



**Committee of the Whole Report
For the Meeting of April 26, 2018**

To: Committee of the Whole **Date:** April 20, 2018
From: Jonathan Huggett, P. Eng., Project Director
Subject: Johnson Street Bridge Replacement Project Quarterly Update

RECOMMENDATION:

That City Council receive this report for information.

EXECUTIVE SUMMARY

Quarterly reports are prepared on the Johnson Street Bridge Replacement Project throughout the year to keep Council and the community updated on this important project. This is the first quarterly report for 2018, with the next one scheduled for July 2018. Should any emergent issues arise, staff will provide an immediate update to Council.

During the last three months, the new bridge has been opened to traffic on March 31, 2018 with the exception of the south pedestrian walkway. The existing blue bridge steel span has been removed and has been sent for recycling. PCL has commenced excavation of the west side of the old bridge in order to form the basis for a new park area. The excavation of the east side of the old bridge will begin very shortly. When both west and east side excavations are complete the new south side pedestrian only walkway will be opened.

The removal of the existing bridge has been planned in two parts. The steel work was mostly removed beginning the week of April 16 with the exception of the tower holding the concrete counterweight. The final lifts involving the dynamic beam crane will take place the week of May 14 when the counterweight and its supporting tower will also be removed and sent for recycling. Following that removal, the remaining old bridge substructure will be repaired and cleaned and will form the permanent fendering for the new bridge on the south side.

Work continues on designing the north side fendering. Final recommendations involve complex legal and technical deliberations which are ongoing.

PCL is scheduled to leave the site at the end of June 2018. WSP, City staff and PCL have prepared an ongoing project deficiency list and the intent is to rectify all deficiencies by the end of June. The City operating staff have been transitioning operation of the new bridge from PCL. This has included extensive operation and maintenance training, finalization of manuals for the project and completion of as built drawings is on going.

Council has approved conceptual designs for the public realm areas surrounding the Johnson Street Bridge and has directed staff to proceed with the work and the preparation of Issued for Construction (IFC) drawings has commenced. The work is focussed on the southwest and southeast plaza areas and the David Foster walkway section which will be located under the east span of the new bridge. The City of Victoria's Artist in Residence and Indigenous Artist in Residence

have produced concepts for the public art to be located in a triangle shape area on the east side of the bridge and details of that proposed public art are now being finalized.

The following schedule milestones are anticipated between the date of this report and the end of PCL's contract in 2018:

- Week beginning 14 May – remove the final counterweight and steel supporting tower
- Completion of the bulk excavation of the new west and east plazas – end of June 2018
- PCL leaves the site – end of June 2018

The approved budget for this project is \$105.06 million (see Appendix A). As of March 31, 2018 actual costs of \$98.418 million have been incurred.

There may be further project budget increase requests for fendering when the scope of that work is determined. Should additional unforeseen events occur before the completion of the project, Council will be advised.

The nearing of the completion of the project has heightened public interest.

The opening ceremony for the new bridge on March 31, 2018 attracted thousands of people for a community street party and picnic to explore the new bridge and bid farewell to the old bridge.

Staff continue working with the neighbouring residential areas on proactive engagement with neighbours to keep them informed of weekend or evening work and increased activity at the worksite.

In the coming months as the old bridge pieces continue to be removed, City staff have a communications and media plan in place to ensure that information about key milestones of interest to the public and the media are shared. Staff will also continue to communicate possible impacts such as road or marine channel closures, bridge lifts and other construction related impacts to the public, the media and stakeholders.

PURPOSE

As directed by Council, staff provides quarterly reports on the Johnson Street Bridge Replacement Project throughout the year. This is the second report for 2018, with the final update scheduled for July 2018.

NEW BRIDGE

The new bridge opened on March 31, 2018. The project is transitioning the operation and maintenance of the new bridge to City staff. A detailed deficiency list for the bridge has been prepared and staff, PCL and WSP continue to work through the deficiency list correcting all of the listed items.

The new bridge has worked well from the initial start-up and there have been very few “teething problems” that are usually expected with a new bridge of this type. The bridge comes with a 2 year total warranty and some equipment items have a manufacturer’s warranty beyond that period. Maintenance of the new bridge is expected to be minimal, with the main item being greasing of the joints and moving surfaces from time to time. The hydraulic system is a closed system, meaning there is little opportunity for outside contaminants to enter the hydraulic system, and so maintenance is minimized.

Operation and public use of the bridge continues to be monitored closely so that any unforeseen challenges can be quickly and efficiently addressed.

ORIGINAL BLUE BRIDGE REMOVAL

The Dynamic Beast crane returned to the harbour on Monday April 16th and over a four day period removed the old steel span over the water and the west approach steel span and these have been sent for recycling.

FENDERING UPDATE

During the past quarter various ongoing tasks have been undertaken related to determining the scope of the north side fendering. Staff and consultants are evaluating options, costs and risks with a view to preparing a detailed report for Council to consider.

