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TO:	CHAIR AND MEMBERS CIVIC WORKS COMMITTEE MEETING ON FEBRUARY 4, 2013
FROM:	EDWARD SOLDO, P. ENG. DIRECTOR, ROADS & TRANSPORTATION
SUBJECT	NEW 2013 TRAFFIC SIGNAL BYRON BASELINE ROAD AT COLONEL TALBOT ROAD

RECOMMENDATION

That on the recommendation of the Director, Roads & Transportation, Environmental & Engineering Service:

- a) The installation of a traffic signal at the intersection of Byron Baseline Road and Colonel Talbot Road **BE APPROVED**; and
- b) Future additional operating costs for the project in the amount of \$6,400 **BE APPROVED** as a first priority commitment from available assessment growth in 2013, subject to final budget approval.

BACKGROUND

PURPOSE:

The Roadway Lighting & Traffic Control Division receives numerous requests throughout the year for the installation of Traffic Control Signals. As per Council's policy, this report addresses the new signal that is recommended for installation in 2013.

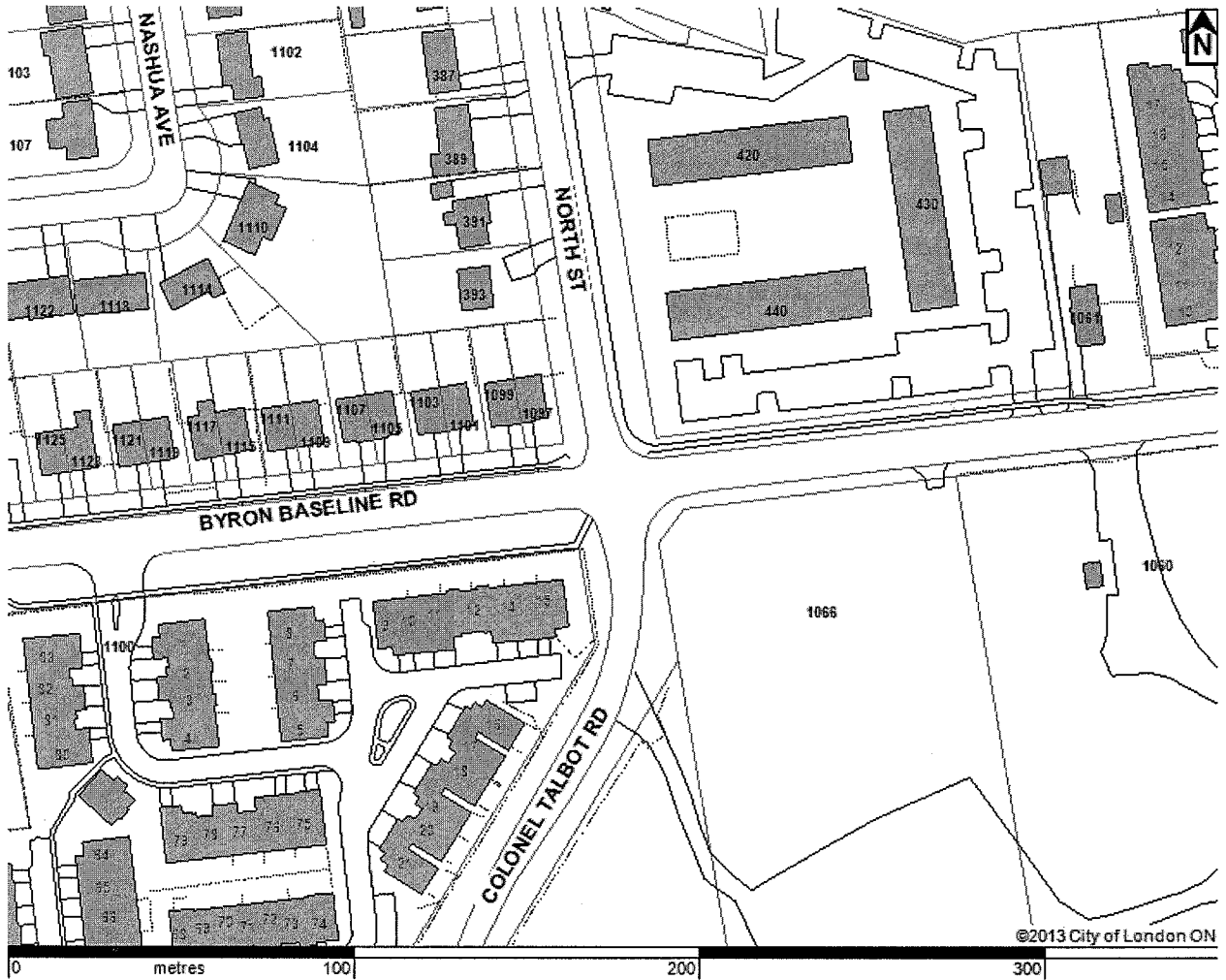
DISCUSSION:

Traffic signals are designed to ensure a safe and orderly flow of traffic, provide safety for pedestrians and/or vehicles while crossing a busy intersection and help lessen the severity and frequency of collision between vehicles entering intersections from different directions. However, traffic signals can be detrimental to the operational efficiency of our roadway system and can increase some types of traffic collisions.

The installation of traffic control signals are recommended at intersections where the traffic volume or collision data indicates that their installation is needed to address operational and/or safety issues. The Ontario Traffic Manual (OTM) specifies the warrant process to be followed by the City of London. This process takes into consideration the volume of traffic/pedestrians using the intersection, the delay experienced by side street traffic/pedestrians and the collision history of the intersection while still acknowledging that traffic control signals can be detrimental to the operational efficiency of our roadway system.

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Byron Baseline Road at Colonel Talbot Road



The intersection of Byron Baseline Road and Colonel Talbot Road is currently controlled by an all-way stop. Traffic volumes have continued to increase to a point where the all-way stop is no longer operating efficiently during peak times.

Operation of an intersection is usually measured in Level of Service from “A” to “F” (LOS F being the worst condition), Volume over Capacity ($v/c > 1$ suggests the intersection is operating over its capacity) and traffic delays. The following table summarizes these measures of effectiveness as calculated using Synchro 7 during the afternoon peak time:

Measure of Effectiveness	Existing All-way	Proposed Traffic Signal
LOS	F	C
v/c	1.26	0.80
Intersection Delays		Reduced by 75%

The above calculations are confirmed by field observations that show that during the afternoon peak time westbound traffic is often backed up to the Springbank Drive/Commissioners Road W intersection.

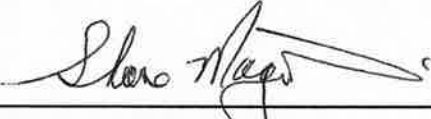


The installation of a traffic signal will allow for pavement marking of a left-turn lane for each intersection approach without any road widening. The northbound approach to the intersection is partially hidden due to the horizontal and vertical curves. In order to ensure drivers are aware of the traffic signal an advance traffic signal warning flasher will be installed as part of this project.

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CONCLUSIONS:

The proposed location for the traffic signal at the intersection of Byron Baseline Road and Colonel Talbot Road meets or exceeds the requirements for traffic signals as identified in the OTM.

The estimated construction cost for this project is \$150,000 using previously approved Capital Budget funds (TS4160). There are no anticipated additional operating costs in the 2013 Environmental and Engineering Services Department budget due to this work. However, the installation of this signal will result in an increase of \$6,400 per year in subsequent years. If approved, construction of the traffic signal will occur in late spring/early summer.

PREPARED BY:	RECOMMENDED BY:
	
SHANE MAGUIRE, P. ENG. DIVISION MANAGER ROADWAY LIGHTING & TRAFFIC CONTROL	EDWARD SOLDO, P.ENG. DIRECTOR, ROADS AND TRANSPORTATION
REVIEWED & CONCURRED BY:	
	
JOHN BRAAM, P.ENG. MANAGING DIRECTOR ENVIRONMENTAL & ENGINEERING SERVICES AND CITY ENGINEER	

January 16, 2013

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c.c. J. Braam, Managing Director, Engineering and City Engineer