

# CONSTRUCTION PROGRESS REPORT

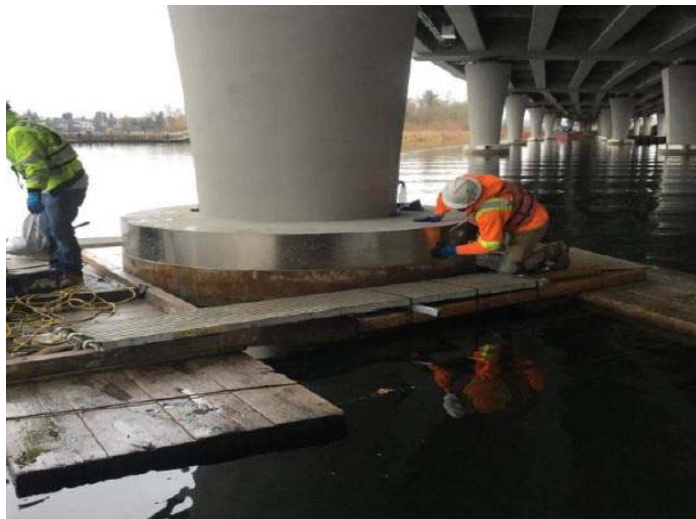
## JANUARY 2018



West Approach Bridge North (WABN): Installing clearance sign



Floating Bridge and Landings (FB&L): Installing flared barrier guardrail



WABN: Repair shaft collar at Pier 8



WABN: Shared-use path gate panels at Pier 28 belvedere

DATE PUBLISHED: March 23, 2018

## SR 520 BRIDGE REPLACEMENT AND HOV PROGRAM



WABN: Removing cut pile from work trestle



Union Bay Natural Area (UBNA): New western red cedar plantings

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*Note: The State Route 520 Construction Progress Report is no longer publishing monthly updates for the Pontoon Construction Project and the Eastside Transit and HOV Project as major construction work on those two projects has ended. Please see the April 2015 Construction Progress Report for the final updates on those two projects.*

*Also, since all projects detailed in this report—Floating Bridge and Landings, West Approach Bridge North, and the Union Bay Natural Area—have reached Substantial or Physical Completion, this report will be suspended until the next phase of construction begins in late 2018 or early 2019.*

