



Third Quarter Report

July–September 2006

Hood Canal Bridge Retrofit and East Half Replacement Project



Crews pour concrete for the top deck of pontoon PB, September 27, 2006.

MOVING FORWARD

The Hood Canal Bridge Project team's efforts this quarter led to the completion of several pontoon and anchor construction milestones: the first pontoon top deck concrete pours were completed; post tensioning started; and anchor construction began.

Construction Progress

The project is now 27 percent complete. Work moved forward on: pontoon construction at Concrete Technology in Tacoma; anchor construction at Todd Pacific Shipyards in Seattle; material fabrication; and, Leak Detection System installation and slope restoration at the Hood Canal Bridge site.

Design Information

This quarter the design team's main focus was advancing closure mitigation permitting and facility design. They also began preparing an integrated set of drawings to guide cycle two pontoon construction.

Safety Update

WSDOT and the contractor, Kiewit-General (K-G) of Poulsbo, continued to emphasize work site safety. The safety standards established at the pontoon construction site were implemented at the anchor construction site.

Public Outreach and Partnerships

Internal communication efforts were increased in order to coordinate project communication across multiple job sites. Project staff shared information with the public on the closure mitigation plan at community meetings, on tours and through new Web pages at www.hoodcanalbridge.com. Several stories appeared in local publications – the *Kitsap Sun*, the *Tacoma Daily Index*, and the *Tacoma News Tribune* – as a result of media outreach efforts.

Financial Report

As of September 30, 2006, \$235 million of the \$471 million budget has been expended.

Environmental Stewardship

The project continued to meet all environmental protection requirements.



Crews pour concrete for the last top deck pour on pontoon PA, August 8, 2006.

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PROJECT OVERVIEW

WSDOT and K-G are constructing all 14 new pontoons inside the 150-foot wide by 465-foot long Concrete Technology graving dock by completing construction over four cycles. Three pontoons will be built in the first cycle, five in the second cycle, four in the third and two in the fourth cycle.

Twenty new anchors are being constructed at Todd Pacific Shipyards in Seattle. They will be placed on the bottom of Hood Canal by September 2007.

Another three pontoons, built during the west-half bridge replacement in the early 1980s, will be retrofitted in Seattle by September 2007. The completed east-half pontoon roadway sections and fully assembled east-half draw span will be floated into place during the bridge closure in May and June 2009.

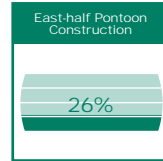
Project Schedule

2006 MILESTONES	COMPLETION GOAL	ACCOMPLISHED
Graving dock modifications	April 06	April 06
2007 MILESTONES	COMPLETION GOAL	ACCOMPLISHED
Float out – 1st cycle of pontoons	February 07	
Anchor construction	July 07	
Float out – 2nd cycle of pontoons	September 07	
Anchor placement	September 07	
Rehabilitation of old pontoons	September 07	
2008 MILESTONES	COMPLETION GOAL	ACCOMPLISHED
Draw span assembly	January 08	
Float out – 3rd cycle of pontoons	April 08	
Float out – 4th cycle of pontoons	October 08	
Roadway assembly	December 08	
2009 MILESTONES	COMPLETION GOAL	ACCOMPLISHED
Draw span mechanical & electrical	February 09	
Superstructure construction	April 09	
Float in & installation (bridge closed)	May-June 09	
2010 MILESTONES	COMPLETION GOAL	ACCOMPLISHED
Final project completion	December 10	

CONSTRUCTION PROGRESS

During this quarter the Hood Canal Bridge team focused on keeping to the schedule and producing quality work. Work went well on all different parts of the project: pontoon construction; anchor construction; material fabrication; west-half leak detection system installation; and, bridge site access road restoration.

East-half Pontoon Construction



This work includes building 14 new pontoons in four cycles at Concrete Technology in Tacoma and towing them to Seattle for assembly, outfitting and testing.

