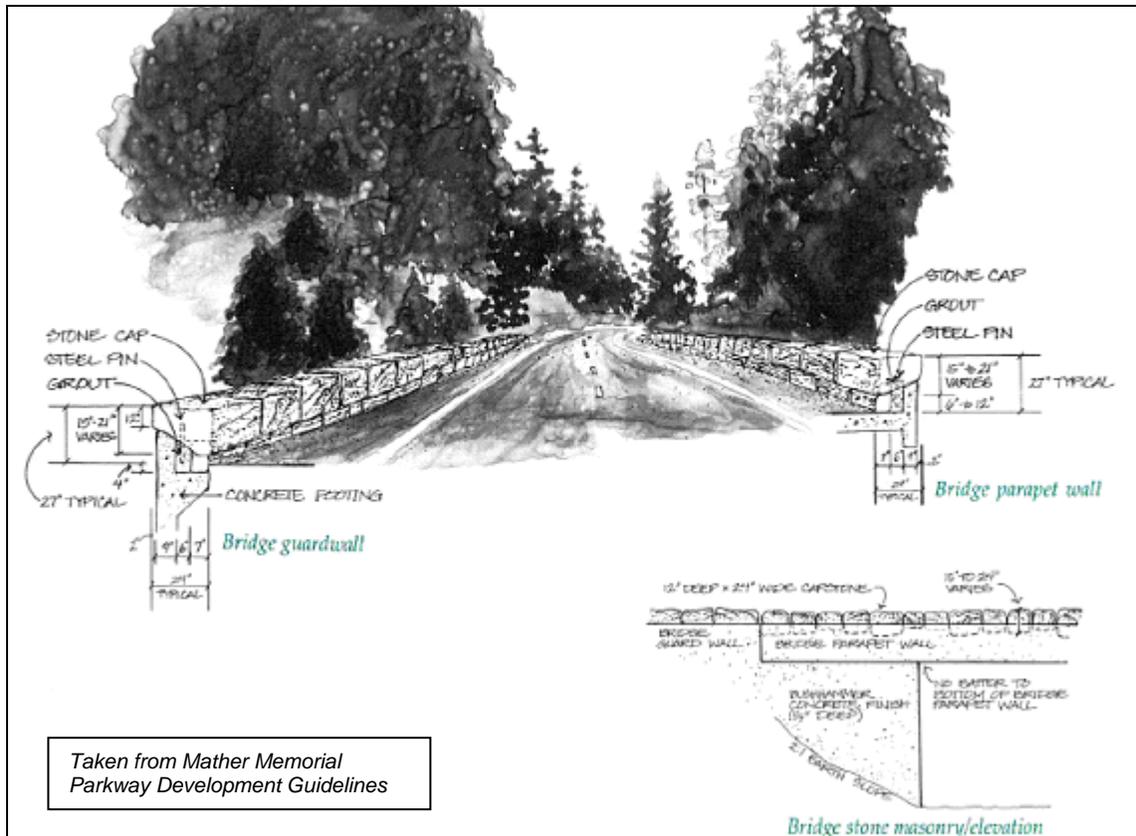
Referred to as the “Greenbook” this guide is used to describe “rustic Cascadian” style.



Bridges

Native stone or native stone veneer should be used on visible inboard faces. Outboard faces should be evaluated individually to determine their visual sensitivity and appropriate type of treatment. Parapet walls on the bridge should be continued into guard walls (off the bridge) that flare and taper into the ground, hillside or rock formations. Existing bridges with incompatible railing designs should be retrofit when their life cycle is complete with new rails that are similar to the following designs. In cases where the structure of the bridge will not support solid stone masonry, stone veneer or similar simulated stone rails may be substituted.

