



The HISTORIC COLUMBIA RIVER HIGHWAY

STATE TRAIL PLAN - WYETH TO HOOD RIVER

PREPARED FOR:

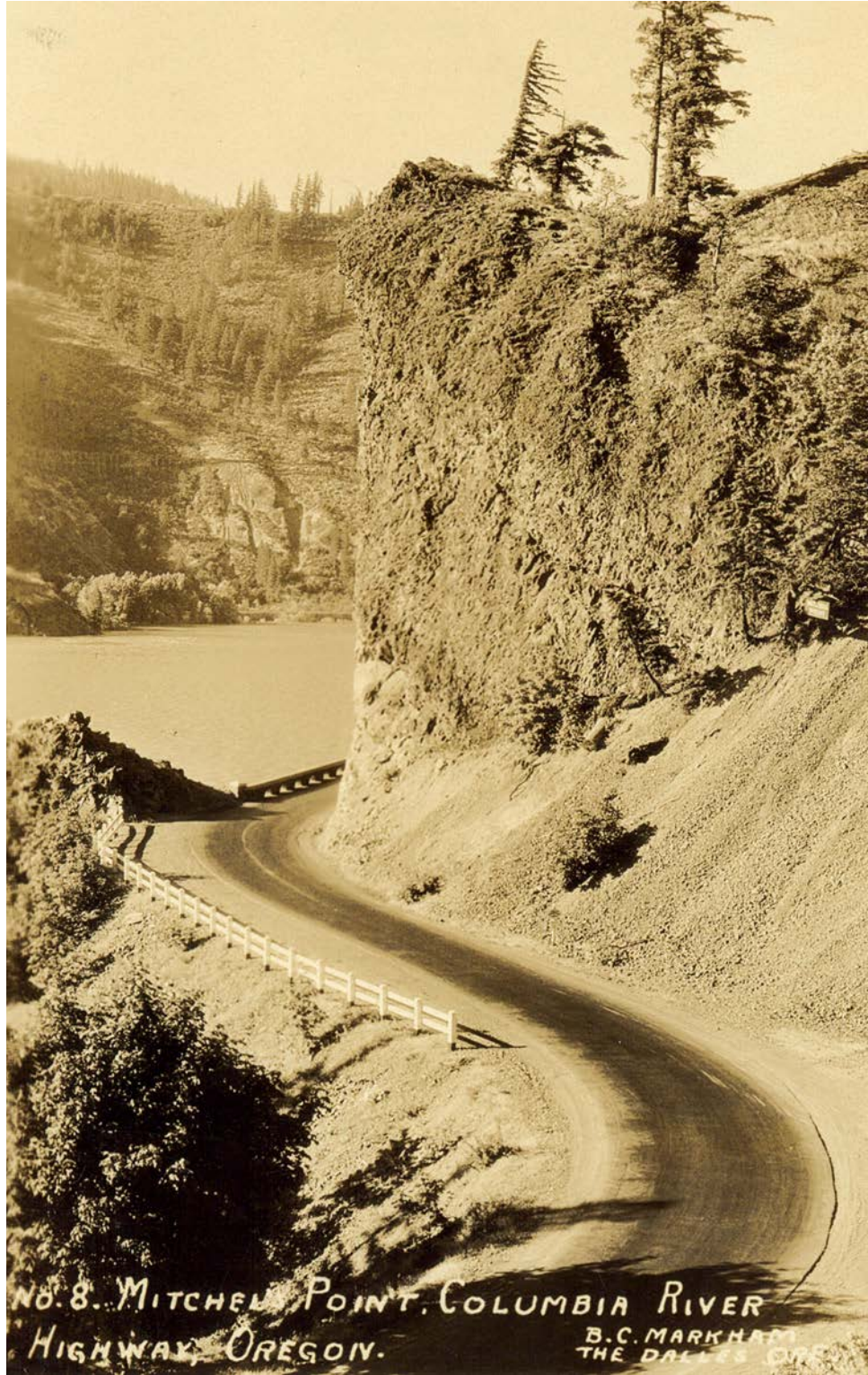
OREGON PARKS AND RECREATION DEPARTMENT
OREGON DEPARTMENT OF TRANSPORTATION

PREPARED BY:

QUATREFOIL, INC.
PORTLAND, OREGON

WINTER 2010

ACKNOWLEDGMENTS



IN COORDINATION WITH:

OREGON DEPARTMENT OF TRANSPORTATION

OREGON PARKS AND RECREATION
DEPARTMENT

USDA FOREST SERVICE, COLUMBIA RIVER
GORGE NATIONAL SCENIC AREA

HOOD RIVER COUNTY

THE HISTORIC COLUMBIA RIVER HIGHWAY
ADVISORY COMMITTEE

FRIENDS OF THE HISTORIC COLUMBIA
RIVER HIGHWAY

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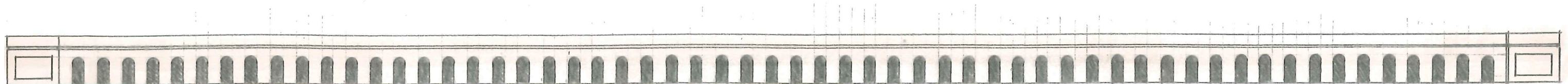
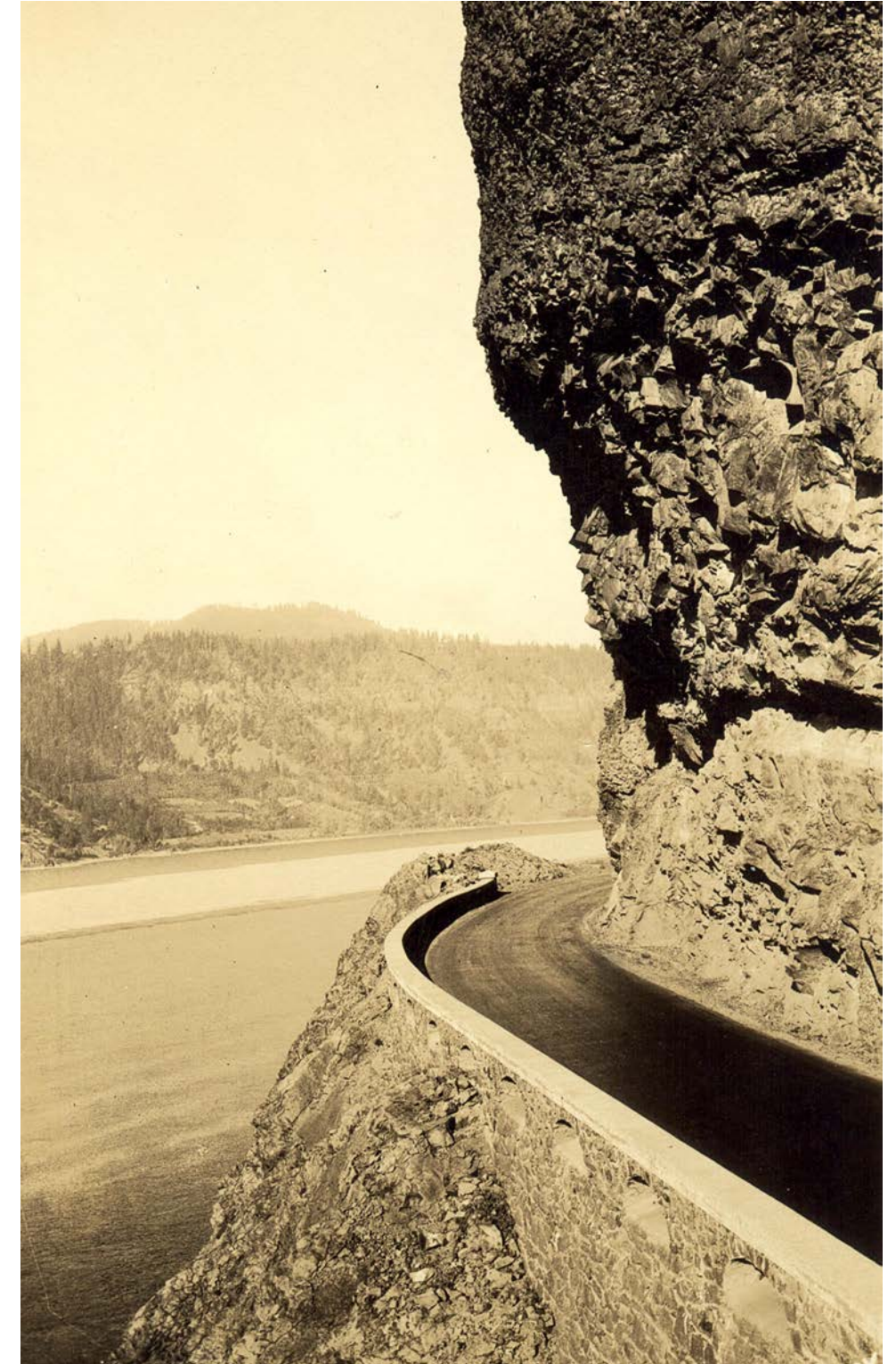
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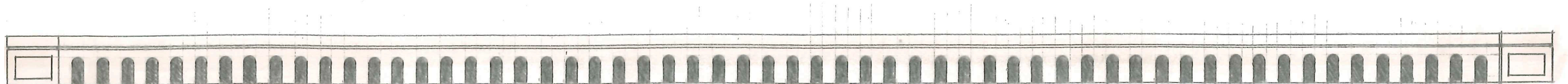
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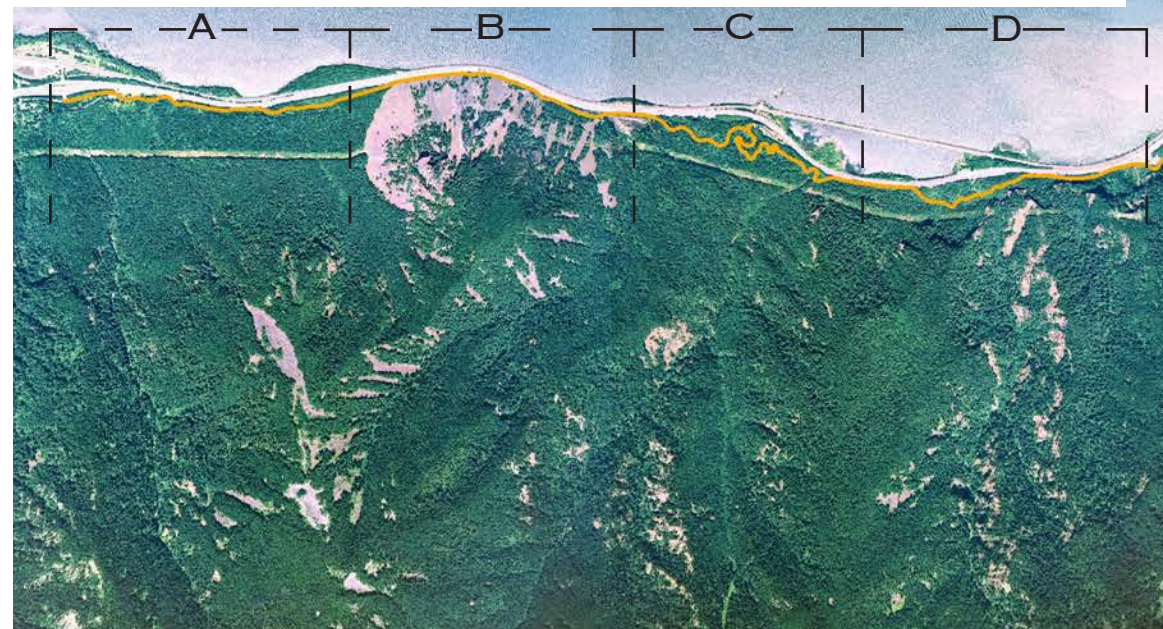
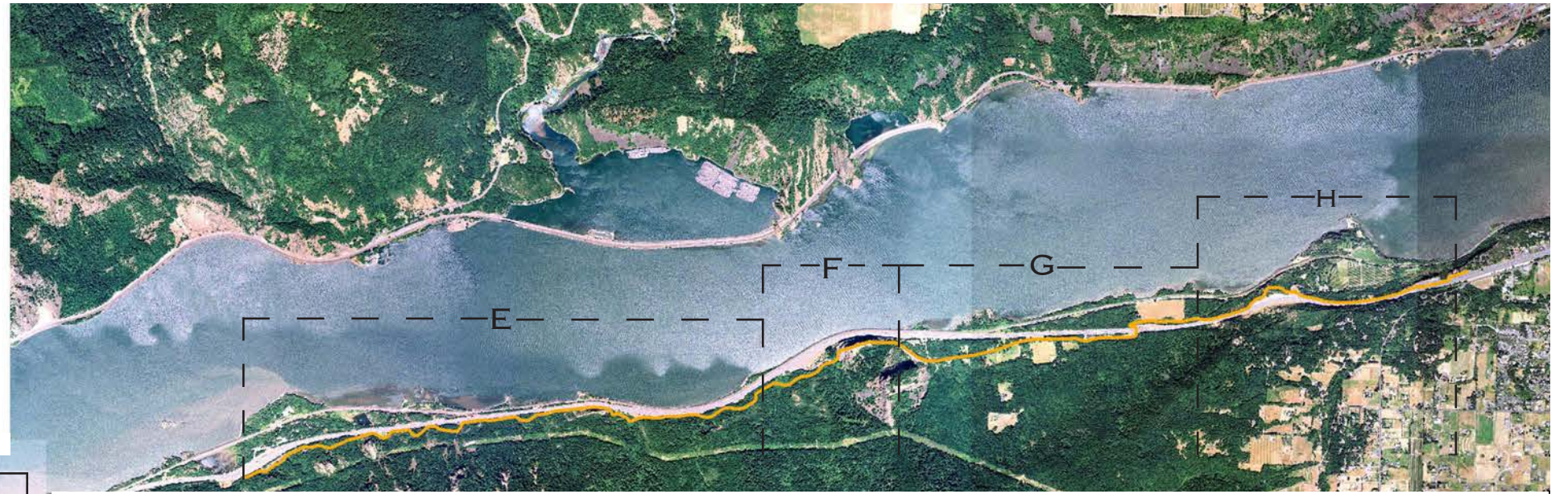


THE HISTORIC COLUMBIA RIVER

HIGHWAY was constructed between 1913 and 1922 as America's first scenic highway. It served thousands of travelers and took full advantage of the Columbia River Gorge's natural beauty, to become known as the "King of Roads". By the late 1940s and early 1950s, the initial construction of a water level route that would become Interstate 84 obliterated many sections of the highway, leaving what remained as abandoned and disconnected highway segments.



Historic Photo at west side of Mitchell Point.



"Tourists want three things; a good road to drive on, something worthwhile to see, and something worthwhile to eat.... We cash in, year after year, on our crop on scenic beauty, without depleting it in any way."

Samuel Hill



Lindsey Inn - An example of the Roadhouses that once lined the Historic Highway.

The Historic Columbia River Highway is one of the most significant historic roads in the nation. The design of the road solved major engineering challenges and was an aesthetic triumph of its time. One of its most important consequences was its influence on the National Parks Service's scenic parkways which were beginning to be developed across the country. Additionally, the Highway is noted for its attention to design details and construction techniques, including rustic guard walls, guard stones, bridges, and retaining walls, resulting in an iconic style.

The overall design of the Historic Columbia River Highway was as important as the details of its construction. This includes the alignment of the road and its relationship to the geology and geomorphology of the Gorge. The Highway was laid out to be interesting to drive, with graceful curves and changes in grade. It unrolled before the driver as a dynamic sequence of views, vistas, and scenic "events" such as waysides, fountains, and waterfalls.

TRAIL SECTIONS:

- A - WYETH TO SHELLROCK MT.
- B - SHELLROCK MT. CROSSING
- C - SHELLROCK MT. TO LINDSEY CK.
- D - LINDSEY CK. TO STARVATION CK.
- E - VIENTO TO MITCHELL CREEK
- F - MITCHELL CK. TO MITCHELL PT. TUNNEL
- G - MITCHELL PT. EAST TO RUTHTON PT.
- H - RUTHTON PT. TO RUTHTON PARK, HOOD RIVER.





Mitchell Point gas station and motel around 1950, now gone.

