Hood River – White Salmon Interstate Bridge Replacement Project

Supplemental Draft Environmental Impact Statement

Executive Summary

November 2020

U.S. Department of Transportation
Federal Highway Administration

Oregon Department of Transportation

Port of Hood River

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Hood River-White Salmon Interstate Bridge Replacement Project
Hood River County, Oregon and Klickitat County, Washington
ODOT Key Number: 21280

Supplemental Draft Environmental Impact Statement

Submitted Pursuant to 42 U.S.C. 4332 (2)(c) and where applicable, 49 U.S.C. 303
by U.S. Department of Transportation, Federal Highway Administration,
Oregon Department of Transportation and Port of Hood River

In cooperation with:
U.S. Army Corps of Engineers
U.S. Bureau of Indian Affairs
U.S. Coast Guard
Washington State Department of Transportation

PHILLIP A DITZLER

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Phillip A. Ditzler, FHWA Division Administrator — Date of Approval

Rian Windsheimer, ODOT Region 1 Manager — Date of Approval: 11-13-2020

Michael McElwee, Port of Hood River Executive Director — Date of Approval: 11/5/20

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Abstract: The Port of Hood River (the Port) proposes to replace the Hood River-White Salmon Interstate Bridge (the Project), which connects Hood River County, Oregon and Klickitat County, Washington. A Draft Environmental Impact Statement (EIS) and Section 4(f) Evaluation for the Project (formerly referred to as the SR-35 Columbia River Crossing Project) was published in December 2003. This Supplemental Draft EIS provides updated data and evaluation of environmental impacts and benefits. The Preferred Alternative for the Project is Alternative EC-2. Upon receipt and consideration of public comments on the Supplemental Draft EIS, the Port, Oregon Department of Transportation (ODOT) and the Federal Highway Administration (FHWA) (joint lead agencies for the EIS) intend to publish a combined Final EIS and Record of Decision (ROD).

The Preferred Alternative EC-2 would replace the existing bridge with a new fixed-span bridge and remove the existing bridge after the replacement bridge is opened. The existing bridge is tolled, and the replacement bridge would also be a tolled facility. The replacement bridge under the Preferred Alternative EC-2 would be located slightly west of the existing bridge and would include two 12-foot travel lanes, two 8-foot shoulders, and one 16-foot shared use path. The replacement bridge would install 12 in-water piers, 1 pier on land, and 2 abutments. The signalized intersection of SR 14 and the bridge approach road would be reconstructed as a roundabout. Construction of the replacement bridge would require acquisition of 3.0 acres from 15 properties. The Project would require relocation of utilities and may displace two Port buildings but would not displace any residents or businesses. The Project would permanently impact 0.1 acre of wetlands, 0.16 acre of wetland buffer, and 2.32 acres of vegetation. Total Project construction cost is estimated to be $300 million in 2019 dollars. Project construction would take approximately 6 years with 3 years to construct the replacement bridge and another 3 years to remove the existing bridge.

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TO THOSE WHO HAVE EXPRESSED INTEREST IN THE:

Hood River-White Salmon Interstate Bridge Replacement Project
Supplemental Draft Environmental Impact Statement
Hood River County, Oregon and Klickitat County, Washington
ODOT Key Number: 21280

Thank you for your interest in the proposed Hood River-White Salmon Interstate Bridge Replacement Project.

The Federal Highway Administration (FHWA), Oregon Department of Transportation (ODOT) and Port of Hood River have completed the **Supplemental Draft Environmental Impact Statement (EIS)** for the Project. A 45-day public comment period is provided with a community meeting/public hearing scheduled during this period.

If you have questions or need additional information concerning the proposed Project, please contact Kevin Greenwood, Project Director, Port of Hood River, at: (541) 386-1645.

Thank you for your participation,

Michael McElwee
Port of Hood River Executive Director

Notice of Document Availability

This Supplemental Draft EIS is available for review at the following locations:

Port of Hood River (by appointment)
1000 E. Port Marina Drive
Hood River, OR 97031
Note: Washington residents can contact the Port to schedule an appointment to view the document in Klickitat County

White Salmon Valley Community Library (limited services during the COVID-19 pandemic)
77 NE Wauna Avenue
White Salmon, WA 98672

Stevenson Community Library (limited services during the COVID-19 pandemic)
120 NW Vancouver Avenue
Stevenson, WA 98648

These documents are also available on the Project website: https://portofhoodriver.com/bridge/bridge-replacement-project/.

At the time of publication, Port of Hood River offices are closed due to COVID-19. If you would like to review a hard copy of the Supplemental Draft EIS, please contact the Port at newbridge@portofhoodriver.com or 541-386-1645 to make arrangements for review of the hard copy. The Supplemental Draft EIS can also be viewed at the White Salmon Valley Community Library and the Stevenson Community Library which are open with limited services during the COVID-19 pandemic.

How to Submit Comments

Written comments on the Supplemental Draft EIS can be submitted during the public comment period (November 20, 2020, through January 4, 2021) by email to newbridge@portofhoodriver.com or regular mail to:

Hood River Bridge Supplemental Draft EIS
Kevin Greenwood
Port of Hood River
1000 E. Port Marina Drive
Hood River, OR 97031

Comments can be submitted orally and in writing at the public hearing for the Supplemental Draft EIS on December 3, 2020. Comments may also be submitted by leaving a voice message on the Port's Supplemental Draft EIS comment line at 833-215-2352 (toll-free).

Table of Contents

List of Exhibits

Acronyms and Abbreviations

Acronym	Definition
BIA	Bureau of Indian Affairs
BMPs	best management practices
CFR	Code of Federal Regulations
CRGC	Columbia River Gorge Commission
CRGNSA	Columbia River Gorge National Scenic Area
CRITFC	Columbia River Inter-Tribal Fishing Commission
CTSI	Confederated Tribes of the Siletz Indians
CTUIR	Confederated Tribes of the Umatilla Indian Reservation
DAHP	Department of Archaeology and Historic Preservation
EIS	environmental impact statement
ESA	Endangered Species Act
ETC	electronic toll collection
FHWA	Federal Highway Administration
Grande Ronde	Confederated Tribes of the Grand Ronde Community of Oregon
HB	House Bill
I-	interstate
IWWW	in-water work window
lbs.	pounds
LWCF	Land and Water Conservation Fund
mph	miles per hour
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NOAA Fisheries	National Oceanic and Atmospheric Administration National Marine Fisheries Service
NRHP	National Register of Historic Places
ODOT	Oregon Department of Transportation
OHWM	ordinary high water mark
ROD	Record of Decision
RTC	Regional Transportation Council
SEPA	State Environmental Policy Act
SHPO	State Historic Preservation Office
SR	State Route
TCPs	traditional cultural properties
TEA-21	Transportation Equity Act for the 21st Century
TFAS	treaty fishing access site
the Port	Port of Hood River
the Project	Hood River-White Salmon Interstate Bridge Replacement Project
U.S.	United States

Acronym	Definition
USACE	U.S. Army Corps of Engineers
USCG	U.S. Coast Guard
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
Warm Springs	Confederated Tribes of the Warm Springs Reservation of Oregon
WSDOT	Washington State Department of Transportation
Yakama Nation	Confederated Tribes and Bands of the Yakama Nation

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EXECUTIVE SUMMARY

PROJECT DESCRIPTION AND LOCATION

The Port of Hood River (the Port) proposes to replace the Hood River-White Salmon Interstate Bridge (the Project). The Project spans the Columbia River between Hood River, Oregon, and Bingen and White Salmon, Washington, which is approximately 60 miles east of Portland, Oregon.

