



Historic Property Inventory Report

Location

Field Site No. DAHP No.

Historic Name: Skagit River Bridge

Common Name: Bridge #536/15

Property Address: 0000 SR 536, Mount Vernon, WA

Comments:

Tax No./Parcel No.

Plat/Block/Lot

Acreage

Supplemental Map(s)

Township/Range/EW	Section	1/4 Sec	1/4 1/4 Sec	County	Quadrangle
T34R04E	19			Skagit	MOUNT VERNON

Coordinate Reference

Easting: 1193581

Northing: 1131563

Projection: Washington State Plane South

Datum: HARN (feet)



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Identification

Survey Name: Skagit River Bridge Date Recorded: 06/23/2011
Field Recorder: Craig Holstine
Owner's Name: WSDOT
Owner Address:
City: Olympia State: WA Zip: 98504
Classification: Structure
Resource Status: Comments:
Survey/Inventory
Within a District? No
Contributing? No
National Register:
Local District:
National Register District/Thematic Nomination Name:
Eligibility Status: Determined Eligible - SHPO
Determination Date: 7/27/2011
Determination Comments: 072711-01-FHWA determined on 7/27/2011

Description

Historic Use: Transportation - Road-Related (vehicular) Current Use: Transportation - Road-Related (vehicular)
Plan: Irregular Stories: 1 Structural System: Other
Changes to Plan: Intact Changes to Interior: Unknown
Changes to Original Cladding: Intact Changes to Windows: Intact
Changes to Other:
Other (specify):
Style: Cladding: Roof Type: Roof Material:
None Wood - Clapboard None Other
Foundation: Form/Type:
Other None

Narrative

Study Unit	Other
Transportation	
Date of Construction:	1954 Built Date
	Builder: Guy F. Atkinson
	Engineer: George Stevens
	Architect:



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Property appears to meet criteria for the National Register of Historic Places: Yes

Property is located in a potential historic district (National and/or local): No

Property potentially contributes to a historic district (National and/or local): No

Statement of
Significance:

This bridge retains excellent integrity of its 1954 appearance and is a good example of different configurations of Warren through trusses serving different purposes. That is, the western span, with polygonal top chord, has always been fixed. As originally constructed, the eastern (main) Warren truss was a movable swing span. Designed to pivot around a center bearing, the swing unit opened to align with the flow of the river, creating two parallel navigation channels. As large boat traffic diminished, the Secretary of the Army (as the official of jurisdiction for the Corps of Engineers) allowed the Washington State Department of Highways to fix the swing unit in the closed position, provided the DOH agreed to return the bridge to operate in its original movable condition within one year of advance notice (George 2001). Although the agreement remains in place, the bridge has not been movable nor swung open since being converted to a fixed bridge in 1967.

The present bridge replaced a 17 ft wide structure that included a steel through Howe truss swing span and a steel through Parker truss fixed span. Built in 1908 and reportedly designed by the renowned firm Waddell and Harrington, that bridge stood at the site for 44 years (WSDOT 1998). Construction of the present bridge began in 1953. By 19 May 1954, the fixed Warren truss span and west approach spans were in place when a fire destroyed the creosote-treated timber pile and plank upstream draw rest of the swing span. The fire delayed construction of the swing unit, but damage to the recently-poured concrete center pier was avoided. Of the 180 timber piles on the upstream draw rest, all but about a dozen required repair and retreatment with creosote. Although workmen sustained no injuries, the blaze destroyed an air compressor, a pump, and many tools being used in construction of the draw rest (Wilkerson 1954).

Guy F. Atkinson built the Skagit River per contract No. 4400 with the State of Washington. On 20 December 1954 Atkinson submitted his final cost estimate of \$922,410.30 (WSDOT Cardex "General Card").

The Skagit River Bridge is one of only six remaining highway bridges in Washington with either functioning or non-functioning swing units. The bridge displays integrity of design, materials and workmanship, particularly in its character-defining features, i.e., modified Warren trusses, concrete approach spans, and operator's house. In 2001 retired WSDOT bridge engineer Bob George evaluated the bridge, noted its integrity and relative rarity, but recommended it not NRHP eligible, due primarily to its not being 50 years old at the time (George 2001). As the bridge is now over 50 years old, it is now eligible for inclusion in the NRHP under Criterion C.