The Columbia River Gorge National Scenic Area Act of 1986 directed the State of Oregon to connect these abandoned highway sections as a pedestrian and bike trail. Then, in 1987, the Oregon Legislature directed the Oregon Department of Transportation (ODOT) “to preserve and enhance existing portions of the Historic Highway and plan for reconnection of this scenic route as a State Trail”. Since the 1987 legislation, ODOT has been charged with working with the Oregon Parks and Recreation Department (OPRD), the State Historic Preservation Office (SHPO) and Travel Oregon to maintain, enhance and restore the Historic Columbia River Highway. These efforts are ongoing. Today, the remaining segments of the Historic Columbia River Highway receive over 2 million visitors per

year. Its attractions are icons of the Pacific Northwest (Vista House, Multnomah Falls, Rowena Crest). The Highway’s restored drivable portions maintain the 1920’s appearance. However, numerous sections of the old Highway between Wyeth and Hood River remain disconnected.

Much work has been accomplished since 1987 and 62 of the original 73 miles of the HCRH are now open to travel either by motor vehicle (Historic Highway or connecting county roads) or by foot and bicycle (State Trail). As of 2010, 10.5 miles of State Trail have been completed and 1.65 miles are funded and in final design, linking a number of isolated segments

of the HCRH. An additional eleven miles await reconnection. The Historic Columbia River Highway Advisory Committee and the Friends of the Historic Columbia River Highway have jointly spearheaded an effort to restore and reconnect the Highway and advocate for the completion of the State Trail by 2016, the 100th anniversary of Lancaster's masterpiece.

The Milepost 2016 Reconnection Projects identified specific improvements that will be required to allow total reconnection of the Historic Highway, creating a continuous picturesque trail through the Gorge. The Historic Columbia River Highway State Trail Plan further refines this work by picking up where this plan

left off. This State Trail Plan divides the remaining 11 miles into eight distinct segments (this planning effort does not include Milepost Reconnection Projects 1 and 1a). The eight project segments are concentrated between Interstate 84’s Wyeth interchange (I-84 / Exit 51) and the West Hood River interchange (I-84 / Exit 62), all within Hood River County. The projects are described from west to east. Each segment includes a brief project description, site photos, illustrated proposed trail alignment with primary construction elements, and a project cost estimate. Cost estimates are based on preliminary conceptual designs and not final engineering documents. These estimates assume construction in 2014, and include a substantial contingency.

Once complete the Historic Columbia River Highway State Trail will provide Oregonians and visitors from around the world access to many of Oregon’s underdeveloped State Parks, open up extraordinary views to undiscovered waterfalls and the majestic Columbia River, and allow visitors to discover first hand the fascinating history of the Gorge and its famed Columbia River Highway.

*The Interstate came through and they blew the old tunnel in,
And Highway 30 disappeared as though it had never been.*

*But back in the brush that covers the land a stone foundation lies,
Where once stood the roadhouse joint, now gone from mortal eyes.
And Mitchell Point is a rest stop now, just a turn-out on the road,
And only a few remember how the roadhouse lights once glowed.*

Excerpt from “The Roadhouse Joint at Mitchell Point”
A song written by Michael Tenney - 2002



Historic photo of Mitchell Point Roadhouse.



Historic Milepost at Ruthton Point.



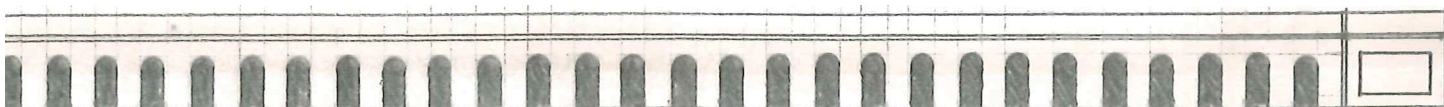
Mitchell Point today.

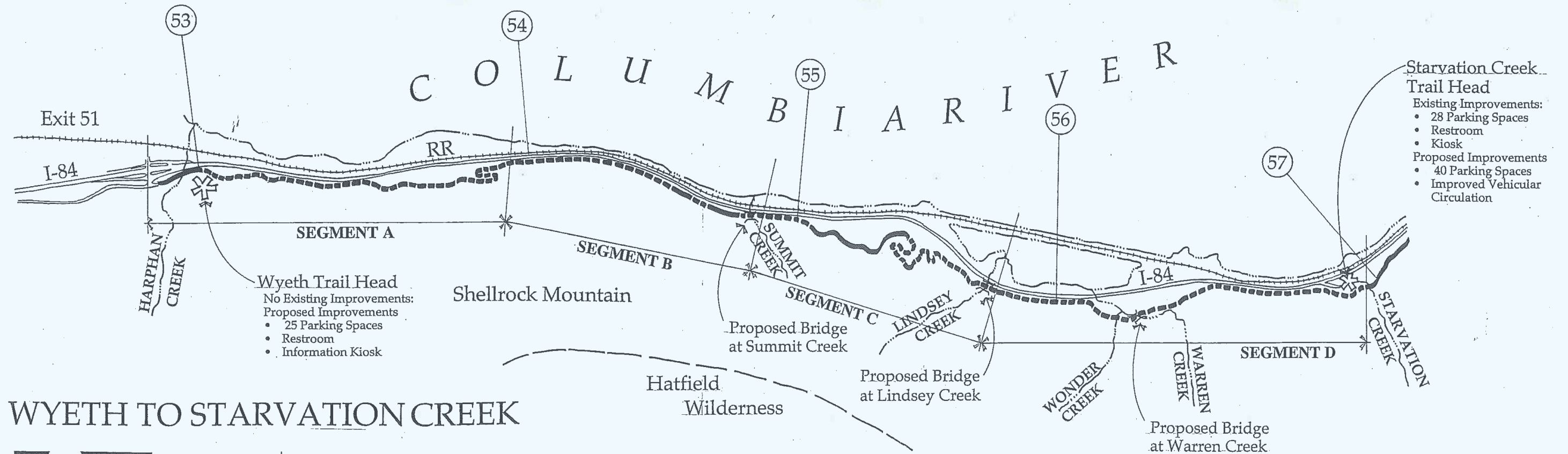


View from Ruthton Point.



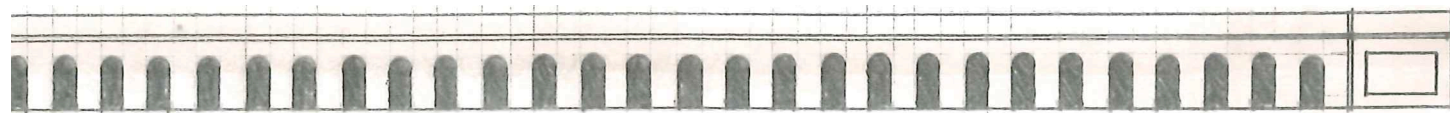
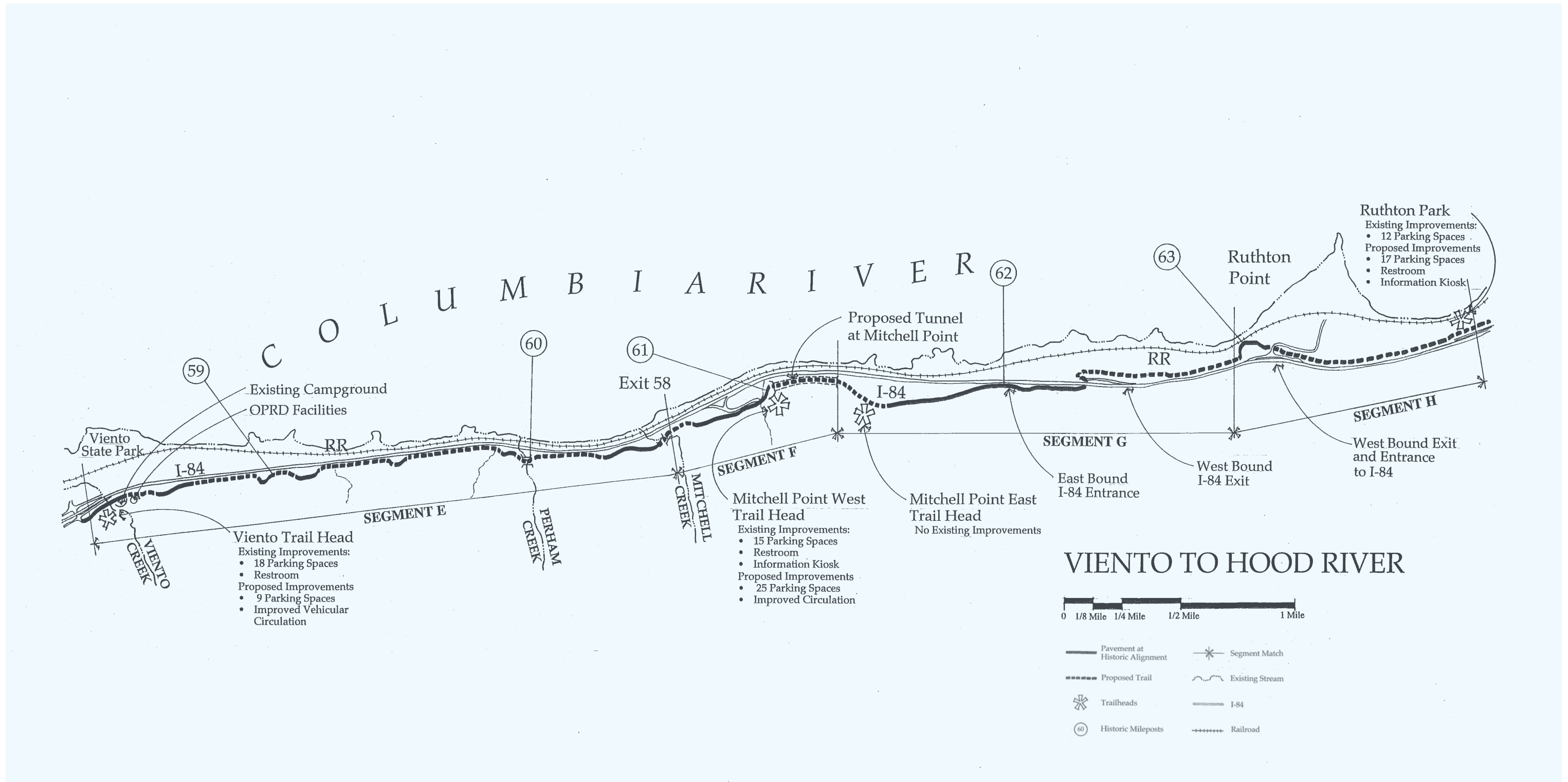
Cyclist on the Highway.





- Starvation Creek Trail Head**
- Existing Improvements:
- 28 Parking Spaces
 - Restroom
 - Kiosk
- Proposed Improvements:
- 40 Parking Spaces
 - Improved Vehicular Circulation







PROJECT SCOPE:

The Historic Columbia River Highway State Trail Plan was a joint planning effort undertaken by the Oregon Department of Transportation, Oregon Parks and Recreation Department, the Columbia River Gorge National Scenic Area US Forest Service and Hood River County to provide a clear plan for the trail reconnection through the Gorge. This plan assists the partnering agencies in the following:

- **Determines the appropriate size and location of auxiliary facility development such as parking lots, overnight camping, and restrooms**
- **Jumpstarts the environmental permitting and engineering process**
- **Assesses the consistency of the proposals with requirements of the Columbia Gorge National Scenic Area Act**
- **Develops funding and partnering opportunities**
- **Updates and refines the cost estimates for trail and facility development**
- **Provides a detailed action plan listing project priorities, agency responsibilities, and associated resource levels, phasing and partnering opportunities**



Hole-in-the-Wall Falls.

above: Mitchell Point Tunnel.



Looking east from Mitchell Point.

DESIGN PHILOSOPHY:

The design philosophies listed below were used to enhance the design of the State Trail and facilities.



CAPTURE THE BEAUTY

The scenic appeal of the Gorge has always been at the forefront of design of the Columbia River Highway. As Samuel Lancaster told the Oregon Journal in 1915, “On starting surveys our first business was to find the beauty spots, or those points where the most beautiful things along the line might be seen to best advantage, and, if possible, to locate the road in such a way as to reach them.” Lancaster’s vision is carried out in the proposed alignment of the Historic Highway State Trail.

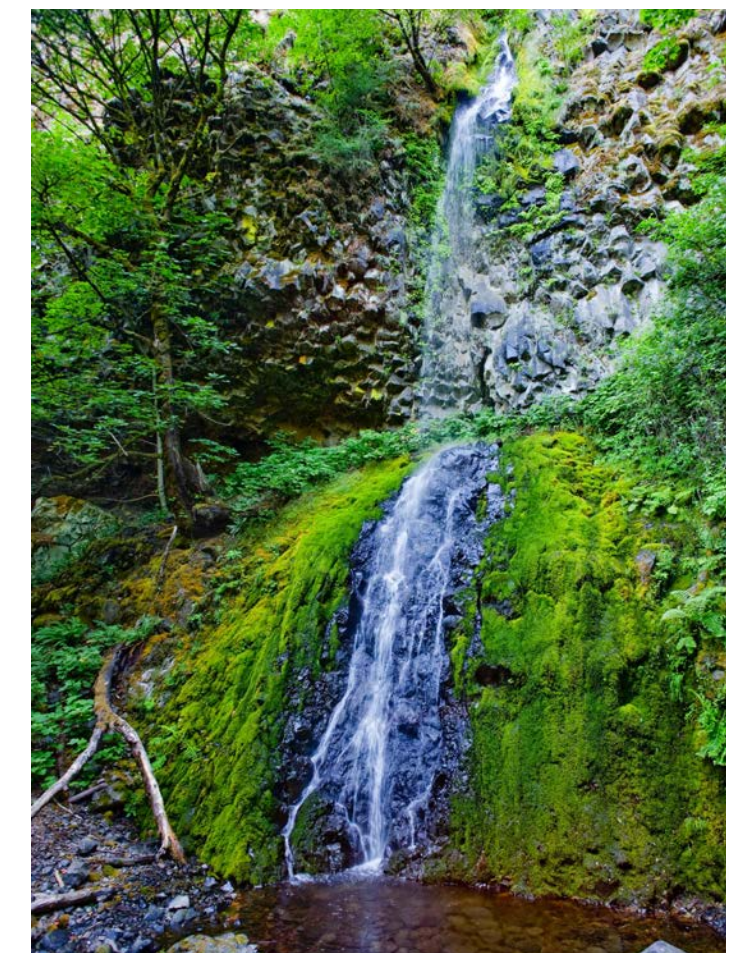
The first order of business in developing the State Trail Plan was to complete an opportunities and constraints analysis. The analysis was the result of extensive field work and a comprehensive GIS database.



View from Ruthton Point.

RESPECT THE DESIGN OF THE EARLY HIGHWAY DESIGNERS

Building roads in the Columbia River Gorge has always been a challenge. The Historic Columbia River Highway was an early-twentieth century technical and civic achievement, successfully mixing sensitivity to the natural landscape with ambitious engineering. The route has gained national significance because it represents one of the earliest applications of cliff-face road building as applied to modern highway construction, but the foremost reason for its construction was Samuel Hill and Samuel Lancaster’s vision of building a scenic highway above the Columbia River to rival the great roads in Europe.



Cabin Creek Falls.



