NATIONAL SCENIC AREA LAND USE PERMIT

Hood River County Community Development
601 State Street
Hood River, OR 97031
Phone: (541) 387-6840 Fax: (541) 387-6873

Fee _____

Collected by _____

Date Submitted _____

Applicant(s) Oregon Department of Transportation, Region 1 – Terra Lingley

Mailing Address 123 NW Flanders
Portland OR 97209

Project Address N/A

NSA Permit Application for Historic Columbia River Highway State Trail Viento to Mitchell Point Crossing and Historic Columbia River Highway State Trail Mitchell Point Crossing projects

Phone (daytime) 503-731-8232

Owner(s) (if different) State (ODOT, OPRD), USFS

Mailing Address N/A

Phone (daytime) N/A

Township/Section/Range and Tax Lots:

ROW; 03N 09E 34: TL 400; 03N 09E 35: TL 100,101; 03N09E 36: TL 100; 03N 10E 31: TL 300,101,200,103,100; 03N 10E 32: TL 700

Acreage (total for tax lots): 2,403.48

Zone - GMA/SMA: SMA- Public Recreation, SMA- Open Space, SMA- Forest

Fire Dist N/A

Water Dist N/A

Irrigation Dist N/A

Sanitation N/A

Access N/A

Existing Use of Parcel:

Approximately 21% of the proposed project area is within existing I-84 shoulder and ditch line, or otherwise within ODOT ROW. Other segments would be on open space. The projects crosses USFS and OPRD Property. See Attachment N from USFS and OPRD acknowledgement of the projects.

Use of Adjacent Parcels:

North: Interstate-84

East: HCRH State Trail (future)

South: Mt Hood National Forest owned by OPRD or USFS.

West: HCRH State Trail

APPLICATION INDEX

HISTORIC COLUMBIA RIVER HIGHWAY STATE TRAIL

VIENTO TO MITCHELL POINT CROSSING – SEGMENT E

MITCHELL POINT CROSSING – SEGMENT F

ATTACHMENTS

FIGURES

TABLES

PROJECT DESCRIPTION

Historic Columbia River Highway State Trail Overview

The Historic Highway was constructed in the Columbia River Gorge between 1913 and 1922. Improvements and expansion of the State highway system between 1953 and 1969 obliterated and abandoned portions of the Historic Highway for the construction of Interstate 84 (I-84).

Figure 1: View of the Columbia River Gorge from the HCRH State Trail

The Federal Highway Administration (FHWA) in collaboration with the primary land owners the Oregon Department of Transportation (ODOT) and the Oregon Parks and Recreation Department (OPRD) is leading the development of the Historic Columbia River Highway State Trail in collaboration with the US Forest Service (USFS) Columbia River Gorge National Scenic Area. The purpose of the Historic Columbia River Highway State Trail projects is to reconnect abandoned portions of the Historic Highway for multi-modal transportation and historic preservation purposes (Figure 1). The genesis of the Historic Columbia River State Trail can be found in the Columbia River Gorge National Scenic Area Act passed by Congress in 1986. This Act specifically called for restoring the continuity of the Historic Highway:

> *"The Oregon Department of Transportation shall, in conjunction with the Secretary and the Commission, the State of Oregon and the counties and cities in which the Old Columbia River Highway is located, prepare a program and undertake efforts to preserve and restore the continuity and historic integrity of the remaining segments of the Old Columbia River Highway for public use as a historic road, including recreational trails to connect intact and useable segments."*

To date, 12.7 miles of HCRH State Trail have been developed, primarily west of Cascade Locks and east of Hood River. The issues and opportunities for the HCRH State Trail are detailed in *A Study of the Historic Columbia River Highway* (1987), and concepts for portions of the trail are further refined in the Milepost 2016 Reconnection Strategy (2009) and the HCRH State Trail Plan (2011). The HCRH State Trail Plan specifically outlines trail segments to reconnect the Historic Highway between existing sections of abandoned highway between Wyeth Campground, near Interstate 84 (I-84) exit 53, and the City of Hood River. A 1-mile trail segment has been completed between Viento State Park and Starvation Creek and construction of a 1.2-mile extension to Lindsey Creek from Starvation Creek (known as Segment D) was completed in 2016. A 3.2 mile trail connection will be complete this summer (2019) connecting Wyeth Trailhead to Lindsey Creek (Figure 2).

Figure 2: Construction of HCRH State Trail between Wyeth and Lindsay Creek in August of 2018.

Figure 3: Project Overview Map

The subject of this application is the proposed development of the Historic Columbia River Highway State Trail Viento to Mitchell Point Crossing (Segment E) and Historic Columbia River Highway State Trail Mitchell Point Crossing (Segment F) projects (the Project). The Project extends between South Viento State Park Campground at the western extent of the Project and the Mitchell Point Drive undercrossing of I-84, 6,200 feet east of Mitchell Point (STA 516+91) at the eastern extent of the Project. Identified as Segments E and F in the *HCRH State Trail Plan,* this 3-mile section of the State Trail would connect at its eastern terminus to a potential future 3.4-mile trail extension Mitchell Point East Trailhead to Ruthton Point and Ruthton Point to Ruthton Park (Segments G and H) that would end in the City of Hood River at Ruthton Park. The route of Segments E and F passes through land owned by the State of Oregon (ODOT right of way and OPRD managed lands), and federal land managed by the US Forest Service.

Figure 4: Project Vicinity - Drone Looking East from Viento State Park

Guiding Principles

I-84 and the Historic Highway are scenic routes for which unique scenic highway corridor standards must be implemented per the Hood River County Zoning Ordinance (HRCZO) Article 75, Section 530(3)(b). Proposed Project elements within the I-84 roadway prism (Figure 5) are designed to conform to the I-84 Corridor Strategy (2005) and portions of the proposed trail outside of the I-84 roadway prism are designed to conform to the Historic Columbia River Highway Master Plan (2006(and adopted the Historic Columbia River Highway Trail Guidelines (2011). These documents are the adopted state scenic corridor guidelines for I-84 and the HCRH State Trail, respectively.

The roadway prism "footprint" as used in this report is based on the definition of developed roadway prism in Article 75.040(49) of the Hood River County Zoning Ordinance. The ordinance defines roadway prism as "The area of ground associated with a particular road and containing the road surface, ditch, shoulder, retaining walls, or other developed features. It does not include the natural appearing portions of cut and fill slopes."

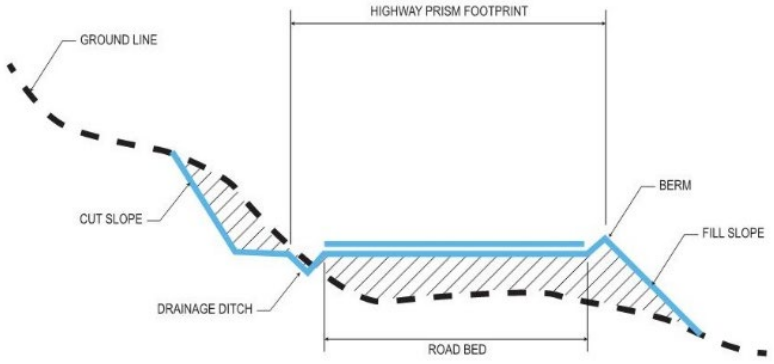

Figure 5: I-84 Highway Prism Footprint

The edge of the roadway prism that is adjacent to slopes on the south side of I-84 near the proposed Project is an area maintained by ODOT that generally extends to just beyond the drainage ditch.

The *I-84 Corridor Strategy* was developed with a robust public involvement process. The first stage of outreach involved interactive workshop sessions and public meetings that included nearly 400 participants. Nearly 200 people participated in a second series of workshop sessions, public meetings, a charrette, and open house. Through this process, a Vision Statement, Goals, and Overall Design Objectives that had the widespread support of stakeholders were developed. Representatives from the Gorge Commission, the Federal Highway Administration (FHWA), ODOT, USFS, and Wasco, Hood River, and Multnomah Counties served on the executive committee that ultimately adopted the *I-84 Corridor Strategy* to guide design, construction, and management activities along I-84 in the NSA.

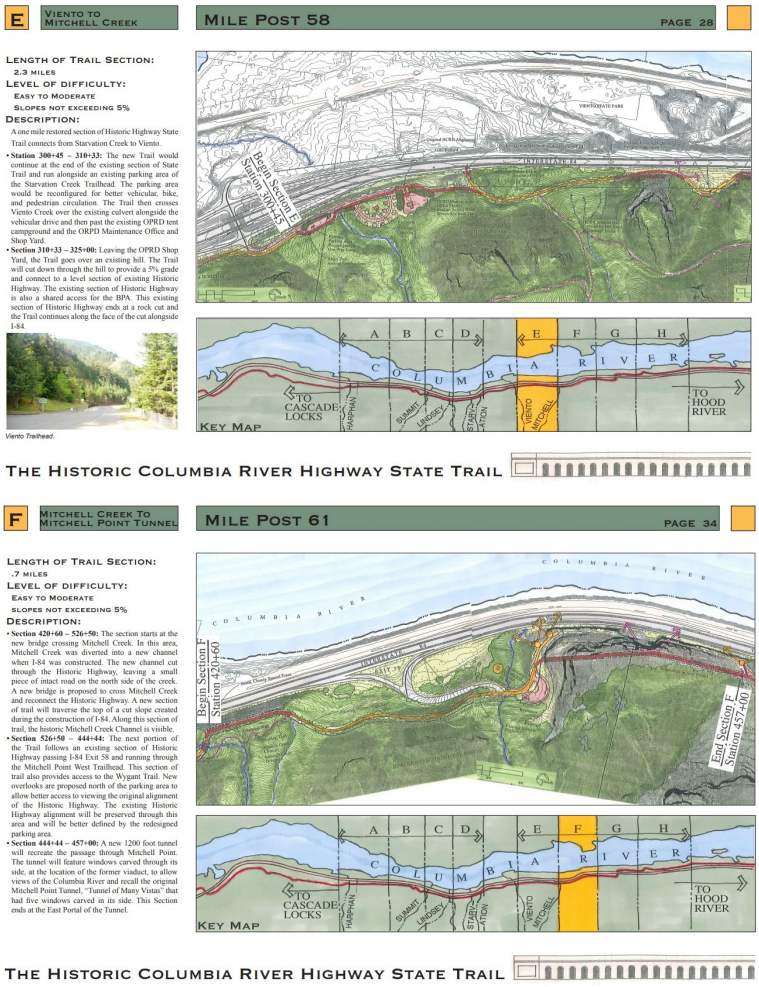

Figure 6: Conceptual Segment E and F Trail Maps from HCRH State Trail Plan

The *Historic Columbia River Highway Trail Guidelines* (Figure 6) were adopted in 2011 under the direction of the Historic Columbia River Highway Advisory Committee. This committee includes representatives from Hood River, Wasco, and Multnomah Counties, as well as staff from the OPRD, the State Historic Preservation Office (SHPO), ODOT, and Travel Oregon. The guidelines provide the development specifications necessary for the state trail to be developed with a unifying aesthetic that is compatible with historic elements of this historic road corridor and the natural environment of the Columbia River Gorge.

Viento to Mitchell Point and Mitchell Point Crossing (Segments E and F) Detailed Description

The Project include the following components:

- Grading, base, paving, and drainage for a 4.13-mile-long asphalt multiuse trail connecting Historic Highway segments. The trail would be a maximum of 12 feet wide with 2-foot shoulders on each side (16 foot wide corridor). Grades along the path would generally be up to 5.0 percent
- Incorporation of remnant abandoned sections of the Historic Highway in the trail alignment
- Redesign of the existing trailhead at the Viento State Park Parking lot (Exit 56 interchange of I-84)
- Separate the access to the OPRD Viento State Park Maintenance Facility from portions of the trail and improve the layout of the South Viento State Park Campground
- Construct a new restroom in the Viento State Campground at the location of the existing restroom and also make improvements to the existing Viento State Campground Maintenance Facility.
- Create hiker/biker low-impact gravel camp pads south of the South Viento State Park Campground with shelters and a bike pod
- Redesign existing trailhead to accommodate 18 parking spaces at the Mitchell Point Parking lot/trailhead (Exit 58 interchange of I-84)
- Replace the single vault toilet at the Mitchell Point Parking lot/trailhead with a larger double vault toilet.
- Install rockfall fences, bolt rocks and rockfall mesh to mitigate rockfall hazard both on the trail and adjacent to I-84 and install temporary rock containment devices during construction.
- Construct a 661 foot long tunnel through Mitchell Point including five adits (windows)
- Stabilize cut/fill slopes from trail construction
- Construct retaining walls including rockery walls, mechanically stabilized earth (MSE) walls, and vegetated reinforced soil slope walls as needed for trail construction
- Install traffic barriers to separate the proposed trail from adjacent I-84 traffic
- Construct two pedestrian and bicycle bridges, one over Perham Creek (72 feet long) and one over Mitchell Creek (43 feet long)
- Replace and lengthen the existing culvert at an unnamed Creek at Mitchell Point entrance (Exit 58)
- Install new culvert for unnamed Creek at the west end of Mitchell Point Drive
- Build viewpoints and overlooks along trail
- Stain existing binwall on I-84
- Restore native vegetation by removing weeds and restoring habitats.

In total, the proposed trail Project consists of approximately 42 acres. A site plan is provided with this application (Attachment A).

Major Elements

The proposed Project is described in detail below in sections proceeding from west to east.

Viento State Park Trailhead (STA 300+00 to 304+00)

The proposed Project begins at the Viento State Park Trailhead (Southside Exit 56 interchange of I-84). The proposed Project would construct a trail adjacent to the existing southside parking lot. The trail would extend from where the existing trail terminates east crossing Viento Creek on the existing box culvert with reinforced soil slopes to minimize impacts to the environment.

Viento Campground Enhancements (STA 304+00 to 309+00)

Improvements to the South Viento State Park Campground and OPRD Maintenance Facility (south of I-84) include:

Figure 7: Proposed Restroom Facility at Viento South State Park Campground

- Separate the access to the OPRD Maintenance Facility from portions of the trail
- Improve the layout of the South Viento State Park Campground, add a restroom facility (Figure 7)(Attachment B sheet E.8), add paved back-in vehicular parking spaces, and add a campground host site (Attachment B sheet E.4 and E.5)
- Improvements to the existing OPRD Maintenance Facility including grading, paving, existing structure improvements and expansion, fencing, and vegetative screening from the new trail section (Attachment B sheet E.6 and E.9).
- Construct a low-impact gravel trail and low-impact hiker/biker gravel pads south of the South Viento State Park Campground; work would include removing and revegetating existing user-created trails, installing bike pods, and constructing three-sided shelters in four of the eight proposed hiker/biker gravel pads (Figure 8 and Attachment B sheets E.12 and E.13)
- Install a new information kiosk at the entrance to the campground (Attachment B sheets E.10 and E.11)

OPRD Maintenance Facility to rock cut along I-84 (STA 309+00 to 320+00) – Segment E

Extending east from the OPRD maintenance facility, the proposed trail would cut through an existing fill section of the trail down through the hill to provide a maximum 5 percent grade and connect to an abandoned section of existing Historic Highway. The existing section of Historic Highway is also a shared access for the Bonneville Power Administration (BPA). This existing section of Histroic Highway ends at a rock cut and the trail continues along the face of the cut alongside I-84.

Figure 8: Proposed Shelter for Hiker/Biker Gravel Pads at Viento South State Park Campground

Rock slopes along I-84 to existing trail oxbows (Dome Rock, Scoria Cut, Ridge Cut, and The Pinnacle) (STA 320+00 to 367+00) – Segment E

This section of trail has four existing abandoned sections of Historic Highway that form a series of "oxbows" where the construction of I-84 cut off the north section of the original curves. The proposed new trail section would run alongside I-84, connecting these existing segments of the Historic Highway together. The rock slopes along I-84 in this section present rockfall challenges (Figure 9). The existing sections of Historic Highway are in relatively good condition, and are all elevated above I-84, providing both visual and sound separation from I-84. The trail would cross existing sections of the Historic Highway and adjacent to I-84. Where adjacent to I-84, the trail would sit at the base of existing rock cut slopes that were excavated during the construction of I-84. Four rock slopes exist along this strech of proposed trail (see Attachment B sheets K.2 thru K.13 for additional rockfall mitigation details).

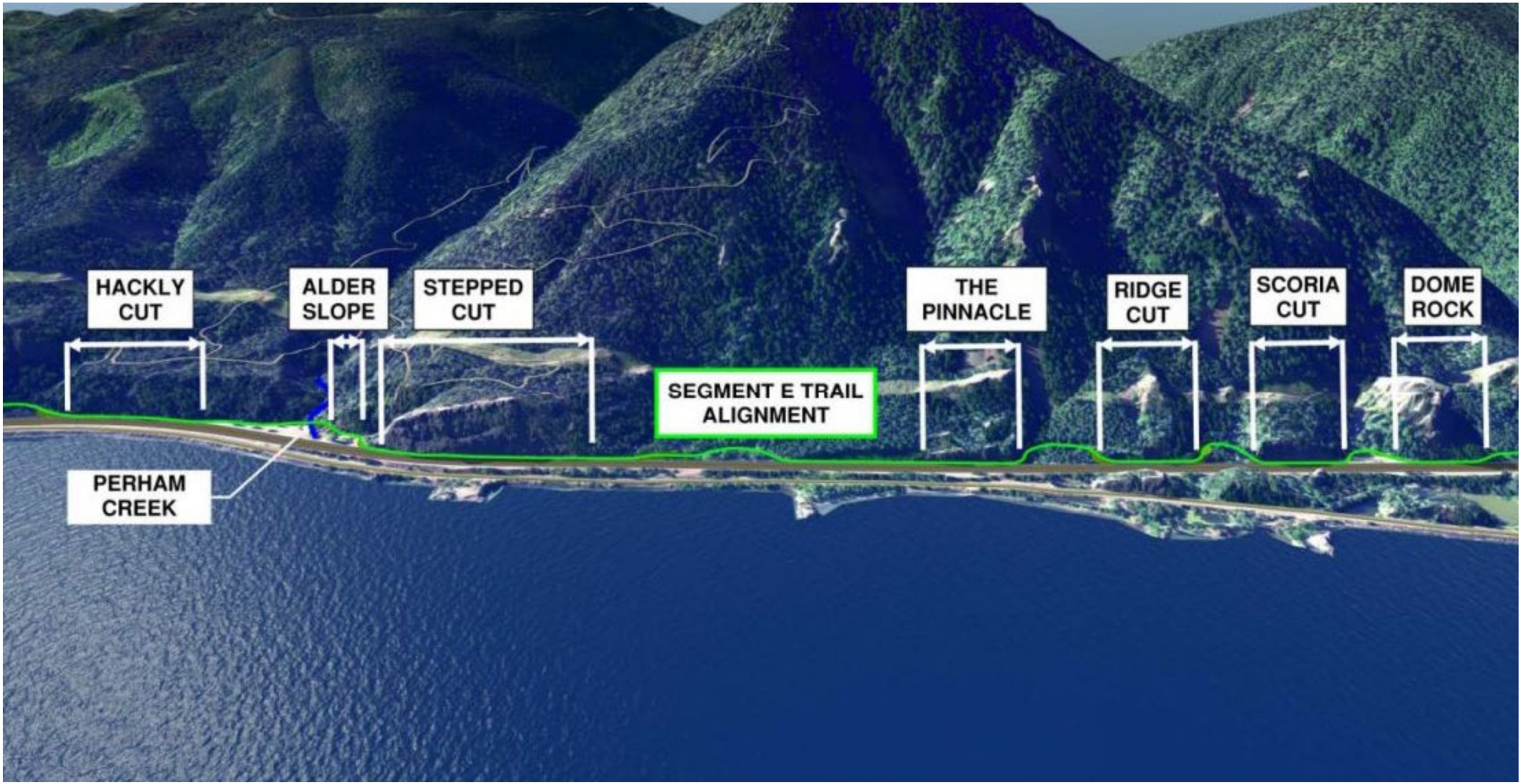

Figure 9: Rock Faces Adjacent to I-84 along the Proposed Trail Segment E

In two locations where the proposed trail would be adjacent to I-84, the trail would be built at a higher elevation than I-84. Concrete retaining walls with architectural form liner facings at these locations would briefly be visible to motorists traveling on I-84 in front of the Dome Rock (STA 321+72 to 324+90) and Ridge Cut (STA 338+78 to 343+50) rockfaces (see Figure 10 and Figure 11 for existing and visual simulation of trail at Ridge Cut).

Figure 10: Existing View I-84 Eastbound at Ridge Cut

Stepped Cut Rock Fall (STA 367+00 to 384+00) – Segment E

This proposed section of trail would run along the edge of I-84 for 1,600 feet. This trail segment has major rockfall hazard challenges. The project proposes new rockfall protection to mitigate safety risks, which include a combination of midslope rockfall attenuators and draped rockfall protection wire mesh along the Stepped Cut landform (STA 373+50 to 383+65) and adjacent to the trail within portions of this section of the trail.

Perham Creek to existing Historic Highway Section (STA 384+00 to 395+00) – Segment E

East of Stepped Cut the proposed trail turns south and connects to another abandoned section of Historic Highway west of Perham Creek. The historic crossing of the creek was washed out and is unidentifiable. The proposed Perham Creek Bridge is a single span, 72 foot long, 18 foot wide precast, prestressed, concrete slab bridge. The proposed bridge would not be located within the regulatory ordinary high water level. Once the trail crosses Perham Creek, it would roughly follow the Historic Highway's original alignment for 600 feet until it parrelles I-84 at station 397+15.

Figure 11: Visual Simulation of Proposed Elevated Trail Section at Ridge Cut as seen from I-84

Hackley Cut to Mitchell Creek Culvert (STA 395+00 to 419+00) – Segment E

The proposed trail would continue east along I-84 for 740 feet and then head south where it connects with an existing abandoned section of Historic Highway. This section of proposed trail is also the access trail for the USFS Wygant Trail. This section ends at a proposed culvert crossing over Mitchell Creek.

Rockfall mitigation, consisting of draped protection wire mesh is proposed for the Hackley Cut rock slope (STA 397+50 to 404+00) along this section of the trail which parallels I-84. To minimize the amount of vegetation impacted at Hackley Cut mid slope attenuators were selected instead of covering the entire slope with mesh.

Mitchell Creek to Mitchell Point Parking Lot/Trailhead (STA 419+00 to 438+71) – Segment E

The section starts at the proposed crossing of Mitchell Creek. In this area, Mitchell Creek was diverted into a new channel when I-84 was constructed. The new channel cut through the Historic Highway, leaving a 90 foot section of intact Historic Highway on the west side of the creek. The proposed Mitchell Creek crossing is a single span, 43 foot long, 18 foot wide bridge (see Attachment B sheet H.2 for additional details). The proposed bridge would not be located within the regulatory ordinary high water level. The historic crossing has washed out and is unidentifiable. A new section of trail would traverse the top of a cut slope created during the construction of I-84. Along this section of trail, the historic Mitchell Creek Channel is visible. The majority of this section of proposed trail is on the original Historic Highway alignment to the end of Segment E.

Figure 12: Visual Simulation of Mitchell Point Rock Face with Proposed Project Conditions as seen from I-84 eastbound

Improvements to Mitchell Point Parking Lot/Trailhead include:

- Reconfiguration of existing parking lot with 18 parking spaces
- Off-ramp paving
- Wayfinding signs
- Stone masonry railing
- Scenic overlook on the west side of Mitchell Point
- Replacement of the existing single vault restroom and with a double vault restroom

Mitchell Point Parking Lot/Trailhead to Mitchell Point Tunnel (STA 438+71 to 448+29) – Segment F

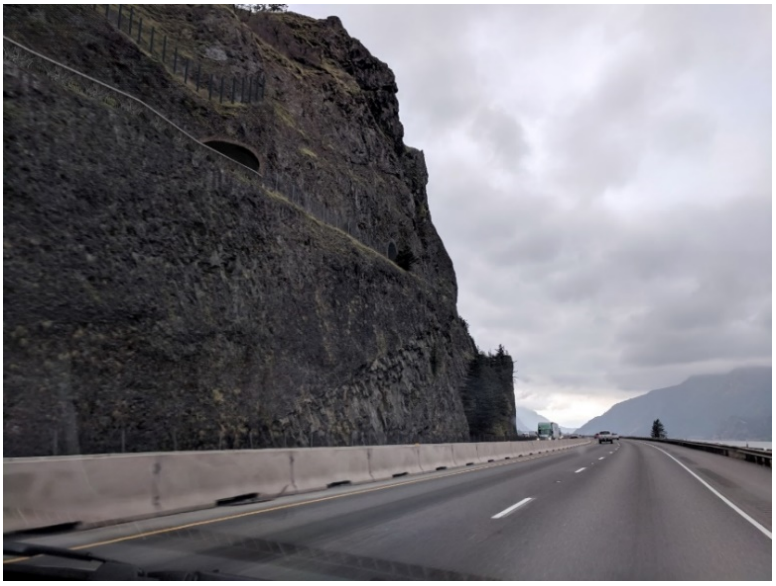

Figure 13: Visual Simulation of Mitchell Point Rock Face with Proposed Project Conditions as seen from I-84 westbound

The next portion of the trail follows an existing section of Historic Highway beginning near the existing Mitchell Point Parking Lot/Trailhead entrance at I-84 Exit 58, curving around the parking lot, and to the north face of Mitchell Point (Figure 13). This section of trail also provides access to the USFS Wygant Trail. The trail follows the original Historic Highway alignment above I-84 for approximately 300 feet before entering a new 660-foot tunnel that would be bored through Mitchell Point, a rocky outcropping. Hardscape enhancement to an existing viewpoint at the west side of the new western tunnel portal is proposed. The existing Historic Highway alignment would be preserved through this area and would be better defined by the redesigned parking area.

Mitchell Point Tunnel (STA 448+29 to 454+89) – Segment F

A proposed 660-foot tunnel would recreate the passage through Mitchell Point (Figure 14). The tunnel would feature adits (windows) carved through its side, at the location of the former viaduct, to allow views of the Columbia River and recall the original Mitchell Point Tunnel, "Tunnel of Many Vistas" that had five windows carved in its side. This section ends at the east portal of the tunnel.

Mitchell Point Tunnel to Mitchell Point Drive (STA 454+89 to 516+91) – Segment F

Upon exiting the tunnel at the east portal, the proposed trail alignment would continue east on the original Historic Highway alignment through a highly disturbed quarry site that ODOT used to build I-84 that destroyed the original Historic Highway pavement. The proposed trail continues east before crossing an unnamed, non-fish bearing perennial stream and joining an existing segment of Historic Highway (West Mitchell Point

Figure 14: Visual Simulation of Mitchell Point with Proposed Project Conditions as seen from the Columbia River

Drive). Segment F ends at the Michell Point Drive undercrossing of I-84 at approximately STA 516+91 (Figure 15).

Project Structures

Structures, as defined by Article 75 of the Hood River County Zoning Ordinance, proposed within Viento to Mitchell Point (Segment E) (Attachment B) include:

Figure 15: Looking Northeast at the East End of Segment F Mitchell Point Undercrossing of I-84

- Viento Creek Wall - Reinforced Soil Slope (Fill Slope)(Station 303+05)
- Maintenance Facility Wall – Reinforced Soil Slope (Fill Slope)(Station 307+85)
- Big Cut Wall – Stacked Rockery Wall (Cut Wall)(Station 309+87)
- Little Cut Wall – Stacked Rockery Wall (Cut Wall)(Station 310+16)
- Dome Rock Wall – Mechanically Stabilized Earth (Fill Wall)(Station 321+73)
- Ridge Cut Wall – Mechanically Stabilized Earth (Fill Wall)(Station 338+78)
- Perham Creek Bridge (Station 389+63)
- Mitchell Creek Bridge (Station 419+59)
- Rockfall mitigation wire mesh and gabion baskets
- I-84 concrete barrier and metal guardrails
- Wood and steel pedestrian railings
- Viento Trailhead parking lot
- New trail sections and drainage improvements
- Wayfinding signs
- Viento Park Restroom, Kiosk (OPRD Cluster Board), and hiker/biker shelters

Structures proposed within Mitchell Point (Segment F) (Attachment C) include:

- Reinforced Soil Slope
- Mitchell Point Trailhead parking lot
- Stone masonry walls and overlooks
- Mitchell Point Tunnel
- Entry roads and emergency vehicle turn-around loop
- New trail sections and drainage improvements
- Rockfall mitigation draped mesh and rock fall protection fencing
- Wayfinding signs
- Double vault restroom

The location of most of these structures is shown on in Attachment B, (Viento to Mitchell Point - Segment E) plans and Attachment C, (Mitchell Point - Segment F) plans. Elevation drawings showing proposed grading and structures are also provided in Attachments B and C.

SITE PLAN

[Please see Attachment A: Site Plan and Area of Potential Impact (API) Exhibit]

KEY VIEWING AREAS

The proposed Project (within the Special Management Area) would potentially be visible from the following key viewing areas (KVAs):

1. Interstate 84 (Oregon)
2. Columbia River (Oregon and Washington)
3. State Route 14 (Washington)
4. Cook-Underwood Road (Washington)
5. Dog Mountain Trail (Washington)
6. Historic Columbia River Highway (Oregon)

Please see Attachment E, Visual Impact Assessment, for a detailed analysis of the proposed HCRH State Trail Segments E and F project impacts on scenic resources as seen from each of the above listed applicable KVAs.

APPLICATION CHECKLIST

Unless otherwise indicated, the following information is required as part of all National Scenic Area applications:

- ✓ Completed Application Form
- ✓ Scaled Site Plan
- ✓ Scaled Elevation Drawings
- ✓ Key Viewing Area Checklist
- ✓ Applicant/Property Owner Signatures
- ✓ Filing Fee
- ✓ Staked and Flagged Project Areas
- ✓ Grading Plan (*if required*)
- ✓ Landscape Details (*if new landscaping proposed, especially for screening purposes*)
- ✓ Additional Information, as deemed necessary by the County Planning Department

Only applications with the above required information can be accepted. Pursuant to Article 75, Section 100 of the Hood River County Zoning Ordinance, this department has 14 days to review the application for completeness and notify the applicant of any deficiencies.

SIGNATURES

Signature of the property owner(s) indicates that the property owner(s) is/are aware that an application is being made on the subject property. Signature of the property owner(s) also authorizes County planning staff reasonable access to the site in order to evaluate the application.

By signing below, I acknowledge that the information provided in this application is accurate to the best of my knowledge.

Applicant(s) Signature Date:

Date:

Property Owner(s)
Signature (if different from applicant): Date:

Date:

Date:

HOOD RIVER COUNTY ZONING ORDINANCE REVIEW STANDARDS

The proposed Historic Columbia River Highway State Trail Segment E (Viento to Mitchell Point) and Historic Columbia River Highway State Trail Segment F (Mitchell Point) projects (the Project) has been designed to comply with Article 75 (National Scenic Area) of the Hood River County Zoning Ordinance (HRCZO). As shown in Figure 15, the proposed Project occurs in the following zones within the General Management Area (GMA) and Special Management Area (SMA) of the Columbia River Gorge National Scenic Area (NSA):

- Public Recreation (SMA- Public Recreation),
- Open Space (SMA- Open Space),
- Forest (SMA- Forest).

The proposed Project may be allowed as a review use in each of these respective zones. Table 1 lists the proposed Project uses that are allowable in each of the zones as well as the corresponding applicable review standards that are addressed in this application.

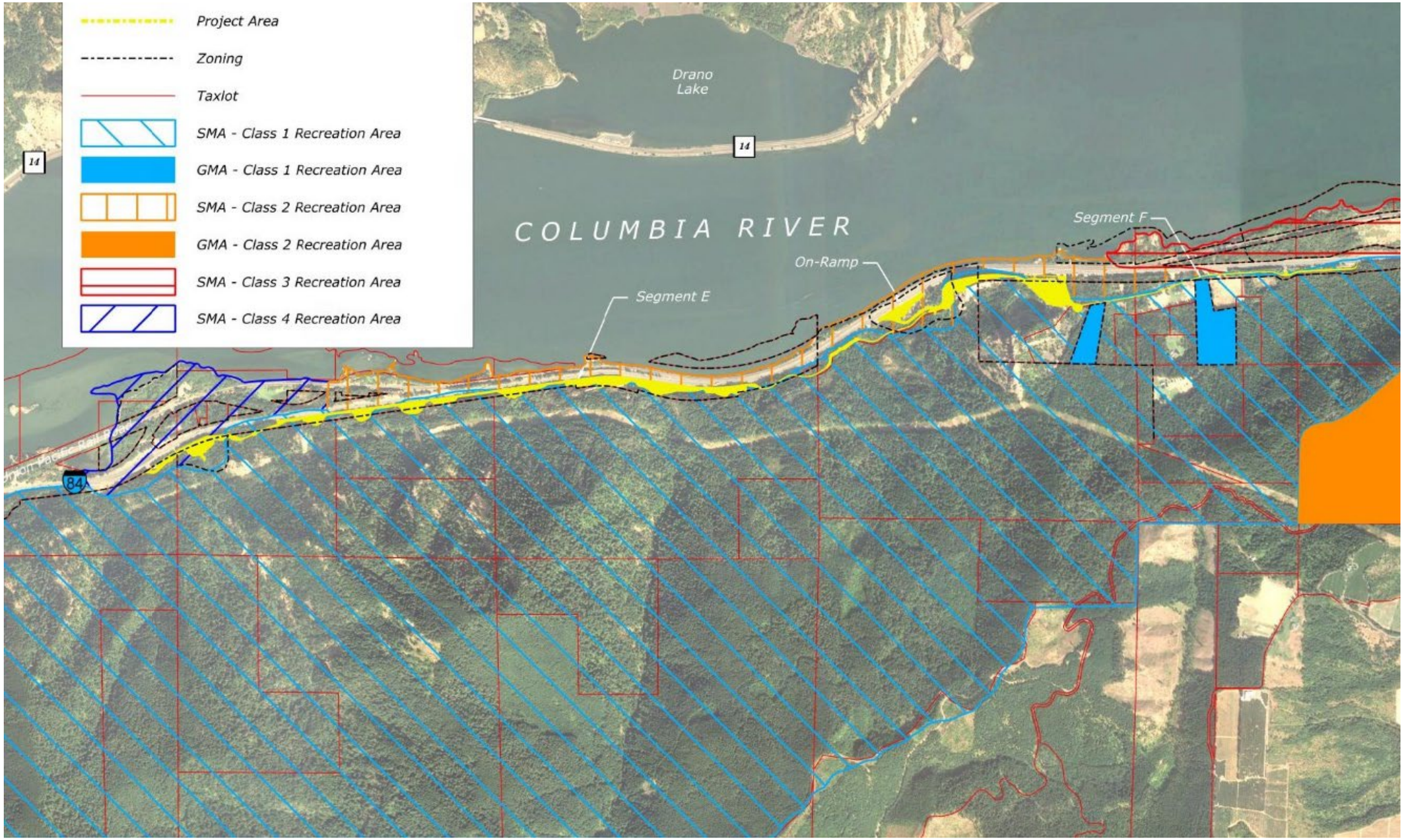

Figure 16: NSA Recreation Class Designations

Table 1: HRCZO Review Criteria

Zone & GMA/SMA	Proposed Use	Review Standards
SMA Public Recreation (S-PR)	Section 160 Signs Section 490(5)(b) Public trails Section 490(5)(c) Public recreation facilities Section 490(5)(i) Resource enhancement projects	Section 152(H) General guidelines for resource enhancement projects Section 160(2) Signs in the SMA Section 530 SMA scenic review criteria Section 550 SMA cultural resource review criteria Section 600 SMA natural resource review criteria Section 620 SMA recreation resource review criteria
SMA Open Space (S-OS)	Section 160 Signs Section 340(3)(b) Resource enhancement projects Section 340(3)(d) Low intensity recreation uses	Section 152(H) General guidelines for resource enhancement projects Section 160(2) Signs in the SMA Section 530 SMA scenic review criteria Section 550 SMA cultural resource review criteria Section 600 SMA natural resource review criteria Section 620 SMA recreation resource review criteria
SMA Forest (S-F)	Section 270(2)(h) Resource enhancement projects Section 270 (2)(j) Public recreation developments	Section 152(H) General guidelines for resource enhancement projects Section 160(2) Signs in the SMA Section 530 SMA scenic review criteria Section 550 SMA cultural resource review criteria Section 600 SMA natural resource review criteria Section 620 SMA recreation resource review criteria

The following responses to the applicable review standards of Article 75 of the HRCZO demonstrate how the proposed Project meets applicable critieria (review standards are in italics). Where possible and when policies are similar, responses have been consolidated.