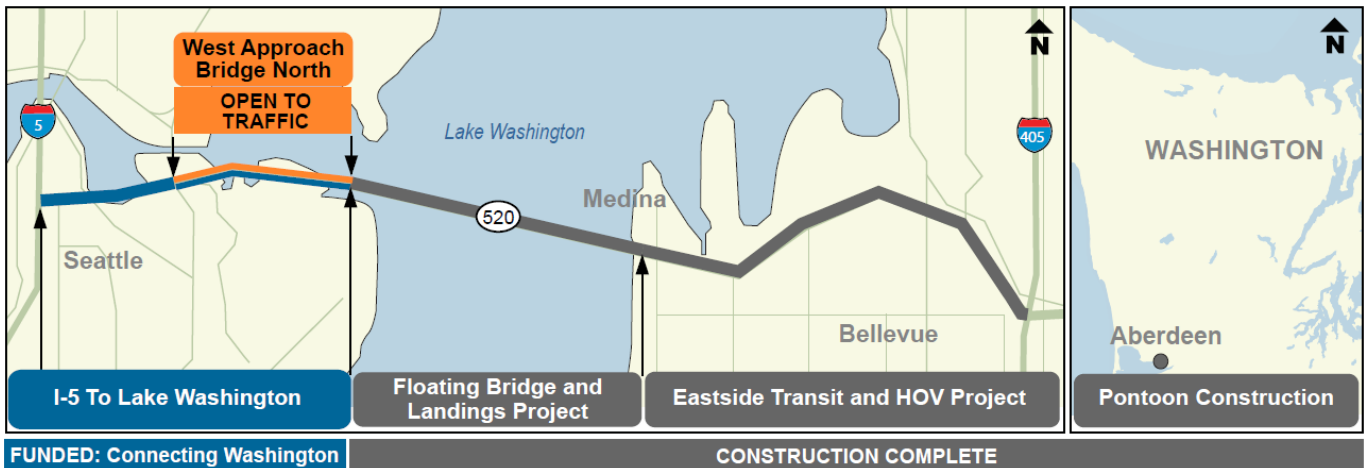
## EXECUTIVE SUMMARY

### Program Overview

The SR 520 Bridge Replacement and HOV Program will improve safety and reliability throughout the SR 520 corridor, from I-5 in Seattle to the Eastside. Projects already completed include the new six-lane SR 520 floating bridge; the new six-lane Eastside corridor that includes culverts, improved transit facilities and lids; and pontoon construction in Aberdeen. The new west approach bridge for westbound traffic opened to traffic in August 2017 and the project is nearing completion. Future work includes replacing the Portage Bay Bridge, building a new west approach bridge for eastbound traffic, building two highway lids in Seattle, and extending the SR 520 bicycle/pedestrian path from Montlake to I-5.



WABN: Preparing seeded lawn soil along alignment for bus path.



Map of SR 520 Bridge Replacement and HOV Program

### Currently Funded Program

We are currently funded to move forward with:

- Constructing a new, safer floating bridge (now open to traffic).
- Building the north half of a new west approach bridge (now open to traffic), and connecting six lanes of traffic and the regional shared-use path from the Montlake interchange to the new floating bridge (now connected).
- Continuing to design the remaining elements of the west side of the corridor in Seattle, and then proceeding with construction.

## Program Status

### Floating Bridge and Landings (FB&L):

In January, the contractor continued to perform warranty work as well as submittal and closeout of remaining documentation required to meet contract completion, which WSDOT granted Jan. 31, 2018.

### West Approach Bridge North (WABN):

In January, substantial completion was granted. The contractor completed striping at Montlake Boulevard, installed sod at the Eastpark Drive ADA ramp, and planted trees at the alley side of fence at Old Canal Reserve. The contractor also installed tree boxes and trees at Eastpark Drive, continued to install rail hardware on the shared-use path, and removed the work trestle at the WSDOT peninsula.

### Union Bay Natural Area (UBNA):

In January, crews placed bare-root plants throughout landscape planting areas, removed environmental-protection equipment, and performed general site clean-up, and weed control. A plant inspection with WSDOT Northwest Region took place, followed by a site walkthrough with the Contractor the next day. The UBNA monitoring plan workshop with UW occurred.



WABN: Removing timber rafts

## Major Risks

Notable major risks that could delay the program or increase costs include:

- Noise concerns from the neighboring communities.
- Final bridge commissioning and acceptance.

## Upcoming Milestones

### Floating Bridge and Landings:

In February, performance of warranty-related items will continue. The final contractor payment for close-out items will be made.

### WABN:

In February, the contractor will install permanent water line service to WSDOT trailers to be used in the next phase of construction, continue landside punch-list items, and continue the bridge communication systems commissioning field test.

### UBNA:

In February, the contractor will perform weed control, general site clean-up, trail maintenance, and complete planting at shoreline and infill areas. Contractor also should complete irrigation-system troubleshooting and testing, and re-installation of sub-meter.