Staff are aware of the potential cost implications regarding any fendering solution, and are spending significant effort to reduce the overall costs while still maintaining adequate safety for the new bridge in regarding to possible vessel collisions. In this regard staff continue to work with various specialist consultants, other industry experts, legal and properties specialists and the like. The goal is to return to Council soon to present the likely cost impacts and other issues related to the north side fendering.

Other fendering work has also been undertaken during this quarter, including the removal of some of the old creosote coated piles both on the south side and in the in-channel areas. This has enabled a wider navigation channel to be established.

SCHEDULE UPDATE

The project is scheduled to complete June 30, 2018 when PCL will vacate the site. Key dates involved in meeting that schedule are as follows:

- Week beginning May 14 – remove the final counterweight and steel supporting tower
- Completion of the bulk excavation of the new west and east plazas – end of June 2018
- PCL leaves the site – end of June 2018

FINANCIAL IMPLICATIONS

The approved budget is \$105.06 million (see Appendix A). As of March 31, 2018 actual costs of \$98.418 million have been incurred including the following:

Vendor	Services	Budgeted	Invoiced	% Invoiced
WSP	Main Professional Services Contract: Project Management, design, procurement, administration, geotechnical engineering, permits	\$9.362 m	\$9.359 m	99.96%
WSP	Additional Professional Services: Subsequent changes to the contract such as: owner's quality control for steel fabrication; review of non-conformance reports; Hardesty & Hanover settlement payments; supplementary services; safety review, fendering; Janion design; etc.	\$2.786 m	\$2.576 m	92.46%
PCL	Main Bridge Contract:	\$62.935 m	\$60.706 m	96.46%
PCL	Additional Construction Services: Subsequent changes to the contract such as: hazardous waste and soil removal; installation of rip rap; pedestrian overpass modifications; increase to the environmental cash allowance; precast girder gaskets; safety revisions; Janion Plaza; handrail changes; pedestrian canopy changes; etc.	\$3.348 m	\$3.284 m	98.09%

The table below summarizes the allocation of the approved project completion contingency (see Appendix B for a detailed account of the contingency):

Original Project Completion Contingency	\$ 2,515,000
Add: Value Engineering Savings	300,000
Approved Funding March 2015	1,500,000
Approved Funding July 2015	2,554,000
Approved Funding May 2016	2,050,000
Project Completion Contingency March 2018	\$ 8,919,000
Less Committed Contingency	(8,600,011)
Unallocated Contingency March 2018	\$ 318,989

There will be one more planned project budget increase request for fendering. Should additional unforeseen events occur before the completion of the project, Council will be advised.

BRIDGE ASSET MANAGEMENT UPDATE

PCL has submitted the first draft of Operations and Maintenance (O&M) manual in March, which is under a process of review by City staff and WSP. The City continues to provide feedback on the manual draft, which is progressing through standard revision process, prior to acceptance by the City.

PCL, and their subcontractors, has delivered their first round of training to City staff for operations and maintenance to City crews in late March. An orientation of the major components, console, controls and the lift procedures were part of the initial operator training.

In addition to the above, basic training was provided to the maintenance crews. Additional contractor-provided maintenance training is planned for May/June.

Interim operational procedures have been developed by City staff, which are undergoing validation testing before May. Each City bridge operator will be trained and qualified on the new systems prior to the City taking over daily operation of the new bridge.

SAFETY MANAGEMENT

Safety inspections have been completed with VicPD, VicFD, consultants, WSP, City and PCL advisors. All safety observations have been incorporated into the deficiencies list, and have already been or will be corrected prior to final takeover in June.

MAINTENANCE MANAGEMENT

The new bridge systems are protected by a series of warranties, many of which are now in effect, and extend for two or more years. New bridge O&M costs will be mitigated by these warranty protections, and will be influenced by the age, condition, type, complexity and system maintenance and repair requirements – some of which remain unknown until service experiences are gained over time. The forecasted bridge maintenance requirements are being defined through a review of equipment information and estimates associated with the draft O&M Manual. These details will be incorporated into the City's asset management and planning processes and will be presented to Council after completion.

BRIDGE LIGHTING

The City has completed an external ecological assessment of the bridge lighting on the surrounding environment. Stantec's report identifies that there is increased risks of excessive wildlife predation due to the increased lighting in the area. The report highlights the following key issues:

- Impacts of lighting on fish and wildlife may lead to increased predation and changes to fish feeding behaviours. Species of concern = herring, coho and chum salmon during spawning and out-channel migration (Feb to July).
- Stantec report recommendations include reducing risks by lowering the blue light intensity and reflection into shallow waters, most critically during part of the year to reduce impact to migrating fish, primarily.

