

# Civic Works Committee

## Report

1st Meeting of the Civic Works Committee  
December 14, 2021

PRESENT: Councillors E. Pelozza (Chair), M. van Holst, J. Helmer, P. Van Meerbergen, J. Fyfe-Millar, Mayor E. Holder

ALSO PRESENT: A. Pascual and J. Taylor

Remote Attendance: Councillors M. Hamou, S. Hillier, S. Lewis, J. Morgan; G. Barrett, J. Dann, I. de Ceuster, D. MacRae, K. Edwards, G. Kotsifas, H. Lysynski, L. Marshall, S. Mathers, K. Scherr, J. Stanford, A. Thompson, and B. Westlake-Power

The meeting was called to order at 12:01 PM with Councillor E. Pelozza in the Chair; it being noted that the following Members were in remote attendance: Mayor E. Holder, Councillors J. Helmer, M. van Holst, P. Van Meerbergen.

### 1. Call to Order

#### 1.1 Disclosures of Pecuniary Interest

That it BE NOTED that no pecuniary interests were disclosed.

#### 1.2 Election of Vice-Chair for the term ending November 14, 2022

Moved by: M. van Holst

Seconded by: P. Van Meerbergen

That Councillor J. Fyfe-Millar BE ELECTED Vice-Chair of the Civic Works Committee for the term ending November 14, 2022.

Yeas: (5): E. Pelozza, M. van Holst, J. Helmer, P. Van Meerbergen, and J. Fyfe-Millar

Absent: (1): E. Holder

**Motion Passed (5 to 0)**

### 2. Consent

Moved by: J. Helmer

Seconded by: J. Fyfe-Millar

That Items 2.1 and 2.3 BE APPROVED.

Yeas: (6): E. Pelozza, M. van Holst, J. Helmer, P. Van Meerbergen, J. Fyfe-Millar, and E. Holder

**Motion Passed (6 to 0)**

#### 2.1 10th Report of the Transportation Advisory Committee

Moved by: J. Helmer

Seconded by: J. Fyfe-Millar

That the 10th Report of the Transportation Advisory Committee, from its meeting held on November 30, 2021, BE RECEIVED.

**Motion Passed**

2.3 Highbury Avenue South Rehabilitation Project

Moved by: J. Helmer  
Seconded by: J. Fyfe-Millar

That, on the recommendation of the Deputy City Manager, Environment and Infrastructure, the following actions be taken with respect to the staff report dated December 14, 2021, related to the appointment of a Consulting Engineering for the Highbury Avenue South Rehabilitation Project from the Wenige Expressway Bridge to Highway 401:

- a) Parsons Inc. BE APPOINTED Consulting Engineers to update and complete the detailed design, and provide assistance with the tendering for the rehabilitation of Highbury Avenue South (Wenige Expressway Bridge to Highway 401) in the amount of \$284,178.00, excluding HST, in accordance with Section 15.2 (g) of the City of London's Procurement of Goods and Services Policy;
- b) the financing for this appointment BE APPROVED as set out in the Sources of Financing Report as appended to the above-noted staff report;
- c) the Civic Administration BE AUTHORIZED to undertake all the administrative acts that are necessary in connection with this appointment;
- d) the approvals given herein BE CONDITIONAL upon the Corporation entering into a formal contract with the Consultant for the work; and,
- e) the Mayor and the City Clerk BE AUTHORIZED to execute any contract or other documents, including MTO or utility agreements, if required, to give effect to these recommendations. (2021-T08)

**Motion Passed**

2.2 Supply and Delivery of Transit Signal Priority and Emergency Vehicle Preemption System

Moved by: J. Fyfe-Millar  
Seconded by: P. Van Meerbergen

That, on the recommendation of the Deputy City Manager, Environment and Infrastructure, the following actions be taken with respect to the staff report dated December 14, 2021, related to RFP21-08 Transit Signal Priority and Emergency Vehicle Preemption System:

- a) Applied Information Inc. BE AWARDED the contract to supply and deliver intersection detection systems in the amount of \$1,791,375.50, excluding HST, in accordance with Section 12.2 (b) of the City of London's Procurement of Goods and Services Policy;
- b) the financing for this project BE APPROVED in accordance with the Sources of Financing Report as appended to the above-noted staff report;
- c) the Civic Administration BE AUTHORIZED to undertake all the administrative acts that are necessary in connection with this project;
- d) the approvals given herein BE CONDITIONAL upon the Corporation entering into a formal contract with the Contractor for the work; and,

e) the Mayor and the City Clerk BE AUTHORIZED to execute any contract or other documents, if required, to give effect to these recommendations. (2021-P16/F05A)

Yeas: (6): E. Pelozza, M. van Holst, J. Helmer, P. Van Meerbergen, J. Fyfe-Millar, and E. Holder

**Motion Passed (6 to 0)**

2.4 Unwanted Water: Quantifying Inflow and Infiltration in London's Wastewater Sewer System

Moved by: P. Van Meerbergen  
Seconded by: J. Fyfe-Millar

That, on the recommendation of the Deputy City Manager, Environment and Infrastructure, the staff report dated December 14, 2021, with respect to the impacts of the City's unwanted water issues BE RECEIVED for information. (2021-E03)

Yeas: (6): E. Pelozza, M. van Holst, J. Helmer, P. Van Meerbergen, J. Fyfe-Millar, and E. Holder

**Motion Passed (6 to 0)**

**3. Scheduled Items**

None.

**4. Items for Direction**

4.1 A Conceptual Framework for Regional Transportation in London

Moved by: E. Holder  
Seconded by: J. Fyfe-Millar

That, on the recommendation of the Deputy City Manager, Planning and Economic Development, the following actions be taken with respect to the staff report dated December 14, 2021, related to regional transportation in Southwestern Ontario:

- a) the conceptual framework for regional transportation as presented in the above-noted staff report BE ENDORSED; and,
- b) the Civic Administration BE AUTHORIZED to use the conceptual framework as a basis for discussions with the Province of Ontario and municipalities to advance provincial participation in regional transportation in Southwestern Ontario;

it being noted that the staff presentation and a communication from R. Chambers, SCOR EDC, with respect to this matter, were received. (2021-T10)

Yeas: (6): E. Pelozza, M. van Holst, J. Helmer, P. Van Meerbergen, J. Fyfe-Millar, and E. Holder

**Motion Passed (6 to 0)**

**5. Deferred Matters/Additional Business**

5.1 Deferred Matters List

Moved by: J. Fyfe-Millar  
Seconded by: M. van Holst

That the Civic Works Committee Deferred Matters List as at December 6, 2021, BE RECEIVED.

Yeas: (6): E. Pelosa, M. van Holst, J. Helmer, P. Van Meerbergen, J. Fyfe-Millar, and E. Holder

**Motion Passed (6 to 0)**

**6. Adjournment**

The meeting adjourned at 12:55 PM.

# Transportation Advisory Committee

## Report

10th Meeting of the Transportation Advisory Committee

November 30, 2021

Advisory Committee Virtual Meeting - during the COVID-19 Emergency

Please check the City website for current details of COVID-19 service impacts.

Attendance                      PRESENT: D. Foster (Chair), G. Bikas, D. Doroshenko, T. Kerr, P. Moore, M. Rice and S Wraight and J. Bunn (Committee Clerk)

ABSENT: A. Abiola, B. Gibson, T. Khan and M.D. Ross

ALSO PRESENT: J. Bos, G. Dales, K. Johnson, T. Koza T. Macbeth, D. MacRae, A. Miller and B. Westlake-Power

The meeting was called to order at 12:15 PM.

### 1. Call to Order

#### 1.1 Disclosures of Pecuniary Interest

That it BE NOTED that no pecuniary interests were disclosed.

### 2. Scheduled Items

#### 2.1 Initiation of the Mobility Master Plan Development

That it BE NOTED that the staff report, dated November 2, 2021, from K. Scherr, Deputy City Manager, Environment and Infrastructure, and the presentation, dated November 30, 2021, as appended to the Added Agenda, from D. MacRae, Director, Transportation and Mobility, with respect to the initiation of the Mobility Master Plan Development, were received.

