

<b>TO:</b>	<b>CHAIR AND MEMBERS CIVIC WORKS COMMITTEE MEETING ON AUGUST 11, 2020</b>
<b>FROM:</b>	<b>KELLY SCHERR, P. ENG., MBA, FEC MANAGING DIRECTOR, ENVIRONMENTAL AND ENGINEERING SERVICES AND CITY ENGINEER</b>
<b>SUBJECT:</b>	<b>NEW TRAFFIC, PEDESTRIAN AND CYCLIST SIGNALS</b>

<b>RECOMMENDATION</b>
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That on the recommendation of the Managing Director, Environmental and Engineering Services and City Engineer, the following actions **BE TAKEN** with respect to the planned signal installations:

- a) The installation of the following traffic signal **BE APPROVED**:
  - i. Pack Road at Colonel Talbot Road.
- b) The installation of the following pedestrian signals **BE APPROVED**:
  - i. Hamilton Road at Inkerman Street;
  - ii. Hamilton Road at Pine Lane Avenue; and,
  - iii. Southdale Road East at Millbank Drive (west leg).
- c) The installation of the following pedestrian and cyclist signals **BE APPROVED**:
  - i. Oxford Street East at William Street; and,
  - ii. Riverside Drive at Wilson Avenue.

<b>PREVIOUS REPORTS PERTINENT TO THIS MATTER</b>
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- Civic Works Committee – April 25, 2016 – [Pedestrian Crossover Program](#); and
- Civic Works Committee – May 14, 2019 – [Traffic Signal Warrant Process](#).

<b>2019-2023 STRATEGIC PLAN</b>
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The following report supports the Strategic Plan through the strategic focus area of “Building a Sustainable City”. Traffic signals enable Londoners to move around the city safely and easily in a manner that meets their needs by improving safety for all modes of transportation.

## DISCUSSION

### **Purpose**

The purpose of this report is to approve upcoming near-term signal installations.

### **Traffic Signal Assessment**

Traffic signals are designed to ensure a safe and orderly flow of traffic, provide safety for pedestrians, bicyclists and/or motor vehicle drivers while crossing a busy intersection and help lessen the severity and frequency of collisions with vehicles entering intersections from different directions. Traffic signals can be detrimental to the operational efficiency of a roadway system leading to driver frustration and can increase some types of traffic collisions; it is therefore important to ensure they are only used at appropriate locations consistent with warrant justification.

The Ontario Traffic Manual (OTM) specifies the warrant process that is followed in London and it is consistent with the warrant process used across North America, which assists with creating consistent driver expectation. 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.

A warrant-based approach is important as unneeded traffic control signals can be detrimental to the operational efficiency of the roadway system. Adherence to consistent warrants also help foster consistent driver expectations and minimizes liability for municipalities.

### **Pedestrian and Cyclist Signal Assessment**

Pedestrian signals are implemented based distinctly on pedestrian crossing volumes and demands. In 2019, Municipal Council approved a new warrant for pedestrian signals that expands on the pedestrian crossovers warrant and improves coordination between the triggers for traffic and pedestrian signal.

New cyclist signals dedicated to bicycle riders, and complimentary to pedestrian signals, are planned to be introduced to improve important connections within the cycling network.

### **Near Term Traffic Signal, Pedestrian Signal and Pedestrian/Cyclist Signal Locations**

Near term signal installations identified for approval are described in the following sections.

#### Near Term Traffic Signals

Traffic volumes on both Pack Road and Colonel Talbot Road have grown with the new development in the area. The signalization of the intersection along with transit stop enhancements is recommended at this time. This work is being accelerated separately from the planned future longer urbanization of Colonel Talbot Road. Recent sewer forcemain work at the intersection included the installation of traffic signal ducts for the future traffic signal.