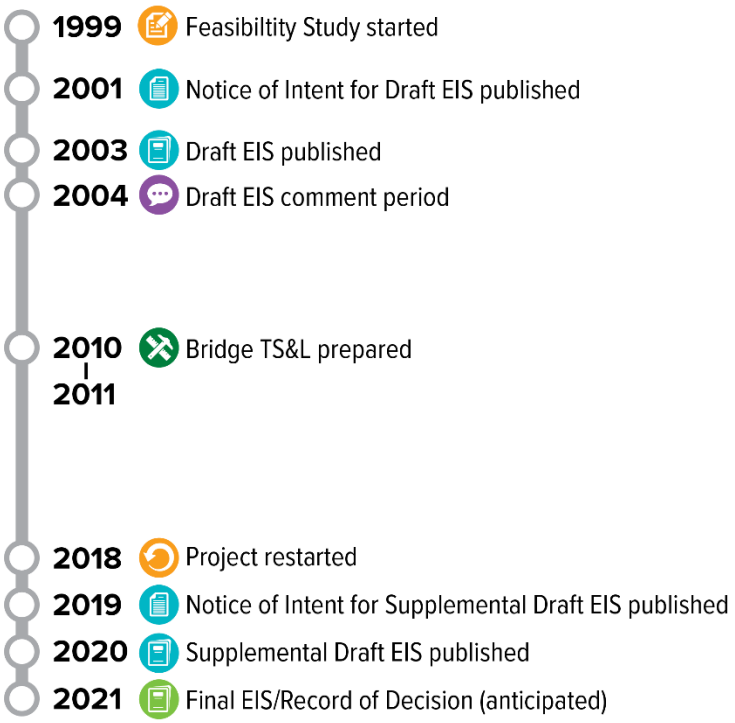
The existing Hood River-White Salmon Interstate Bridge (locally known as the Hood River Bridge) was built in 1924 and a lift span was added to the bridge in 1938 to respond to higher water elevations in the pool behind Bonneville Dam. The bridge approaches tie into the federal, state, and local transportation facilities within the city limits of White Salmon and within the urban growth boundary of the City of Hood River. The existing bridge is owned and maintained by the Port, which collects tolls from most vehicles; public transit vehicles are exempt. The existing bridge is nearing the end of its serviceable life and is obsolete for modern vehicles with height, width, and weight restrictions and is also a navigational hazard for marine vessels. The bridge has no sidewalks or bicycle lanes for non-motorized travel and would likely not withstand a large earthquake.

A new, replacement bridge would provide a safe and reliable way for everyone to cross or navigate the Columbia River—by car, truck, bus, bicycle, on foot, or on the water. The Project would construct a replacement bridge that would support a thriving economy and livable communities and the existing bridge would be removed. Total Project construction cost is estimated to be $300 million in 2019 dollars. Project construction would take approximately 6 years, with 3 years to construct the replacement bridge and another 3 years to remove the existing bridge.

PROJECT HISTORY AND REASON FOR PREPARING A SUPPLEMENTAL DRAFT EIS

The Project began in 1999, with the plan for a feasibility study to determine if there was a need to replace the bridge and whether there was community support for a bridge improvement, as shown in Exhibit ES-1. The feasibility study led to a reasonable range of alternatives to be evaluated in a Draft Environmental Impact Statement (EIS). The State Route (SR) 35 Columbia River Crossing Draft EIS was published in 2003, which identified the "EC-2 West Alignment" as the Preliminary Preferred Alternative. The environmental review phase of the Project was put on hold after the comment period ended in 2004 due to lack of funding for additional work.

Exhibit ES-1. Project History Timeline



In 2017, the Port received Oregon State House Bill 2017 (HB 2017) ("Keep Oregon Moving") funding to continue the Project. The Port is partnering with the Federal Highway Administration (FHWA), Oregon Department of Transportation (ODOT), and Washington State Department of Transportation (WSDOT) to continue the environmental review phase.

Based on a re-evaluation of the Draft EIS, FHWA concluded that some of the analysis in the Draft EIS was no longer valid because of the changes in some conditions and regulations over the passage of time. FHWA determined that preparing a Supplemental Draft EIS and then a combined Final EIS/Record of Decision (ROD) is necessary for completing the National Environmental Policy Act (NEPA) documentation and environmental review phase of the Project. The project history is detailed in Section 1.1, Introduction to the Project.

Purpose and Need

Under NEPA, the purpose and need statement establishes why the Project is being proposed and is used to evaluate the alternatives and, ultimately, to select the preferred alternative. An abbreviated version of the purpose and need statement is provided below, with the complete statement provided in Section 1.2, Purpose and Need.

Purpose Statement

The purpose of this Project is to improve multi-modal transportation of people and goods across the Columbia River between the communities of White Salmon and Bingen, Washington and Hood River, Oregon. The Project is intended to: a) improve traffic operations for current and future cross-river traffic and at connections to I-84 and SR 14; b) provide a cross-river connection for bicyclists and pedestrians; c) improve vehicle and freight travel safety by reducing real and perceived hazards; d) maintain and improve a transportation linkage between the White Salmon, Bingen, and Hood River communities, businesses, and services; e) fulfill the legislative directives tied to the Project funding; f) improve river navigation for vessels passing under the bridge; and g) improve the river crossing's seismic resiliency.

Need for Project

The overall need for the Project is to rectify current and future transportation inadequacies and deficiencies associated with the existing bridge. Specific needs are addressed as follows.

- **Present Capacity**: substandard width and operational issues are causing traffic congestion on the bridge and at both approaches
- **Future Transportation Demand**: the existing bridge is not designed to meet future travel demand for vehicles
- **Bicycle and Pedestrian Facilities**: lack of bicycle and pedestrian facilities limits multi-modal mobility
- **Safety**: narrow lanes and lack of shoulder create real and perceived safety hazards
- **Social Demands/Economic Development**: the existing bridge restricts the current and projected flow of goods, labor and consumers across the river
- **Legislation**: comply with federal funding obligation Transportation Equity Act for the 21st Century (TEA-21), the Washington State Legislature designation of the SR-35 corridor, and Oregon HB 2017
- **River Navigation**: the substandard horizontal clearance creates difficulties for safe vessel navigation
- **Seismic Deficiencies:** the existing bridge does not meet current seismic standards and is vulnerable to a seismic event

Lead and Cooperating Agencies

FHWA is acting as the lead agency for the NEPA process with the Port and ODOT serving as joint lead agencies. FHWA is leading the EIS as the bridge connects to the Oregon and Washington state highway systems and is included in the National Highway System. The Port is acting as a joint lead as they own the bridge and have received state funding through the Oregon State Legislature for this environmental review phase of the Project. The Port shares in the responsibilities to prepare the Supplemental Draft EIS and Final EIS. ODOT is also acting as a joint lead as they are providing oversight, environmental reviews, and liaison staff for the EIS review process. The responsibilities of the lead agencies are highlighted in Exhibit ES-2.