**SR 520 BRIDGE REPLACEMENT AND HOV PROGRAM**

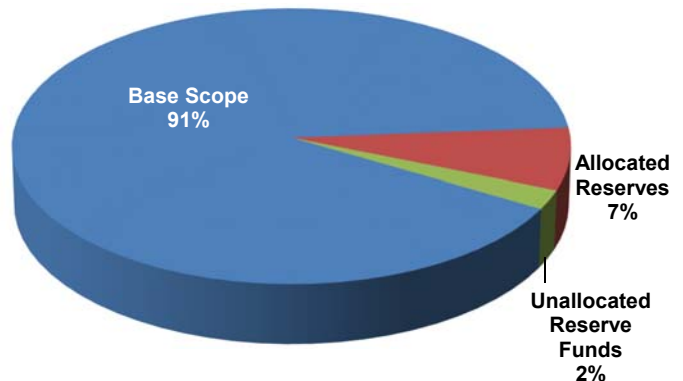
**TOTAL PROGRAM**

**Funding Sources and Expenditures**

	<b>Total Budget</b>	<b>Actuals to Date</b>	<b>Remaining</b>
<b>SR520 Program Totals</b>	<b>\$4,506,989,335</b>	<b>\$2,656,434,581</b>	<b>\$1,850,554,754</b>
<b>Federal</b>	<b>\$498,134,687</b>	<b>\$498,134,687</b>	<b>\$0</b>
FEDERAL GRANT FUNDS	\$3,000,000	\$3,000,000	\$0
FEDERAL FORMULA FUNDS	\$176,125,889	\$176,125,889	\$0
NATIONAL HIGHWAY PERFORMANCE PROGRAM	\$3,826,916	\$3,826,916	\$0
HIGHWAY SAFETY IMPROVEMENT	\$14,015,000	\$14,015,000	\$0
OUTDOOR ADVERTISING-INTERSTATE	\$855,000	\$855,000	\$0
GRANT - INNOVATIVE STORMWATER TREATMENT	\$311,883	\$311,883	\$0
TIFIA (USDOT - TIFIA LOAN)	\$300,000,000	\$300,000,000	\$0
<b>Local</b>	<b>\$2,577,484</b>	<b>\$2,577,484</b>	<b>\$0</b>
LOCAL PROJECT	\$2,577,484	\$2,577,484	(\$0)
<b>State</b>	<b>\$3,846,877,164</b>	<b>\$2,155,722,409</b>	<b>\$1,691,154,755</b>
TRANSPORTATION PARTNERSHIP ACCOUNT (TPA)	\$480,885,000	\$416,931,395	\$63,953,605
NICKEL ACCOUNT STATE DOLLARS	\$52,243,840	\$52,244,156	(\$316)
CONNECTING WASHINGTON	\$1,642,500,001	\$15,303,725	\$1,627,196,276
SR520 CORRIDOR	\$659,946,000	\$662,935,978	(\$2,989,978)
SR520 GARVEE	\$924,612,501	\$924,612,501	\$0
TOLL REVENUE	\$70,116,330	\$67,121,162	\$2,995,168
SR 520 CIVIL PENALTIES ACCOUNT	\$14,000,000	\$14,000,000	\$0
STATE FUNDS	\$2,573,492	\$2,573,492	\$0
<b>Deferred Sales Tax</b>	<b>\$159,400,000</b>	<b>\$0</b>	<b>\$159,400,000</b>
DEFERRED SALES TAX	\$159,400,000	\$0	\$159,400,000

**Risk Reserve Status**

Cumulative Reserve	\$379,100,000
Current Period Change Orders	\$4,338
Previous Change Orders	(\$332,706,586)
Right of Way Settlements	(\$3,777,010)
Other Reserve Uses	(\$14,250,000)
<b>Current Reserve</b>	<b>\$28,370,742</b>



## FLOATING BRIDGE AND LANDINGS PROJECT

### Construction Overview

The SR 520 Floating Bridge and Landings (FB&L) Project replaced the old, vulnerable four-lane structure with a new, six-lane bridge that can withstand windstorms of up to 89 miles per hour. The new six-lane bridge, opened in 2016, includes a bicycle/pedestrian path and has a bridge maintenance facility on the east end. The project included construction of 44 supplemental stability pontoons in Tacoma.



FB&L: Landscape restoration along new guard rail

Original Engineers Estimate	\$640,769,000
Prime Bid Amount	\$586,561,000
Change Orders to Date	\$179,307,034
<b>Current Contract Value</b>	<b>\$765,868,034</b>

### January Accomplishments

In January, the contractor continued to perform warranty work as well as submittal and closeout of remaining documentation required to meet contract completion, which WSDOT granted Jan. 31, 2018.

### January Costs

The total actual cost to date from the contractor is 100 percent of the budget.