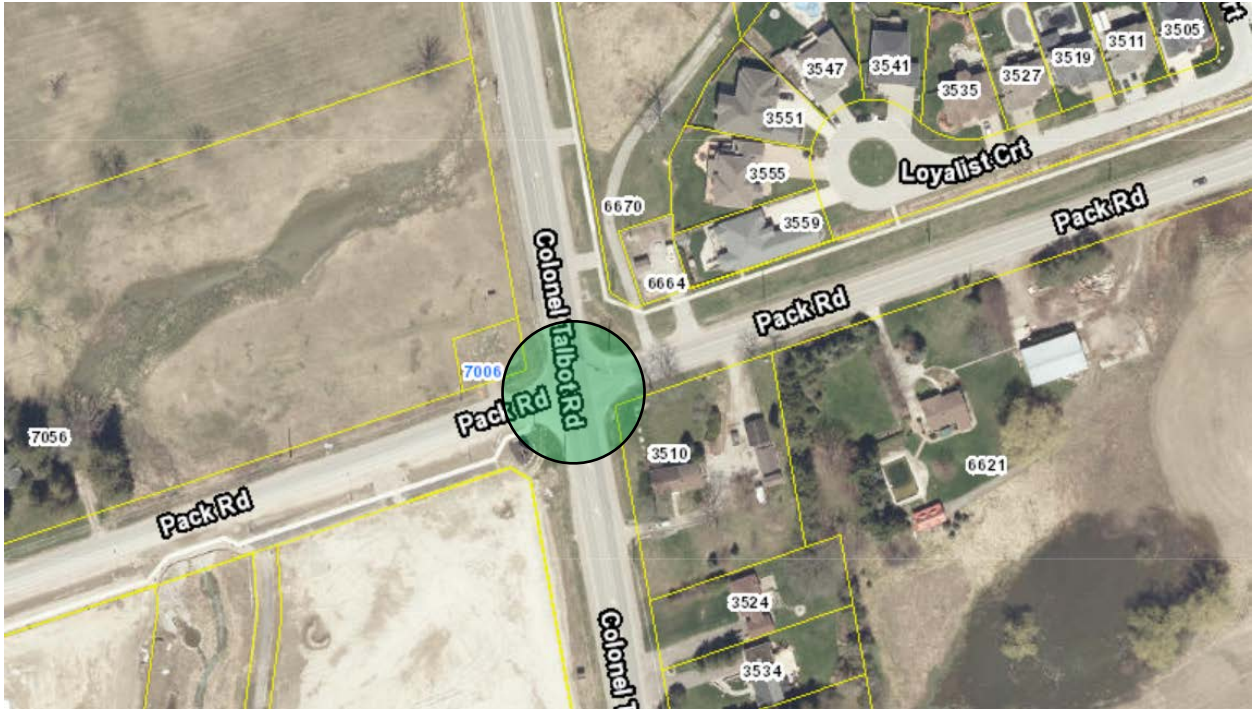


Figure 1: Pack Road at Colonel Talbot Road

### Near Term Pedestrian Signals

Using the new London developed pedestrian signal warrant, approved in 2019, pedestrian signals are recommended for the following locations:

- a) On Hamilton Road at Inkerman Street where 143 pedestrians were observed crossing during the 8-hour study period. A pedestrian signal at this location will allow residents to more safely access transit and businesses.



Figure 2: Hamilton Road at Inkerman Street

- b) Hamilton Road at Glenwood Avenue is an existing school crossing guard location servicing the nearby Ealing Public School. The pedestrian signal is recommended to assist in the crossing of students to and from school.