Exhibit ES-2. Lead Agencies and Responsibilities

Lead Agency	Responsibilities
FHWA	• Manage the NEPA coordination process • Prepare the Supplemental Draft EIS and the Final EIS • Prepare technical work products • Provide opportunity for public and cooperating/participating agency involvement
The Port	
ODOT	

Cooperating agencies for the Project and their responsibilities are listed in Exhibit ES-3. Cooperating agencies are any federal or state agency that has jurisdiction by law or special expertise with respect to any environmental impact involved in the Project. Cooperating agencies consult with the lead agencies on required technical studies, conduct joint field reviews, and express their agency views on subjects within their jurisdiction or expertise.

Exhibit ES-3. Cooperating Agencies and Responsibilities

Cooperating Agency	Responsibilities
United States (U.S.) Army Corps of Engineers (USACE)	• Clean Water Act, Section 404 Permit • Rivers and Harbors Act, Section 408 Navigation Permit • Navigation channel maintenance • Bonneville Dam and pool operations
U.S. Bureau of Indian Affairs (BIA)	• Federal-Tribal Trust
U.S. Coast Guard (USCG)	• Rivers and Harbors Act, Section 9 Bridge Permit • Marine Safety, river navigation aids and buoys
WSDOT	• Technical reviews of select environmental resources • Design review of Project elements in Washington State • Coordination with ODOT, FHWA, and Washington State Department of Archaeology and Historic Preservation (DAHP) • Washington State Environmental Policy Act (SEPA) analysis on WSDOT actions associated with bridge

Participating agencies are any federal, tribal, state, regional, and local agencies that have an interest in the Project. Participating agencies for the Project include the cities of Hood River and White Salmon, Hood River and Klickitat counties, Southwest Washington Regional Transportation Council (RTC), and various state and federal agencies.

Agency coordination is detailed in Chapter 5, Public Involvement and Agency Coordination.

Tribal Consultation

FHWA is conducting government-to-government tribal consultation in coordination with ODOT, the programmatically delegated lead authority for Section 106 compliance and consultation. ODOT will continue consultation with the previously consulted four tribes (Confederated Tribes and Bands of the Yakama Nation [Yakama Nation], the Confederated Tribes of the Warm Springs Reservation of Oregon [Warm Springs], the Confederated Tribes of the Umatilla Indian Reservation [CTUIR], and the Nez Perce Tribe) as well the Cowlitz Indian Tribe, Confederated Tribes of the Siletz Indians (CTSI), and Confederated Tribes of the Grand Ronde Community of Oregon (Grand Ronde). In addition, consultation on treaty fishing rights on the Columbia River has been undertaken by ODOT and FHWA with the Yakama Nation, the Warm Springs, the CTUIR, and the Nez Perce Tribe.

Tribal consultation is detailed in Chapter 5, Public Involvement and Agency Coordination.

Public Involvement

During planning and development of the Supplemental Draft EIS, various public involvement activities and events have been held. The Port hosted a community meeting in December 2018 to "re-launch" the Project to the public. The community meeting sought public input to confirm past work contained in the Draft EIS (such as the purpose and need statement, the range of alternatives analyzed, and the Preliminary Preferred Alternative previously identified) as well as to obtain new/missing information relevant to the technical analysis.

Following the community meeting, public engagement activities included an online survey, stakeholder interviews, organization of an EIS working group, environmental justice focus group meetings, tabling events, a navigation survey, and briefings with municipalities, organizations, and the Port Commission. Project updates and notice of public outreach events have been posted to the Project webpage and the Port's social media accounts (Twitter and Facebook), and also provided as news releases.

Public involvement is detailed in Chapter 5, Public Involvement and Agency Coordination.

Alternatives Considered

Three alternatives are being evaluated to address the Project's purpose and need:

- No Action Alternative
- Preferred Alternative EC-2
- Alternative EC-3

Exhibit ES-4 shows the alignment of the existing bridge, which represents the No Action Alternative, and the two build alternatives. The build alternatives connect to SR 14 in White Salmon, Washington, and Button Bridge Road in Hood River, Oregon, just north of the Interstate 84 (I-84)/US Highway 30 (US 30) interchange (Exit 64).

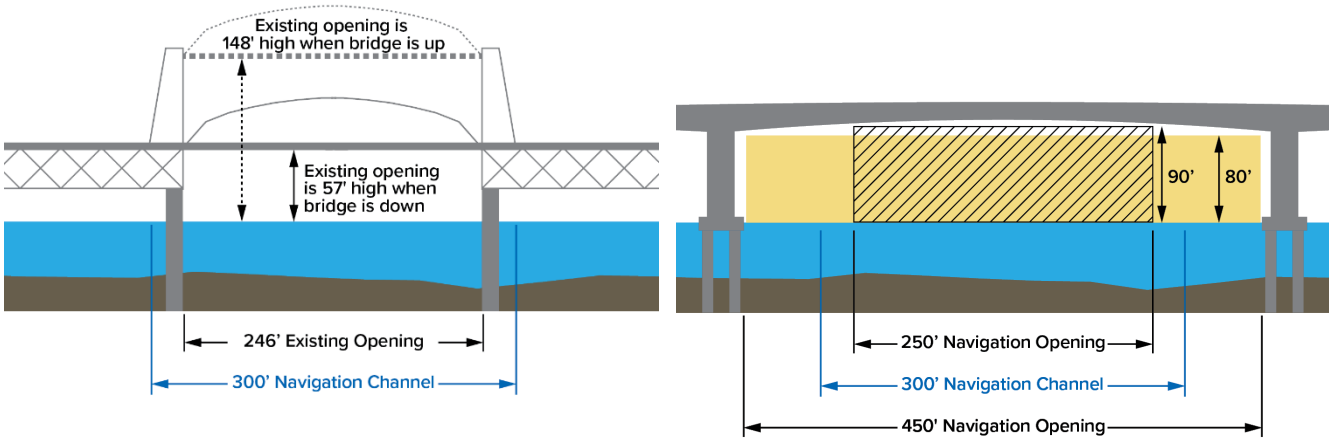
Each alternative is summarized in Exhibit ES-5 and described in more detail in Chapter 2. Exhibit ES-6 illustrates the navigational clearance for the existing bridge and the replacement bridge (same for each build alternative).

Exhibit ES-4. Location of the Preferred Alternative EC-2 and Alternative EC-3

Exhibit ES-5. Summary Comparison of Key Elements of Alternatives

	No Action Alternative	Preferred Alternative EC-2	Alternative EC-3
Bridge alignment	No change	Slightly west of existing	Slightly east of existing
Bridge structure			
Bridge type	Steel deck truss bridge with vertical lift span	Segmental concrete box girder bridge (fixed span)	
Total number of piers (in water/on land)	28 (20/8)	13 (12/1)	
Structure length	4,418 feet	4,412 feet	4,553 feet
Travel lanes	9-foot 4.75-inch lanes	12-foot lanes	
Roadway shoulders	No shoulders	8-foot shoulders	
Vehicle height limit	14 feet-7 inches	None	
Shared Use Path	None	12-foot wide, only on west side with overlooks	
Bridge deck	Steel-grated	Concrete	
Vehicle Gross Weight Limit	80,000 pounds (lbs.); no trip permit allowance for overweight vehicles	> 80,000 lbs., with approved trip permit	
Design speed	Unknown	50 miles per hour (mph)	
Posted speed	25 mph	35 mph	
Toll collection	Toll booth on Oregon side	Electronic tolling/No toll booth	
Stormwater treatment	None	Detention and water quality treatment	
Navigation clearance	246 feet horizontal by 57 feet vertical when bridge is down and up to 148 feet vertical when lifted	450 feet horizontal x 80 feet vertical (maximum horizontal opening) 250 feet horizontal x 90 feet vertical (centered within maximum vertical opening)	
SR 14/Hood River Bridge intersection	Signalized intersection	Roundabout slightly west of existing intersection; SR 14 raised approximately 2 feet above existing road level	Roundabout slightly east of existing intersection; SR 14 remains at existing road level
Button Bridge Road/E. Marina Way intersection	Signalized intersection	Signalized intersection	
Anticipated construction duration	None	6 years (3 years to construct the replacement bridge and 3 years to remove the existing bridge)	

