
TO: MAYOR J. LEHMAN AND MEMBERS OF COUNCIL

FROM: K. OAKLEY, P. ENG., MANAGER OF PLANNING AND ASSET MANAGEMENT

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

A. MILLER, RPP, GENERAL MANAGER OF INFRASTRUCTURE AND GROWTH MANAGEMENT

M. PROWSE, CHIEF ADMINISTRATIVE OFFICER

RE: PAVEMENT MANAGEMENT FOR WARDS 1, 2, 6, 8 AND 9

DATE: JULY 18, 2019

Background

The purpose of this Memorandum is to provide information to members of Council concerning the City's pavement management efforts with a focus on the Road Resurfacing Program and to identify the locations that have been selected for the Road Resurfacing Program in 2019, including the locations to be funded by the one-time increase from the Federal Gas Tax.

Pavement Management

In between a road's initial construction and when it needs full replacement (reconstruction), it is advisable to undertake lifecycle intervention activities that can reduce the total amount needed to be spent on roads over their life. Timely application of various techniques can keep a pavement surface in good condition and meeting desired levels of service. Preservation strategies, used earlier in the life of pavement when the road is still in good condition, are less expensive and faster to complete compared to strategies applied later in the life of the pavement, when the road has deteriorated more.

Pavement preservation activities are often equated to fixing the roof on your house. Replacing the shingles at regular intervals prevents water from getting into the house structure, which could cause expensive structural damage. Appropriately timed preventative investment in roads keeps water out of the pavement layers preventing cracks and defects from forming.

Window of Opportunity

There is a window of opportunity in the life of pavement where some treatments are suitable and others are not. By completing treatments at the appropriate time within the recommended window of opportunity, the City can extend the life of a road, and reduce the total investment over the long term.

Additional information on pavement deterioration and pavement management best practices is available on the City's website at barrie.ca → City Hall → Asset Management → Pavement Management.

Road Resurfacing Program Specifics

Road resurfacing is considered preservation as it is a proactive approach. Timely application of partial depth resurfacing preserves and protects the road structure, preventing rapid deterioration in pavement and risks due to unsafe driving conditions.

Resurfacing addresses problems on the roadway surface by replacing all or part of the top layer of asphalt pavement. It addresses issues like potholes, cracking, hummocks, bumps and patches of street cuts (usually created by utility or other underground work).

Construction typically involves a milling machine that grinds off all, or a portion, of the existing asphalt and then placement of a new asphalt surface. This work can usually be completed within a few days and is substantially less expensive than full road reconstruction.

2019 Road Resurfacing Locations

The original \$3.6 million Road Resurfacing Program approved as part of 2019 capital plan includes the following road segments:

- Burton Avenue – Milburn Street to Garden Drive
- Yonge Street – Garden Drive to Big Bay Point Road
- Eccles Street – Wellington Street to Dunlop Street
- Cheltenham Road – Johnson Street to Penetanguishene Road
- Hurst Drive – Bay Lane to Cox Mill Road

The above road segments are currently being constructed.

In 2019, the Federal Government increased the Federal Gas Tax (FGT) that the City of Barrie received. This money was allocated to a number of projects, with \$3.5 million dedicated to the 2019 Road Resurfacing Program.

The additional \$3.5 million from the FGT will be invested in the following locations:

- Collier Street – Mulcaster Street to Blake Street
- Essa Road - Ardagh Road to Veterans Drive
- Mulcaster Street - Penetang Street to Dunlop Street
- Steel Street – Duckworth Street to Blake Street
- Yonge Street– Montgomery Drive to Maplevue Drive

Other locations which were identified as candidates for 2019 work, but were not selected, will be considered for future years resurfacing programs.

The above FGT road segments are out for tender. Once tenders are received and the project is awarded, the contractor will begin with Collier Street, Essa Road, Mulcaster Street and Steel Street which are expected to be completed by November 2019. Yonge Street, subject to available budget is expected to be completed in early 2020.

Council Direction to Include Bike Lanes

Motion 19-G-104 directs staff to amend the scope of Project # EN1289 - Road Resurfacing to ensure that where resurfacing locations align with the locations on Figure 34 of the Active Transportation Master Plan, that bicycle lanes be implemented as part of the Road Resurfacing Program. Figure 34 identifies roads where sufficient pavement width exists to paint/sign bike lanes.

All locations identified for the 2019 Resurfacing Program (including the additional \$3.5 million) were reviewed against Figure 34 from the Active Transportation Master Plan. The following resurfacing locations appear on Figure 34:

- 1) Cheltenham Road – This location has sufficient road pavement width to accommodate bike lanes after resurfacing, however, the Traffic and Parking Operations Branch will require endorsement from Council to restrict parking on both sides of the road – currently there is a No Parking Anytime restriction on the south side of Cheltenham Road.

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- 2) Eccles Street (Wellington Street to Dunlop Street) – This location has adequate pavement width to accommodate 1.2 m bike lanes (slightly less than the 1.5 m standard width). The Traffic and Parking Operations Branch will require endorsement from Council to restrict parking on both sides of the road – currently there is a No Parking Anytime restriction just on the east side of Eccles Street.
 - 3) Steel Street (Duckworth Street to Penetanguishene Road) – Although Steel Street was identified in the Master Plan as having adequate pavement width for bike lanes, it has been determined by the Traffic and Parking Operations Branch that the pavement width is not sufficient to accommodate bike lanes.

These road sections will be resurfaced in 2019 under the Road Resurfacing Program. The roadways will remain unpainted and unsigned until changes to parking restrictions have been considered by Council.

Through motion 19-G-104, Council also allocated FGT towards Active Transportation and Traffic Calming initiatives independent of the Road Resurfacing Program. The Traffic and Parking Operations Branch are planning for the use of this funding, and will be communicating details over the next several months.

Road Condition Assessment

The Planning and Asset Management Branch in the Engineering Department has retained a contractor to complete a Road Condition Assessment for the City's full road network. The results of this project will provide staff with valuable input into planning pavement management activities such as preservation, rehabilitation and reconstruction. Staff will provide the results of the condition assessment to Council in the Fall of 2019.