152. Uses and Structures Allowed in Various Land Use Designations

H. Resource Enhancement Projects

(1) Applications for resource enhancement projects must describe the goals and benefits of the proposed enhancement project. They must also thoroughly document the condition of the resource before and after the proposed enhancement project.

Applicant Findings: The goal of the proposed Project is to enhance a recreational resource, the Historic Columbia River Highway (HCRH) State Trail. As of August 2019, the HCRH State Trail will consist of 16.3 miles of paved pedestrian/bicycle trail that connects previously abandoned portions of the Historic Highway. The proposed Historic Columbia River Highway State Trail Viento to Mitchell Point Crossing (Segment E) and Historic Columbia River Highway State Trail Mitchell Point Crossing (Segment F) projects (the Project) would connect additional portions of the Historic Highway by extending the continuous paved pedestrian/bicycle trail approximately 4 miles to the east of its current terminus at Viento State Park. The Project is intended to achieve the SMA Goal 4 in the Recreation Development Plan of the *Management Plan for the Columbia River Gorge National Scenic Area (2016)*, to "Provide for the restoration and connection of the remaining segments of the Historic Columbia River Highway in keeping with its National Register status." The Project will also restore the famed five-window Mitchell Point Tunnel once again that was destroyed during the construction of I-84.

In their current condition, the abandoned sections of the Historic Highway that would be included in the Project are not publically accessible or safe for recreational use. By extending the HCRH State Trail as proposed, recreationalists would have expanded opportunities to enjoy the scenery of the Columbia River Gorge and learn about the history of the Historic Columbia River Highway. The Project would enhance the existing parking lots at Viento Creek Trailhead and Mitchell Point Trailhead for better vehicular, bike, and pedestrian circulation. The Project would also provide improvements to the recreational opportunities at the OPRD Viento South State Park Campground by improving the existing campground and constructing a new restroom, new hiker/biker section of the campground with eight new sites exclusively for non-motorized use, and a remodeled maintenance facility. The Project would also replace the existing restroom at the Mitchell Point Trailhead with a new double vault toilet restroom. This section of trail improvements also includes reconstructing the historic Mitchell Point Tunnel restoring some of the most spectacular views in the Columbia River Gorge and enhancing the recreational experience by extending the State. Proposed conditions for the trail extension are detailed in the Project Description beginning on page 2 of this application.

The Project team has thoroughly documented the condition of the existing scenic, natural, cultural, and recreational resources. The scenic resources have been documented in the Visual Impact Assessment Report with before and after renderings (Attachment E) and with extensive on site and aerial photographs (available upon request). Natural resources have been documented in the Wetland and Waters Delineation Report (Attachment G) and the Biological Research and Impact Assessment Report (Attachment H). The existing cultural resources have been documented in the Cultural Resources Report (Attachment F) and the Archeological Report (Attachment K). The existing abandoned sections of the Historic Highway were surveyed and shown in the Project plans (Attachment B sheets D.4 thru D.14). The existing recreational facilities (Viento State Park Campground and Mitchell Point Trailhead) have completed topographical surveys for the existing features that are included in the Project site

plans (Attachments B and C). Once the Project is complete, as-constructed drawings will be developed to document the finished Project.

The Project has been developed to protect and provides for the enhancement of the scenic, natural, cultural, and recreational resources of the Columbia River Gorge.

(2) *In addition to other guidelines that protect scenic, cultural, recreation, and natural resources, quarry enhancement projects shall comply with the following guidelines:*

(a) Application Requirements. In addition to other applicable requirements, land use applications for quarry enhancement projects shall include perspective drawings of the site as seen from key viewing areas as specified in Section 520(2)(o) and a reclamation plan that provides all the applicable information specified in Section 520(1)(f)(A) through (E), except: (1) the words "pre-reclamation" and "post-reclamation" should replace the words "pre-mining" and "post-mining," respectively, and (2) the appropriate state agency or local government does not have to approve the reclamation plan.

(b) Scenic Resource Standard. Quarry enhancement projects shall restore the site to a natural appearance that blends with and emulates surrounding landforms to the maximum extent practicable.

(c) Natural Resource Standard. Sites shall be replanted using native plants found in the landscape setting or ecoregion to the maximum extent practicable.

(d) Time Frames. The following time frames shall apply to quarry enhancement projects:

(A) All grading (e.g., excavating, filling and re-contouring) shall be completed within one (1) year of the date an applicant begins on-the-ground work.

(B) All landscaping shall be planted within one (1) year of the date an applicant completes the grading.

(C) An applicant may request one one-year extension to the one year grading time frame if a project is unexpectedly delayed by adverse weather or emergency/disaster. Such requests shall be considered an administrative action. An applicant shall submit such a request to the reviewing agency after grading has commenced and before the one year grading time frame has expired.

(D) An applicant may also request one six-month extension to the one (1) year landscaping time frame if a project is unexpectedly delayed by adverse weather or emergency/disaster. Such requests shall be considered an administrative action. An applicant shall submit such a request to the reviewing agency after landscaping has commenced and before the one-year landscaping time frame has expired.

Applicant Findings: The purpose of the proposed Project is not to enhance a quarry, but the trail does cross thru an abandoned quarry (station ~459 to 467). The Project is proposing to mitigate impacts to Oak Woodlands by the creation of a 5.06 acre Oak Woodland in the abandoned quarry (Mitchell Point East Quarry Mitigation

Site). The site would be planted with native evergreen and deciduous trees, shrubs, groundcovers, grasses, and forbes (see Attachment B sheets L.14 and L.18 and the Mitigation Report Attachment I for additional details).

160. Signs

(1) Signs may be allowed in all land use designations in the General Management Area pursuant to the following provisions:

Applicant Findings: Not applicable. No signs are proposed in the GMA.

(2) Signs in the Special Management Area shall be allowed pursuant to the following provisions:

(a) Prohibited Signs

(A) Advertising billboards.

(B) Signs that move or give the appearance of moving, except signs used for highway construction, warning or safety.

(C) Portable or wheeled signs, or signs on parked vehicles where the sign is the primary use of the vehicle, except for signs used for highway construction, warning or safety.

Applicant Findings: No luminous signs, billboards, signs with moving elements, or portable signs are proposed in the GMA.

(b) Pre-existing signs are allowed to continue provided no changes occur in size, structure, color, or message.

Applicant Findings: Existing signs on I-84, Mitchell Point Drive, and at the entrances to the Viento State Park South Campground and Mitchell Point Parking Lot/Trailhead would be unchanged and protected in place.

(c) New signs shall be allowed as specified in the applicable land use designation.

(d) No sign shall be erected or placed in such a manner that it may interfere with, be confused with, or obstruct the view of any traffic sign, signal, or device.

Applicant Findings: Some new naming, informational, and traffic control signs are proposed. New signage would be compatible with the applicable land use designation would not obstruct the view of any traffic sign, signal, or device.

The following new signs are proposed:

- One new trail information sign is proposed at both the Viento Trailhead and Mitchell Point Trailhead. The proposed sign is a Sign Type C: Trail Information Sign from the *Historic Columbia River Highway Wayfinding Plan* (Figure 16). The sign would be located at the trailheads, which is on OPRD property, zoned SMA Public Recreation (S-PR). New signage would not obstruct the view of any traffic sign, signal, or device. Please see Attachment B, Sheet E.3 "Fixture OPRD Cluster board" and Attachment C, Sheet M.3, for sign locations.

- A new monument-style sign designating the Mitchell Point Trailhead at the Mitchell Point Parking Lot/Trailhead. Please see Figure 17 for sign design and Sheet M.3 in Attachment C for sign location). The sign would be located at the trailhead, which is on OPRD property, zoned SMA Public Recreation (S-PR). The proposed sign is a Sign Type A.1 trail identification sign from the Historic Columbia River Highway State Trail Wayfinding Signage Plan (Attachment D).
- Two new signs to direct hikers to the USFS Wygant Viewpoint Trail will be installed on the HCRH State Trail in Segment E and F. The signs will be Sign Type B directional signs from the Historic Columbia River Highway State Trail Wayfinding Signage Plan (Attachment D).
- New signs to direct vehicular, bike, and pedestrian traffic within the Mitchell Point Parking Lot (see Sheet M.3 of Attachment C). The signs would be located at the trailhead, which is on OPRD property, zoned SMA Public Recreation (S-PR).
- New "no parking" signs at the emergency vehicle turn-around east of Mitchell Point and signs directing vehicular and bike traffic (see Sheet M.4 of Attachment C). The signs would be located on USFS property, zoned SMA Forest (S-F).
- Two new signs are proposed at the I-84 on-ramp from Mitchell Point Drive: one sign would read: "trail ends" and the second would direct bike traffic: "eastbound cyclists use I-84 shoulder" (See Sheet M.5 in Attachment C). The proposed signs would be located within ODOT right-of-way adjacent to areas designated SMA Forest (S-F).

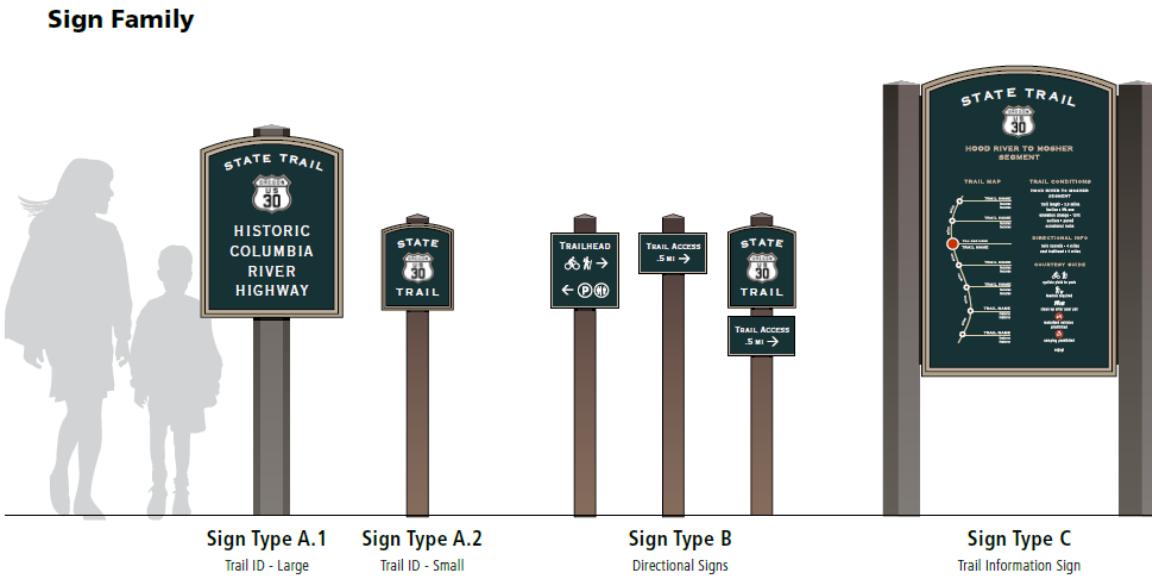

Figure 17: Excerpt from the Historic Columbia River Highway Wayfinding Plan

(e) All new signs, except for signs allowed without review by Section 070, shall meet the following guidelines, and be consistent with the Manual for Uniform Traffic Control Devices:

Figure 18: Concept of Mitchell Point Trailhead Monument-Style Naming Sign

(A) Signs shall be maintained in a neat, clean and attractive condition.

(B) The character and composition of sign materials shall be harmonious with the landscape and/or related to and compatible with the main structure upon which the sign is attached.

(C) Signs shall be placed flat on the outside walls of buildings, not on roofs or marquees.

(D) Signs shall be unobtrusive and have low contrast with the setting.

(E) The visual impact of the support structure shall be minimized.

(F) Outdoor sign lighting shall be used for purposes of illumination only, and shall not be designed for, or used as, an advertising display, except for road safety signs.

(G) Backs of all signs shall be visually unobtrusive, non-reflective, and blend in with the setting.

(H) Sign internal illumination or back-lighting shall not be permitted except for highway construction, warning or safety.

Applicant Findings: OPRD would maintain all trail information signs so that they remain in good condition. All sign backs would be designed to be unobtrusive and have low contrast with the surrounding natural setting. Visual impacts from the signs would be minimal. Signs would be visible to trail users only while visiting the trailheads or passing by the emergency vehicle turn-around, respectively. The signs would not be visible from any offsite KVAs. The proposed signs would not be illuminated. The backs of signs would be non-reflective.

(f) Public signs shall meet the following guidelines in addition to subsections (b) through (e) above:

(A) *The Graphic Signing System provides design guidelines for public signs in and adjacent to public road rights-of-way. All new and replacement public signs, except those transportation regulatory, guide, and warning signs allowed outright shall conform to the guidelines in this system. Types of signs addressed include recreation site entry, specific service signs, destination and distance signs, variable message signs, or signs that bridge or are cantilevered over the road surface.*

(B) Signs located outside public road rights-of-way are encouraged to be designed in such a way as to be consistent with similar purpose signs described in the Graphic Signing System.

(C) Signs posted by governmental jurisdictions giving notice to the public shall be no larger than that required to convey the intended message.

Applicant Findings: The proposed signs would be located on the proposed HCRH State Trail route for the purposes of conveying information to the public while using the HCRH State Trail. All of the proposed signs are public signs. Most of the proposed signs are intended to direct vehicular, bike, and pedestrian traffic to promote traffic flow and safety throughout the state trail corridor. Signs that direct traffic to and from I-84 will be design to the Manual on Uniform Traffic Control Devices (2009). A Type A.1, Trailhead ID Sign and a Type C, Trail Information Sign is proposed at both the Viento Trailhead and the Mitchell Point Trailhead. The signs would be designed to be consistent with the *Historic Columbia River Highway Wayfinding Plan* and would thus be consistent with approved and completed sections of the HCRH State Trail. Other Trail ID and Trail Directional Signs will be added during the final design phases of the Project and would be designed in accordance with the *Historic Columbia River Highway Wayfinding Plan.* Please see Sheet E.3 of Attachment B, and Sheets M.2 through M.6 of Attachment C for sign locations.

(g) Signs for public recreation facilities, home occupations, cottage industries, and commercial uses shall meet the following guidelines in addition to subsections (a) through (e):

(A) Any sign advertising or relating to a business which is discontinued for a period of 30 consecutive days shall be presumed to be abandoned and shall be removed within 30 days thereafter, unless permitted otherwise by the jurisdictional authority.

(B) Any signs relating to, or advertising, a business shall be brought into conformance with these sign guidelines prior to any expansion or change in use which is subject to review.

(C) Off-site and on-site directional signs on approach roads to recreational facilities may be permitted. Name and interpretive signs may be permitted on-site, but should be kept to the minimum required to achieve the purpose(s) of the facilities.

(D) Commercial recreation businesses approved in conjunction with a recreational facility may have a name sign not exceeding 16 square feet.

(E) Recreation developments may have one on-premise name sign at each principal entrance. Such signs are encouraged to be of a low profile, monument type, and shall conform to the Graphic Signing System.

Applicant Findings: No signs relating to any business are proposed. New name signs, the Viento South State Park Campground trail information sign and the Mitchell Point Trailhead sign, are proposed onsite at the trailheads respectively. The proposed Mitchell Point Trailhead sign would be a monument-type that is consistent with the Graphic Signing System. The proposed Viento Trailhead sign would be designed for consistency with Sign Type C, as shown on Page 5 of the *Historic Columbia River Highway Wayfinding Signage Plan*, (Attachment D). The proposed sign design is consistent with the wayfinding plan's "Sign Family". Please see Sheet E.3 of Attachment B, and Sheets M.2 through M.6 of Attachment C for proposed sign locations.

(h) Sign clutter and other negative visual effects from excessive signs along all roads and highways, and at parking lots and recreation facilities, shall be reduced.

Applicant Findings: Proposed signs for the Project is proposed to be kept to a minimum to avoid sign clutter, among other reasons. Please see Sheet E.3 of Attachment B, and Sheets M.2 through M.6 of Attachment C for proposed sign locations.

340 Review Uses

(4) In the Special Management Areas, an Open Space plan shall be completed by the primary managing agency or landowner prior to any new land uses or development, and shall be reviewed and approved by the Forest Service. The Open Space plan shall include the following:

(a) Direction for resource protection, enhancement, and management.

(b) Review of existing uses to determine compatibility with Open Space values.

(c) Consultation with members of the public and with agency and resource specialists.

Applicant Findings: An Open Space Plan was completed by the USFS for the Special Management Areas of the Columbia Tributaries East watershed. This plan is titled, *Columbia Tributaries East Watershed Analysis, Hood River Ranger District, Mt. Hood National Forest, and the Columbia River Gorge National Scenic Area*. This Open Space Plan analyzes recreation developments proposed within the SMA and recommends that the proposed development No. 36 "Historic Columbia River Highway (HCRH)" remain in the Recreation Development Plan (Figure 18). The proposed Project is therefore an allowed use in the SMA-Open Space zone pursuant to Section 340(3). A copy of the Open Space Plan is available upon request.

530. Special Management Area Scenic Review Criteria

(1) SMA Design Guidelines Based on Landscape Settings

(a) The following guidelines apply to all lands within SMA landscape settings regardless of visibility from KVAs (includes areas seen from KVAs as well as areas not seen from KVAs):

(A) Pastoral: Pastoral areas shall retain the overall appearance of an agricultural landscape.

(i) The use of plant species common to the landscape setting shall be encouraged. The use of plant species in rows, as commonly found in the landscape setting, is encouraged.

Applicant Findings: The proposed Project improvements within the pastoral landscape setting are in the eastern portion of Mitchell Point Crossing (Segment F) along Mitchell Point Drive which is an existing road and original alignment of the Historic Highway. No temporary construction impacts would occur within the pastoral landscape setting since the trail users would use the shoulder of the existing road. No new landscaping is proposed within the Pastoral landscape setting.

(B) Coniferous Woodland and Oak-Pine Woodland: Woodland areas shall retain the overall appearance of a woodland landscape. New developments and land uses shall retain the overall visual character of

the natural appearance of the Coniferous Woodland and Oak-Pine Woodland landscape.

Applicant Findings: Approximately 80 percent of the proposed Project is within the Coniferous Woodland landscape setting: from the beginning of the Project at Viento State Park Campground east to Mitchell Point, and again immediately east of Mitchell Point. Through these areas, the trail has been designed to retain the overall appearance of a woodland landscape. Minimizing grading and vegetative disturbance and routing the trail around areas containing especially large trees helps to preserve the woodland character of the areas where the proposed Project would be located. The narrow width of the trail (12 feet or less with 2-foot shoulder on each side) would require that relatively little adjacent vegetation be removed for the proposed Project.

In addition, native vegetation appropriate for a Coniferous Woodland landscape is proposed to provide screening as required. Landscaping plans are included in both Attachments B and C. FHWA would contract with a USFS Restoration Team to replant all disturbed areas, including those occurring outside of USFS managed lands.

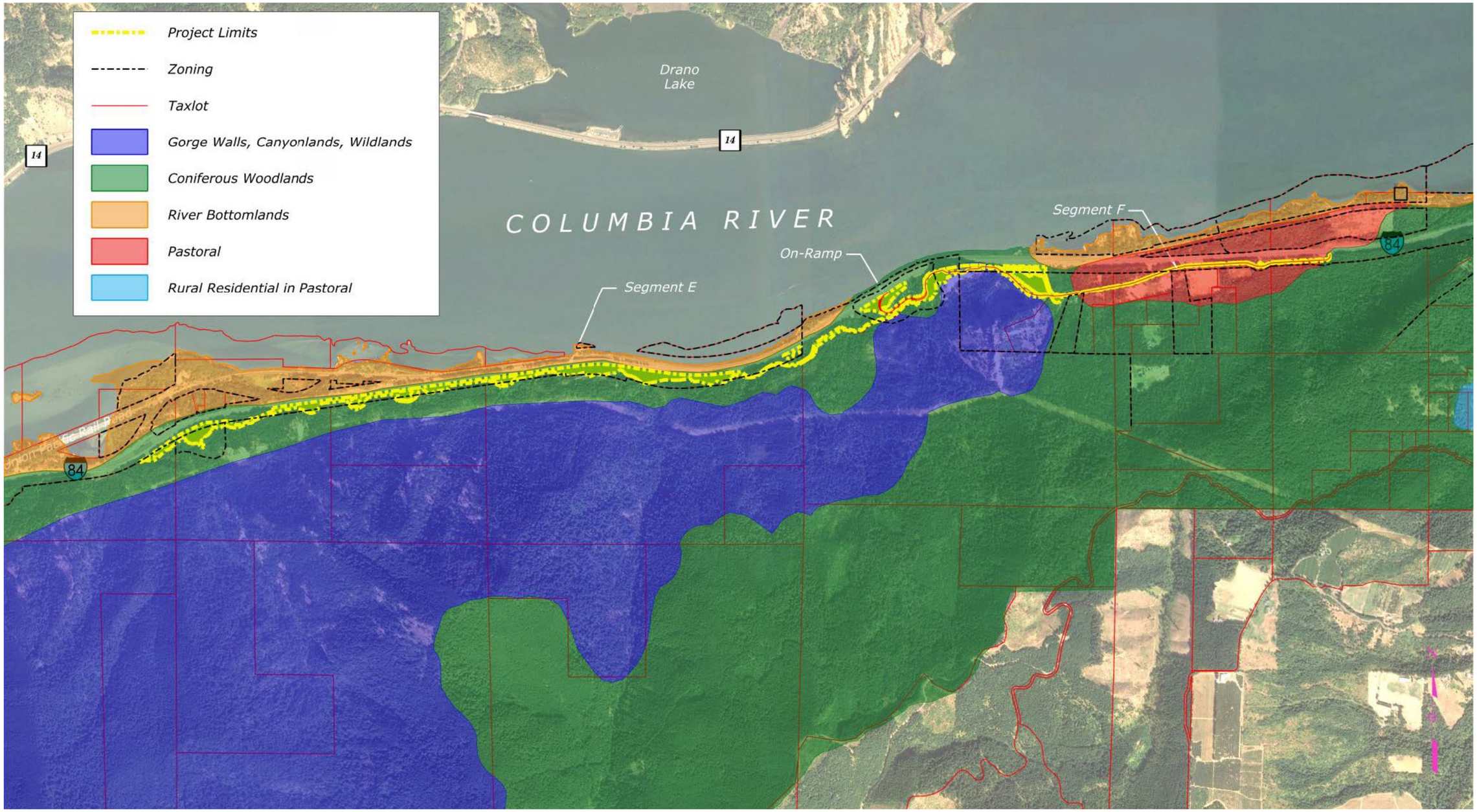

Figure 19: Trail Segments E & F NSA Landscape Settings

The most visible Project components from I-84 would be new trail sections with walls located directly adjacent to I-84 (Station 321+72 to 324+91 and at Station 338+78 to 343+50). Although both are located along the edge of an area classified as Coniferous Woodland, they would be constructed along the I-84 corridor in areas that are directly adjacent to, but outside of, forested areas. Construction of the new trail sections is, in many instances, within or immediately adjacent to the existing roadway prism of I-84. Therefore, construction of these sections would require minimal removal of trees and other native forest vegetation, relative to other alternative alignments further away and in less direct view of the I-84 KVA. The proposed Project would have little to no impact on the overall character of areas designated as Coniferous Woodland.

(i) Buildings shall be encouraged to have a vertical overall appearance in the Coniferous Woodland landscape setting and a horizontal overall appearance in the Oak-Pine Woodland landscape setting.

Applicant Findings: Four proposed buildings (as defined in HRCZO Section 75.040(22)) are proposed at the South Viento State Park Campground that include replacing an existing restroom with a new restroom facility, remodeling the existing OPRD maintenance facility with a 25 foot by 25 foot expansion on the west side, three-sided shelters at three of the eight proposed hiker/biker gravel camping pads, and a kiosk near the entrance of the campground. All of the proposed buildings are located within the Coniferous Woodland landscape setting. Information for the buildings is located in Attachment B sheets E.8 through E.13. The drawings of the restroom feature a triangular gabled roof, an architectural treatment that provides a more vertical appearance than flat or rounded roof would. The proposed maintenance facility remodel, kiosk, and hiker/biker shelters have a slanted roof, which similarly provides a more vertical appearance. The buildings would be designed in accordance with applicable HRZO requirements. The maintenance facility would retain its existing general appearance. The buildings would be dark earth-tone in color.

One building is proposed at the Mitchell Point Trailhead. The existing single vault restroom would be preplaced with a double vault toilet. The restroom would be designed in accordance with applicable HRZO requirements. The restroom would match the new restroom recently constructed at the Historic Columbia River Highway State Trail Wyeth Trailhead (see Attachment C Sheet D.15).

(ii) Use of plant species native to the landscape setting shall be encouraged. Where non-native plants are used, they shall have native-appearing characteristics.

Applicant Findings: The proposed Project would plant native plants in all areas temporarily disturbed by construction activities, as well as all mitigation areas identified for planting. Landscape plans, including a listing of potential plant species, are provided for Segment E in Attachment B (Sheets L.1 through L.19) and for Segment F in Attachment C (Sheets H.1 through H.14).

(C) *River Bottomlands: River Bottomlands shall retain the overall visual character of a floodplain and associated islands.*

(i) Buildings shall have an overall horizontal appearance in areas with little tree cover.

(ii) Use of plant species native to the landscape setting shall be encouraged. Where non-native plants are used, they shall have native-appearing characteristics.

Applicant Findings: Not applicable. The proposed Project is located within the Coniferous Woodland; Gorge Walls, Canyonlands, and Wildlands; and Pastoral landscape settings only.

(D) *Gorge Walls, Canyonlands, and Wildlands: New developments and land uses shall retain the overall visual character of the natural-appearing landscape.*

(i) Structures, including signs, shall have a rustic appearance, use non-reflective materials, have low contrast with the surrounding landscape, and be of a Cascadian architectural style.

(ii) Temporary roads shall be promptly closed and revegetated.

(iii) New utilities shall be below ground surface, where feasible.

(iv) Use of plant species non-native to the Columbia River Gorge shall not be allowed.

Applicant Findings: The proposed Mitchell Point Crossing (Segment F) project is located within the Gorge Walls, Canyonlands, and Wildlands landscape setting. Structures within this landscape setting include the Mitchell Point Tunnel, new trail section along the existing Historic Highway Mitchell Point shelf, masonry wall on the north side of the trail along the Mitchell Point section of the trail, replacing the existing single vault restroom with a double vault restroom, and rockfall mitigation. The Visual Impact Assessment (Attachment E) states that the most potentially visual elements of the trail improvements through this section would be the rockfall mitigation (permanent and temporary during construction), masonry walls, and tunnel portals as seen by motorists on I-84. Rockfall fencing and support posts would be a non-reflective, dark, earth-tone color that would best blend in with the adjacent material and colors of the rock face. The tunnel portals would use a combination of colors and texture treatments that blend in with the adjacent Mitchell Point rock face while still being compatible with the nearby trail masonry retaining wall. The Visual Impact Assessment concludes that due to the elevation, building materials, and speed at which motorists travel along I-84 through the Project area, the proposed improvements are anticipated to meet the standard of not visually evident.

All plantings proposed in the Mitchell Point (Segment F) portion of the proposed Project would be species native to the Columbia River Gorge (see Attachment C, Sheets H.1 through H.14).

(2) SMA Guidelines for Development and Uses Visible from KVAs

(a) The guidelines in this Section shall apply to proposed developments on sites topographically visible from key viewing areas.

Applicant Findings: Parts of the proposed Project are topographically visible from some sections of the following KVAS: I-84 (Oregon), Columbia River (Oregon and Washington),

SR 14 (Washington), Dog Mountain Trail Summit (Washington), and Cook-Underwood Road (Washington) and Historic Highway.

(b) New developments and land uses shall be evaluated for adverse effects, including cumulative effects, to ensure that the required scenic standard is met and that scenic resources are not adversely affected, based on the degree of visibility from key viewing areas. Adverse effects shall be prohibited.

Applicant Findings: The applicant has considered potential adverse effects on the Gorge's scenic resources, both those effects that would be a direct result of the proposed Project and cumulative effects resulting from the Project combined with past, present, and future projects within the general vicinity of the Project area. These potential effects on scenic resources are analyzed in two supporting reports included with this NSA permit application:

1. *Visual Impact Assessment for the Historic Columbia River Highway State Trail—Segments E and F: Viento State Park to Mitchell Point Crossing; Segments G and H: Mitchell Drive to Ruthton County Park,* prepared by David Evans and Associates, Inc. (Attachment E), which analyzes project-level visual impacts for Segments E and F
2. *Historic Columbia River Highway State Trail—Viento State Park to Mitchell Point (Segments E and F) Cumulative Effects Memorandum*, prepared by David Evans and Associates, Inc. (Attachment J), which includes an analysis of cumulative visual (and other) effects for Segments E and F.

Project-Level Scenic Effects:

A visual impact assessment of the proposed Project was prepared for the project (Attachment E). The report also considers the visual impacts of future sections of the trail between Mitchell Point and Ruthton Park (Segments G and H), providing a visual assessment of potential completion of the trail from Viento State Park to Ruthton Park in Hood River. The visual impact assessment report evaluates the visibility of the proposed Project from KVAs. The report concludes that the most visible components of the Project, such as the new trail sections located adjacent to I-84 and the Mitchell Point Tunnel, would not be visually evident to the casual visitor traveling on four of the five applicable KVAs (i.e. the Columbia River, Washington State Route 14, and Dog Mountain Trail). This is due to the following:

- The relatively small size of the Project components compared to the large scale of the Gorge landscape;
- The components' low elevation relative to the other visible larger-scale Gorge features that are seen from these KVAs;
- Viewing distance and topography;
- Screening by riverside vegetation;

From I-84, portions of the trail within the roadway prism would be visible but are designed to comply with the *I-84 Corridor Strategy* standards (the adopted scenic highway standards pursuant to Section 530(3)(b)). As such, these portions of the trail are designed to blend in with existing roadway structures and not contrast with the surrounding setting. All elements of the trail will be dark earth tone in color and the Project will maintain the existing landscape character. This is described in more detail below in response to Section 530(2)(d).

Cumulative Scenic Effects

The applicant prepared a Cumulative Effects Memorandum for the Project using a National Environmental Policy Act (NEPA) approach to consideration of the Project's cumulative effects. The Cumulative Effects Memorandum considers the Project's effects in relation to past, present, and reasonably foreseeable future actions. This section

includes brief descriptions of those actions identified. Please see the Cumulative Effects Memorandum (Attachment J) for additional details.

Past Actions

Past actions in the proposed Project area include railroad construction, construction of the Historic Highway, and later construction of Interstate 84 (I-84). These facilities introduced linear, human-made visual impacts to the natural landscape, which prior to the development was mainly steep, rocky bluffs and floodplain with dense vegetation, corresponding to the present Landscape Settings designations recognized by the Management Plan. With the addition of transportation facilities in the Gorge, residential and commercial development (e.g. motor inns, service stations) began to occur adjacent to both the Historic Highway and I-84. None of these facilities were intentionally screened from any viewpoint because they predate the National Scenic Area, and so all activities were visually evident from KVAs. Over time, the Gorge has been logged, burned in wildfires, and been developed. More recently, however, as conservation groups and the USFS and Oregon Parks have acquired land the National Scenic Area has slowly moved toward more natural settings as buildings and pavement have been removed and new development is regulated under the NSA designation.

Present Actions

Present actions in the proposed Project area include the recent construction of the HCRH State Trail Segments between Wyeth Campground and Starvation Creek State Park (Segments A-D), portions of which are visible from I-84. This proposed Project is anticipated to be completed by late summer 2019. In addition, recovery work continues from the damage caused by the 2017 Eagle Creek fire. Specifically, hazardous tree removal staging and laydown areas can currently be seen from I-84 near Ainsworth State Park. The visual effects from the Eagle Creek fire itself are also visible from I-84, Hwy 30 and the Columbia River: large stands of burned and defoliated but standing trees can be seen on the canyon slopes and silhouetted along the ridgetops between Angel's Rest and Summit Creek.