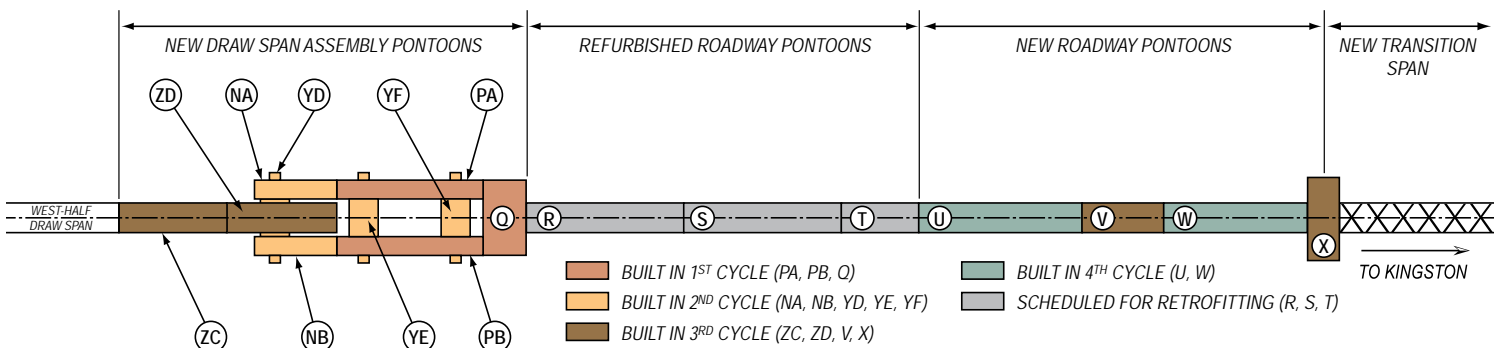
Pouring and Placing Concrete

There were 25 concrete pours this quarter. The final pontoon wall sections, the anchor gallery base slabs, and pontoon top slabs were poured. In addition, concrete curing continued from previous pours, wall forms were removed once concrete had fully cured and sanding and cleaning continued inside the pontoon cells.



This is an aerial photo showing work completed on the cycle one pontoons. Wall pours on Pontoon Q (top) are complete, deck pours on pontoon PA (lower right) are complete and walls are ready to be poured on pontoon PB (lower left), August 8, 2006.

Birds-eye View of New East-half





Tower crane operator lowers work decks to the side of pontoon PA for post tensioning operations, August 17, 2006.

Post Tensioning

Completing the top concrete section on pontoon PA marked the beginning of post tensioning – tightening the steel rods and cables within the concrete walls that increases the overall strength of the pontoon. K-G began post tensioning on Wednesday, August 23, tightening the first of approximately 2,500 steel cables and rods that run through pontoon PA walls, floor and top.

This quarter, the vertical post tensioning rods and the top and bottom transverse cables were pulled tight and secured in place in the east half of pontoon PA. Longitudinal post tensioning then began.

Vertical and transverse post tensioning for the first half of pontoon PB was also completed.

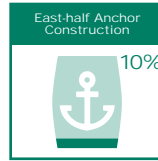
Post tensioning is a large portion of the work left to be completed before the first cycle of pontoons is ready to be floated from Tacoma to Seattle. Accomplishing post tensioning within the allotted time frame and projected cost is critical to the project's overall schedule and budget. Extensive planning was completed and training conducted prior to post tensioning to make sure this work would be done right.

Cycle Two Pontoon Construction

K-G extended the west end of the graving dock to make room for the next cycle of pontoons (YD, YE, YF, NA, NB). Rebar and form fabrication for cycle two pontoons also started.

Anchor Construction

This work includes constructing 20 anchors and placing them on both sides of the bridge at the bottom of Hood Canal.



Modifications began in July to prepare a floating dry dock at Todd Pacific Shipyards for anchor construction. Once the floating dry dock was towed into place anchor construction moved forward quickly.

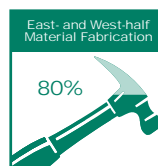
K-G crews completed access ramp construction, conducted a hazard assessment of the site, developed and posted specific site safety regulations, received necessary environmental permits, completed an anchor mockup exercise showing preferred work techniques, fenced the site, began assembling anchor forms, hired three new staff members, constructed five anchor footings and brought anchor wall forms to the site.



Laborers pour concrete for two-foot tall lower spokes and anchor footing section, September 12, 2006.

This quarter's accomplishments kept the anchor construction schedule on track to be able to set the new east-half anchors on the bottom of Hood Canal by the end of next summer.

East- and West-half Material Fabrication
Work includes the truss and transition spans and other steel bridge parts.