	Current Budget	Actuals to Date	Remaining
<b>Floating Bridge &amp; Landings Project Totals</b>	<b>\$849,633,299</b>	<b>\$848,417,262</b>	<b>\$1,216,037</b>
Preliminary Engineering	\$10,659,065	\$10,659,065	\$0
Right of Way	\$4,008,411	\$3,998,411	\$10,000
<b>Construction</b>	<b>\$834,965,823</b>	<b>\$833,759,786</b>	<b>\$1,206,037</b>
Current Contract Value	\$765,868,034	\$765,698,306	\$169,727
Agreements	\$38,687,458	\$38,101,737	\$585,721
Construction Engineering	\$23,610,331	\$23,251,140	\$359,191
State Force Work	\$50,000	\$3,745	\$46,255
Vendor Supplied Materials	\$6,750,000	\$6,704,857	\$45,143

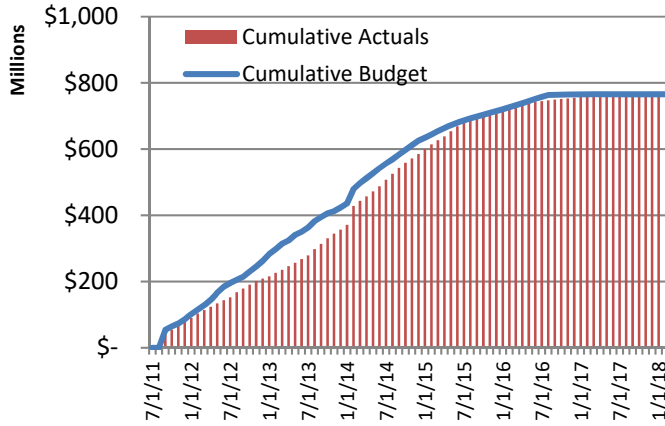
Cost information through Jan. 31, 2018

### January Change Order Summary

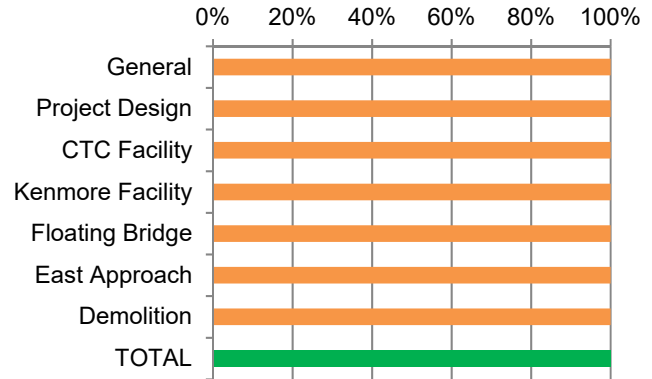
There was one change order executed in January with \$0 value. Change orders total \$179,307,034 for the FB&L project at the time of this report.

## SR 520 BRIDGE REPLACEMENT AND HOV PROGRAM

### January Performance



### FB&L Completion by Area



FB&L: Monthly actuals are trending down as the project has reached completion.

### Schedule Summary

Milestone	Current Contract Dates	Actual/Trend
Notice to Proceed 1 - Design Initiated	9/1/2011	9/1/2011
Notice to Proceed 2 - Site Construction Start	9/1/2011	9/1/2011
Pier 36 Construction	11/15/2013	11/14/2013
Substantial Completion	4/28/2016	4/25/2016
Physical Completion	6/19/2017	10/3/2017

### Risks

Some residents of neighboring communities have raised concerns with noise from the expansion joints on the new SR 520 floating bridge. WSDOT is evaluating the noise levels and a potential noise-reduction research project, and reporting back to the neighboring communities.

### January Quality Summary

“Audits – Actual” are audits performed by WSDOT Quality Verification staff on the design-builder’s compliance with contract requirements.

“Nonconformance Reports” are incidents recorded by the design-builder’s quality inspection staffs that do not appear to be constructed in accordance with the approved drawings and specifications.

	Previous Total	Current Period	Project Total	Open	Closed
Audits - Actual	4025	0	4025	0	4025
	Previous Total	Open	Current Period	Avg. Time Open	
Nonconformance Reports (NCR)	427	0	0	0 days	
Nonconformance Issues (NCI)	961	0	0	0 days	

Note: Quality will no longer be reported as the project has reached completion

**SR 520 BRIDGE REPLACEMENT AND HOV PROGRAM**

**January Safety Summary**

“**Recordable Incidents**” are job-related safety incidents that have been recorded.