### 3. Consent

#### 3.1 9th Report of the Transportation Advisory Committee

That it BE NOTED that the 9th Report of the Transportation Advisory Committee, from its meeting held on October 26, 2021, was received.

#### 3.2 Municipal Council Resolution - 8th Report of the Transportation Advisory Committee

That it BE NOTED that the Municipal Council resolution, from its meeting held on October 26, 2021, with respect to the 8th Report of the Transportation Advisory Committee, was received.

#### 3.3 Municipal Council Resolution - Construction Mitigation Traffic Diversion on Dundas Place

That it BE NOTED that the Municipal Council resolution, from its meeting held on November 16, 2021, with respect to construction mitigation traffic diversion on Dundas Place, was received.

3.4 Municipal Council Resolution - Development of the Mobility Master Plan  
That it BE NOTED that the Municipal Council resolution, from its meeting held on November 16, 2021, with respect to the development of the Mobility Master Plan, was received.

3.5 Notice of Public Information Centre #2 - Municipal Class Environmental Assessment Study - Windemere Road Improvements  
That it BE NOTED that the Notice of Public Information Centre #2, as appended to the Agenda, from P. Yanchuk, City of London and K. Welker, Stantec Consulting Ltd., with respect to Windermere Road Improvements Municipal Class Environmental Assessment Study, was received.

3.6 Dundas Place Temporary Traffic Diversion Monitoring and Consultation  
That it BE NOTED that the staff report, dated November 2, 2021, from K. Scherr, Deputy City Manager, Environment and Infrastructure, with respect to Dundas Place Temporary Traffic Diversion Monitoring and Consultation, was received.

**4. Deferred Matters / Additional Business**

4.1 (ADDED) Advisory Committee Review

That it BE NOTED that the staff report, dated November 15, 2021, from C. Saunders, City Clerk, and the 5th Report of the Governance Working Group, from its meeting held on November 15, 2021, with respect to the Advisory Committee Review Final Report, were received.

**5. Sub-Committees and Working Groups**

None.

**6. Items for Discussion**

None.

**7. Adjournment**

The meeting adjourned at 1:10 PM.

## Report to Civic Works Committee

**To:** Chair and Members  
Civic Works Committee

**From:** Kelly Scherr, P. Eng., MBA, FEC, Deputy City Manager,  
Environment and Infrastructure

**Subject:** Supply and Delivery of Transit Signal Priority and Emergency  
Vehicle Preemption System

**Date:** December 14, 2021

## Recommendation

That, on the recommendation of the Deputy City Manager, Environmental and Infrastructure, the following actions **BE TAKEN** with respect to the RFP21-08 Transit Signal Priority and Emergency Vehicle Preemption System:

- a) Applied Information Inc. **BE AWARDED** the contract to supply and deliver intersection detection systems in the amount of \$1,791,375.50 (excluding HST) in accordance with Section 12.2 (b) of the Procurement of Goods and Services Policy;
- b) the financing for this project **BE APPROVED** in accordance with the Sources of Financing Report attached hereto as Appendix A;
- c) the Civic Administration **BE AUTHORIZED** to undertake all the administrative acts that are necessary in connection with this project;
- d) the approvals given herein **BE CONDITIONAL** upon the Corporation entering into a formal contract with the Contractor for the work; and,
- e) the Mayor and City Clerk **BE AUTHORIZED** to execute any contract or other documents, if required, to give effect to these recommendations.

## Analysis

### 1.0 Background Information

The City of London currently uses an optical preemption system for fire vehicles. Optical systems require line of sight to the intersection and do not perform well for transit signal priority. The Traffic Engineering Division is seeking to procure a new Transit Signal Priority and Emergency Vehicle Preemption System as a part of the new Transportation Intelligent Mobility Management System (TIMMS). The system will provide an advanced priority to transit vehicles as part of the Rapid Transit implementation and allow emergency vehicles (fire) to have an option to upgrade from current legacy optical system to a more advanced cell/radio detection system by purchasing an onboard equipment for their fire vehicles.

### 2.0 Discussion

On August 11, 2021, a Request for Proposal was issued to call for proposals for the procurement of Transit Signal Priority and Emergency Vehicle Preemption System. Four proponents submitted proposals for evaluation. These proposals were evaluated by a team from the Traffic Engineering Division with the assistance of the Purchasing and Supply Division, Information Technology Services Division, Fire Department and the London Transit Commission provided their comments to the submitted proposals which were taken in consideration by City staff during evaluation process.

The review and evaluation were scored based on general performance criteria including the company profile, proponent experience, project understanding and approach, interview and product demonstration and the cost proposal.

Based on the evaluation criteria and selection process identified in the Request for Proposals, the evaluation committee unanimously concluded that the proposal from Applied Information Inc., provider of the Glance Transit Signal Priority and Emergency Vehicle Preemption system, provides the best value to the City. Applied Information Inc. is a manufacturer and the supplier of the equipment. The proposed supplier has proven experience in supplying Transit Signal Priority and Emergency Vehicle Preemption systems. The proposal also met the general performance specification which demonstrated their suitability for the undertaking.

The Glance Transit Signal Priority and Emergency Vehicle Preemption system by Applied Information Inc. has been implemented in several other Canadian and USA municipalities including:

- Quebec City (2019);
- The City of Regina (2017);
- The City of Marietta, Georgia, USA (2016); and,
- The City of Sandy Springs, Georgia, USA (2020).

The Glance Transit Signal Priority and Emergency Vehicle Preemption system is proposed as a best value solution for providing transit vehicle priority detection and emergency vehicle preemption. The system uses field monitoring equipment installed in traffic cabinets in the field and on transit/emergency vehicles and communicates with central system via cellular network and 900 MHz radio. All system elements are connected via the Glance System, the cloud-based software system that allows for remote monitoring, data collection and storage, and system configuration capabilities. Transit and Emergency vehicles are provided with green signal phases based on priority request, thereby reducing travel times while simultaneously improving safety. Transit vehicles will benefit from conditional priority, assisting with schedule adherence and improved bus reliability throughout the City of London. The City will continue to operate the legacy optical preemption system for fire vehicles until such time the Fire Department is able to procure their vehicle onboard equipment and migrate to Glance system.

## **Conclusion**

Based on the technical evaluation of the proposals, it is recommended that Applied Information Inc. be awarded the contract for the supply the Glance Transit Signal Priority and Emergency Vehicle Preemption system in the amount of \$1,791,375.50 (excluding HST) in accordance with Section 12.2 (b) of the Procurement of Goods and Services Policy.

**Prepared by:** Shane Maguire, P. Eng., Division Manager, Traffic Engineering  
**Submitted by:** Doug MacRae, P. Eng., MPA, Director, Transportation and Mobility  
**Recommended by:** Kelly Scherr, P. Eng., MBA, FEC, Deputy City Manager, Environment and Infrastructure

November 25, 2021/

Attach: Appendix A – Source of Finance



## Appendix "A"

#21194

December 14, 2021  
(Award Contract)

Chair and Members  
Civic Works Committee

RE: Supply and Delivery of Transit Signal Priority and Emergency Vehicle Preemption System  
(Subledger TS190018)  
Capital Project TS180519 - TIMMS-PTIS - Transportation Intelligent Mobility Management System  
Capital Project RT1430-7C - Downtown Loop - TIMMS  
Applied Information Inc. - \$1,791,375.50 (excluding HST)

### Finance Supports Report on the Sources of Financing:

Finance Supports confirms that the cost of this project can be accommodated within the financing available for it in the Capital Budget and that, subject to the approval of the Deputy City Manager, Environment and Infrastructure, the detailed source of financing is:

Estimated Expenditures	Approved Budget	Committed To This Date	This Submission	Balance for Future Work
<b>TS180519 - TIMMS-PTIS - Transportation Intelligent Mobility Management System</b>				
Construction	791,854	100,729	0	691,125
Traffic Signals	6,265,272	3,154,387	1,771,862	1,339,023
City Related Expenses	11,474	11,474	0	0
<b>TS180519 Total</b>	<b>7,068,600</b>	<b>3,266,590</b>	<b>1,771,862</b>	<b>2,030,148</b>
<b>RT1430-7C - Downtown Loop - TIMMS</b>				
Consulting	90,294	90,294	0	0
Construction	1,659,706	943,482	51,042	665,182
<b>RT1430-7C Total</b>	<b>1,750,000</b>	<b>1,033,776</b>	<b>51,042</b>	<b>665,182</b>
<b>Total Expenditures</b>	<b>\$8,818,600</b>	<b>\$4,300,366</b>	<b>\$1,822,904</b>	<b>\$2,695,330</b>
<b>Sources of Financing</b>				
<b>TS180519 - TIMMS-PTIS - Transportation Intelligent Mobility Management System</b>				
Debenture By-law W.-5660-92 (Note 1)	188,520	87,120	47,256	54,144
Public Transit Infrastructure Stream (PTIS) - Federal Funding	2,827,440	1,306,636	708,745	812,059
Public Transit Infrastructure Stream (PTIS) - Provincial Funding	2,355,963	1,088,754	590,561	676,648
Drawdown from City Services - Roads Reserve Fund (Development Charges) (Note 2)	1,696,677	784,080	425,300	487,297
<b>TS180519 Total</b>	<b>7,068,600</b>	<b>3,266,590</b>	<b>1,771,862</b>	<b>2,030,148</b>
<b>RT1430-7C - Downtown Loop - TIMMS</b>				
Capital Levy	35,471	20,954	1,035	13,483
Public Transit Infrastructure Stream (PTIS) - Federal Funding	700,000	413,510	20,417	266,073
Public Transit Infrastructure Stream (PTIS) - Provincial Funding	583,275	344,558	17,012	221,705
Drawdown from City Services - Roads Reserve Fund (Development Charges) (Note 2)	431,254	254,754	12,578	163,921
<b>RT1430-7C Total</b>	<b>1,750,000</b>	<b>1,033,776</b>	<b>51,042</b>	<b>665,182</b>
<b>Total Financing</b>	<b>\$8,818,600</b>	<b>\$4,300,366</b>	<b>\$1,822,904</b>	<b>\$2,695,330</b>

## Appendix "A"

#21194

December 14, 2021  
(Award Contract)

Chair and Members  
Civic Works Committee

RE: Supply and Delivery of Transit Signal Priority and Emergency Vehicle Preemption System  
(Subledger TS190018)  
Capital Project TS180519 - TIMMS-PTIS - Transportation Intelligent Mobility Management System  
Capital Project RT1430-7C - Downtown Loop - TIMMS  
Applied Information Inc. - \$1,791,375.50 (excluding HST)

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<b>Financial Note:</b>	<b>TS180519</b>	<b>RT1430-7C</b>	<b>Total</b>
Contract Price	\$1,741,217	\$50,159	\$1,791,376
Add: HST @13%	226,358	6,521	232,879
Total Contract Price Including Taxes	1,967,575	56,680	2,024,255
Less: HST Rebate	-195,713	-5,638	-201,351
Net Contract Price	\$1,771,862	\$51,042	\$1,822,904

**Note 1: Note to City Clerk:** The City Clerk be authorized to increase Debenture By-law No. W.-5660-92 by \$62,840 from \$125,680 to \$188,520.

**Note 2:** Development charges have been utilized in accordance with the underlying legislation and the approved 2019 Development Charges Background Study and 2021 Development Charges Background Study Update.

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Jason Davies  
Manager of Financial Planning & Policy

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## Report to Civic Works Committee

**To:** Chair and Members  
Civic Works Committee

**From:** Kelly Scherr, P. Eng., MBA, FEC, Deputy City Manager,  
Environment & Infrastructure

**Subject:** Highbury Avenue South Rehabilitation Project

**Date:** December 14, 2021

## Recommendation

That, on the recommendation of the Deputy City Manager, Environment & Infrastructure, the following actions **BE TAKEN** with respect to the appointment of a Consulting Engineering for the Highbury Avenue South Rehabilitation Project from the Wenige Expressway Bridge to Highway 401:

- (a) Parsons Inc. **BE APPOINTED** Consulting Engineers to update and complete the detailed design, and provide assistance with the tendering for the rehabilitation of Highbury Avenue South (Wenige Expressway Bridge to Highway 401) in the amount of \$284,178.00 (excluding HST), in accordance with Section 15.2 (g) of the Procurement of Goods and Services Policy;
- (b) The financing for this appointment **BE APPROVED** as set out in the Sources of Financing Report attached hereto as Appendix A;
- (c) The Civic Administration **BE AUTHORIZED** to undertake all the administrative acts that are necessary in connection with this appointment;
- (d) The approvals given herein **BE CONDITIONAL** upon the Corporation entering into a formal contract with the Consultant for the work; and,
- (e) The Mayor and City Clerk **BE AUTHORIZED** to execute any contract or other documents, including MTO or utility agreements, if required, to give effect to these recommendations.

## Executive Summary

This report seeks the approval of Council to retain a consultant to complete the detailed design assignment for Highbury Avenue South, from the Wenige Expressway Bridge to Highway 401.

A previous assignment included the start of the detailed design for the rehabilitation of Highbury Avenue South. This new contract will complete the detailed design to tender ready status, in anticipation of a request for tender being called in the fall of 2022.

## Linkage to the Corporate Strategic Plan

The following report supports the 2019–2023 Strategic Plan through the strategic focus areas of Building a Sustainable City and Growing Our Economy by maintaining robust infrastructure and managing the transportation infrastructure gap.

# Analysis

## 1.0 Background Information

### 1.1 Previous Reports Related to this Matter

- Civic Works Committee - March 10, 2020 – Contract Award Tender No. 20-15 Wenige Expressway Bridge Rehabilitation
- Civic Works Committee - October 30, 2018 – Rehabilitation of Wenige Expressway Bridge and Highbury Avenue South, Preliminary, Detailed Design and Tendering Appointment of Consulting Engineer
- Board of Control - June 23, 2010 – Contract Award: Tender No. 10-93 Highbury Avenue South Concrete Pavement Rehabilitation
- Board of Control - November 26, 2008 – Highbury Avenue Rehabilitation
- Environment and Transportation Committee– April 21, 2008 – Highbury Avenue Rehabilitation
- Environment and Transportation Committee - August 7, 2007 – Appointment of Consulting Engineer, Highbury Avenue Rehabilitation

## 2.0 Discussion and Considerations

### 2.1 Background

In the fall of 2018, the City initiated a preliminary and detailed design assignment to investigate the needs of the Wenige Expressway Bridge and Highbury Avenue between Hamilton Road and Highway 401. This assignment included:

- progressing the detailed design to tender for the Wenige Expressway Bridge rehabilitation and the road renewal works from Hamilton Road to approximately 100 m south of the bridge, and
- partially progressing the detailed design for the rehabilitation of the existing concrete roadway on Highbury Ave South, from the limits of the bridge rehabilitation project, southerly to Highway 401.

The bridge and road components were linked for coordination of corridor pavement design and temporary construction staging measures that could service both phases.

Parsons Inc. was selected to complete the original design assignment following a two stage procurement process. Parsons progressed the detailed design of the northerly portion of the project with this work being tendered in 2020. Following two years of construction, the work on the Wenige Expressway Bridge and Highbury Avenue from Hamilton Road to the south side of the bridge will be completed this construction season.

The City would like to progress the remainder of the design work on the balance of Highbury Avenue South (from the south side of the bridge rehabilitation project, southerly to Highway 401) in order to be ready to tender this work in the fall of 2022 for construction in 2023.