Exhibit ES-6. Navigation Clearance of Existing Bridge and Proposed Replacement Bridge



Existing Bridge

Proposed Replacement Bridge

No Action Alternative

The No Action Alternative would retain the existing bridge in its existing condition and configuration. Routine operations would continue, and maintenance would be implemented to continue operations. The Supplemental Draft EIS considers two scenarios for the No Action Alternative:

- **End of bridge lifespan**: assumes that the existing Hood River Bridge would remain in operation through 2045[1] and would be closed sometime after 2045 when maintenance costs would become unaffordable. At such a time, the bridge would be closed to vehicles and cross-river travel would have to use a detour route approximately 21 miles east on SR 14 or 23 miles east on I-84 to cross the Columbia River using The Dalles Bridge (US 197). Alternatively, vehicles could travel 25 miles west on SR 14 or 21 miles west on I-84 to cross the Columbia River via the Bridge of the Gods. When the bridge would be closed, the lift span would be kept in a raised position to support large vessel passage that previously required a bridge lift or the existing bridge would be removed.
- **Catastrophic event**: addresses the possibility that an extreme event that damages or otherwise renders the bridge inoperable would occur prior to 2045. Such events could include an earthquake, landslide, vessel strike, or other unbearable loads that the bridge structure cannot support.

Preferred Alternative EC-2

Alternative EC-2 would construct a replacement bridge west of the existing bridge. The existing bridge would be removed following construction of the replacement bridge. Under Alternative EC-2, the main span of the bridge would be approximately 200 feet west of the existing lift span. The bridge terminus in White Salmon, Washington, would be located approximately 123 feet west of the existing SR 14/Hood River Bridge intersection, while the southern terminus would be in roughly the same location at the Button Bridge Road/E. Marina Way intersection in Hood River, Oregon, as shown in Exhibit ES-7 and Exhibit ES-8.

The bridge would be a 4,412-foot fixed-span segmental concrete box girder bridge with a concrete deck and no lift span. The bridge would have 12 pier-sets in the Columbia River and one land-based pier on the Washington side of the river. The bridge would be designed to be seismically sound under a 1,000-year event and operational under a Cascadia Subduction Zone earthquake.

While the Port may own and operate the replacement bridge, other options for the ownership and operation of the replacement bridge that may be considered include other governmental entities, a new bi-state bridge authority, and a public-private partnership, depending on the funding sources used to construct the replacement bridge. The bridge would include one 12-foot travel lane in each direction, an 8-foot shoulder on each side, as shown in Exhibit ES-9. Vehicles would no longer be limited by height, width, or weight.

[1] The year 2045 is the design horizon for the Project. The design horizon is the year for which the Project was designed to meet anticipated needs.

The bridge would include a 12-foot wide shared use path separated from traffic with a barrier on the west side, as shown in Exhibit ES-9. In the middle of the bridge the shared use path would widen an additional 10 feet in two locations to provide two 40-foot long overlooks with benches, providing views of the Columbia River Gorge. The overlook locations are shown in Exhibit ES-7 and Exhibit ES-8. The cross-section of the overlooks is shown in Exhibit ES-9. No tolls would be collected from non-motorized users (e.g., pedestrians, bicyclists) who travel on the shared use path.

The bridge would connect to SR 14 on the Washington side at a new two-lane roundabout slightly west of the existing SR 14/Hood River Bridge intersection, as shown in Exhibit ES-8. On the Oregon side, the southern end of the bridge would transition to Button Bridge Road, connecting to the local road network at the existing signalized Button Bridge Road/E. Marina Way intersection north of I-84.

The new shared use path would connect to existing sidewalks along the south side of SR 14 in Washington and to roadway shoulders (for bicyclists) on both sides of SR 14 at the new roundabout with marked crosswalks, as shown in Exhibit ES-8. On the Oregon side, the shared use path would connect to existing sidewalks, bicycle lanes, and local roadways at the signalized Button Bridge Road/E. Marina Way intersection. Total Project construction cost for both build alternatives is estimated to be $300 million in 2019 dollars.