Foreseeable future actions in the vicinity of the proposed Project identified for this analysis are summarized in Table 1. Potential future actions were included in Table 1 if they would be located along the I-84 corridor and could, when taken in combination with the proposed Project, pose cumulative effects on the resources of the NSA. Of those future actions, the following would be in close proximity or have the potential to affect the existing character of the Landscape Setting of the proposed Project; they are each discussed in more detail below:

- HCRH State Trail, (Mitchell Point Drive to Ruthton County Park)(Segments G and H)
- On-going recovery work by ODOT and USFS in response to Eagle Creek Fire
- Viento State Park River Access Day-Use Area improvements
- Re-build of an existing BPA 115kV transmission line between Bonneville and Hood River

HCRH State Trail - Mitchell Point Drive to Ruthton Park (Segments G and H)

This WFLHD-led project is currently in the planning stage and would continue the re-establishment of the HCRH State Trail from Mitchell Point Drive to Ruthton Park in Hood River. Currently, the project would begin at Mitchell Drive (south of I-84) with re-grading up to an existing undercrossing passing underneath the interstate. This undercrossing would be fully reconstructed to accommodate the trail and vehicles. Via the new

undercrossing, the proposed new trail would be constructed north of I-84 to Ruthton Point, where an existing viaduct segment of the original Historic Highway still exists along a dramatic cliff-side overlooking the Columbia River. The proposed Project would tie into this exiting segment and restore the trail itself in addition to historic features, including railings, viaduct structures and overlook 'stop and pause' points. East of Ruthton Point, the trail would continue adjacent to I-84 on the north side, extending the roadway prism. The trail would be constructed on fill walls adjacent to I-84. The proposed section of trail would terminate at Ruthton Park in Hood River. At the park, new trailhead facilities are proposed to support users of the HCRH State Trail: a small parking area, trailhead, plaza with signage, and new ADA accessible trails are proposed.

Eagle Creek Fire and Response Activities

The human-caused Eagle Creek wildfire ignited September 2, 2017. It eventually burned nearly 50,000 acres before being declared fully contained on November 30, 2017. Twenty miles of I-84 and the Columbia River itself were closed for periods of time between Troutdale and Hood River. The Historic Highway was closed, but also six miles of the HCRH State Trail from John B. Yeon to Cascade Locks was closed for over a year (September 4, 2017 to September 28, 2018). As the fire burned, flames could be seen from points throughout the Gorge and brown, smoky air filled the area.

Recovery efforts by USFS, ODOT and others is ongoing and includes hazardous tree removal, rock and landslide debris removal and mitigation, trail restoration and some full facility reconstruction. The intensity of the wildfire ranged widely from minor to intense within the total perimeter, meaning that in some areas minimal damage is present while other areas fully burned. At the time this memorandum was prepared, burned forest areas, primarily located away from the highway up on the canyon slopes and ridgelines, could be seen from I-84 and the Columbia River: blackened and defoliated trees still standing in groves with little understory foliage.

Viento State Park River Access Day-Use Area Improvements

This OPRD maintenance project is identified in the OPRD *Columbia River Gorge Management Units Plan* (2015) and is currently in a preliminary scoping stage. The project is located on the north side of the Union Pacific Rail Road tracks, directly north of the Viento Campground. At the existing Viento Day-Use Area, an existing gravel parking area is proposed to be paved; a new ADA accessible picnicking area would be added adjacent to an existing plaza area; and an existing kiosk sign would be replaced. Minimal expansion of the existing 'footprint' of the existing facility is proposed (Figure 19). The Viento Day-Use area is not noticeably visible from the Columbia River KVA, and no visible changes or changes to existing facilities are expected at the river's edge.

BPA Hood River Transmission Line Re-Build

The scope of this BPA-led project is to replace 24 miles of existing 115kV transmission line between Bonneville and a substation in Hood River. Most poles and towers would be replaced with modern equivalents or upgraded, in addition to the replacement of the conductors, hardware and fall protection. Limited new access roads and maintenance of existing access ways is included.

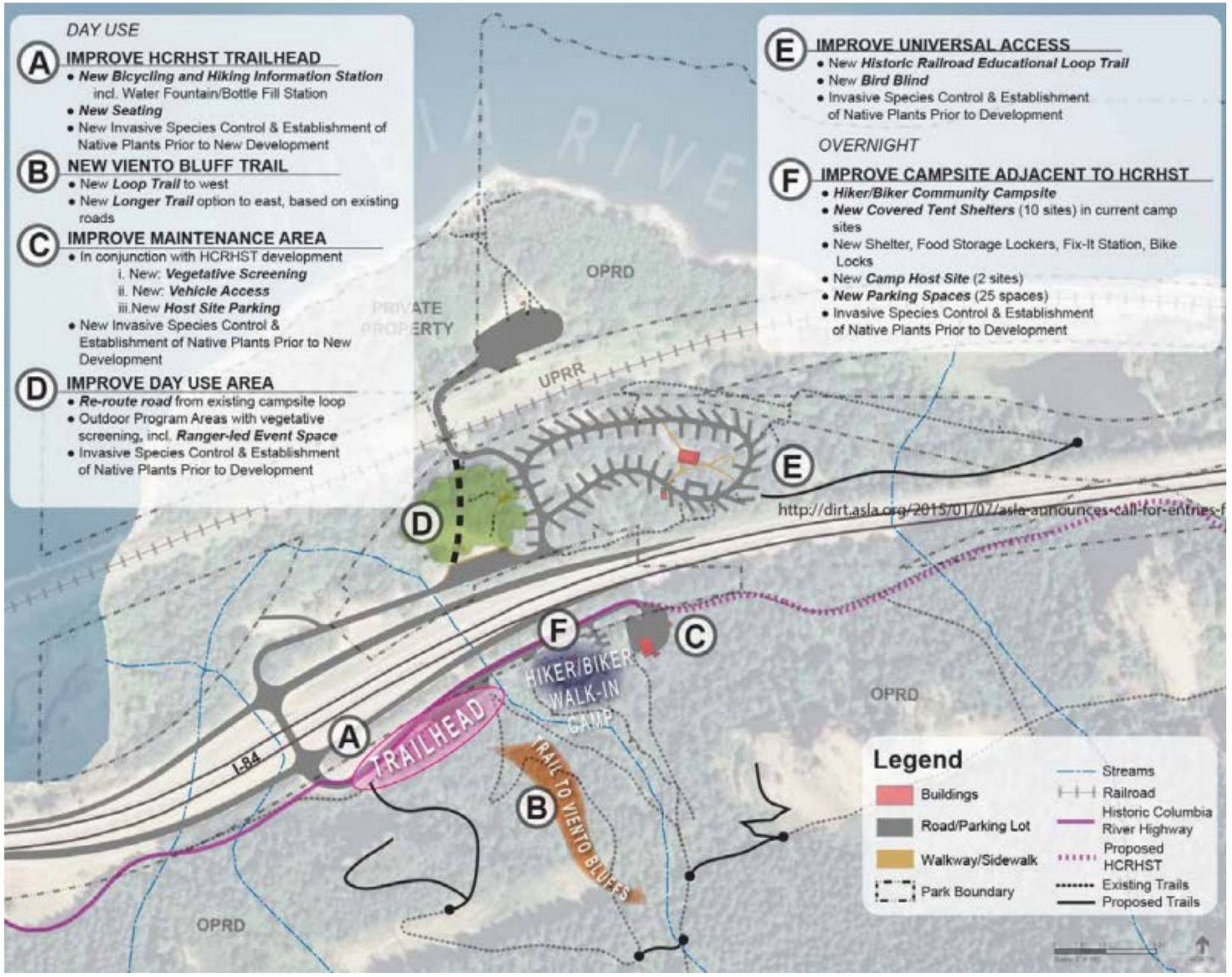

Figure 20: Viento State Park Improvements Conceptual Plan from OPRD Columbia River Gorge Management Units Plan

The Project team acknowledges the visual appearance of the Project in the highway prism and proposes the following mitigation:

- Stain the eastbound I-84 Binwall between Starvation Creek and Viento Park dark brown similar to work done on the FHWA A-C project
- Staining all rockfall mesh and rockfall mitigation elements with weathering agent
- Specify that the seams of the rockfall mesh is sewn and not overlapped to reduce vertical lines in mesh
- Contour rockfall mesh where possible to reduce waterfall effect on mesh
- Specify that all structures (walls, bridges, stormwater pipe ends, anything visible) have appropriate architectural finish
- Stain all new and existing concrete shoulder barrier dark brown similar to work done on the FHWA A-C project and install tapered barrier ends to soften vertical lines

There are no identified plans to modernize I-84 in the future other than to make safety improvements that would be consistent with the *I-84 Corridor Strategy.* The Union-Pacific Railroad is confined by its location between the Columbia River and I-84, limiting the possibility for future expansion projects. The applicant is not aware of BPA plans that would alter the current visual effect of the transmission lines. There are no currently funded plans to further expand Viento Campground.

It is the applicant's view that due to the lack of other significant development in the vicinity, measures to minimize visual effects of the proposed Project and mitigation of existing roadway features, no significant cumulative visual impacts are expected.

(c) The required SMA scenic standards for all development and uses are summarized in the following table:

REQUIRED SMA SCENIC STANDARDS		
LANDSCAPE SETTING	***LAND USE DESIGNATION***	***SCENIC STANDARD***
Coniferous Woodland, Oak-Pine Woodland	*Forest (National Forest Lands), Open Space*	*Not Visually Evident*
River Bottomlands	*Open Space*	*Not Visually Evident*
Gorge Walls, Canyonlands, Wildlands	*Forest, Agriculture, Public Recreation, Open Space*	*Not Visually Evident*
Coniferous Woodland, Oak-Pine Woodland	*Forest, Agriculture, Residential, Public Recreation*	*Visually Subordinate*
Pastoral	*Forest, Agriculture, Public Recreation, Open Space*	*Visually Subordinate*
River Bottomlands	*Forest, Agriculture, Public Recreation*	*Visually Subordinate*

Applicant Findings: The entire length of the proposed Project alignment is fully within the SMA. Approximately 70% of that length is within areas designated Coniferous Woodland landscape setting: from the beginning of the Project at Viento Campground east to Mitchell Point, and again immediately east of Mitchell Point. Mitchell Point has the NSA landscape setting designation of Gorge Walls, Canyonlands, Wildlands. Approximately 0.13 mile east of Mitchell Point, the trail's alignment enters an area designated Pastoral landscape setting. Landscape settings, land use designations, and corresponding scenic standards for the various portions of the trail are detailed in Table 2.

Table 2: Project Required Scenic Standards

Project Element	*Landscape Setting*	*Land Use Designation*	*Scenic Standard*
Viento Campground	***Coniferous Woodland***	***SMA - Public Recreation***	***Visually Subordinate***
Trail oxbows outside of ODOT right-of-way (intermittent) between east of Viento Campground to West of Mitchell Point Parking Lot/Trailhead	***Coniferous Woodland***	***SMA - Open Space***	***Not Visually Evident***
Mitchell Point Parking Lot/Trailhead	***Coniferous Woodland***	***SMA - Public Recreation***	***Visually Subordinate***
Mitchell Point Tunnel	***Gorge Walls, Canyonlands, and Wildlands***	***SMA - Forest***	***Not Visually Evident***
Mitchell Point Drive	***Pastoral***	***SMA – Forest***	***Visually Subordinate***

Findings of conformance with applicable scenic standards are included in the Visual Impact Asssessment in Attachment E.

(d) In all landscape settings, scenic standards shall be met by blending new development with the adjacent natural landscape elements rather than with existing development.

Applicant Findings: The proposed Project is designed to blend the trail into the natural landscape by maximizing retention of existing screening vegetation and existing terrain. Cuts and fills are minimized as practicable and new native landscaping is proposed. Features such as long, uniform, straight lines (for trail alignments and retaining walls) that might appear engineered when viewed from KVAs were avoided wherever possible. Portions of the trail that are within the I-84 roadway prism are designed to meet the objectives of the *I-84 Corridor Strategy.* Other portions of the trail are designed to meet the *HCRH State Trail Guidelines* and the scenic standards identified in response to Section 530(2)(c) above.

The following response summarizes how each portion of the proposed Project in the SMA is designed to comply with the applicable scenic standard. Additional detail can be found in the Visual Impact Assessment provided in Attachment E.

Viento Campground

The proposed Viento Campground improvements were designed to meet the Visually Subordinate standard. Due to existing topography and dense vegation coverage, the proposed improvements would not be seen from the I-84 KVA. The pedestrian railings on the new trail connection through the existing parking area would be a 42" steel metal railing stained with a weathering agent mottled dark brown to blend in with the surroundings or the 42" wood guardrail stained dark brown. Construction of the hiker/biker gravel path and campsites would be constructed without removing any trees. The new trail sign would be dark earth tones and would blend into the natural surroundings. The new section of trail over the exiting culvert crossing at Viento Creek would be achieved using a reinforced earthen slope, rather than a concrete retaining wall, which would become vegetated and blend into its natural surroundings (see Attachment B, Sheet H.3). The proposed restroom and expanded maintenance facility would be dark earthtone colors and would blend into the natural surroundings. Both the restroom and maintenance facility would have exterior safety lighting, but would be specified as recessed, hooded, low lumen soffit lighting that would not escape the area.

East of Viento Campground to West of Mitchell Point Parking Lot/Trailhead

Approximately 40% of the proposed trail between the Viento Campground and Mitchell Point Parking Lot/Trailhead would be located within the footprint of the I-84 roadway prism. Where the trail curves away from I-84, between STA 325+00 and 330+00, STA 334+00 and 338+00, 344+00 and 349+00, 361+50 and 370+00, 385+00 and 396+00 and 405+00 to Mitchell Point Trailhead/Parking Area, the trail would meet the Not Visually Evident Standard due to a combination of topography, existing vegetation, and new native plantings. Where it is necessary to stabilize small cut and fill slopes, the Not Visually Evident standard would be met by using short boulder walls that use natural materials (boulders from local sources) to blend in with the surrounding landscape. Railings that are nesessary for user safety would be 42-inch, steel railings compliant with the Historic Highway State Trail Guidelines and previously used on other State Trail projects that would be stained dark brown using a wethering agent to blend with the surrounding natural landscape.

Within the I-84 roadway prism, a new concrete traffic barrier stained brown with a 22-inch brown steel rail would be installed in the following trail sections: STA 330+04.5 to 333+56.0, 349+96.6 to 360+84.8, 370+72.7 to 383+71.5, and 397+15.4 to 403+62.6. The steel rail would be made of non-reflective brown galvanized steel, which would meet the *I-84 Corridor Strategy Design Guidelines*. (see Attachment B, Sheet C.2). The concrete shoulder barrier would be stained brown, which would meet the *I-84 Corridor Strategy Design Guidelines*.

New mechanically stabilized earth (MSE) walls would be intstalled within the I-84 roadway prism to stabilize trail fill at station 323+50 (Dome Rock Wall) and at station 341+00 (Rdige Cut Wall). New 42-inch non-reflective steel pedestrian rails would be mounted on top of the darkened stone architectural finished MSE walls (Figure 20 – MSE wall example from John Yeon section of the HCRH State Trail).

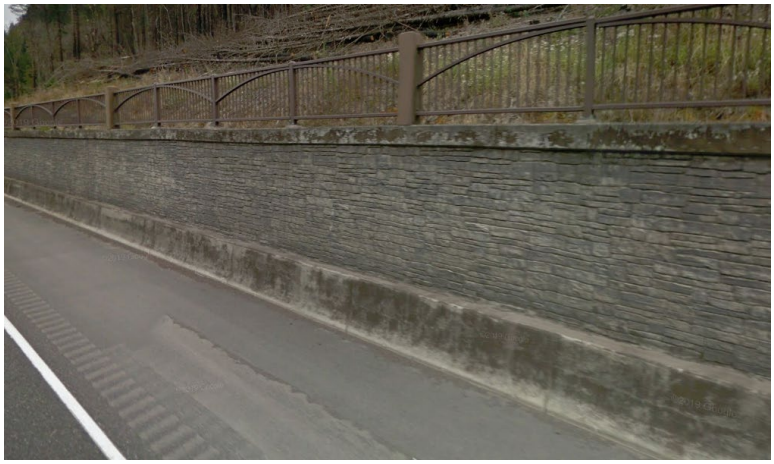

Figure 21: Photo of existing MSE Wall on John B. Yeon section of the HCRH State Trail adjacent to eastbound I-84.

Mitchell Point Parking Lot/Trailhead

Improvements to the existing trailhead and parking area at I-84 Exit 58 would include a pedestrian walkway spearated from vehicle traffic through the parking lot, improved parking lot ciruculation, and replacement of an undersized culvert. The proposed Project would add a split rail pedestrian fence alongside the trail through the parking area, and curb or barrier consistent with state trail guideline to separate vehicles from trail users. Due to the existing topography and dense vegetation screening, the improvements to the Michell Point Trailhead/Parking Area would meet the standard of Not Visually Evident to Gorge visitors at any of the applicable KVAs, as detailed in the Visual Impact Assessment.

Mitchell Point Tunnel

Improvements at Mitchell Point would include a 660-foot-long, dark earth-tone tinted shotcrete lined tunnel through Mitchell Point with five adits (windows) for scenic viewing. Trail sections leading to the tunnel portals on the east and west sides would be constructed on the existing Mitchell Point Shelf and include enchancement to the existing viewpoint on the west side of the tunnel with additional masonry rock walls. The tunnel portals, adits (tunnel window openings), and rockfall mesh have been designed to blend in with the rock face of Mitchell Point. The tunnel portals, adits, and viewpoint masonry wall would not be visually evident to the casual visitor travelling along I-84. As stated in the Visual Impact assessment:

> *The tunnel portal brow and masonry wall adjacent to the trail would look similar to the existing masonry wall at Mitchell Point Viewpoint overlook by referencing the original tunnel design and would follow the Historic Highway State Trail Guidelines regarding materials, color and treatment to promote visual consistency throughout the trail corridor. Shotcrete would be non-reflective and stained to visually blend with the rock around the tunnel portal. The Mitchell Point Tunnel design would also follow the Historic Highway State Trail Guidelines. The Mitchell Point Tunnel and rockfall mesh will achieve the not visually evident scenic standard from the I-84 key viewing area corridor due to the elevation difference from I-84 up to the tunnel, the curvature of the tunnel in relation to I-84, and due to the color, form, and texture design elements used. Moreover, the 1914 Mitchell Point Tunnel will be honored and reflected in the new tunnel through Mitchell Point.*

The Mitchell Point Tunnel will not be visually evident to casual visitors from the Columbia River, SR 14, Dog Mountain Trail, Cook-Underwood Road, or Historic Highway KVAs. This is due to the viewing distance from these KVAs, screening by vegetation (for the Cook-Underwood Road KVA), and the use of stained shotcrete that would help the structure blend in with the basalt cliffs.

From of the Mitchell Point Tunnel the proposed trail will follow the original Historic Highway alignment eastward to the existing Mitchell Point Drive where the trail users will use the shoulder of the road for the trail. The Project will include a new overlook just east of the tunnel that will include a 50' long masonry rock wall that will be constructed from native stone to blend in with the rock face of Mitchell Point. The trail would then veer away from the highway through an abandoned rock quarry that would be planted with native plants.

Mitchell Point Drive

The proposed trail will follow the origing alignment of the Historic Highway which follows Mitchell Point Drive. At the western end of Mitchell Point Drive the proposed Project would construct an emergency vehicle turn-around with NO PARKING signage. The Project also proposes to add signing along Mitchell Point Drive where the trail will temporarily end and direct cyclists to I-84 and LOCAL ACCESS ONLY signs on westbound Mitchell Point Drive (see attachment C – sheets M.4 and M.5). The Mitchell Point Drive portion of the proposed Project would be visually subordinate to casual visitors from the I-84, Columbia River, SR 14, Dog Mountain Trail, and Cook-Underwood Road KVAs because of its elevation and screening by existing vegetation.

(e) Proposed developments or land uses shall be sited to achieve the applicable scenic standard. Development shall be designed to fit the natural topography, to take advantage of landform and vegetation screening, and to minimize visible grading or other modifications of landforms, vegetation cover, and natural characteristics. When screening of development is needed to meet the scenic standard from key viewing areas, use of existing topography and vegetation shall be given priority over other means of achieving the scenic standard such as planting new vegetation or using artificial berms.

Applicant Findings: As described above, the proposed Project has been carefully sited to meet the objective of reconnecting abandoned segments of the Historic Highway while utilizing the natural topography to minimize grading. The use of the existing Historic Highway alignment and selecting the alignment of the trail to minimize tree removal would help to achieve the applicable scenic standards. The use of appropriate rockfall mitigation treatments (fences, gabion baskets, or mesh) instead large rock slope cuts have minimized the amount of excavation throughout the Project. Where rockfall mitigation measures are needed, strategies with the least visual impact were chosen; for example, rock mesh would be stained dark earth-tone colors to blend into the slope and pinned to the slope where possible to avoid a waterfall (straight vertical line) visual effect. Strategic planting of native vegetation is proposed to restore impacted areas and improve the scenic qualities of the trail.

(f) The extent and type of conditions applied to a proposed development or use to achieve the scenic standard shall be proportionate to its degree of visibility from key viewing areas.

(A) Decisions shall include written findings addressing the factors influencing the degree of visibility, including but not limited to:

(i) The amount of area of the building site exposed to key viewing areas,
(ii) The degree of existing vegetation providing screening,
(iii) The distance from the building site to the key viewing areas from which it is visible,
(iv) The number of key viewing areas from which it is visible, and

(v) The linear distance along the key viewing areas from which the building site is visible (for linear key viewing areas, such as roads).

(B) Conditions may be applied to various elements of proposed developments to ensure they are visually subordinate to their setting as seen from key viewing areas, including but not limited to:

(i) Siting (location of development on the subject property, building orientation, and other elements),
(ii) Retention of existing vegetation,
(iii) Design (color, reflectivity, size, shape, height, architectural and design details and other elements), and
(iv) New landscaping.

Applicant Findings: As described above in response to Section 530(2)(c), the applicable scenic standards vary along the length of the proposed trail based on the landscape setting, land use designation, and proposed siting of the trail relative to the I-84 roadway prism. Efforts to achieve the scenic standard to the degree the project is visible to Key Viewing Areas are detailed in Attachment E, Visual Impact Assessment Report.

(g) Sites approved for new development to achieve scenic standards shall be consistent with guidelines to protect wetlands, riparian corridors, sensitive plant or wildlife sites and the buffer zones of each of these natural resources, and guidelines to protect cultural resources.

Applicant Findings: The proposed Project is designed to be consistent with guidelines to protect wetlands, riparian corridors, sensitive plant and wildlife sites, and the buffer zones of each of these natural resources, and cultural resources. These guidelines are addressed in subsequent sections of this application.

(h) Proposed developments shall not protrude above the line of a bluff, cliff, or skyline as seen from key viewing areas.

Applicant Findings: The proposed Project would not protrude above the line of a bluff, cliff, or skyline as seen from KVAs. Visualizations of the of the proposed Project's most potentially visible components (retaining wall at STA 340+00, trail at STA 373+50, bridge at STA 389+64, and the tunnel at STA 448+29) are provided in Section 7 of the attached Visual Impact Assessment (Attachment E).

(i) Structure height shall remain below the average tree canopy height of the natural vegetation adjacent to the structure, except if it has been demonstrated that meeting this guideline is not feasible considering the function of the structure.

Applicant Findings: As detailed below, the height of the structures associated with the Project would remain below the average tree canopy height of adjacent vegetation. This is depicted for key structures in the visualizations provided in Section 7 of the attached Visual Impact Assessment (Attachment E).

Perham Creek Bridge

The highest part of the Perham Creek Bridge, the pedestrian railing, would extend approximately 42" above the finished grade with darkened concrete. As such, it would be below the average tree canopy height adjacent to the structure (Figure 20).

Viento Campground to Mitchell Point

Structures in this section of the trail include MSE retaining walls and wood and steel railings. The MSE retaining walls would not extend above the top of the finished grade for the trail. The steel railings would be 42 inches tall and the wood railings would be 48 inches tall. Therefore, these structures would be below the average adjacent tree canopy height.

A new 32 inch tall brown concrete traffic barrier would be installed along I-84 where the trail is adjacent to the roadway shoulder (between stations 321+55 and 404+08). A 22 inch brown steel rail would be mounted on the barrier. The total elevation of this structure would be below the average adjacent tree canopy height.

Mitchell Creek Culvert

The highest part of the Mitchell Creek Culvert, the pedestrian railing, would extend approximately 3.5 feet above the finished grade. As such, it would be below the average tree canopy height adjacent to the structure (Figure 21).

Mitchell Point Tunnel

The proposed Mitchell Point Tunnel is located on a cliff face where few trees are present. The highest part of the proposed tunnel structure would be the top of the portals, which would be approximately 14 feet above the finished grade of the trail on Mitchell Point. The portals have been designed to blend in with the appearance of the rock face (Figure 22).

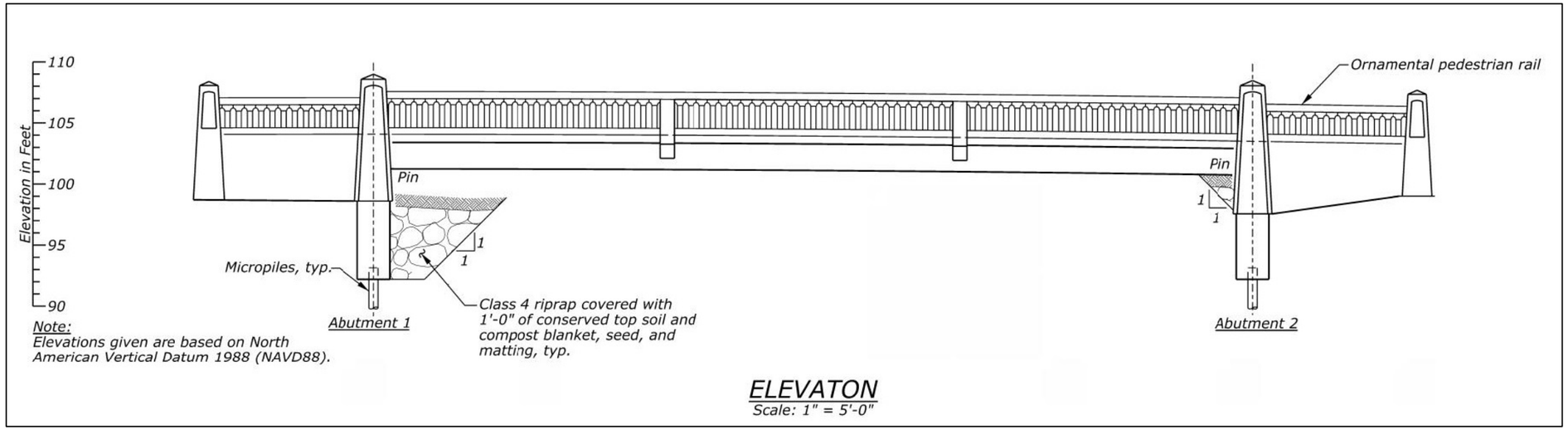

Figure 22: Perham Creek Bridge Profile (excerpt from Attachment B, Sheet H.1

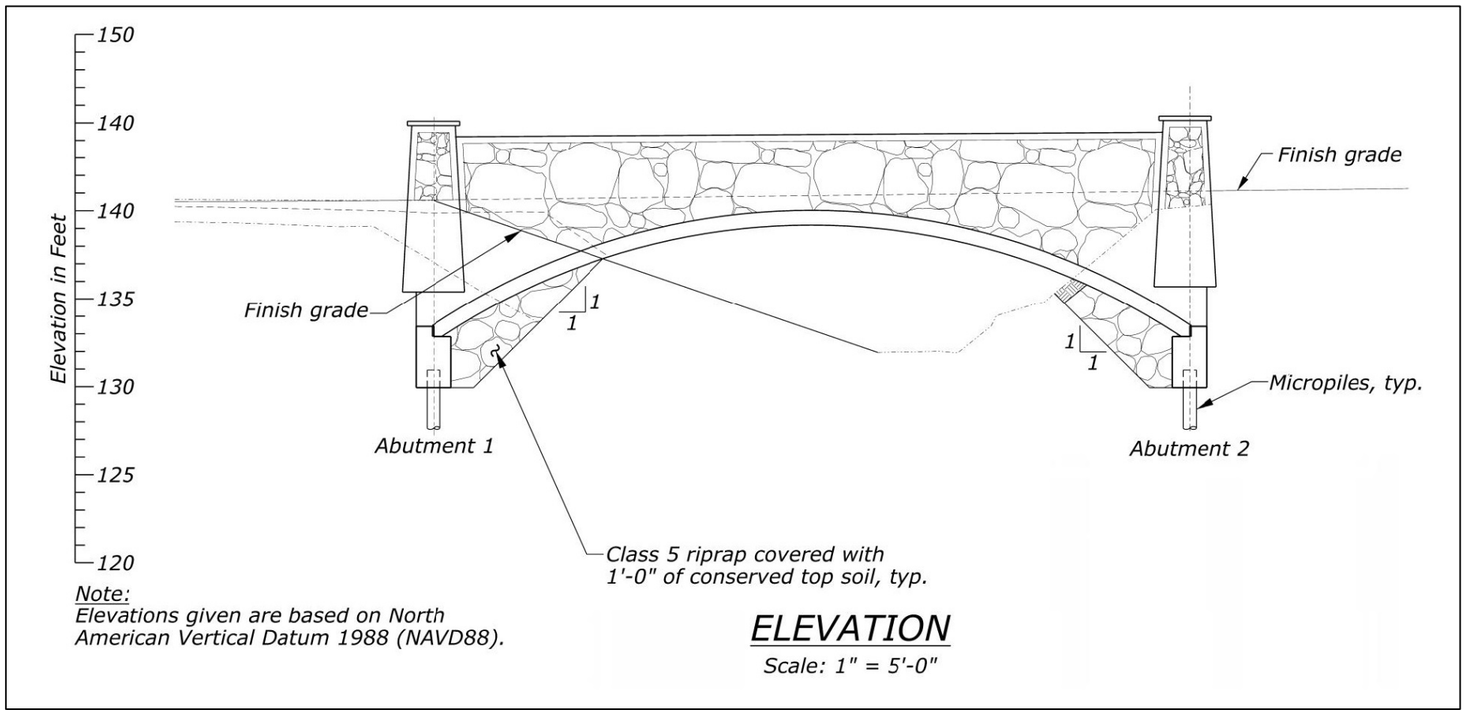

Figure 23: Mitchell Creek Culvert Profile (Excerpt from Attachment B, Sheet H.2)

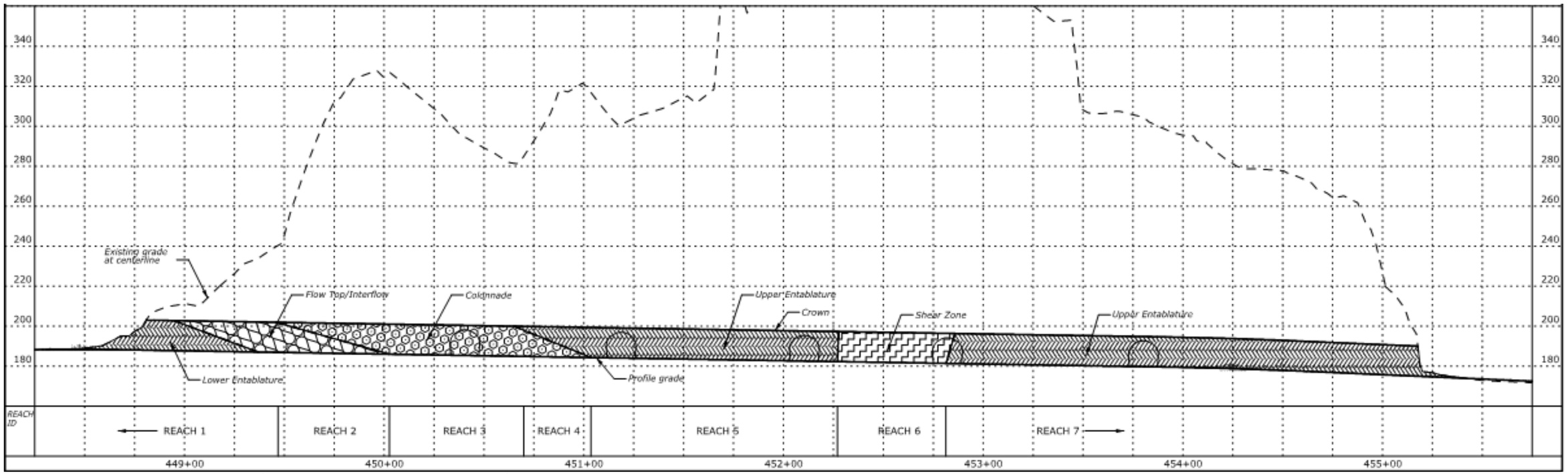

Figure 24: Mitchell Point Tunnel Profile (excerpt from Attachment C, Sheet K.2)

(j) The following guidelines shall apply to new landscaping used to screen development from key viewing areas:

(A) New landscaping (including new earth berms) to achieve the required scenic standard from key viewing areas shall be required only when application of all other available guidelines in this chapter is not sufficient to make the development meet the scenic standard from key viewing areas. Development shall be sited to avoid the need for new landscaping wherever possible.

Applicant Findings: In many areas, no new landscaping is required to achieve the required scenic standard from key viewing areas. Revegetation is proposed along sections of the trail that would be impacted by trail construction. In some locations where the proposed trail would parallel the I-84 shoulder (Stations 322, 330, 339, 350, and 370) in order to utilize the topography and minimize natural resource impacts, revegetation would also serve to improve screening from the I-84 key viewing area.

(B) If new landscaping is necessary to meet the required standard, existing on-site vegetative screening and other visibility factors shall be analyzed to determine the extent of new landscaping, and the size of new trees needed to achieve the standard. Any vegetation planted pursuant to this guideline shall be sized to provide sufficient screening to meet the scenic standard within five years or less from the commencement of construction.

Applicant Findings: Revegetation and Landscaping plans are provided in Attachments B and C. On-site vegetation and the size of new trees will be sized to provide sufficient screening within five years or less from the commencement of construction has been considered as part of the design shown in the landscape plans.

(C) Landscaping shall be installed as soon as practicable, and prior to Project completion. Applicants and successors in interest for the subject parcel are responsible for the proper maintenance and survival of planted vegetation, and replacement of such vegetation that does not survive.

Applicant Findings: Landscaping shall be installed prior to Project completion and the applicant and land manager would assume responsibility for plant maintenance and survival/replacement.

(D) The Scenic Resources Implementation Handbook shall include recommended species for each landscape setting consistent with the Landscape Settings Design Guidelines in this chapter, and minimum recommended sizes of new trees planted (based on average growth rates expected for recommended species).

Applicant Findings: The applicant has referenced the Scenic Resources Implementation Handbook as a guide in establishing planting plans in conjunction with the on-site plant inventory.