As an example the following has been suggested in the *Mather Guidelines*:



Taken from *Mather Memorial Parkway Development Guidelines*

Example of construction along SR 410

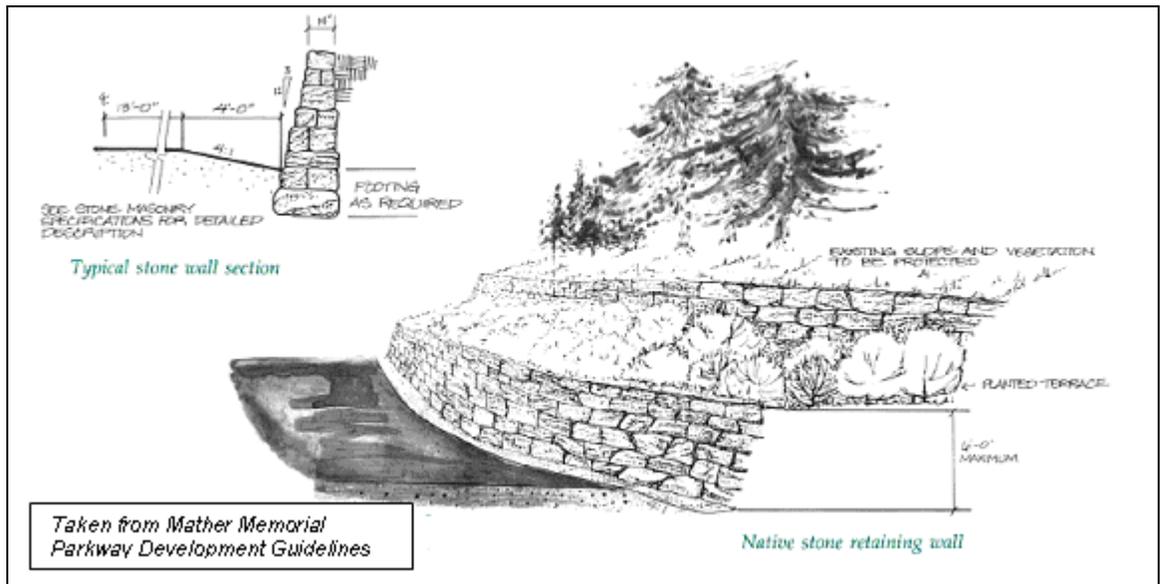


This is a photo of a barrier treatment on SR 410, Mather Memorial Parkway, on a bridge at MP 74.75. This project was designed and constructed by the Forest Service in the 1980s. (The height of this barrier does not meet the current WSDOT design standards, but alternatives are being investigated that can contribute the look and feel of this design.)

Retaining Walls

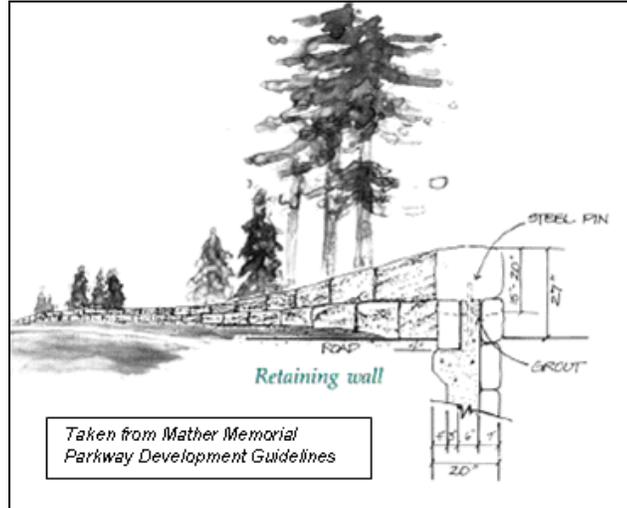
Native stone walls or walls of similar character should be used where visible from the parkway. Wall ends should be flared and tapered into the ground, hillsides or rock formations. If gabions are used, they should be sloped and curved to blend with the site and covered with soil and revegetated as on other fill slopes.

Gabions should not be used in places where they will be highly visible to the public. Walls may be constructed primarily of reinforced mortared stone masonry, concrete with stone veneer, or dry-laid construction in areas where it is deemed appropriate.



Artificial stone

Recent development in the concrete industry has refined surface treatment techniques that allow the creation of very realistic simulated stone surfaces through high-relief form liners. Walls constructed using these methods may be used.



Barriers

Natural barriers and guardrails are the two major types of barriers. Natural barriers are used primarily for traffic control and to prevent parking in inappropriate areas. Guardrails are used to provide protection from safety hazards along the roadway.

