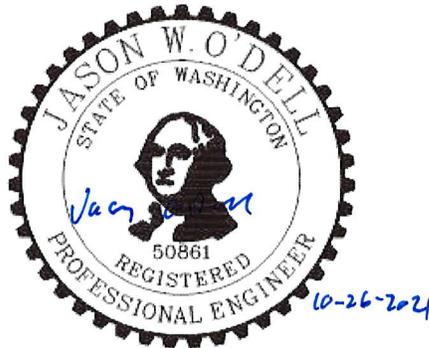


2021 BRIDGE INSPECTION REPORT
CLALLAM COUNTY, WA



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INTRODUCTION

This report is provided as fulfillment of the requirement of the Washington Administrative Code (WAC) section 136-20-060 which states, "Each County Engineer shall furnish the County Legislative Authority with a written report of the findings of the bridge inspection effort. This report shall be made available to said authority and shall be consulted during the preparation of the proposed six-year transportation program revision."

Clallam County is responsible for the maintenance of 35 bridges throughout its jurisdiction. Each bridge is inspected for general condition in accordance with the National Bridge Inspection Standards (NBIS) requirements. In addition to the general condition inspection, bridges with a feature that is considered to place the bridge at higher risk of sudden collapse are inspected in detail in regards to that critical feature.

11050BR1 COLBY CREEK BRIDGE

This bridge is located on the Mina Smith Road 0.70 miles north of the Quillayute Road intersection, and crosses Colby Creek. It is 65 feet long with a deck width of 29 feet. The bridge consists of a single span of prestressed concrete decked bulb "T" girders on a pile foundation. Constructed in 1980 with a design load capacity of HS 20, this structure is in good condition.

- Rip rap in front of the abutments appears stable at this time, however the slope of the rip-rap is quite steep. Undermining by erosion could cause significant failure of the rip rap protection. One of the probable failures during a seismic event would be in these embankments.
- The bridge deck wearing surface is asphalt and is in good condition.
- The superstructure is expected to perform satisfactorily during a seismic event. The pile supported substructure may not perform as well. A seismic evaluation was done on this structure early in 1995. The abutment embankments are steep, in the range of .5 horizontal to 1 vertical. A moderate seismic event may cause the abutments to slide, which in turn could cause a buckling failure of the supporting piles. A seismic summary of this bridge is available in the Engineering office.
- The steep embankments under the bridge make maintenance work, and cleaning of the bridge difficult. A cable restraint system has been installed to which workers may attach with a safety harness.

11200BR1 SOLDUC RIVER BRIDGE

This bridge is located on the Quillayute Road 0.33 miles west of the LaPush Road intersection, and crosses the Solduc River. It is 220 feet long with a deck width of 21 feet. The bridge consists of a 150-foot long single span steel through truss on a pier foundation, with 35'

concrete approach spans at each end. Relocated in 1962 with a design load capacity of HS 15, this structure is in good condition, but is posted with a load restriction.

- Steel bridges are prone to fatigue failure. Due to the geometry of the structure and the potential for fatigue failure, fracture critical inspections are performed on this structure on a two-year cycle. A structural engineering consultant was retained in 1995 to evaluate the fatigue life of this bridge. Relocated from State route 101 near Forks to its present location in 1962, this 1925 structure has suffered a lot of impact damage, and millions of load cycles from trucks and cars. The results of this evaluation indicate that while the structure is performing adequately, many of the truss members have probably exceeded their expected fatigue life.
- Full deck width transverse cracking is evident at both ends of the bridge.
- The bridge deck, and both approach decks are concrete. In September of 2001, we awarded a contract to repair spalled areas, replace the deck joint seals, and seal the concrete deck.
- A seismic evaluation of this structure was done early in 1995. While the superstructure may withstand a strong seismic event, many deficiencies were noted in the substructure. A seismic summary of this bridge is available in the Engineering office.
- Early in 2013 County Staff accomplished a repair to the steel portals on the main span. Unfortunately, early in 2014, the bridge portals have once again been damaged by non-permitted, over-height loads. Then in 2019, another non-permitted over-height load hit the portals. This time the damage was severe enough that it made the bridge unsafe. An emergency closure was done and the portals were restored to a working condition.