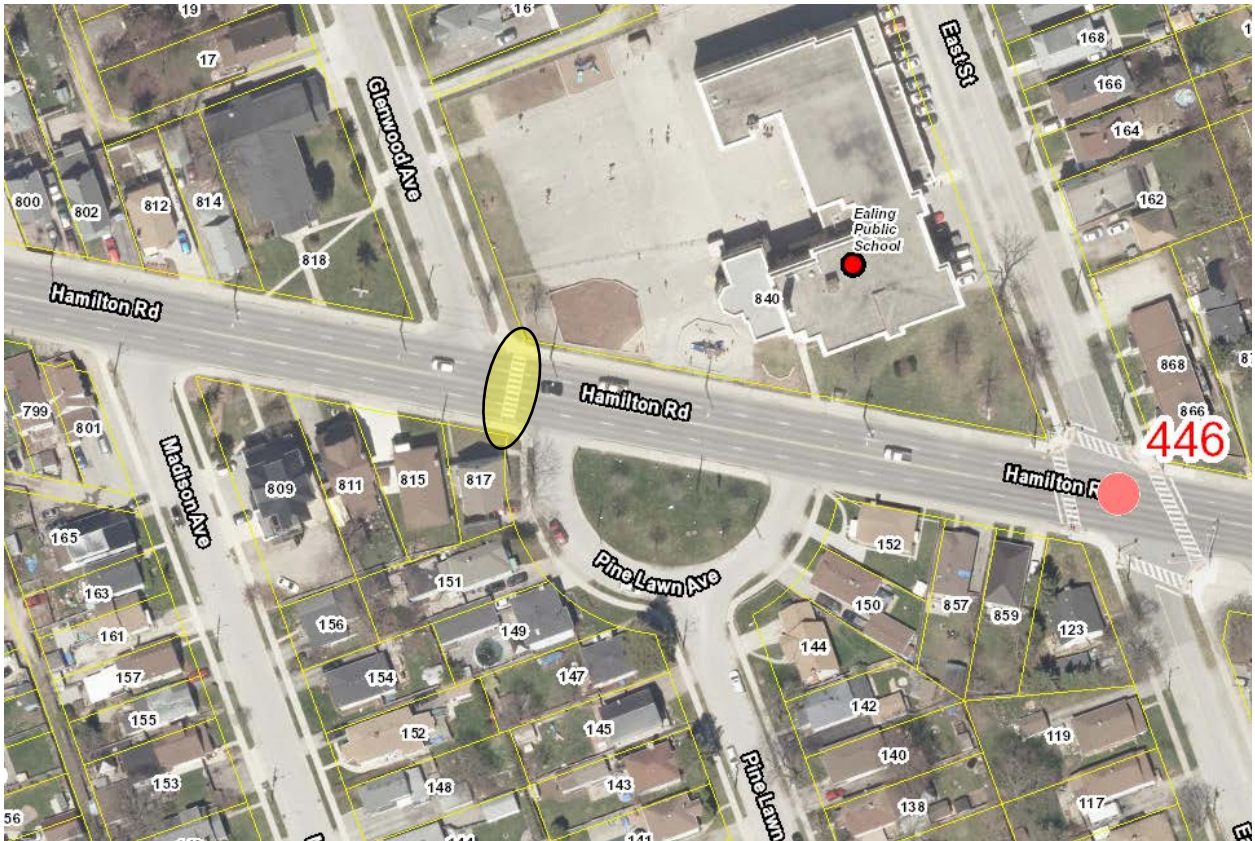


Figure 3: Hamilton Road at Glenwood Avenue

- c) The 8-hour study on Southdale Road East at the west leg of Millbank Drive identified 344 pedestrians crossing Southdale Road East. The pedestrian signal is recommended to assist the large number of pedestrians crossing at this location.



Figure 4: Southdale Street East at Millbank Drive (west intersection)

## Near Term Pedestrian and Cyclist Signals

Two pedestrian signal locations identified below are also important connections for bicycle routes. A typical full traffic signal would address the pedestrian and bicycle traffic needs; however, full signalization may have an unintended consequence of increasing motor vehicle traffic on the intersecting local residential streets. In order to provide a signal controlled crossing for pedestrian and cyclists but not motor vehicles, a pedestrian and cyclist signal is recommended.

- a) A traffic study identified 99 pedestrians crossing Oxford Street East in the vicinity of William Street over an eight-hour period. William Street has also been identified as a preferred north-south bicycle route, particularly with the connection to the TVP North Branch pathway project currently under construction. London Cycle Link and Western Active Transportation Society have identified an improved William Street crossing of Oxford Street East as a priority. Pedestrians and cyclists will be able to cross Oxford Street East; however, William Street motor vehicle traffic will continue to be controlled by the existing stop signs.