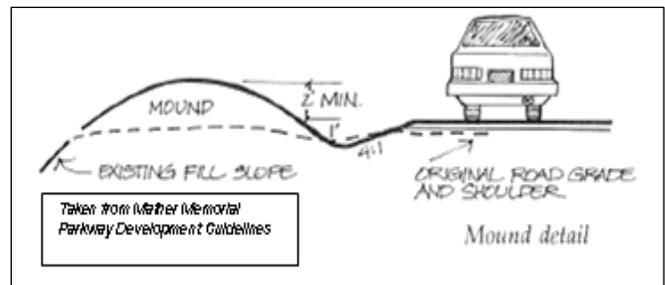
Barriers can differ along the byway, due to aesthetic site considerations and maintenance concerns, (repair costs, snow loading and removal, etc.); however, barrier types should be consistent with the overall theme. Following are the acceptable barrier types and the preferred areas for their use.

Natural barriers

For traffic control, use of the natural elements should be emphasized whenever possible. The natural barriers should maintain the aesthetics of the natural surrounding and be almost maintenance free. Barriers can be created by mounding, boulder placement, planting, etc., which should be evaluated on a site-by-site basis to ensure that the results will blend naturally with the surrounding environment. Some examples of these treatments are shown below.

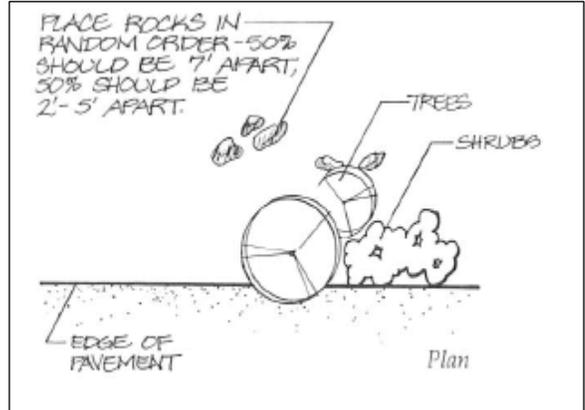
Mounds

Barriers created by mounding should be considered in areas where there is sufficient space, soil, and vegetation to blend the mounds with existing surrounding landforms. The constructed mound should flow or undulate to match the adjacent terrain. Berms in the shape of windows should be avoided. Slopes of mounds should not exceed 2:1; 3:1 and 4:1 are preferable. Slopes steeper than 4:1 should only be used where special conditions exist. Mounds and berms may substitute for guardrails under certain circumstances where adequate space for construction is available.



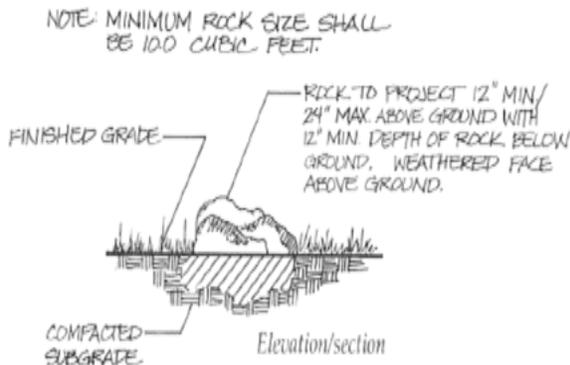
Planting

Roadside plantings can be used control unauthorized vehicular access into roadside areas. Plants used within the clear zone should be limited to shrubs or small trees with an ultimate growth size of less than 6" dbh (outside bark diameter at breast height). If trees are used, they should be planted an appropriate distance from the edge of the pavement to prevent limbs from drooping across the road during periods of heavy snow or ice. All plant material should be indigenous species and planted in natural-appearing patterns.



Boulder placement

Rock barriers should be considered in areas where the existing natural setting has rock outcrops and minimal vegetation. Boulders should be grouped and partially buried. A “dragons tooth” appearance (equal spacing and alignment of boulders) should be avoided. Rock barriers should be used in areas that are outside the designated clear zone.