Many different materials, such as pontoon hatches, were incorporated into the pontoons during this quarter. Assembly continued on the hinge needed to connect pontoon Q with pontoon R. Truss and transition span fabrication plans moved forward.

CONSTRUCTION PROGRESS, Cont.

Hood Canal Bridge Site

Leak Detection System

Elcon, an electrical subcontractor to K-G, continued work on the west-half pontoons new Leak Detection System (LDS). The west-half pontoon cells were modified and crews are ready to begin installation of the conduit that will hold LDS electrical components.

Trestle Removal and Slope Restoration

This construction, the last part of the approach span replacement work, neared completion: all trestle materials were removed and relocated; concrete footings at the beach and a steel catch basin were removed, slope restoration and access road removal started; the storm water run-off system was installed; fencing was installed; and, grading of the new access road started.



Crews work near the east approach span to restore the bank, September 29, 2006.

DESIGN INFORMATION

This quarter, the design team focused on closure mitigation permitting and design. This work included completing environmental permits, pursuing lease agreements, designing park-and-ride lots, surveying necessary highway areas to pursue temporary route improvements, meeting with Washington State Ferries to better understand water shuttle operations, coordinating efforts with Kitsap, Clallam, and Jefferson transit and finalizing steps to implement the rideshare and medical transportation programs.

- **Environmental documentation and permitting:** An environmental permitting schedule was completed, showing timelines required to obtain each permit needed. The first permit was completed on August 16. Two other permit applications were started.
- **Alternate routes:** Field information was gathered and animations were started to help drivers understand what the route changes will look like on US 101 and SR 3.
- **Transportation options:** Water shuttle options were discussed with Washington State Ferries.
- **Park-and-ride lots:** Negotiations continued to complete Port Gamble park-and-ride land use lease agreements. Initial contact was made to discuss land use at Shine Pit. The South Point water shuttle and transit terminal design was completed and sent to Jefferson and Clallam County Transit for review.



This design shows where the Port Gamble park-and-ride lot and the water shuttle terminal will be constructed.

- **Rideshare:** WSDOT worked with local community partners on planning the rideshare opportunities that will be available during the May–June 2009 closure.
- **Medical transportation:** The number of people anticipated to use medical transportation was evaluated to determine if the level of service planned will meet the communities needs'.

SAFETY UPDATE

Both WSDOT and K-G make safety a number one priority. K-G believes that safety is a personal responsibility. The repercussions of not following K-G's safety regulations could cost an employee his or her job. K-G is very serious about keeping workers safe. All injuries and any near-misses are reviewed to determine ways to prevent similar incidents in the future. WSDOT follows K-G's example and maintains high expectations for the safety of everyone on the project.

K-G divides accidents into two different categories – reportable and recordable – depending on the severity of the injury and the type of treatment required. Reportable injuries are tracked at the company level.

Recordable and lost time injury information must be sent to Occupational Safety and Health Administration. An injury is recordable if the employee is given medical treatment, such as setting a bone or receiving medication. K-G recordable injuries are 10 times lower than the industry standard.

The following shows Kiewit-General's safety record on the Hood Canal Bridge Project since the project began in 2003.

Location	Hours	Reportable	Frequency*	Recordable	Frequency*
Bridge Site/Port Angeles	384,246	11	5.7	2	1.0
Concrete Technology	166,861	7	8.4	2	2.4
Todd Pacific Shipyards	9,650	0	0	0	0
K-G Total	560,757	18	6.4	4	1.4
Subcontractors	98,253	4	8.2	4	8.2
TOTAL	659,010	22	6.1	8	2.4

* Per 200,000 hours worked

Injury Types	Injury Causes
Eye Injuries 11	Environmental Conditions 5
Fracture..... 1	Lack of or inadequate personal protective equipment..... 7
Muscle Strain 6	Faulty Equipment 1
Shock 1	Body Defects..... 1
Insect Bite 1	Inattention 3
Sliver 1	Not Following Directions 4

Crews are working hard to reduce future project safety risks such as worker complacency, fall hazards, access, housekeeping materials handling and confined spaces.

1. Complacency

With employees performing similar operations repeatedly there is the potential of employees to underestimate the potential of hazards associated with the work. In order to reduce this complacency K-G conducted daily tool box safety meetings, reviewed Job Hazard Analyses (JHA's), added pictures of the hazards in the current JHA's, conducted daily superintendent inspections and safety committee inspections and held hands-on training.