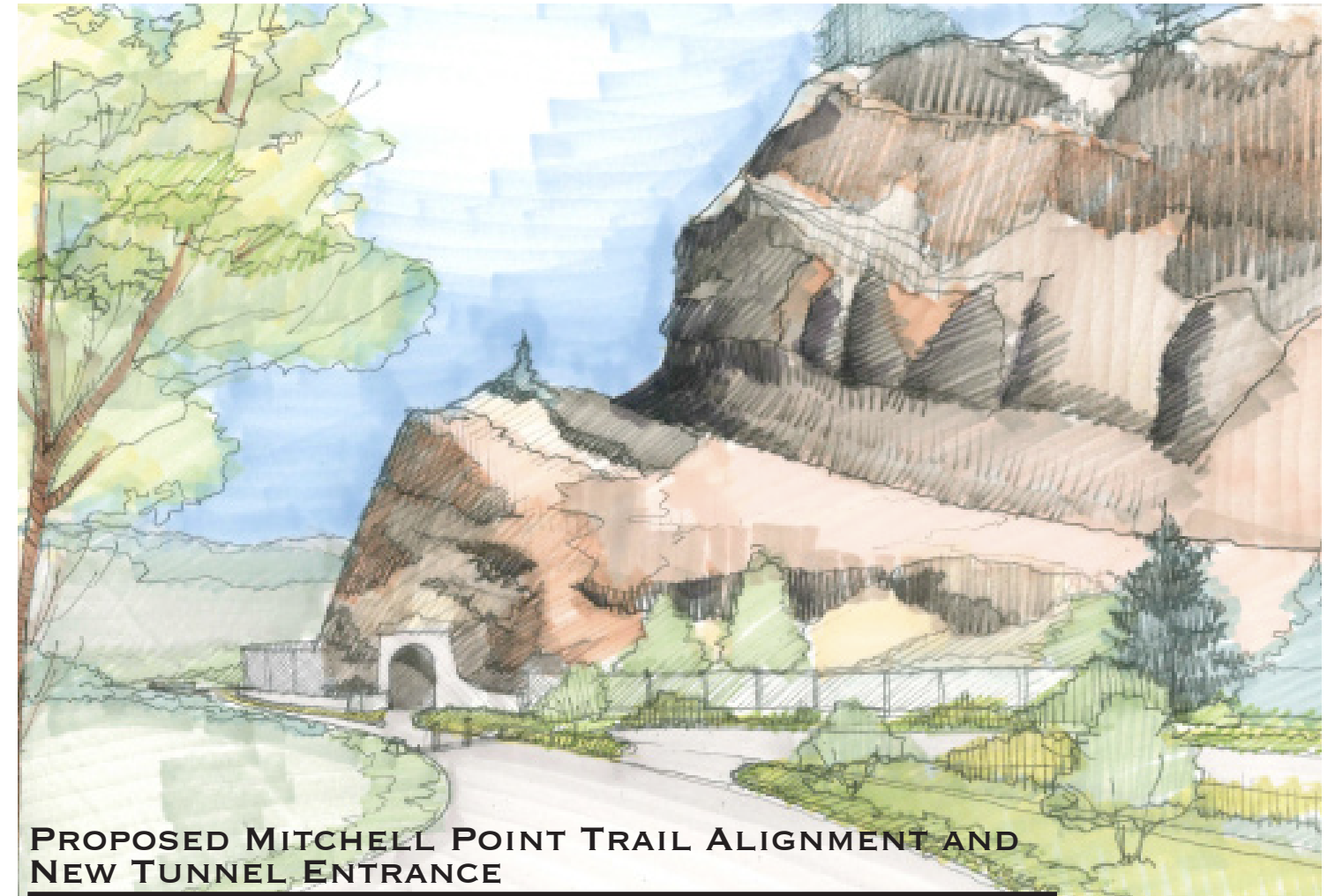
Today, as we plan and design the trail alignments described in the 2016 Reconnection Strategy, it is important to consider how Samuel Lancaster would have approached the similar design challenges. During the development of the 2016 Milepost Reconnection Strategy, the Historic Highway Advisory Committee would often ask rhetorically, “What would Lancaster do?” This simple question provided guidance to the design team, encouraging them to respect and interpret the design philosophy of the early Highway designers. With this in mind, the following guidelines were developed:

- Modifications to sections of original highway should be as minimal as practical. Wherever uncovered pavement is in reasonable condition (acceptable for a modern day cyclist), it shall be protected and used, without an overlay, as part of the State Trail experience
- Where character defining features reflect the historic period, the model year (year of significance) for the Highway is 1924. The historic condition of the Highway in that year has been used as the standard for decision making and design of new elements. New element design should be compatible and harmonious with this period
- Furthermore the Secretary of Interior Standards for Historic Preservation should be utilized to inform design decisions

CONSIDER THE USER’S EXPERIENCE

The Historic Columbia River Highway State Trail is designed as a multi-use trail attracting cyclists, runners, walkers and hikers. User mix includes everyone: slow moving families and hikers to fast and experienced recreational cyclists. Maintaining good sightlines and minimizing tight curves along long downhill grades (that create significant speed differentials) is necessary to reduce user conflicts. A maximum grade of 5% is preferred. The State Trail Plan identifies those instances where a maximum of 8% is required for short distances.

In all instances it was important to place the trail alignment as far as practical from the shoulder of I-84. In several instances, because of the Gorge’s steep topography, there is little room for a new trail. In these instances it was necessary to site the Trail parallel to Interstate 84.



Rockfall along I-84.



Historic glass slide of Highway near Viento.



Highway details.



Construction of Highway at Lindsey.



HISTORIC COLUMBIA RIVER HIGHWAY STATE TRAIL PLAN TRAIL SEGMENT HIGHLIGHTS

Approximately 11 miles of Historic Columbia River Highway State Trail remain to be reconnected through the Columbia River Gorge between Wyeth and Hood River. This plan divides the remaining 11 miles into eight distinct segments. The projects are described from west to east. Each segment includes a brief project description, site photos, illustrated proposed



A - WYETH TO SHELLROCK MOUNTAIN

TRAIL SEGMENT HIGHLIGHTS

LENGTH: 1.2 MILES

2014 COST: \$3.6 MILLION

- New Trailhead at Wyeth, parking for 25 vehicles, restroom, bike parking, and picnic areas
- Views of Shellrock Mountain
- Connections to USFS Wyeth Campground, and future mountain bike area on the Wyeth Bench
- Connections to Columbia River via the Wyeth Day Use Area

trail alignment with primary construction elements, and a summary of project cost estimates. Cost estimates are based on preliminary conceptual designs and not final engineering documents. These estimates assume construction in 2014, and include a substantial contingency.

The eight project segments are between Interstate 84's Wyeth interchange (I-84 / Milepost 51) and the West Hood River interchange (I-84 / Milepost 62). Along this section, a number of short segments of the abandoned Historic Highway still exist. Wherever possible, the



B - SHELLROCK MOUNTAIN CROSSING TO SUMMIT CREEK

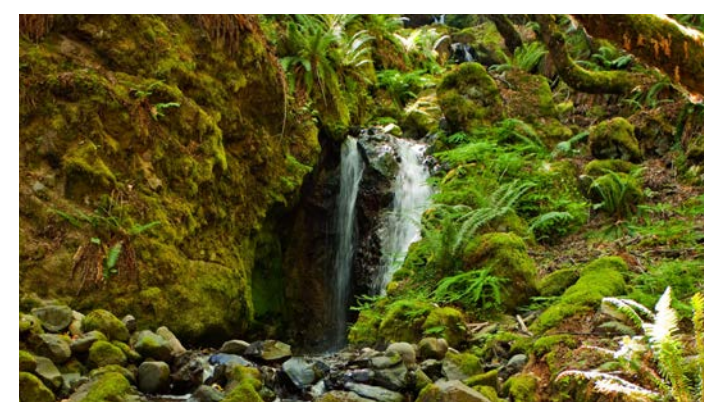
TRAIL SEGMENT HIGHLIGHTS

LENGTH: .78 MILES

2014 COST: \$5.4 MILLION

- Views of the Columbia River and Shellrock Mountain
- Interpretation of the history of road building across Shellrock Mountain
- Views of historic wagon road and Historic Highway walls
- Unique habitat and geology associated with the talus slopes
- Relocates rock fall fence away from view of I-84 traffic

Historic Highway is integrated into the State Trail alignment. These old highway segments will not be open to motor vehicles. Upon completion, cyclists and hikers will experience first hand the amazing roadwork accomplished by visionaries of an earlier era.



C - SUMMIT CREEK TO LINDSEY CREEK

TRAIL SEGMENT HIGHLIGHTS

LENGTH: 1.2 MILES

2014 COST: \$6.0 MILLION

- Longest existing intact section of Historic Highway
- Great opportunity to interpret the Historic Highway
- Overlooks to original Columbia River Highway
- Trailhead with bike parking, signage, and a rest area
- Proposed bridge over Lindsey Creek



D - LINDSEY CREEK TO STARVATION CREEK

TRAIL SEGMENT HIGHLIGHTS

LENGTH: 1.3 MILES

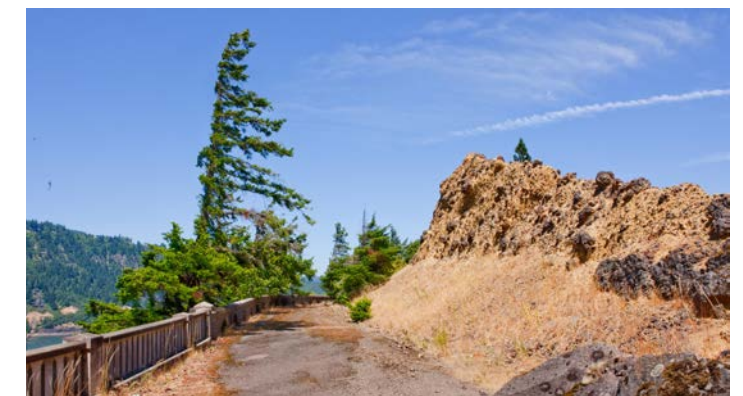
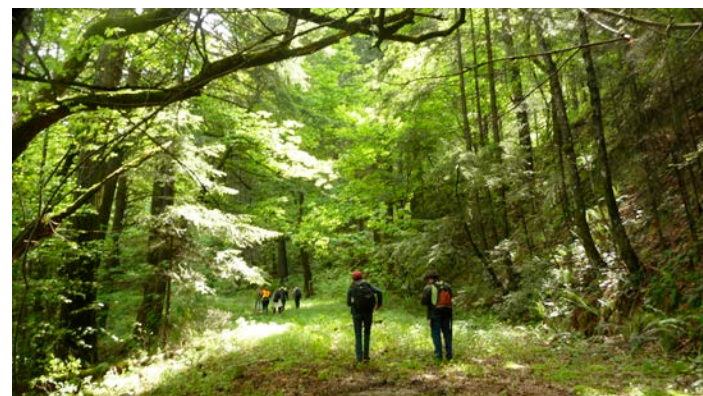
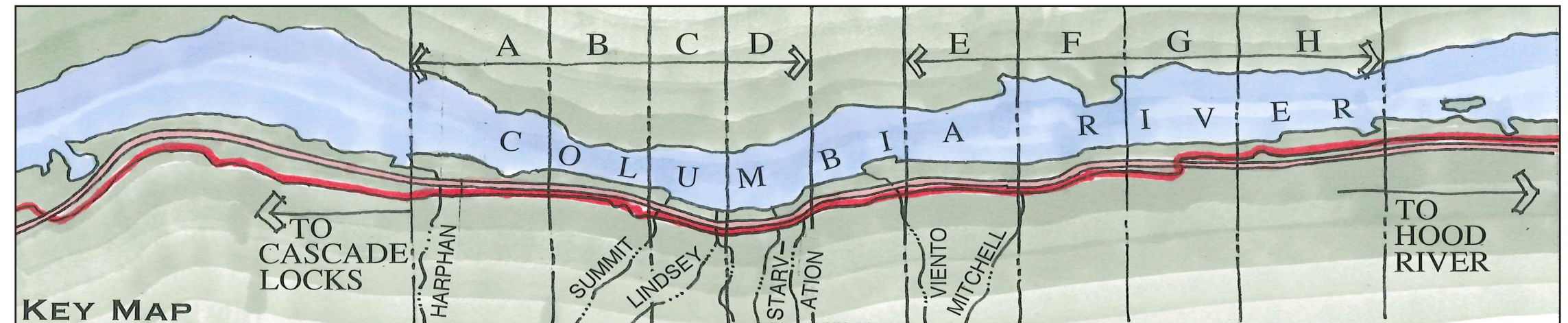
2014 COST: \$5.1 MILLION

- Trail parallels Warren Creek and crosses Warren Creek on a new bridge
- Views and interpretation at Hole-in-the-Wall Falls
- New overlook at Cabin Creek Falls
- Improved parking at Starvation Creek Trailhead
- Mt. Defiance Trail access



THE SECTIONS ARE:

- A - Wyeth to Shellrock Mountain
- B - Shellrock Mountain Crossing
- C - Shellrock Mountain to Lindsey Creek
- D - Lindsey Creek to Starvation Creek
- E - Viento to Mitchell Creek
- F - Mitchell Creek to Mitchell Point Tunnel
- G - Mitchell Point East to Ruthton Point
- H - Ruthton Point to Ruthton Park, Hood River



E - VIENTO TO MITCHELL CREEK TRAIL SEGMENT HIGHLIGHTS

LENGTH: 2.3 MILES

2014 COST: \$8.4 MILLION

- Improvements to the existing parking lot and trail-head at Viento
- A new bridge at Perham Creek
- Views to the Columbia River
- New water fountain would reflect historic water fountain that was once at Viento

F - MITCHELL CREEK TO MITCHELL POINT TUNNEL TRAIL SEGMENT HIGHLIGHTS

LENGTH: .7 MILES

2014 COST: \$14.4 MILLION

- A new 1,200 foot tunnel with windows capturing views to the Columbia River, much like the original tunnel
- Enhanced interpretation of Mitchell Point as outlined in the HCRH Oral History Project
- Improved parking lot for 25 cars

G - MITCHELL POINT EAST TO RUTHTON POINT TRAIL SEGMENT HIGHLIGHTS

LENGTH: 1.7 MILES

2014 COST: \$3.2 MILLION

- New viewpoint at Mitchell Point East and restoration of the roadway
- Quarry floor restoration on the east side of Mitchell Point
- Cars and trail users share the Mitchell Point Road, a quaint low traffic road which follows the original alignment of the Historic Highway
- A great section of the original Highway with historic walls and with great views at Ruthton Point

H - RUTHTON POINT TO RUTHTON PARK, HOOD RIVER TRAIL SEGMENT HIGHLIGHTS

LENGTH: 1.7 MILES

2014 COST: \$6.0 MILLION

- An improved trailhead for sixteen cars at Ruthton Park in Hood River
- Scenic views of the Columbia River from Ruthton Park
- A new restroom at Ruthton Park
- Improved access to overlooks



WYETH TO HOOD RIVER

• BY 2016

LENGTH OF TRAIL SECTION:

1.2 MILES

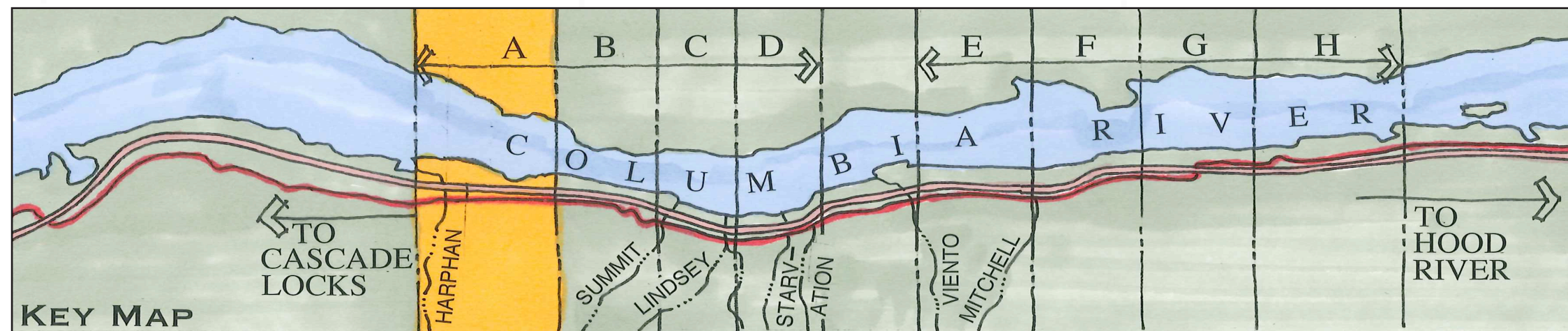
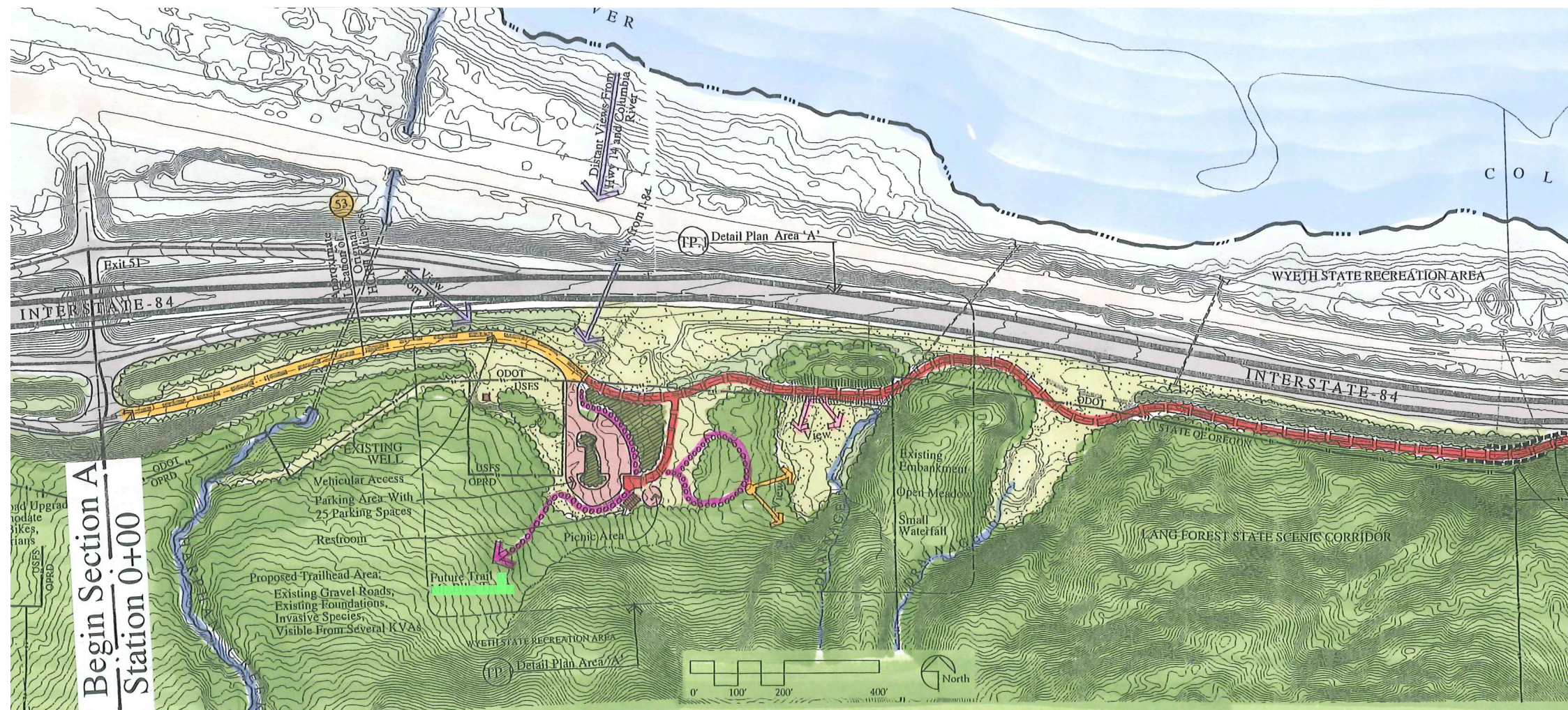
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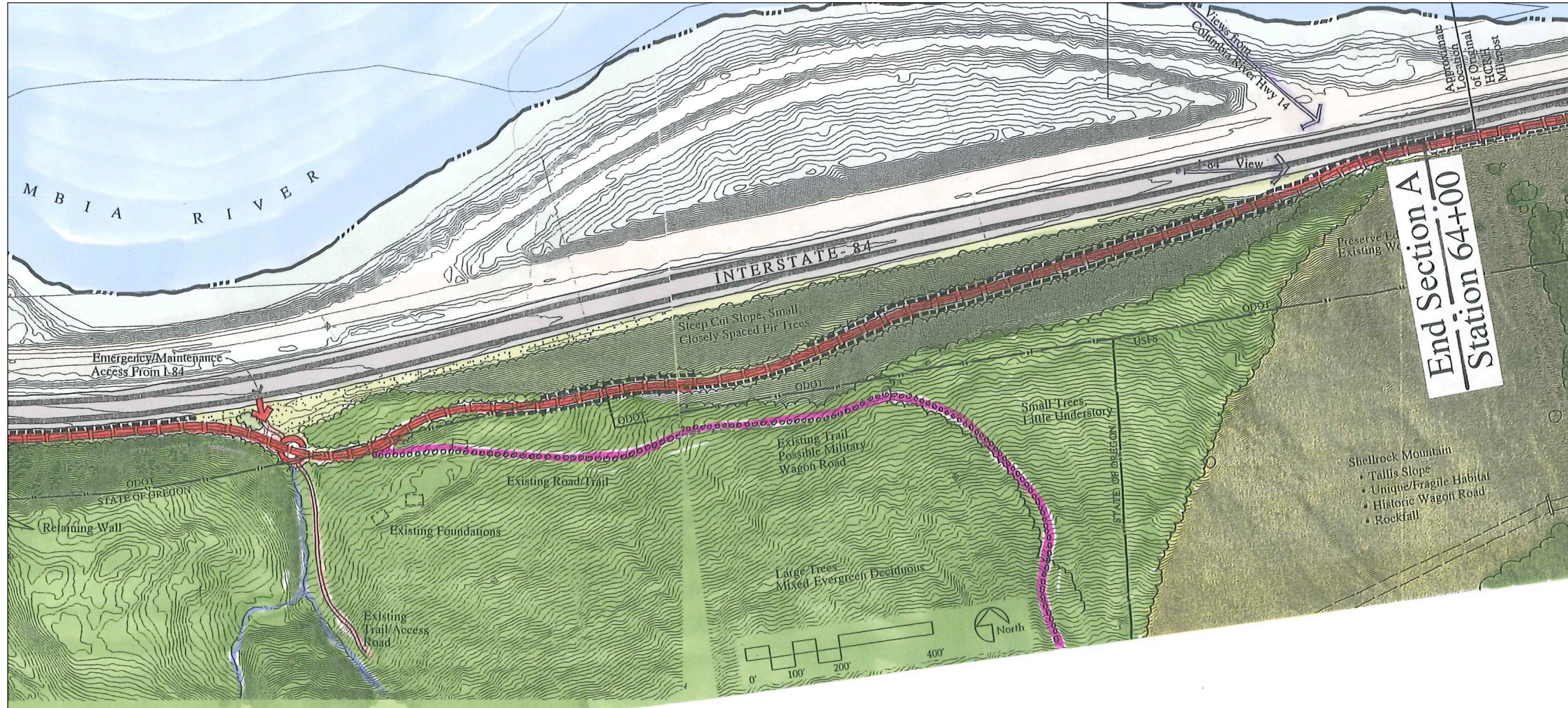
EASY TO MODERATE

SLOPES NOT EXCEEDING 6%

TRAIL DESCRIPTION:

- **Station 0+00 - 9+50:** The proposed Trail starts at Exit 51 from I-84, where a short section of drivable road connects the exit area to the new trailhead.
- **Station 9+50 - 17+00:** As the bicycle/pedestrian trail continues east from the trailhead, it would utilize an existing embankment fill. The history of the embankment is not known at this time.
- **Section 17+00 - 37+00:** Moving past this location, the Trail heads north and follows I-84 for a short section. The Trail then curves south, away from the highway, while beginning to climb at a 5% grade to access an existing 700 foot long bench cut into the slope parallel to I-84. The Trail would then head downhill and run along the edge of I-84.
- **Section 37+00 - 64+00:** The Trail would leave I-84 at an existing access road and head up the existing cut slope at a 5% grade to a high point, and then head back downhill behind the bin wall at a 5% grade. This alignment benefits from distance between the proposed Trail and I-84, but would not have views of the Columbia River or Shellrock Mountain. The Trail traverses a 2:1 cut slope and will require retaining walls on both the up and downhill sides of the Trail. A secondary hiking trail could be developed in this area that would utilize the existing access roads and the probable alignment of the historic wagon road. This path could loop back to the main trail along the western edge of Shellrock Mountain, allowing for dramatic cross

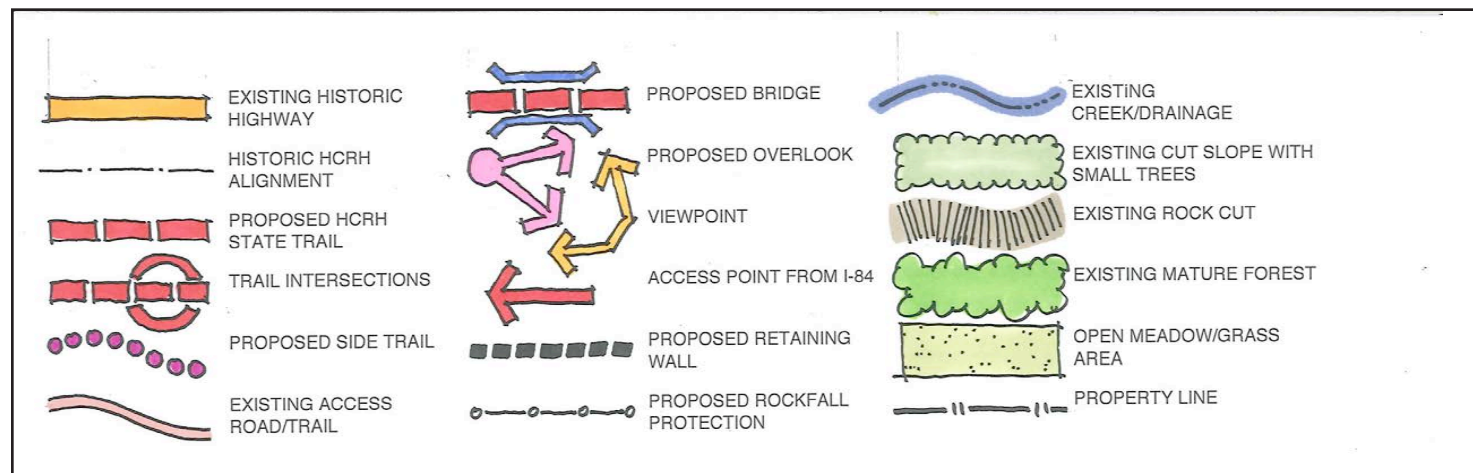




slope views of the talus slope. There are several building foundations that would also be visible from this side trail. This section of Trail would end behind the existing metal bin wall at Shellrock Mountain. A new wall would need to be extended from the existing bin wall and west, to support the new Trail as it meets up behind the bin wall.

TRAIL SEGMENT HIGHLIGHTS:

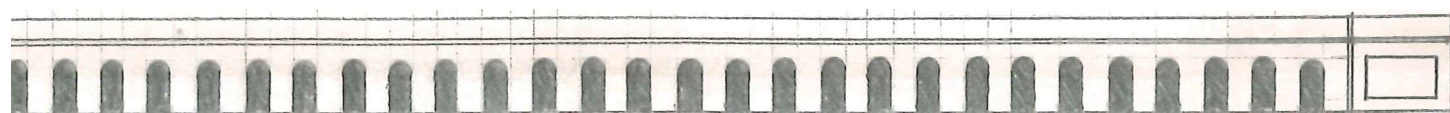
- New Trailhead at Wyeth, parking for 25 vehicles, restroom, bike parking, picnic areas and trip staging area
- Historic building foundations
- Views of Shellrock Mountain
- Connections to USFS Campground
- Connections to Columbia River
- Potential for side trail to explore the cultural and natural features of the area



Existing BPA access road at I-84.

DESIGN/PERMITTING ISSUES:

- Recreation Intensity Class 2 at trailhead
- Site visible from several Key Viewing Areas: I-84, Columbia River, Highway 14
- Potential wetlands, determination/delineation needed
- Ownership issues, USFS property with existing well





Proposed location of Wyeth Trailhead.

TRAILHEAD DESCRIPTION:

- Existing site is undeveloped
- Existing site is highly disturbed with old foundations and remnants of past development
- Existing USFS well located on site (not potable water). USFS to install new potable water well
- Invasive species
- Existing USFS campground located west of site

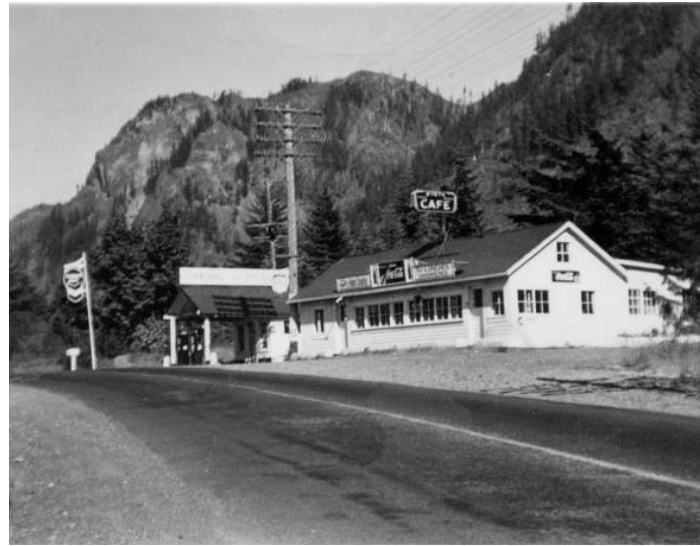
TRAILHEAD AMENITIES:

- Maximum 25 parking spaces
- Bus/trailer turnaround
- Bike Parking
- Bike and hiking staging area
- Restroom
- Kiosk for trail information, map, notices
- This developed State Park will provide access to the Historic Highway State Trail and potential trail connections to additional recreation resources in the vicinity



WYETH TRAILHEAD DETAIL PLAN





Historic photo of Dunn Wyeth Cafe.



Existing conditions along I-84 at proposed trailhead.



Small, closely spaced trees, "dog hair", on existing I-84 cut slope.



Existing conditions along I-84 east of proposed trailhead.



WYETH TRAILHEAD PERSPECTIVE

SEGMENT A COSTS:

Entry Road Rehab.	\$33,000.00
Site Preparation	\$26,000.00
Grading and Drainage	\$379,000.00
Wall Construction	\$286,000.00
Trail Construction	\$327,000.00
Misc. Trail Improvements	\$111,000.00
Landscape Improvements	\$174,000.00
Subtotal	\$1,336,000.00
Engineering & Permits (20%)	\$267,000.00
Construction Engineering (15%)	\$200,000.00
Contingency	\$360,000.00
Project Costs (2010)	\$2,163,000.00
Project Costs (2014)	\$2,553,000.00

WYETH TRAILHEAD:

Grading and Drainage	\$42,000.00
Paving	\$94,000.00
Trail Construction	\$20,000.00
Misc. Site Improvements	\$153,000.00
Restroom	\$80,000.00
Landscape Improvements	\$135,000.00
Subtotal	\$524,000.00
Engineering & Permits (20%)	\$105,000.00
Construction Engineering (15%)	\$79,000.00
Contingency	\$142,000.00
Project Costs (2010)	\$850,000.00
Project Costs (2014)	\$1,000,000.00

ISSUES FOR FURTHER STUDY:

- Potential wetland area near embankment fill
- Trail alignment at approach to Shellrock Mountain
- Possibility of a Trail Host Site located at the Wyeth Trailhead
- Impacts on views from adjacent Key Viewing Areas
- Geotechnical investigation of slopes to determine retaining wall design options



LENGTH OF TRAIL SECTION:

.78 MILE

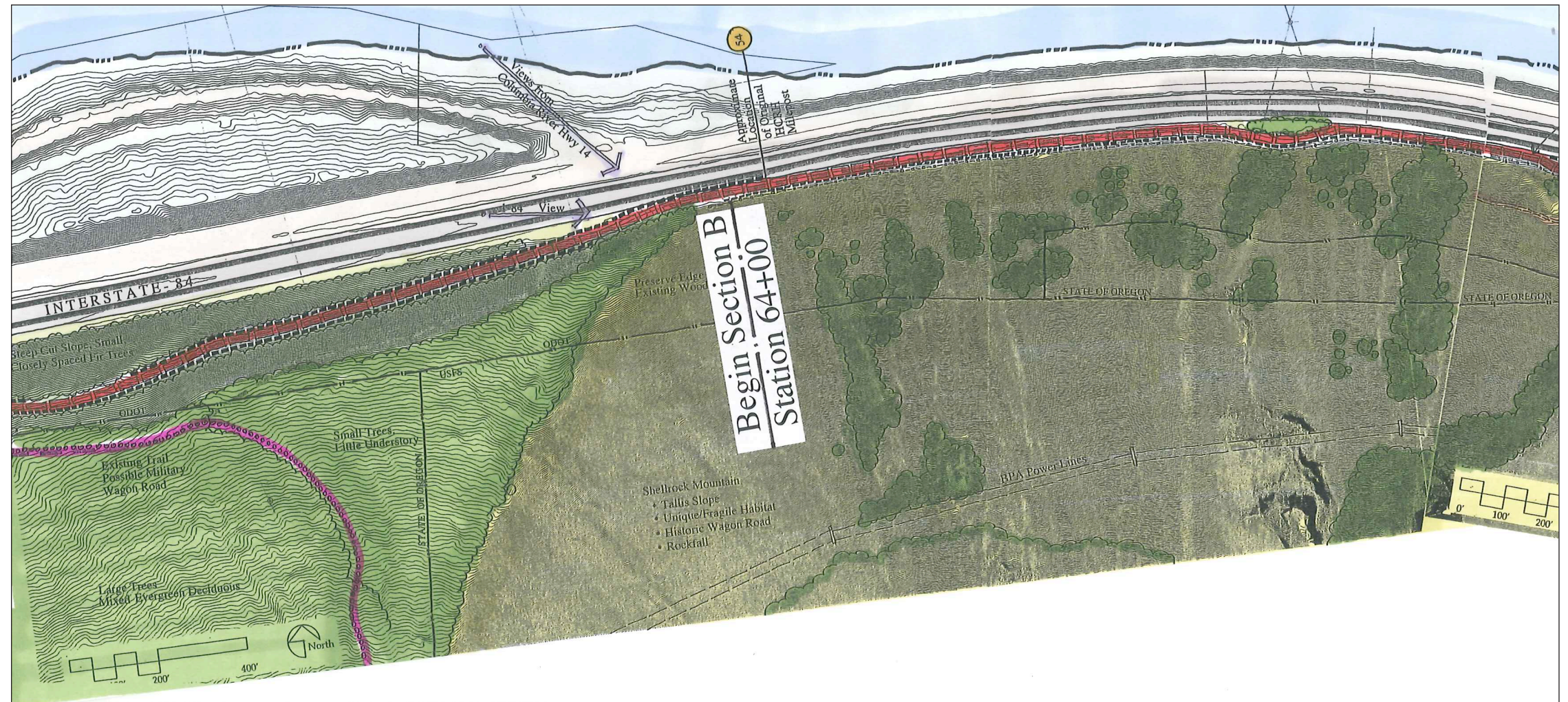
LEVEL OF DIFFICULTY:

EASY TO MODERATE

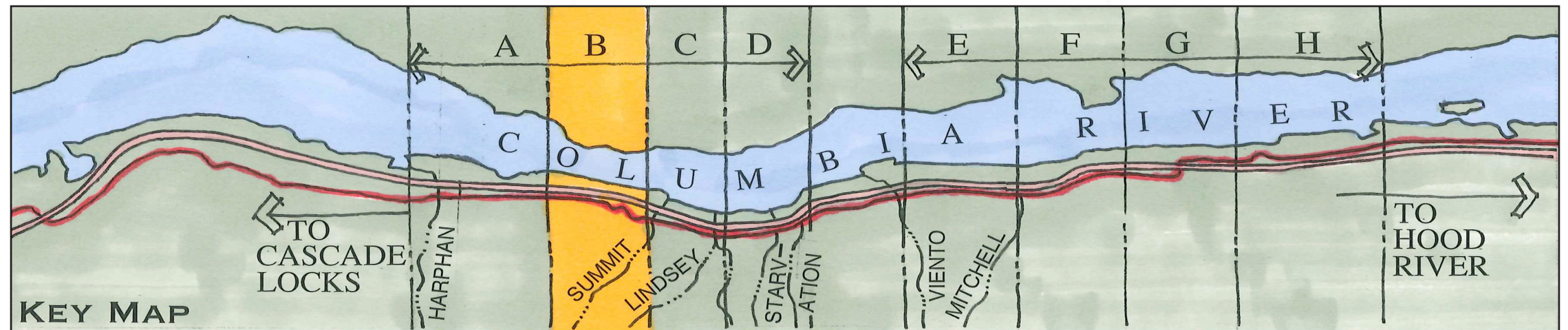
SLOPES NOT EXCEEDING 5%

DESCRIPTION:

- **Station 64+00 – 84+25:** The Shellrock Mountain Crossing would be located behind the existing metal bin wall that runs along I-84. This is the approximate location and elevation of the Historic Highway, and in several areas, masonry walls and a historic roadbed are still visible. The Trail would be built on fill with a gabion wall to support the relocated rockfall fencing. The wall would also protect and allow existing sections of HCRH masonry wall to be visible from the new trail. The Trail would have scenic views of both Shellrock Mountain and the Columbia River.
- **Station 84+25 – 85+50:** At a gap in the existing bin wall, a new wall and fill is required to bridge an existing rockcut. A section of historic pavement exists in this area and could be incorporated into the new trail.

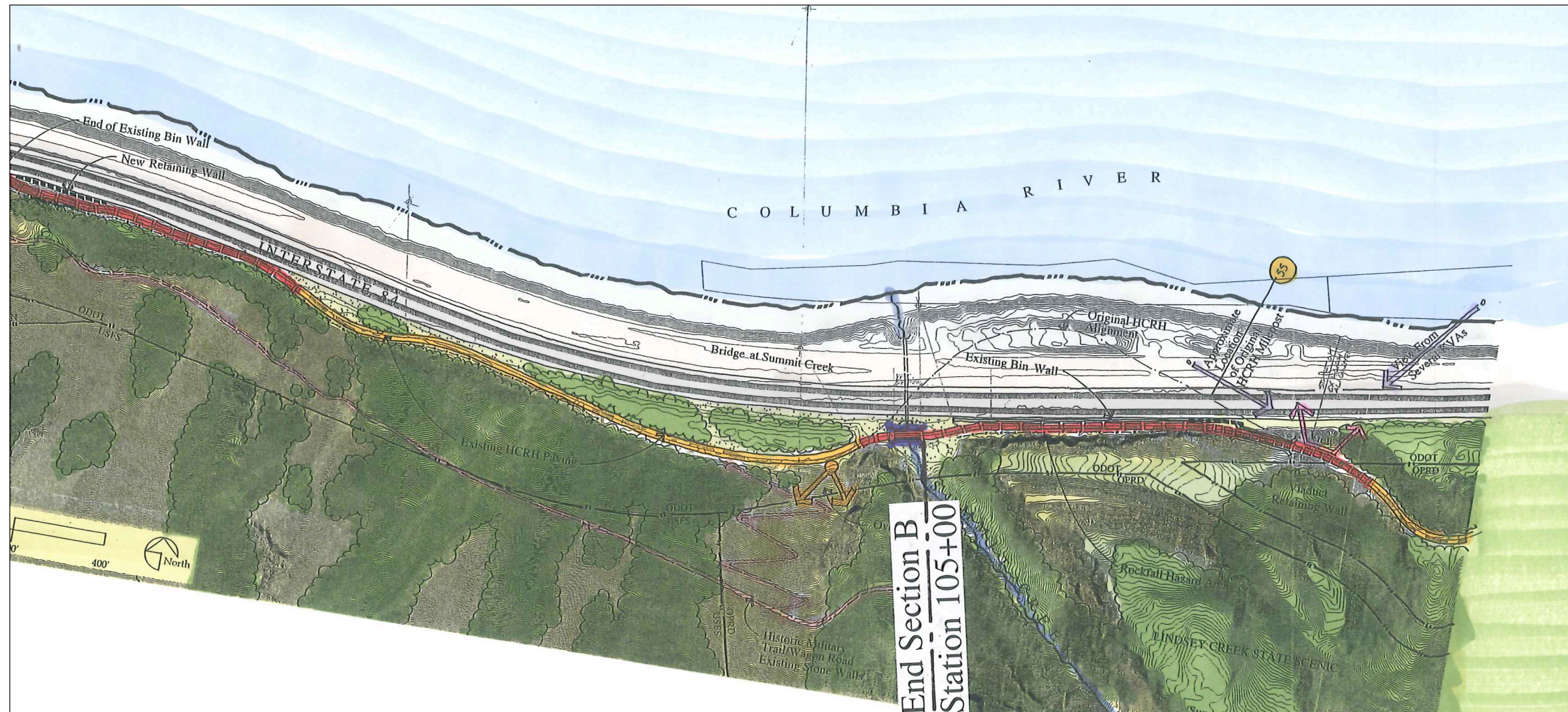


Historic masonry wall at Shellrock Mountain.



THE HISTORIC COLUMBIA RIVER HIGHWAY STATE TRAIL





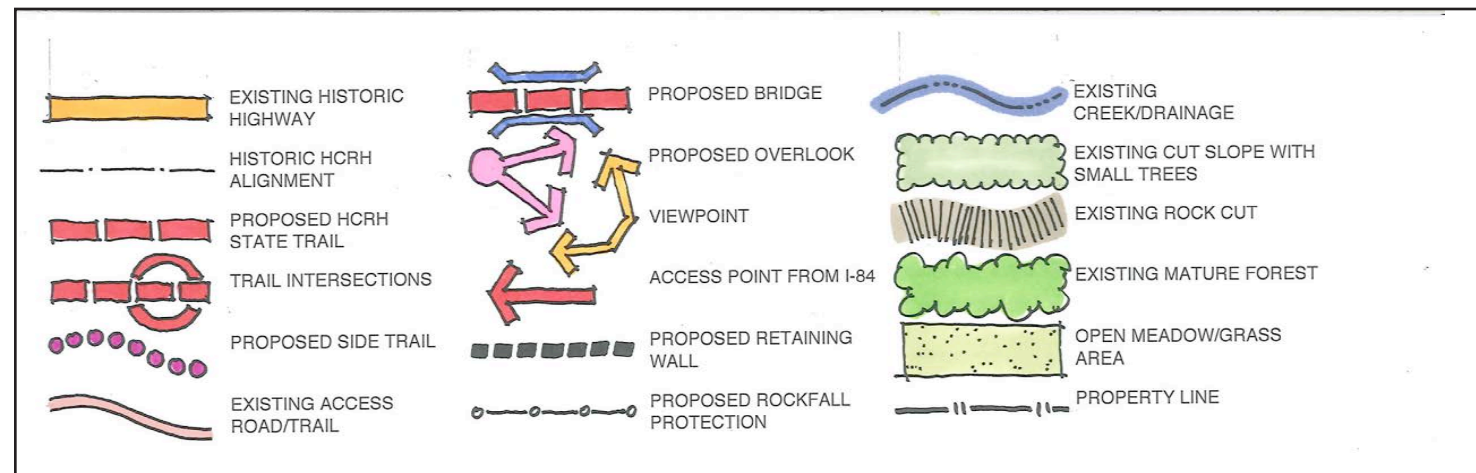
• **Station 85+50 – 105+00:** Several sections of existing HCRH are located at the east end of Shellrock Mountain. An interpretive overlook is located at the east end of this section and would provide a good location to view the historic wagon road that is visible uphill of this section. The overlook would also provide a turnaround for maintenance or emergency vehicles. This section ends at a new bridge over Summit Creek.



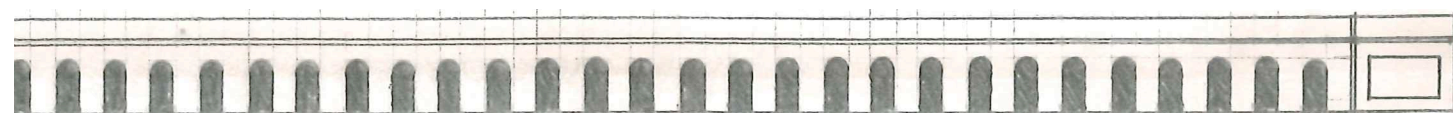
View of I-84 and the Columbia River near Summit Creek.

TRAIL SEGMENT HIGHLIGHTS:

- Views of Shellrock Mountain
- Interpretive signage depicting the history of road building across Shellrock Mountain
- Views of historic wagon road
- Unique talus slope habitat
- Views of the Columbia River and Washington State
- New Bridge at Summit Creek



Existing section of Historic Highway at metal bin wall.



“Shellrock Mountain, as the name implies, is a mountain of shellrock extending in a uniform slope for about 1,500 feet above the river and being 4000 feet around on the highway. The O-W.R.R. & N. Co. track is located at the foot of this mountain. At the west end the railroad company operated a steam shovel for some time excavating the toe. Here there is ample clearance for both railroad and highway.

It was for building a road around this mountain that Mr. S. Benson gave to the county \$10,000.00. This money was expended for work by convicts. The class of work was of the poorest type giving no evidence of any engineering except a few stakes and hubs. The roadbed was built only 14 feet wide in places with no definite width prevailing.”

1914 Elliott Report

In 1872 the State of Oregon built the first continuous road through the gorge from Sandy to The Dalles. This wagon road was known for its sharp turns and very steep grades. Much of the route was destroyed when the Oregon Railway and Navigation Company constructed a water-level track through the Gorge in 1882-83.

2010 Cultural Landscape Inventory
Shellrock Mountain to Ruthton Point



View of historic wagon road at Shellrock Mt.



Historic photo of Shellrock Mountain - note masonry wall.



Historic masonry wall at Shellrock Mountain.

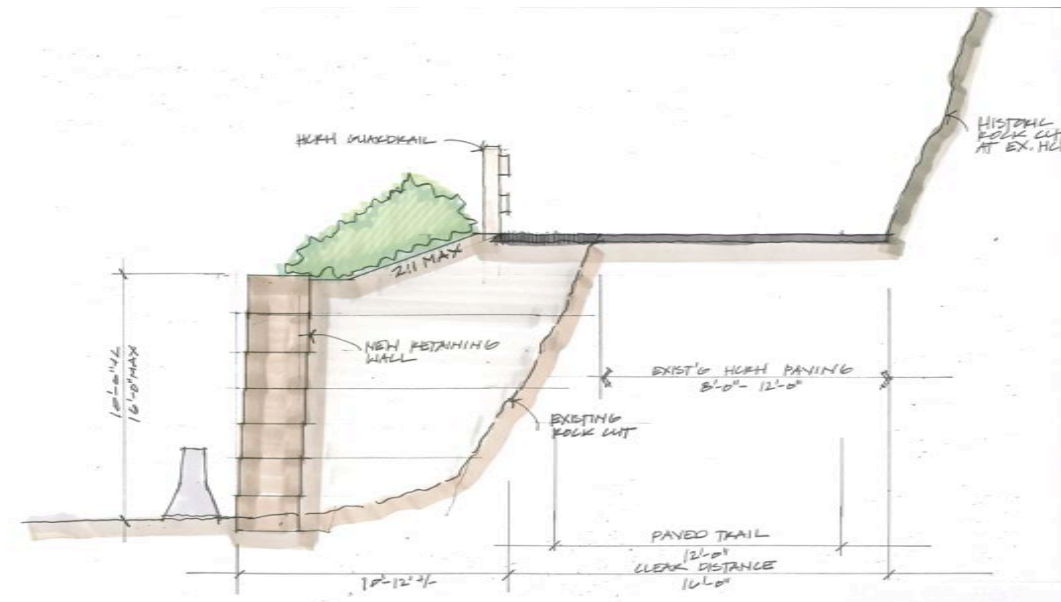
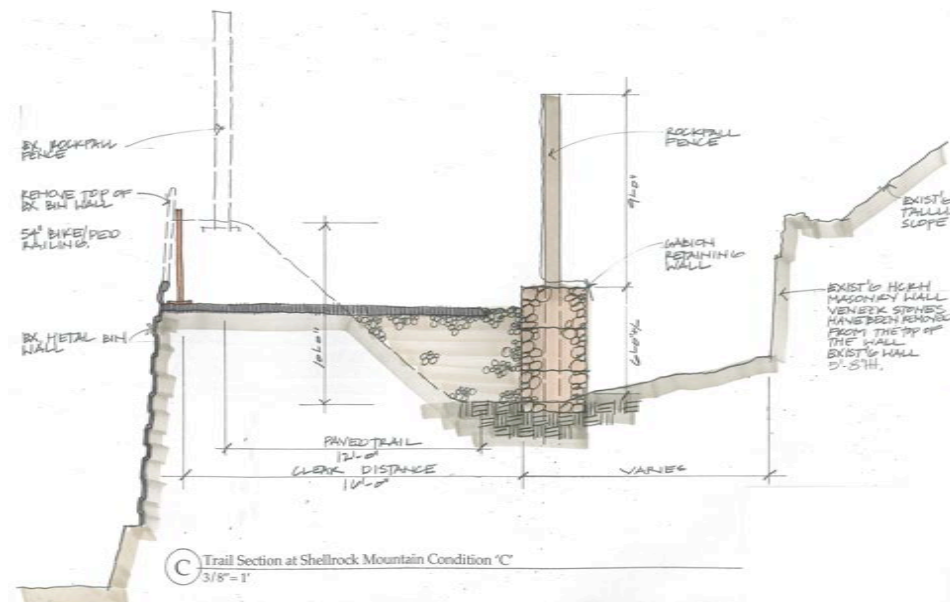


SHELLROCK MOUNTAIN TRAIL PERSPECTIVE



View of Columbia River from top of bin wall.