“**Lost Time Incidents**” are job-related safety incidents that result in personnel not being able to work.

“**Contract Days without an Incident**” are the number of days since a lost-time incident has occurred.

“**Near Misses**” are WSDOT reported job-related safety near-miss incidents that have occurred.

	<b>Previous Total</b>	<b>Current Period</b>	<b>Project Total</b>
Recordable Incidents	48	0	48
Lost Time Incidents	6	0	6
Near Misses WSDOT <i>reported only</i>	0	0	0

*Note: Safety will no longer be reported as the project has reached completion*

**January Environmental Summary**

“**Noncompliance Event (ECAP)**” is an action not in compliance with environmental standards, permits or laws.

“**Minor Environmental Event**” is an environmental impact that does not meet the requirements to become an ECAP.

	<b>Previous Total</b>	<b>Current Period</b>	<b>Total</b>
Noncompliance Event (ECAP)	90	0	90
Minor Environmental Event	74	0	74

*Note: Environmental will no longer be reported as the project has reached completion*



## WEST APPROACH BRIDGE NORTH PROJECT

### Construction Overview

The West Approach Bridge North Project (WABN), the first stage of western landings for the new SR 520 floating bridge, continues WSDOT's commitment to replace vulnerable structures and improve mobility for motorists. The new approach bridge, opened August 2017, is more than 6,000 feet long, supports a six-lane highway corridor and a regional shared-use path for bicyclists and pedestrians between the new floating bridge and Montlake. The WABN project will also benefit the local built and natural environment by improving stormwater treatment, employing noise-reduction measures, mitigating for wetland and aquatic impacts, and improving the Arboretum and local parks.



WABN: Labeling lights on the shared-use path

Original Engineers Estimate	\$209,905,587
Prime Bid Amount	\$199,537,371
Change Orders to Date	\$11,154,316
<b>Current Contract Value</b>	<b>\$210,691,687</b>

### January Accomplishments

In January, substantial completion was granted. The contractor completed striping at Montlake Boulevard, installed sod at the Eastpark Drive ADA ramp, and planted trees at the alley side of fence at Old Canal Reserve. The contractor also installed tree boxes and trees at Eastpark Drive, continued to install rail hardware on the shared-use path, and removed the work trestle at the WSDOT peninsula.

### January Costs

There have been 43 payments made to the contractor through January 2018.

	Current Budget	Actuals to Date	Remaining
<b>West Approach Bridge North Project Totals</b>	<b>\$264,979,411</b>	<b>\$255,130,200</b>	<b>\$9,849,211</b>
Preliminary Engineering	\$20,324,763	\$20,324,763	\$0
Right of Way	\$4,262,961	\$4,262,961	\$0
<b>Construction</b>	<b>\$240,391,687</b>	<b>\$230,542,475</b>	<b>\$9,849,211</b>
<i>Current Contract Value</i>	\$210,691,687	\$204,502,806	\$6,188,881
<i>Agreements</i>	\$15,000,000	\$12,084,694	\$2,915,306
<i>Construction Engineering</i>	\$14,700,000	\$13,704,111	\$995,889
<i>State Force Work</i>	\$0	\$10,301	\$0
<i>Vendor Supplied Materials</i>	\$0	\$240,564	\$0