(k) Unless expressly exempted by other provisions in this chapter, colors of structures on sites visible from key viewing areas shall be dark earth-tones found at the specific site or the surrounding landscape. The specific colors or list of acceptable colors shall be included as a condition of approval. The Scenic Resources Implementation Handbook will include a recommended palette of colors as dark or darker than the colors in the shadows of the natural features surrounding each landscape setting

Applicant Findings: Colors of structures have been selected to blend with natural settings. The colors selected for the structures are found in the landscape. This includes the stone masonry proposed for the

trail sections leading to the Mitchell Point Tunnel portals and the tunnel adits and the dark brown pedestrian safety rails along I-84.

(l) The exterior of structures on lands seen from key viewing areas shall be composed of non-reflective materials or materials with low reflectivity. The Scenic Resources Implementation Handbook will include a recommended list of exterior materials. These recommended materials and other materials may be deemed consistent with this guideline, including those where the specific application meets approval thresholds in the "Visibility and Reflectivity Matrices" in the Implementation Handbook. Continuous surfaces of glass unscreened from key viewing areas shall be limited to ensure meeting the scenic standard. Recommended square footage limitations for such surfaces will be provided for guidance in the Implementation Handbook.

Applicant Findings: Proposed structures are primarily natural building materials, such as basalt and wood. Where steel is proposed for railings, a non-reflective galvanized steel, with weathering agents achieving a mottled dark stain on exposed surfaces would be specified.

(m) Any exterior lighting shall be sited, limited in intensity, shielded, or hooded in a manner that prevents lights from being highly visible from key viewing areas and from noticeably contrasting with the surrounding landscape setting, except for road lighting necessary for safety purposes.

Applicant Findings: Safety lighting is proposed at the Viento South Campground restroom and maintenance facility (Attachment B Sheets E.8 and E.9) and at the two portals of the Mitchell Point Tunnel. The exterior lighting on the restroom and maintenance facility will be recessed, low lumen, ceiling or soffit lighting and designed so that no light escapes the area. The safety lighting in the Mitchell Point Tunnel is proposed within the first 200' of both the east portal and west portal of the tunnel (Attachment C Sheet K.3). The purpose of the low lumen hooded and recessed lights in the curb is to provide low level lighting to help pedestrians and bicyclists eyes adjust to the darkness of the tunnel as they enter each portal. The illumination will not be used in the nighttime hours and will not be seen from any KVA during the day or night.

(n) Seasonal lighting displays shall be permitted on a temporary basis, not to exceed 3 months.

Applicant Findings: Not applicable. No seasonal lighting is proposed as part of the Project.

(3) SMA Guidelines for KVA Foregrounds and Scenic Routes

(a) All new developments and land uses immediately adjacent to scenic routes shall be in conformance with state or county scenic route guidelines.

(b) Scenic highway corridor strategies shall be developed and implemented for Interstate 84 (I-84) and the Historic Columbia River Highway (HCRH). For I-84 and the HCRH, this involves ongoing implementation (and possible updating) of the associated existing documents.

(c) The goals of scenic corridor strategies shall include: 1) providing a framework for future highway improvements and management that meet Management Plan scenic guidelines and public transportation needs; and 2) creating design continuity for the highway corridor within the Scenic Area. Corridor strategies shall, at minimum, include design guidelines (e.g. materials, conceptual designs, etc.) for typical projects

that are consistent with Management Plan scenic resources provisions and an interdisciplinary, interagency project planning and development process.

Applicant Findings: The proposed Project is adjacent to I-84 and follows the original alignment of the Historic Highway. It is designed to conform to the *I-84 Corridor Strategy* and the *HCRH State Trail Guidelines,* which are the applicable state scenic route guidelines. The "Guiding Principles" discussion on page 1 of this application describes the adoption of these scenic corridor strategies.

(d) The following guidelines shall apply only to development within the immediate foregrounds of key viewing areas. Immediate foregrounds are defined as within the developed prism of a road or trail KVA or within the boundary of the developed area of KVAs such as Crown Pt. and Multnomah Falls. They shall apply in addition to applicable guidelines in Section 530(2).

(A) The proposed development shall be designed and sited to meet the applicable scenic standard from the foreground of the subject KVA. If the development cannot meet the standard, findings must be made documenting why the project cannot meet the requirements in the previous Section and why it cannot be redesigned or wholly or partly relocated to meet the scenic standard.

(B) Findings must evaluate the following:

(i) The limiting factors to meeting the required scenic standard and/or applicable guidelines from the previous Section,
(ii) Reduction in project size;
(iii) Options for alternative sites for all or part of the project, considering parcel configuration and on-site topographic or vegetative screening;
(iv) Options for design changes including changing the design shape, configuration, color, height, or texture in order to meet the scenic standard.

(C) Form, line, color, texture, and design of a proposed development shall be evaluated to ensure that the development blends with its setting as seen from the foreground of key viewing areas:

(i) Form and Line-Design of the development shall minimize changes to the form of the natural landscape. Development shall borrow form and line from the landscape setting and blend with the form and line of the landscape setting. Design of the development shall avoid contrasting form and line that unnecessarily call attention to the development.
(ii) Color-Color shall be found in the project's surrounding landscape setting. Colors shall be chosen and repeated as needed to provide unity to the whole design.
(iii) Texture-Textures borrowed from the landscape setting shall be emphasized in the design of structures. Landscape textures are generally rough, irregular, and complex rather than smooth, regular, and uniform.
(iv) Design solutions shall be compatible with the natural scenic quality of the Gorge. Building materials shall be natural or natural appearing. Building materials such as concrete, steel, aluminum, or plastic shall use form, line color and texture to harmonize with the natural environment. Design shall balance all design elements into a harmonious whole, using repetition of elements and blending of elements as necessary.

Applicant Findings: As described in the previous Section, the proposed Project would meet the applicable scenic standards when within the immediate foreground of I-84. Form, colors, and building materials are proposed to blend the trail with the surrounding landscape. The proposed size, location, and extent of the trail are the minimum necessary to achieve the objective of reconnecting abandoned portions of the Historic Highway with an accessible recreational trail.

(e) Right-of-way vegetation shall be managed to minimize visual impacts of clearing and other vegetation removal as seen from key viewing areas. Roadside vegetation management (vista clearing, planting, etc.) should enhance views from the highway.

Applicant Findings: The proposed Project does not include right-of-way or roadside vegetation management other than replanting disturbed areas.

(f) Screening from key viewing areas shall be encouraged for existing and required for new road maintenance, warehouse, and stockpile areas.

Applicant Findings: No new road maintenance, warehouse, or stockpile areas are proposed. However, as part of the work to reconstruct the OPRD South Viento State Park Campground and Maintenance Facility, the proposed Project includes revegetation between the trail and the north side of the Campground and Maintenance Facility. Optional construction staging and stockpile sites are shown in Attachment B (sheets M.1 thru M.6) and Attachment C (sheets L.1 thru L.5). See Attachment B sheet M.1 notes for contractor screening requirements.

(4) SMA Guidelines for Areas Not Seen from KVAs

(a) Unless expressly exempted by other provisions in this chapter, colors of structures on sites not visible from key viewing areas shall be earth-tones found at the specific site. The specific colors or list of acceptable colors shall be approved as a condition of approval, drawing from the recommended palette of colors included in the Scenic Resources Implementation Handbook.

Applicant Findings: Proposed structures on portions of the trail that are not visible from key viewing areas would be earth-tone colors found at the site.

550. Special Management Area Cultural Resource Review Criteria

(1) General Guidelines for Implementing the Cultural Resources Protection Process

(a) All cultural resource information shall remain confidential, according to Section 6(a)(1)(A) of the Scenic Area Act. Federal agency cultural resource information is also exempt by statute from the Freedom of Information Act under 16 USC 470aa and 36 CFR 296.18.

(b) All cultural resources surveys, evaluations, assessments, and mitigation plans shall be performed by professionals whose expertise reflects the type of cultural resources that are involved. Principal investigators shall meet the professional standards published in 36 CFR 61.

(c) The Forest Service will be responsible for performing the literature review and consultation, inventory, evaluations of significance, assessments of effect, and mitigation requirements in Section 550(4) for forest practices and National Forest System lands.

(d) New developments or land uses shall not adversely affect significant cultural resources.

(2) The procedures and guidelines in Section 540 shall be used to review all proposed developments and land uses other than those on all federal lands, federally assisted projects and forest practices.

(3) The procedures and guidelines in 36 CFR 800 and Section 550(4) shall be used by and federal agencies to evaluate new developments or land uses on federal lands, federally assisted projects, and forest practices.

(4) The following procedures as well as the provisions in 36 CFR 800.4 for assessing potential effects to cultural resources and 36 CFR 800.5 for assessing effects to cultural resources shall be used to assess potential effects to cultural resources.

(a) Literature Review and Consultation

(A) An assessment shall be made to determine if any cultural resources listed on the National Register of Historic Places at the national, state or county level exist on or within the area of potential direct and indirect impacts.

A search shall be made of state and county government, National Scenic Area/Forest Service and any other pertinent inventories, such as archives and photographs, to identify cultural resources, including consultation with the State Historic Preservation Office and tribal governments. State and tribal government response to the consultation request shall be allowed for30 days.

(C) Consultation with cultural resource professionals knowledgeable about the area.

(D) A field inventory by a cultural resource professional shall be required if the Forest Service determines that a recorded or known cultural resource exists on or within the immediate vicinity of a new development or land use, including those reported in consultation with the Tribal governments.

(b) Field Inventory

(A) Tribal representatives shall be invited to participate in the field inventory.

(B) The field inventory shall consist of one or the other of the following guidelines, as determined by the cultural resource professional:

(i) Complete survey: the systematic examination of the ground surface through a controlled procedure, such as walking an area in evenly-spaced transects. A complete survey may

also require techniques such as clearing of vegetation, augering or shovel probing of subsurface soils for the presence of buried cultural resources.

(ii) Sample survey: the sampling of an area to assess the potential of cultural resources within the area of proposed development or use. This technique is generally used for large or difficult to survey parcels, and is generally accomplished by a stratified random or non-stratified random sampling strategy. A parcel is either stratified by variables such as vegetation, topography or elevation, or by non-environmental factors such as a survey grid.

Under this method, statistically valid samples are selected and surveyed to indicate the probability of presence, numbers and types of cultural resources throughout the sampling strata. Depending on the results of the sample, a complete survey may or may not subsequently be recommended.

(C) A field inventory report shall be prepared, and shall include the following:

(i) A narrative integrating the literature review of Section (4)(a) above with the field inventory of Section (4)(b) above.

(ii) A description of the field inventory methodology used, including the type and extent of field inventory, supplemented by maps which graphically illustrate the areas surveyed, not surveyed, and the rationale for each.

(iii) A statement of the presence or absence of cultural resources within the area of the new development or land use.

(iv) When cultural resources are not located, a statement of the likelihood of buried or otherwise concealed cultural resources shall be included. Recommendations and standards for monitoring, if appropriate, shall be included.

(D) Reports for inventories conducted in the State of Oregon shall follow the format specified by the Oregon State Historic Preservation Office.

(E) The field inventory report shall be presented to the Forest Service for review.

(c) Evaluations of Significance

(A) When cultural resources are found within the area of the new development or land use, an evaluation of significance shall be completed for each cultural resource in accordance with to the criteria of the National Register of Historic Places (36 CFR 60.4).

(B) Evaluations of cultural resource significance shall be guided by previous and current research designs relevant to specific research questions for the area.

(C) Evaluations of the significance of traditional cultural properties shall follow National Register Bulletin 38, Guidelines for the Evaluation and Documentation of Traditional Cultural Properties, within local and regional contexts.

(D) Recommendations for eligibility to the National Register shall be completed for each identified resource, in accordance with National Register criteria A through D (36 CFR 60.4). The Forest Service shall review evaluations for adequacy.

(E) Evidence of consultation with tribal governments and individuals with knowledge of the cultural resources in the project area, and documentation of their concerns, shall be included as part of the evaluation of significance.

(F) An assessment of effect shall be required if the Forest Service determines that the inventoried cultural resources are significant.

(d) Assessment of Effect

(A) For each significant (i.e., National Register eligible) cultural resource inventoried within the area of the proposed development or change in use, assessments of effect shall be completed, using the criteria outlined in 36 CFR 800.5 ("Assessing Effects"). Evidence of consultation with tribal governments and individuals with knowledge of the cultural resources of the project area shall be included for Sections (4)(d)(B) through (4)(d)(D) below. The Forest Service shall review each determination for adequacy.

(B) If the proposed development or change in use will have "No Adverse Effect," as defined by 36 CFR 800.4, to a significant cultural resource, documentation for that finding shall be completed, following the "Documentation Standards" of 36 CFR 800.11. If the proposed development or change in use will have an effect then the criteria of adverse effect must be applied (36 CFR 800.5).

(C) If the proposed development or change in use will have an "Adverse Effect" as defined by 36 CFR 800.5 to a significant cultural resource, the type and extent of "adverse effect" upon the qualities of the property that make it eligible for the National Register shall be documented (36 CFR 800.6 "Resolution of Adverse Effects"). This documentation shall follow the process outlined under 36 CFR 800.11 ("Failure to Resolve Adverse Effects).

(D) If the "effect" appears to be beneficial (i.e., an enhancement to cultural resources), documentation shall be completed for the recommendation of that effect upon the qualities of the cultural resource that make it eligible to the National Register. This documentation shall follow the process outlined under 36 CFR 800.11 ("Documentation Standards").

(e) Mitigation

(A) If there will be an effect on cultural resources, measures shall be provided for mitigation of effects (36 CFR 800.6 "Resolution of Adverse Effects"). These measures shall address factors such as avoidance of the property through project design or modification and subsequent protection, burial under fill, data recovery excavations, or other measures which are proposed to mitigate effects.

(B) Evidence of consultation with tribal governments and individuals with knowledge of the resources to be affected, and documentation of their concerns, shall be included for all mitigation proposals.

The Forest Service shall review all mitigation proposals for adequacy.

(5) Discovery During Construction

All authorizations for new developments or land uses shall be conditioned to require the immediate notification of the Forest Service if cultural resources are discovered during construction or development.

(a) If cultural resources are discovered, particularly human bone or burials, work in the immediate area of discovery shall be suspended until a cultural resource professional can evaluate the potential significance of the discovery and recommend measures to protect

and/or recover the resources.

(b) If the discovered material is suspected to be human bone or a burial, the following procedure shall be used:

(A) The applicant shall stop all work in the vicinity of the discovery.

(B) The applicant shall immediately notify the Forest Service, the applicant's cultural resource professional, the State Medical Examiner, and appropriate law enforcement agencies.

(C) The Forest Service shall notify the tribal governments if the discovery is determined to be an Indian burial or a cultural resource.
(D) A cultural resource professional shall evaluate the potential significance of the resource pursuant to Section 550(4)(c) and report the results to the Forest Service.

(c) The cultural resource review process shall be complete and work may continue if the Forest Service determines that the cultural resource is not significant.

(d) The cultural resource professional shall recommend measures to protect and/or recover the resource pursuant to Section 550(4)(e) if the Forest Service determines that the cultural resource is significant.

Applicant Findings: The applicant has prepared a Cultural Resources Report (Attachment F) and a Draft Archeological Report (Attachment K) for the proposed Project that addresses the cultural resources review criteria. In addition, the applicant has prepared a Section 106 Finding of No Historic Properties Adversely Affected for the Columbia River Highway National Register Historic District. The Section 106 Finding of Affect (for archeological and cultural resources) will be distributed to Hood River County and the USFS once 106 consultation with SHPO is completed.

Copies of the cultural resource reconnaissance report and finding of effect and the historic survey describing effects to the Historic Highway National Register nomination have been sent out to the Tribes and the State Historic Preservation Office (SHPO). Copies of the Draft Archeological Report has been sent to the Tribes, SHPO, and USFS.

The applicant shall immediately notify the Hood River County Planning Director in the event of the discovery of cultural resources during construction or development. The Project applicant would be responsible to implement the requirements listed below should such a discovery occur:

- In the event of the discovery of cultural resources, work in the immediate area of discovery shall be suspended until a cultural resource professional can evaluate the potential significance of the discovery pursuant to ORS 75.550.
- If the discovered material is suspected to be human bone or a burial, the following procedure shall be used:
    - Stop all work in the vicinity of the discovery.
    - The applicant shall immediately notify the USFS, the applicant's cultural resource professional, the State Medical Examiner, and appropriate law enforcement agencies.
    - The USFS shall notify the tribal governments if the discovery is determined to be an Indian burial or a cultural resource.

- A cultural resource professional shall evaluate the potential significance of the discovery and report the results to the USFS which shall have 30 days to comment in the report.

- If the USFS determines that the cultural resource is not significant or does not respond within the 30-day response period, the cultural resource review process shall be complete and work may continue. If the USFS determines that the cultural resource is significant, the cultural resource professional shall recommend measures to protect and/or recover the resource.

600. Special Management Area Natural Resource Review Criteria

A. SMA Natural Resource Review Criteria

(1) All new developments and uses, as described in a site plan prepared by the applicant, shall be evaluated using the following guidelines to ensure that natural resources are protected from adverse effects. Comments from state and federal agencies shall be carefully considered. (Site plans are described in Section 080).

(2) Water Resources (Wetlands, Streams, Ponds, Lakes, and Riparian Areas)

(a) All Water Resources shall, in part, be protected by establishing undisturbed buffer zones as specified in subsections (2)(a)(B)(i) and (ii) below. These buffer zones are measured horizontally from a wetland, stream, lake, or pond boundary as defined below.

Applicant Findings: All water resources have been identified as described in Section 600, and the buffer zones are drawn on the Project Site Plan (Attachment A), using 200-foot buffers for perennial streams and fish-bearing streams, 50 feet for non-fish-bearing intermittent streams, and 50 feet buffers for ephemeral streams. Water resources and their buffer areas are described in detail in the Wetland and Waters Delineation Report, provided in Attachment G, and the Biological Research and Impact Assessment Report (BRIAR), provided in Attachment H.

(A) All buffer zones shall be retained undisturbed and in their natural condition, except as permitted with a mitigation plan.

Applicant Findings: After all practicable avoidance and minimization measures, the trail alignment would impact 3.93 acres of water resource (stream and wetland) buffers (see Attachment A). These impacts would be mitigated by restoration of the following areas (see Mitigation Report – Attachment I and Revegetation and Mitigation Plan Sheets Attachment B Sheets L.11 and L.12 for additional details):

- Sonny Mitigation Site – 3.25 acres of previously disturbed land with intact forest overstory and an understory that is dominated by non-native vegetation at approximate trail station 427+00. The site is on OPRD and ODOT right-of-way on the south side of the trail.
- Roadhouse Mitigation Site – 6.99 acres of previously disturbed land with intact forest overstory and an understory that is dominated by non-native vegetation at approximate trail station 440+00 on OPRD and ODOT right-of-way, along stream corridor of an unnamed perennial stream (Stream 16).

The mitigation activities would include removal of existing English ivy, Himalayan blackberry, periwinkle, and any other non-native invasive species. The cleared area would be replanted with native herbaceous and woody species native to the NSA as listed in the Mitigation Report (Attachment I) for the Project.

(B) Buffer zones shall be measured outward from the bank full flow boundary for streams, the high water mark for ponds and lakes, the normal pool elevation for the Columbia River, and the wetland delineation boundary for wetlands on a horizontal scale that is perpendicular to the wetlands, stream, pond or lake boundary. On the main stem of the Columbia River above Bonneville Dam, buffer zones shall be measured landward from the normal pool elevation of the Columbia River. The following buffer zone widths shall be required:

(i) A minimum 200 foot buffer on each wetland, pond, lake, and each bank of a perennial or fish bearing stream, some of which can be intermittent.

Applicant Findings: A 200-foot buffer was identified for four wetlands (Wetlands 5, 11, A, and B) and the following perennial water resources: Viento Creek (Stream 10), Perham Creek (Stream 12), Mitchell Creek (Stream 15), and three unnamed perennial streams (Stream 16, B, and C). These features and their buffers are shown on the Site Plan in Attachment A. The Wetland and Waters Delineation Report is provided in Attachment G.

(ii) A 50-foot buffer zone along each bank of intermittent (including ephemeral), non-fish bearing streams.

Applicant Findings: A 50-foot buffer was identified for two intermittent water resources (Streams A and 14). These features and their buffers are shown in Attachment A.

(iii) Maintenance, repair, reconstruction and realignment of roads and railroads within their rights-of-way shall be exempted from the wetlands and riparian guidelines upon demonstration of all of the following:

(I) The wetland within the right-of-way is a drainage ditch not part of a larger wetland outside of the right-of-way.

(II) The wetland is not critical habitat.

(III) Proposed activities within the right-of-way would not adversely affect a wetland adjacent to the right-of-way.

Applicant Findings: Not applicable. The proposed Project is not a road or railroad maintenance project. The Project is a trail project.

(C) The buffer width shall be increased for the following:

(i) When the channel migration zone exceeds the recommended buffer width, the buffer width shall extend to the outer edge of the channel migration zone.

(ii) When the frequently flooded area exceeds the recommended riparian buffer zone width, the buffer width shall be extended to the outer edge of the frequently flooded area.

(iii) When an erosion or landslide hazard area exceeds the recommended width of the buffer, the buffer width shall be extended to include the hazard area.

Applicant Findings: No areas that meet these criteria are known to lie within the Project area.

(D) Buffer zones can be reconfigured if a project applicant demonstrates all of the following: (1) the integrity and function of the buffer zones is maintained, (2) the total buffer area on the development proposal is not decreased, (3) the width

reduction shall not occur within another buffer, and (4) the buffer zone width is not reduced more than 50% at any particular location. Such features as intervening topography, vegetation, man-made features, natural plant or wildlife habitat boundaries, and flood plain characteristics could be considered.

Applicant Findings: The applicant is not proposing to reconfigure the buffer zones.

(E) Requests to reconfigure buffer zones shall be considered if an appropriate professional (botanist, plant ecologist, wildlife biologist, or hydrologist), hired by the project applicant (1) identifies the precise location of the sensitive wildlife/plant or water resource, (2) describes the biology of the sensitive wildlife/plant or hydrologic condition of the water resource, and (3) demonstrates that the proposed use will not have any negative effects, either direct or indirect, on the affected wildlife/plant and their surrounding habitat that is vital to their long-term survival or water resource and its long term function.

Applicant Findings: The applicant is not proposing to reconfigure the buffer zones.

(F) The Planning Director shall submit all requests to re-configure sensitive wildlife/plant or water resource buffers to the Forest Service and the appropriate state agencies for review. All written comments shall be included in the project file. Based on the comments from the state and federal agencies, the Planning Director will make a final decision on whether the reconfigured buffer zones are justified. If the final decision contradicts the comments submitted by the federal and state agencies, the Planning Director shall justify how the opposing conclusion was reached.

Applicant Findings: The applicant is not proposing to reconfigure the buffer zones.

(b) When a buffer zone is disturbed by a new use, it shall be replanted with only native plant species of the Columbia River Gorge.

Applicant Findings: Construction would disturb sections of water resource buffers. Temporarily disturbed areas of buffer would have invasive or noxious plant species removed and would be replanted with species native to the Gorge area and appropriate for the vegetation community of the buffer. See the Planting Plans and Plant Lists for the Project (Attachments B and C) for lists of proposed plant species. As described previously, permanently disturbed portions of the buffer zones would be mitigated by removing noxious and invasive weed species from approximately 10.98 acres and restoring the areas with species native to the Columbia River Gorge.

(c) The applicant shall be responsible for identifying all water resources and their appropriate buffers. (see above)

Applicant Findings: All water resources and their appropriate buffers have been identified and mapped by trained biologists. The resources are described in detail in the Wetland and Waters Delineation Report (Attachment G) and additionally discussed in the BRIAR (Attachment H). The resources and their buffers are mapped in the Site Plan (Attachment A).

(d) Wetlands Boundaries shall be delineated using the following:

(A) The approximate location and extent of wetlands in the Scenic Area is shown on the National Wetlands Inventory (U. S. Department of the Interior 1987). In addition, the list of hydric soils and the soil survey maps shall be used as an indicator of wetlands.

(B) Some wetlands may not be shown on the wetlands inventory or soil survey maps. Wetlands that are discovered by the local planning staff during an inspection of a potential project site shall be delineated and protected.

(C) The project applicant shall be responsible for determining the exact location of a wetlands boundary. Wetlands boundaries shall be delineated using the procedures specified in the '1987 Corps of Engineers Wetland Delineation Manual (on-line Edition)'.

(D) All wetlands delineations shall be conducted by a professional who has been trained to use the federal delineation procedures, such as a soil scientist, botanist, or wetlands ecologist.

Applicant Findings: Wetlands were identified within the Project area. Any wetlands identified have been surveyed, mapped, and are shown on the Site Plan (Attachment A). A copy of the Wetland and Waters Delineation Report is provided (Attachment G). Table 3 below lists the wetlands identified in the Project area from west to east.

Table 3: Wetlands in Vicinity of the Project

Water Resource	Description of Resource	Station	Location on Site Plan (Attachment A)
Wetland 5	Palustrine forested/open water	312+31	Sheet 4
Wetland 11	Palustrine forested/open water	466+00	Sheet 9
Wetland A	Palustrine forested/open water	474+80	Sheet 9
Wetland B	Palustrine forested/open water	469+00	Sheet 9

(e) Stream, pond, and lake boundaries shall be delineated using the bank full flow boundary for streams and the high water mark for ponds and lakes. The project applicant shall be responsible for determining the exact location of the appropriate boundary for the water resource.

Applicant Findings: Ordinary high water elevations for streams identified in the Project area were determined based on observations of seasonal scour, sediment textural changes and vegetation community changes. No ponds or lakes were identified within the Project area. Table 4 below, lists the regulated water resources identified in the Project area from west to east. The Site Plan in Attachment A shows the locations of all streams and their buffers.

Table 4: Regulated Waterways in Vicinity of the Project

Water Resource Name/ID	Description of Resource	Station	Location on Buffer Exhibit (Attachment H)
Viento Creek / Stream 10	Perennial, fish-bearing	302+92	Sheet 4
Stream A	Ephemeral	327+63	Sheet 5
Perham Creek / Stream 12	Perennial, fish-bearing	390+00	Sheet 7
Stream 14	Ephemeral	408+00	Sheet 7
Mitchell Creek / Stream 15	Perennial, fish-bearing	419+65	Sheets 7 & 8
Stream 16	Perennial	440+41	Sheet 8
Stream B	Perennial	469+00	Sheet 9
Stream C	Perennial	474+70	Sheet 9

(f) The Planning Director may verify the accuracy of, and render adjustments to, a bank full flow, high water mark, normal pool elevation (for the Columbia River), or wetland boundary delineation. If the adjusted boundary is contested by the project applicant, the Planning Director shall obtain professional services, at the project applicant's expense, or ask for technical assistance from the Forest Service to render a final delineation.

Applicant Findings: The wetland and waters boundaries were determined by professional wetland scientists. The applicant acknowledges that the Planning Director may choose to verify the accuracy of these determinations.

(g) Buffer zones shall be undisturbed unless the following criteria have been satisfied:

(A) The proposed use must have no practicable alternative as determined by the practicable alternative test.

Those portions of a proposed use that have a practicable alternative will not be located in wetlands, stream, pond, lake, and riparian areas and/or their buffer zone.

Applicant Findings: The proposed Project has been designed to avoid all identified wetlands, streams, and buffer zones to the maximum practicable extent without compromising the purpose of the Project, which is to connect remaining sections of the Historic Highway with a new trail providing a quality trail user experience. The proposed design of the trail would avoid filling wetlands but there is no practicable alternative that would avoid all stream, stream buffer, and wetland buffer impacts.

In total, 1.02 acre of wetland buffer and 3.14 acres of stream buffer would be affected by the proposed trail alignment. The BRIAR (Attachment H) includes tables listing the impacts by feature, by resource type, and as totals for the Project. As detailed below, this represents the minimum

impacts necessary to complete the Project without compromising public safety, recreation, and scenic standards or the purpose of the proposed Project to reconnect remaining sections of the Historic Highway as a recreational trail within the Scenic Area. This finding was reached after multiple rounds of design revisions, during which the proposed trail route and associated development activities were refined to minimize paving, tree removal, and other impacts within water resource areas and their buffers. Alternatives analyzed at aquatic impact sites are discussed below.

Construction Measures to Avoid Adverse Effects

- Designating no-work areas prior to beginning construction where natural resources have been identified as a result of biologist-led surveys of areas of potential sensitive species/plant occurrence;
- Holding a pre-construction conference and site visit with contractors to review natural resource areas for avoidance (no-work areas);
- Not removing trees during nesting times between March 1 and August 31, or if this is not possible, surveying & documenting the project area prior to removing vegetation to ensure no nesting birds are in the project area;
- During construction, using all appropriate erosion control measures to protect identified water resources;
- Identifying and minimizing construction staging areas to the fewest necessary to do the work (see Attachment B sheets M.1 – M.6 and Attachment C sheets L.2 thru L.5);
- Preserving all of the existing *Douglassia laevigata* (*Douglassia*) population on Mitchell Point by avoiding impact to the plants for placement of adits and field-adjusting rockfall mesh anchors and structural bolts to avoid the plants.
- Utilizing best management practices for tunnel blasting activities as outlined in the Mitigation Report (Attachment I), which would be stipulated in the Segment F construction contract requirements.
- Where there are existing sections of Historic Highway, limit the construction to the existing pavement and should to minimize impacts to native vegetation.

Practicable Alternative Test for Proposed Impacts to Water Resource Areas

Viento Creek (Stream 10) - STA 302+92

No impacts within Viento Creek's ordinary high water (OHW) are proposed. The Project would include impacts within a 200-foot buffer of Viento Creek. The impacts include re-construction of an existing trailhead and new trail, improvements to the existing trail crossing of Viento Creek, improvements to the existing South Viento State Park Campground and campground and maintenance yard road, and a new low-impact hiker and biker campground within the buffer. Adjustments to minimize impacts to the riparian buffer include shifting the trailhead plaza from the east end of the trailhead to the west end outside of the riparian area and reconfiguring the hiker and biker trail and campground to the east away from the creek and removal and revegetation of some of the existing campground paths adjacent to the creek. The proposed impacts to the stream buffer have been determined to be the least amount practicable. Unavoidable impacts to the water resources and their buffer areas would be mitigated as described in the Mitigation Report (Attachment I).

Trail Crossing of Viento Creek – STA 303+37

An existing section of the trail is proposed along the shoulder of an existing drive that access the campground and the OPRD maintenance yard. In order to accommodate the proposed trail the road will need to be widened over the existing Viento Creek culvert, which is in good condition and does not need to be reconstructed for fish passage. To accomplish this, the Project team first considered a concrete retaining wall, but ultimately propose a reinforced soil slope. This alternative

was selected because it would be vegetated and blend with the natural surroundings of the creek, providing lesser impacts to scenic and habitat resources adjacent to the trail.

The proposed Project initially considered placing the new plaza at Viento Creek Trailhead at the east end of the parking lot within the buffer, but ultimately shifted the plaza west in order to minimize impacts to the stream's buffer. The purpose of the Project, to reconnect existing abandoned sections of the Historic Highway, cannot be achieved elsewhere, therefore there is no practicable alternative.

South Viento State Park Campground and Hiker/Biker Campground – STA 304+48

The redesign of the South Viento State Park Campground and hiker/biker campground is outlined in the adopted *OPRD Columbia River Gorge Management Units Plan* (2015), Chapter 8: Visitor Experience Plans and Recommendations. The *OPRD Columbia River Gorge Management Units Plan* was adopted by the Oregon Parks Commission (Oregon Administrative Rule 736-018-0045). The proposed Project would improve circulation within the existing drivable portion of the campground and would occur within the existing campground footprint.

South of the vehicle-assessable campground, there are a number of existing user-created trails that lead to unofficial campsites accessible only by foot or by bike. The proposed Project would provide a narrow gravel path south of the drivable portion of South Viento State Park Campground, define new gravel campsites measuring 8 feet by 8 feet, and obliterate and revegetate much of the existing user-created trail within the stream buffer. The proposed improvements to this hiker/biker camping area have been designed to better manage existing uncontrolled use of the site, in effect minimizing impacts to the Viento Creek stream buffer. The improvements would define hiker/bike camping areas with the goal of shifting existing use away from Viento Creek, reducing the potential for increased erosion and other adverse effects on the stream itself. Removal and revegetation of the existing user-created trails would involve re-grading of scarred areas and replanting with native species. The proposed Project is expected to reduce overall impacts of the existing use of the site as an uncontrolled hiker/biker campground. The hiker/biker campground area is included in the *OPRD Columbia River Gorge Management Units Plan*.

Wetland (Wetland 5) - STA 312+31

The proposed trail alignment would have minimal impacts to the buffer of Wetland 5 in Segment E. The Project team went through three alignment revisions to shift as far south as possible to avoid the wetland and minimize impact to a rock outcrop just to the west. A steep uphill slope directly to the south of the trail constrains alignment options at this location. The proposed alignment is a result of design refinements aimed at minimizing impacts to the buffer, while achieving the Project's purpose of tying into the existing historic trail section to the east. This section of proposed trail would be necessary to achieve the Project's purpose to reconnect existing abandoned sections of the Historic Highway. There is no lower-impact practicable alternative.

Unnamed Ephemeral Stream (Stream A) - STA 327+63

The proposed trail alignment crosses an ephemeral stream buffer at approximately Station 327+63. No impacts to the stream itself are proposed. The Project team considered approximately three alignment and profile alternatives at this location with the goal of avoiding impacts to the stream itself. One alternative considered was to construct a fill retaining wall on the south side of the trail. However, it was determined that this option would not have reduced impacts to the stream buffer as much as shifting the alignment north. The proposed alignment would not require construction of a fill structure within the water resource buffer at this location. The Project team shifted the trail alignment north so that the fill slopes would avoid direct impacts to the stream itself.

A potential construction staging area is located within the buffer at this location. Construction staging is required in proximity to the trail location in order to construct the Project. Construction staging impacts would be temporary in nature. These areas would be restored after construction.

Construction of the proposed trail would require contractor access and staging near the trail location. There is no lower-impact practicable alternative to providing a staging area in this location.

Perham Creek and Buffer (Stream 12) - STA 390+00

Perham Creek is a perennial stream. Avoiding impacts to the Perham Creek buffer is not practicable, since it runs perpendicular to the trail's alignment and the trail must cross the stream. The project would not cause direct impacts to the stream since all of the work would be located above the stream's ordinary high water. The Project would construct a new bridge to carry the trail over Perham Creek. There is no existing crossing structure; the historic crossing has been washed out and destroyed. However, by using the Historic Highway alignment the Project will be avoiding large diameter trees and other mature riparian vegetation to the east and west of the stream crossing.