SHELLROCK MOUNTAIN PATH SECTIONS

SEGMENT B COSTS:

Site Preparation	\$21,000.00
Grading and Drainage	\$130,000.00
Wall Construction	\$501,000.00
Bridge at Summit Creek	\$250,000.00
Rock Fall Protection	\$1,463,000.00
Trail Construction	\$183,000.00
Misc. Trail Improvements	\$161,000.00
Landscape Improvements	\$130,500.00
Subtotal	\$2,840,000.00
Engineering & Permits (20%)	\$568,000.00
Construction Engineering (15%)	\$426,000.00
Contingency	\$767,000.00
Project Costs (2010)	\$4,601,000.00
Project Costs (2014)	\$5,429,000.00

ISSUES FOR FURTHER STUDY:

- Stability of Shellrock Mountain
- Rockfall protection for the Trail
- Larch Mountain Salamander survey
- Access to the historic wagon road
- Develop a plan to manage the historic resource



Existing rockfall fence and back of bin wall.



Historic view of Shellrock Mountain and historic highway.



Talus slope.



Existing condition behind bin wall.



LENGTH OF TRAIL SECTION:

1.2 MILES

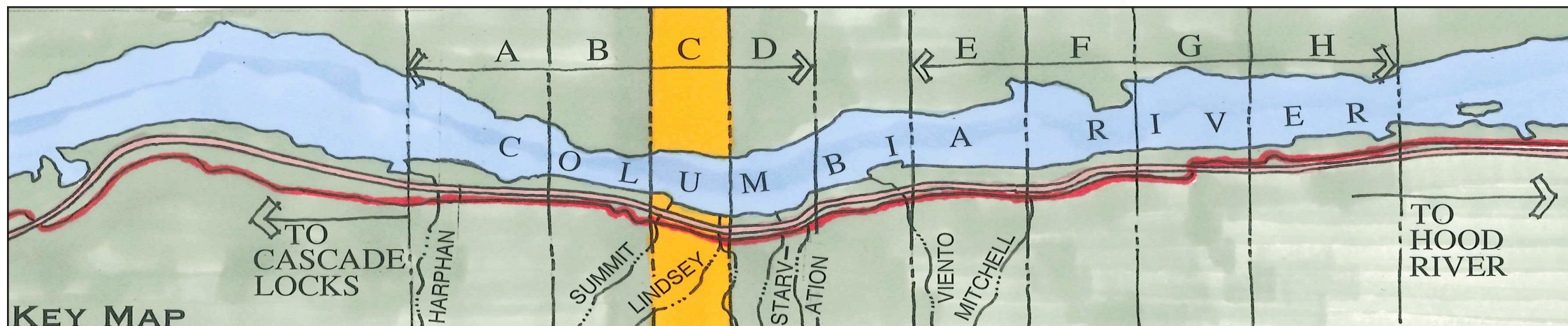
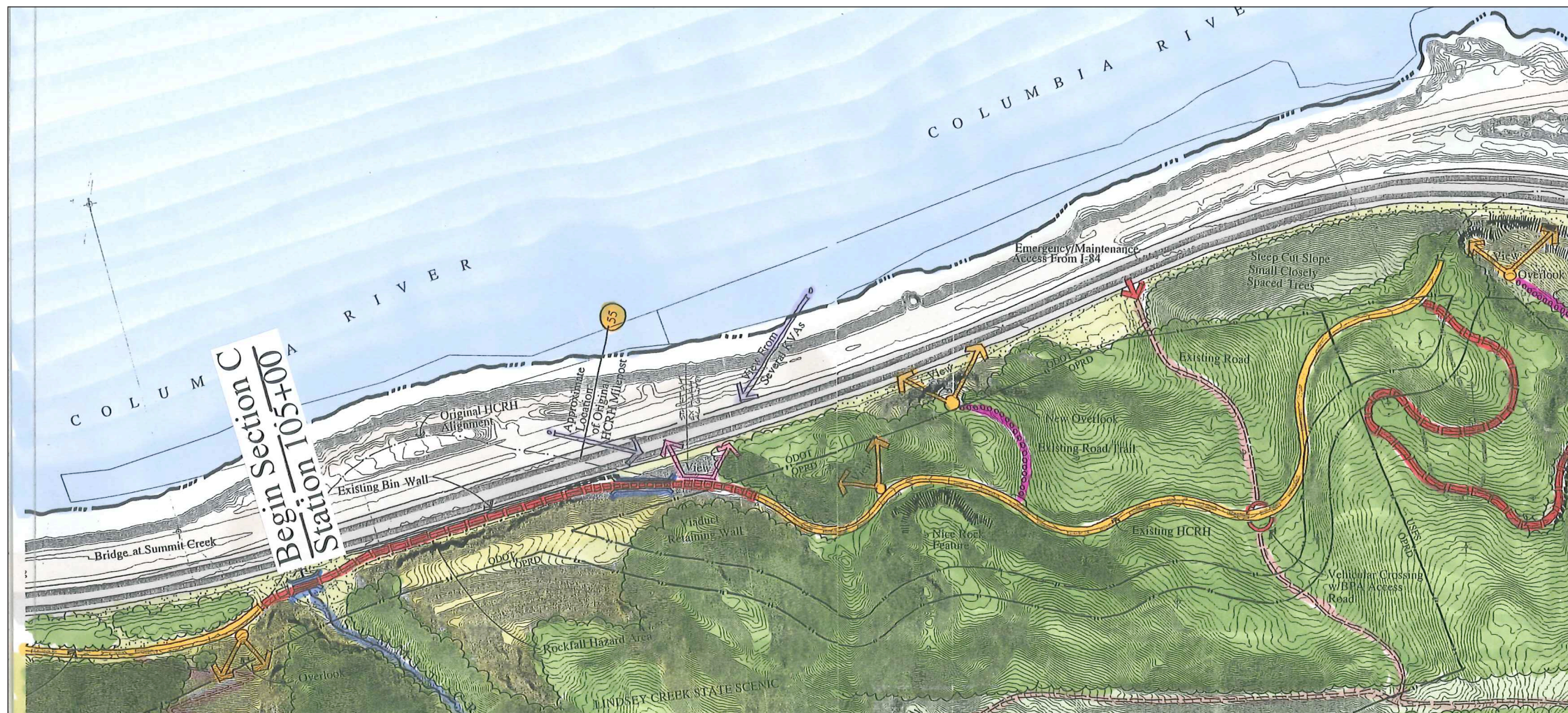
LEVEL OF DIFFICULTY:

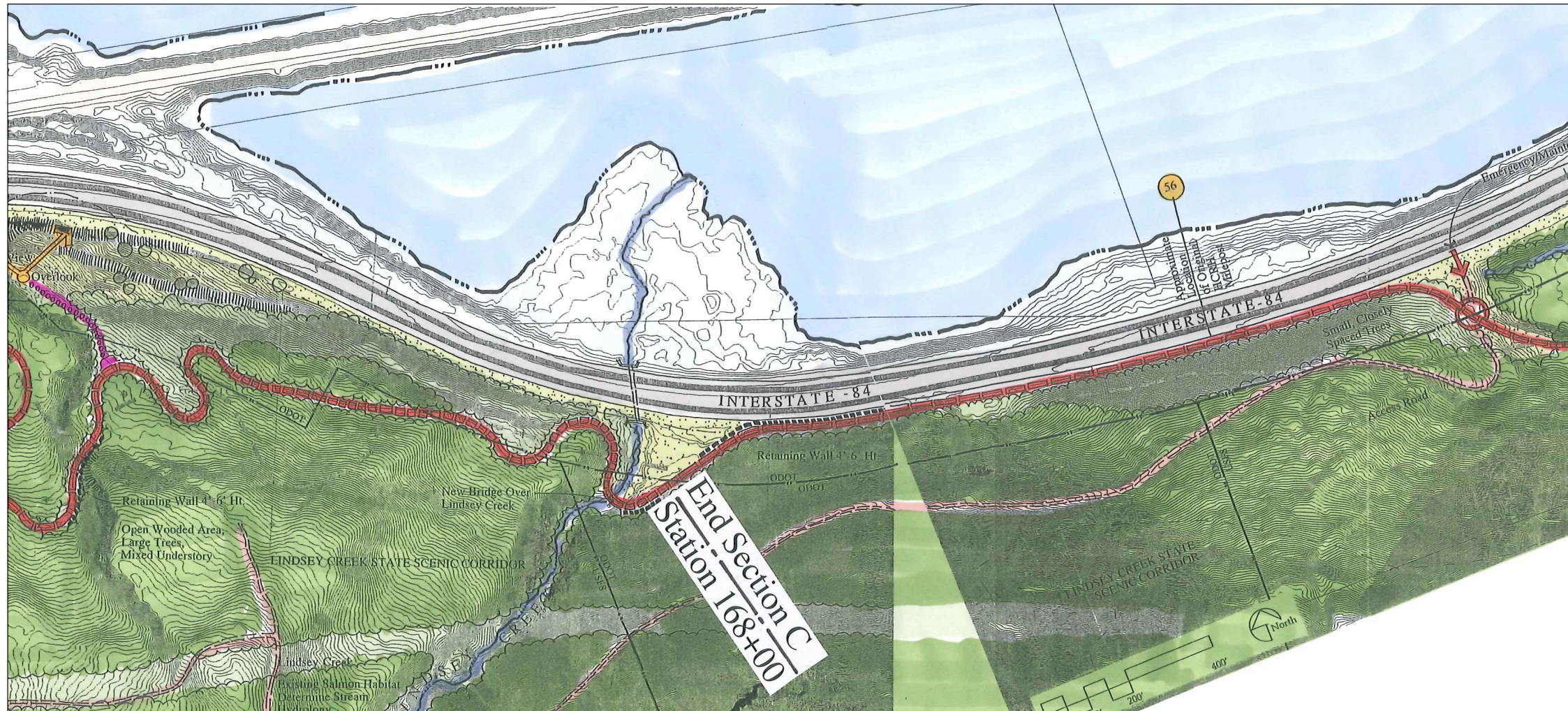
MODERATE TO DIFFICULT

SLOPES NOT EXCEEDING 10%

DESCRIPTION:

- **Station 105+00 – 115+00:** This section contains the longest existing stretch of Historic Highway in the reconnection project. A 1,000-foot section of new trail would connect from the new bridge at Summit Creek to the existing Lindsey Creek section of the Historic Highway, climbing 45 feet to meet up with the existing Historic Highway. Starting just past the new bridge at Summit Creek, the Trail would start climbing at a 5% grade. The Trail would then run behind an existing concrete bin wall where the Trail would continue at a 5% grade using the bin wall to support the new fill. A new retaining wall would be needed to support the Trail as it climbs above the bin wall. To make the final connection from behind the bin wall to the existing Historic Highway, a concrete viaduct would be needed due to the elevations above existing grade and the visibility of this area from several Key Viewing Areas. A small section of pavement may need to be removed so that the area can be cut to accommodate the grade change. The original alignment of the Historic Highway would be preserved. The grade at the viaduct will be 8%.
- **Station 115+00 – 133+35:** This is an existing section of Historic Highway. It is generally in good condition and would need minimal repair work. An overlook is proposed along this section to take advantage of some great views of the Columbia River, and a second overlook would be located along a short spur trail that allows for a 180 degree panoramic view of the Columbia River. At the end of this section, a



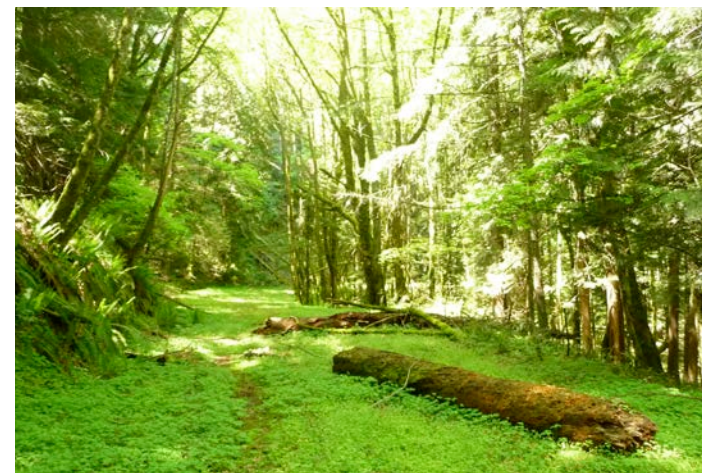
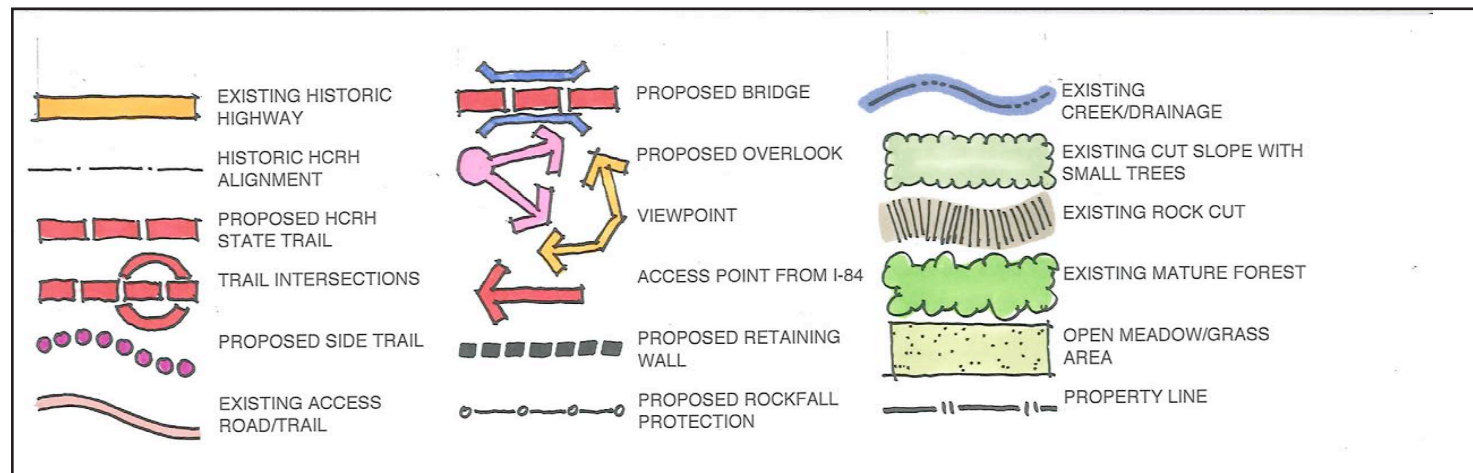


short segment of existing Historic Highway could be preserved in its current moss covered condition to show how the Historic Highway was cut off when I-84 was constructed.

- **Station 133+35 – 150+00:** Close to the east end of the of the existing section of Historic Highway, the Trail would leave the Historic Highway and climb the hill over an existing ridge and go through an area of mature trees. The trail would have a 6% grade in this section with a minimum 42 foot inside radius on the curves. At the highpoint of the Trail, a short spur trail would allow access to an overlook with spectacular 270 degree views of the Columbia River.
- **Station 150+00 – 168+00:** The Trail descends from the highpoint as it crosses the ridge. The Trail descends to Lindsey Creek in a series of switch backs with trail grades of 8%. As the Trail approaches Lindsey Creek it would take a sharp turn following the topography of the ravine to a new bridge crossing at Lindsey Creek.