11670BR1 EATON CREEK BRIDGE

This bridge is located on the Undi Road 1.78 miles southwest of the US101 intersection and crosses Bear Creek. It is 87 feet long with a deck width of 29 feet. The bridge consists of a single span of prestressed concrete decked bulb "T" girders supported on a pile foundation. Constructed in 1978 with a design load capacity of HS 20+, this structure is in good condition.

- Both approaches are in good condition however there is evidence of minor subsidence at east abutment/approach joint.
- The bridge deck wearing surface is asphalt and is in good condition.
- Both east and west embankments exhibit some erosion however it does not affect the stability of the structure.
- A seismic evaluation of this structure was done early in 1995. It was determined that this structure should behave well during a seismic event. The complete report is on file in the Engineering Department.

13850BR1 ELK CREEK BRIDGE

This bridge is located on Calawah Way 1.78 miles northeast of the US101 intersection, and crosses Elk Creek. It is 78 feet long with a deck width of 28 feet. The bridge consists of a reinforced concrete deck supported by the abutments, and two sets of piers located at 24 feet of the span from each abutment. Constructed in 1973 with a design load capacity of HS 20, this structure is in good condition.

- This bridge has settling issues and approaches have to be lowered every once in a while to reduce impact damage caused by vehicle traversing over the height differential.
- The bridge deck wearing surface is asphalt and is in good condition.
- Embankment erosion under the bridge has caused displacement of some rip rap sometime in the past. Not a problem at this time.
- The 3/16" steel casings, used as exterior forms for the concrete piles, tend to rust near the ground line. The rusting is not structural under operating conditions, but may affect seismic performance.
- A seismic evaluation of this structure was done early in 1995. While some structural retrofits were recommended to help minimize structural damage. It was determined that this structure should behave adequate during a seismic event. The complete report is on file in the Engineering Department.

15030BR1 SHUWAH BIRDGE

This bridge is located on the Maxfield Road 0.29 miles east of the US101 intersection, and crosses the SolDuc River. It is 278 feet long with a deck width of 28 feet. The bridge consists of a cast in place reinforced concrete deck on steel "I" beam girders. Constructed in 1987, this structure is in good condition.

- The bridge approaches are in good condition
- The bridge deck wearing surface is concrete. The cracking noted in the deck shortly after completion is being monitored however it appears to be unchanged from last inspection.
- We have determined that the hinge pins in the slant legs of the substructure need to be tested on a six-year cycle using testing equipment not in the County inventory. This testing has been done either by private consultant or by WSDOT Bridge Inspection team specializing in this type of testing. A complete report is on file in the Engineering Department.
- A seismic evaluation of this structure was done early in 1995. It was determined that this structure should behave well during a seismic event. No retrofit recommendations were made. The complete report is on file in the Engineering Department.

15570BR1 LAKE CREEK BRIDGE

This bridge is located on the Lake Pleasant Road 0.38 miles north of the US101 intersection, and crosses Lake Creek. It is 98 feet long with a deck width of 28 feet. The bridge consists of decked bulb "T" girders supported on pile founded concrete abutments. Constructed in 1993, with a load capacity of HS-25, this structure is in very good condition.

- Both approaches are in good condition.
- Surfacing is asphalt and is in good condition.
- This bridge was designed to meet the seismic design criteria of the time and should behave well during a seismic event.

15610BR1 LAKE CREEK BRIDGE

This bridge is located on Peterson Street 0.28 miles north of the US101 intersection, and crosses Lake Creek. It is 57 feet long with a deck width of 22 feet. The bridge consists of wood stringers supported on pile bents. Maximum span length is 19 feet. Decking is Armco plate. Constructed in 1958, the bridge is currently open only to pedestrian traffic.

- Both approaches are in good condition.
- The bridge deck wearing surface is asphalt, and is in reasonably good condition.
- The abutment retaining walls exhibit deterioration in areas but are in satisfactory condition for the bridge's current use.
- The downstream end of one of the pile caps sounds hollow and shows slight signs of fiber crushing. There is also indication of past ant infestation. Neither deficiency poses a problem for pedestrian use.
- No seismic evaluation has been made on this structure however timber structures of this type are expected to perform satisfactorily during a seismic event.

17550BR1 SWAN BAY BRIDGE

This bridge is located on the Swan Bay Road 0.13 miles south of the Hoko Ozette Road intersection, and crosses the Big River. It is 78 feet long with a deck width of 28 feet. The bridge consists of a single span of glue laminated pressure treated timber girders on a pile foundation. Constructed in 1983, with a design load capacity of HS 20, this structure is in good condition.