2. Fall Hazards

A high percentage of the work on the Hood Canal Bridge project is performed at heights greater than six feet. To ensure employees avoid fall hazards K-G conducted fall protection training with all employees. Fall protection work plans were updated for all tasks which require work above six feet.

3. Access, Housekeeping and Material Handling

The main interior pontoon work is accessed by climbing down a 20 foot ladder into individual cells. The use of ladders increases the chances of employees slipping and falling from the ladder when entering or exiting the pontoon.

Work space is limited, increasing the chance for certain types of injuries. As a result, K-G made material handling, housekeeping and access a major focus during mass safety meetings, tool box meetings, safety committee inspections, daily superintendent inspections and weekly foreman safety lunches.

4. Confined Spaces

Confined spaces introduce a highly dangerous hazard to employees and staff. All employees entering a confined space have been trained to recognize confined spaces hazards and the proper procedures required to enter a confined space. Air monitoring is conducted in every confined space prior to an employee entering it.

PUBLIC OUTREACH AND PARTNERSHIPS

Internal Communication

Internal communication efforts were increased in order to coordinate project communication across multiple job sites. Communication staff attended weekly owner's meetings at three job sites, provided team information for site project communication boards, sent out a biweekly e-mail project update notice and planned team events.

Public Outreach

Project staff shared the 2009 Closure Mitigation Plan with project stakeholders, decision-makers and Hood Canal Bridge drivers both in person at community meetings and on tours and through new Web pages at www.hoodcanalbridge.com.

On September 15, 2006, WSDOT received the Peninsula Regional Transportation and Planning Organization's (PRTPO) stamp of approval to continue implementing the \$10 million federally-funded closure mitigation plan that will help drivers get where they need to go during the May-June 2009 Hood Canal Bridge closure.

Since that time, the communication team created 15 new Web pages detailing the closure mitigation commitment plan, implementation timeline, transportation options and plan elements.

A briefing paper was sent to local, county and state officials interested in the closure mitigation options. Community displays, a press release, community presentations and fact sheets were shared with drivers to help them understand how they can get to their destinations during the closure.

Media Outreach

Several stories appeared in local publications: the *Kitsap Sun*, the *Tacoma Daily Index*, the *Peninsula Daily News*, the *Port Townsend Leader*, the *Sequim Gazette* and the *Tacoma News Tribune*, as a result of media outreach efforts.

Performance Measures

New performance measures were developed to track the communication group's effectiveness in delivering information to the public. These numbers will be shared after a few months of data has been collected.



The Tacoma News Tribune newspaper article, September 14, 2006.

FINANCIAL REPORT

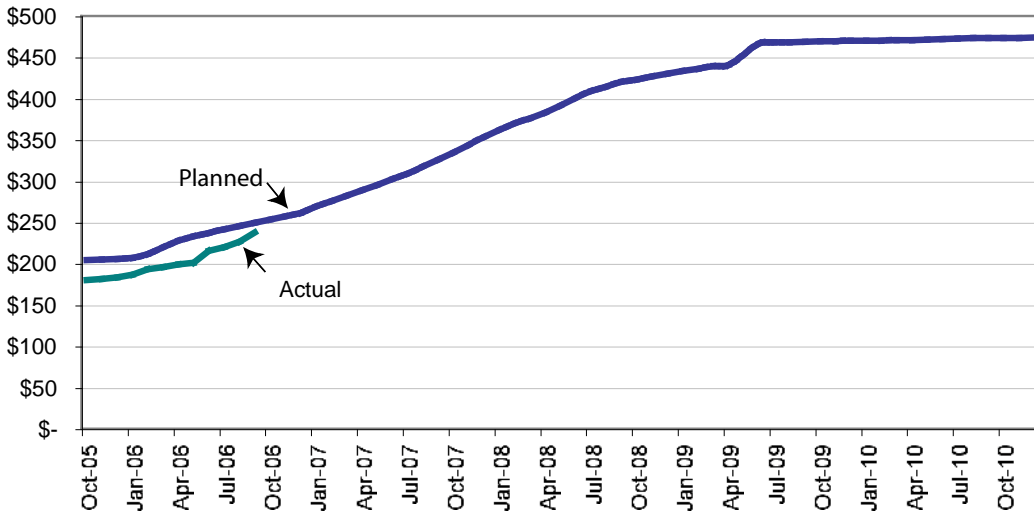
Project expenditures to date tracked slightly under budget. Total expenditures are \$235 million of the \$471 million, with K-G's portion of the total being \$177 million. Processing time for K-G invoices took an average of 17 business days from receipt of estimate documents to when a check was issued.