Guardrails

The standard weathering steel W beam guardrail is the recommended standard. This type of guardrail should be used, as it currently is, in areas where guardrails are frequently damaged by snowplows and blowers. This type of guardrail blends well with browns, beiges, and open forest. The end treatments should be flared away from the road and tapered down into the adjacent ground or hillside or as required by WSDOT design standards.



Design considerations

The 2004 easement refers to the development guidelines for the Mather Memorial Parkway that was prepared by the National Park Service. These graphics were taken from those guidelines so they can be used as guidance when looking at aesthetic attributes of projects along SR 542. They provide a visual link to what has been described as a “rustic Cascadian” look.

These design features will be reviewed when new projects are undertaken on the corridor. Since safety along the roadway is always of primary concern, these design concepts will always require modification to meet current safety standards, and additional modifications in terms of height have been suggested. These will need further refinement before any projects are constructed.

The full text of the Mather Memorial Parkway Design Guidelines has been included in Appendix 4 of this report. The excerpts in this section were included to visually demonstrate what is representative of “rustic Cascadian” design features. It has been suggested that visual treatments be focused on areas that are visible from roadway and that we concentrate on areas that deserve special design consideration such as the following:

- Signs (Other than directional and regulatory highway signs)
- Interpretative elements (wayside pulloffs with interpretative panels, interpretive kiosks, etc...)
- Bridges
- Guardrails
- Trail markers
- Historical markers
- Roadside structure (retaining walls, freestanding walls, barrier, etc)
- Landscaping
- Walkways and trails
- Other elements that may be visible from the highway (restrooms, picnic shelter, fences, etc.)

These will be both within and outside of the right of way along this corridor. These treatments are costly and exceed WSDOT's typical funding processes, so construction of these special designs may require additional funding by both WSDOT and the USFS along with other partners.

Design details, as presented in the Mather Parkway development guidelines, are suggested to retain and enhance the scenic character of the corridor. WSDOT has adopted "Scenic Byway Logo Signing Guidelines" and the Heritage Corridors Program of WSDOT is currently preparing design guidelines for state scenic byways, but these guidelines are in a draft stage and have not been published yet. The diagrams incorporated from the Mather Parkway Guidelines plan will be used to determine what is appropriate when capital projects are proposed.

It is the goal, but it may not be feasible, to fully replicate all aspects of the design standards suggested in the Mather Parkway Development Guidelines on SR 542. But signing, interpretative elements, roadside visitor facilities and other features should be compatible and consistent with them.

It is recommended that the corridor be consistent in character with the "rustic Cascadian" image to better blend with the surroundings. Use of the guidelines will help to provide guidance when capital projects go forward to ensure that the intrinsic qualities of the corridor are maintained and enhanced. Below is an example from the WSDOT architectural design guidelines showing an example of the "rustic Cascadian" theme. This goes beyond the functional design needed to provide structural improvements along this corridor; however, funding to meet aesthetic standards will be requested with the project proposal. Partnerships and grants will be fully utilized to supplement funding as needed.

Example of Underlying Assumptions for a project

We will mitigate unavoidable visual impacts using Architectural Design Guidelines and Roadside Classification Plan – Treatment Level 2 for Forested Classification



Cascadian Theme

Corridor Continuity

06.27.2011

The image is a composite graphic. At the top, it has a title and a subtitle. Below the subtitle, there are three main visual elements: a black and white landscape sketch of a road through a forested area with a stone wall; a technical cross-section drawing of a stone pillar with a decorative top; and a color photograph of a real-world stone wall along a road. Text labels 'Cascadian Theme' and 'Corridor Continuity' are placed on the left side. A date stamp '06.27.2011' is visible in the bottom right of the photograph.



Architectural guidelines

Guidelines provide the designers, engineers and others with guidance necessary to define what is needed for cohesive and consistent transportation structures. The intent is to ensure continuity, uniformity, order and an identity throughout the corridor by blending the manmade material, features, colors and scale with the natural environment, historical precedence and the local social and economic infrastructure. Application of the Cascadian Style in design and construction of the highway infrastructure will maintain and reinforce the motorist's experience of this scenic byway. These guidelines communicate to future designers and maintenance personnel the aesthetic commitments made by WSDOT and the USFS when partnering in the construction of projects along SR 542.