The design team considered crossing the stream north and south of the original Historic Highway alignment to see if a different crossing would have less impact to the stream, but found no advantage with either alternative. The design team also considered extending the existing culvert at I-84, but since the intent of the Project is to follow the original alignment of the Historic Highway and reconnect abandoned sections, this alternative was removed from consideration.

A geotechnical site investigation determined that the original Historic Highway pavement is approximately three feet below the existing ground near Perham Creek (likely due to natural alluvial deposits from the stream since the Historic Highway was abandoned in this area). The design team considered lowering the trail grade to be on the original Historic Highway pavement which would have required excavation below the OHW elevation of the stream, but chose to keep the trail at the existing grade to minimize impacts to Perham Creek.

The Project proposes construction staging and access within the Perham Creek buffer. Construction staging is proposed in this location because equipment would need to be staged on both the east and west sides of Perham Creek to feasibly construct the new bridge and minimize impacts to the riparian area. The area proposed for construction is on land that has previously been disturbed for the construction of I-84 and is comprised mostly of roadway fill. There is no lower-impact practicable alternative (Figure 23).

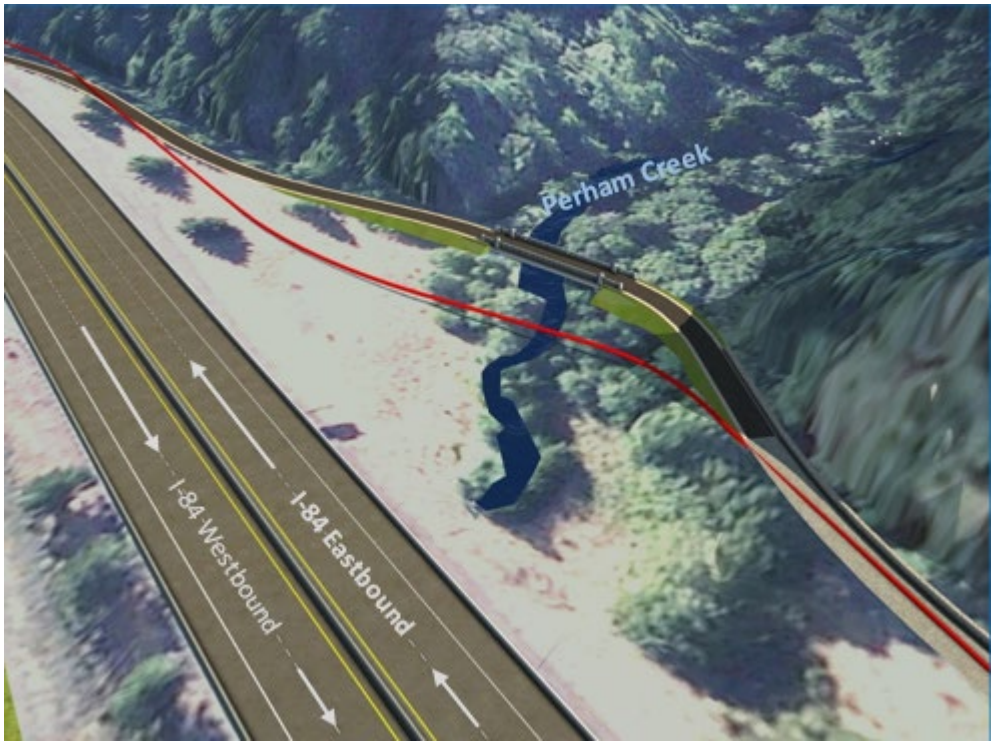

Figure 25: Trail Refinement at Perham Creek Bridge (STA 390+00) with alternative alignment consider shown in red.

Unnamed Ephemeral Stream (Stream 14) - STA 408+00

The existing alignment of the Historic Highway crosses an ephemeral stream at approximately STA 408+00. The Project would overlay this existing section of Historic Highway. No other impacts to this stream are proposed. The purpose of the Project is to connect the existing sections of the Historic Highway. Therefore, the Project's purpose cannot be achieved elsewhere. If the Project were to reroute the trail to avoid this stream and its buffer, it would cause a greater disturbance to the scenic area, therefore the Project has no practicable alternatives at this location.

Mitchell Creek (Stream 15) - STA 419+65

The proposed Project would construct a new culvert to carry the trail over Mitchell Creek. There is no existing crossing structure at Mitchell Creek; the original culvert has been washed out and destroyed. During design, the structure type was modified from a full culvert to a bottomless culvert, so that it could be constructed without impacting the OHW of Mitchell Creek. No in-water work is proposed.

This only design modification occurred when the original conceptual alignment was shifted onto the original Historic Highway pavement found during the geotechnical exploration. This change resulted in reducing the amount of riparian vegetation needed to be removed to build the crossing since minimal ground cover exists on top of the Historic Highway pavement. The proposed alignment has been refined to reduce impacts to the stream buffer, however avoiding impacts to the Mitchell Creek buffer is not practicable, since it runs perpendicular to the trail's alignment (Figure 24).

Figure 26: Trail Refinement at Mitchell Creek (STA 419+65) with alternative alignment consider shown in red.

Unnamed Perennial Stream (Steam 16) - STA 440+41

An existing section of Historic Highway crosses an unnamed perennial stream at approximately STA 440+41. The proposed Project would overlay the existing Historic Highway alignment. Following the existing alignment would have the least practicable impact to the stream buffer since it would not require grading and would only impact the existing Historic Highway pavement section. Avoiding impacts within the stream buffer entirely is not practicable, since the purpose of this Project is to restore and reconnect the existing sections of the Historic Highway, and therefore it cannot be achieved elsewhere.

Mitchell Point Parking Lot/Trailhead Improvements – STA 441+82

This Project would enhance the existing parking area by constructing a new pedestrian walkway that would be separated from vehicle traffic and improving vehicle traffic circulation. The improvements would be constructed within the existing footprint of the Mitchell Point Parking Lot/Trailhead. Relocating the trailhead and parking area elsewhere outside of the stream buffer area is not practicable because it would cause a greater disturbance to natural resources within the Project's vicinity. The Project would upgrade the stream's drainage, therefore it would provide a better outcome for the water resource than no action. Therefore, there is no practicable alternative.

Unnamed Perennial Stream (Stream B) and Wetlands (Wetlands 11 and B) - STA 466+00

The Project would construct a new section of trail within the buffer area of an unnamed perennial stream and two wetlands at approximately STA 466+00. The proposed Project would also install a new vehicle turnaround at the terminus of Mitchell Point Drive to allow International Fire Code-required emergency vehicle access and egress at a dead-end road. The stream has been previously routed through the abandoned quarry to a rock catchment area via a pipe culvert where it infiltrates on site. Division of State Lands does claim jurisdiction over this Stream B, the US Army Corps of Engineers does not. The proposed Project would replace the existing culvert with a new pipe culvert

that is slightly longer to provide additional lane width. Additional lane width is required to safely accommodate combined trail and roadway traffic. Prior alternative analysis considered routing the trail down the I-84 on-ramp and along the I-84 shoulder beneath Mitchell Point. This alternative was not carried forward as practical since it would not achieve the Project's basic purpose of reconnecting abandoned sections of the Historic Highway. The purpose of this Project is to restore and reconnect the existing sections of the Historic Highway, and therefore it cannot be achieved elsewhere.

Unnamed Perennial Stream (Stream C) - Wetland (Wetland A) STA 474+80

East of the proposed emergency vehicle turn-around area, the proposed trail alignment ties into the existing alignment of Mitchell Point Drive, which follows the original alignment of the Historic Highway and is a frontage road of I-84, within ODOT's right-of-way. An unnamed perennial stream crosses beneath Mitchell Point Drive via an existing pipe culvert within this section of the proposed trail alignment. The existing culvert is in satisfactory condition and would remain in-place. There would be no impacts to the stream and stream buffer because trail users would use the shoulder of the existing road and no paving or other disturbance is proposed. Prior alternative analysis considered routing the trail down the I-84 on-ramp and along the I-84 shoulder beneath Mitchell Point. This alternative was not carried forward as practical since it would not achieve the Project's basic purpose of reconnecting abandoned sections of the Historic Highway. The purpose of this Project is to restore and reconnect the existing sections of the Historic Highway, and therefore it cannot be achieved elsewhere.

(B) Filling and draining of wetlands shall be prohibited with exceptions related to public safety or restoration/enhancement activities as permitted when all of the following criteria have been met:

(i) A documented public safety hazard exists or a restoration/ enhancement project exists that would benefit the public and is corrected or achieved only by impacting the wetland in question, and

(ii) Impacts to the wetland must be the last possible documented alternative in fixing the public safety concern or completing the restoration/enhancement project, and

(iii) The proposed Project minimizes the impacts to the wetland.

Applicant Findings: Not Applicable. No wetlands would be filled or drained as part of the proposed Project.

(C) Unavoidable impacts to wetlands and aquatic and riparian areas and their buffer zones shall be offset by deliberate restoration and enhancement or creation (wetlands only) measures as required by the completion of a mitigation plan.

Applicant Findings: The proposed Project would have a small amount of unavoidable impacts to water resources and their buffer areas, which would be mitigated through enhancement activities as detailed in the Mitigation Report (Attachment I). The proposed Project would result in a total of approximately 0.01 acre of stream impacts and 4.16 acres of wetland and water resource buffer impacts, see Table 5 for proposed impacts on water resource areas and their buffers. These totals only count overlapping buffers of the same resource type once. The BRIAR (Attachment H) includes tables listing the impacts by feature, by resource type, and total impacts for the Project.

Table 5: Areas of Proposed Impacts to Water Resources

	Stream	Stream Buffers	Wetland	Wetland Buffers
Temporary	105 sf	0	50 sf	0
Permanent	345 sf	3.14 ac	0	1.02 ac
Total	0.01 ac	3.14 ac	0.0001 ac	1.02 ac

As discussed previously, impacts to wetlands have been avoided through trail design. Permanent impacts to most perennial streams within the corridor would be avoided through designing crossings to be outside of the ordinary high water level. Proposed impacts to ephemeral streams, all stream buffers, and wetland buffers have been minimized through trail design and by maintaining or improving existing hydraulic patterns and drainage conveyance. All practicable avoidance and minimization measures, as detailed above, have been applied and the impacts reflect the minimum that is necessary to meet the Project goals.

Mitigation for unavoidable water and wetland buffer impacts have been developed by ODOT in coordination with extended Project team partners and agencies. As described above and in the attached Mitigation Report (Attachment I), wetland/waterway buffer mitigation will be included in the 10.98 acres habitat mitigation. It will occur in areas with existing riparian or wetland buffers with appropriate Gorge-specific native species; planting plans and potential plant lists are included in the Grading Plans, which include mitigation plans (Attachments B and C).

(3) Wildlife and Plants

(a) Protection of sensitive wildlife/plant areas and sites shall begin when proposed new developments or uses are within 1000 ft. of a sensitive wildlife/plant site and/or area.

Sensitive Wildlife Areas and endemic plants are those areas depicted in the wildlife inventory and listed in Tables 4 and 7 in the Management Plan including all Priority Habitats listed in this Chapter. The approximate locations of sensitive wildlife and/or plant areas and sites are shown in the wildlife and rare plant inventory.

Applicant Findings: ODOT trained biologists conducted field investigations within the Project corridor periodically from July 2017 through January 2019 (specific dates provided in the BRIAR, Attachment H) to identify locations of priority habitats and rare plant and wildlife sites. The presence of sensitive wildlife/plant sites and their buffer areas is described in the BRIAR (Attachment H) and shown on the Site Plan (Attachment A).

(b) The Planning Director shall submit site plans (of uses that are proposed within 1,000 feet of a sensitive wildlife and/or plant area or site) for review to the Forest Service and the appropriate state agencies (Oregon Department of Fish and Wildlife for wildlife issues and by the Oregon Natural Heritage Program for plant issues).

Applicant Findings: A BRIAR (Attachment H) and Site Plan (Attachment A) for the proposed Project has been prepared by qualified natural resource professionals and is available for distribution to USFS and appropriate state agencies.

(c) The Forest Service wildlife biologists and/or botanists, in consultation with the appropriate state biologists, shall review the site plan and their field survey records. They shall:

(A) Identify/verify the precise location of the wildlife and/or plant area or site,

(B) Determine if a field survey will be required,

(C) Determine, based on the biology and habitat requirements of the affected wildlife/plant species, if the proposed use would compromise the integrity and function of or result in adverse affects (including cumulative effects) to the wildlife or plant area or site. This would include considering the time of year when wildlife or plant species are sensitive to disturbance, such as nesting, rearing seasons, or flowering season, and

Applicant Findings: Prior to application submittal to Hood River County, a State Biologist consulted with the appropriate resource agency specialists to verify appropriate field protocols and level of documentation. Additionally, Oregon Biodiversity Information Center (ORBIC) records of special status species were queried within a five-mile radius of the Project area.

The BRIAR (Attachment H) describes the identified Natural Resources and Priority Habitats, and potential impacts to the identified resources based on 30 percent Segment E designs (Attachment B) and 50 percent Segment F designs (Attachment C). Temporary and permanent project-specific impacts on wildlife and plant sites, their buffer areas, and construction measures to avoid adverse effects are described below.

All practicable measures have been adopted and integrated into the Project design and proposed construction to avoid adverse effects, including cumulative impacts on resources. A description follows that details design and construction measures which eliminate potential adverse Project-specific effects, as well as a discussion and finding of no adverse cumulative effects (considering past, present, and reasonably foreseeable future events outside of the proposed Project).

Project-Level Effects on Wildlife and Plant Sites and Buffer Areas:

The design and construction measures listed in this section ensure that the integrity and function of all identified natural resources would not be compromised by the proposed trail Project and no short-term or long-term adverse effects would result directly from the proposed trail project.

Design Measures to Avoid Adverse Effects

- Identified the location of all natural resources and Priority Habitats and aligning the trail to avoid them to the extent practicable.

Table 6: Proposed Priority Habitat and Buffer Area Impacts

Resource Type	Natural Resource Impact	Buffer Impact
Oak Woodland	1.86	4.75 acres
Snag	3 individuals	1.20 acres
Talus	0	1.54 acres
Cliff	0.18 acre	5.53 acres
Hieracium Longiberbe	0	0.35 acres
Douglassia laevigata	0	0.45 acres
Peregrine Falcon Nest	0	0.63 acres
Consolidated Total	2.05 acres	14.45 acres

- Included the removal of existing established areas of invasive and noxious weeds in the Viento Maintenance, Sonny, and Roadhouse Mitigation Sites would result in more diverse and healthier native plant communities and wildlife habitat over time (see Mitigation Report in Attachment I and the Grading Plan which contain mitigation plans in Attachments B and C);
- Used the Historic Highway alignment where possible to minimize impact to mature native vegetation.
- Included full span bridges over fish bearing streams to avoid in-water work impacts.
- Used rockery walls to minimize excavation
- Tree removal will only occur from September 1 to January 31, outside of nesting times
- Treat stormwater runoff from Mitchell Point State Park Trailhead.
- Implement erosion control plan for the entire Project.
- Design the South Viento Campground within its existing footprint.
- Develop rockfall mitigation features to avoid blasting and major rock excavation.
- For detailed description of design measures implemented to avoid individual priority habitat areas see Section 600(A)(3)(f).

Construction Measures to Avoid Adverse Effects

- Designating no-work areas prior to beginning construction where natural resources have been identified as a result of biologist-led surveys of areas of potential sensitive species/plant occurrence;
- Holding a pre-construction conference and site visit with contractors to review natural resource areas for avoidance (no-work areas);
- Not removing trees during nesting times, as described under the Migratory Bird Treaty Act between March 1 and August 31, or if this is not possible, survey & document the project area prior to removing vegetation to ensure no nesting birds are in the project area;
- During construction, using all appropriate erosion control measures to protect identified water resources;
- Limit blasting and helicopter use at Mitchell Point to July 16 to January 31 to avoid impacts to peregrine falcons during their nesting season.
- USFS will remove all invasive plants within the Project area of potential impact.
- Limiting construction staging areas to the fewest necessary to do the work;
- Preserving all of the existing *Douglassia laevigata* (*Douglassia*) population on Mitchell Point rock face by avoiding plants for placement of adits and field-adjusting rockfall mesh anchors and structural bolts.

- Utilizing best management practices for tunnel blasting activities as outlined in the Mitigation Report (Attachment I), which would be stipulated in the Segment F construction contract requirements.

Cumulative Effects and Finding of No Adverse Effect

A detailed discussion of past, present, and future actions outside of but related to the proposed Historic Highway State Trail Project is provided in the applicant findings for cumulative scenic effects in Section 530(2)(b) of this narrative and in the Cumulative Effects Memorandum provided as Attachment J. Primary findings of the cumulative effects evaluation are presented below.

Past actions have been detrimental to the health of the natural environment of the Gorge. Transportation corridors were constructed on fill, which effected the flow of stormwater and streams and created barriers to anadromous fish passage. Incremental development has altered the ecology of the Gorge, fragmenting plant and wildlife habitats and affecting sensitive plant and wildlife species. Air and water quality have also been affected as vehicle traffic has been introduced and increased incrementally over time.

All of the reasonably foreseeable future projects identified in the Cumulative Effects Memorandum (Attachment J) involve maintenance or improvements to existing facilities and are expected to occur within their existing development footprint or the existing roadway prism, so no additional impacts to natural resources are expected. Considering past, present, and planned future actions, no adverse cumulative impacts to natural resources are expected to occur (see Attachment J).

(D) Delineate the undisturbed 200 ft. buffer on the site plan for sensitive plants and/or the appropriate buffer for sensitive wildlife areas or sites, including nesting, roosting and perching sites.

i. (i) Buffer zones can be reconfigured if a project applicant demonstrates all of the following: (1) the integrity and function of the buffer zones is maintained, (2) the total buffer area on the development proposal is not decreased, (3) the width reduction shall not occur within another buffer, and (4) the buffer zone width is not reduced more than 50% at any particular location. Such features as intervening topography, vegetation, manmade features, natural plant or wildlife habitat boundaries, and flood plain characteristics could be considered.

ii. Requests to reduce buffer zones shall be considered if an appropriate professional (botanist, plant ecologist, wildlife biologist, or hydrologist), hired by the project applicant, (1) identifies the precise location of the sensitive wildlife/plant or water resource, (2) describes the biology of the sensitive wildlife/plant or hydrologic condition of the water resource, and (3) demonstrates that the proposed use will not have any negative effects, either direct or indirect, on the affected wildlife/plant and their surrounding habitat that is vital to their long-term survival or water resource and its long term function.

The Planning Director shall submit all requests to re- configure sensitive wildlife/plant or water resource buffers to the Forest Service and the appropriate state agencies for review. All written comments shall be included in the record of application and based on the comments from the state and federal agencies, the Planning Director will make a final decision on whether the reduced buffer zones is justified. If the final decision contradicts

the comments submitted by the federal and state agencies, the Planning Director shall justify how the opposing conclusion was reached

(i) Buffer zones can be reconfigured if a project applicant demonstrates all of the following: (1) the integrity and function of the buffer zones is maintained, (2) the total buffer area on the development proposal is not decreased, (3) the width reduction shall not occur within another buffer, and (4) the buffer zone width is not reduced more than 50% at any particular location. Such features as intervening topography, vegetation, man made features, natural plant or wildlife habitat boundaries, and flood plain characteristics could be considered.

(ii) Requests to reduce buffer zones shall be considered if an appropriate professional (botanist, plant ecologist, wildlife biologist, or hydrologist), hired by the project applicant, (1) identifies the precise location of the sensitive wildlife/plant or water resource, (2) describes the biology of the sensitive wildlife/plant or hydrologic condition of the water resource, and (3) demonstrates that the proposed use will not have any negative effects, either direct or indirect, on the affected wildlife/plant and their surrounding habitat that is vital to their long-term survival or water resource and its long term function.

(iii) The Planning Director shall submit all requests to re-configure sensitive wildlife/plant or water resource buffers to the Forest Service and the appropriate state agencies for review. All written comments shall be included in the record of application and based on the comments from the state and federal agencies, the Planning Director will make a final decision on whether the reduced buffer zones is justified. If the final decision contradicts the comments submitted by the federal and state agencies, the Planning Director shall justify how the opposing conclusion was reached

Applicant Findings: The 200-foot buffer for sensitive plant and wildlife sites and 650-ffot buffer for peregrine falcon nests are shown on the Site Plan in Attachment A. The applicant is not proposing to reconfigure or reduce the standard buffer zones.

(d) The Planning Director, in consultation with the State and federal wildlife biologists and/or botanists, shall use the following criteria in reviewing and evaluating the site plan to ensure that the proposed developments or uses do not compromise the integrity and function of or result in adverse effects to the wildlife or plant area or site:

(A) Published guidelines regarding the protection and management of the affected wildlife/plant species. Examples include: the Oregon Department of Forestry has prepared technical papers that include management guidelines for osprey and great blue heron; the Washington Department of Fish and Wildlife has prepared similar guidelines for a variety of species, including the western pond turtle, the peregrine falcon, and the Larch Mountain salamander (Rodrick and Milner 1991).

(B) Physical characteristics of the subject parcel and vicinity, including topography and vegetation.

(C) Historic, current, and proposed uses in the vicinity of the sensitive wildlife/plant area or site.

(D) Existing condition of the wildlife/plant area or site and the surrounding habitat and the useful life of the area or site.

(E) In areas of winter range, habitat components, such as forage, and thermal cover, important to the viability of the wildlife must be maintained or, if impacts are to occur, enhancement must mitigate the impacts so as to maintain overall values and function of winter range.

(F) The site plan is consistent with the "Oregon Guidelines for Timing of In-Water Work to Protect Fish and Wildlife Resources" (Oregon Department of Fish and Wildlife 2000).

(G) The site plan activities coincide with periods when fish and wildlife are least sensitive to disturbance. These would include, among others, nesting and brooding periods (from nest building to fledgling of young) and those periods specified.

(H) The site plan illustrates that new developments and uses, including bridges, culverts, and utility corridors, shall not interfere with fish and wildlife passage.

(I) Maintain, protect, and enhance the integrity and function of Priority Habitats (such as old growth forests, talus slopes, and oak woodlands) as listed on the following Priority Habitats Table. This includes maintaining structural, species, and age diversity, maintaining connectivity within and between plant communities, and ensuring that cumulative impacts are considered in documenting integrity and function.

PRIORITY HABITATS TABLE	
Priority Habitats	**Criteria**
Aspen stands	High fish and wildlife species diversity, limited availability, high vulnerability to habitat alteration.
Caves	Significant wildlife breeding habitat, limited availability, dependent species.
Old-growth forest	High fish and wildlife density, species diversity, breeding habitat, seasonal ranges, and limited and declining availability, high vulnerability.
Oregon white oak woodlands	Comparatively high fish and wildlife density, species diversity, declining availability, high vulnerability
Prairies and steppe	Comparatively high fish and wildlife density, species diversity, important breeding habitat, declining and limited availability, high vulnerability.
Riparian	High fish and wildlife density, species diversity, breeding habitat, movement corridor, high vulnerability, dependent species.
Wetlands	High species density, high species diversity, important breeding habitat and seasonal ranges, limited availability, high vulnerability.
Snags and logs	High fish and wildlife density, species diversity, limited availability, high vulnerability, dependent species.
Talus	Limited availability, unique and dependent species, high vulnerability.

PRIORITY HABITATS TABLE	
Priority Habitats	**Criteria**
Cliffs	Significant breeding habitat, limited availability, dependent species.
Dunes	Unique species habitat, limited availability, high vulnerability, dependent species.

Applicant Findings: Extended Project team partners, including agency wildlife biologists and botanists were consulted prior to application submittal and all applicable protocols for field assessment and documentation of the presence of sensitive species have been followed. Section 2.0 (Methods) of the BRIAR (Attachment H) describes the data gathering and field research conducted by consultants and Project staff. The BRIAR Section 8.0 (References) further documents the protocols, databases and personal contacts that were used in developing the information documented in the BRIAR.

Section 3.0 (Existing Conditions) of the BRIAR describes the physical characteristics of the proposed corridor and documents the occurrences of natural resources throughout. Section 4.0 (Anticipated Project Impacts) describes the potential effects of the proposed Project on sensitive plants, sensitive wildlife, and priority habitats. The BRIAR provides tables reporting likely impacts to natural resources and priority habitats based on the proposed Project clearing limits in the preliminary grading plans (30 percent for Segment E and 50 percent for Segment F (included as Attachments B and C). This includes expected direct impacts to cliffs, oak woodlands, and streams, as well as indirect (buffer area) impacts to cliff, oak woodlands, streams, wetlands, talus, snags, and sensitive plant and wildlife areas.

No priority areas of winter range habitat occur within the Project area. The clearing of trees for the proposed trail is scheduled to occur outside the breeding and fledging season for many species in accordance with the provisions of the Migratory Bird Treaty Act.

As discussed in the BRIAR (Attachment H), the proposed Project may affect individuals or habitat for several sensitive wildlife populations. However, given the timing of construction, design avoidance and minimization measures, and proposed mitigation, the Project would not have an adverse effect on priority habitats or their buffer areas.

(e) The wildlife/plant protection process may terminate if the Planning Director, in consultation with the Forest Service and state wildlife agency or Heritage program, determines (1) the sensitive wildlife area or site is not active, or (2) the proposed use is not within the buffer zones and would not compromise the integrity of the wildlife/plant area or site, and (3) the proposed use is within the buffer and could be easily moved out of the buffer by simply modifying the project proposal (site plan modifications). If the project applicant accepts these recommendations, the Planning Director shall incorporate them into the final decision and the wildlife/plant protection process may conclude.

Applicant Findings: The applicant has met with USFS and with all other applicable natural resource agencies to discuss the design of the proposed trail. The trail alignment and design features have been carefully developed to avoid, to the maximum extent practicable, impacts to all identified natural resources and priority habitats and their associated buffers while still meeting the Project purpose and need. The design represents the best alternative for the Project with all practicable avoidance measures incorporated into the alignment location and the design of the trail.

(f) If the above measures fail to eliminate the adverse effects, the proposed project shall be prohibited, unless the project applicant can meet the Practicable Alternative Test and

prepare a mitigation plan to offset the adverse effects by deliberate restoration and enhancement.

Applicant Findings: The trail alignment and design features have been carefully developed to avoid impacts to all identified sensitive natural resources and priority habitats and their associated buffers to the maximum extent practicable while still meeting the Project purpose and need. Minimization measures have been incorporated into the trail's alignment and design. There has been extensive involvement of partner agencies in development of the design, avoidance measures, and minimization measures. The design represents the best practicable alternative for the Project. The unavoidable impacts are the least that can be achieved by all practicable avoidance and minimization measures. As noted above, the Site Plan (Attachment A) includes tables that identify the direct and indirect (buffer) impacts by resource type.

After accounting for overlapping buffers, the Project is expected to have a total of 10.35 acres of unavoidable effects on priority habitats and buffer areas. As described in the attached Mitigation Report (Attachment I), restoration and enhancement measures would be taken to replace and enhance functions of affected buffer areas in accordance with the requirements of Section 600. No impacts to threatened or endangered plant or wildlife species have been found to be likely to occur as a result of the proposed Project. Unavoidable impacts to non-water resource priority habitats and buffer areas would be mitigated by restoration of the following areas (see Mitigation Plan – Attachment I for additional details):

Riparian Area Mitigation Sites (weed removal):

- Sonny Mitigation Site (Mitchell Creek) –3.25 acres of previously disturbed land with intact forest overstory and an understory that is dominated by non-native vegetation at approximate trail Segment E station 427+00. The site is primarily on USFS land and partially within ODOT right-of-way, east of Mitchell Creek, south of I-84 shoulder
- Roadhouse Mitigation Site – 6.99 acres of previously disturbed land with intact forest overstory and an understory that is dominated by non-native vegetation at approximate trail station 440+00 on USFS land and within ODOT right-of-way, along stream corridor of an unnamed perennial stream (Stream 16)
- Viento Campground Mitigation Site – 0.37 acres of previously disturbed land with an intact forest overstory and an understory dominated by English ivy, vinca minor, and Himalayan blackberry at approximate trail station 315+00 on OPRD land and within ODOT right-of-way.

Oregon Oak Woodlands Mitigation Sites (conifer thinning and oak planting):

- Perham Creek Mitigation Site – 1.03 acres of previously disturbed riparian area at approximate trail Segment E station 390+00 within ODOT right-of-way, north and in the vicinity of Perham Creek, south of the I-84 shoulder
- Viento Maintenance Facility Mitigation Site – 1.30 acres of historic oak woodland in fair condition at approximate trail station 310+00 on OPRD land directly east of the OPRD Viento State Park maintenance facility, south of the I-84 shoulder
- Stepped Cut #1 Mitigation Site – 6.56 acres of historic oak woodland in poor condition at approximate trail station 380+00 on land currently managed by OPRD, south of the Project trail alignment located above Stepped Cut
- Chetwoot Mitigation Site – 2.39 acres of historic oak woodland in poor condition at approximate trail station 395+00 on land currently managed by OPRD, east of Perham Creek
- Mitchell Point Quarry Mitigation Site – 5.06 acres of previously disturbed land at approximate trail station 465+00 that is primarily owned by ODOT and partially owned by USFS, just east of Mitchell Point

Pollinator Meadows Buffer Mitigation Site (plant species that encourage pollination):

- Dome Rock Mitigation Site – 0.37 acre of previously disturbed land at approximate trail station 327+00 within ODOT right-of-way, north of an existing section of Historic Highway and south of the I-84 shoulder

Throughout much of the Project area the constraints of I-84 to the north, steep terrain to the south, and the Project goal to connect abandoned sections of the Historic Highway confine practicable trail alignment options such that impacts to sensitive habitat resources cannot be completely avoided. Proposed effects that are anticipated to have an adverse effect on a sensitive wildlife and plant areas have been analyzed to evaluate practicable alternatives and would be mitigated, as described in detail below.

Practicable Alternative Test for Proposed Impacts to Non-Water Priority Habitat Areas

Oak Woodland Habitat and Buffer (OW-1) - STA 299+00

The oak woodland habitat resource located at approximately STA 299+00 would be impacted. Project impacts to the resource and its buffer has been minimized. The design team shifted the proposed Viento Trailhead, trail, and parking lot northward to minimize slope impacts and tree removal south of the trail. Due to the existing HCRH State Trail to the west and the location to cross Viento Creek to the east, there are no other practicable alternatives to avoid impacts to the Oak Woodland Habitat at this location.

Oak Woodland Habitat and Buffer (OW-2) - STA 310+50

The oak woodland habitat resource located at approximately STA 310+50 would be impacted. Project impacts to its buffer has been minimized. The proposed Project used the topography of the existing Viento Maintenance Facility access road and extended it east in order to connect to an existing segment of the Historic Highway at 313+50. Numerous horizontal and vertical alignments were evaluated to minimize Project footprint. The trail alignment that is proposed incorporates the use of rockery retaining walls and natural slope revegetation, which are designed to blend in with and have a low impact on the surrounding natural landscape. There is no other practicable alternative at this location that would achieve the Project purpose to reconnect the Historic Highway.

Snag Habitat and Buffer (SL-1) - STA 312+00

The snag habitat resource located at approximately STA 312+00 would be preserved. Project impacts to its buffer has been minimized. The Project used the topography of the existing Viento Maintenance Facility access road and extended it east in order to connect to an existing section of the Historic Highway at 313+50. Numerous horizontal and vertical alignments were evaluated to minimize Project footprint. The trail alignment that is proposed incorporates the use of natural slope revegetation, which is designed to blend in with and have a low impact on the surrounding natural landscape. There is no other practicable alternative at this location that would achieve the Project purpose to reconnect the abandoned sections of the Historic Highway.

Talus Habitat and Buffer (TA-1) - STA 314+00

Similar to the nearby SL-1 snag habitat buffer previously discussed, the proposed Project would avoid impacts to the TA-1 talus habitat resource itself, however it would have some unavoidable impacts to its buffer area. The Project would utilize existing topography to the greatest extent practicable and does not propose grading or other disturbances to the talus habitat area. There is no other practicable alternative at this location that would achieve the Project purpose to reconnect the abandoned sections of the Historic Highway.

Dome Rock Cliff Habitat and Buffer (CL-1) - STA 324+00

Dome Rock, CL-1, is located at approximately STA 324+00. The Project would have some unavoidable impacts to the cliff habitat resource and buffer area. The Project has minimized impacts to the cliff face to the greatest extent practicable. Early on in the Project design process, one alignment alternative considered was to build the new section of trail on the north side of I-84 in order to avoid all impacts to Dome Rock. This option was deemed to not be a practicable alternative since it would not achieve the Project purpose to reconnect the abandoned sections of the Historic Highway.

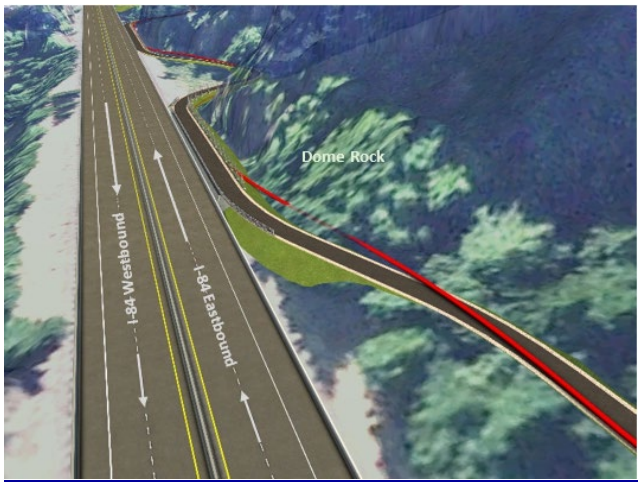

Figure 27: Trail Refinement at Dome Rock (STA 324+00) with alternative alignment consider shown in red.

The proposed Project has minimized impacts to the cliff face by shifting the originally considered alignment away from the cliff face between approximately STA 321+00 and STA 326+00 at both ends of Dome Rock. This minimized the need to fill over areas of the cliff face and minimized the need for rockfall mitigation on the cliff face. The trail alignment that was originally considered at the Project's conceptual phase is shown in red in relation to the current proposed alignment in Figure 25. The Project further minimized impacts to Dome Rock by raising the trail grade by adding a fill wall between the trail and I-84, which allowed the Project to eliminate the need for rockfall mitigation mesh on the cliff face. The proposed alternative includes a barrier along the south side of the trail at this location to protect trail users from potential falling rocks, but requires no mesh on the cliff face itself.