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Description of Physical Appearance:	<p>The bridge consists of a main steel swing unit, a fixed steel span, and four concrete tee-beam approach spans, two on each end. The main swing unit consists of two 144 ft riveted through modified through Warren truss spans with vertical web columns. It bridges the span between a poured concrete pier supporting concrete approaches near the east bank of the river and a poured concrete pier supporting the east end of a 160 ft steel modified through Warren truss with polygonal top chord to the west. Including approach spans, the bridge measures 675 ft in length. The asphalt-covered, two-lane roadway is 28 ft wide between the concrete curbs.</p> <p>A pedestrian concrete sidewalk with steel railing runs inside the south bridge trusses and along the concrete balustrade rails on the approach spans. Cantilevered concrete platforms extend from the pedestrian railings at various locations on both sides of the bridge. The platforms serve as landings for steel ladders accessing the trusses, and apparently as former locations of light standards, as evidenced by threaded bolts protruding from the concrete bases of the platforms.</p> <p>Accessed by a steel stairway on the bridge's south side at the midpoint of the swing unit is a small frame building identified on the 1953 design plans as the "Operator's House." A relic of the bridge's original function, the building contains electrical equipment used to operate the swing span prior to its being welded in its present fixed position. Constructed of what appears to be original horizontal lap siding, the structure is situated atop steel beams above the bridge deck. All sides of the operator's house have original wood-sash, fixed-pane windows. A modern door enters the structure's south elevation off steel-grated walkways. The house has shallow, tarred gable roof with metal gutters and down spouts.</p> <p>Extending upstream and downstream from the pier supporting the swing unit are wooden draw rests. Constructed of wood planks attached horizontally at intervals to vertical squared wood piles, the draw rests are braced laterally and longitudinally by squared timbers. Walkways with metal handrails extend along the tops of the center longitudinal braces of both draw rests. Both draw rests are pointed at each end so as to deflect floating debris. Winter flood waters brought heavy debris that caused the wood-pile dolphin off the point of the upstream draw rest to lean against the draw rest. Both draw rests have been rebuilt over the years.</p>
Major Bibliographic References:	<p>George, Oscar R. "Bob." Skagit River Bridge #536/15 Evaluation Form. Category 2 Bridges Evaluation Project. WSDOT Environmental Affairs Office, Tumwater, 2001.</p> <p>Washington State Department of Transportation. Bridge #1-AN/1, PSH 1-AN. Historical Inventory of Movable Bridges in Washington State. Bridge and Structures Office, Tumwater. Form dated 1 July 1998.</p> <p>Washington State Department of Transportation. Plan drawings, inspection reports and photos. Bridge Engineering Information System (BEIS). On line.</p> <p>Washington State Department of Transportation. Correspondence files, photos and Cardex sheets. Bridge and Structures Office, Tumwater.</p> <p>Wilkerson, Ed A. "Fire Destroys Part of the Skagit River Bridge at Mount Vernon." Washington State Department of Highways News. July 1954, Vol. 4, No. 1, pp. 7-8.</p>

Photos



North elevation
2011



South elevation
2011



Dolphin leaning on north draw rest
2011



Swing unit south elevation
2011



Fixed Warren span south elevation
2011



East approach span south elevation
2011



T-beam substructure of west approach span
2011



Deck on east approach
2011

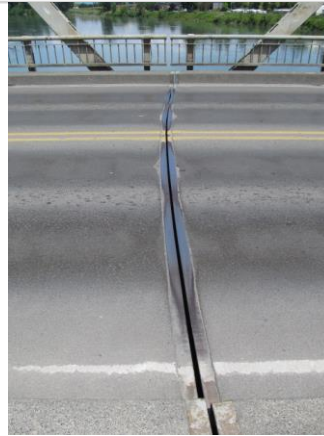


Operator's house south and west elevations
2011

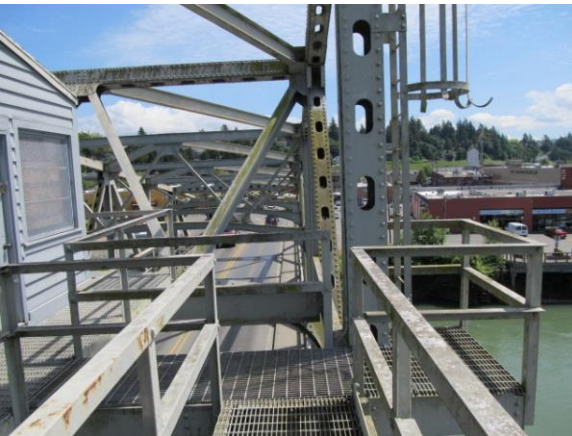
Swing unit & draw rests.
2011



Swing unit seat south side west end
2011



Deck joint of fixed (left) and swing (right) spans
2011



Walkways in front of door to operator's house, S elevation
2011



Cantilevered platform N side W approach
2011



Swing unit seat on pier joining east approach



East pier and timber fender

2011



East portal vertical column & railing
2011

2011



East portal of fixed Warren span
2011



East pier, approach, and fender
2011



2011





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Cantilevered platforms south side swing unit
2011

Top of south draw rest from operator's house platform
2011