- Both the east and west bridge approaches are in good condition with a small amount of subsidence noted at both abutments.
- The bridge deck wearing surface is asphalt and is in satisfactory condition. Some full deck width transverse cracking is evident however there does not appear to be any leakage through the deck at this time.
- The bridge rail system is in good condition

- No seismic evaluation has been made on this structure however timber structures of this type are expected to perform satisfactorily during a seismic event.

17700BR1 NICHOLS BRIDGE

This bridge is located on the Nichols Road 0.07 miles north of the Hoko Ozette Road intersection, and crosses the Big River. It is 120 feet long with a deck width of 24 feet. The bridge consists of a single span of prestressed concrete decked bulb "T" girders supported on galvanized steel cased reinforced concrete piling. Constructed in 2011 with a design load capacity of HS 25, this structure is in like-new condition.

18670BR1 CHARLEY CREEK BRIDGE

This bridge is located on the Charley Creek Road 0.65 miles north of the SR112 intersection, and crosses Charley Creek. It is 31 feet long with a deck width of 22 feet. The bridge consists of a single span of pressure treated timber stringers on a treated timber foundation. Constructed in 1947 and rehabilitated in 1984 to a design load capacity of H 15, this structure is in fair condition.

- Both bridge approaches are in good condition. High flows have caused the creek to scour under end walls in the past. This scour was repaired by Clallam County's District 3 Maintenance Crews in 2011. Minor scour is evident since that time.
- The bridge deck wearing surface is asphalt and is in satisfactory condition. Some transverse cracking is evident. Cracks have been sealed. This will be an ongoing maintenance item.
- The bridge rail system is in good condition.
- The outermost stringers have hollow, rotted spots where the old curb and rail were attached however the rate of deterioration in these areas should diminish with the additional protection from moisture intrusion provided by the glued laminated deck now in place. Will monitor.
- Both abutment pile caps have rotten centers. The pile cap of abutment 2 is beginning to bulge, with about a 2" shell of good wood.
- No seismic evaluation has been made on this structure however timber structures of this type are expected to perform satisfactorily during a seismic event.

18760BR1 WEEL BRIDGE

This bridge is located on the Weel Road 0.39 miles east of the SR112 intersection, and crosses the Clallam River. It is 102 feet long with a deck width of 15 feet. This bridge consists of a 62-foot long riveted steel plate girder main span with 20 foot long pressure treated, longitudinal nail laminated timber approach spans at each end, all supported on pile foundations. Moved to

its present location in 1969, it is currently rated at H 15, and is in satisfactory condition but is posted with a load restriction.

- Both bridge approaches require ongoing maintenance due to the skew of the bridge relative to the river. To eliminate this, a much longer span would be needed.
- The bridge deck wearing surface is asphalt and exhibits extensively spalled alligator cracking. Longitudinal cracking runs almost the full length of the deck in the south wheel track. Full deck width transverse cracking is evident at each transverse deck joint. The deck is not well attached to the floor beams. Most of the attachment clips hang loose however it appears that this condition has existed since the structure was reconstructed in its present location. The bridge rail and posts are in satisfactory condition.
- Timber substructure appears to be in satisfactory condition.
- High water conditions have eroded embankment from behind the rip rap protecting the east abutment. Structure stability has not been affected. Additional rip-rap has been placed behind, and upstream of the southwest corner of the west abutment, however this is a short-term solution. We are currently exploring more permanent solutions for this problem and will continue to monitor.
- The riveted steel plate girder is very old and suffers from section loss due to advanced corrosion that probably began before the structure was moved to the present site. The superstructure was sandblasted and repainted in 2000. This section loss is the reason for the load restriction.
- A seismic evaluation of this structure was done early in 1995. It was determined that this structure may not behave well during a seismic event. Several retrofit recommendations have been made. The complete report is on file in the Engineering Department.
- Bloedel Donovan owns substantial timber lands beyond the bridge. They performed a structural analysis and temporary strengthening of the bridge in late 2013 in order to log most of their holdings. The temporary strengthening is planned to be removed but was in place as of October 2020.