### 2.2 Discussion

Highbury Avenue South within the project limits is classified as an expressway, conveying 45,000 vehicles per day including 15% trucks. The last repairs to the roadway were in 2010 & 11 when some full depth repairs were completed before Diamond grinding of the existing concrete surface. The concrete roadway, which is approximately 57 years old, is in poor condition and experiencing various distresses.

Parsons Inc. completed the initial design work under for the previous assignment as per City requirements. Since then, Ontario Regulation 406/19 under the Environmental Protection Act has been implemented by the Province of Ontario. This Regulation deals with how excess soils generated from excavation or earthworks must be managed during construction. As a result, a substantial amount of the effort in this new design assignment will go towards geotechnical and soils investigations in order to prepare the information required for tendering, as well as design options for the re-use of materials within the Highbury Avenue South corridor.

The majority of Highbury Avenue South consists of a concrete road surface, with sections that have been repaired with asphalt over time. This is a unique characteristic within London as most other roads are constructed with asphalt. Concrete pavements typically have a slightly higher initial cost and have a longer lifespan with lower maintenance costs whereas asphalt pavements are initially more economical to install but have a shorter lifespan and require more frequent maintenance. This design assignment will require Parsons and the geotechnical subconsultant analyze lifecycle cost estimates to determine which option (concrete or asphalt) provides the best value to the City of London in order to ensure the final product is durable and cost-effective.

Also included in this design assignment will be the redesign of the traffic signals at the Commissioners Road East/Highbury Avenue South northbound offramp to accommodate widening of the off-ramp for double left-turn lanes, coordination with nearby MTO projects, a review of structure clearances over Highbury Avenue South as well as minor design updates to complete the detailed design to tender ready status.

Having Parsons continue with the design of this project allows for efficiencies and provides value to the City as there is significant background knowledge within the firm and many of the same staff will be working on the project. The negotiated consultant fee for this assignment includes completing the detailed design process, assistance with tendering, public consultation and complying with new environmental requirements and legislation. The approval of this work will bring the value of the overall consulting assignment to \$821,206.50, excluding HST. Subject to project performance, Parsons will be considered for construction administration.

### **3.0 Financial Impact/Considerations**

Funds are available in the Capital Budget. There are no ongoing operating costs associated with the award of this assignment. The Source of Financing Report is appended to this report under Appendix A.

### **4.0 Key Issues and Considerations**

Highbury Avenue South provides a vital connection to Highway 401 for the movement of goods and traffic. Built in the early 1960's, the concrete roadway is nearing the end of its service life and needs replacement. The renewal of the pavement represents a significant asset management investment that requires comprehensive engineering design given the classification and characteristics of the facility.

The capital program for major roads has previously established a program to address these needs. With award of this consulting contract, the detailed design will be completed, allowing the project to be tendered in the fall of 2022, with construction to occur in 2023.

## Conclusion

Parsons Inc. has demonstrated an understanding of the requirements for this project and can effectively leverage previous work. It is recommended that this design assignment for Parsons Inc. be awarded in the amount of \$284,178.00 (excluding HST) to allow the consultant to complete the detailed design assignment for the Highbury Avenue South Rehabilitation Project from the Wenige Expressway Bridge to Highway 401.

**Prepared by:** Garfield Dales, P. Eng. Division Manager  
Transportation Planning & Design

**Submitted by:** Doug MacRae, P. Eng., MPA Director Transportation & Mobility

**Recommended by:** Kelly Scherr, P. Eng., MBA, FEC Deputy City Manager,  
Environment & Infrastructure

Schedule A: Source of Financing

c: John Freeman, Manager, Purchasing and Supply  
Marko Paranosic, Parsons Inc.

## Appendix "A"

#21187

December 14, 2021

(Appoint Consulting Engineer)

Chair and Members

Civic Works Committee

RE: Highbury Avenue South Rehabilitation Project

(Subledger RD210015)

Capital Project TS144620 - Road Network Improvements (Main)

Parsons Inc. - \$284,178.00 (excluding HST)

### Finance Supports Report on the Sources of Financing:

Finance Supports confirms that the cost of this project can be accommodated within the financing available for it in the Capital Budget and that, subject to the approval of the Deputy City Manager, Environment and Infrastructure, the detailed source of financing is:

Estimated Expenditures	Approved Budget	Committed To This Date	This Submission	Balance for Future Work
Consulting	1,003,555	704,296	289,179	10,080
Construction	11,199,258	6,969,363	0	4,229,895
City Related Expenses	37,174	37,174	0	0
<b>Total Expenditures</b>	<b>\$12,239,987</b>	<b>\$7,710,833</b>	<b>\$289,179</b>	<b>\$4,239,975</b>

### Sources of Financing

Capital Levy	22,107	22,107	0	0
Debenture Quota (Note 1)	881,238	0	0	881,238
Drawdown from Capital Infrastructure Gap Reserve Fund	1,679,160	0	0	1,679,160
Canada Community-Building Fund (Federal Gas Tax)	9,613,695	7,644,939	289,179	1,679,577
Other Contributions	43,787	43,787	0	0
<b>Total Financing</b>	<b>\$12,239,987</b>	<b>\$7,710,833</b>	<b>\$289,179</b>	<b>\$4,239,975</b>

### Financial Note:

Contract Price	\$284,178
Add: HST @13%	36,943
Total Contract Price Including Taxes	321,121
Less: HST Rebate	-31,942
Net Contract Price	\$289,179

**Note 1: Note to City Clerk:** Administration hereby certifies that the estimated amounts payable in respect of this project does not exceed the annual financial debt and obligation limit for the Municipality from the Ministry of Municipal Affairs in accordance with the provisions of Ontario Regulation 403/02 made under the Municipal Act, and accordingly the City Clerk is hereby requested to prepare and introduce the necessary by-laws.

An authorizing by-law should be drafted to secure debenture financing for project TS144620 - Road Networks Improvements (Main) for the net amount to be debentured of \$881,238.00

Jason Davies  
Manager of Financial Planning & Policy

HB

## Report to Civic Works Committee

**To:** Chair and Members  
Civic Works Committee

**From:** Kelly Scherr, P.Eng., MBA, FEC  
Deputy City Manager, Environment and Infrastructure

**Subject:** Unwanted Water: Quantifying Inflow and Infiltration in  
London's Wastewater Sewer System

**Date:** December 14, 2021

## Recommendation

That on the recommendation of Deputy City Manager, Environment and Infrastructure, the following report on quantifying the impacts of the City's unwanted water issues **BE RECEIVED** for information.

## Executive Summary

### Purpose

The purpose of this report is to provide more detail to Council on the unwanted rain and groundwater entering the City's wastewater collection system. This unwanted water is the primary cause of sewage bypasses and overflows to the Thames River and residential basement flooding. This is the third of a series of reports on the problem of unwanted water in the City's sewer system.

### Context

The City's wastewater sewer system is intended to collect household sewage (showers, sinks, and toilets), commercial sewage (restaurants, offices, retailers), and industrial sewage (large and small industries). Wastewater flows from a building and are conveyed through a network of sewers to a wastewater treatment plant. The wastewater treatment plant treats the water which is then discharged to the Thames River. All other water, for example rainwater and groundwater, is not intended to enter the sewer system. In the field of civil engineering these unwanted sources of water are referred to as "inflow and infiltration", but for the purposes of this initiative, the term "unwanted water" is used to describe any water that is not intended to be collected by the wastewater sewer system. Unwanted water is the primary cause of overflows and bypasses of wastewater into the Thames River and the primary cause of basement flooding.

## Linkage to the Corporate Strategic Plan

This recommendation supports the following 2019-2023 Strategic Plan areas of focus:

- Building a Sustainable City:
  - London's infrastructure is built, maintained, and operated to meet the long-term needs of our community by replacing aged and failing infrastructure with new materials and sizing new infrastructure to accommodate future development; and
  - Protect and enhance waterways, wetlands, and natural areas.

