



ROADS, PARKS AND FLEET DEPARTMENT MEMORANDUM

TO: MAYOR J. LEHMAN, AND MEMBERS OF COUNCIL

FROM: D. FRIARY
DIRECTOR OF ROADS, PARKS AND FLEET

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

M. PROWSE, CHIEF ADMINISTRATIVE OFFICER

RE: 2019 ARTERIAL CORRIDOR REVIEW – YONGE STREET FROM COXMILL ROAD
TO MAPLEVIEW DRIVE EAST

DATE: APRIL 29, 2019

The purpose of the Memorandum is to provide members of Council with an update on the Arterial Corridor Review for Yonge Street from Coxmill Road to Mapleview Drive East.

The City of Barrie's Transportation Systems Staff review the arterial signal timings on an ongoing basis to ensure the signal timings reflect the current traffic patterns and are effectively progressing traffic along the corridor. The strategy for optimizing the corridor is to improve the key traffic parameters including the level of service, travel time, average speed, and the stop delay. This is achieved through evaluating the existing conditions along the traffic corridor by utilizing a combination of the most recent traffic volumes, staff observations, speed & delay traffic studies, and geometric reviews of the intersections within the traffic corridor.

The initial speed & delay traffic study was performed on October 18, 2018 followed by traffic signal timing changes were implemented on February 25, 2019. Finally the speed & delay traffic study on February 26, 2019. The final speed & delay traffic study reflects the recent changes to the signal timing along this corridor and the following charts indicate the before and after results for each peak hour period during the day.

AM PEAK (7:30AM - 8:30AM)	NORTHBOUND		SOUTHBOUND	
	Oct 18, 2018	Feb 26, 2019	Oct 18, 2018	Feb 26, 2019
Travel Time (m:s)	03:23	02:35	03:11	02:16
Avg. Speed	40 km/h	51 km/h	42 km/h	57 km/h
Stop Delay (m:s)	00:52	00:15	00:35	00:01
No. of Stops	2	1	2	0

NOON PEAK (11:30AM - 12:30AM)	NORTHBOUND		SOUTHBOUND	
	Oct 18, 2018	Feb 26, 2019	Oct 18, 2018	Feb 26, 2019
Travel Time (m:s)	03:13	02:43	03:15	02:28
Avg. Speed	41 km/h	48 km/h	42 km/h	53 km/h
Stop Delay (m:s)	00:38	00:20	00:30	00:02
No. of Stops	1	1	2	0

PM PEAK (4:30PM - 5:30PM)	NORTHBOUND		SOUTHBOUND	
	Oct 18, 2018	Feb 26, 2019	Oct 18, 2018	Feb 26, 2019
Travel Time (m:s)	03:20	02:47	03:37	02:23
Avg. Speed	40 km/h	47 km/h	37 km/h	55 km/h
Stop Delay (m:s)	00:51	00:21	01:03	00:01
No. of Stops	2	1	2	0

As part of the Arterial Corridor Review process staff have observed, analysed and improved the traffic corridor in the following areas:

- Reviewed pedestrian clearance times and updated these timings to City of Barrie standards.
- Increased overall cycle lengths for all intersections within the corridor as part of the updated pedestrian clearance times and optimization of the corridor.
- Adjusted directional green, amber red timings to give priority to the primary traffic movements during peak periods, i.e. northbound and southbound with emphasis on the am & pm peak.
- Staff conducted a left turn queue study on vehicles exiting the GO station during the scheduled GO Train arrival times during the pm peak and noted a slight delay and adjusted signal timings accordingly to reduce delay and accommodate the pm peak traffic volumes.

After reviewing and comparing the results of the speed & delay traffic studies, the stop delay has improved significantly to keep vehicles freely flowing throughout the corridor and the average speed of vehicles has safely increased resulting in shorter travel times during peak hour periods. Staff will continue to monitor this network.