



ENGINEERING DEPARTMENT MEMORANDUM

TO: MAYOR J. LEHMAN AND MEMBERS OF COUNCIL

FROM: B. ARANIYASUNDARAN, P. ENG., PMP, DIRECTOR OF ENGINEERING

NOTED: A. BOURRIE, RPP, ACTING GENERAL MANAGER OF INFRASTRUCTURE AND GROWTH MANAGEMENT

M. PROWSE, CHIEF ADMINISTRATIVE OFFICER

RE: 2018 YEAR-END ROAD CONSTRUCTION UPDATE

DATE: JANUARY 14, 2019

The purpose of this Memorandum is to provide members of Council with an update on the progress of key road construction projects that were managed by the Engineering Department in 2018. The key 2018 construction projects include the following:

- **Harvie Road and Big Bay Point – New Highway 400 Crossing** – \$46,000,000
- **Bayfield Street Pavement Rehabilitation** – \$1,700,000
- **Mapleview Drive East Improvements (Country to Madelaine)** – \$5,000,000
- **Holly Wastewater Pump Station – Expansion & Upgrade** – \$6,600,000
- **Mapleview Drive West & County Road 27 Sanitary Forcemain and Watermain** – \$3,000,000
- **Morrow Road Reconstruction** – \$3,500,000
- **Duckworth Street Improvements** – \$2,800,000
- **Dunlop St. – Tiffin St. – Miller Dr.** – \$3,500,000
- **Asphalt Resurfacing Program** (Contract 1 – \$1,400,000 and Contract 2 – \$1,000,000)

Harvie Road and Big Bay Point – New Highway 400 Crossing

Summary:

The City of Barrie tendered Contract T04-2018-002T for the Harvie Road Highway 400 Crossing. The tender closed on August 8, 2018 and was awarded to Aecon Construction. The value of the tender was \$46.3 million.

This project includes improvements on many of the surrounding roads including Harvie Road (easterly from Essa Road), Big Bay Point Road (including the Bayview Drive/Big Bay Point Road intersection), the intersection of the future Bryne Drive/Harvie Road and improvements on Fairview Road (approximately 300 metres north of Big Bay Point Road). The overpass will have 2 lanes in each direction, a continuous two-way left turning lane as well as bike lanes and sidewalks on both sides. Staff have made all reasonable efforts to accelerate this project from the timelines typically included for a project of this complexity. This has likely accelerated the project completion at least a year.

Construction Update:

The focus in 2018 has been on utility relocations. Enbridge progress has been very successful by installing a new gas line under the highway a month ahead of schedule along with completing other improvements in the area. Alectra has completed the relocation of the hydro poles on the east side of Highway 400 and intend to continue on the west side of the highway through the winter. Bell, Rogers and other utility companies have been supportive in advancing relocations of their respective works required to facilitate the crossing construction.

Aecon Construction work in 2018 has included continued clearing and grubbing as well as commencing stormwater improvements on the west side of Highway 400 in addition to preparation for the crossing construction. The major construction associated with the crossing will commence in 2019 with \$26 million and \$17 million in anticipated spending for 2019 and 2020 respectively. The embankment construction on both sides of the highway has started and will be completed in 2019. Aecon anticipates requiring a closure of Fairview Road from the On-Route entrance south to Big Bay Point Road and over to Bayview Drive for approximately 4 months in the Summer/Fall of 2019 in order to facilitate the new Big Bay Point Road grading, which is 8 to 10 metres above the existing road elevation. Further details of this closure and a comprehensive public communication plan will be shared with Council prior to the closure.

Bayfield Street Pavement Rehabilitation**Summary:**

The City of Barrie tendered Contract T06-2018-037T for the resurfacing of Bayfield Street between Coulter Street and Cundles Road. The tender closed on February 13, 2018 and was awarded to Dufferin Construction Ltd. for \$1.6 million.

This Bayfield Street project was important as the road surface was in poor condition and this is obviously a major arterial road with heavy traffic volumes and a significant commercial component. The Engineering department paid very close attention to the phasing of the contract to ensure minimal disruption to the public and businesses during the construction.

Construction Update:

The project was completed on schedule in June 2018 and the Engineering department was very satisfied with the minimal impacts as a result of the construction and the successful execution of the project.

Mapleview Drive East Improvements - Country Lane to Madelaine Drive**Summary:**

Over the past several years the City of Barrie has been improving Mapleview Drive East systematically working east from Highway 400. The current Capital Plan includes continued improvements on Mapleview Drive beyond Yonge Street over the next five years. This project will tie into the previously completed project to the west (Huron Road to Country Lane) and will widen Mapleview Drive to five (5) lanes. The project also includes new watermain and storm sewers.

The City of Barrie tendered Contract T05-2018-033T for the reconstruction of Mapleview Drive from Country Lane to Madelaine Drive. The tender closed on May 1, 2018 and was awarded to Primrose Contracting Inc. for \$4.8 million.

Construction Update:

The contract has progressed, although not on the originally anticipated timeline due to construction delays and issues with existing granular fill material. A significant portion of the construction on the south side of the right of way has been completed and traffic has been moved onto the temporary roadway. Underground work on the north side of the right of way is underway. The watermain installation is ongoing and the storm sewer work as well as the remaining surface works will be completed in 2019.