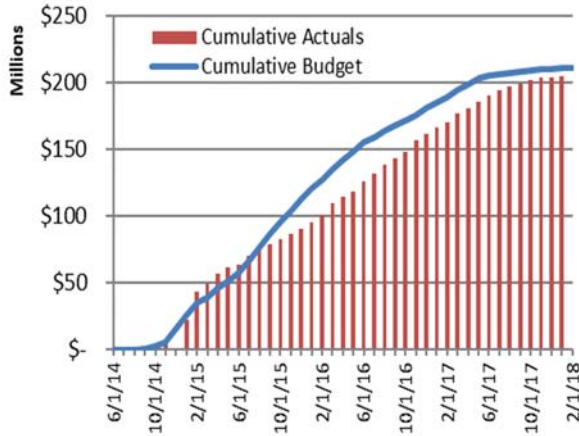
Cost information through Jan. 31, 2018

### January Change Order Summary

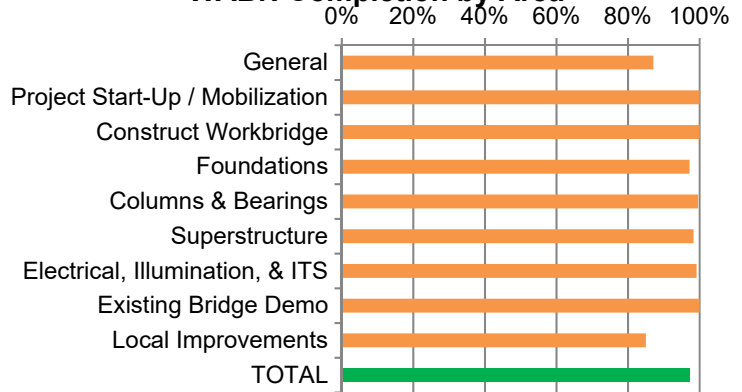
One change order was executed in January totaling -\$4.4k. Change orders total \$11,154,316 for the WABN project at the time of this report.

## SR 520 BRIDGE REPLACEMENT AND HOV PROGRAM

### January Performance



### WABN Completion by Area



WABN: Monthly actuals are trending down as the project nears completion.

### Summary Schedule

Milestone	Contract Date	Actual/Trend
First Charged Working Day	9/11/2014	9/11/2014
Begin Access East of Pier 33	9/1/2015	9/1/2015
Begin Access to Floating Bridge	9/1/2016	9/1/2016
Bridge Open to Traffic	8/28/2017	8/28/2017
End of Working Days	11/29/2017	1/31/2018

Milestone dates for Bridge Open to Traffic and End of Working Days were updated per amended contract.

### Risks

- Community concerns
- Final bridge commissioning and acceptance

### January Safety Summary

“Recordable Incidents” are job-related safety incidents that have been recorded.

“Lost Time Incidents” are job-related safety incidents that result in personnel not being able to work.

“Contract Days without an Incident” are the number of days since a lost-time incident has occurred.

“Near Misses” are WSDOT reported job-related safety near-miss incidents that have occurred.

	Previous Total	Current Period	Project Total
Work-related injuries requiring first aid only	23	0	23
Work-related injuries resulting in transfers or restrictions	8	0	8
Work-related injuries resulting in days away from work	0	0	0
Near Misses <i>WSDOT reported only</i>	7	0	7

There were no recordable incidents reported during the month of January.

### January Environmental Summary

“Noncompliance Event (ECAP)” is an action not in compliance with environmental standards, permits or laws.

“Minor Environmental Event” is an environmental impact that does not meet the requirements to become an ECAP.

	Previous Total	Current Period	Project Total
Noncompliance Event (ECAP)	120	0	120
Minor Environmental Event	0	0	0

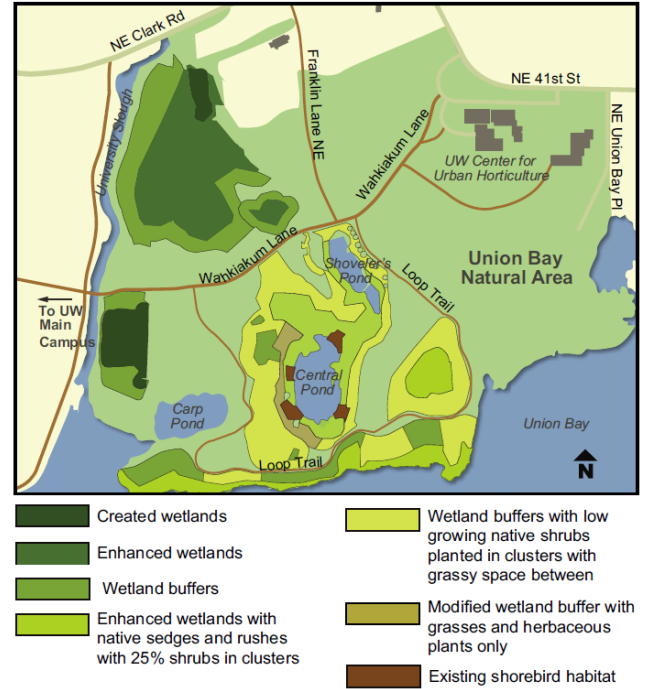
There were no environmental incidents during the month of January.

