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Town of Aurora

## General Committee Report

No. PDS20-069

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**Subject:** Administration of Capital Project No. 31116

**Prepared by:** Anca Mihail, Manager of Engineering and Capital Delivery

**Department:** Planning and Development Services

**Date:** November 17, 2020

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### Recommendation

1. That Report No. PDS20-069 be received for information.

### Executive Summary

This report provides information to Council's regarding the administration of Capital Project No. 31116 – mill and overlay of the following streets: Dunning Avenue, Edward Street, Golf Links Drive, Industrial Parkway South, McClellan Way, Orchard Heights Blvd, Tamarac Trail and Yonge Street (south of Dunning Avenue).

- Capital Project No. 31116 was approved by Council in April 2018 as an in-year Capital Project
- Capital Project No. 31116 is a road rehabilitation capital project involving the mill and overlay of 18 km of municipal roads in Aurora.
- Capital Project No. 31116 was included in the Town's 10-year capital rehabilitation plan with a budget of \$3.28 million
- The design was completed in-house by Engineering staff, with the electrical design for the two intersection's AODA improvements being delivered by a consulting electrical engineer.
- In an effort to minimize overall project cost increases arising from a delay in the tender of the construction contract, staff decided to tender the contract in two stages.

- Capital Project No. 31116 was substantially completed in 2019 and it is currently under maintenance.

## **Background**

At the Council meeting of April 23, 2019, the following resolution was passed:

“That staff report back with further information regarding Council’s concerns about the administration of Capital Project No. 31116 – M & O – Dunning Ave, Edward St, Golf Links Drive, Industrial Parkway S, McClellan Way, Orchard Heights Blvd, Tamarac Trail, Yonge Street.”

Council requested staff report back on the reasons for splitting the capital project in two stages and tendering them separately. More information was also requested regarding the AODA improvements included in the project and reasons that resulted in the request for additional funding.

### **Capital Project No. 31116 was approved by Council in April 2018 as an In-year Capital Project**

In 2018, a year with the municipal election, it was anticipated that the approval of the 2019 annual operating and capital budget might be delayed. Late approval of the 2019 budget would delay the tendering and commencement of routine replacement and maintenance projects. In an effort to ensure that no delays were experienced in the delivery of the Town’s planned routine repair and replacement (R&R) capital works, Council approved the 2018 in-year Capital budget consisting of ten (10) R&R projects, with capital project #31116 being one of them (see Attachment 1).

### **Capital project No. 31116 is a road rehabilitation capital project involving the mill and overlay of 18 km of municipal roads in Aurora.**

Capital Project No. 31116 consisted of the rehabilitation (mill and overlay) of 18 km of municipal roads in Aurora as follows, (see Attachment 2 and Attachment 3):

- Dunning Avenue from Yonge Street to the end;
- Edward Street from Dunning Avenue to Yonge Street
- Golf Links Drive from Yonge Street to Murray Drive
- Industrial Parkway South from Industry Street to Engelhard Drive

- McClellan Way from Bathurst Street to Spence Drive
- Orchards Heights Blvd from Hill Drive (W) to Yonge Street
- Tamarac Trail from Henderson Drive (W) to Henderson Drive (E)
- Yonge Street from Golf Links Drive/Dunning Avenue to 150m south of Henderson

**Capital Project No. 31116 was included in the Town's 10-year capital rehabilitation plan with a budget of \$3.28 million**

The project involved:

- mill and overlay (50mm depth) of all the streets mentioned above;
- removal and replacement of existing catch basins and manholes tops and covers and perform all necessary adjustments;
- repairs to existing sidewalks;
- installation of speed cushions on Golf Links Drive;
- AODA improvements to two intersections on Yonge Street, at Yonge Street and Murray Drive and at Yonge Street and Brookland Avenue, part of the Yonge Street resurfacing from Dunning Avenue to South of Henderson.

The AODA upgrades to these two intersections included the installation of tactile plates, Accessible Pedestrian Signals (APS), which replaced a traditional visual-only signal and provided audible information, depressed curbs and concrete pads.

## **Analysis**

**The design was completed in-house by Engineering staff, with the electrical design for the two intersection's AODA improvements being delivered by a consulting electrical engineer**

The design of the civil works was completed in house by the engineering staff, and the design of the AODA improvements to the two traffic lights at Yonge and Murray Drive, and Yonge and Brookland Avenue, was completed by Moon-Matz, an engineering consulting firm.

As part of the Town's Accessibility Plan, the Accessibility Committee has approved a multi-year capital project list in support of its plan. The projects within this list are delivered by the appropriate asset owners which typically are Facilities and Engineering Services.

Furthermore, when a road is being rehabilitated or reconstructed, the municipality has the obligation to update its intersections to the current AODA standards. Two of the projects identified within the accessibility plan were addressed as part of this project.

The two intersections upgraded for AODA compliance, are located at Yonge and Murray Drive and Yonge and Brookland Avenue, as part of the Yonge Street resurfacing from Dunning to south of Henderson. The AODA upgrades to these two intersections included the installation of tactile plates, Accessible Pedestrian Signals (APS), which replaced a traditional visual-only signal and provided audible information, depressed curbs and concrete pads.

The Town experienced delays in the delivery of the electrical design for this project's planned intersection improvements thus impeding its ability to proceed with the tendering of planned construction work within its desired timelines.

**In an effort to minimize overall project cost increases arising from a delay in the tender of its construction contract, staff decided to tender the contract in two stages.**

Due to a delay in the delivery of the electrical design for the intersection improvements, staff decided to tender the capital project in two stages to take advantage of the design readiness for the section of the project that did not include electrical work. The project was divided in two tenders making sure economies of scale would be achieved.