Holly Wastewater Pump Station 5– Expansion & Upgrade**Summary:**

The City tendered Contract A19-2017-118T for the Holly Wastewater Pump Station Expansion and Upgrade and the tender closed on October 11, 2017. The two-year contract was awarded to the Condrain Group. The project will increase the pump station's capacity from 120 L/s to 201 L/s by installing new pumps and associated equipment, a new wet well and a new generator building.

Construction Update:

Construction began in January 2018 and the majority of the wet well structure construction has been completed. The internal pumps, piping and ventilation for the wet well is now under construction. The essential equipment components for the pumping station's upgrades have been purchased however they have not been installed. The expansion to the control building has commenced. The project has experienced some delays due to both contractor issues as well as unforeseen issues that were encountered that could have an impact on the anticipated completion date of June 2019. The City is working with the contractor to resolve these issues and minimize their impact on the schedule. Council will be updated of any changes as needed.

Mapleview Drive West & County Road 27 Sanitary Forcemain and Watermain**Summary:**

The City of Barrie tendered Contract E01-2017-117T for the twinning of the sanitary forcemain along Mapleview Drive and County Road 27 and installation of a new transmission watermain along a portion of County Road 27. This work is being coordinated with the Holly Wastewater Pump Station upgrade noted above. The tender closed on April 4, 2018 and was awarded to Trisan Construction. The value of the tender was \$2.9 million.

Construction Update:

The watermain and sanitary forcemain have been completed and have been commissioned. The trenches on Mapleview Drive to facilitate this work have been restored and paved. In 2019, the asphalt in the lanes where the trenching occurred will be milled and a new surface asphalt will be placed. There will also be some minor site restoration completed in 2019 including resurfacing of the existing multi-use trail.

Morrow Road Reconstruction**Summary:**

The City of Barrie tendered Contract T04-2017-127T for the reconstruction of Morrow Road. The tender was awarded in May 2018 to Primrose Contracting Inc. for \$3.6 million.

The construction work included storm culvert and sewer replacements, sanitary sewer upgrades and watermain replacements in addition to the road surface improvements.

Construction Update:

Construction began in the summer of 2018. The sanitary upgrades and the majority of the storm works have been completed. There is still a portion of watermain that is being installed on the southerly limit approaching Ardagh Road. This work is anticipated to be completed in January 2019 and the surface asphalt will be completed in the late spring/early summer of 2019. Over the winter there will be some work completed by certain utility companies to ensure that all planned works in the area are completed before the surface asphalt is placed.

Duckworth Street Improvements**Summary:**

The City of Barrie tendered Contract T04-2018-102T for the reconstruction of the first phase of the Duckworth Street improvements from St. Vincent Street to Melrose Avenue. This first phase of construction was advanced into 2018 from the planned 2019 as a result of the poor condition of the road surface. This phase included new sanitary, watermain and storm sewers to be installed along with new sidewalks and curbs. The tender closed July 24, 2018 and was awarded to Arnott Construction Ltd. for \$2.7 million. The second phase of the Duckworth Street improvements will be from Melrose Avenue to Bell Farm Road which is currently anticipated to be tendered and begin construction in 2020.

Construction Update:

Construction began in September 2018 and progressed well through the fall with the sanitary, watermain and storm sewers being completed between Melrose Avenue and Strabane Avenue. The base asphalt was also placed in this area which was where the pavement condition was in the poorest condition prior to construction. In the spring of 2019 work will continue on the remaining elements of the contract from Strabane Avenue heading south to St. Vincent Street. This stage of the Duckworth Street improvements is expected to be completed in July 2019.

Dunlop/Miller/Tiffin Intersection Improvements**Summary:**

The City of Barrie tendered Contract 2017-002T for Dunlop Street/Miller Drive/Tiffin Street Intersection Improvements. The tender closed on April 25, 2017 and was awarded to Georgian Paving Ltd. The value of the tender was \$3.7 million.

The project includes:

- Reconstruction and widening of the intersection to match Simcoe County's improvements to County Road 90, including replacement of driveway and road crossing culverts;
- Installation of watermain and sanitary sewer; and,
- New traffic signals and street lighting.

Construction Update:

The contract was a carry-over into 2018 as previously noted to Council. The contract is now complete. The works completed in 2018 included:

- Sanitary installation;
- Road reconstruction;
- Street lights and traffic signals; and
- Base and top course asphalt.

2018 Asphalt Resurfacing Program

The Annual Asphalt Resurfacing Program is a significant component in managing the lifecycle of the City's roadways and keeping the roads in good condition overall. This program was delivered through the award of two construction contracts. The first contract was awarded to Lisbon Paving and the second contract was awarded to Coco Paving. The combined cost of the program was \$2.4 million. The roads that were completed in the 2018 program include:

Contract 1:

- Anne St. - Sunnidale Road to Neelands Street
- Cox Mill Rd. - Yonge Street to Dock Road.
- Hanmer St. West - Anne Street North to Finlay Road.
- Ferndale Dr. North - Benson Drive to Edgehill Drive

Contract 2:

- Lockhart Rd. - Finsbury Street to Yonge Street
- Huronia Rd. - Little Avenue to Yonge Street
- Ardagh Rd. - Ferndale Road to Wright Drive
- Saunders Rd. - Lockhart Road to 600m north of Lockhart Road

If there are any questions regarding any of the City's capital construction projects, please contact Stew Patterson, Manager of Construction, at extension 4481 or Stew.Patterson@barrie.ca.