Cascadian Style

The rustic architectural style was originally developed in the late 1800's and early 1900's as part of the Arts and Crafts Movement and was further refined by the (National) Parks Movement in the 1920's and 1930's. Applied by the Civilian Conservation Corps (CCC) and other public works agencies on such noted projects as the Timberline Lodge at Mount Hood, Paradise Inn at Mount Rainier and the Columbia river Gorge National Scenic Area and on highways in both Oregon and Washington States; the "North West Providence" style became known as "Cascadian Style." The highest expression of the rustic style is the in the Pacific Northwest Region, both in quantity and quality and is still known today as the "Cascadian Style." It has been adopted and used by the US Forest Service, Washington State Natural Resources, and State and local Parks Departments.

The Cascadian Style is both understated and yet noticeably apparent at the same time. The use of "native" and rustic concepts is both broad in spatial scale, and inclusive of human endeavor and use. The application of the Cascadian Style in forming shaping, and coloration of the various highway elements will assist in providing context sensitive solutions incorporating highway planning, engineering, architecture and landscape architecture with the natural environment and the local social character. It will provide a cohesive, graceful travel experience that blends with and enhances both the surrounding natural environment and the human-scale built environment.

References used

These architectural guidelines have been developed through teamwork between the Washington State Department of Transportation, the US Forest Service and others; and through the use of several publication including "The Built Environment Image Guide" published by the United States Forest Service and "Aesthetic Alternatives for Selected Roadside Elements" prepared for WSDOT by the Department of Urban Regional Planning, Eastern Washington University. A through summary of the corridor's qualities, public benefits, and the WSDOT commitment to help sustain them is summarized in this document. Partnerships will need to be established to secure funding to further this work.

Where will the style be applied?

The key elements of the Cascadian Style are integrated into the design through the appearance of natural, durable, available and sustainable materials. Muted native earth colors; paying close



attention to the surrounding scale, shape, terrain and other landscaped features will provide additional enhancement to the key highway elements.

The scale and structure of the mountains, rocks, and trees – the scale of the environmental setting, is expressed through the appearance of the substantial structural strength of natural elements such as rock and timber. These elements will be applied where safe and practical and where it has visual significance on such components as:

- Landscape design
- Traffic barriers
- Bridge structures
- Lighting standards and supports
- Signs and sign support structures
- Other structural and safety requirements.
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How will it be applied?

The Cascadian Style patterns will be made from form liner pattered concrete on both cast in place and pre-cast structures. The concrete will be colored to match the nearby environment using color additives in pre-mixing, dry pigment, and dyes applied after the forms have been removed. If specific graffiti preventing paint is needed that will be colored to compliment the area. Mt. St. Helens Gray, Washington Gray and Mt. Baker color chips are representative of colors that compliment this area. The anticipated color application on various highway infrastructure, traffic safety structures, lighting and other appurtenances are governed by closeness to the roadway (safety concern), degree of visibility and proximity to human use.

Infrastructure applications

Bridges present one of the best opportunities to enhance corridor continuity through the use of Cascadian Style. This aesthetic continuity reinforces the motorist's sense that they are on a Scenic Byway. Cascadian features should be used when the bridge is visible to the public, and concentrate visible facades. Where visible to the traveling motorist, pedestrian, or from afar looking back to the highway, the exterior surface of barriers should be textured and finished with a liner-formed, stained or dyed stone appearance. Coloring will compliment the bridge structure and promote blending with the natural environment. Traffic and bridge barriers are subject to crash safety considerations, and damage where snow removal operations take place.

Guardrail shall be W beam weathering steel. Installation shall be per the WSDOT design manual (M22-01) and shall meet FHWA and WSDOT crash test criteria.

Application of the Cascadian Style provides corridor continuity and an unmistakable identity. It supports both State and National Scenic Byway designations. Due to vehicle safety concerns, constructability and maintenance expense, the use of form lined concrete with admixtures, stains and dyes to appropriate natural materials has been determined as the best method of applying the Cascadian Theme. Exact application locations will be determined during the design process and will be governed by safety visibility and scenic byway context.