



Hood Canal Bridge West-Half Retrofit and East-Half Replacement Project



(Upper left) Crews wrap the anchor cables with wire – a process that keeps the cable strands from unraveling when any excess is cut off. June 17, 2009. (Lower left) Once the cable is wrapped, crews “broom” the ends in preparation for the socket installation. Molten zinc is then poured into the socket to protect the cable from corrosion. July 22, 2009. (Right) WSDOT and Kiewit-General completed anchor cable connections on the new east half of the SR 104 Hood Canal Bridge Aug. 18, preparing the bridge for winter weather. Aug. 7, 2009.

Project Delivery

Final anchor cable connections complete

The SR 104 Hood Canal Bridge Project pulled closer to finishing construction and retrofit work in August, when WSDOT and crews from contractor Kiewit-General (K-G) of Poulsbo completed the last of 20 new east-half anchor connections.

The work started shortly after the bridge was reopened June 3 and wrapped up Aug. 18. It provides the world’s longest floating bridge the stability it needs to handle winter storms, tidal changes, wind and seismic events.

Previously, the bridge’s new pontoons had been linked to the older, existing anchors by older anchor cables. These 550-ton anchors and 1 3/4-inch cables were temporarily connected to the new pontoons when the east half was replaced in May-June to ensure WSDOT could reopen the bridge to travelers as soon as possible.

New connections feature much stronger 3-inch diameter cable and heavier, more stable anchors that weigh approximately 2,000 tons apiece – roughly four times more than the original anchors.

The depth of the new anchors, which range between 80 and 340 feet, created unique challenges for crews.

The contractor used a combination of divers and remotely-operated vehicles to help run the anchor cables from the pontoons through huge u-shaped pipes in the anchors, and back up to the pontoons to complete the connections. The new steel cables range from approximately a quarter-mile to one mile in length.

The completed anchor cable connections keep WSDOT and K-G on schedule to finish work on the bridge by the end of 2009.

Accountability

Giving the public viable travel options

With anywhere between 16,000 and 20,000 vehicles crossing the SR 104 Hood Canal Bridge daily, WSDOT was faced with the challenge of having to reroute and transport people to and from the Olympic Peninsula during the May 1-June 3 bridge closure.

A multi-pronged approach was taken that relied heavily on a temporary water shuttle between South Point in Jefferson County and Lofall in Kitsap County and connecting transit routes on both peninsulas were created. Washington State Ferries (WSF) assisted with the water shuttle service while Jefferson and Clallam transit and Starline Transportation took people between the water shuttle docks, nearby park and rides and destinations throughout the Olympic and Kitsap peninsulas.

More than 70,000 people used the fare-free service.

WSF also jockeyed around its fleet to assist even further and provided a Thursday-Sunday twilight ferry run between Edmonds and Port Townsend. The ferry helped businesses by significantly reducing the time and expense of shipping their goods to and from the Olympic Peninsula. It also took more than 3,600 vehicles off an already busy US 101.



The public made use of the water shuttle during the bridge closure. April 29, 2009.

Although thousands of motorists used US 101 during the closure, WSDOT's proactive planning – which included additional Web cameras along highways US 101 and SR 3 as well as improved signage and traveler notification systems – helped drivers avoid congestion and kept traffic incidents to a minimum.

WSDOT provided travelers information through a specialized call center, which assisted more than 11,000 people, and a Web site that featured an interactive map, provided regular travel and construction updates that – combined with the project blog – had more than 760,000 page views.

Extensive outreach prior to the closure resulted and constant updates during the five-week period ensured that the public not only had the information it needed to make educated decisions about its transportation options but was kept apprised of the construction work and schedule as well.

Financial Status

Project Cost Summary

Through July 31, 2009

HOOD CANAL BRIDGE PROJECT	BUDGET*	EXPENDED
Engineering and Right of Way	\$86,600,000	\$83,700,000
Construction Contract	\$400,700,000	\$403,000,000
Closure Mitigation	\$12,500,000	\$9,500,000
Subtotal	\$499,800,000	\$496,200,000
PAR – Port Angeles Remediation	\$5,700,000	\$5,600,000
Project Total	\$505,500,000	\$501,800,000

* Budget approved January 2009. Source: WSDOT Hood Canal Bridge Project Office.



The new east half of the bridge features wider, safer lanes and a new truss. Aug. 5, 2009.



A close-up look at a new anchor cable connection on the east half. Aug. 20, 2009.

Ongoing Activities

Electrical Installation and Retrofit

- Continue conduit and electrical control panel installation
- Begin electrical installations in the west hydraulic room
- Install identification tags, lights, plugs and LDS switches in all pontoons
- Install conduit in the west control tower

Mechanical Installation and Retrofit

- Continue ballasting operations continue on the east draw span

- Install new guide rollers, currently seven of fourteen sets are complete
- Work in the machinery rooms and set the first drive unit
- Refurbish hydraulic units in the west hydraulic room

Anchor Cables and Miscellaneous Construction

- Complete punch list items and plan cathodic protection installation
- Continue demolition work in the A pontoon
- Continue to complete various punch-list items

This report highlights updated Hood Canal Bridge Project information from **July 1-Aug. 31, 2009.**

For more information about the Hood Canal Bridge Project visit the project web site, www.HoodCanalBridge.com, or contact project staff:

Joe Irwin, WSDOT Communications
(253) 305-6412, irwinj@wsdot.wa.gov

Jeff Cook, HCB Project Engineer
(360) 412-3421, cookjd@wsdot.wa.gov