## Analysis

### 1.0 Background Information

#### 1.1 Previous Reports Related to this Matter

- Civic Works Committee – Sept 21, 2021 – Agenda Item #2.3: Sewage Overflows and Bypasses Into the Thames River – Sanitary Cross Connections



- Civic Works Committee – April 20, 2021 – Agenda Item #2.3: Sewage Overflows and Bypasses Into the Thames River
- Civic Works Committee – April 17, 2018 - Agenda Item # 2.5: London Pollution Prevention and Control Plan - Final Master Plan

## **2.0 Discussion and Considerations**

### **2.1 Where does unwanted water come from?**

All wastewater collection systems servicing large Cities across North America experience some degree of unwanted water. The sources of unwanted water in the City of London's wastewater collection system have been studied in detail in the City of London for many years and are well understood. These sources can be grouped into four categories: combined sewers; weeping tile and downspout connections; an aging sewer system; and illegal connections in areas built in the 1980-2020s. The following sections will describe these sources in further detail.

#### **Combined Sewers**

A major contributor of unwanted water in London historically has been combined sewers. Combined sewers were constructed up until the early 1960s and were designed to carry both wastewater and stormwater in the same pipe. Rather than the stormwater traveling to a stormwater treatment pond or the river, the stormwater was sent to the wastewater treatment plant. Over the last 20 years, the City has been aggressively replacing combined sewers with modern sanitary and storm sewer systems. Currently, only 1% of the City of London's sewer system are combined sewers.

#### **Weeping Tile and Downspout Connections**

Currently the largest sources of unwanted water in London's sewer system are weeping tile and downspout connections. Prior to 1984, the building code allowed connection of a home's weeping tiles to the City's sanitary sewer system allowing in large amounts of rain and groundwater. There are an estimated 50,000 weeping tile connections contributing unwanted water to the City's sanitary collection system.

The Basement Flooding Grant Program provides a 90% subsidy to separate weeping tiles from the sanitary sewer and install sump pumps and backflow valves. This protects the individual property from basement flooding and eliminates some unwanted water from the sanitary system. The Targeted Weeping Tile Disconnection Program is a City-led program that separates weeping tiles from the sanitary sewer in targeted neighbourhoods to realize a noticeable reduction in unwanted water in the sanitary system and produce a neighbourhood-wide benefit.

#### **An Aging Sewer System**

As sewer pipes age they eventually start to deteriorate. This results in cracks, breaks, and open joints between pipe sections and connections. Groundwater can then infiltrate through these small cracks and open joints. Sewer video inspections often find locations where the amount of groundwater flowing into a sewer is similar to the flow of water from a household sink faucet. When there are heavy or sustained rainfall events, the groundwater level will rise and infiltration increases in pipes, adding to the unwanted water in the wastewater collection system. This problem has historically been addressed by either replacing sewers through the City's Infrastructure Renewal Program or relining sewers through the City's Sewer Lining Program. New technologies are emerging that are also capable of lining sewer maintenance holes which could eliminate additional sources of unwanted water.

## Illegal connections in Areas Built in the 1980-2020s

Large quantities of unwanted water can also be observed in newer areas of the city constructed between the 1980s and 2020s. Although new sewers are constructed to minimize unwanted water, there are situations where illegal connections are made to the sewer system without the City's approval. Examples include:

- Post-construction sump pump connections – sump pumps that have either been connected to the main sewer vent or directed to a laundry tub,
- Clean out caps being left off the sanitary sewer clean out, which turns the sanitary drain into a weeping tile, and
- Draining of rainwater from open basements during new home construction.

### 2.2 How much unwanted water does the City of London experience?

A 2018 study completed by KPMG identified that the City of London, when compared with neighbouring municipalities of similar size, experienced approximately 2.5 times the amount of inflow and infiltration into our wastewater collection systems as other similar municipalities. Using a high-level approach, KPMG estimated that in 2017 these extraneous flows imposed an additional operational cost of \$1 million on the City's wastewater treatment plants. However, this cost estimate only considered the operational cost of wastewater treatment facilities, and likely significantly underestimates the true cost to the City associated with this issue.

As a follow-up to the KPMG study, City Staff have undertaken a more detailed review to quantify the amount of unwanted water treated at our wastewater treatment plants. The review of City data suggests that the KPMG estimate of unwanted water is low. In 2019 the proportion of unwanted water treated at London's treatment plants was 44%. Figure 1 provides a historical representation of the inflow and infiltration rate.

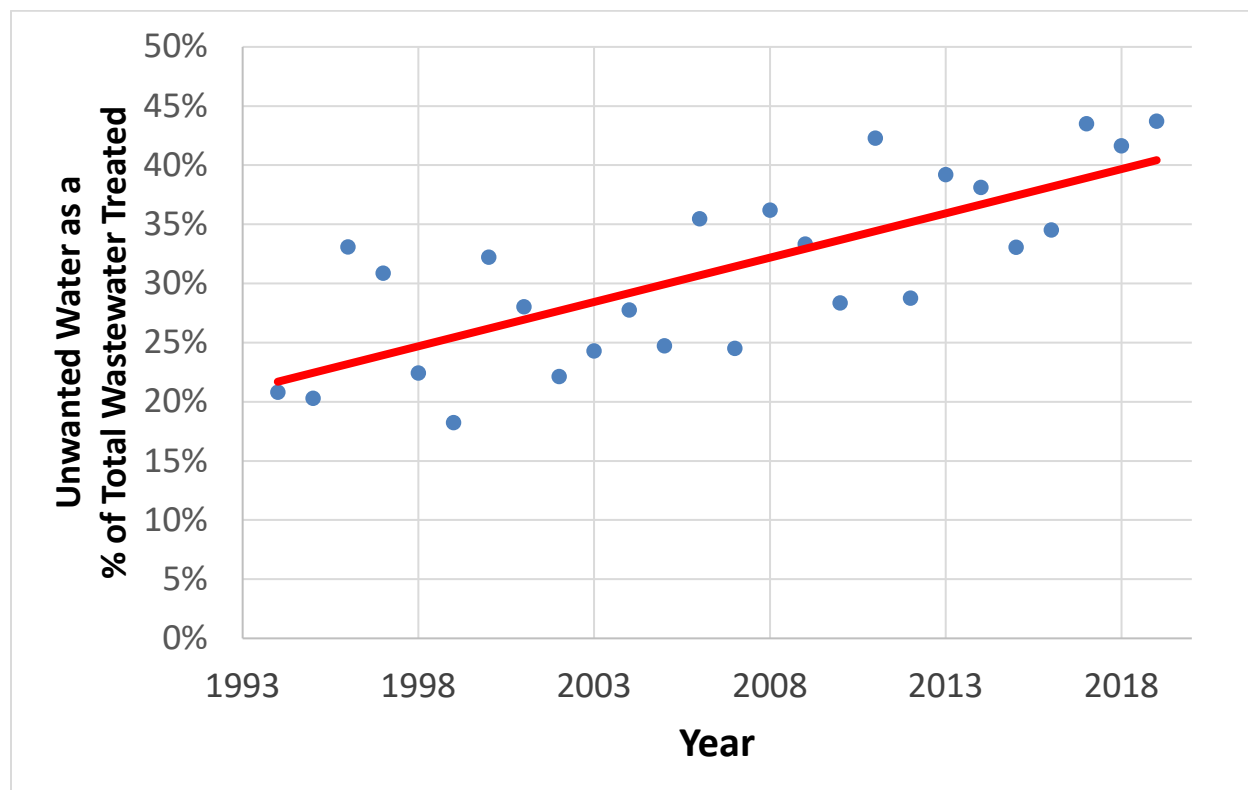


Figure 1: Unwanted water treated as a percentage of total wastewater volume.

Several factors may be responsible for the observed trend, which has increased over time:

- The elimination of some overflow locations from the sewer system, as was recommended by the 2018 Pollution Prevention Control Plan, has resulted in less flow discharged to the environment, but more flows conveyed to wastewater facilities.