## UNION BAY NATURAL AREA MITIGATION PROJECT

### Construction Overview

The 25-acre Union Bay Natural Area (UBNA) wetland mitigation project serves as compensation for wetland impacts from the SR 520 West Approach Bridge North project within the SR 520 Bridge Replacement and HOV Program. The wetland mitigation project's construction work includes grading, site preparation, roadway excavation, wetland excavation, clearing/grubbing, dewatering, selective pruning, drainage, contamination disposal, placement of top soil, soil amendment, planting, irrigation, plant establishment, habitat features and surveying.

Conceptual design for the UBNA mitigation site



Original Engineers Estimate	\$5,141,551
Prime Bid Amount	\$4,377,478
Change Orders to Date	\$340,841
<b>Current Contract Value</b>	<b>\$4,718,320</b>

### January Accomplishments

In January, crews placed bare-root plants throughout landscape planting areas, removed environmental-protection equipment, performed general site clean-up, and weed control. A plant inspection with WSDOT Northwest Region took place, followed by a site walkthrough with Matia-Jansen the next day. The UBNA monitoring plan workshop with UW occurred.

### January Costs

There have been 18 payments made to the contractor through January 2018.

	Current Budget	Actuals to Date	Remaining
<b>Union Bay Natural Area Mitigation Project Totals</b>	<b>\$6,244,663</b>	<b>\$5,055,688</b>	<b>\$1,188,975</b>
<b>Construction</b>	<b>\$6,244,663</b>	<b>\$5,055,688</b>	<b>\$1,188,975</b>
Current Contract Value*	\$5,141,844	\$4,526,934	\$614,910
Agreements	\$316,628	\$111,277	\$205,351
Construction Engineering	\$786,191	\$395,500	\$390,691
State Force Work	\$0	\$0	\$0
Vendor Supplied Materials	\$0	\$21,977	\$0

Cost information through Jan. 31, 2018

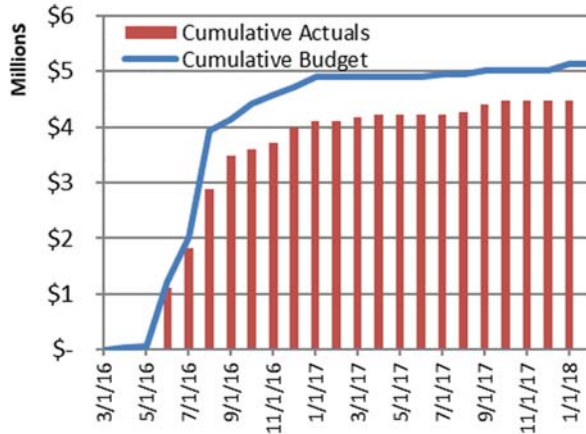
\*includes retail sales tax

### January Change Order Summary

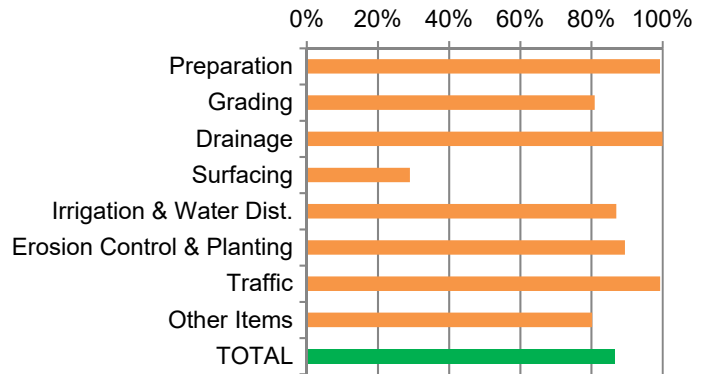
There were no change orders executed in January. Change orders total \$340,841 for the UBNA project at the time of this report.