19400BR1 CLALLAM SLOUGH BRIDGE

This bridge is located on east Frontier Street 0.19 miles northeast of the SR112 intersection, and crosses the Clallam Slough. It is 60 feet long with a deck width of 22 feet. The bridge consists of pressure treated timber stringers on pile foundations. Maximum span length is 15 feet. The decking is Armco plate. Constructed in 1959, this bridge is currently rated at H 15 and is in satisfactory condition.

- Both bridge approaches are in good condition.
- The bridge deck wearing surface is asphalt and exhibits a moderate amount of full deck width transverse cracking. Seepage through the deck is extensive. Sealing of these cracks is an ongoing maintenance activity.

- The old curb and rail were replaced with new curb and rail posts in 1999. In December of 2001, the existing bridge rail system was retrofitted with three beam and approach rails.
- Exposed sections of the abutment retaining walls exhibit moderate deterioration. Scour has been, and will continue to be a problem, especially at the east abutment. Rip-rap has been placed on the northeast, southeast, and southwest corners of the bridge as part of CRP-1003.
- The substructure is in satisfactory condition. Extensive leakage through the deck allows wetting of the wood members which contributes to more rapid deterioration than if they remained dry.
- No seismic evaluation has been made on this structure however timber structures of this type are expected to perform satisfactorily during a seismic event.
- Grant funding for replacement has been secured with planned construction in 2023.

19400BR2 LIGHTHOUSE BRIDGE

This bridge is located on East Frontier Street 0.44 miles northeast of the SR112 intersection, and crosses the Clallam River. It is 163 feet long with a curb-to-curb deck width of 28 feet. The bridge consists of two equal spans of glue laminated beams supported on cast in place concrete piling with concrete pile caps. Decking is 32' x 3' 1 1/2" x 6 3/4" glue laminated panels covered by an impermeable membrane and asphalt concrete pavement. Constructed in 1995, this bridge is currently rated at HS 25, and is in good condition.

- Both bridge approaches are in good condition
- The deck wearing surface is asphalt, and is in good condition.
- This bridge supports both the gravity outfall line from the sewer treatment plant as well as potable water.

22990BR1 SALT CREEK BRIDGE

This bridge is located on the Crescent Beach Road 3.15 miles northeast of the SR112 intersection, and crosses Salt Creek. A new deck and guardrail system was installed in 2006, as well as enhancements to the stringers, pier caps, and approaches. It is 133 feet long and has a curb-to-curb deck width of 34 feet. The bridge consists of timber stringers supported on pile foundations. Maximum span length is 19 feet. Decking consists of 6-3/4" thick glulam wood panels. After being re-constructed in 2006, the bridge is rated at H 15, and is in good condition.

- Both bridge approaches are in good condition.
- The bridge deck wearing surface is asphalt and is in good condition.
- The bridge rails, and posts are in new condition.
- The pilings are in good condition, and pile caps have been reinforced.
- No seismic evaluation has been made on this structure however timber structures of this type are expected to perform satisfactorily during a seismic event.

22990BR2 SALT CREEK BRIDGE

This bridge is located on the Camp Hayden Road 0.40 miles north of the SR112 intersection, and crosses Salt Creek. It is 103 feet long with a curb-to-curb deck width of 34 feet. The bridge consists of glue laminated wood stringers supported on cast-in-place concrete pile foundations. Constructed in 1996, this bridge is rated at HS 25 and is in like-new condition.

- Both bridge approaches are in good condition.
- The bridge deck wearing surface is asphalt and is in good shape.
- This bridge was designed to meet the seismic design criteria of the time and should perform well during a seismic event.

24250BR1 INDIAN CREEK BRIDGE

This bridge is located on the Lake Aldwell Road 0.10 miles north of the US01 intersection, and crosses Indian Creek. It is 60 feet long with a curb-to-curb deck width of 28 feet. This bridge consists of a single span of pressure treated, glue laminated timber stringers with an asphalt covered, glue laminated timber deck and is supported on a concrete spread footing. Constructed in 1992, with a design load rating of HS 20, this structure is in good condition.

