TO: MAYOR A. NUTTALL AND MEMBERS OF COUNCIL

FROM: M. BROWN, P.ENG, SUPERVISOR OF INFRASTRUCTURE RENEWAL PLANNING, EXT. 4300

WARD: ALL

NOTED: K. OAKLEY, P.ENG, ASSOCIATE DIRECTOR, CORPORATE ASSET MANAGEMENT

B. ARANIYASUNDARAN, P.ENG, PMP, GENERAL MANAGER OF INFRASTRUCTURE, AND GROWTH MANAGEMENT

M. PROWSE, CHIEF ADMINISTRATIVE OFFICER

RE: PAVEMENT CONDITION ASSESSMENT PROJECT UPDATE

DATE: MAY 31, 2023

The purpose of this Memorandum is to advise members of Council that the Pavement Condition Assessment is commencing at the start of June 2023. Here are some relevant highlights:

The City owns approximately 1600 lane-km of roads valued at about $965 million. City staff use pavement condition data on a daily basis to manage this major asset class. This includes analysis related to infrastructure maintenance and renewal, levels of service, and forecasting financial needs. Accurate and up-to-date pavement condition data is required to make cost effective decisions that maximize the life of pavement assets at the lowest overall life-cycle cost. The data is used to evaluate options and determine priorities and timing with regards to the Road Resurfacing Program, reconstruction projects, major right of way renewal and expansion activities.

Road condition data is also used for annual reporting and is used as a Key Performance Indicator (KPI) to measure and report on how effectively the City is maintaining its road network and ensuring adequate service levels. Based on the last pavement condition assessment project (2019), the average condition of the City's roads, as of January 2023 is 77 out of 100, where 100 is considered new pavement. The breakdown is as follows:

- o Very Good: 40.5%
- o Good: 30.5%
- o Fair: 17%
- o Poor: 7.6%
- o Very Poor: 4.4%

Using data from the last pavement condition assessments and evidence based decision making, the average PCI of Barrie's road network has increased from 75 to 77 in the last 4 years. Through the 2023 project, this data will be updated and available for the various analysis as described above.

The City has hired a contractor who will use a specialized vehicle equipped with 3D imaging technology to collect data about the width, depth, and severity of road defects such as cracks, rideability, ruts, potholes, crack seals and patches. The vehicle is also equipped with 360-degree cameras that provide imagery of the road surface and the Right of Way.

In addition to roads, the contractor will complete a condition assessment of the downtown paid parking lots, and any facility parking lots without a current condition assessment. The project will also include a software tool to house and manage the data going forward, which is compatible with the City's GIS mapping technology.

The vehicle is likely to be travelling outside of peak hours, however residents may encounter it driving around the City. While collecting data, the vehicle is able to drive at speeds up to 105km/h without impacting the flow of traffic.

The results of the project will be available late 2023 or early 2024.

For more information on pavement management, please visit the Pavement Management website.