## SR 520 BRIDGE REPLACEMENT AND HOV PROGRAM

### January Performance



### UBNA Completion by Area



UBNA: Monthly actuals are trending down.

### Summary Schedule

Milestone	Current Contract Date	Actual/Trend
Contract Execution	4/26/2016	4/26/2016
Substantial Completion	1/30/2017	9/29/2017
Start of 1 <sup>st</sup> Year Plant Establishment Period	1/30/2017	9/29/2017
Physical Completion	1/30/2018	9/29/2018

### Risk

- Trail users entering closed areas
- Resolution of differing site conditions
- Local animals destroy or consume fragile plants

### January Safety Summary

“Recordable Incidents” are job-related safety incidents that have been recorded.

“Lost Time Incidents” are job-related safety incidents that result in personnel not being able to work.

“Contract Days without an Incident” are the number of days since a lost-time incident has occurred.

“Near Misses” are WSDOT reported job-related safety near-miss incidents that have occurred.

	Previous Total	Current Period	Project Total
Recordable Incidents	1	0	1
Lost Time Incidents	0	0	0
Near Misses <i>WSDOT reported only</i>	0	0	0
Contract Days without Incident	138	31	169

There were no safety incidents during the month of January.

### January Environmental Summary

“Noncompliance Event (ECAP)” is an action not in compliance with environmental standards, permits or laws.

“Minor Environmental Event” is an environmental impact that does not meet the requirements to become an ECAP.

	Previous Total	Current Period	Project Total
Noncompliance Event (ECAP)	4	0	4
Minor Environmental Event	1	0	1

There were no environmental incidents during the month of January.

## GLOSSARY

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### Glossary of frequently used project and industry acronyms

ATM	Active Traffic Management
BMP	Best Management Practice
CCMP	Community Construction Management Plan
CIP	Cast-in-Place
D-B	Design-Builder
DBIC	Design-Builder Initiated Change
DBE	Disadvantaged Business Enterprise
Eastside	Eastside Transit and HOV Project
ECAP	Environmental Compliance Assurance Procedure
ECC	Eastside Corridor Constructors (Eastside Design-Builder)
ESA	Endangered Species Act
FB&L	Floating Bridge & Landings
FONSI	Finding of No Significant Impact
GH	Grays Harbor (Pontoon construction site)
HQ	WSDOT Headquarters
ITS	Intelligent Transportation System
K-G	Kiewit General, A Joint Venture (PCP Design-Builder)
KGM	Kiewit/General/Manson, A Joint Venture (FB&L Design-Builder)
MSVWBE	Minority, Small, Veteran, Women-owned Business Enterprises
NCI	Non-Conformance Incident
NCR	Non-Conformance Report
NEPA	National Environmental Policy Act
NTP	Notice to Proceed
NWR	WSDOT Northwest Region
PCI	Potential Change Issue
PCO	Potential Change Order
PCP	Pontoon Construction Project
PT	Post-Tensioning
QA	Quality Assurance
QC	Quality Control
RFI	Request for Information
RFP	Request for Proposal
ROD	Record of Decision
TCE	Temporary Construction Easement
TIFIA	Transportation Infrastructure Finance and Innovation Act
UBNA	Union Bay Natural Area
WABN	West Approach Bridge North
WCB	West Connection Bridge

### For more information

Visit: [www.wsdot.wa.gov/projects/SR520Bridge](http://www.wsdot.wa.gov/projects/SR520Bridge)  
E-mail: [SR520Bridge@wsdot.wa.gov](mailto:SR520Bridge@wsdot.wa.gov)  
Call: 1-888-520-NEWS (6397)  
Mail: Washington State Department of Transportation  
SR 520 Bridge Replacement and HOV Program  
999 3rd Avenue, Suite 2200  
Seattle, WA 98104

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