- Bridge deck drainage scuppers need to be washed out periodically. Debris build up sometimes restricts drainage and causes a minor amount of water to pond on the deck.
- Bridge is in good condition.
- In 1996, we noticed that the main flow of Indian creek was impacting the west abutment. Although not threatening to the stability of the structure itself, the flow was causing a scour hole to form at the downstream end of the bin wall. In March of 1997, we placed a riprap groin just upstream of the bridge, extending from the west bank. This relocated the main flow of Indian creek more towards the center of the main channel and away from the bin wall. So far, the re-directed flow has scoured some of the gravel bar that had formed in the center of the creek. The 2004 inspection indicated that the groin was relocating the flow as planned. During 2011, the National Park Service has permanently drained Lake Aldwell reservoir by demolishing the Elwha Dam. This reservoir level possibly controls the gradient of Indian Creek in the area of the Indian Creek bridge. Scour caused by this possible change in gradient could be an issue as this bridge is supported on spread footings.
- No seismic evaluation has been made on this structure however timber structures of this type are expected to perform satisfactorily during a seismic event.

30000BR1 ELWHA RIVER BRIDGE

This bridge is located on the Elwha River Road 0.94 miles east of the intersection of SR112. The bridge consists of a three span, cast-in-place post tensioned box girder constructed using the

balanced cantilever technique and has a design capacity of HS-25/HL-93. The bridge is supported on reinforced concrete columns integral with reinforced concrete filled drilled shafts. Deck cracking due to post tensioning and construction loads was successfully sealed following construction with an epoxy based sealer with a silica sand surfacing. The bridge was opened on September 25th, 2009. The bridge is in like-new condition.

30380BR1 LITTLE RIVER BRIDGE

This bridge is located on the Olympic Hot Springs Road 0.24 miles southeast of the US101 intersection, and crosses the Little River. It is 70 feet long with a deck width of 28 feet. The bridge consists of a single span of prestressed, post-tensioned concrete decked bulb "T" girders on a pile foundation. Constructed in 1986 with a design load capacity of HS 20, this structure is in good condition.

- Minor subsidence is noted in both bridge approaches.
- The bridge deck wearing surface is asphalt and is in good condition.
- The old grout on the concrete bull rail and under the bridge railing base plates is disintegrating.
- A seismic evaluation of this structure was done early in 1995. It was determined that this structure should behave well during a seismic event. The complete report is on file in the Engineering Department.

31030BR1 BLACK DIAMOND BRIDGE

This bridge is located on the Black Diamond Road at milepost 4.43, and crosses US101. It is 139 feet, 9 1/2 inches long with a deck width of 39 feet, 4 1/2 inches. Spread footings support prestressed concrete girders with a cast-in-place concrete deck, and Jersey type traffic barriers. Constructed in 1997 / 98, the Washington State Department of Transportation owns the bridge and is responsible for the inspection and maintenance of this structure.

- Both bridge approaches are in good condition.

41770 BR1 BLUEWATERS BRIDGE

This "bridge" is located on Marmot Loop 6.295 miles south of US101. Part of a county road acquired from the National Forest Service in the 1970's. The bridge crosses a tributary of the east fork of Siebert Creek. The structure was replaced in 2006 with a 20-foot diameter, 52-foot long aluminum ribbed structural plate culvert. Culverts 20 feet in diameter and larger are considered bridges for the purposes of Washington State's Bridge Inventory Program.

- The approaches to the bridge were enhanced by widening the lanes to 12' (the bridge now carries 2 lanes of traffic). Guardrail and Hilfiker retaining walls were added to achieve the additional width. There is 28 feet width from guardrail face to guardrail face.

A repair was accomplished during the original construction that utilizes spiral nail tieback system for a portion of the retaining wall.

- The stream bed of the creek was reconstructed inside the culvert by burying the culvert 40% to 50% below the pre-existing stream bed elevation.
- The structure was built with some distortion to the cross section but is in otherwise like-new condition.

43770BR1 CANYON CREEK BRIDGE

This bridge is located on Fish Hatchery Road 4.20 miles south of the US101 intersection with Taylor Cut-off Road, and crosses Canyon Creek. It is 80 feet long with a deck width of 28 feet. The bridge consists of a single span of prestressed concrete decked bulb "T" girders supported on a concrete spread foundation founded on rock. Constructed in 1985 with a design load capacity of HS 20+, this structure is in good condition.