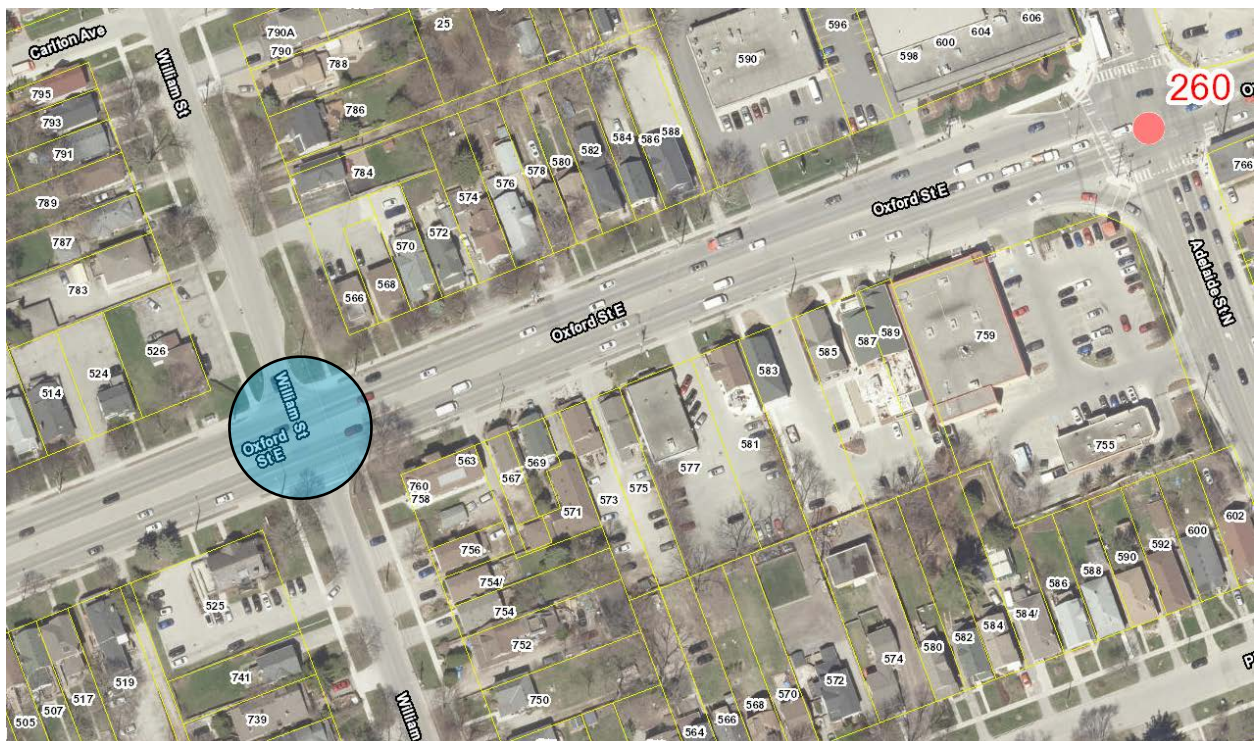


Figure 5: Oxford Street East at William Street

- b) Many pedestrians cross Riverside Drive at Wilson Avenue when events occur at Labatt Park. Additionally, bicycle lanes are being constructed on Riverside Drive this year to better connect Dundas Place and the Thames Valley Parkway system. This signal will connect that new system with the existing bicycle lane on Riverside Drive at Wilson Avenue. Pedestrians and cyclists will be able to cross Riverside Drive; however, Wilson Avenue motor vehicle traffic will continue to be controlled by the existing stop sign.



Figure 6: Riverside Drive at Wilson Avenue

Potential Future Signal Locations

The list found in Appendix A includes additional locations where a traffic control device is being considered and the status with respect to the OTM traffic signal and enhanced pedestrian signal warrant.

**Previously Approved Traffic Control Under Implementation**

Implementation of the following previously approved traffic signals and pedestrian signals is currently underway:

<b>Traffic Signals Underway</b>	
Wilton Grove Road	Commerce Road / Maple Leaf Entrance
Veterans Memorial Parkway	Clarke Road
Riverside Drive	Beaverbrook Avenue
Blackwater Road	Adelaide Street North
Oxford Street West	Riverbend Road

<b>Pedestrian Signals Underway</b>	
Richmond Street	Westchester Drive
Fanshawe Park Road East	Fremont Avenue

## CONCLUSION

The traffic, pedestrian and cyclist signals described herein are recommended to create a more accessible and safe transportation system. Traffic control assessment balances the needs of all road users and optimizes safety. The warrant approach used is standardized across Ontario and fosters consistent road user expectation and manages municipal liability.

Design of the recommended traffic signal, pedestrian signals and pedestrian/cyclist signals will be undertaken in this year for planned construction in 2021 except for the Riverside Drive/Wilson Avenue pedestrian and cyclist signal which is planned to be constructed in late 2020.