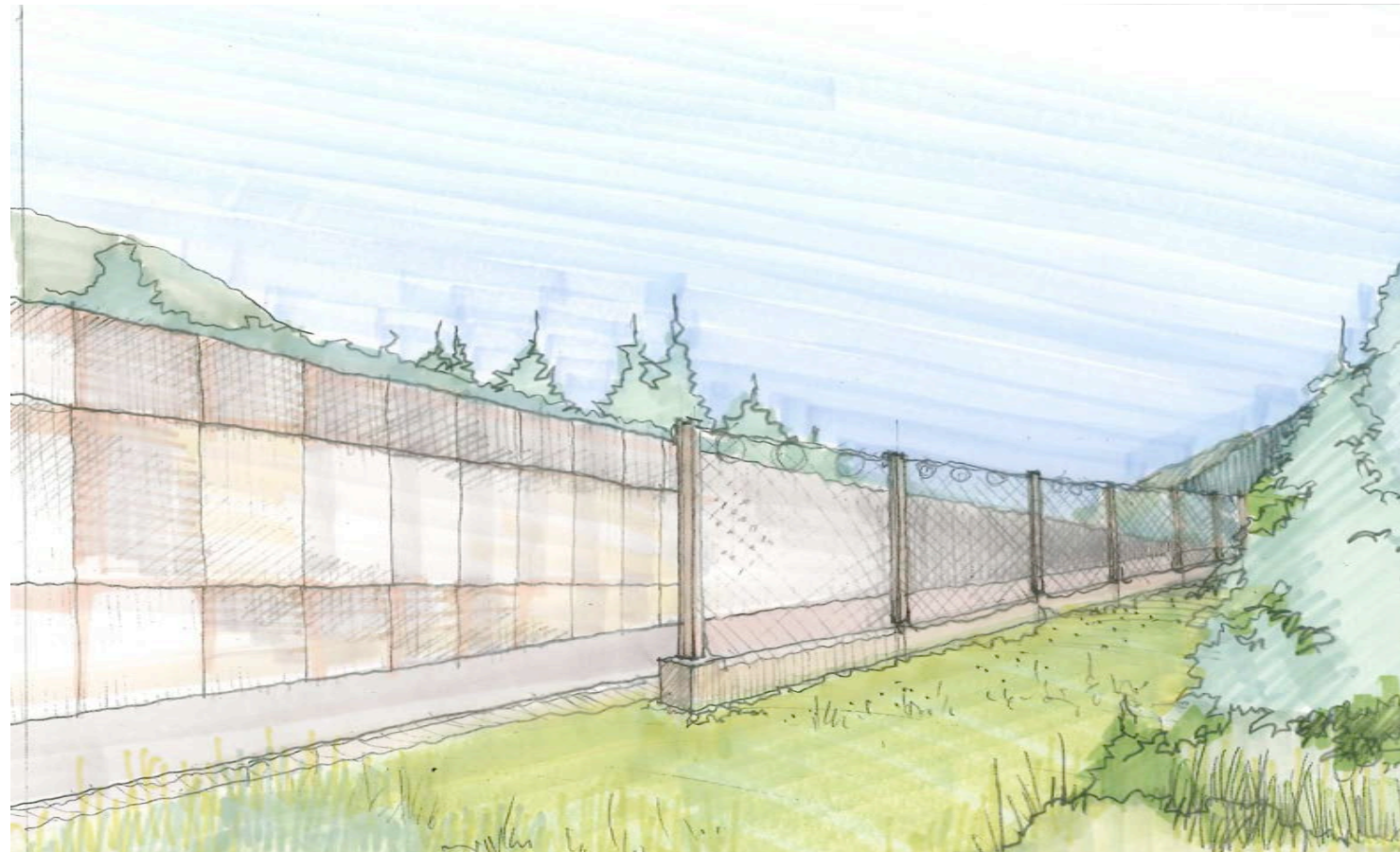
TRAIL SEGMENT HIGHLIGHTS:

- Longest section of existing Historic Highway
- Viaduct to connect Shellrock Mountain Section to Lindsey Creek Section
- Section of Historic Highway left in current state for interpretive benefits
- Overlooks to Columbia River Highway
- New Bridge Crossing at Lindsey Creek
- Mature forest stand with a diversity of native vegetation



Lindsey Creek section features carpet-like moss on the abandoned Historic Highway segments.

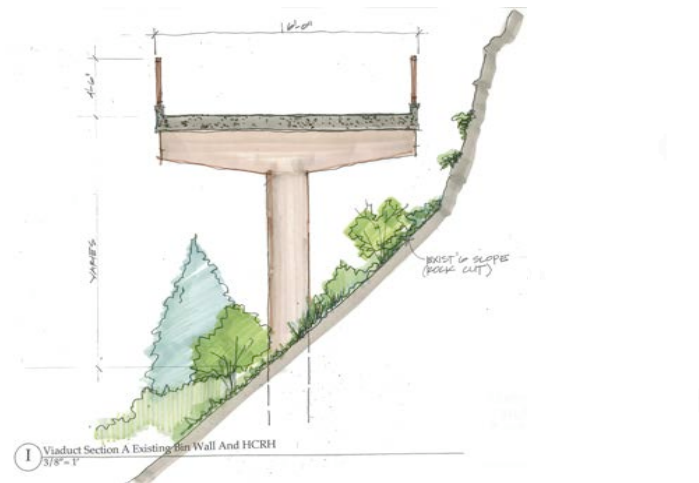




BIN WALL TRAIL PERSPECTIVE



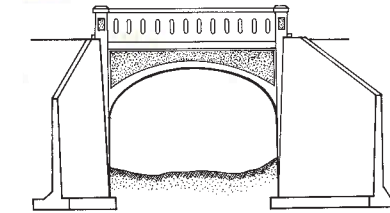
Existing concrete bin wall east of Summit Creek.



VIADUCT SECTION



Historic bridge along Historic Highway. Similar to the one that once crossed Lindsey Creek.

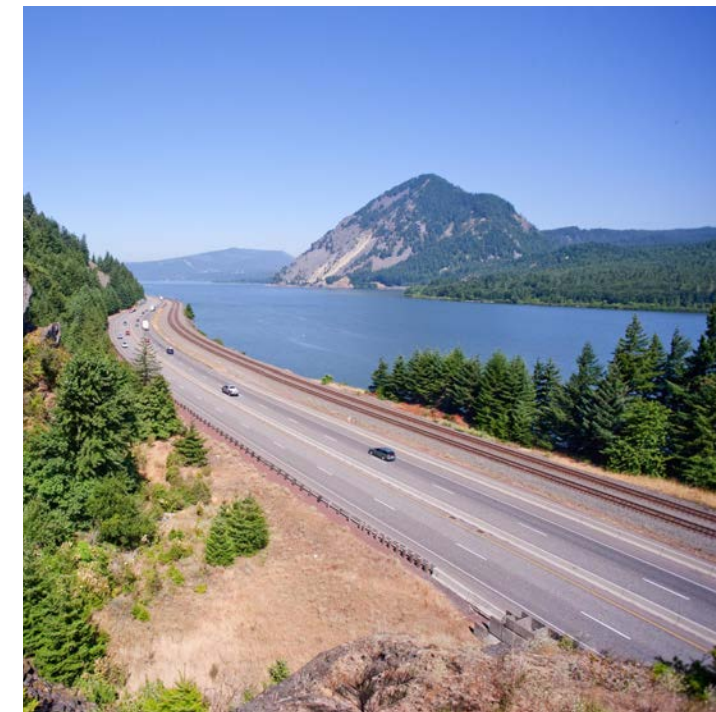


LINDSEY CREEK BRIDGE
1916 - ca. 1950

M.P. 55.75
18' OVERALL



View of Summit Creek culvert west of bin wall.



View to Wind Mountain from Summit Creek.





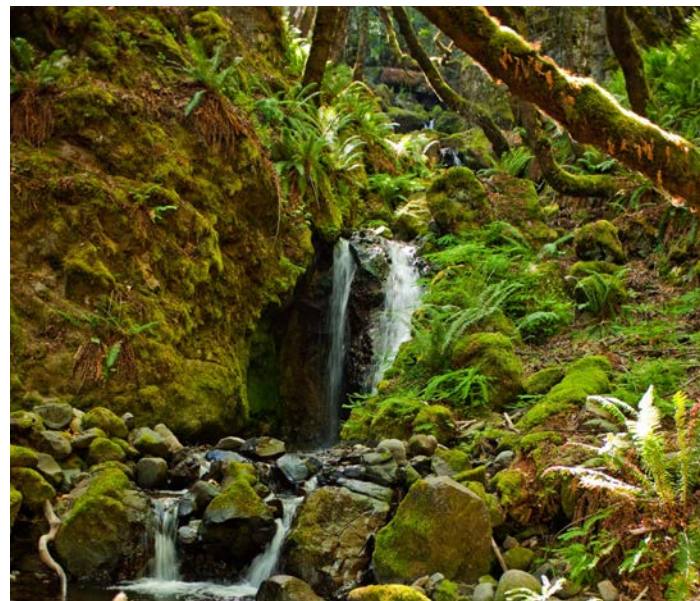
Existing condition at proposed viaduct.



Existing Historic Highway, Lindsey Creek section.



End of historic pavement, west end of Lindsey Creek section.



Summit Creek.



Existing Historic Highway alignment.



Existing Historic Highway through Lindsey Creek State Park.

SEGMENT C COSTS:

Site Preparation	\$42,500.00
Grading and Drainage	\$410,000.00
Wall Construction	\$416,000.00
Rock Fall Protection	\$250,000.00
Viaduct	\$900,000.00
Bridge at Lindsey Creek	\$250,000.00
Trail Construction	\$306,000.00
Misc. Trail Improvements	\$307,000.00
Landscape Improvements	\$241,000.00
Subtotal	\$3,122,000.00
Engineering & Permits (20%)	\$624,000.00
Construction Engineering (15%)	\$468,000.00
Contingency	\$843,000.00
Project Costs (2010)	\$5,057,000.00
Project Costs (2014)	\$5,968,000.00

ISSUES FOR FURTHER STUDY:

- Impacts to Hatfield Wilderness
- Impacts to existing mature forest stand
- Impacts to sensitive habitat at ridge overlook
- Impacts to the riparian habitat at Lindsey Creek
- Identify ways to reduce the length of Trail where slopes exceed 5%
- Look at potential archeological resources associated with the 1870's wagon road that might exist along this alignment



LENGTH OF TRAIL SECTION:

1.3 MILES

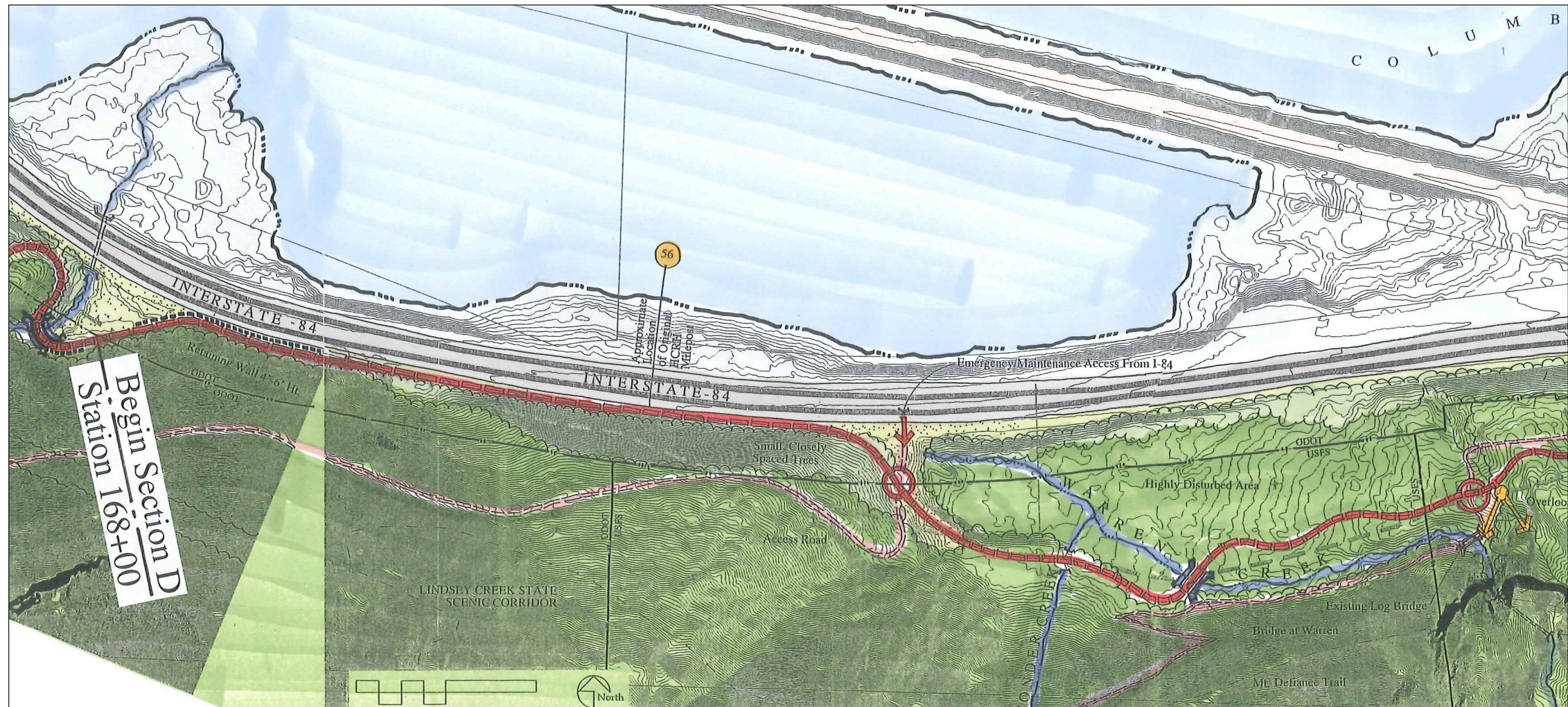
LEVEL OF DIFFICULTY:

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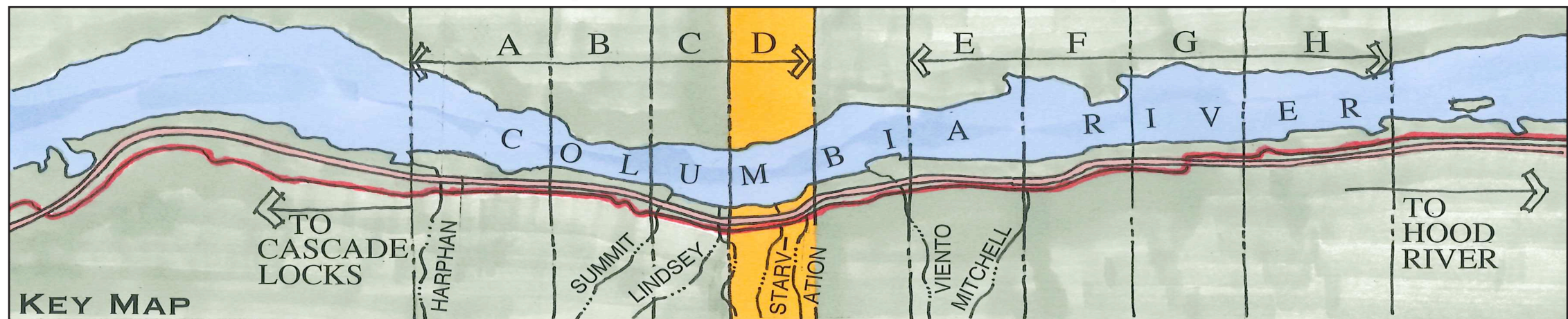
SLOPES UP TO 8%

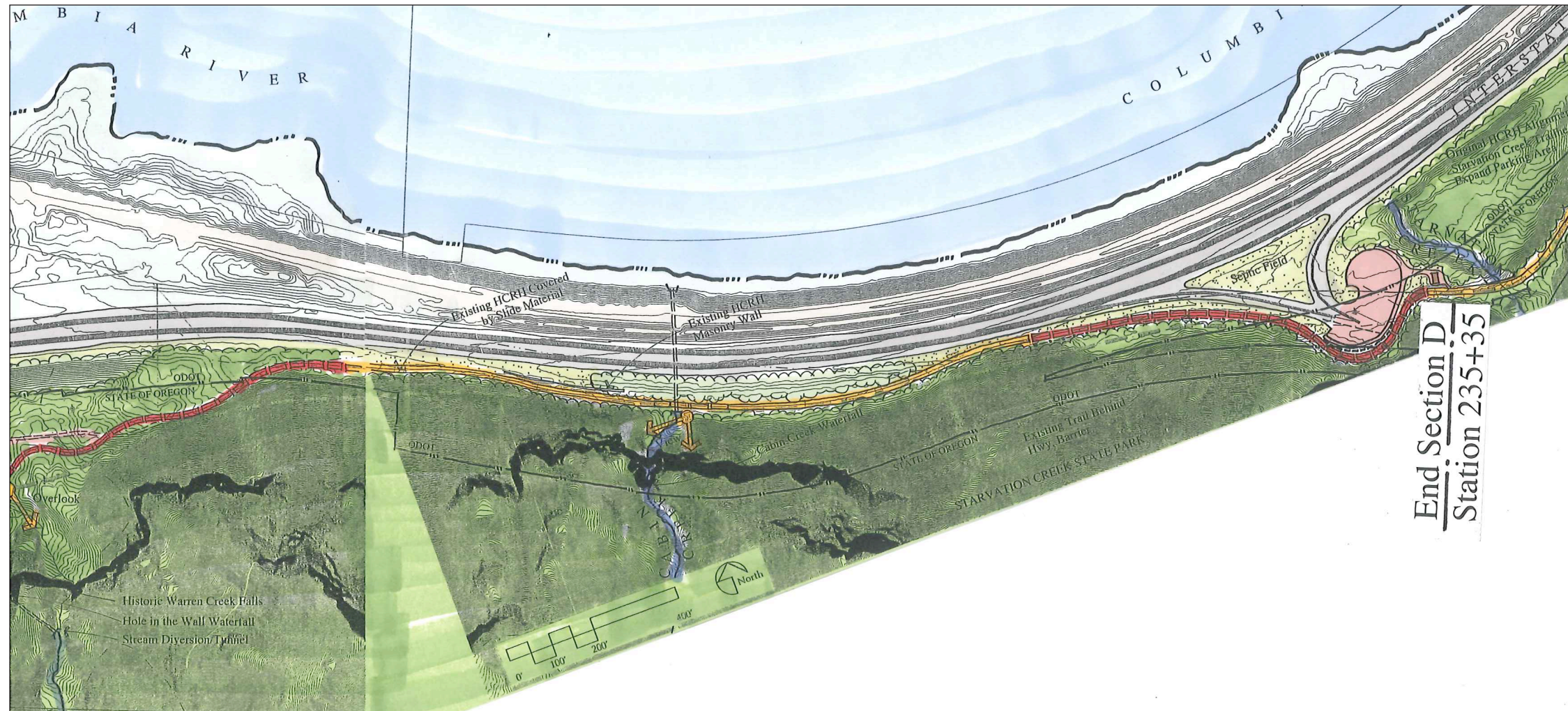
DESCRIPTION:

- **Station 168+00 – 184+00:** Leaving Lindsey Creek, the Trail follows the curve of the hill heading north, then turns and runs for approximately 1,300 feet alongside I-84.
- **Station 184+00 – 193+67:** The Trail then curves south following an existing road cut that runs along the south side of Warren Creek. This section of Trail goes through an area that is highly disturbed at Warren Creek and Wonder Creek. A new bridge would provide a crossing at Warren Creek.
- **193+67 – 216+00:** After crossing Warren Creek, the Trail follows Warren Creek, meandering through an area of primarily deciduous trees. A proposed overlook and trailhead would connect to the existing Hole-in-the-Wall Falls Trail, the Historic Warren Creek Falls site, and the existing Mt. Defiance Trail and its pedestrian log bridge crossing back over Warren Creek. The Trail then meanders northeast and connects back to an existing section of historic pavement that parallels I-84.



