



INFORMATION ONLY COUNCIL REPORT  
Engineering & Public Works  
For the May 28, 2019 Council Meeting

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DATE: May 21, 2019  
TO: Jim Zaffino, Chief Administrative Officer  
FROM: Rob Hillis, Engineering Manager & Staff  
RE: Engineering 2018 Capital Construction Projects

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**EXECUTIVE SUMMARY:**

The 2018 construction season was one of the busiest that West Kelowna has completed to date. It included an arterial road improvement project with two roundabouts, a pedestrian, road rehabilitation, and watermain replacement project, a road rehabilitation program, a pedestrian project, a new booster station, and a slopes program. The projects are now substantially completed with the majority of funding spent for the works.

**BACKGROUND:**

**Wine Trail Phase II, Boucherie to Ogden**

The contract for construction of Phase II of the Wine Trail was awarded to Copcan Civil Ltd. on March 13, 2019 for \$7,334,340.40. The project improves Boucherie Road from Stuart Road to Ogden Road to an urban arterial standard with two roundabouts, at Hudson Road and Anders Road/Cordova Way. The project included a considerable scope of work and presented the City and public with an opportunity to upgrade existing infrastructure in addition to providing a safer means of passage for pedestrians, cyclists and motorists throughout the corridor. Some key scope items included: replacement of the existing faulty water main, storm improvements, new concrete sidewalks and asphalt bike lanes, roundabouts at key intersections, retaining walls, ornamental lighting, new landscaping and installation of barrel features at both roundabouts.

With construction commencing on April 9<sup>th</sup> 2018, an aggressive construction schedule was produced reaching a substantial completion date in December 7<sup>th</sup> 2018. A Grand Opening event is scheduled on June 13, 2019.

*Photo 1 – Roundabout at Boucherie Hudson*



#### FINANCIAL IMPLICATIONS:

The Council approved budget for this project was funded from five sources: Reserves, DCC's Cash in Lieu, Rose Valley Water Reserves, and Grant funding as noted in Table 1. Applying several of the secured grant funds to the project budget provided a construction contingency of \$935,524.60 (10.5%).

*Table 1 – Project Cost Summary*

<b>Project Costs</b>	<b>Cost (Excluding GST)</b>
Contract Price – Copcan Civil Ltd.	\$ 7,334,340
Land Acquisitions, Utilities, Geotechnical	\$ 962,432
Construction Contingency	\$ 900,000
<b>Total</b>	<b>\$ 9,196,772</b>
<b>Project Budget</b>	
Capital	\$1,779,041
DCC	\$ 5,253,159
Cash in Lieu	\$ 117,152
Rose Valley Reserves (LID)	\$ 1,250,000
Grant Funding	\$ 877,297
<b>Total</b>	<b>\$ 9,276,649</b>

Project costs are currently projected to fall within the allocated project contingency of 10.5%. Constructed on time and on budget, the project has been deemed a success by all parties involved in addition to the general public. Positive feedback has been well received which is evident by the noticeable increase in residents using the new sidewalks and bike lanes.

#### **Webber Road Rehabilitation, Sidewalk & Watermain Replacement**

The Webber Road works is a combination of road rehabilitation, pedestrian improvements, and watermain replacement. As part of West Kelowna's dig once philosophy, projects with high needs are combined in order to best utilize tax funding. The sidewalk installation was Council's highest prioritized pedestrian improvement in the 10-Year Pedestrian Improvement Program adopted on January 24, 2017. The road rehabilitation was recommended to be replaced by 2020 in the Pavement Management Plan. The watermain was near the end of its service life with asbestos cement mains and services that were experiencing leaks.

The general scope of the project included 12,750 m<sup>2</sup> of asphalt on Webber Road; 7,350 m<sup>2</sup> of asphalt on McAllister Road; 1,675 m total of water main; 820 m<sup>2</sup> of concrete sidewalk; 471 m of concrete curb and gutter; 450m of storm main; LED street lighting and landscape restoration.

*Photo 2 – Crosswalk at Glenrosa Elementary School*





#### FINANCIAL IMPLICATIONS:

The Council approved budget for this project funding was through a combination of the 2017 Pedestrian Program, 2017 Road Rehabilitation Program and Westbank Water Service Area Reserves.