Exhibit ES-7. Preferred Alternative EC-2 Alignment

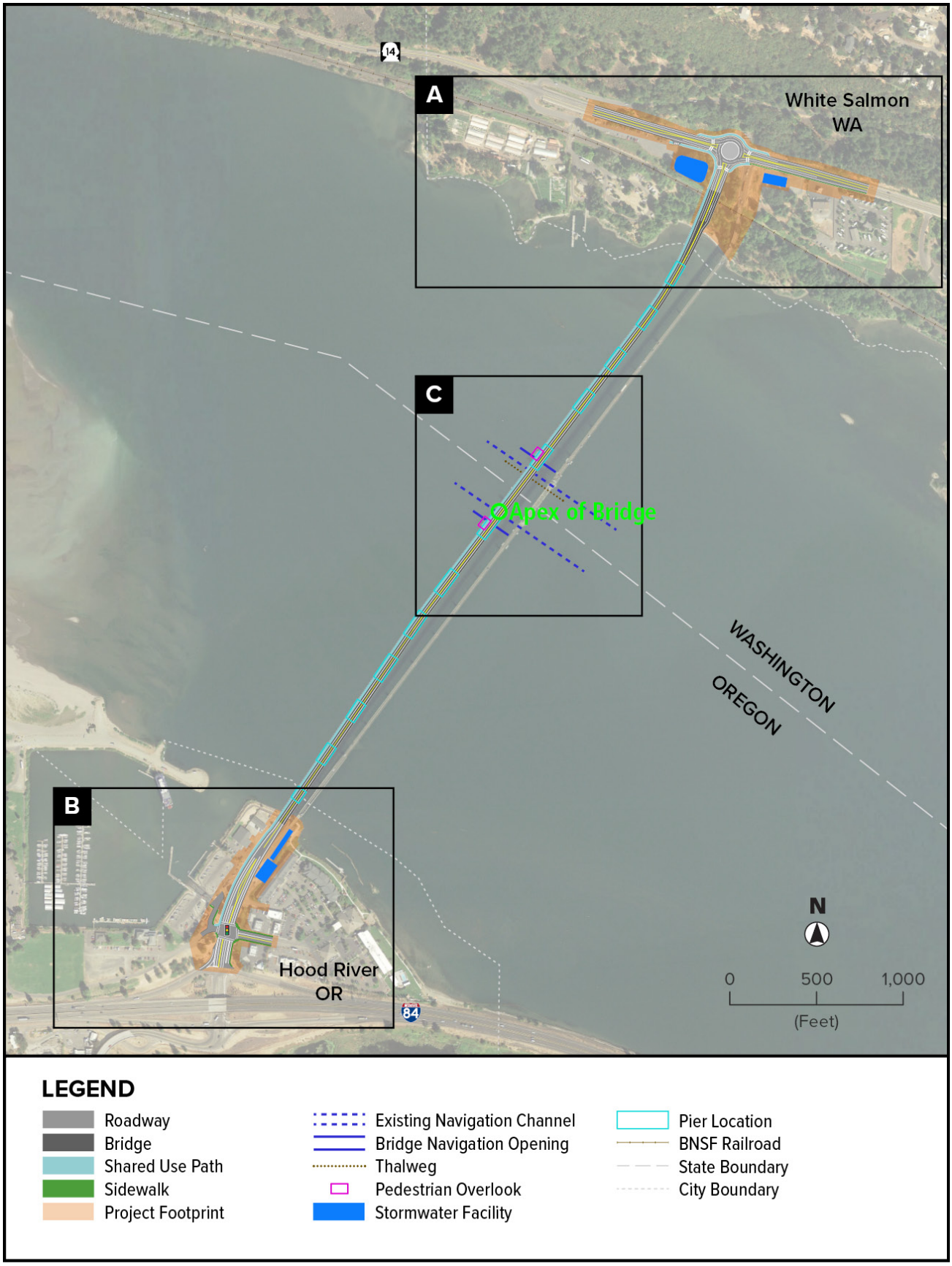


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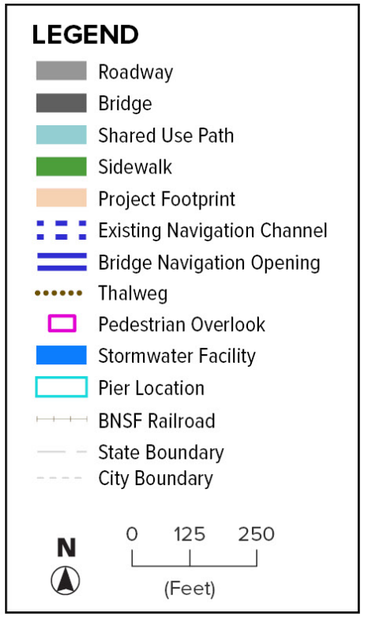
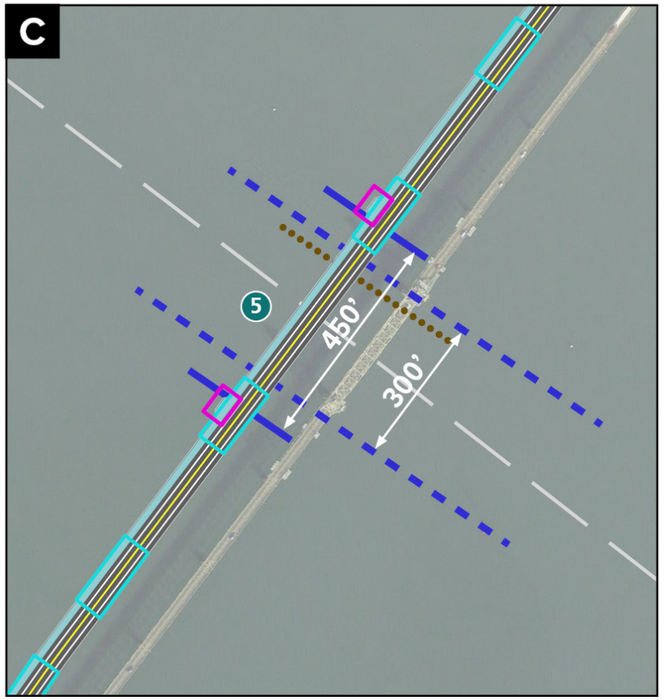
Exhibit ES-8. Preferred Alternative EC-2 Enlargements





1. New two-lane roundabout with marked crosswalks
2. New shared use path across bridge
3. New stormwater detention and water quality treatment facilities
4. Elimination of toll booth
5. New wider bridge opening crosses navigation channel at a perpendicular angle

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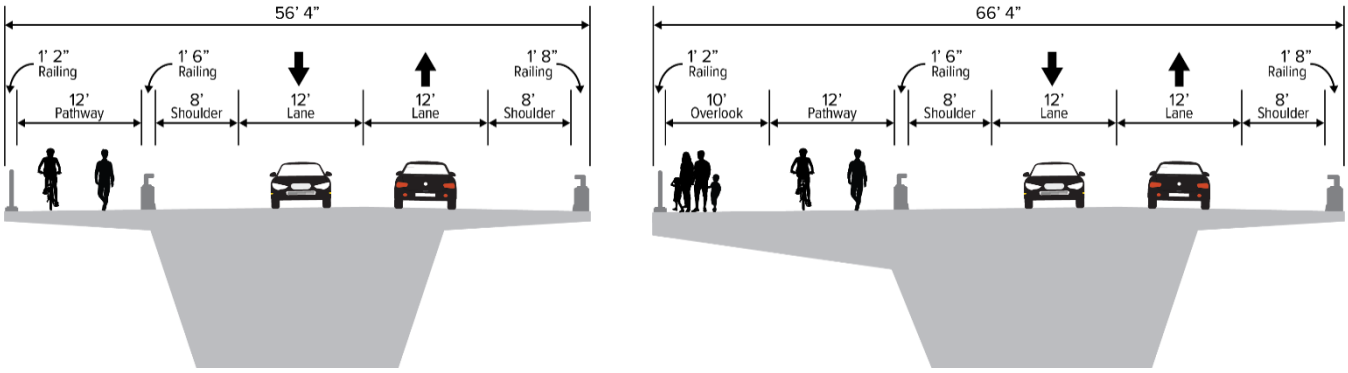
Exhibit ES-9. Replacement Bridge Cross-Sections



Typical

With Pedestrian Overlook

Alternative EC-3

Alternative EC-3 would construct a replacement bridge east of the existing bridge. Like Alternative EC-2, the existing bridge would be removed following construction of the replacement bridge. Exhibit ES-10 shows alignment of Alternative EC-3 and Exhibit ES-11 provides enlargements of the improvements that would be constructed under Alternative EC-3. Under Alternative EC-3, most elements of the replacement bridge would be the same as the elements for Alternative EC-2 except for some differences in alignment and roadway connections.

Under Alternative EC-3, the alignment of the main span of the bridge would be approximately 400 feet east of the existing lift span. The bridge terminus in White Salmon, Washington, would be located approximately 140 feet east of the existing SR 14/Hood River Bridge intersection, while the southern terminus would be roughly the same as the existing terminus at the Button Bridge Road/E. Marina Way intersection in Hood River, Oregon. The bridge would be a 4,553-foot fixed-span segmental concrete box girder bridge with a concrete deck and no lift span. Like Preferred Alternative EC-2, the bridge would have 12 piers in the Columbia River and one land-based pier on the Washington side of the river.

Connections to roadways would generally be the same as Alternative EC-2, but the bridge would connect to SR 14 on the Washington side at a new two-lane roundabout slightly east of the existing SR 14/Hood River Bridge intersection. On the Oregon side, improvements extend slightly further south to the Button Bridge Road/I-84 on and off ramps. The private driveway on Button Bridge Road north of E. Marina Way would be closed under this alternative. Connections to bicycle and pedestrian facilities would generally be the same as Alternative EC-2. Like Preferred Alternative EC-2, the total Project construction cost is estimated to be $300 million in 2019 dollars.