- Climate change has been identified as increasing the severity of storm events experienced in the City. Western Researchers recently reported that a 100-year-flood in London is now occurring every 30 years. This may be increasing the amount of extraneous flow entering our sewers.
- Ongoing deterioration of sewers, allowing greater potential for infiltration.

### **2.3 Operational Impacts from I/I**

KPMG estimated that unwanted water results in additional operating costs at the City's wastewater treatment plants of \$1 Million per year. Although the methodology of determining this number was not provided, based on our estimates of reduced energy and chemical costs, a \$1 Million per year savings is a reasonable estimate at this preliminary stage of the investigation. Based on an evaluation of 2018 potable water and wastewater data, unwanted water is estimated to account for an additional cost of \$400,000 per year in additional energy to power the City's wastewater pumping stations. Thus, at a high level it imposes an additional annual operational cost of \$1.4 Million.

### **2.4 Environmental Impacts of Unwanted Water**

Unwanted water and the associated high wet-weather flows result in basement flooding as well as the overflow and bypass of untreated wastewater into the environment. These impacts present a health risk to the public and our environment. With the City pursuing the removal of overflows from the wastewater collection system, our wastewater treatment plants are being pushed harder and occasional bypasses and overflows are the result. Making efforts to reduce the wet weather flows that produce these events can improve our performance. Addressing unwanted water is the most effective way of achieving these results.

The City continues to monitor the quantity of overflows and bypasses, both at the wastewater treatment plants as well as at direct overflow points in the collection system. As well, the Thames River is sampled on a regular basis as part of a monitoring program at ten locations. Water quality in the Thames River has improved significantly since river monitoring was initiated in 1963. The dissolved oxygen levels have increased. Wastewater treatment has improved from 90% efficiency in the 1960's to the present where 99% of the Biological Oxygen Demand (BOD) is removed. London's plants perform better than typical wastewater secondary treatment processes that have a removal efficiency of between 85% and 95% for BOD.

### **3.0 A Strategy for Reducing Unwanted Water**

Staff propose to undertake a detailed investigation into all the sources of unwanted water in London in order to provide recommended solutions for Council's consideration. The goals of strategy are to both reduce the risk of basement flooding and reduce and eliminate sewage bypasses and overflows.

Phases of this work will include:

1. Provide a detailed evaluation of each of the following sources of unwanted water:
  - a. Combined sewers,
  - b. Weeping tile and downspout connections,
  - c. An aging sewer system, and
  - d. Illegal connections in Areas Built in the 1980-2020s.
2. Develop a working list of policies, projects, and programs to address each source of unwanted water,
3. Evaluate possible solutions to address the unwanted water problem, and
4. Establish a plan of recommended solutions for reducing unwanted water in the City of London.

The evaluation of these options will follow a process similar to an Environmental Assessment in which the risks, opportunities, and impacts of each option are considered against multiple criteria including:

- social impact,
- environmental benefit,
- technical feasibility and risk,
- cost and administrative difficulty, and
- potential for reduction of unwanted water.

The results of the analysis will be brought back to committee as a series of reports. The intention is to complete this analysis so that any resulting projects can be incorporated into the next multi-year budget process.

## **Conclusion**

Unwanted water has been an issue associated with London's wastewater collection systems for many years. While recent progress has been made to remove combined sewers, the volume of unwanted water remains high causing overflows and bypasses to the Thames River and causing residential basement flooding. It is recommended that the strategy outlined in this report be implemented with the intention of incorporating the results into the next multi-year budget submission.

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**CC:** K. Murray (Wastewater Treatment), K. Oudekirk, C. Liu

## Report to Civic Works Committee

**To:** Chair and Members  
Civic Works Committee

**From:** George Kotsifas P. Eng.,  
Deputy City Manager, Planning and Economic Development

**Subject:** A Conceptual Framework for Regional Transportation in  
London

**Date:** December 14, 2021

## Recommendation

That, on the recommendation of the Deputy City Manager, Planning and Economic Development, the following actions be taken with respect to regional transportation in Southwestern Ontario:

- a) The following conceptual framework **BE ENDORSED** for regional transportation as presented in this report; and
- b) Staff **BE AUTHORIZED** to use the conceptual framework as a basis for discussions with the Province of Ontario and municipalities to advance provincial participation in regional transportation in Southwestern Ontario.

## Executive Summary

This report recommends that the conceptual framework for regional transportation as it relates to London described in this report be endorsed and be used as a basis for discussions with the Province of Ontario, municipalities, and other transportation stakeholders in the region to advance regional transportation and mobility in Southwestern Ontario.

The conceptual framework identifies opportunities within London to integrate different modes of regional travel, with a particular focus on rail, local transit and regional and inter-community bus systems. It is based on a review of the city's role in the region and planning framework, area transportation network and operations, and interviews with public and private transit service providers both within the city and in surrounding Southwest Ontario municipalities.

## Linkage to the Corporate Strategic Plan

A conceptual framework for regional transportation addresses five strategic areas of focus, as presented in Council's Strategic Plan 2019-2023. These are:

- Strengthening our Community;
- Building a Sustainable City of London;
- Growing our Economy;
- Leading in Public Service; and,
- Creating a Safe London for Women and Girls

## Analysis

### 1.0 Background Information

#### 1.1 Background

Recently several important developments have occurred that have implications for regional transportation in southwestern Ontario including:

- In January 2020, the Provincial government released 'Connecting the Southwest: A Draft Transportation Plan for Southwestern Ontario' for consultation;
- In December 2020, the Government of Ontario moved ahead with deregulation

for the intercommunity transit sector through the *Better for People, Smarter for Business Act*, 2020. Operators no longer require a license to provide services on a specific route due to the dissolution of the Ontario Highway Transport Board;

- In January 2021, the Minister of Transportation formed a task force and named Mayor Holder as Chair to identify opportunities to improve connections between rail, bus, and local transit services across Southwestern Ontario;
- In May 2021, Greyhound Canada announced an end to its bus operations;
- In July 2021, the Provincial government announced an extension of Community Transportation Grant Program funding to 2025 for municipalities to operate inter-community transit services;
- Also July 2021, the Government of Canada announced its intension to explore rail service enhancements in southwestern Ontario in partnership with VIA Rail; and,
- In September 2021, GO Transit launched a pilot offering one early morning GO train trip from London to Toronto and one evening trip from Toronto to London.

At the same time, Southwestern Ontario continues to increase in population and employment. However, these opportunities are often dispersed across communities and neighbourhoods so that individuals are required to travel further for school, work or to spend time with family and friends. As commuting distances increase, effective and affordable regional transit becomes even more important. It's widely recognized that transit is more than moving people between one location to another. Transit reduces impacts on the environment, helps to adapt to demographic and economic changes, and provides an opportunity to further revitalize and build healthy communities.

### Socio-Economic Trends

The need for improved regional connectivity in Southwestern Ontario and the London area is urgent. Based on the 2020 Ontario Population Projections, the Middlesex census area (CA) population, which includes London and Middlesex County, is anticipated to increase by 37% to 701,974 inhabitants in 2046. The London Census Metropolitan Area (CMA) which also includes portions of Elgin County, is estimated to be one of the fastest growing CMAs in Canada. Between 2018-2019, Statistics Canada estimated that London CMA had a population growth rate of 2.3% which was the second-fastest growing CMA in Canada.

Many economic sectors in the London CMA are experiencing labour shortages. According to the Business Development Bank Canada, fifty-five percent of small and medium-sized businesses in Canada are currently struggling to hire the workers they need. The London Community Recovery Framework report identifies that increases in employee retirements and resignations, talent shortages, and misalignment between job seekers and available positions have been exacerbated by the COVID-19 pandemic. The inability to find enough workers is limiting growth and forcing businesses to delay or refuse new orders, providing further challenges to London's post-pandemic recovery.