- The south bridge approach exhibits minor subsidence across both lanes.
- The bridge deck wearing surface is asphalt and is in good condition.
- The bridge rail system is in good condition, however the cast in place concrete curb shows cracks at several locations.
- The bottom flange of the decked bulb "T" girders exhibits cracking at the center of the span. 1990 state inspection report says "Bottom flange of decked bulbed tee girders shows cracking at the center of the span at diaphragm. Monitor."
- A seismic evaluation of this structure was done early in 1995. It was determined that this structure should behave well during a seismic event. The complete report is on file in the Engineering Department.
- In 2015, Washington State Fish and Wildlife completed a fish ladder under and adjacent to the north footing and their Geotechnical Engineer monitored the rock during excavation. An agreement between Clallam County and WDFW has been executed to deal with possible damages to the bridge during construction and in the future.
- The northeast bridge approach shows minor subsidence at guardrail. Probably cause by undermining at the bin wall footing. This undermining was corrected by WDFW during their fish ladder work.

47530BR1 SCHOOLHOUSE BRIDGE

This bridge is located on E. Anderson Road 4.50 miles north of US101, and crosses the Dungeness River. It is 198 feet long with a deck width of 24 feet. The bridge consists of a cast in place reinforced concrete box beam supported on concrete piers and pile abutments. Constructed in 1964 with a design load capacity of H 15, this structure is in good condition.

- Both of the bridge approaches are in good condition. Both continue to exhibit a tendency to subside. Subsidence at the approach/abutment interface creates a crack, which needs to be sealed periodically.
- The wearing surface on the bridge is the cast-in-place concrete and although exhibiting some wear and cracking, is in good shape. A deck seal was performed by County crews in the summer of 2012 using epoxy based material followed by silica sand.
- The bridge rail system is in good condition.
- A seismic evaluation of this structure was done early in 1995. It was determined that this structure may not behave well during a seismic event. The complete report is on file in the Engineering Department.

91460BR1 LITTLE HOKO RIVER BRIDGE

This bridge is located on the Hoko Ozette Road 0.72 miles south of the SR112 intersection, and crosses the Little Hoko River. It is 89 feet long with a deck width of 34 feet. The bridge consists of a single span of prestressed concrete decked bulb "T" girders supported on pile foundations. Constructed in 1968 with a design load capacity of HS-20, this structure is in good condition.

- The bridge deck wearing surface is concrete and is in good condition.
- The bridge rail system is in good condition.
- An embankment reinforcement project done in 1994 has stabilized the embankment erosion that was occurring under this structure during high water events. No evidence of erosion has been noted since the project was completed.
- A seismic evaluation of this structure was done early in 1995. It was determined that this structure should behave well during a seismic event. The complete report is on file in the Engineering Department.

91460BR2 HOKO RIVER BRIDGE

This bridge is located on the Hoko Ozette Road 7.03 miles southwest of the SR112 intersection, and crosses the Hoko River. It is approximately 150 feet long with a deck width of 26 feet. The bridge consists of three spans: The west span is a prestressed concrete bulb "T" girder with cast in place concrete deck 85 feet long. The bridge is supported by 2 reinforced concrete abutments founded on spread footings and two interior reinforced concrete piers founded on spread footings. All footings are founded on rock. This bridge was constructed in 1957, with a design load rating of HS 20 and is in good condition.

- The east bridge approach is in satisfactory condition.
- The west bridge approach exhibits alligator cracking, and pumping in some areas near the bridge abutment. There has been some patching done here in the past and it appears that continued patching will be necessary.

- The bridge deck wearing surface is the cast-in-place concrete deck and is in good condition, although worn to the aggregate throughout.
- A three beam retrofit rail system and new end sections was installed in December of 2001.
- The deck joint seals have failed, and should be replaced. To compensate for the lack of seals, the debris (dirt) that accumulates around the beam seats should be removed on a yearly basis to prevent corrosion of the seats.
- The steep embankments under the bridge make maintenance work, and cleaning of the bridge difficult. Installation of a cable restraint system, to which the workers may attach their safety harnesses, was installed in 2002.
- A seismic evaluation of this structure was done early in 1995. It was determined that this structure may not behave well during a seismic event. The complete report is on file in the Engineering Department.

91460BR3 BIG RIVER BRIDGE

This bridge is located on the Hoko Ozette Road 12.90 miles southwest of the SR112 intersection, and crosses the Big River. It is 124 feet long with a deck width of 26 feet. The bridge consists of a post tensioned reinforced concrete slab supported on pile foundations. Constructed in 1971 with a design load capacity of HS 20, this structure is in good condition.