In arriving at this decision, Engineering staff consulted with Finance and Procurement staff who agreed that, in consideration of the rationale provided, the project should be tendered in two stages, provided that Best Management Practices are being adhered to, by tendering and substantially completing the entire capital project in the same year, (i.e. 2019), which was accomplished.

Staff strive to minimize the need to split one capital project in two or more tenders, as this is seldom done. However, the electrical design for the two intersections on Yonge Street was delayed by the electrical engineer and in an effort to minimize any incremental costs arising from this delay, staff decided to proceed to tender the part of

the project that was ready, in order to take advantage of the very competitive tender prices at the beginning of the year (i.e. late January and early February).

Also, staff was concerned that a delay in tendering the project would result in a delay in completing the work before the construction cut-off date of November 1. Construction work that starts late in the spring/summer will usually extend beyond the construction cut-off date of November 1, resulting in unavoidable extra costs (if paving takes place at temperatures below 7 Celsius) and increased inconvenience to area residents.

The project involved two tenders and included the following work:

- Roadway rehabilitation of Orchard Heights Blvd., Tamarac Trail, McClellan Way and Industrial Parkway South, Tender 2019-30-PDS-ENG, PO #1353, please see Attachment #2. Tender 2019-30-PDS-ENG was awarded by the Director of Planning and Development Services on March 7, 2019.
- Roadway rehabilitation of Yonge Street, Edward Street, Golf Links Drive and Dunning Avenue, Tender 2019-42-PDS-ENG, PO #1363, please see Attachment #3. Tender 2019-42-PDS-ENG was awarded by Council on April 23, 2019 and additional funding of \$365,300 was approved.

The lowest bidder was Forest Contractors Ltd. for both tenders. Unit prices differed between the first and second tender with some unit prices seeing an increase (e.g. base asphalt repairs, milling of asphalt and surface course asphalt), others a decrease (e.g. reinstate traffic signal loops), while others were kept the same (e.g. unit price for staging, traffic control and signage, certain removal items, rout and seal cracks, supply, place and compact crusher limestone for road base, apply tack coat prior to paving surface coarse asphalt).

**Capital Project No. 31116 was substantially completed in 2019 and it is currently under maintenance**

The project was completed in the Fall of 2019 and it is currently under maintenance. The contractor is currently addressing deficiencies. If outstanding deficiencies are being addressed by the end of this year, holdbacks will be released and the project can be closed. The project is expected to yield an estimated surplus of \$492,000 when completed which will be returned to source.

## Advisory Committee Review

Not applicable.

## Legal Considerations

None.

## Financial Implications

Table No. 1 presents the project financials to date.

Table No.1 – Project Financials

Approved Budget – Capital Project 2-4-31116-5059	\$3,283,710
Additional Funding approved by Council on April 23, 2019 (Report PDS19-030)	\$365,300
<b>Total Funding approved for Capital Project No. 31116</b>	<b>\$3,649,010</b>
Contractor's payments to date (PO #1353, PO#1363)	\$2,936,687
Contractor's holdbacks to date (maintenance and CLA)	\$194,000
Geotechnical Investigation	\$19,965
Construction Signage	\$5,450
<b>Total expenditure to date</b>	<b>\$3,156,102</b>
<b>Estimated surplus (to be returned to source)</b>	<b>\$492,908</b>

Please note that the estimated surplus of \$492,908 includes 20% project contingency (\$341,906) and an estimated saving on the overall project cost of \$151,002.

All unused funds will be returned to source once the project is closed.

## Communications Considerations

None.

## Link to Strategic Plan

This report supports the Strategic Plan goal of ***Supporting an Exceptional Quality of Life for All*** through its accomplishment in satisfying requirements in the following key objective within this goal statement:

**Invest in sustainable infrastructure:** Maintain and expand infrastructure to support forecasted population growth through technology, waste management, roads, emergency services and accessibility.

## Alternative(s) to the Recommendation

1. That Council provide direction.

## Conclusions

Capital Project No. 31116 consisted of the rehabilitation (mill and overlay) of 18 km of municipal roads in Aurora. The engineering design was completed in-house by engineering staff, with the electrical design for the two intersections improvements on Yonge Street being delivered by an external consulting engineer specialized in electrical work. In consideration of the circumstances of this project and in consultation with Procurement and Financial Management, engineering staff tendered this project's construction contract in two stages. Throughout this process, engineering staff ensured that the Best Management Practices were being adhered to, by tendering and substantially completing the Capital Project in 2019.

The project was completed in the Fall of 2019, within budget, and it is currently under maintenance with the contractor addressing minor deficiencies. If outstanding deficiencies are addressed by the end of this year, holdbacks will be released and the project can be closed. The project is expected to yield an estimated surplus of \$492,000 when completed which will be returned to source.

## Attachments

Attachment #1: Capital project #31116, budget sheet

Attachment #2: Roadway Rehabilitation on Orchard Heights Blvd., Tamarac Trail, McClellan Way, Industrial Parkway South

Attachment #3: Roadway Rehabilitation on Yonge Street, Golf links Drive, Dunning Ave, Edward Ave.

## **Previous Reports**

PDS19-030 – Award of Tender 2019-42-PDS-ENG, dated April 16, 2019.

## **Pre-submission Review**

Agenda Management Team review on October 29, 2020

## **Approvals**

**Approved by David Waters, Director, Planning and Development Services**

**Approved by Doug Nadorozny, Chief Administrative Officer**