The City is finalizing its study of light-level comparison between the old and new bridges and assessing the engineering controls and configuration modifications to reduce risks to wildlife. Engineering options are being developed and will be incorporated into the final design to reduce risks appropriately. Staff will report on the required modifications and relevant risk mitigation measures.

PUBLIC REALM UPDATE

At the December 14, 2017 meeting, Council approved updated conceptual designs for the public realm areas surrounding the Johnson Street Bridge on the both the west and east sides. This includes a future waterfront park in Victoria West, a revised design for the Northern Junk plaza, and a revised landscape design for the triangle island to accommodate a public art installation.

The City of Victoria's Artist in Residence and Indigenous Artist in Residence were commissioned by Council to provide public art as part of this project. The artists have collaborated and developed a public art concept that will be sited on the triangle island in the form of a sculptural work of art with a sound installation. Council's Art in Public Places Committee approved the public art proposal.

Following these approvals, staff worked with WSP during the first quarter of 2018 to finalize detailed design drawings for the interim connections on both the southwest and southeast sides of the bridge. These interim treatments will ensure that pedestrians will be able to access the pedestrian bridge from various path and trail connections once the old bridge has been removed. Work continues on implementing the long-term vision for these areas, including developing a detailed design for the portion of the David Foster Pathway that will extend under the bridge to link these public realm areas and ensure the designs are complementary. Staff have also ordered benches and furnishings to complete the Janion Plaza, and have coordinated furniture placement with a recently-received sidewalk café permit application associated with the commercial units in the Janion development.

In the coming months, staff will continue with implementation, including detailed design of the triangle island and commencing the art fabrication process.

CITIZEN ENGAGEMENT UPDATE

The project's most significant milestone took place on March 31, 2018 when the new Johnson Street Bridge was opened to the public. The next chapter in Victoria's bridge crossing history took place following a community celebration event. At noon on March 31, the City lowered the new bridge, cut a ribbon to officially mark the historic occasion and held a community celebration where the public could walk across the new bridge and say goodbye to Victoria's iconic Blue Bridge.

Approximately 15,000 people enjoyed a community picnic, live music, food trucks, a First Nations performance, games and crafts for kids, and other entertainment and activities. That evening, a goodbye dance was held on the old Blue Bridge and when the music stopped and the lights went down, the new bridge was lit with its tributary blue lights and lowered, marking the official opening to vehicle, cyclist and pedestrian traffic.

The bridge opening event was a collaborative effort that included City staff from multiple departments, the Project Director, PCL, WSP, the Police and Fire departments, the Greater Victoria Placemaking Network, many volunteers, and other community stakeholders. The event was broadcast live on CFX with Al Ferraby and on Victoria Buzz. The opening celebration received extensive coverage in local and province-wide media, including special feature sections in the Times Colonist and Victoria News.

On social media the event attracted a lot of attention from users across the region and beyond across all channels. Engagement staff were active posting live from the event and engaging with people online. The City's Facebook Live broadcast reached 2,880 people and had 1,681 video views. Overall City Facebook posts on opening day reached 6,939 people, and there were 85,669 impressions on Twitter, with hundreds of shares extending reach.

Media have continued to have a keen interest in the new bridge and the old bridge, which has been taken apart and is being fully decommissioned. The City's Engagement department is working closely with the Project Director to ensure timely information and access to spokespeople is given to all media. Numerous media opportunities have been held to explain the project and many media outlets requested to broadcast live during the new bridge opening event. Frequent website updates, photos, and social media posts continue to be proactively shared. Public inquiries have also increased in the weeks following the opening of the new bridge and staff continue to answer questions and share information as needed.

It continues to be communicated that the project is not complete and staff continue to proactively reach out to local neighbours to keep them informed of the ongoing construction activities around the old bridge. The City is working closely with PCL to keep noise and traffic disruptions to a minimum. At any time in the project where significant construction activities will create impacts, an email to stakeholders is sent and face-to-face meetings with City staff and PCL are held if necessary.

Until the project construction is completed, staff will continue to communicate possible impacts such as road or marine channel closures, bridge lifts and other construction related impacts to the public, the media and stakeholders.

SAFETY AND ENVIRONMENT

Environmental monitoring is being conducted by Hemmera field representatives on a regular basis. Hemmera have been actively involved during the past quarter in various tasks that could have

environmental impacts. An archaeological monitor from Stantec and a First Nations representative will be on-site during any excavation works.


UPDATE ON RISK MANAGEMENT

Effective risk management requires continuous monitoring and updating.

The primary risk issues, all of which have the potential to impact the project schedule, are as follows:

1. Completion of the deconstruction of the existing bridge including excavation of the east and west abutments to form the new park spaces
2. Transfer of the bridge operation to the City


Respectfully submitted,



Jonathan Huggett, P. Eng.
Project Director

Report accepted and recommended by the City Manager:

Date:



Jocelyn Campbell
April 20, 2018

List of Attachments

- Appendix A – Budget Update
- Appendix B – Contingency