<b>SUBMITTED BY:</b>	<b>REVIEWED AND CONCURRED BY:</b>
<b>SHANE MAGUIRE, P. ENG. DIVISION MANAGER, ROADWAY LIGHTING AND TRAFFIC CONTROL</b>	<b>DOUG MACRAE, P.ENG., MPA DIRECTOR, ROADS AND TRANSPORTATION</b>
<b>RECOMMENDED BY:</b>	
<b>KELLY SCHERR, P.ENG., MBA, FEC MANAGING DIRECTOR, ENVIRONMENTAL AND ENGINEERING SERVICES AND CITY ENGINEER</b>	

<https://cityhub/services/ees/roads/CR/2020-04-15/2020-04-15-CWC-RPT-New Traffic Signals and Pedestrian Crossovers v2.docx>

July 28, 2020/sm

Appendix A: Future Traffic Signals, Pedestrian Signals and Pedestrian/Cyclist Signals

**APPENDIX A**

**Future Traffic Signals, Pedestrian Signals and Pedestrian/Cyclist Signals**

Traffic Signals				
East-West Street	North-South Street	Minimum Volume Warrant <sup>(1)</sup>	Delay Warrant <sup>(1)</sup>	Comment
Commissioners Road East	Chelton Road	53%	95%	Construction is planned for 2023 <sup>(2)</sup> .
Fanshawe Park Road East	Stackhouse Avenue	45%	68%	Continue to monitor as development north of Fanshawe Park Road East increases.
Gainsborough Road	Sherwood Forest Mall	88%	100%	Currently an intersection pedestrian signal. Construction is planned for 2023 <sup>(2)</sup> .
Gainsborough Road	Coronation Drive (west leg)	91%	86%	Construction is planned for 2022 <sup>(2)</sup> .
Hamilton Road	Clarke Road	79%	79%	Design is complete. Construction is planned for 2022 <sup>(2)</sup> .
Huron Street	Vesta Road	77%	100%	Currently an intersection pedestrian signal. Construction is planned for 2022 <sup>(2)</sup> .
North Routledge Park	Hyde Park Road	77%	31%	Construction is planned for 2022 <sup>(2)</sup> .
Pack Road	Colonel Talbot Road	82%	69%	Required for pedestrian connectivity. Anticipate that the full traffic signal warrant will be satisfied when the Silverleaf development is complete. Planning is underway for a comprehensive intersection improvement including a traffic signal and sidewalks for construction in 2021 <sup>(2)</sup> .



Sunningdale Road East	South Wenige Drive East	74%	77%	Design is underway. Construction is planned for 2022 <sup>(2)</sup> .
Sunningdale Road East	Clarke Road	81%	56%	Continue to monitor as development in the area increases. Construction is tentatively planned for 2022 <sup>(2)</sup> .

### Pedestrian Signals

Street	Location	Minimum Volume Warrant (1)	Comment
Oxford Street East	William Street	99%	99 pedestrians in 8 hours. Construction is planned for 2021 <sup>(2)</sup> .
Riverside Drive	Wilson Avenue	-	Large number of pedestrians attending Labatt Park. Construction is planned for 2021 <sup>(2)</sup> .
Hamilton Road	Inkerman Street	100%	143 pedestrians in 8 hours. Construction is planned for 2021 <sup>(2)</sup> .
Hamilton Road	Pine Lane Avenue	87%	87 pedestrians in 4 hours. Currently an adult school crossing guard location. Construction is planned for 2021 <sup>(2)</sup> .
Southdale Road East	Millbank Drive (west intersection)	100%	314 pedestrians in 8 hours. Construction is planned for 2021 <sup>(2)</sup> .
Springbank Drive	Quinella Drive	82%	82 pedestrians in 8 hours. 59% of pedestrians were seniors. Construction is planned for 2021 <sup>(2)</sup> .

### Pedestrian and Cyclist Signals

Street	Location	Minimum Volume Warrant (1)	Comment
Oxford Street East	William Street	99%	99 pedestrians in 8 hours. Construction is planned for 2021 <sup>(2)</sup> .

Riverside Drive	Wilson Avenue	-	Large number of pedestrians attending Labatt Park. Construction is planned for 2020 in conjunction with the Dundas Place/Thames Valley Parkway connection project.
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Notes:

- (1) Warrants should meet 100% for justification and infrastructure consistency. For traffic signals a Combination Warrant is met when the Minimum Volume Warrant and the Delay Warrant are greater than 80%.
- (2) Construction dates are tentative and are dependent on sufficient Capital budget funds.