- Both approaches are in good condition.
- The bridge deck wearing surface is BST placed in the summer of 2012 over concrete and is in good condition.
- The bridge rail system is in satisfactory condition.
- The bridge substructure consists of cast-in-place concrete piling. The visible steel shell of the piling has a tendency to rust in the wet / dry zone of the stream. While this steel shell is not designed to be a structural part of the piling, it would probably perform a function similar to spiral reinforcing, during a seismic event.
- A seismic evaluation of this structure was done early in 1995. It was determined that this structure should behave well during a seismic event. The complete report is on file in the Engineering Department.

91460BR4 TROUT CREEK BRIDGE

This bridge is located on the Hoko Ozette Road 17.40 miles southwest of the SR112 intersection, and crosses Trout Creek. It is 51 feet long with a deck width of 22 feet. The bridge consists of pressure treated timber stringers supported on pile foundations. Constructed in 1957, it is rated at H 15 and is in functional condition.

- Both approaches look relatively good, but the north is starting to settle.
- The bridge deck wearing surface is asphalt and is exhibiting minor alligator cracking. In 1999 county maintenance crew removed and resurfaced part of the asphalt deck.

- The posts and rails of the bridge rail system are in satisfactory condition but do not meet current standard.
- In 2010, WSDOT Bridge Maintenance crews worked at the east abutment to replace the pile cap and splice several piles that were rotted out. Most of the west abutment piles show some degree of core rot. However, the rest of the substructure as a whole appears to be in satisfactory condition.
- No seismic evaluation has been made on this structure however timber structures of this type are expected to perform satisfactorily during a seismic event.

91460BR5 UMBRELLA CREEK BRIDGE

This bridge is located on the Hoko Ozette Road 18.80 miles southwest of the SR112 intersection, and crosses Umbrella Creek. It is 126 feet long with a deck width of 28 feet. The bridge consists of a post tensioned reinforced concrete slab supported on a pile foundation. Constructed in 1971 with a design load capacity of HS 20, this bridge is in good condition.

- Both approaches are now surfaced with BST and are in good condition.
- The bridge deck wearing surface is BST placed in the summer of 2012 over concrete and is in good condition.
- The bridge rail system is in satisfactory condition.
- The bridge substructure consists of cast-in-place concrete piling. The visible steel shell of the piling is rusting heavily in wet / dry zone of the stream. While this steel shell is not designed to be a structural part of the piling, it would probably perform a function similar to spiral reinforcing, during a seismic event.
- A seismic evaluation of this structure was done early in 1995. It was determined that this structure should behave well during a seismic event. The complete report is on file in the Engineering Department.

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91460C88 HOKO-OZETTE 8.8 CULVERT

This “bridge” is located on Hoko-Ozette Road 8.8 miles south of US112. The bridge crosses a tributary to Johnson Creek. The 28-foot diameter, 80-foot long ribbed steel structural plate culvert was installed in 2020. Culverts 20 feet in diameter and larger are considered bridges for the purposes of Washington State’s Bridge Inventory Program.

93110BR1 DRY CREEK BRIDGE

This bridge is located on Edgewood Drive 1.88 miles east of the US101 intersection, and crosses Dry Creek. It is 38 feet long with a wood deck width of 36 feet. The bridge consists of pressure treated timber stringers supported on pile foundations. Constructed in 1957 with a design load capacity of H 15, this structure is in satisfactory condition. In 2001, the deck was raised and

placed on a superelevation to match the road in order to reduce the dead load. The wood deck was inspected and a new waterproof deck membrane was installed at that time.

- Both approaches are in good condition.
- The bridge deck wearing surface is asphalt and is in good condition.
- The bridge rails, and posts were replaced early in 2001.
- The substructure appears to be in satisfactory condition.
- No seismic evaluation has been made on this structure however timber structures of this type are expected to perform satisfactorily during a seismic event.