Scoria Cut Cliff Habitat and Buffer (CL-2) and Rare Plant Area (PL-1) - STA 332+00

The Scoria Cut section of the trail (328+50 to 334+50) is at-grade with I-84. The proposed permanent trail features have been refined to avoid impacts to the Scoria Cut cliff face, CL-2, where the endemic *Hieracium Longiberbe* (longbeard hawkweed) has been observed, PL-1. The proposed trail alignment has been shifted away from the cliff face, at both the west (Figure 26) and east (Figure 27) ends. The section was also shifted as far north as possible along I-84 (Figure 28). The proposed Project reduced its standards at this location by eliminating the 2-foot shoulder from the cross section in this location to reduce the trail's footprint and therefore lessen the impact on the sensitive plant and wildlife habitat areas at this location. The refinements incorporated into the proposed alignment has eliminated the need to use rockfall protection mesh on the Scoria Cut cliff face.

Talus Habitat Buffer (TA-2) - STA 335+00

To the east of Scoria Cut is talus sensitive habitat. The proposed Project would overlay an existing section of the Historic Highway within the habitat buffer at approximately STA 335+00. The purpose of the Project is to reconnect existing sections of the Historic Highway and therefore the Project purpose cannot be achieved elsewhere. Trail construction on existing sections of the Historic Highway would have a lower impact that creating a new section of trail elsewhere would.

Figure 28: Trail Refinement at Scoria Cut West End (STA 329+00) with alternative alignment consider shown in red.

Figure 29: Trail Refinement at Scoria Cut East End (STA 334+00) with alternative alignment consider shown in red.

Figure 30: Trail Refinement at Scoria Cut (STA 332+00) with alternative alignment consider shown in red.

Ridge Cut Cliff Habitat Buffer (CL-3) - STA 340+00

The trail alignment meets Ridge Cut at approximately STA 340+00, a protected cliff habitat resource. A similar approach to the one used minimize impacts to Scoria Cut, discussed previously, was used to minimize impacts to Ridge Cut. Project refinement substantially shifted the original trail alignment north so that the trail is adjacent to the edge of I-84 for a longer distance. At the east end of Ridge Cut, the proposed trail alignment is adjacent to I-84 for an additional 200 feet over the originally considered alignment. This avoided the need for direct impacts to the cliff face. Figure 29 shows the original alignment of the trail next to the proposed at the west end of Ridge Cut. Figure 30 shows a similar shift in the trail alignment at the east end of Ridge Cut.

Figure 31: Trail Refinement at Ridge Cut East End (STA 343+00) with alternative alignment consider shown in red.

Figure 32: Trail Refinement at Ridge Cut West End (STA 339+00) with alternative alignment consider shown in red.

Talus Habitat and Buffer (TA-3) - STA 347+00

At the west end of Pinnacle Rock is talus priority habitat. The proposed Project would overlay an existing section of the Historic Highway within the habitat buffer at approximately STA 347+00. The purpose of the Project is to reconnect existing sections of the Historic Highway and therefore the Project purpose cannot be achieved elsewhere. Trail construction on existing sections of the Historic Highway would have a lower impact that creating a new section of trail elsewhere would.

Pinnacle Rock Cliff Habitat and Buffer (CL-4), Oak Woodland Habitat and Buffer (OW-3) and Sensitive Plant Area (PL-2) - STA 351+00

Pinnacle Rock is a priority cliff habitat (CL-4) adjacent to the Project area at approximately STA 350+00. In addition there is an Oak Woodland Habitat. An individual longbeard hawkweed rare plant, PL-2, has been observed on the cliff face. At the west end of Pinnacle Rock, from approximately STA 348+00 to STA 350+00, the Project team moved the trail 15 to 20 feet further north away from the cliff to avoid impacts to the cliff face itself (Figure 31).

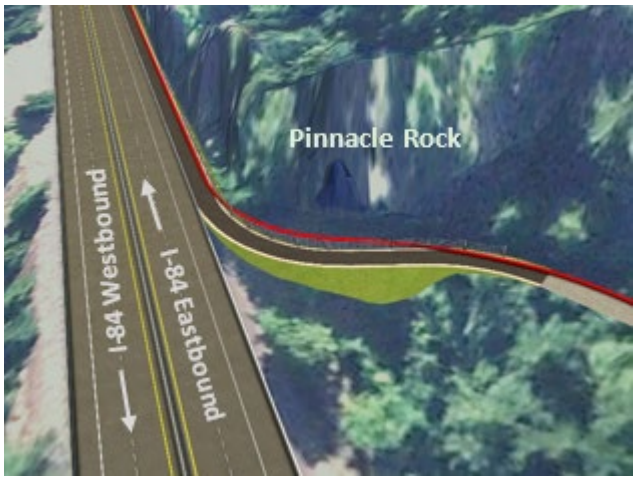

Figure 33: Trail Refinement at Pinnacle Rock West End (STA 348+00) with alternative alignment consider shown in red.

Where it is adjacent to I-84, the trail alignment was shifted north so that it would be as far as possible from the cliff face, limited by the constraint of I-84 directly to the north. The 2-foot shoulder on the north side of the trail has been eliminated from the cross section to reduce the footprint of the trail in this highly constrained section. The Project would require rockfall protection mesh on the cliff face of Pinnacle Rock. This has been minimized as much as practicable.

Snag Habitat and Buffer (SL-2) - STA 367+00

Existing and proposed sections of trail are located within a snag priority habitat area between approximately STA 362+50 and STA 372+50 where 13 snags have been identified. An existing trail section crosses the snag habitat area between approximately STA 362+50 and STA 366+35. The proposed trail section continues east veering north from the existing section at STA 366+35 adjacent to I-84, avoiding most of the snags in this area. The proposed Project would not impact the majority of the snags in this location, however, the alignment would require removal of 3 of the 13 snags. This is not considered to constitute meeting the threshold for an adverse effect since the majority of the snag habitat would be preserved.

Stepped Cut Cliff Habitat and Buffer (CL-5), Oak Woodland Habitat and Buffer (OW-4), Talus Habitat and Buffer (TA-4), and Sensitive Plant Area (PL-3) - STA 380+00

The proposed alignment continues west past the snag habitat area to parallel I-84 and the rock face, Stepped Cut (CL-5) (Figure 32), which is a priority cliff habitat. The same rock formation transitions into talus priority habitat (TA-4) at the east end at approximately STA 384+00. Above the cliff and talus habitats is an oak woodland habitat. The proposed Project's alignment is highly constrained in this location due to I-84 immediately to the north and the steep cliff face of Stepped Cut immediately to the south.

Figure 34: Trail Refinement at Stepped Cut West End (STA 370+00) with alternative alignment consider shown in red.

The refinement of the proposed trail alignment moved the trail adjacent to the highway for a longer distance to avoid the need to impact the face of the cliff itself and minimize the need for rockfall mitigation (Figure 33).

Figures 32 and 33 show the conceptual Project alignment as a red line next to the proposed trail alignment. As shown in the figures, the Project significantly shifted the alignment to avoid impacts to the cliff face. At the east end of Stepped Cut, from about STA 384+00 to STA 386+00, the Project team adjusted the alignment significantly to move it away from Stepped Cut.

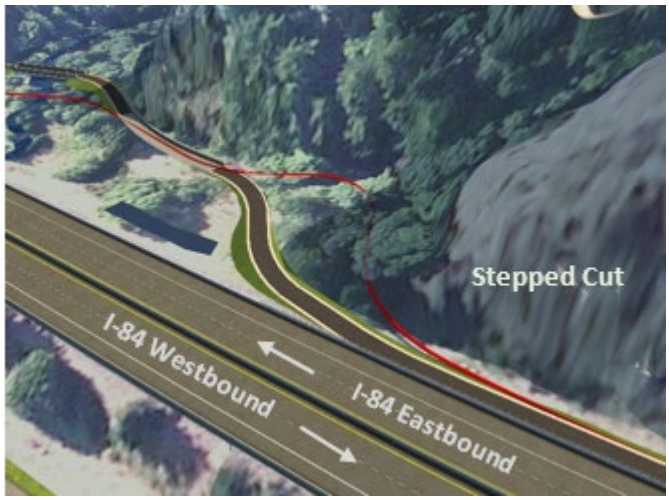

Figure 35: Trail Refinement at Stepped Cut East End (STA 385+00) with alternative alignment consider shown in red.

Several (14) longbeard hawkweed endemic plant individuals, PL-3, has been observed on the cliff face of Stepped Cut. Due to the proximity of the trail to the cliff face, the proposed Project would require some rockfall protection fencing and mesh on the cliff face. The Project would avoid impacts to the plant population in this location by field-adjusting the locations of the anchorages and posts that comprise the rockfall mitigation system. In addition, the construction contract documents would require installation methods that avoid rubbing or dragging the mesh on the rock face and timing installation when the species is dormant (August to February).

Alder Slope Cliff Habitat and Buffer (CL-6) – (STA 387+00)

Alder slope has been identified as a cliff habitat from 385+50 to 389+00. Between STA 386+50 and STA 388+17, the proposed Project would overlay an existing section of the Historic Highway. The Project shifted the alignment of the trail north to provide the greatest possible gap between the trail and the rock slope while still remaining on the existing historic pavement. This shift in the trail's alignment allows the Project to avoid a direct impact to the cliff face and the need for rockfall mitigation, while maintaining this section's alignment on historic pavement. There is no other practicable alternative at

this location that would achieve the Project purpose to reconnect the abandoned sections of the Historic Highway.

Cliff Habitat and Buffer (CL-7) and Oak Woodland Habitat and Buffer (OW-5) – (STA 392+00)

Traveling east from Perham Creek the trail is proposed to travel along the base of the slope which has cliff and oak woodland habitats. There is no direct impact to the cliff and oak woodland resource, however the proposed Project would impact both resource buffers. Due to the proximity of an existing Historic Highway section to the west and the proposed Perham Creek crossing location, there are no other practicable alternative at this location that would further minimize impacts to the buffers and achieve the Project purpose to reconnect the abandoned sections of the Historic Highway.

Hackley Cut Cliff Habitat and Buffer (CL-8) and Oak Woodland Habitat and Buffer (OW-6) - STA 400+00

Between approximately STA 396+00 and 405+00 the proposed Project alignment runs between Hackley Cut and I-84. During development of the proposed trail alignment, the Project team shifted away from the rock face at both the west and east ends so that the trail alignment is away from the rock face and adjacent to I-84 through this area for a longer duration. This shift in alignment allowed the proposed Project to minimize impacts to the cliff face itself. There are no other practicable alternative at this location that would further minimize impacts to the buffers and achieve the Project purpose to reconnect the Historic Highway. Figure 34 shows the initial alignment in red next to the proposed alignment.

Figure 36: Trail Refinement at Hackley Cut (STA 400+00) with alternative alignment consider shown in red.

Segment F Sensitive Wildlife and Plant Areas and Buffer Areas

Mitchell Point Cliff Habitat and Buffer (CL-9) and Sensitive Plant Area (PL-4) - STA 450+00

The proposed alignment follows the existing western Historic Highway bench cut on Mitchell Point before tunneling through the cliff for 660 feet, exiting on the east side of the landform, and continuing east on the existing eastern Historic Highway bench cut. The proposed alternative eliminates the need to install large quantities of rockfall mesh on the cliff face. During construction of the Mitchell Point Tunnel, the surface blasting would be confined to the tunnel portals. Prior alternative analysis considered routing the reconnected Historic Highway down the I-84 on-ramp and along the I-84 shoulder beneath Mitchell Point. This alternative was not carried forward because it would not achieve the Project's basic purpose of reconnecting existing sections of the Historic Highway. Prior alternative analysis considered a longer tunnel that avoided surface construction through much of this reach. This alternative was not carried forward as practical since it would abandon the Historic Highway alignment.

The proposed Mitchell Point Tunnel is not expected to have any impacts to the sensitive plant population present on the cliff face. Tunnel adits and portals have been placed where there are no individuals present. Rockfall mesh would be field-adjusted to avoid individuals.

Mitchell Point Cliff Habitat Buffer (CL-10) and Peregrine Falcon Nest Wildlife Habitat Buffer - STA 465+00

The proposed alignment continues east from the Mitchell Point Tunnel to an abandoned quarry site along the east side of Mitchell Point, which is previously disturbed and sparsely vegetated. This area is within a peregrine falcon nest wildlife habitat buffer between approximately STA 445+00 and STA 455+00. The proposed alignment would provide a higher quality experience for trail users and have a lower impact on surrounding natural resources than routing the trail adjacent to I-84 (due to substantial need for rockfall mitigation measures). The proposed alignment is anticipated to have a lower impact than an alternative that would cross through other more densely vegetated forest areas nearby.

Oak Woodland Habitat and Buffer (OW-7) – (STA 469+00)

The proposed alignment continues east from the abandoned quarry site towards Mitchell Creek Drive. This area is within an Oak Woodland habitat and buffer. The trail alignment would be constrained by a parcel of private property to the south and connection to Mitchell Creek Drive to the east. There is no other practicable alternative at this location that would achieve the Project purpose to reconnect the Historic Highway.

(g) The Planning Director shall submit a copy of all field surveys (if completed) and mitigation plans to the Forest Service and appropriate state agencies. The Planning Director shall include all comments in the record of application and address any written comments sub mitted by the state and federal wildlife agency/heritage programs in the final decision.

Based on the comments from the state and federal wildlife agency/heritage program, the Planning Director shall make a final decision on whether the proposed use would be consistent with the wildlife/plant policies and guidelines. If the final decision contradicts the comments submitted by the state and federal wildlife agency/heritage program, the Planning Director shall justify how the opposing conclusion was reached.

Applicant Findings: The applicant acknowledges that the Planning Director would provide access to all biological research, impact assessments, and the mitigation plan prepared for the proposed Project.

(h) The Planning Director shall require the project applicant to revise the mitigation plan as necessary to ensure that the proposed use would not adversely affect a sensitive wildlife/plant area or site.

Applicant Findings: The applicant acknowledges that the Planning Director may require revision of the proposed mitigation plan as necessary to ensure that the proposed trail would not adversely affect a sensitive wildlife/plant area or site.

(4) *Soil Productivity*

(a) Soil productivity shall be protected using the following guidelines:

(A) A description or illustration showing the mitigation measures to control soil erosion and stream sedimentation.

Applicant Findings: Erosion control plan sheets are included in Attachments B and C, which document erosion and sediment control measures that would be used on the Project. Erosion and sediment control measures may not be limited to silt fences, tire wash stations, and check dams.

(B) New developments and land uses shall control all soil movement within the area shown on the site plan.

Applicant Findings: All soil within the Project footprint would be permanently stabilized after Project completion using methods such as seeding native herbaceous groundcover, planting native shrubs, and/or applying soil stabilizers to bare soil.

(C) The soil area disturbed by new development or land uses, except for new cultivation, shall not exceed 15 percent of the project area.

Applicant Findings: Disturbed soil area does not exceed 15 percent of the tax lots affected. The proposed Project's area of potential impact encompasses less than 1.7 percent of the total acreage of the affected tax lots. The total area of all lots affected is 2,403.48 acres. The Project's area of potential impact (which would be greater than the Project's actual impact) is 40.24 acres (28.88 acres for Segment E and 11.36 acres or Segment F).

(D) Within 1 year of project completion, 80 percent of the project area with surface disturbance shall be established with effective native ground cover species or other soil-stabilizing methods to prevent soil erosion until the area has 80 percent vegetative cover.

Applicant Findings: Effective native ground cover or rock embankments would be established in areas of disturbed soils to prevent erosion. See section 600(B)(1)(a) for discussion of performance criteria.

B. Practicable Alternative Test

(1) An alternative site for a proposed use shall be considered practicable if it is available and the proposed use can be undertaken on that site after taking into consideration cost, technology, logistics, and overall project purposes.

A practicable alternative does not exist if a project applicant satisfactorily demonstrates all of the following:

(a) The basic purpose of the use cannot be reasonably accomplished using one or more other sites in the vicinity that would avoid or result in less adverse effects on wetlands, ponds, lakes, riparian areas, wildlife or plant areas and/or sites.

Applicant Findings: The proposed Project purpose is to connect portions of the Historic Highway and provide a quality trail experience for its users. The trail's route was selected to have a light touch on the environment within the Columbia River Gorge. The trail's route locations have been categorized by impacts to the natural resources (see Table 7 below). Minimizing Project impacts to natural resources counterbalanced with trying to provide a quality trail experience drove the refinement of trail alignment. Impacts to natural resources would be minimized by locating the trail on existing portions of the Historic Highway. There are many north-south oriented resources throughout the Project area including streams and talus slopes; with the trail's east-west orientation, impacts to these natural resources and their buffers were unavoidable. Other than on the existing portions of the Historic Highway, the area of lowest impact for the trail alignment is immediately adjacent to I-84, where existing natural resources have experienced past disturbances and wildlife use is limited by the noise and activity associated with the freeway. Unfortunately, locating the trail adjacent to I-84 provides a poor-quality trail experience due to the highway's traffic and noise. The design team placed most of the trail on the Historic Highway or along I-84 and utilized previously disturbed areas to take the trail away from I-84. This has limited proposed effects to areas that provide poor quality habitat while improving the quality of the trail experience. Most of the trail (84 percent) was located within either the avoidance route location or low impact route location. These areas included the existing Historic Highway (48 percent), existing roadway embankment (12 percent) or was along I-84 (24 percent). Some of the route was within historically disturbed areas and considered to be a low impact route location that improved the

trail experience by moving the trail away from I-84 (10 percent), or was associated with connecting I-84 segments with existing Historic Highway segments (3 percent). Of the areas connecting I-84 to existing Historic Highway segments, only a small portion of the trail (2 percent) was located within relatively undisturbed forest. Finally, 3 percent would be located within a new tunnel through Mitchell point. The project has been designed to avoid impacts to resources wherever practical. An outline of several key avoidance measures taken by the Project follows.

Table 7: Route Location Impacts

Route Location	Percent of Route	Comment
Existing Historic Highway (Avoidance)	48	Purpose and Need – Connect the Historic Highway as required by the Columbia River Gorge National Scenic Area Act.
Existing Abandoned Historic Highway Road Bed (Minimization)	12	Some impacts due to grade changes or upgrading base to support trail
Along I-84	24	Minimum impact route
Connecting Historic Highway and I-84	1	Purpose and Need – Connect the Historic Highway
Disturbed Areas	10	Purpose and Need - Connect the Historic Highway – Following Historic Highway alignment (no longer evident)
Forested Habitat	2	Purpose and Need - Connect the Historic Highway – Needed to connect existing Historic Highway to I-84 and maintain grade requirements
Tunnel	3	Purpose and Need - Quality Trail Experience – Least impactful alignment, trail user experience and mimics the original Historic Highway alignment

Alignment and Structures

Wherever practicable, the current proposed Project trail alignment and Viento Campground has utilized existing roads, existing abandoned sections of the Historic Highway, the original alignment of the Historic Highway where the pavement has been obliterated but the roadbed remains, or is adjacent to I-84. Nearly 85 percent of the project alignment follows either existing Historic Highway alignment or is adjacent to I-84. In general, these areas currently contain pavement or compacted embankment and do not support habitat for sensitive plants and wildlife. Any vegetation found in these areas are stunted and are of low quality as compared to areas immediately off the alignment. In some locations, the trail alignment was shifted from the originally proposed Historic Highway alignment, walls have been added, and roadway grades have been adjusted to minimize impacts to natural resources:

- Adjustments to trail and road alignments:
  - Shifted the Viento Trailhead, trail, and parking lot northward to minimize slope impacts and tree removal south of the trail.
  - Adjusted the trail alignment at approximate STA 338+00 to avoid conifer removal.
  - Modified the trail alignment at approximate STA 355+00 to increase the length of trail that would be adjacent to I-84 by approximately 600 feet, rather than crossing through the forest, in order to save hundreds of trees.

  - Revised trail alignment east of the Mitchell Point shelf to avoid trees on the east side of the clearing, instead aligning the trail through the open meadow area.
  - Modified the grade of the South Viento State Park Campground access road from a desired maximum grade of 8 percent to a grade of 10 percent in order to save approximately 20 large conifers.
  - Shifted the trail alignment at the Perham Creek and Mitchell Creek crossings to the original Historic Highway alignment which minimized impacts to mature riparian vegetation.

- Walls proposed:
  - Reinforced soil slopes proposed near Viento Campground, both on the north side and south side of the trail, to minimize fill slope impacts on the adjacent forested area.
  - Rockery walls proposed approximately 100' east of the OPRD Maintenance Area, both on the north side and south side of the trail, minimize cut slope impacts on the adjacent forested area.
  - Reinforced soil slope proposed along the north side of the entry drive to the Mitchell Point Parking Lot/Trailhead to minimize the fill slope impacts on the adjacent forested area.

Viento to Mitchell Point - Rockfall Risk Reduction Measures

The proposed trail alignment traverses the base of six existing rock cut slopes as it parallels I-84 and one cut slope away from the highway at station 386+25. Due to the risk of rockfall, the Project team has faced a substantial challenge to protect the traveling public (both I-84 and trail users) from falling rocks, minimize impacts to the scenic and natural resources, and provide a high quality recreational experience. When the rockfall hazard was originally studied by ODOT in 2013, the Project called for rock mesh and nearly 900,000 cubic yards of blasting, rock exaction, and scaling. The blasting, excavation, and scaling would greatly impact cliff habitats and the full removal of their communities, including sensitive plants throughout the Project corridor. Additionally, it would have resulted in the removal of large sections of remnant oak communities growing above the rock slopes. This level of impact would be unacceptable, so the approach to lessen rockfall risks was further refined to reduce proposed resource impacts to the maximum practicable extent. The process to adjust and minimize proposed risk reduction measures at each rock slope is discussed in detail below. The following overview provides a general journey where major milestones were passed and/or major decisions were made from a geotechnical perspective:

- **January 2018** – Rockfall design criteria set
  - Retain 90% of rolling rocks and 99% of falling rocks from I-84 and the proposed trail
- **March 21, 2018** – Agency coordination meeting
  - Project team presented conceptual risk reduction measures
- **May 16, 2018** – Agency coordination meeting
  - Project team presented recommended risk reduction options resulting from rockfall modeling and analysis
- **May 16, 2018** – Quantitative risk assessment (QRA) meeting
  - QRA process launched (see more detail regarding QRA process below)
- **June 6, 2018** – Rockfall risk reduction preferred alternatives meeting
  - Presented results of refined rockfall modeling and analysis
  - Gained FHWA, ODOT, and OPRD support for preferred risk reduction measure at each rock slope

- **August 29, 2018** – QRA workshop #1
    - Presented preliminary results of QRA
- **September 19, 2018** – QRA workshop #2
    - Presented final results of QRA
- **October 23, 2018** – Agency site visit
    - FHWA, USFS, DEA site visit to evaluate selected risk reduction measures
- **December 4, 2018** – Rockfall mitigation workshop
    - Confirmed Agency support for 30% risk reduction measures at each site.

QRA Process

As rockfall modeling and analysis continued to indicate the need for robust risk reduction measures, the extended Project team chose to re-evaluate the design criteria to see if a better balance between potential resource impact and added-liability assumed by ODOT could be achieved. To understand the level of risk that ODOT would assume if the design criteria changed for the trail, a quantitative risk assessment (QRA) was performed. The QRA took into consideration items such as the probability that a rockfall event occurs, probability that a trail user is in the path of rockfall, probability that a trail user is in the hazard zone of rockfall, and probability that a rockfall event results in a casualty. The resulting individual risk was plotted on a chart established by USBR and other agencies which shows annual individual risks that have been determined to be "acceptable" according to US society. Due to the high number of projected trail users and the fact that a relatively low energy rock can cause a fatality, the calculated annual individual risk of fatality at rock slopes along Segment E is less than the "acceptable" values in the chart. ODOT is not willing to assume liability for rockfall risk that is below the "acceptable" individual risk level. The team pursued the QRA to potentially reduce the proposed resource impacts, but ultimately the results showed that straying from the established design criteria would be irresponsible and too risky. Shown here is a detailed description of how the rockfall mitigation measures were adjusted and minimized to protect the scenic and natural resources:

Figure 37: Dome Rock Aerial Photo

Dome Rock (station 320+50 to 325+75)

The initial 2018 conceptual assessment of Dome Rock (Figure 35), which included rockfall history, past maintenance efforts, geotechnical evaluations, an assessment of rockfall hazards, and the results of the rockfall models, resulted in the following list of potential risk reduction measures:

- Scaling
- Draped Rockfall Protection Wire Mesh
- Mid-slope Rockfall Attenuator
- Enlarge and improve fallout area
- Raise grade of trail
- Raise trail grade and install flexible rockfall barrier (FRB)

The initial list of applicable risk reduction options was further evaluated with the intent to minimize impacts to the scenic and natural resources while adequately mitigating the rockfall safety hazard. In addition, the Project team considered the feasibility to install each risk reduction option listed above relative to the geologic structure of the rock slope. The following two options best fit the Project goals (Figure 36):

- Raise trail 10’ and install a 10’ tall FRB
- Enlarge and Improve Fallout Area

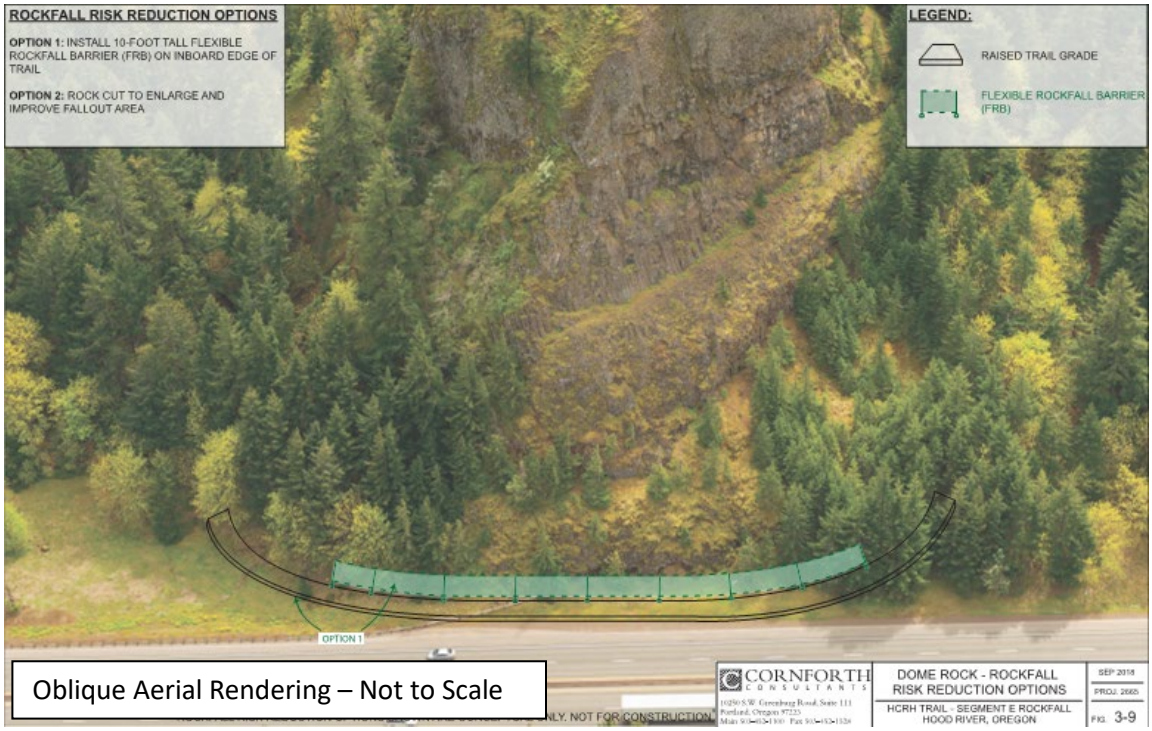

Figure 38: Dome Rock Rockfall Risk Reduction Options

Once the list was reduced to two risk reductions options, the Project team performed additional rockfall modeling and analysis to understand the effectiveness of each option to protect users of the proposed trail and I-84 and minimize impacts to the environment. During the June 6th meeting the Project Team gained initial support and at the December 4th meeting, the agencies confirmed that raising the trail grade 10' combined with the installation of a 10' tall FRB would be best (Figure 37). This alternative balances safety of the traveling public on I-84, the proposed trail recreational user, and minimizes impacts to the scenic and natural resources for the following reasons:

- Enlarging the fallout area would require substantial blasting and slope excavation with higher visual impact and disturbance to the natural resources.
- Raising the trail and installation of FRP eliminates the need for draped wire mesh which minimizes disturbance and visual impacts to the rock slope.
- Raising the trail and installing FRB does not require temporary rockfall measures on the slope to construct which minimizes impacts to the natural resources.

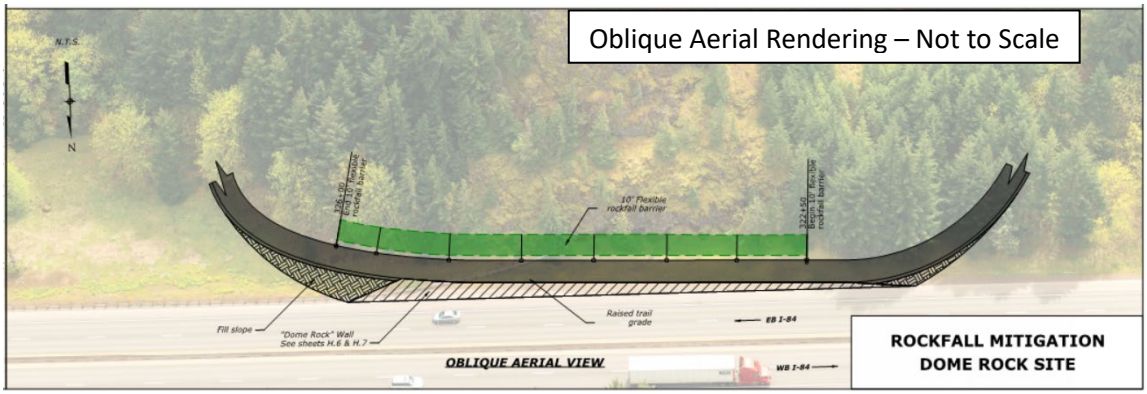

Figure 39: Rockfall Mitigation Dome Rock Site

The Project Team has evaluated all options to mitigate the rockfall risk at Dome Rock and has determined that there are no other practicable alternatives to mitigate the rockfall hazard at this site. In an effort to continue to minimizing impacts to the environment, risk reduction measures will continue to be refined as follows:

- Evaluate option to shorten the FRB on the east end and replace it with a single row of gabion baskets.
- Develop design details and specification to minimize the visual appearance of the FRB with a weathering agent to darken it so it blends into the slope.

Figure 40: Scoria Cut Aerial Photo

Scoria Cut (station 330+00 to 334+50)

The initial 2018 conceptual assessment Scoria Cut (Figure 38), which included rockfall history, past maintenance efforts, geotechnical evaluations, an assessment of rockfall hazards, and the results of the rockfall models, resulted in the following list of potential risk reduction measures:

- Scaling
- Raise grade of trail
- Enlarge and improve fallout area
- Midslope Rockfall Attenuator
- Inboard flexible rockfall barrier (FRB)
- Draped Rockfall Protection Wire Mesh

The initial list of applicable risk reduction options was further evaluated with the intent to minimize impacts to the scenic and natural resources while adequately mitigating the rockfall safety hazard. In addition, the Project team considered the feasibility to install each risk reduction option listed above relative to the geologic structure of the rock slope. The following two options best fit the Project goals (Figure 39):

- Inboard flexible rockfall barrier (FRB)
- Draped Rockfall Protection Wire Mesh

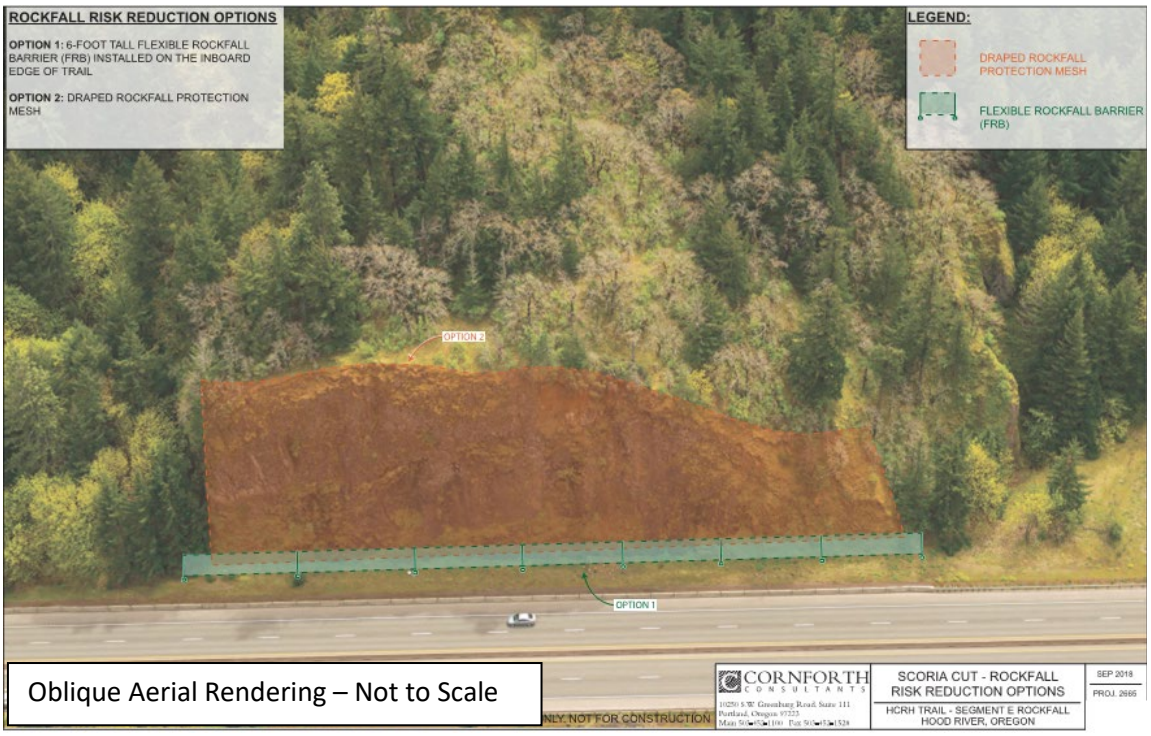

Figure 41: Scoria Cut Rockfall Risk Reduction Options

Once the list was reduced to two risk reductions options, the Project team performed additional rockfall modeling and analysis to understand the effectiveness of each option to protect users of the proposed trail and I-84 and minimize impacts to the environment. During the June 6th meeting the Project Team gained initial support and at the December 4th meeting, the agencies confirmed that the installation of a 6' tall FRB

would be best (Figure. 40). This alternative balances safety of the traveling public on I-84, the proposed trail recreational user, and minimizes impacts to the scenic and natural resources for the following reasons:

- Installation of FRB eliminates the need for draped wire mesh with minimal disturbance and visual impacts to the rock slope above the trail.
- Does not require temporary rockfall measures on the slope to construct which minimizes impacts to the natural resources.