Warren Creek.

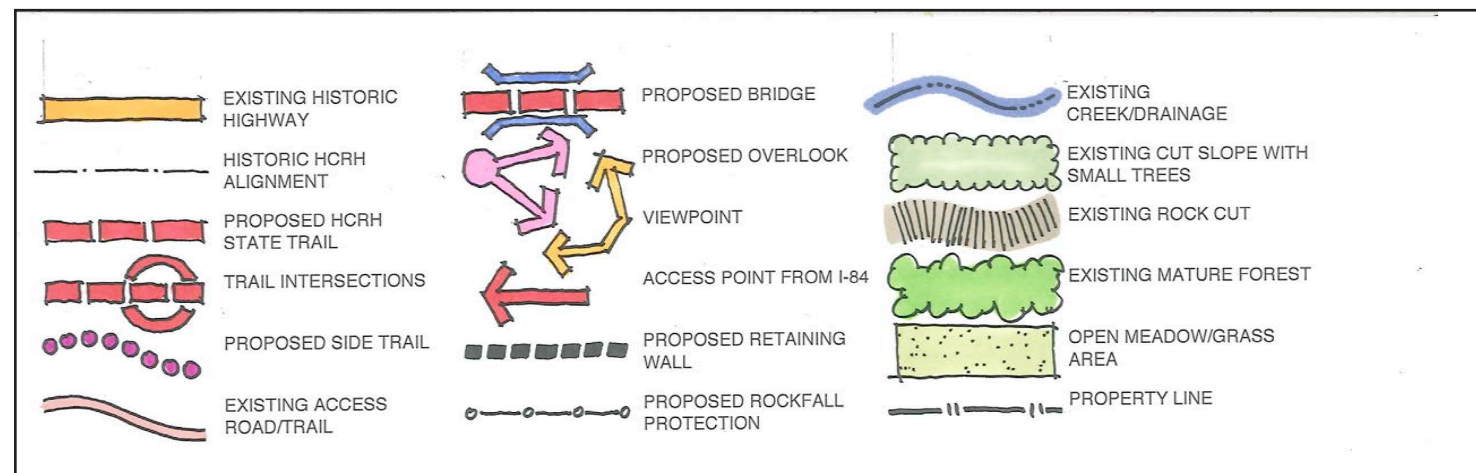




• **216+00 – 235+35:** This existing section of HCRH has considerable material that eroded onto the HCRH from uphill. A new wall and drainage as well as rockfall fencing on the uphill side of the Trail may be needed to control the hillside. An existing masonry wall associated with the HCRH is located on the north side of the Trail. The Trail passes Cabin Creek Falls where a new overlook would provide a place to view the falls and provide protection to the sensitive landscape around the falls. The Trail then follows the existing path alongside the exit ramp to Starvation Creek Trailhead. This portion, built behind a highway barrier wall, would be widened to meet minimum trail widths. This section ends at the existing Starvation Creek Trailhead.

TRAIL SEGMENT HIGHLIGHTS:

- Warren Creek
- Hole-in-the-Wall Falls
- Historic Warren Creek Waterfall
- Historic Stone Oven
- Cabin Creek Falls
- Existing Starvation Creek Trailhead



Existing Historic Highway west of Starvation Creek.

DESIGN/PERMITTING ISSUES:

- Recreation Intensity Class 4 at trailhead
- Site visible from several Key Viewing Areas: I-84, Columbia River, Highway 14
- Existing rockfall issue
- Limited site area, constrained by existing topography and roads

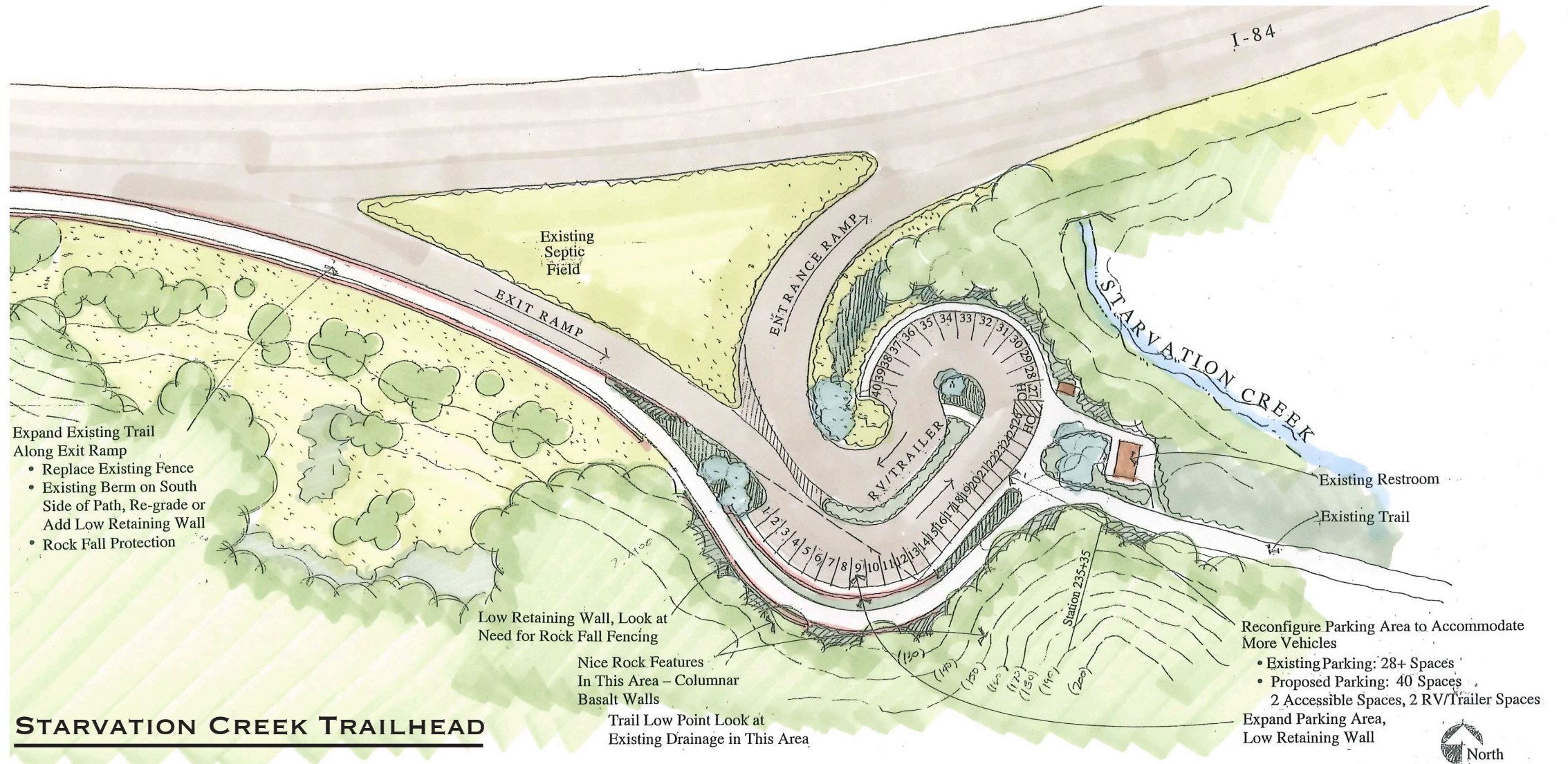


STARVATION CREEK TRAILHEAD DESCRIPTION:

- Existing 28 parking spaces
- Existing bus trailer turnaround
- Existing restroom
- Existing kiosk and signage

TRAILHEAD AMENITIES:

- Expand parking area 10 additional spaces
- Reconfigure parking area to provide for better traffic flow
- Improve trail access through the site



Starvation Creek Trailhead today.



Historic bake ovens near Starvation Creek.



Log bridge at Warren Creek - Mt. Defiance Trail.



Mt. Defiance Trail near Cabin Creek.





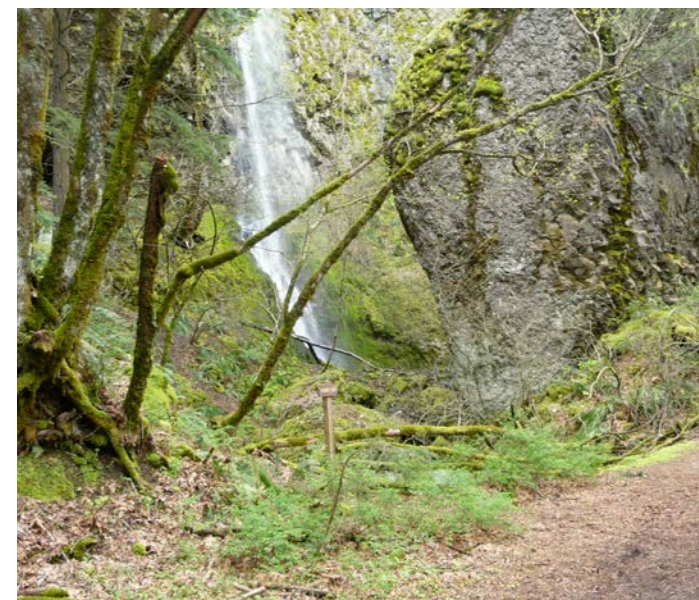
Hole-in-the-Wall Falls.



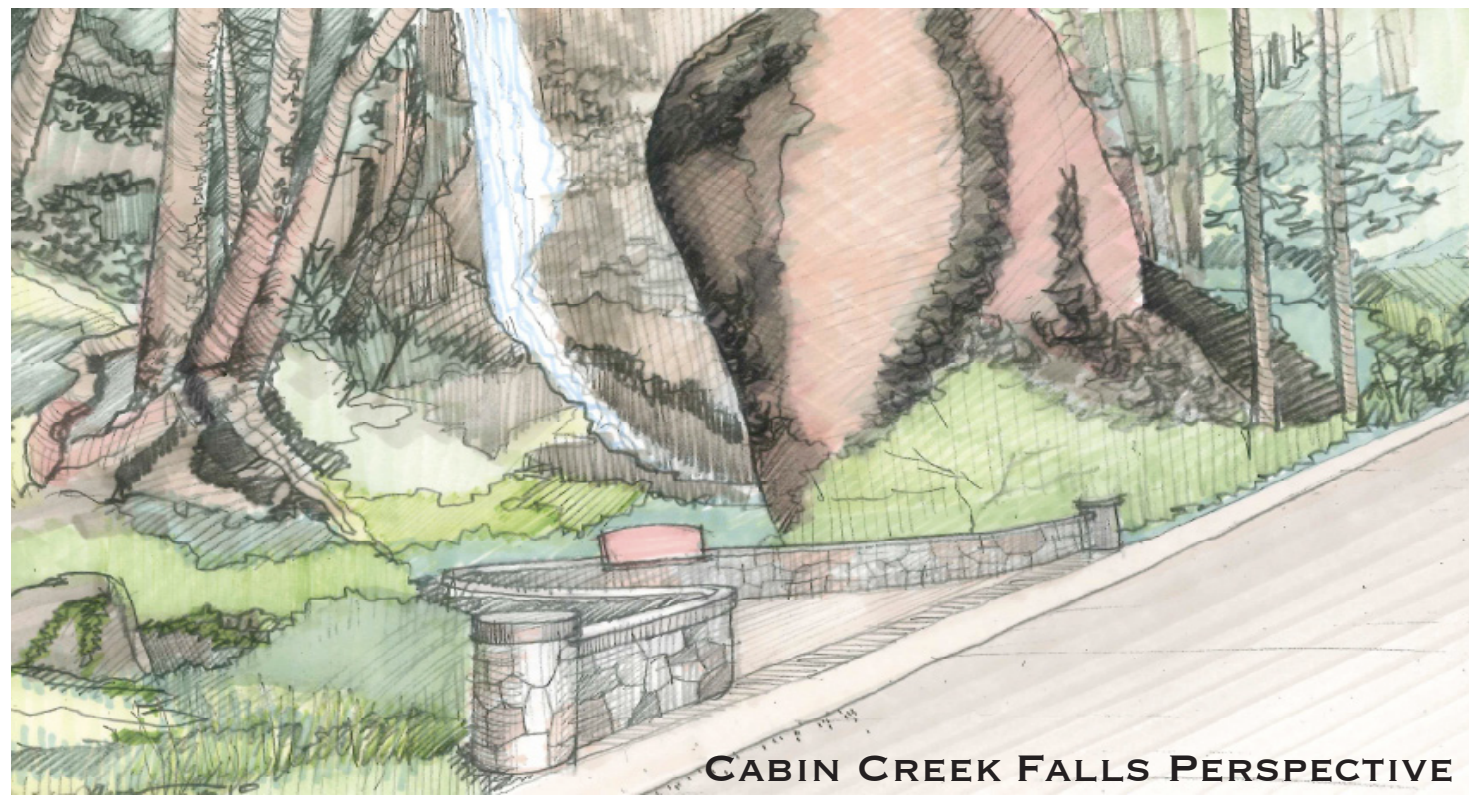
Site of former waterfall on Warren Creek.



Hole-in-the-Wall Falls.



View of Cabin Creek Falls from the Historic Highway.



CABIN CREEK FALLS PERSPECTIVE

SEGMENT D COSTS:

Site Preparation	\$51,000.00
Grading and Drainage	\$75,000.00
Wall Construction	\$552,000.00
Bridge at Warren Creek	\$250,000.00
Rock Fall Protection	\$555,000.00
Trail Construction	\$370,000.00
Misc. Trail Improvements	\$325,000.00
Landscape Improvements	\$261,000.00
Subtotal	\$2,439,000.00
Engineering & Permits (20%)	\$488,000.00
Construction Engineering (15%)	\$366,000.00
Contingency	\$659,000.00
Project Costs (2010)	\$3,952,000.00
Project Costs (2014)	\$4,663,000.00

STARVATION CREEK TRAILHEAD:

Site Preparation	\$17,000.00
Grading and Drainage	\$18,000.00
Wall Construction	\$98,000.00
Misc. Improvements	\$60,000.00
Landscape Improvements	\$23,000.00
Subtotal	\$215,000.00
Engineering & Permits (20%)	\$43,000.00
Construction Engineering (15%)	\$32,000.00
Contingency	\$58,000.00
Project Costs (2010)	\$349,000.00
Project Costs (2014)	\$411,000.00

ISSUES FOR FURTHER STUDY:

- Management of the proposed Trail with the Mt. Defiance Trail
- Restoration of Historic Warren Creek Falls
- Rockfall and hillside stability issues at Starvation Creek Trailhead
- Preservation of Historic HCRH walls along this section of trail
- Restoration of historic HCRH memorial plaque (now located at Starvation Creek Trailhead) to the original location along trail