94120BR1 MCDONALD CREEK BRIDGE

This bridge is located on the Old Olympic highway 4.00 miles northeast of the US101 intersection, and crosses McDonald Creek. The bridge consists of a single span, pre-stressed concrete I-beam girders with cast-in-place deck. It is 144' long with a curb-to-curb width of 40'. The bridge has a design capacity of HL-93. The bridge is supported on reinforced concrete pier caps integral with reinforced concrete filled drilled shafts. The bridge was opened in May of 2018. The bridge is in like-new condition

94120BR3 BURLINGAME BRIDGE

This bridge is located on the Old Olympic Highway 7.38 miles northeast of the US101 intersection, and crosses the Dungeness River. It is 430 feet long with a deck width of 40 feet. The bridge consists of a three span, post-tensioned concrete box girder supported on four piers consisting of two, six-foot diameter drilled shaft columns per pier. Constructed in 1998/99 with a design load capacity of HS 25, this structure is in good condition with the exception of the approach slabs which have exhibited some settlement.

94120BR4 SIEBERTS CREEK BRIDGE

This bridge is located on the Old Olympic Highway 1.38 miles northeast of the US101 intersection, and crosses Siebert Creek. It is 274 feet long with a deck width of 40 feet. The bridge consists of three spans of pre-stressed concrete bulb "T" girders supported on two piers consisting of two, seven-foot diameter drilled shaft columns per pier. Constructed in 1997/98 with a design load capacity of HS 25, this structure is in good condition with the exception of the approach slabs which have exhibited some settlement.

9500BR1 WARD BRIDGE

This bridge is located on Woodcock Road 2.15 miles west of Sequim Dungeness Way, and crosses the Dungeness River. It is 406 feet long with a deck width of 29 feet. The bridge consists of three spans of pressure treated glue laminated timber stringers supported in the center by reinforced concrete piers on piles and on each end by pile foundations. The piers

were built in the 1930's and the current stringer/deck was constructed in 1977 with a design load capacity of HS 20, this structure is in good condition.

- Both road approaches were reconstructed with concrete in 2019 and are in like new condition.
- The bridge deck wearing surface is asphalt reinforced with Glasgrid, and is in like new condition. The asphalt surfacing was applied in 2019. This wearing surface is performing satisfactorily, but ongoing maintenance is expected to repair potholes and other cracking caused by the relatively flexible superstructure.
- The bridge rail system is in satisfactory condition. We are considering a project to remove, re-treat, and re-install the pedestrian railing in an effort to extend its useful life.
- The substructure appears to be in good condition. A scour protection project was done in 2019 in which each pier was excavated around to the depth of pile cap and armored with rip rap.
- While timber bridges have historically fared well during seismic events, some deficiencies in the width of the beam seats of the Ward bridge have been noted. A seismic retrofit of this structure was completed in September of 2004. The retrofit design was done by Berger ABAM, and should minimize the deficiencies noted in the seismic evaluation report.

95250BR2 MEADOWBROOK BRIDGE

This structure is located on Sequim Dungeness Way 4.80 miles north of the US101 intersection, and crosses Meadowbrook Creek. It is 19 feet long with a deck width of 26 feet. The bridge consists of a single span of pressure treated timber stringers supported on pile foundations. Constructed in 1961 with a design load capacity of H 15, this structure is in satisfactory condition, but is posted with a load restriction.

- Both bridge approaches are in good condition.
- The bridge deck wearing surface is asphalt and is in satisfactory condition with minor alligator and longitudinal cracking noted.
- The bridge rails, and posts are in satisfactory condition.
- Substructure appears to be in satisfactory condition.
- No seismic evaluation has been made on this structure however timber structures of this type are expected to perform satisfactorily during a seismic event.

95250BR3 MEADOWBROOK BRIDGE

This structure is located on Sequim Dungeness Way 4.90 miles north of the US101 intersection, and crosses Meadowbrook Creek. It is 19 feet long with a deck width of 26 feet. The bridge consists of a single span of pressure treated timber stringers supported on pile foundations.

Constructed in 1961 with a design load capacity of H 15, this structure is in satisfactory condition, but is posted with a load restriction.

- Both approaches exhibit minor subsidence but are basically in good condition.
- The bridge deck wearing surface is asphalt and is in satisfactory condition.
- The bridge rails, and posts are in satisfactory condition.
- Substructure appears to be in satisfactory condition.
- No seismic evaluation has been made on this structure however timber structures of this type are expected to perform satisfactorily during a seismic event.

95250BR4 MEADOWBROOK BRIDGE

This structure is the northern-most crossing of Meadowbrook Creek and was replaced with a concrete "Conspan" type arch founded on driven concrete filled tubes (CFT's) in 2016. The structure meets current standards and is in like-new condition.