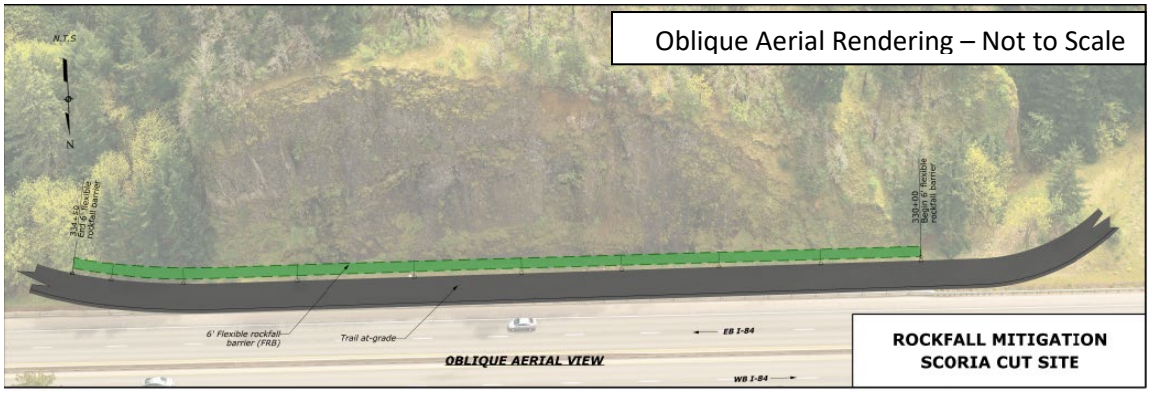

Figure 42: Rockfall Mitigation Scoria Cut Site

The Project Team has evaluated all options to mitigate the rockfall risk at Scoria Cut and has determined that there are no other practicable alternatives to mitigate the rockfall hazard at this site. In an effort to continue to seek ways to minimize the rockfall mitigation features, work to be included in further development of the Project:

- Develop design details and specification to minimize the visual appearance of the FRB with a weathering agent to darken it so it blends into the slope.

Figure 43: Ridge Cut Aerial Photo

Ridge Cut (station 338+00 to 344+00)

The initial 2018 conceptual assessment Ridge Cut (Figure, 41), which included rockfall history, past maintenance efforts, geotechnical evaluations, an assessment of rockfall hazards, and the results of the rockfall models, resulted in the following list of potential risk reduction measures:

- Scaling
- Raise grade of trail
- Enlarge and improve fallout area
- Mid-slope Rockfall Attenuator
- Install flexible rockfall barrier (FRB) with raised grade of trail
- Draped Rockfall Protection Wire Mesh

The initial list of applicable risk reduction options was further evaluated with the intent to minimize impacts to the scenic and natural resources while adequately mitigating the rockfall safety hazard. In addition, the Project team considered the feasibility to install each risk reduction option listed above relative to the geologic structure of the rock slope. The following two options best fit the Project goals (Figure 42):

- Install flexible rockfall barrier (FRB) with raised grade of trail
- Draped Rockfall Protection Wire Mesh

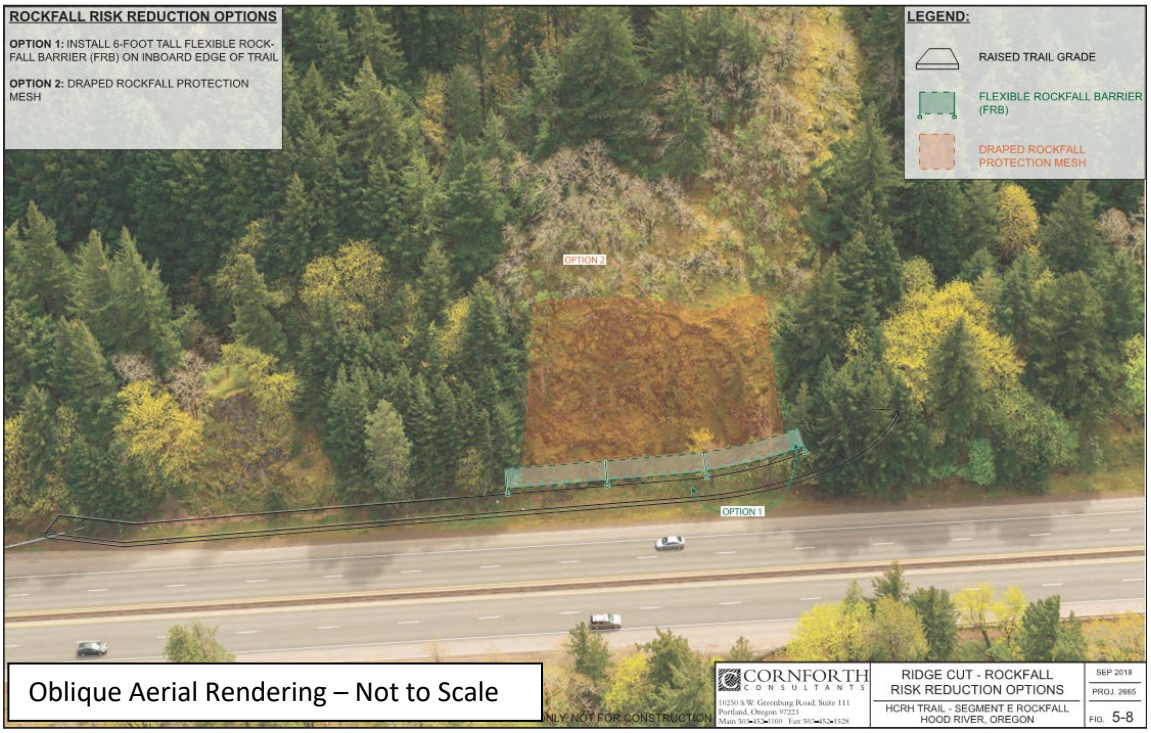

Figure 44: Ridge Cut Rockfall Risk Reduction Options

Once the list was reduced to two risk reductions options, the Project team performed additional rockfall modeling and analysis to understand the effectiveness of each option to protect users of the proposed trail and I-84 and minimize impacts to the environment. During the June 6th meeting the Project Team gained initial support and at the December 4th meeting, the agencies confirmed that raising the trail grade 10' combined with the installation of a 6' tall FRB would be best (Figure 43). This alternative balances safety

of the traveling public on I-84, the proposed trail recreational user, and minimizes impacts to the scenic and natural resources for the following reasons:

- Raising the trail and installation of FRP eliminates the need for draped wire mesh with minimal disturbance and visual impacts to the rock slope above the trail.
- Does not require temporary rockfall measures on the slope to construct which minimizes impacts to the natural resources.

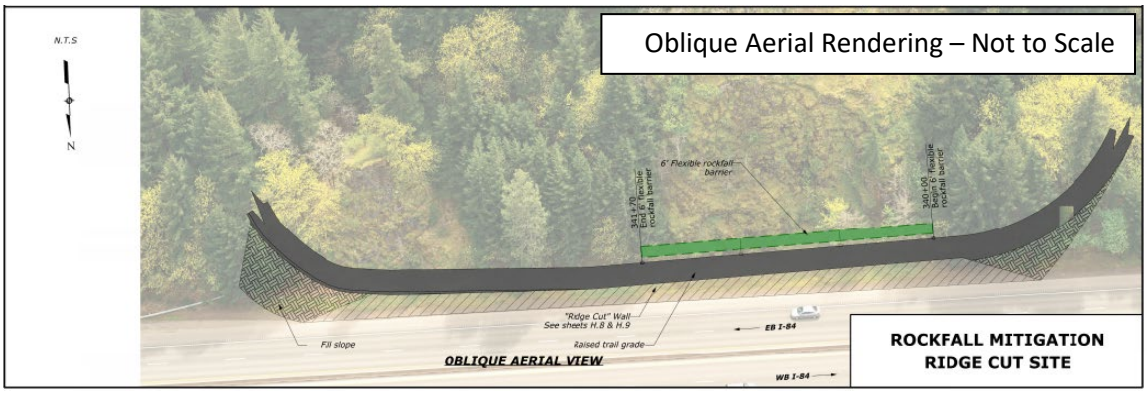

Figure 45: Rockfall Mitigation Ridge Cut Site

The Project Team has evaluated all options to mitigate the rockfall risk at Ridge Cut and has determined that there are no other practicable alternatives to mitigate the rockfall hazard. In an effort to continue to seek ways to minimize the rockfall mitigation features, work to be included in further development of the Project:

- Evaluate option to shorten the FRB on the east end and replace it with a single row of gabion baskets.
- Develop design details and specification to minimize the visual appearance of the FRB with a weathering agent to darken it so it blends into the slope.

Figure 46: The Pinnacle Aerial Photo

The Pinnacle (station 348+50 to 355+50)

The initial 2018 conceptual assessment of The Pinnacle (Figure 44), which included rockfall history, past maintenance efforts, geotechnical evaluations, an assessment of rockfall hazards, and the results of the rockfall models, resulted in the following list of potential risk reduction measures:

- Scaling
- Gabion baskets
- Inboard flexible rockfall barrier
- Midslope Rockfall Attenuator
- Enlarge and improve fallout area
- Draped Rockfall Protection Wire Mesh

The initial list of applicable risk reduction options was further evaluated with the intent to minimize impacts to the scenic and natural resources while adequately mitigating the rockfall safety hazard. In addition, the Project team considered the feasibility to install each risk reduction option listed above relative to the geologic structure of the rock slope. The following two options best fit the Project goals (Figure 45):

- Draped Rockfall Protection Wire Mesh with gabion baskets
- Enlarge and improve fallout area

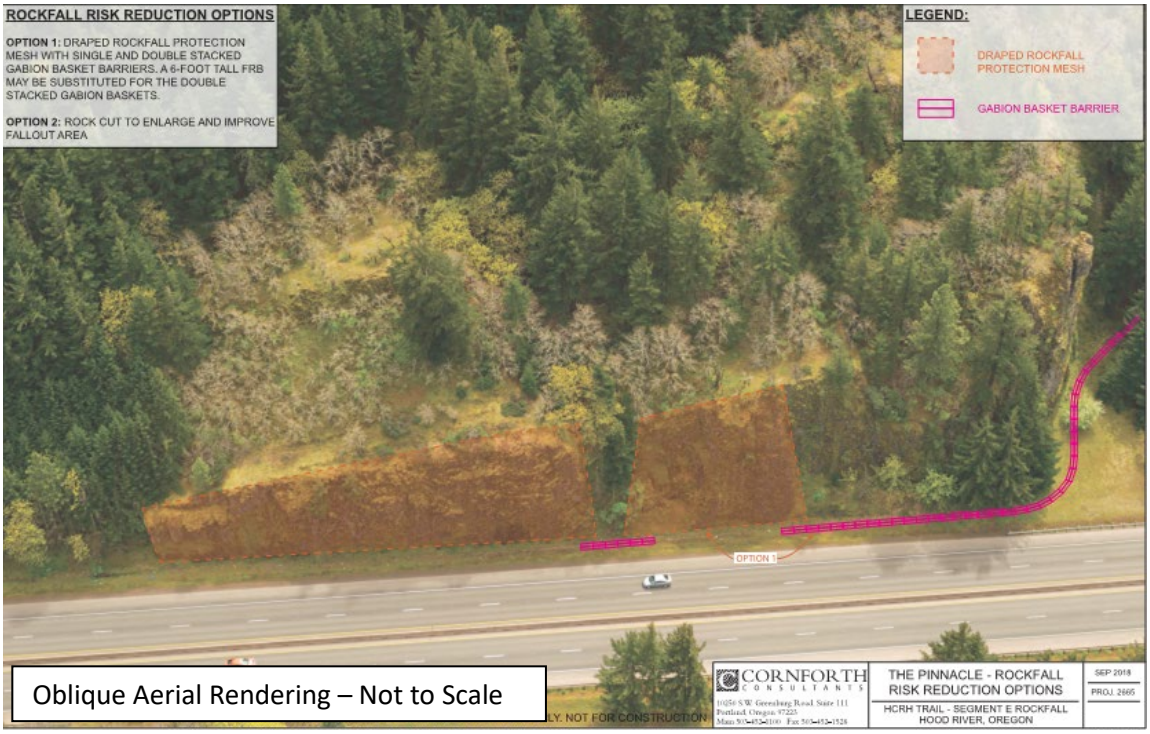

Figure 47: The Pinnacle Rockfall Risk Reduction Options

Once the list was reduced to two risk reductions options, the Project team performed additional rockfall modeling and analysis to understand the effectiveness of each option to protect users of the proposed trail and I-84 and minimize impacts to the environment. During the June 6th meeting the Project Team gained initial support and at the December 4th meeting, the agencies confirmed that the trail at grade with the installation of a mesh and 6' tall FRB would be best (Figure 46). This alternative balances safety of the traveling public on I-84, the proposed trail recreational user, and minimizes impacts to the scenic and natural resources for the following reasons:

- Enlarging the fallout area would require substantial blasting and slope excavation with higher visual impact and disturbance to the natural resources.
- Use of FRB reduces the amount of mesh needed to cover the slope in areas of heavy vegetation.

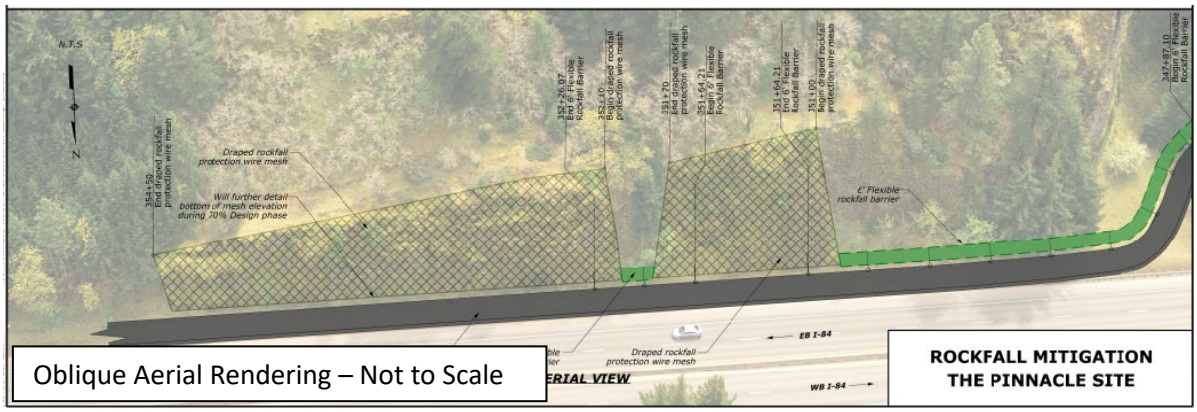

Figure 48: Rockfall Mitigation The Pinnacle Site

The Project Team has evaluated all options to mitigate the rockfall risk at The Pinnacle and has determined that there are no other practicable alternatives to mitigate the rockfall hazard at this site. In an effort to continue to seek ways to minimize the rockfall mitigation features, work to be included in further development of the Project:

- Evaluate option to shorten the FRB on the west end and replace it with a single row of gabion baskets.
- Develop design details and specification to minimize the visual appearance of the FRB with a weathering agent to darken it so it blends into the slope.

Stepped Cut (station 370+50 to 385+00)

Figure 49: Stepped Cut Aerial Photo

The initial 2018 conceptual assessment of Alder Slope (Figure 47), which included rockfall history, past maintenance efforts, geotechnical evaluations, an assessment of rockfall hazards, and the results of the rockfall models, resulted in the following list of potential risk reduction measures:

- Scaling
- Rock bolting
- Rockfall shed
- Rockfall canopy
- Flexible rockfall barrier
- Enlarge and improve fallout area
- Midslope Rockfall Attenuator
- Draped Rockfall Protection Wire Mesh

The initial list of applicable risk reduction options was further evaluated with the intent to minimize impacts to the scenic and natural resources while adequately mitigating the rockfall safety hazard. In addition, the

Project team considered the feasibility to install each risk reduction option listed above relative to the geologic structure of the rock slope. The following two options best fit the Project goals (Figure 48):

- Mid-slope Rockfall Attenuator
- Draped Rockfall Protection Wire Mesh

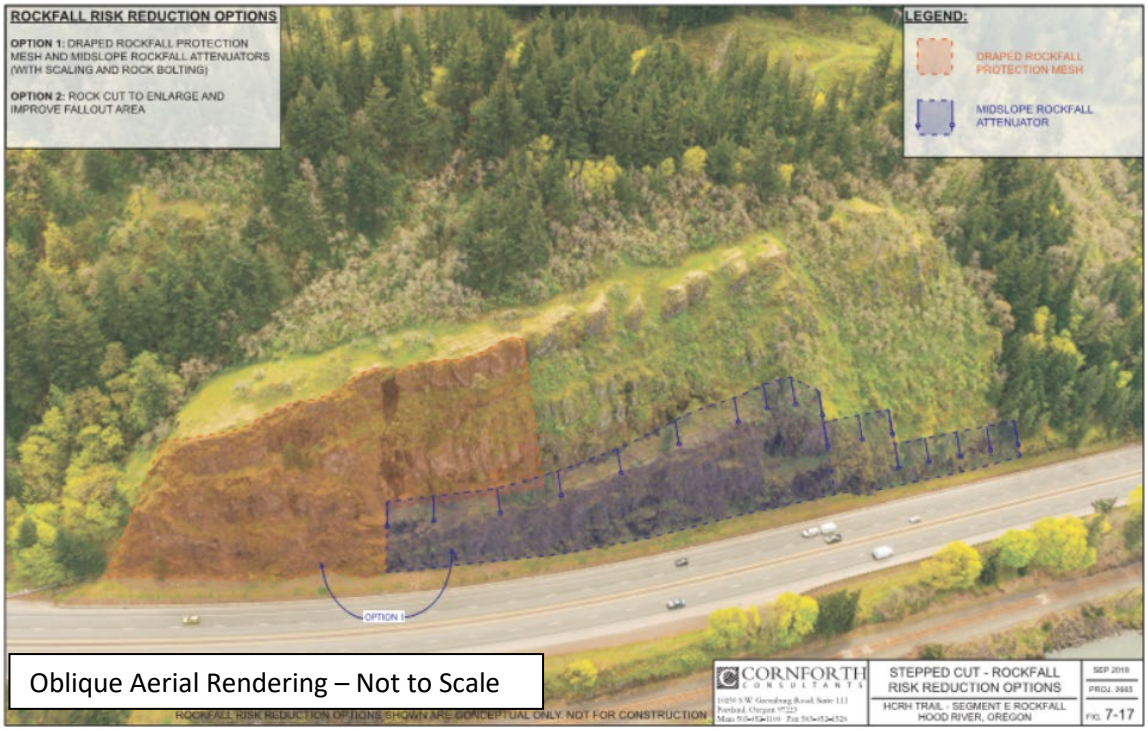

Figure 50: Stepped Cut Rockfall Risk Reduction Options

Once the list was reduced to two risk reductions options, the Project team performed additional rockfall modeling and analysis to understand the effectiveness of each option to protect users of the proposed trail and I-84 and minimize impacts to the environment. During the June 6th meeting the Project Team gained initial support and at the December 4th meeting, the agencies confirmed that a combination of draped rockfall protection wire mesh and the use of mid-slope rockfall attenuator would be best (Figure 49). This alternative balances safety of the traveling public on I-84, the proposed trail recreational user, and minimizes impacts to the scenic and natural resources for the following reason:

- Enlarging the fallout area would require substantial blasting and slope excavation with higher visual impact and disturbance to the natural resources.

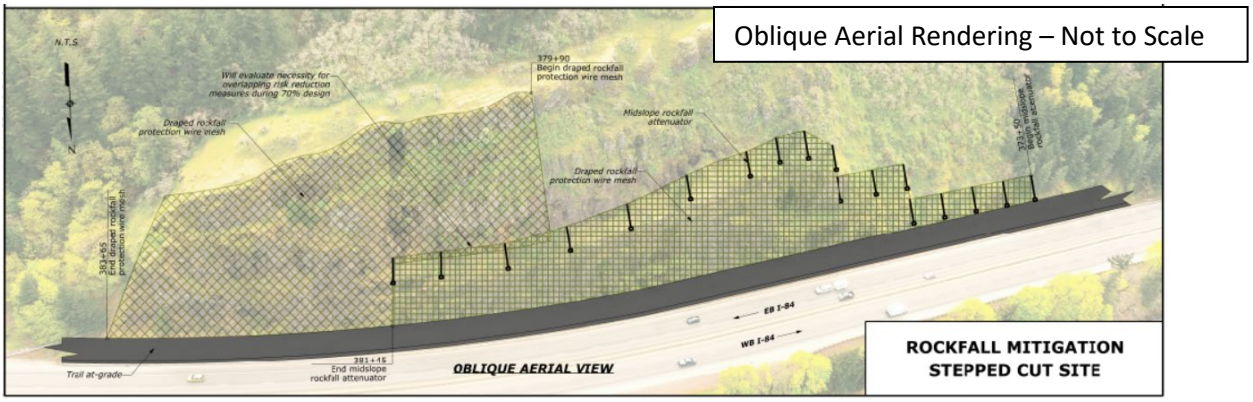

Figure 51: Rockfall Mitigation Stepped Cut Site

The Project Team has evaluated all options to mitigate the rockfall risk at Stepped Cut and has determined that there are no other practicable alternatives to mitigate the rockfall hazard. In an effort to continue to seek ways to minimize the rockfall mitigation features, work to be included in further development of the Project:

- Evaluate over-lap of the two types of rockfall mesh to minimize differing visual patterns.
- Develop design details and specification to minimize the visual appearance of the mesh with a weathering agent to darken the rockfall mesh so it blends into the slope.

Alder Slope (station 386+25 to 388+25)

Figure 52: Alder Slope Aerial Photo

The initial 2018 conceptual assessment of Alder Slope (Figure 50), which included rockfall history, past maintenance efforts, geotechnical evaluations, an assessment of rockfall hazards, and the results of the rockfall models, resulted in the following list of potential risk reduction measures:

- Scaling
- Draped Rockfall Protection Wire Mesh
- Midslope Rockfall Attenuator
- Inboard flexible rockfall barrier
- Gabion baskets
- Shift alignment of trail

The initial list of applicable risk reduction options was further evaluated with the intent to minimize impacts to the scenic and natural resources while adequately mitigating the rockfall safety hazard. In addition, the Project team considered the feasibility to install each risk reduction option listed above relative to the geologic structure of the rock slope. The following two options best fit the Project goals (Figure 51):

- Shift alignment of trail
- Inboard flexible rockfall barrier
- Double stacked gabion baskets

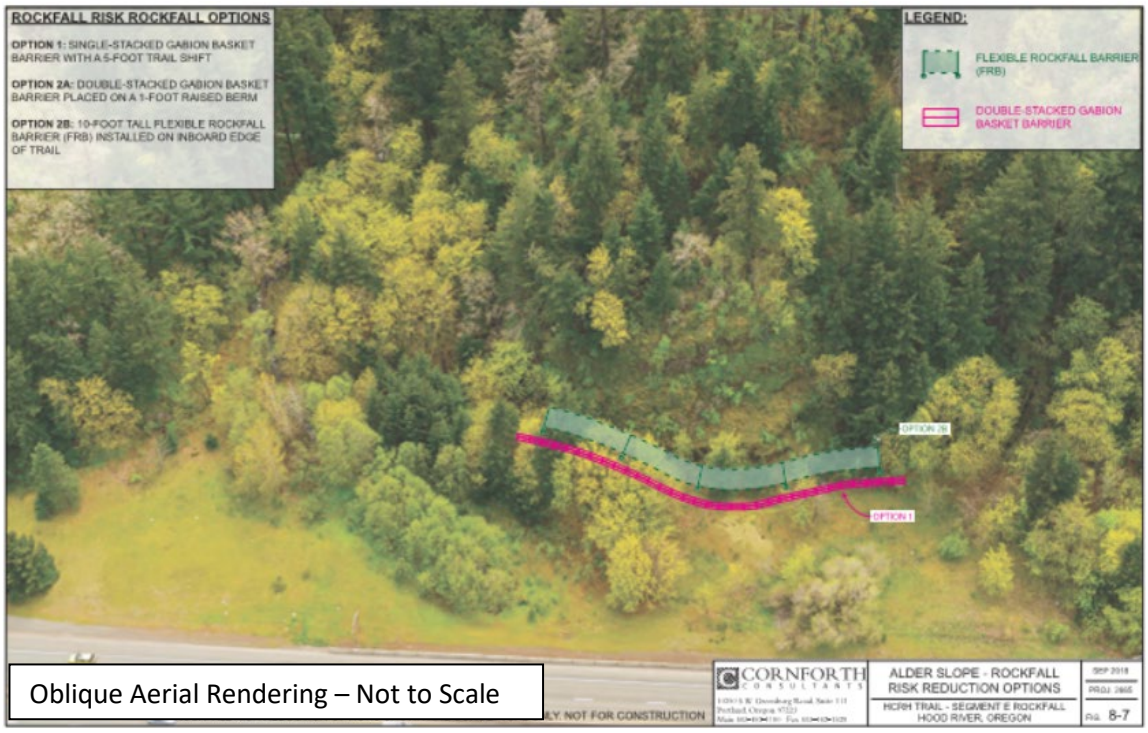

Figure 53: Alder Slope Rockfall Risk Reduction Options

Once the list was reduced to two risk reductions options, the Project team performed additional rockfall modeling and analysis to understand the effectiveness of each option to protect users of the proposed trail and I-84 and minimize impacts to the environment. During the June 6th meeting the Project Team gained initial support and at the December 4th meeting, the agencies confirmed that a combination of shifting the trail as far as possible away from the toe without having to construct a fill wall and install a single row of gabion baskets at the toe of the slope would be best (Figure 52). This alternative balances safety of the

traveling public on I-84, the proposed trail recreational user, and minimizes impacts to the scenic and natural resources for the following reasons:

- Inboard flexible rockfall barrier not appropriate in forest (wall effect).
- Shift trail as far away from toe of slope, but not so far that a fill slope or fill wall would be required which has additional impact to the natural resources
- Decision to shift trail and install single row of gabion baskets.

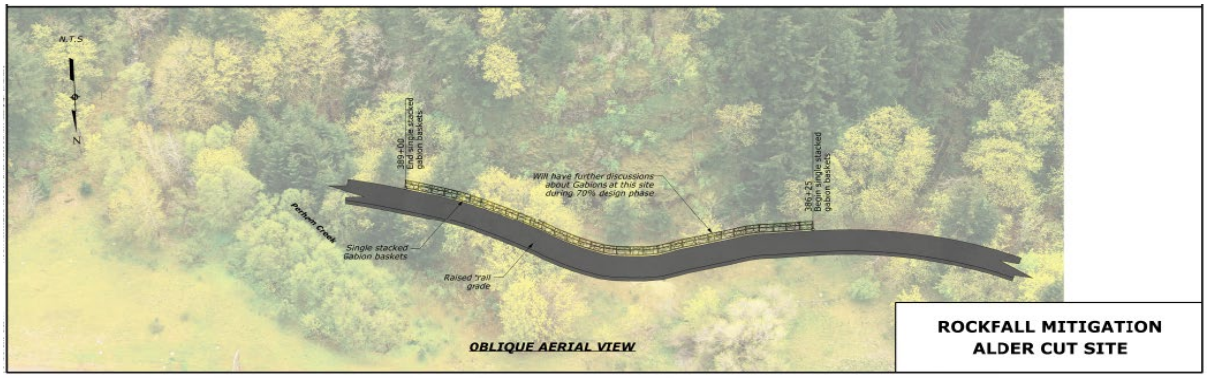

Figure 54: Rockfall Mitigation Alder Cut Site

The Project Team has evaluated all options to mitigate the rockfall risk at Alder Slope and has determined that there are no other practicable alternatives to mitigate the rockfall hazard at this site. In an effort to continue to seek ways to minimize the rockfall mitigation features, work to be included in further development of the Project:

- Evaluate option to shorten the length of the gabion baskets.
- Develop design details and specification to minimize the visual appearance of the gabion baskets with a weathering agent to darken it so it blends into the slope.

Hackley Cut (399+50 to 405+50)

Figure 55: Hackley Cut Aerial Photo

The initial 2018 conceptual assessment of Hackley Cut (Figure 53), which included rockfall history, past maintenance efforts, geotechnical evaluations, an assessment of rockfall hazards, and the results of the rockfall models, resulted in the following risk reduction measures:

- Scaling
- Flexible rockfall barrier
- Draped Rockfall Protection Wire Mesh
- Midslope Rockfall Attenuator
- Enlarge and improve fallout area

The initial list of applicable risk reduction options was further evaluated with the intent to minimize impacts to the scenic and natural resources while adequately mitigating the rockfall safety hazard. In addition, the Project team considered the feasibility to install each risk reduction option listed above relative to the geologic structure of the rock slope. The following two options best fit the Project goals (Figure 54):

- Draped rockfall protection wire mesh
- Enlarge and improve fallout area

Figure 56: Hackley Cut Rockfall Risk Reduction Options

Once the list was reduced to two risk reductions options, the Project team performed additional rockfall modeling and analysis to understand the effectiveness of each option to protect users of the proposed trail and I-84 and minimize impacts to the environment. During the June 6th meeting the Project Team gained initial support and at the December 4th meeting, the agencies confirmed that the installation of draped rockfall protection wire mesh would be best (Figure 55). This alternative balances safety of the traveling public on I-84, the proposed trail recreational user, and minimizes impacts to the scenic and natural resources for the following reasons:

- Enlarging the fallout area would require substantial blasting and slope excavation with higher visual impact and disturbance to the natural resources.

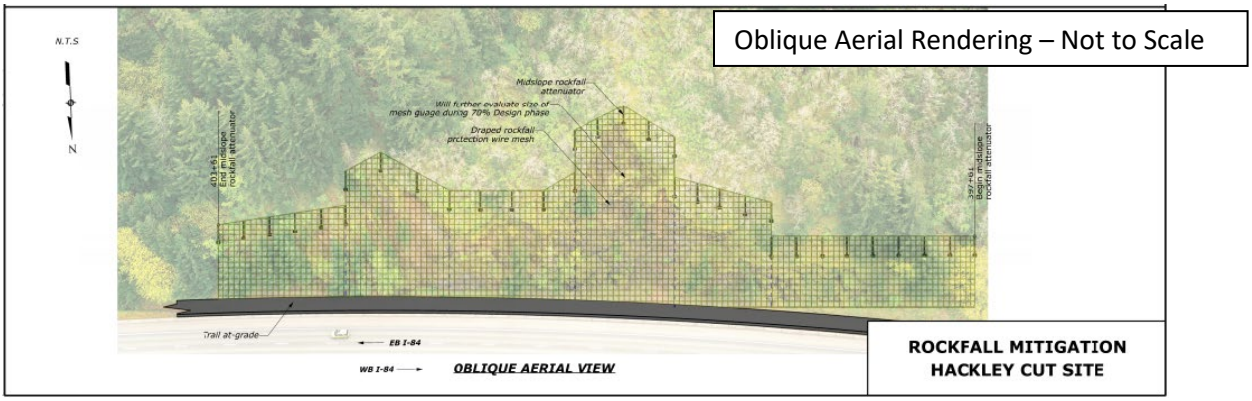

Figure 57: Rockfall Mitigation Hackley Cut Site

The Project Team has evaluated all options to mitigate the rockfall risk at Hackley Cut and has determined that there are no other practicable alternatives to mitigate the rockfall hazard at this site. In an effort to continue to seek ways to minimize the rockfall mitigation features, work to be included in further development of the Project:

- Develop design details and specification to minimize the visual appearance of the mesh with a weathering agent to darken it so it blends into the slope.

Mitchell Point Tunnel

The alignment at Mitchell point was designed to avoid impacts to the cliff and the sensitive *douglasia laevigata* population that inhabits it. The avoided alignments along I-84 and a viaduct which would have required more extensive rockfall mitigation and scaling of the cliff's face, impacting *douglasia* and cliff habitats used by plants and nesting birds. The tunnel entrances (portals) and windows (adits) are proposed at locations based on field discussions that focused on avoiding areas inhabited by *douglasia* individuals.

(b) The basic purpose of the use cannot be reasonably accomplished by reducing its proposed size, scope, configuration, or density, or by changing the design of the use in a way that would avoid or result in less adverse effects on wetlands, ponds, lakes, riparian areas, wildlife or plant areas and/or sites.

Applicant Findings: The proposed Project purpose and need to reconnect existing sections of the Historic Highway as a safe and accessible multiuse trail would not be met if the Project is reduced in cross-section, configuration, or length. The alignment of the trail and the design elements has been modified as much as possible to avoid direct impacts on natural resources. The Project cannot be reduced from its current typical width without sacrificing basic pedestrian and bicyclist safety. Changing the configuration (degree of curvature, longitudinal grades) would decrease safety and would not achieve the accessibility guidelines. Changing the length would not achieve the connectivity Project purpose. Direct and indirect impacts to Significant Natural Resources and Priority Habitats have been minimized to the extent practicable through alignment and grade modifications, rockfall mitigation refinements, and minimization, and additional best practices installation requirements that would be included in the construction contract.

(c) Reasonable attempts were made to remove or accommodate constraints that caused a project applicant to reject alternatives to the proposed use. Such constraints include inadequate infrastructure, parcel size, and land use designations. If a land use designation or recreation intensity class is a constraint, an applicant must request a Management Plan amendment to demonstrate that practicable alternatives do not exist.

Applicant Findings: Parcel size and land use designations are not applicable to determining the location of the trail or access routes since the Project is designed to follow a historic corridor (Historic Highway), much of the proposed alignment is on public right-of-way, and no buildings are proposed (except replacing two restroom facilities, which would be located within the existing footprints of the South Viento State Park Campground and the Mitchell Point Trailhead). The proposed trail alignment is designed to make the most practicable use of the remaining Historic Highway. The alignment of the trail has been modified through the design process to limit effects on natural resources and priority habitats based on preliminary fieldwork and agency suggestions.

C. Mitigation Plan

(1) Mitigation Plan shall be prepared when:

(a) The proposed development or use is within a buffer zone (wetland, pond, lakes, riparian areas, wildlife or plant areas and/or sites).
(b) There is no practicable alternative (see the "practicable alternative" test).