*Table 2 – Project Cost Summary*

<b>Project Costs</b>	<b>Cost (Excluding GST)</b>
Construction Tender	\$2,346,735
Construction Contingency	\$350,000
Design & Contract Administration	\$110,000
<b>Total</b>	<b>\$2,806,735</b>
<b>Project Budget</b>	
2017 Pedestrian Program	\$600,000
2016 Pedestrian Carry Forward	\$50,000
2017 Road Rehabilitation Program	\$900,000
Powers Creek Water Reserves (WID)	\$1,260,000
<b>Total</b>	<b>\$2,810,000</b>

The project will be completed within the Council approved funding. Substantial Performance was issued on November 28, 2018 and there remains some items that will need to be completed, such as a bus shelter installation and landscaping.

#### **2018 Road Rehabilitation**

The roads rehabilitated in 2018 were top priorities from the Council adopted 10 Year Road Rehabilitation Plan. They included full or partial road segments from Gill Road; Preston Road; Ross Road; Westlake Road; Glenrosa Road; Old Boucherie Road; Topham Road and Chieftain Road. The general scope of the project included asphalt inlay or overlay, stormwater improvements, watermain replacement and paint markings.

Following Council's direction to proceed, construction commenced June of 2018. The majority of work had reached completion last December with the exception of the remainder of water main replacement on Chieftain Road to complete due to the change in weather conditions last fall. The project is on scheduled to be finished in June 2019.

#### FINANCIAL IMPLICATIONS:

The Council approved budget for this project funding was through a combination of the 2017 Pedestrian Program, 2017 Road Rehabilitation Program and Westbank Water Service Area Reserves.

*Table 3 – Project Cost Summary Table*

<b>Project Costs</b>	<b>Cost (Excluding GST)</b>
Construction Contract	\$1,281,334
Construction Contingency	\$192,200
Design & Contract Administration	\$66,286
<b>Total</b>	<b>\$1,539,820</b>
<b>Project Budget</b>	
2018 Road Rehabilitation Program	\$1,000,000
Road Rehabilitation Carry Forward	\$250,000
Chieftain Road Watermain	\$325,000
<b>Total</b>	<b>\$1,575,0008</b>

### Daimler Drive Pedestrian Improvements

The contract for construction of Daimler Drive between Auburn Road and Old Okanagan Highway as part of the 2018 Pedestrian Improvements Program was awarded to Copcan Civil Ltd. in the amount of \$647,520.10. Located directly adjacent to Constable Neil Bruce Middle School, the project included installation of a new sidewalk along the south side of the roadway and a new crosswalk mid-block as a means to provide safer pickup/drop-off for parents and students. Additional project scope items included: storm extension and improvements, new street lighting, asphalt road widening and street parking improvements.

Construction commenced on July 3<sup>rd</sup> 2018 with substantial completion achieved on August 23<sup>rd</sup> 2018. Completed within budget and earlier than anticipated, the project has been considered a success.

*Photo 3 – Crosswalk at Constable Neil Bruce Middle School*



### FINANCIAL IMPLICATIONS:

The Council approved budget for this project is funded from three sources as noted in Table 4. Approximately 3% of the project contingency was spent leaving approximately \$68,000 planned to be returned for future pedestrian improvements.

*Table 4 – Project Cost Summary Table*

<b>Project Costs</b>	<b>Cost (Excluding GST)</b>
Construction Contract	\$ 647,520
Construction Contingency	\$ 26,870
Design & Contract Administration	\$ 77,610
<b>Total</b>	<b>\$ 752,000</b>
<b>Project Budget</b>	
2018 Pedestrian Improvement Program	\$ 600,000
2018 Road Rehabilitation	\$ 187,500
Letter of Credit – Westside Alliance Church	\$ 32,500
<b>Total</b>	<b>\$ 820,000</b>

### Klein & Rosealee Drainage Improvements

The 2017 Drainage Improvements Project was awarded to BC General at the Nov 28, 2017 Council Meeting, and consisted of two projects, one in the Rose Valley neighbourhood and one in the West Kelowna Estates neighbourhood. The first project was to collect surface drainage and direct it to the drainage network behind several residences on Rosealee Lane. Construction



of a piped drainage system to contain and transmit the drainage was completed between December 2017 and March 2018. The second project consisted of upgrades to an inconsistent and malfunctioning drainage system on Klein Road that was allowing surface drainage to impact private residences. A new underground drainage system was constructed to convey surface drainage away from the area and into the existing drainage system. Part of the road was restored in order to lengthen life of the roadway. Construction was completed between May and July 2018, and included installation of the drainage system and restoration of Klein Road.