Attracting and retaining quality talent will be critical for London's private and public sectors to not only survive but to thrive in a post-pandemic environment. Talent is the driving force behind operations - having the most talented and skilled employees contributes to the improvement of economic performance, innovation, and competitiveness. According to the Workforce Planning & Development Board Elgin Middlesex Oxford (WPDB), more than 3,400 job positions are currently available in the region, with 2,700 of those positions available in London itself. It is anticipated that an additional 3,000 new jobs will be created in the London region over the next two years, with major employers investing in settling or growing their existing footprint in London. The demand for workers and talent is hitting all sectors, suggesting economic growth in the London region is both broad and deep. The Conference Board of Canada has projected the London area economy will grow by 5.9% in 2022, with economic growth projected to outpace labour market growth.

Despite this recent economic success, London has one of the lowest labour market participation rates in Canada. Of particular concern is the relatively low participation rate of those aged 25-54 (prime-age). Looking at recent data on the labour market in the London CMA, between 2015-2019 the number not participating in the labour force

increased from 152,900 to 181,700 (an increase of 28,800 individuals). In contrast, Ontario saw an increase in prime-age participation during the same period.

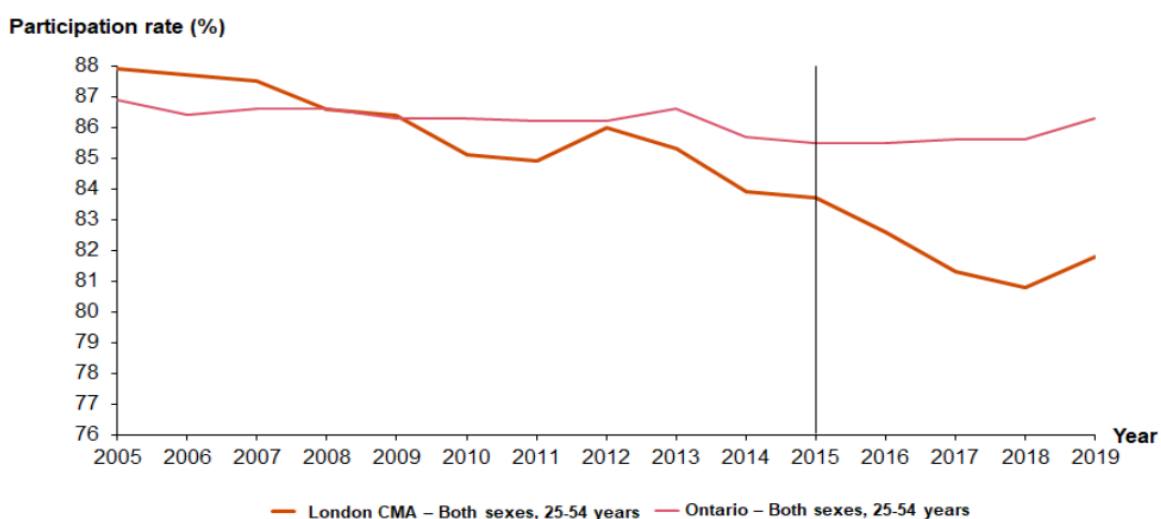


Figure 1: London CMA participation rates for prime-age individuals compared to Ontario, 2005-2019.

More recently, the London Community Recovery Network (LCRN) has identified that women’s involvement in the workforce was at a 30-year low due to the pandemic and that employment losses have been more severe for women than men. The Labour market participation in the London Economic Region Final Report (completed by PricewaterhouseCoopers and the City of London) identifies some factors that are contributing to this trend including:

- **Poverty and low income:** The London CMA has the second-highest low income rate in Southwestern Ontario. Low income can be a barrier to participate in the labour market as it is often associated with poor health, challenges searching for jobs, accessing transportation and pursuing education and training.
- **Shifts in industrial activity:** A loss of manufacturing and other trades-oriented jobs has affected the labour market outcomes in the London region.
- **Mismatch between skills and available opportunities:** Many non-participants have a post-secondary education of some kind but are unable to match with jobs that meet their requirements in terms of pay, schedule and other job conditions.
- **Homelessness and housing:** Although higher costs of living and housing costs has been a trend seen across Canada and Ontario, relatively higher rates of homelessness in the City of London compared to other CMAs in Ontario reinforce the idea that there are higher rates of poverty and unaffordable costs of living for residents in the London region compared to the rest of the province.
- **Transportation:** Compared to the average Ontarian, employed London economic region (ER) residents are more likely to travel to work by driving a personal vehicle, and are also less likely to travel by public transit. Given the relatively low population density of the London ER, the need for a vehicle to access labour market opportunities has implications for low-income residents and could significantly affect labour market outcomes in the London ER compared to the rest of Ontario, particularly areas with better access to public transportation.

A lack of transportation and poor health conditions are identified as the primary barriers for prime-age respondents without a post-secondary education. Similarly, among low-income respondents (earning less than \$30,000 when last employed), the lack of access to transportation is the top barrier to participation. As those with low income are less likely to be able to afford a car, lack of transportation can make jobs inaccessible if public transit is not a viable option. The implications of the need to have a vehicle to reach places of employment that are more distant, or at a location where public transit does not reach, creates significant issues in labour market participation and employment opportunities for those who cannot afford to purchase or own a vehicle.

To cope with this barrier, employers have started to provide support for transportation such as busing services or having supervisors give rides. As London rebuilds its

economy, there is an opportunity to re-envision the labour market and deliberately close existing gaps such as a lack of transportation. Accessible and affordable transportation would help those looking for work to pursue jobs in more remote areas and support those who may have accessibility issues due to a physical health condition or disability.

### Environmental and Health Benefits

In addition to the economic and labour market participation benefits of increased regional transit, improved mobility has various environmental and health benefits. In the environmental realm, individuals switching from private car use to public transportation contribute to reductions in air pollution, greenhouse gases, noise emissions, water pollution and land use impacts.

A key direction for London is to become one of the greenest cities in Canada, which can only be achieved if we reduce our carbon footprint as a city and manage growth in ways that support green and active forms of mobility. As shown in the City's 2020 Greenhouse Community Energy Use & Greenhouse Gas Emissions Inventory, transportation represented 41% of all greenhouse gas emissions in the City of London for 2020. As London and the region's population grows and the number of vehicles registered in London increases traffic congestion, opportunities to improve regional transportation that strengthen regional connectivity and mobility would promote more sustainable modes of travel and reduce automobile dependence.

Taken together, the economic, environmental and health benefits that regional connectivity can provide offers London an opportunity to enhance its role as the regional hub for Southwestern Ontario. Greater regional connectivity can boost economic competitiveness, labor market participation, and improve connections to employment, services, health, educational and recreation amenities to London and vice-versa.

## **1.2 Draft Regional Transportation Plan**

In January 2020 the Province released a draft transportation plan for Southwestern Ontario titled, "*Connecting the Southwest*". The draft plan outlines a regional transportation vision with a focus on a safe, efficient, and connected transportation network. Recognized needs and opportunities include:

- More intercommunity bus service;
- More reliable passenger train service;
- More local public transit;
- A strong highway network;
- Reliable local roads; and
- Regional airports and ferry services.

Across these different modes of travel, more than 40 improvements and strategies are identified that are categorized into five themes: connect people to places; further build a strong and competitive economy; keep our highways safe and reliable; make life more convenient for travellers; and prepare us for the future.

The draft Plan notes that it is a living document that is intended to evolve from continuing partner and stakeholder input to stay relevant as technology and the needs of people and businesses evolve. Key actions include to:

- Establish a task force with representation from Southwestern Ontario mayors and Indigenous communities as a venue to discuss transportation service needs and opportunities to better integrate transportation services in the region. The task force, chaired by Mayor Holder, has been working to identify opportunities to make it easier for people to travel between communities and access services such as healthcare, education, and employment. The task force has focused on improving connections between rail, bus, and local transit services across southwestern Ontario and ensure that our plan is informed by local needs and considerations. (Action #9)
- Investigate and identify priority actions to integrate different modes – rail, intercommunity bus, public transit, ridesharing, scooters, bikes – to make it



easier for people in southwestern Ontario to get around and provide more options to get there. (Action #34)

With the creation of the Southwest Ontario Transportation Task Force in early 2021 - and its mandate to focus on improving regional connectivity and better integration of transportation services in the region - now is an opportune time to review how various modes of regional transportation can best connect to London and identify opportunities to integrate these different modes of travel.