Applicant Findings: There are no practicable alternatives to some sections of the proposed trail alignment, which that results in 10.34 acres of impacts to natural resource buffer areas. Practicable alternative for Project impacts to buffer zones are described in detail for water resource areas in the applicant's response to HRCZO Section 600(A)(2)(g)(A) and for non-water plant and wildlife areas in the response to HRCZO Section 600(A)(3)(f) in this application. All impacts have been avoided to the maximum extent possible, and all practicable minimization measures have been applied to both sensitive resources and their buffer areas. The remaining unavoidable impacts are the least possible without compromising the purpose and need of the proposed Project. The measures to mitigate impacts to sensitive resources and their buffer areas are described in the Mitigation Report (Attachment I) and Forest Practices Stewardship Memo (Attachment M) and shown graphically as a component of the Grading Plans in Attachments B and C.

(2) In all cases, Mitigation Plans are the responsibility of the applicant and shall be prepared by an appropriate professional (botanist/ecologist for plant sites, a wildlife/fish biologist for wildlife/fish sites, and a qualified professional for water resource sites).

Applicant Findings: Mitigation has been developed in cooperation with appropriate professionals, which include trained biologists from WFLHD, ODOT, OPRD, and the USFS, and landscape architects from David Evans and Associates, Inc. and WH Pacific. The mitigation plan has been reviewed by natural resource specialists with the USFS and ODOT.

(3) The primary purpose of this information is to provide a basis for the project applicant to redesign the proposed use in a manner that protects sensitive water resources, and wildlife/plant areas and sites, that maximizes his/her development options, and that mitigates, through restoration, enhancement, and replacement measures, impacts to the water resources and/or wildlife/plant area or site and/or buffer zones.

Applicant Findings: As discussed above, the Project team has assessed, re-assessed and refined the alignment of the proposed trail based on the locations of water resources and wildlife/plant areas and sites identified through site inspections, available species records, and consultations with Hood River County, ODFW and USFS trained biologists. As a result of these assessments, impacts to natural resources and buffers have been minimized to the extent practicable. Onsite restoration of 10.98 acres of buffer and habitat areas is proposed as mitigation for impacts to 10.35 acres of wetland buffer, water resource and associated buffer, talus buffer, wildlife, rare plant buffer, oak woodland and associated buffer, and cliff resource and associated buffer areas.

As described above and in the Mitigation Report (Attachment I) and Forest Practices Stewardship Memo (Attachment M), restoration is proposed at the following areas:

Riparian Area Mitigation Sites (weed removal):

- Sonny Mitigation Site (Mitchell Creek) –3.25 acres of previously disturbed land with intact forest overstory and an understory that is dominated by non-native vegetation at approximate trail Segment E station 427+00. The site is primarily on USFS land and partially within ODOT right-of-way, east of Mitchell Creek, south of I-84 shoulder
- Roadhouse Mitigation Site – 6.99 acres of previously disturbed land with intact forest overstory and an understory that is dominated by non-native vegetation at approximate trail station 440+00 on USFS land and within ODOT right-of-way, along stream corridor of an unnamed perennial stream (Stream 16)
- Viento Campground Mitigation Site – 0.37 acres of previously disturbed land with an intact forest overstory and an understory dominated by English ivy, vinca minor, and Himalayan blackberry at approximate trail station 315+00 on OPRD land and within ODOT right-of-way.

Oregon Oak Woodlands Mitigation Sites (conifer thinning and oak planting):

- Perham Creek Mitigation Site – 1.03 acres of previously disturbed riparian area at approximate trail Segment E station 390+00 within ODOT right-of-way, north and in the vicinity of Perham Creek, south of the I-84 shoulder
- Viento Maintenance Facility Mitigation Site – 1.33 acres of historic oak woodland in fair condition at approximate trail station 310+00 on OPRD land directly east of the OPRD Viento State Park maintenance facility, south of the I-84 shoulder
- Stepped Cut #1 Mitigation Site – 6.56 acres of historic oak woodland in poor condition at approximate trail station 380+00 on land currently managed by OPRD, south of the Project trail alignment located above Stepped Cut
- Chetwoot Mitigation Site – 2.39 acres of historic oak woodland in poor condition at approximate trail station 395+00 on land currently managed by OPRD, east of Perham Creek
- Mitchell Point Quarry Mitigation Site – 5.06 acres of previously disturbed land at approximate trail station 465+00 that is primarily owned by ODOT and partially owned by USFS, just east of Mitchell Point

Pollinator Meadows Buffer Mitigation Site (plant species that encourage pollination):

- Dome Rock Mitigation Site – 0.37 acre of previously disturbed land at approximate trail station 327+00 within ODOT right-of-way, north of an existing section of Historic Highway and south of the I-84 shoulder

The mitigation would restore habitat buffer areas by removing English ivy, Himalayan blackberry and any other non-native invasive species. Cleared areas would be replanted with a variety of species native to the NSA as listed in the Grading Plans (Attachments B and C) for the Project, which include landscape plans.

(4) The applicant shall submit the mitigation plan to the Planning Director. The Planning Director shall submit a copy of the mitigation plan to the Forest Service, and appropriate state agencies. If the final decision contradicts the comments submitted by the state and federal wildlife agency/heritage program, the Planning Director shall justify how he/she reached an opposing conclusion.

Applicant Findings: The proposed mitigation has been prepared following coordination with the extended Project team partners. The applicant recognizes that Hood River County would submit copies of the proposed natural resource mitigation to the USFS and appropriate state agencies.

(5) A project applicant shall demonstrate sufficient fiscal, technical, and administrative competence to successfully execute a mitigation plan involving wetland creation.

Applicant Findings: This is not applicable because the mitigation plan does not include wetland creation.

(6) Mitigation plans shall include maps, photographs, and text. The text shall:

(a) Describe the biology and/or function of the sensitive resources (e.g., Wildlife/plant species, or wetland) that will be affected by a proposed use. An ecological assessment of the sensitive resource to be altered or destroyed and the condition of the resource that will result after restoration will be required. Reference published protection and management guidelines.

(b) Describe the physical characteristics of the subject parcel, past, present, and future uses, and the past, present, and future potential impacts to the sensitive resources. Include the size, scope, configuration, or density of new uses being proposed within the buffer zone.

(c) Explain the techniques that will be used to protect the sensitive resources and their surrounding habitat that will not be altered or destroyed (for examples, delineation of core habitat of the sensitive wildlife/plant species and key components that are essential to maintain the long-term use and integrity of the wildlife/plant area or site).

(e) Show how the proposed restoration, enhancement, or replacement (creation) mitigation measures are NOT alternatives to avoidance. A proposed development/use must first avoid a sensitive resource, and only if this is not possible should restoration, enhancement, or creation be considered as mitigation. In reviewing mitigation plans, the local government, appropriate state agencies, and Forest Service shall critically examine all proposals to ensure that they are indeed last resort options.

Applicant Findings: The Mitigation Report (Attachment I) and Forest Practices Stewardship Memo (Attachment M) addresses the required elements above.

(7) At a minimum, a project applicant shall provide to the Planning Director a progress report every 3-years that documents milestones, successes, problems, and contingency actions. Photographic monitoring stations shall be established and photographs shall be used to monitor all mitigation progress.

Applicant Findings: The proposed mitigation for buffer impacts would include post-construction monitoring that addresses the required elements as listed above. As detailed in the Mitigation Report (Attachment I) and Forest Practices Stewardship Memo (Attachment M), the USFS Restoration Team through an agreement with Western Federal Lands would quantitatively monitor the restoration site on years 1, 3 and 5 after installation. If all the performance standards are achieved in less, ODOT may terminate monitoring with approval of the review agencies after year 3. Qualitative assessments would occur on years 2 and 4. Restoration site maintenance may be necessary and could occur each year.

(8) A final monitoring report shall be submitted to the Planning Director for review upon completion of the restoration, enhancement, or replacement activity. This monitoring report shall document successes, problems encountered, resource recovery, status of any sensitive wildlife/plant species and shall demonstrate the success of restoration and/or enhancement actions. The Planning Director shall submit copies of the monitoring report to the Forest Service; who shall offer technical assistance to the Planning Director in helping to evaluate the completion of the

mitigation plan. In instances where restoration and enhancement efforts have failed, the monitoring process shall be extended until the applicant satisfies the restoration and enhancement guidelines.

Applicant Findings: As detailed in Mitigation Report (Attachment I) and Forest Practices Stewardship Memo (Attachment M), The USFS Restoration Team through an agreement with Western Federal Lands would quantitatively monitor the restoration site on years 1, 3 and 5 after installation. If all the performance standards are achieved in less, ODOT may terminate monitoring with approval of the review agencies after year 3. Qualitative assessments would occur on years 2 and 4. Restoration site maintenance may be necessary and could occur each year.

(9) Mitigation measures to offset impacts to resources and/or buffers shall result in no net loss of water quality, natural drainage, fish/wildlife/plant habitat, and water resources by addressing the following:

(a) Restoration and enhancement efforts shall be completed no later than one year after the sensitive resource or buffer zone has been altered or destroyed, or as soon thereafter as is practicable.

Applicant Findings: The USFS has already begun collecting native plant seeds and cultivating them for plantings at the mitigation sites. This work would be completed as soon as is practicable. Restoration of temporary disturbance areas would begin as soon as practicable after the conclusion of trail construction activities.

(b) All natural vegetation within the buffer zone shall be retained to the greatest extent practicable. Appropriate protection and maintenance techniques shall be applied, such as fencing, conservation buffers, livestock management, and noxious weed control. Within five years, at least 75 percent of the replacement vegetation must survive. All plantings must be with native plant species that replicate the original vegetation community.

Applicant Findings: The proposed Project would be constructed to retain the existing vegetation to the greatest extent practicable. Tree removal would be minimized. Any planting of vegetation related to the approved Project shall be of native species. The Project proposes to restore vegetation in disturbed areas as soon as practicable after the trail construction work is complete. The revegetation with native ground cover of the disturbed areas shall occur within a maximum of a year after completion of the trail project. Re-vegetation shall be accomplished through seeding native grasses where appropriate and planting native understory shrubs in the areas that would not be part of the proposed trail prism. These areas shall be monitored by the applicant to ensure the success of revegetation. If the revegetation is not successful, the planting work shall be evaluated, and the applicant shall develop and implement alternative planting proposals until the re-vegetation effort is successful. All plantings would be with native plant species that are appropriate for the site conditions and are characteristic of the dominant native plant community for the habitat type. The USFS would continue to lead the restoration effort and would be responsible for achieving 75 percent cover. Measuring survival rates beyond the first year after planting is often inaccurate because it becomes difficult to differentiate planted plants from colonizing plants leading to errors. Percent cover better captures the plant health because to achieve this the plants must grow, not just survive. Therefore, the applicant prefers to use percent cover rather than survival to measure success. Plant diversity, noxious weeds, and plant density would also be monitored.

Success criteria for each of the mitigation site types has been designed to comply with SMA forestry practices guidelines in the *Columbia River Gorge Management Plan* and is detailed in the Mitigation Report (Attachment I) and Forest Practices Stewardship Memo (Attachment M). For weed removal mitigation sites (Roadhouse, Sonny, and South Viento State Park Campground) the proposed benchmark for success is at least 75 percent native plant cover with at least three different woody species comprising at least 5 percent of the total plant cover by year 5 (see Table 6 of the Mitigation

Report). For the pollinator meadow mitigation at Dome Rock Mitigation Site, the proposed benchmark is at least 5 species of pollinator supporting plants established by 5 years (see Table 8 in the Mitigation Report). For the oak mitigation sites, Mitchell Point Quarry and Perham Creek Mitigation Sites, the proposed success criteria are at least 4 oak stems per acre and at least 5 species of pollinator supporting plants by year 5 (see Table 10 in the Mitigation Report).

(c) Habitat that will be affected by either temporary or permanent uses shall be rehabilitated to a natural condition. Habitat shall be replicated in composition, structure, and function, including tree, shrub and herbaceous species, snags, pool-riffle ratios, substrata, and structures, such as large woody debris and boulders.

Applicant Findings: The Mitigation Report (Attachment I) and Forest Practices Stewardship Memo (Attachment M) details how priority habitats and their buffers affected by the proposed Project will be restored, rehabilitated, and replaced.

(d) If this standard is not feasible or practical because of technical constraints, a sensitive resource of equal or greater benefit may be substituted, provided that no net loss of sensitive resource functions occurs and provided the Planning Director, in consultation with the appropriate State and Federal agency, determine that such substitution is justified.

Applicant Findings: Not applicable. No sensitive resource substitutions are anticipated.

(e) Sensitive plants that will be destroyed shall be transplanted or replaced, to the maximum extent practicable. Replacement is used here to mean the establishment of a particular plant species in areas of suitable habitat not affected by new uses. Replacement may be accomplished by seeds, cuttings, or other appropriate methods.

Replacement shall occur as close to the original plant site as practicable. The project applicant shall ensure that at least 75 percent of the replacement plants survive 3 years after the date they are planted.

Applicant Findings: If long-beard hawkweed, or any other sensitive plant, is found along the trail route it would be salvaged and transplanted prior to construction by the USFS Restoration Team. The USFS would monitor the transplanted plants to ensure successful establishment of at least 75 percent native plant cover.

(f) Nonstructural controls and natural processes shall be used to the greatest extent practicable.

Applicant Findings: As described in the Mitigation Plan (Attachment I) and Forest Practices Stewardship Memo (Attachment M), nonstructural controls and natural processes would be used to the greatest extent practicable to achieve the mitigation goals.

(A) Bridges, roads, pipeline and utility corridors, and other water crossings shall be minimized and should serve multiple purposes and properties.

Applicant Findings: One new bridge over Perham Creek (Stream 12) and one new bridge over Mitchell Creek (Stream 15) are proposed as part of the Project. The new bridges are necessary to provide safe access for the proposed trail while fulling spanning the ordinary high water marks of the streams and will cross the streams on the original Historic Highway alignments. It is necessary for the Project to cross Viento Creek (Stream 10) and three unnamed perennial streams (Stream 16, Stream B, and Stream C) because they run perpendicular to the Project's east-west alignment. The crossing of Viento Creek would be achieved via an existing box culvert, which is in good condition. Stream 16 crosses beneath Mitchell Point Parking Lot/Trailhead via an existing pipe. The Project would replace the existing pipe culvert with a new pipe culvert that is slightly longer to allow for additional trail width. Stream B crosses the Project's alignment at-grade. The Project would install a new culvert that

protects and conveys the stream beneath the trail. Stream C crosses beneath the Project alignment via an existing pipe culvert that is in satisfactory condition and would be protected in place.

(B) Stream channels shall not be placed in culverts unless absolutely necessary for property access. Bridges are preferred for water crossings to reduce disruption to hydrologic and biologic functions. Culverts shall only be permitted if there are no practicable alternatives as demonstrated by the 'Practical Alternative Test'.

Applicant Findings: Due to the existing culverts at Viento Creek (Stream 10), Stream 16, and Stream C, protection in place or replacement was determined to be most practicable. Stream B is a small drainage course for the previously disturbed abandoned quarry site that is not connected to the Columbia River and is non-fish bearing. It was not determined to be practicable to construct a bridge to carry the trail over Stream B due to its relatively small size and low habitat quality. In addition, the bridge would cause a greater disturbance to the natural area than routing the drainage course through a pipe culvert.

(C) Fish passage shall be protected from obstruction.

Applicant Findings: Fish have been found to be present three of the streams that cross the trail's alignment: Viento Creek (Stream 10), Perham Creek (Stream 12), and Mitchell Creek (Stream 15). The existing box culvert at Viento Creek is fish-passable and would be maintained. The proposed new bridge at Perham Creek and new culvert at Mitchell Creek would each fully span the active channels and thus allow fish passage. The two crossings would be installed without the requirement for in-water work, therefore, temporary impacts to fish passage are not anticipated.

(D) Restoration of fish passage should occur wherever possible.

Applicant Findings: No permanent impacts to fish passage would occur as a result of the proposed Project and therefore no fish passage restoration is anticipated.

(E) Show location and nature of temporary and permanent control measures that shall be applied to minimize erosion and sedimentation when riparian areas are disturbed, including slope netting, berms and ditches, tree protection, sediment barriers, infiltration systems, and culverts.

Applicant Findings: Erosion control plan sheets are included in the Grading Plans (Attachments B and C), which include appropriate erosion and sediment control measures that would be implemented for the Project.

(F) Groundwater and surface water quality will not be degraded by the proposed use. Natural hydrologic conditions shall be maintained, restored, or enhanced in such a manner that replicates natural conditions, including current patterns (circulation, velocity, volume, and normal water fluctuation), natural stream channel and shoreline dimensions and materials, including slope, depth, width, length, cross-Sectional profile, and gradient.

Applicant Findings: The trail alignment has been designed to avoid and minimize impacts to all sensitive water resources. The proposed Project is not expected to have an adverse impact on either ground or surface water resources. After trail construction is completed, personnel would coordinate planting, seeding, and mulching of disturbed ground areas in accordance to the Project's Erosion Control Plans (included in Attachments B and C) and with FHWA's Standard Erosion Control Specifications, which are available upon request.

(G) Those portions of a proposed use that are not water-dependent or that have a practicable alternative will be located outside of stream, pond, and lake buffer zones.

Applicant Findings: As described previously, there is no practicable alternative for the trail location that would have a lesser impact on the stream buffer zone, see section 600.

(H) Streambank and shoreline stability shall be maintained or restored with natural revegetation.

Applicant Findings: Stream bank and shoreline stability would be maintained through avoiding or minimizing all disturbance of stream banks, by following all of the required construction specifications related to waterways, using all appropriate erosion and sediment control Best Management Practices, and restoring areas that have been disturbed by construction with appropriate native plantings.

(I) The size of restored, enhanced, and replacement (creation) wetlands shall equal or exceed the following ratios. The first number specifies the required acreage of replacement wetlands, and the second number specifies the acreage of wetlands altered or destroyed.

Restoration: 2: l
Creation: 3: l
Enhancement: 4: l

Applicant Findings: Not Applicable. No wetland restoration, enhancement, or creation is needed as there are no direct impacts to wetlands associated with the proposed Project.

(g) Wetland creation mitigation shall be deemed complete when the wetland is self-functioning for 5 consecutive years. Self-functioning is defined by the expected function of the wetland as written in the mitigation plan. The monitoring report shall be submitted to the local government to ensure compliance. The Forest Service, in consultation with appropriate state agencies, shall extend technical assistance to the local government to help evaluate such reports and any subsequent activities associated with compliance.

Applicant Findings: Not Applicable. No wetland creation is proposed.

(h) Wetland restoration/enhancement can be mitigated successfully by donating appropriate funds to a non-profit wetland conservancy or land trust with explicit instructions that those funds are to be used specifically to purchase protection easements or fee title protection of appropriate wetlands acreage in or adjacent to the Columbia River Gorge meeting the ratios given above in guideline 600(C)(9)(f)(I). These transactions shall be explained in detail in the Mitigation Plan and shall be fully monitored and documented in the monitoring report.

Applicant Findings: Not Applicable. No wetland restoration/enhancement is proposed.

620. Special Management Area Recreation Resource Review Criteria

(1) The following shall apply to all new recreation developments and land uses in the Special Management Area. When planning new interpretive or education programs and/or facilities, recommendations of the Interpretive Strategy for the Columbia River Gorge National Scenic Area shall be followed. (This document is available at the Gorge Commission office in White Salmon and the Forest Service office in Hood River.)

Applicant Findings: The entire proposed Project is within the SMA. This proposed Project does not propose any new interpretive or education programs and/or facilities within the NSA, therefore the recommendations of the Interpretive Strategy for the Columbia River Gorge National Scenic Area are not applicable.

(a) New developments and land uses shall not displace existing recreational use.

Applicant Findings: The entire proposed Project is within the SMA. The proposed trail alignment would not displace existing recreational use. The trail would cross through the South Viento State Park Campground, but the available campsites would not be reduced. OPRD has partnered with FHWA and ODOT and improvements to the existing Viento Campground are included in this Project. The Project would add new campsite pads and a gravel path south of the South Viento State Park Campground to accommodate existing use of that area by hikers and bikers (see Attachment B Sheets E.4 through E.7).

(b) Only natural resource-based recreation shall be allowed.

Applicant Findings: The HCRH State Trail is a natural resource-based recreation use because it is designed to highlight the natural, scenic, and cultural resources within the NSA for visitors on foot and using non-motorized vehicle.

(c) Recreation resources shall be protected from adverse effects by evaluating new developments and land uses as proposed in the site plan. An analysis of both on and off site cumulative effects shall be required.

Applicant Findings: The proposed Project would have a beneficial effect on recreation resources because it would reconnect isolated sections of the Historic Highway. The proposed Project is a recreation project that is consistent with the applicable recreation classes. As shown in Figure 15 of this application, the proposed trail within the SMA is on land designated for recreation classes 1, 2, 3, and 4. Existing recreation resources in the vicinity would be enhanced given that the proposed Project would create a non-motorized connection between South Viento State Park Campground and Mitchell Point Drive and is ultimately intended to facilitate a future reconnection of the Historic Highway.

Discussion of Compatibility with Adopted Recreation Plans and Policies

The HCRH State Trail is included as a recreation development proposal in the CRGNSA Management Plan (SMA No. 36 Historic Columbia River Highway). The proposed Project is also consistent with the USFS Open Space Plan – Columbia Tributaries East Watershed Analysis (1998), the 2006 HCRH Master Plan, the 2008 HCRH Reconnection Strategy, and the 2011 HCRH State Trail Master Plan. The reconnection of the Historic Highway helps to achieve the CRGNSA Management Plan's priority objective for future public use trails by providing a trail linking urban areas (Cascade Locks and Hood River) to recreation opportunities in the NSA. This trail furthers the priority objective of establishing a trail system along the Columbia River. This trail would further the SMA policy related to recreation resources by providing for alternate modes of transportation to destination recreational facilities.

As described earlier, the proposed Project is located on land managed by ODOT, OPRD, and USFS with sections in each of the following three landscape settings: Coniferous Woodland; Gorge Walls, Cayonlands, and Wildlands; and Pastoral. The compatible recreation use guideline for each of the landscape settings is described in the HRCZO Section 520 and listed below.

Coniferous Woodland—Compatible Recreation Use Guideline

Resource-based recreation uses of varying intensities may be compatible with this setting. Typically, outdoor recreation uses in Coniferous Woodlands are low intensity, and include

trails, small picnic areas, and scenic viewpoints. Although infrequent, some more intensive recreation uses, such as campgrounds, occur. They tend to be scattered rather than concentrated, interspersed with large areas of undeveloped land and low-intensity uses.

Gorge Walls, Canyonlands, and Wildlands—Compatible Recreation Use Guideline

Because of the fragility, steepness, and undeveloped nature of these lands, compatible recreation uses are usually limited to very low-intensity or low-intensity, resource-based activities that focus on enjoyment and appreciation of sensitive resources. Such uses (such as trails) are generally associated with minimal facility development, if any.

Pastoral—Compatible Recreation Use Guideline

Resource-based recreation uses of a very low-intensity or low-intensity nature (as defined in the "Recreation Intensity Classes" section of Part I, Chapter 4: Recreation Resources), occurring infrequently in the landscape, are compatible with this setting.

The proposed Project is consistent with the applicable recreational guidelines for each landscape settings within which the various sections of the alignment are located. The proposed Project consists of a trail and small pull-offs for picnicking and scenic viewpoints. The historic Highway Trail improvements meet the definition of Recreation Intensity Class 1 – very low intensity in HRCZO 620(2)(a). The trail component of the proposed Project, therefore, is compatible with all NSA landscape settings.

Mitchell Point Parking Lot/Trailhead is located within the Coniferous Woodland landscape setting and is designated Recreation Intensity Class 2- Low Intensity, which is defined in HRCZO 620(2)(b) as a maximum of 25 parking spaces and up to 70 people at one time. The proposed Project would reconfigure the existing parking area and provide 18 parking spaces, which is consistent with the area's Class 2 designation.

The proposed enhancement of the South Viento State Park Campground is located in the Coniferous Woodland landscape setting and designated Recreation Intensity Class 4 – High Intensity, which is defined in in HRCZO 620(2)(d) as a maximum of 200 parking spaces and 1,000 people at one time. The proposed Project would reconfigure the existing parking lot with 15 parking spaces and reconfigure the campground area resulting in 9 vehicle back-in campsites and 8 hiker and biker campsites accessible by foot. The improvements at South Viento State Park Campground, even when combined with the existing 56 back-in campsites and day use area north of I-84 near the Project area north of I-84, are consistent with allowable recreational development in areas with a Class 4 designation.

Table 8: Project Land Use Designations and Landscape Settings

Project Segment	Location (approximate)	Proposed Improvements	Mgmt. Area	Land use Designation(s)	Landscape Setting
E	South Viento State Park Campground to Mitchell Point Parking Lot/Trailhead	Within PR: Viento Trailhead: 18 parking spaces; circulation	SMA	Public Recreation	Coniferous Woodland
F	Mitchell Point Parking Lot/Trailhead to Mitchell Point Drive	Mitchell Point West Trailhead: 25 parking spaces; circulation Mitchell Point: tunnel	SMA	Open Space Public Recreation Open Space Forest	Coniferous Woodland; Pastoral; small portion in Gorge Walls, Canyonlands, and Wildlands

Discussion of Cumulative Effects

As stated in the Cumulative Effects Memorandum (Attachment J), most of the land surrounding the proposed Project area is owned by the federal government or the state, and because the NSA limits types of development, most of the past and future projects within the vicinity of the proposed Project area are related to public recreation, transportation, or energy generation and transmission. No new projects currently are proposed in the Historic Highway Trail project vicinity. All planned projects, listed in Table 1 of the Cumulative Effects Memorandum, are maintenance, restoration, and improvements of existing development. Management Plan limitations on development due to land use and landscape setting designations, vehicular access limitations from I-84, compatible recreation guidelines, steep topography on surrounding lands, and recreation intensity class designations would help ensure that more intense recreational development is minimized adjacent to more isolated segments of the trail. This would limit the overall cumulative recreation impact of the proposed Project. Additional detail is provided in the Cumulative Effects Memorandum (Attachment J).

(d) New pedestrian or equestrian trails shall not have motorized uses, except for emergency services.

Applicant Findings: The proposed trail is intended for non-motorized use, except for emergency service vehicles, OPRD maintenance vehicles, and electric powered wheelchairs and scooters for persons with disabilities.

(e) Mitigation measures shall be provided to preclude adverse effects on the recreation resource.

Applicant Findings: No mitigation measures are proposed because no adverse effects on existing recreation resources are anticipated.

(f) The facility guidelines contained in Sections 620(1) and (2) are intended to apply to individual recreation facilities. For the purposes of these guidelines, a recreation facility is considered a cluster or grouping of recreational developments or improvements located in relatively close proximity to one another. Recreation developments or improvements to be considered a separate facility from other developments or improvements within the same Recreation Intensity Class must be separated by at least one-quarter mile of undeveloped land (excluding trails, pathways, or access roads).

Applicant Findings: Not applicable. The proposed recreational facility is a trail.

(g) New development and reconstruction of scenic routes (see Part III, Chapter 1 of the Management Plan) shall include provisions for bicycle lanes.

Applicant Findings: The proposed trail is a multi-use trail that is designed to accommodate bicycles.

(h) The Director may grant a variance of up to 10 percent to the guidelines of Recreation Intensity Class 4 for parking and campground units upon demonstration that:

(A) Demand and use levels for the proposed activity(s), particularly in the area where the site is proposed, are high and expected to remain so and/or increase. Statewide Comprehensive Outdoor Recreation Plan (SCORP) data and data from National Scenic Area recreation demand studies shall be relied upon to meet the criterion in the absence of current applicable studies.

(B) The proposed use is dependent on resources present at the site.

(C) Reasonable alternative sites, including those in Urban Areas, offering similar opportunities have been evaluated and it has been demonstrated that the proposed use cannot be adequately accommodated elsewhere.

(D) The proposed use is consistent with the goals, objectives, and policies in Chapter 4, Part I of the Management Plan.

(E) Through site design and/or mitigation measures, the proposed use can be implemented without adversely affecting scenic, natural or cultural resources, and adjacent land uses.

(F) Through site design and/or mitigation measures, the proposed use can be implemented without affecting treaty rights.

(G) Mass transportation shall be considered and implemented, if feasible, for all proposed variances to Recreation Intensity Class 4.

Applicant Findings: Not applicable. One portion of the proposed Project area is designated Recreation Intensity Class 4, South Viento State Park Campground. The Project does not propose a variance to the parking or campground unit limits for Class 4 development, as described in Section HRCZO 620(2)(d).

(2) Special Management Areas Recreation Intensity Class Guidelines

(a) Recreation Intensity Class 1 - Very Low Intensity:

Emphasis is to provide opportunities for semi-primitive recreation opportunities.

(A) Permitted uses are those in which people participate in outdoor activities to realize experiences including but not limited to, solitude, tension reduction, and nature appreciation.

(B) The maximum site design capacity shall not exceed 35 people at one time on the site. The maximum design capacity for parking areas shall be 10 vehicles.

(C) The following uses may be permitted:

(i) Trails and trailheads.

(ii) Parking areas.

(iii) Dispersed campsites accessible only by a trail.

(iv) Viewpoints and overlooks.

(v) Picnic areas.

(vi) Signs.

(vii) Interpretive exhibits and displays

(viii) Restrooms

Applicant Findings: The majority of the trail's alignment is within an area designated for Recreation Intensity Class 1. These portions of the proposed Project involve only the trail improvement. No parking or camping facilities are proposed in areas designated Recreation Intensity Class 1. The proposed facilities are consistent with the Recreation Intensity Class 1 designation because they would enable users to appreciate the natural, scenic, and cultural assets of the NSA by foot or by bicycle. Given the linear expanse of the trail, the design capacity is not expected to be exceeded.

(b) Recreation Intensity Class 2 - Low Intensity

Emphasis is to provide semi-primitive recreation opportunities.

(A) Permitted uses are those that provide settings where people can participate in activities such as physical fitness, outdoor learning, relaxation, and escape from noise and crowds.

(B) The maximum site design capacity shall not exceed 70 people at one time on the site. The maximum design capacity shall be 25 vehicles.

(C) All uses permitted in Recreation Intensity Class 1 are permitted in Recreation Intensity Class 2. The following uses may also be permitted:

(i) Campground with vehicle access.

(ii) Boat anchorages designed for no more than 10 boats at one time.

(iii) Swimming areas.

Applicant Findings: The proposed improvements at the Mitchell Point Parking Lot/Trailhead are located within an area designated for Recreation Intensity Class 2. This portion of the proposed Project would reconfigure the existing parking area and provide 18 parking spaces, as well as trail improvements. As with the portion of the Project located on lands designated for Recreation Intensity Class 1, the proposed trail is consistent with the Recreation Intensity Class 2 designation because it would enable users to appreciate the natural, scenic, and cultural assets of the NSA by foot or by bicycle. As noted previously, given the linear expanse of the trail, the design capacity is not expected to be exceeded.

(c) Recreation Intensity Class 3 - Moderate Intensity:

Emphasis is on facilities with design themes emphasizing the natural qualities of the area. Developments are complementary to the natural landscape, yet can accommodate moderate numbers of people.

(A) Permitted uses are those in which people can participate in activities to realize experiences such as group socialization, nature appreciation, relaxation, cultural learning, and physical activity.

(B) Maximum site design capacity shall not exceed 250 people at onetime on the site. The maximum design capacity shall be 50 vehicles. The General Management vehicle capacity level of 75 vehicles shall be allowed if enhancement or mitigation measures for scenic, cultural, or natural resources are approved for at least 10% of the site.

(C) Accommodation of facilities for mass transportation (bus parking, etc.) shall be required for all new Recreation Intensity Class 3 day-use recreation sites, except for sites predominantly devoted to boat access.

(D) All uses permitted in Recreation Intensity Classes 1 and 2 are permitted in Recreation Intensity Class 3. The following uses may also be permitted:

(i) Campgrounds improvement may include water, power, sewer, and sewage dump stations.

(ii) Boat anchorages designed for not more than 15 boats.

(iii) Public visitor, interpretive, historic, and environmental education facilities.

(iv) Full service rest-rooms, may include showers.

(v) Boat ramps.

(vi) Riding stables.

Applicant Findings: A portion of the proposed Project alignment along Mitchell Point Drive is within an area designated for Recreation Intensity Class 3. No improvements are proposed along this section

of the existing alignment of Mitchell Point Drive that is the original alignment of the Historic Highway. As with the portion of the Project located on lands designated for Recreation Intensity Classes 1 and 2, the proposed trail is consistent with the Recreation Intensity Class 3 designation because it would enable users to appreciate the natural, scenic, and cultural assets of the NSA by foot or by bicycle. As noted previously, given the linear expanse of the trail, the design capacity is not expected to be exceeded.

(d) Recreation Intensity Class 4 - High Intensity:

Emphasis is for providing road natural, rural, and suburban recreation opportunities with a high level of social interaction.

(A) Permitted uses are those in which people can participate in activities to realize experiences such as socialization, cultural and natural history appreciation, and physical activity.

(B) The maximum design capacity shall not exceed 1000 people at one time on the site. The maximum design capacity for parking areas shall be 200 vehicles. The General Management Area vehicle capacity of 250 vehicles shall be allowed if enhancement or mitigation measures for scenic, cultural, or natural resources are approved for at least 20 percent of the site.

(C) Accommodation of facilities for mass transportation (bus parking, etc.) shall be required for all new Recreation Intensity Class 4 day-use recreation sites, except for sites predominantly devoted to boat access.

(D) All uses permitted in Recreation Intensity Classes 1, 2, and 3 are permitted in Recreation Intensity Class 4.

Applicant Findings: The existing and proposed recreational improvements at the existing Viento Trailhead and South Viento State Park Campground are located within land designated for Recreation Intensity Class 4. The proposed Project would reconfigure the existing Viento Trailhead parking lot with 15 parking spaces and a plaza that will include trail information signs and a bicycle fix-it station. The proposed Project would also reconfigure the existing campground area resulting in 9 vehicle back-in campsites and 8 campsites accessible by foot. Portions of the proposed trail improvements are located within the Class 4 area as well. The improvements at South Viento State Park Campground, even when combined with the existing 56 back-in campsites and day use area north of I-84 near the Project area north of I-84, are consistent with allowable recreational development in areas with a Class 4 designation. The proposed trail improvements are consistent with this designation because all uses permitted in recreation classes 1, 2, and 3 are permitted in Recreation Intensity Class 4. In addition, the proposed Project is consistent with the stated intent of a Recreation Intensity Class 4 area to promote cultural and natural history appreciation and physical activity. The proposed improvements at South Viento State Park Campground would occur at an existing overnight campground. The proposed Project does not involve the construction of a new Class 4 day-use recreation site, therefore it is not a requirement that the improvements include bus parking.