Exhibit ES-10. Alternative EC-3 Alignment

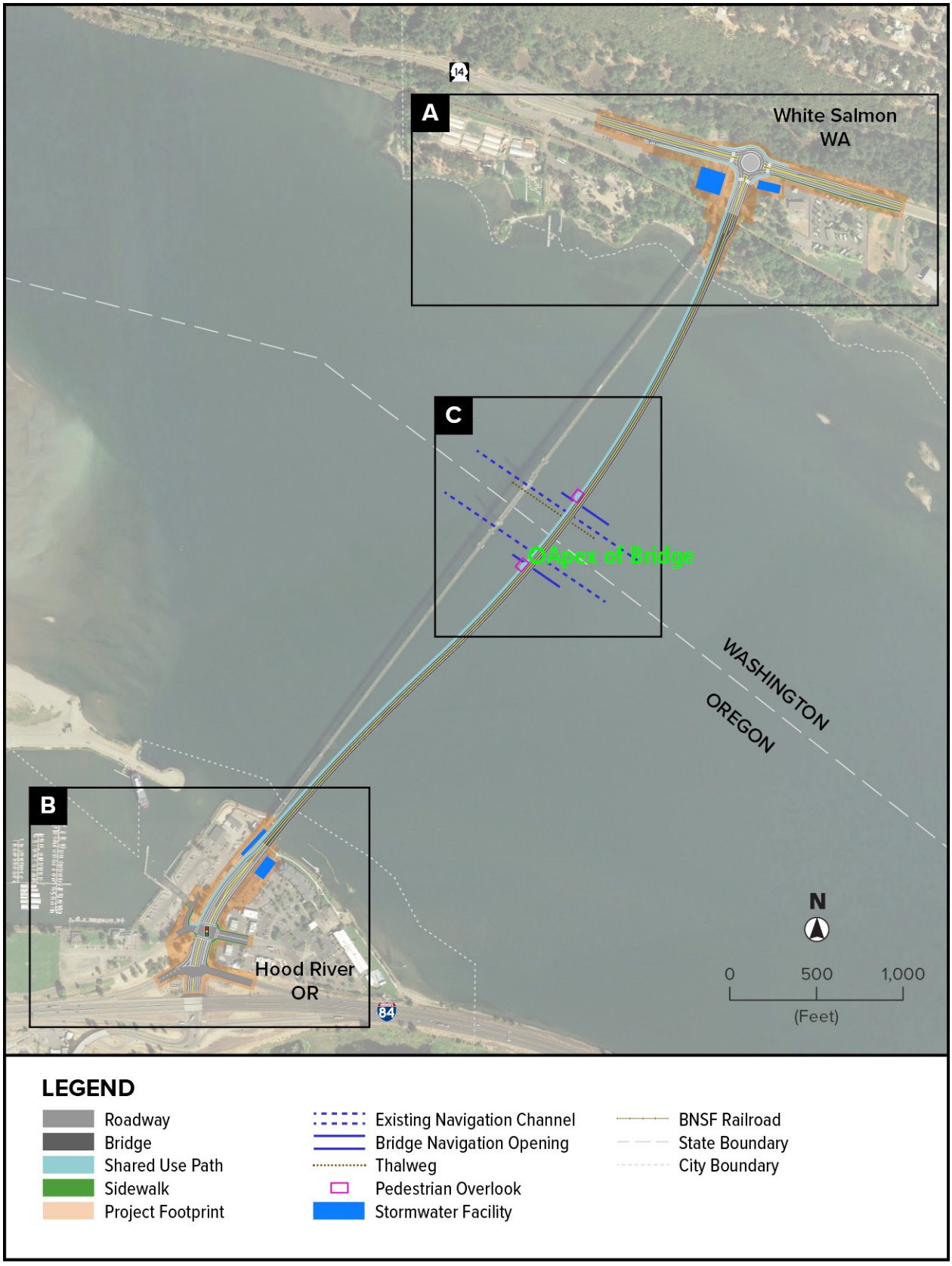
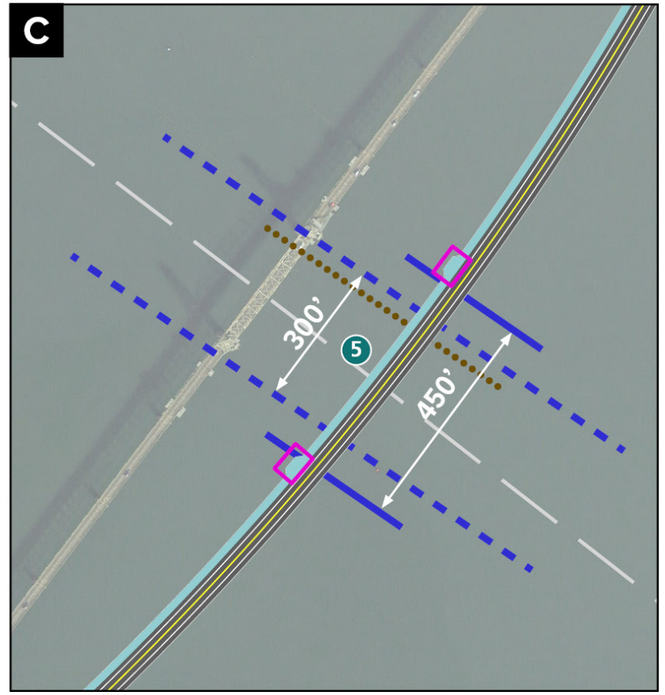


Exhibit ES-11. Alternative EC-3 Enlargements



1. New two-lane roundabout with marked crosswalks
2. New shared use path across bridge
3. New stormwater detention and water quality treatment facilities
4. Elimination of toll booth
5. New wider bridge opening crosses navigation channel at a perpendicular angle

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Other Alternatives Considered

Through the development of crossing corridors and facility types during the Feasibility Study and a re-screening of alternatives during the Supplemental Draft EIS phase, the following alternatives were considered but dismissed:

- West Corridor
- City Center Corridor
- Existing-High Corridor
- East A Corridor
- East B Corridor
- Tunnel Facility
- Retrofitting the Existing Bridge
- Alternative EC-1

The rationale for dismissing these alternative corridors and facility types is provided in Section 2.3, Alternatives Development and Screening and Section 2.4, Alternatives Considered but Dismissed.

Construction of the Build Alternatives

Construction of the build alternatives would be similar in duration and approach. The NEPA process is anticipated to be complete in 2021; subsequent phases of the Project would be dependent on funding availability. Construction would take approximately 6 years and would require work during approximately six in-water work windows (IWWWs). Approximately three IWWWs would be necessary to construct the replacement bridge, and approximately three additional IWWWs would be necessary to complete the removal of the existing bridge. Certain construction and removal activities conducted below the ordinary high water mark (OHWM) of the Columbia River would be restricted to an IWWW established for the Project.

The existing bridge would remain open until the replacement bridge is constructed and operational, at which point it would be dismantled and removed.

The method of delivery for Project final design and construction has not been determined at this time. Traditional delivery methods, such as design-bid-build, and alternative delivery methods, such as design-build and public-private-partnerships to name a few, will continue to be considered by the Port. As part of Oregon's HB 2017, the Port was provided legal authority by the state to enter into a public-private-partnership.