The construction contract with K-G is tracked in two primary categories: original commitments and modified commitments. Original commitments, such as existing bridge widening, approach work and fabrication of major materials for pontoon construction, are 92 percent expended. Modified commitments, including pontoon and anchor construction, are 15 percent expended.

WSDOT continues to work closely with K-G to monitor and evaluate all current costs and remaining budget amounts to avoid surprises in the project's cash flow requirements. Additionally, WSDOT analyzes all costs on a monthly basis to ensure adherence to the approved budget.

Planned vs. Actual Expenditures

Period ending September 30, 2006
Total Project Cost, Dollars (millions)



Source: WSDOT Hood Canal Bridge Project Office

ENVIRONMENTAL STEWARDSHIP

Along with safety, quality, schedule and budget, environmental stewardship is a core value of the Hood Canal Bridge project team. Weekly inspections are made at all construction sites to ensure appropriate preventative measures are in place. Extensive plans are developed prior to all construction work to help protect wildlife and minimize the affect of the bridge work on the environment.

There were no incidents at any of the construction locations.

Hood Canal Bridge Project Financial Report

Expenditures as of September 30, 2006

	Budget	Expended	% Expended
Original Commitments			
Port Angeles	83,000,000.00	82,877,940.00	99.9%
Bridge Site Work	41,463,000.00	38,770,861.00	93.5%
Work in Progress	81,600,000.00	67,895,571.00	83.2%
Subtotal Original Commitments	\$206,063,000.00	\$189,544,372.00	92.0%
Modified Commitments			
WSDOT Construction Management	32,036,000.00	6,538,628.00	20.4%
Bridge Closure Mitigation	9,644,000.00	726,000.00	7.5%
New Facilities & Bridge Completion	223,225,000.00	38,250,000.00	17.1%
Subtotal Modified Commitments	\$264,905,000.00	\$45,514,628.00	17.2%
Project Total	\$470,968,000.00	\$235,059,000.00	49.9%

Source: WSDOT Hood Canal Bridge Project Office

Note: September data is an estimate of costs prior to the accounting month close on October 10.

LOOKING AHEAD: October–December 2006

Construction Progress

- Finish post tensioning all three pontoons under construction.
- Complete first three of five concrete pours for each of the 10 anchors.
- Conduct final check-up on pontoons R, S and T.
- Review truss fabrication submittals.
- Review pontoon launching, towing, pouring and monitoring submittals.

Public Outreach and Partnerships

- Increase 2009 closure mitigation outreach.
- Continue placing displays at community venues.
- Make additional Web site improvements.
- Draft public awareness survey questions.
- Prepare communication plan for cycle one pontoon float out.

Safety Update

- Implement new WSDOT safety program elements.

Environmental Stewardship

- Weekly monitor various construction sites.

Design Information

- Meet with Jefferson and Clallam County Transit agencies to finalize transit agreements.
- Submit project environmental permit applications.



This report highlights updated Hood Canal Bridge Project information from July–September 30, 2006.

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

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Hood Canal Bridge Retrofit and East-half Replacement Project

East-half Replacement
Completion Goal: 2009

West-half Retrofit
Completion Goal : 2010

Q. Where is the bridge?

A. *The Hood Canal Bridge is located between Kitsap and Jefferson counties at the northern mouth of the Hood Canal.*

Q. Why is it important?

A. *It serves as a vital economic and social link between the greater Puget Sound and the Olympic Peninsula.*

Q. What is WSDOT doing?

A. *The Washington State Department of Transportation is improving this lifeline by replacing the east-half floating portion of the bridge, replacing the east and west approach spans, replacing the east and west transition truss spans and updating the west-half electrical system. The project completion estimate is 2010.*

Q. How can drivers stay informed?

A. *Sign up to receive the latest news regarding the Hood Canal Bridge Project and other related area transportation news in your e-mail inbox. Visit www.hoodcanalbridge.com to subscribe.*