#### FINANCIAL IMPLICATIONS:

The Council approved budget for this project was funded through a combination of the 2017 and 2018 Drainage Improvement budget items (for Rosealee Lane and Klein Road). Additional funding was also included from Road Rehabilitation Carry Forward funds and a contribution from a local resident. A summary of the project finances is listed in Table 1.

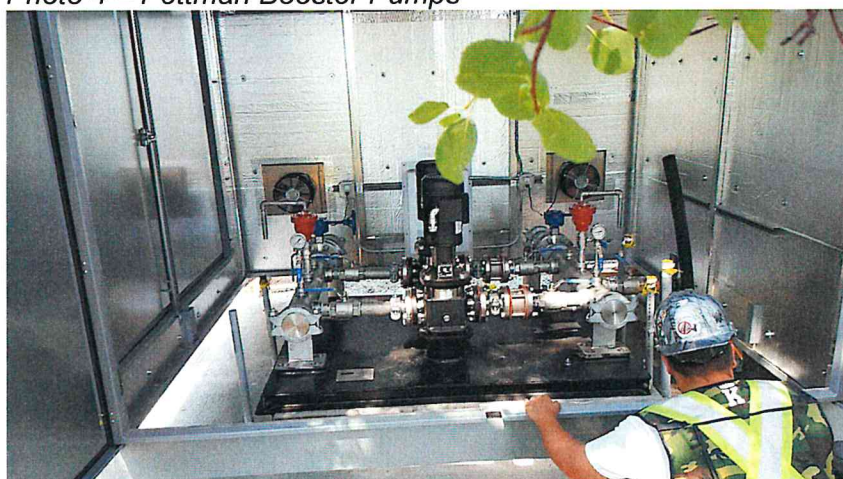
*Table 5 – Project Cost Summary*

<b>Project Costs</b>	<b>Cost (Excluding GST)</b>
Construction Contract	\$ 554,477
Construction Contingency	\$ 75,959
Design & Contract Administration	\$ 51,222
<b>Total</b>	<b>\$ 681,658</b>
<b>Project Budget</b>	
2017 Rosealee Lane Drainage Improvements	\$ 250,000
2017 Klein Road Drainage Improvements	\$ 150,000
2018 Rosealee & Klein Drainage Improvements	\$ 250,000
Road Rehabilitation Carry forward Funds	\$ 25,000
Resident Contribution	\$ 8,800
<b>Total</b>	<b>\$ 683,800</b>

#### **Pettman Booster Station**

The Pettman Booster Station was the retrofitting of an underground pump station that was upgraded for safety and to reduce the impact to Public Works operational impacts. Works included decommissioning the existing underground facility and installing an above ground kiosk complete with new mechanical and electrical components that are housed within an above ground chamber. The project was publically tendered and awarded to JS Ferguson Construction in early 2018. Construction began in early April and the new Pump Station was commissioned and in service on June 8<sup>th</sup>, 2018.

*Photo 4 – Pettman Booster Pumps*



## FINANCIAL IMPLICATIONS:

Table 6 – Project Cost Summary

Project Costs	Cost (Excluding GST)
Construction Contracts	\$ 193,012
Design & Contract Administration	\$ 50,568
<b>Total</b>	<b>\$ 243,580</b>
Project Budget	
2017 Pettman Booster Station	\$ 115,000
2018 Pettman Booster Station	\$ 100,000
West Kelowna Water Reserves	\$ 28,580
<b>Total</b>	<b>\$ 243,580</b>

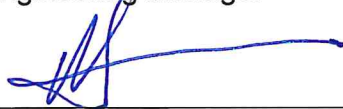
### 2018 Slopes Program

Slope mitigation included the work to remove existing accumulated material and to create catchment areas at hazardous cut slope locations. The program also includes the installation of roadway barriers at hazardous slope locations. Slope locations are addressed prioritizing safety and operational impacts. The funding included the \$50,000 budget request and \$50,000 of carry forward funds. The funding is committed to the following locations:

- Boucherie Road (Wine Trail Ph. 1) – Barriers to be installed
- Gellatly Road – Barriers installed
- Paramount Drive – Catchment area established
- Peak Point Drive – Catchment area established
- Scott Crescent – Catchment area established
- Tuscany Drive – Catchment area established


Respectfully submitted,

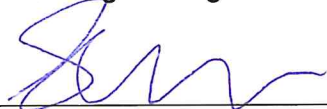
  
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Powerpoint: ☒ Yes ☐ No

Approved for Agenda  
  
Jim Zaffino, CAO  
May 24, 2019  
Date