Construction of the build alternatives is detailed in Section 2.2, Construction of the Build Alternatives.

Beneficial and Adverse Impacts

The build alternatives would provide a variety of beneficial impacts, which include the following:

- **Traffic Operations:** Long-term direct benefits by providing wider lanes and a shoulder in each direction for motor vehicles. Existing heavy vehicle restrictions would be eliminated, and vehicle speeds would increase with the higher speed limit. Travel time reliability would improve as disabled vehicles would not block the roadway due to the availability of roadway shoulders on the replacement bridge. The build alternatives assume the SR 14/Hood River Bridge intersection would be reconstructed as a roundabout, which would substantially reduce congestion during am and pm peak hours compared to the No Action Alternative.
- **Pedestrian and Bicycle Access:** The replacement bridge would provide a barrier-separated shared use path along the west side of the bridge for pedestrians and bicyclists. This would offer a new facility for people who want to walk or bike between Oregon and Washington; no toll would be charged to pedestrians and bicyclists traveling on the shared use path. A beneficial indirect impact would be increased pedestrian and bicycle use of the replacement bridge over time, which would allow more recreationalists and those who commute by these modes to have views from the bridge toward the Columbia River Gorge.

- **Water Quality:** While temporary impacts to water quality would occur during project construction (e.g., installation of piles), the build alternatives would substantially reduce pollutant discharge compared to the existing steel grated bridge that has no water quality treatment. Stormwater runoff from the replacement bridge would be treated, resulting in improved water quality.
- **Fish Species and Habitat**: The replacement bridge under both build alternatives would include the permanent installation of bridge piles and footing that would result in the permanent loss of benthic habitat within the Columbia River. However, the removal of the existing bridge and associated riprap armoring would result in less overall impact to benthic habitat since the replacement bridge, under both build alternatives, would have fewer in-water piers than the impact from the existing bridge. Water quality improvements (above) would also have the potential to indirectly benefit habitat conditions for fish and wildlife.
- **Local and Regional Economies:** Construction of the build alternatives would bring money into the local and regional economy through short-term increases in employment and associated consumer spending, which can have a multiplier effect, creating additional jobs. The replacement bridge would provide a long-term benefit of an improved regional connection between the economies of Hood River and western Klickitat County and could benefit regional freight movement with no width and load restrictions. The replacement bridge would also benefit the local economy with a reliable travel connection between the cities of White Salmon, Bingen, and Hood River so that residents and employees can continue to access to jobs, services, and shopping across the river.
- **River Navigation**: Both build alternatives would widen the bridge horizontal navigation clearance that exceeds the navigation channel width and provide additional space for ships and barges to safely tack in windy conditions. The 90-foot vertical clearance would provide safe passage for current and known future vessels, although some vessels would need to lower masts prior passing under the bridge.
- **Seismic**: The existing bridge does not meet current seismic design standards and the Oregon side is underlain by liquefiable soils. If a catastrophic geologic event occurs, direct impacts could include damage or failure of the existing bridge and premature closure. The replacement bridge would meet current design standards to be seismically sound under a 1,000-year seismic event and operational under a Cascadia Subduction Zone earthquake.

The build alternatives were developed to avoid and minimize impacts to the natural and human environment. The EIS process has included efforts by FHWA, the Port, ODOT, and their partners to evaluate impacts and develop appropriate mitigation measures. The anticipated adverse impacts and proposed mitigation include the following:

- **Tolls:** As the existing bridge is tolled, the Port and local agencies assume that the vehicle travel lanes on the replacement bridge would also be tolled. Future toll rates for the replacement bridge have not been determined at this time. The toll rate structure for the build alternatives would likely be influenced by the level of repayment needed for funding construction of the bridge; thus, tolls could be higher under the build alternatives compared to tolls under the No Action Alternative that supports maintenance and a replacement bridge fund. Prior to establishing toll rates and account fees for users of the replacement bridge, a robust and inclusive public engagement program and technical evaluation would be undertaken to assess strategies to mitigate any undue financial burden caused by increased toll rates or undue barriers to use the bridge caused by the implementation of an all-electronic toll collection (ETC) system.
- **Acquisitions and Displacement:** Acquisitions under Alternative EC-2 would include 3 full parcel and 11 partial parcel acquisitions, 3 permanent easements, relocation of a gas utility transfer station and generator, removal of parking and storage space on Port property, and removal of some parking spaces at the Heritage Plaza Park and Ride facility. Acquisitions under Alternative EC-3 would include 2 full parcel acquisitions, 9 partial parcel acquisitions, 3 permanent easements, removal of some parking spaces at the Heritage Plaza Park and Ride facility, and the displacement of 8 commercial businesses and 5 hotel suites. Under Alternative EC 3, displacement of The Marketplace would result in displacement of the offices of two non-profit organizations (no community resources would be displaced under Alternative EC-2). All right-of-way acquisitions and business relocations would be done in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (the Uniform Act), as well as in compliance with state relocation programs. All impacted property owners would be compensated for property rights acquired at fair market value and relocation assistance would be provided in accordance with federal or state laws, as applicable.

- Port Properties: Port parking, outdoor storage, and a portion of the existing vehicle access are located within the existing bridge right-of-way that is owned by the Port. The bridge approach for Alternative EC-2 would be located in this right-of-way area, displacing these uses. In addition, construction activities of the bridge approach for Alternative EC-2 would encroach onto Port property, located where the access road to the administrative office and maintenance shop is currently located; effectively eliminating this vehicle access to these buildings while this segment of the bridge is under construction. Employees and visitors accessing the administrative office during construction could park in the boat launch parking lot south of the office and then walk to the office. However, maintenance trucks and other large vehicles would still need to access the maintenance shop and would need a temporary, alternate route during construction. Once constructed, permanent access to the Port's administrative office, maintenance shop, boat launch, and parking would be realigned to the west of the existing access. Under Alternative EC-2, long-term impacts to the Port property include 1.2 acres of property acquisition and the loss of roughly 15 parking spaces supporting the administrative office and 3 parking spaces supporting the boat launch and docks. If construction or permanent impacts to either the Port's administrative office and/or maintenance shop occur that render the buildings nonfunctional, then the buildings may be required to be relocated elsewhere on Port property.
- Treaty Fishing and Processing Sites: The build alternatives would require temporary construction easements (0.4 acre at the White Salmon treaty fishing access site (TFAS) under Alternative EC-2, and 0.03 acre at the White Salmon TFAS and 0.1 acre at the East White Salmon Fish Processing Facility under Alternative EC-3), as well as permanent easements (0.3 acre at the White Salmon TFAS under Alternative EC-2, and 0.04 acre at East White Salmon Fish Processing Facility under Alternative EC-3). Construction impacts to the White Salmon TFAS include increased site and underwater noise, air and dust emissions, turbidity, fish and fish habitat disturbance, near-shore fishing limitations and night fishing safety hazards, and access delays and detours. Minimization measures for construction impacts include implementation of best management practices (BMPs) as well as coordination with the U.S. BIA, Columbia River Inter-Tribal Fishing Commission (CRITFC), and the four Columbia River treaty tribes in advance of and during construction activities. Currently, some tribal fishers using the White Salmon TFAS utilize the existing bridge piers to tie boats and gills nets to, which would be removed during the deconstruction of the existing bridge. Consultation with the Columbia River treaty tribes would occur regarding pier design of the replacement bridge and the continuation of tribal fishers tying up boats and gills nets to these piers. In addition, a replacement bridge could increase the potential for unauthorized access of the White Salmon TFAS, decreased privacy for residents and ceremonial activities, and increased garbage due to proximity of the new shared use path. Minimization measures for long-term impacts to the White Salmon TFAS include signage and fencing (or other barrier) to reduce unauthorized access by non-tribal members to the site and installing screening along a portion of the west side of the bridge to minimize views into and discourage throwing garbage onto the White Salmon TFAS.
- Historic Resources: The build alternatives would result in the deconstruction and removal of the existing Hood River Bridge, a National Register of Historic Places (NRHP) eligible structure. Physical deconstruction (demolition) of or damage to all or part of a property, as well as removal of a property from its historic location are considered examples of adverse effects under Section 106 of the National Historic Preservation Act (NHPA) (Code of Federal Regulations (CFR) 36 Part 800). Under these criteria, the build alternatives would result in an adverse effect to the bridge. A mitigation plan would be developed and implemented to preserve elements of the historic bridge; this mitigation plan would be part of a Memorandum of Agreement signed by FHWA, ODOT, the Port, Washington State DAHP, the Oregon State Historic Preservation Office (SHPO), and potentially other parties.
- Fish Species and Habitat: Construction of the replacement bridge would require the installation of temporary in-water and over-water work structures that would temporarily displace benthic habitat and temporarily increase overwater shading that would temporarily affect habitat suitability. In addition, elevated underwater noise has the potential to affect fish species, such as temporary avoidance of the area. The loudest source of underwater noise from construction would come from the impact installation of the structural piles. The replacement bridge would also result in an increase in the quantity of over-water coverage and shading compared to the existing bridge, which can affect habitat suitability for juvenile salmonids and other aquatic species. The two build alternatives have comparable impacts to aquatic habitat, although Alternative EC-3 would have slightly more overwater shading than Alternative EC-2 (by 0.03 acre). Minimization measures include restricting certain in-water work activities to an IWWW to avoid peak timing of presence of sensitive fish species, limiting the number of impact pile strikes per day, and construction BMPs including spill containment measures.

- **Visual Impacts:** The Hood River Bridge spans the Columbia River and is located within the Columbia River Gorge National Scenic Area (CRGNSA), which was federally established to protect the scenic, cultural, natural, and recreational resources of the Columbia River Gorge. Both build alternatives would have the same impacts on visual resources, which include temporary impacts during construction as well as long-term impacts due to the replacement bridge being slightly wider, in a slightly different location, taller, and composed of different materials than the existing bridge. Minimization measures include minimizing lighting impacts and convening a broadly representative aesthetics committee to recommend a cohesive aesthetic theme for the non-structural components of the bridge.
- **Noise and Vibration:** Both build alternatives would generate temporary noise during the 6-year construction period from activities such as clearing, grading, removing old roadways, paving, and construction of the bridge, and roadway connections. The highest noise levels would come from the impact and vibratory pile installation and removal, removal of the existing bridge, and earthwork phase. The build alternatives would be close to noise sensitive land uses including the tribal fishing access site and Bridge RV Park and Campground on the Washington side of the River and the Hood River Waterfront Trail, Hood River WaterPlay, and Best Western Hood River Inn on the Oregon side. Minimization measures include compliance with all state and local sound control and noise level rules, regulations, and ordinances, and limitations on the use of vibratory or impact hammers, hoe ramming, or blasting operations. Long-term, roadway traffic noise levels under the build alternatives would not change much over time.

All beneficial and adverse impacts are detailed in Chapter 3, Affected Environment, Environmental Consequences, and Mitigation.

Permits and Approvals Needed

The Project would require federal, state, and local permits, clearances, and approvals. The specific permits and approvals that are anticipated to be required to construct the Project are listed in Section 2.8, Permits and Approvals.

Additional Compliance Processes Underway and Unavailable Information

There are several outstanding issues that will need to be resolved prior to publishing the combined Final EIS and ROD. Issues still to be resolved include:

- Obtain a biological opinion from National Oceanic and Atmospheric Administration National Marine Fisheries Service (NOAA Fisheries) to complete Endangered Species Act (ESA) Section 7 consultation
- Obtain a biological opinion or concurrence letter from U.S. Fish and Wildlife Service (USFWS) to complete ESA Section 7 consultation
- Complete compliance with the NHPA Section 106 process, including additional fieldwork for testing and evaluation; evaluation of any traditional cultural properties (TCPs) identified through ethnographic studies conducted by three tribes; the Oregon SHPO and Washington State DAHP concurrence on potentially eligible historic properties determinations of eligibility, findings of effect, and Historic Resources Technical Report and Cultural Resources Assessment; and, a signed Memorandum of Agreement or Programmatic Agreement to resolve adverse effects to the Hood River Bridge and other historic properties recommended as eligible and having adverse effects by the Project
- Finalize all Section 4(f) documentation with correspondence from the officials with jurisdiction and approval by FHWA
- Continuing tribal consultation to identify impacts and mitigation for cultural resources and treaty fishing rights.

Information that is unavailable for consideration in the environmental impacts analysis includes the following:

- Potential archaeological resources buried below 15 feet to 20 feet of fill on the Oregon shoreline and submerged within the Columbia River. If significant archaeological resources, including but not limited to Native American artifacts, sites, TCPs, or human remains, are present in these areas, the Project is unable to evaluate the significance of the resources, make a finding of effect, or propose mitigation before the combined Final EIS/ROD is published. Based on ethnographic studies conducted for the Project and a comprehensive literature review, it is reasonably foreseeable that archaeological resources are present within and under the riverbed as well as along the Oregon shoreline. Surveys were not completed during the EIS process in these areas due to substantial cost associated with this work.
- The Project's consistency with the CRGNSA Management Plan could not be established. The CRGNSA Management Plan (2016) specifies goals and guidelines for a Columbia River bridge replacement undertaking within the CRGNSA; however, specific criteria to evaluate a permit application to replace a bridge over the Columbia River has not been established by the Columbia River Gorge Commission (CRGC) or U.S. Forest Service (USFS). No schedule to update the CRGNSA Management Plan has been set to develop these specific criteria. Note: the CRGC adopted a revised CRGNSA Management Plan in October of 2020 but due to timing this Draft Supplemental EIS does not reflect the updated plan.
- A park boundary determination in compliance with Section 6(f) of the Land and Water Conservation Fund (LWCF) for the Port's Marina Park and Basin and Waterfront Trail could not be conducted until the design advances to a higher level. The assumed park boundary illustrated in the Supplemental Draft EIS is based on 1970s LWCF grant documents that were awarded for improvements to this site. Thus, impacts to the Section 6(f) resources were disclosed in the Supplemental Draft EIS to the extent possible. Specific determinations of Section 6(f) park land converted to a transportation use cannot be determined until the Project design is advanced and a park boundary determination is completed.

Next Steps

Next steps for the Project include the following:

- Public review of the Supplemental Draft EIS
- Review and incorporation of public and agency comments on the Supplemental Draft EIS into a combined Final EIS and ROD
- Complete additional environmental studies (if needed)
- Develop specific environmental commitments
- Decision on Selected Alternative
- Publication of the combined Final EIS and ROD

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Federal Highway Administration

Oregon Department of Transportation

PORT OF HOOD RIVER