### 1.3 Council Resolution

At its meeting on August 10, 2021, Council adopted the following actions regarding regional transportation and mobility across Southwestern Ontario:

- a) *the Civic Administration BE DIRECTED to develop a conceptual framework for a Regional Transportation/Mobility Hub in downtown London, including working with London Transit to explore potential connections between a regional transportation/mobility hub and local City of London transit routes, including the proposed bus rapid transit system, for Council's consideration; and,*
- b) *the Mayor BE REQUESTED to engage with the Southwest Ontario Transportation Task Force membership on the opportunity of positioning the City of London as a Regional Transportation/Mobility Hub for consideration by the Province of Ontario under the Connecting the Southwest: A Draft Transportation Plan for Southwestern Ontario.*

## 2.0 Discussion and Considerations

### 2.1 London in the Regional Context

The Southwestern Ontario region is home to over 1.6 million people and extends from Essex and Lambton Counties in the west, Norfolk and Oxford Counties in the east and Bruce and Grey Counties in the north. At its western edge, the region is connected to the State of Michigan, and to the east is connected to Waterloo Region, Wellington County, Brant County and the rest of the Greater Golden Horseshoe (GGH).

The region is well connected with 1,670 lane kilometres of 400-series highway, 3,000 lane kilometres of provincial roadways and two of Canada's largest three road and rail border crossings by volume. In the southern portion, it is served by a network of rail infrastructure. Additionally, Southwestern Ontario contains 2 international airports and 14 municipal airports. A regional map identifying the region and its current transportation network is provided below:

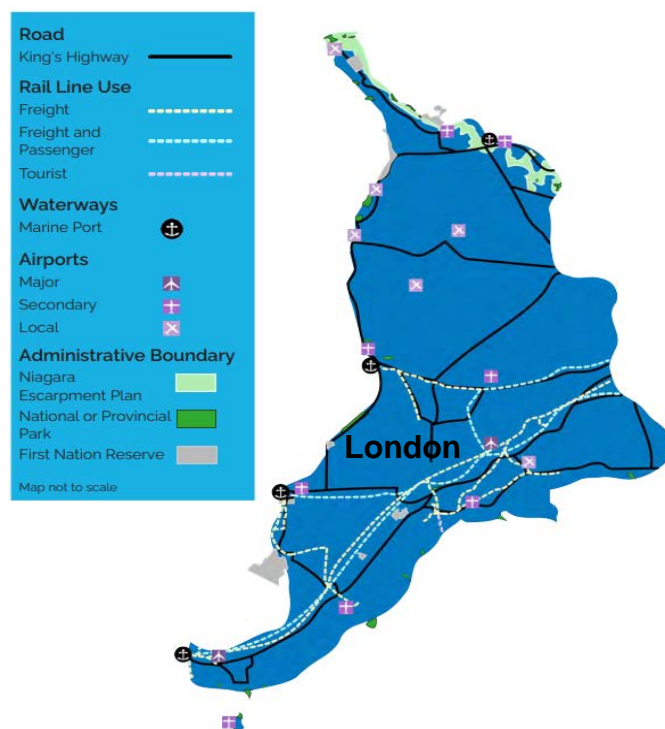


Figure 2: Southwestern Ontario's Current Transportation Network, Province of Ontario

The City of London is located near the geographic centre of the region and is its largest population centre; the city is one of Canada's fastest growing cities and ranks currently as its 11<sup>th</sup> largest city. Several major transportation corridors, including 400-series highways and Class 1 railways, converge in London. The rail station is the fourth busiest ViaRail terminal in Canada. As well, the London International Airport serves as the highest volume passenger airport for the region.

London is the regional centre for health care with three hospitals having specialized health care and diagnostic services and is a major centre for education being home to the Western University and Fanshawe College. London is also a major regional retail and tourism destination and acts as a hub for exhibitions and cultural events through venues such as the Western Fair and Budweiser Gardens.

Based on the 2020 Ontario Population Projections, the Middlesex Census Division population (City of London and County of Middlesex) is anticipated to increase by 37% to 701,974 by 2046. In addition, commercial uses, offices, institutions, and industries are anticipated to increase. Over this period, the economy will expand, and the number of people that are employed in the city will increase significantly.

Given its location, population base, regional services and transportation connectivity, London functions as the logical transportation and mobility hub for the broader region. In the regional context, London serves as the primary centre for regional services and as a focal point to connect the Southwest Ontario region to the broader world.

## **2.2 Planning Context**

The Provincial Policy Statement (PPS), 2020 provides policy direction on matters of provincial interest related to land use planning and development. It provides for appropriate development while protecting resources of provincial interest, public health and safety, and the quality of the natural and built environment. Improved land use planning and management is supported, which contributes to a more effective and efficient land use planning system. The City is required to be "consistent with" the PPS when exercising its authority on planning matters.

*In accordance with policy 1.2.1 "A coordinated, integrated and comprehensive approach should be used when dealing with planning matters within municipalities, across lower, single and/or upper-tier municipal boundaries, and with other orders of government, agencies and boards..." As it relates to regional transportation in particular, policy 1.1.6.7 identifies that "as part of a multimodal transportation system, connectivity within and among transportation systems and modes should be maintained and, where possible, improved including connections which cross jurisdictional boundaries."*

The City's Official Plan – The London Plan – provides a framework for London's growth and change over the next 20 years. The Downtown is located at the centre of the urban area and is recognized as the highest-order centre in the city. Four Transit Villages located to the north, west, east and south of Downtown are identified as higher-order centres that together with the Downtown allow for the broadest range of uses and the most intense forms of development in the city, with highly urban, transit-oriented environments.

Rapid Transit Corridors connect the Downtown and Transit Villages with highly urban forms of development, allowing for a broad range of uses and moderate intensity arranged in a linear configuration along rapid transit routes. The city structure identified in The London Plan is shown below.



Figure 3: City Structure, London Plan

The city structure also illustrates important transportation connections between London and the surrounding region, including the rail network with the rail station located Downtown, the London International Airport, and important highways including Highways 401, 402 and 4. Key gateways into the city are also illustrated. Directions to augment these gateways include collaborating with surrounding municipalities to foster regional rail and bus service.

### 2.3 London Area Transit Network

This section outlines the current and planned inter-regional, inter-community and local transit services and facilities in London.

#### Local Transit

The London Transit Commission (LTC) is responsible for the operation of the public transit system on behalf of the City of London. Currently, the LTC has 35 regular bus routes, and six community bus routes.

Consistent with the city structure Plan above, the LTC uses a hub and spoke transit system, whereby the system provides for routes (the spokes) that generally converge in the Downtown (the primary hub). Secondary hubs are located at the end of the spokes where more localized transit routes converge. The routes between the primary and secondary hubs function as the spine of London's mobility network and typically provide the highest transit frequency and ridership in the city.

In 2019, Council approved proceeding with Rapid Transit projects to serve as higher-order transit routes for the downtown, southern and eastern parts of the city. The first

project, the Downtown Loop, is under construction and is anticipated to be fully complete by 2023. The Loop will run buses along Queens Avenue, King Street, Ridout Street and Wellington Street, and include curbside bus-only lanes and enhanced rapid transit stops. The Downtown Loop will function as the rapid transit hub for the city.

The East London Link connecting Downtown with Fanshawe College and the east part of the city is anticipated to start in 2022. This project will provide improved transit links to the City's eastern employment areas and allows for a future extension to the London International Airport. The Wellington Gateway to connect Downtown with the south part of the city along Wellington Road is expected to begin construction in 2023. This project will include a secondary transit hub and Park and Ride facility near Highway 401.

The map below identifies the city transit network, including these higher-order projects.

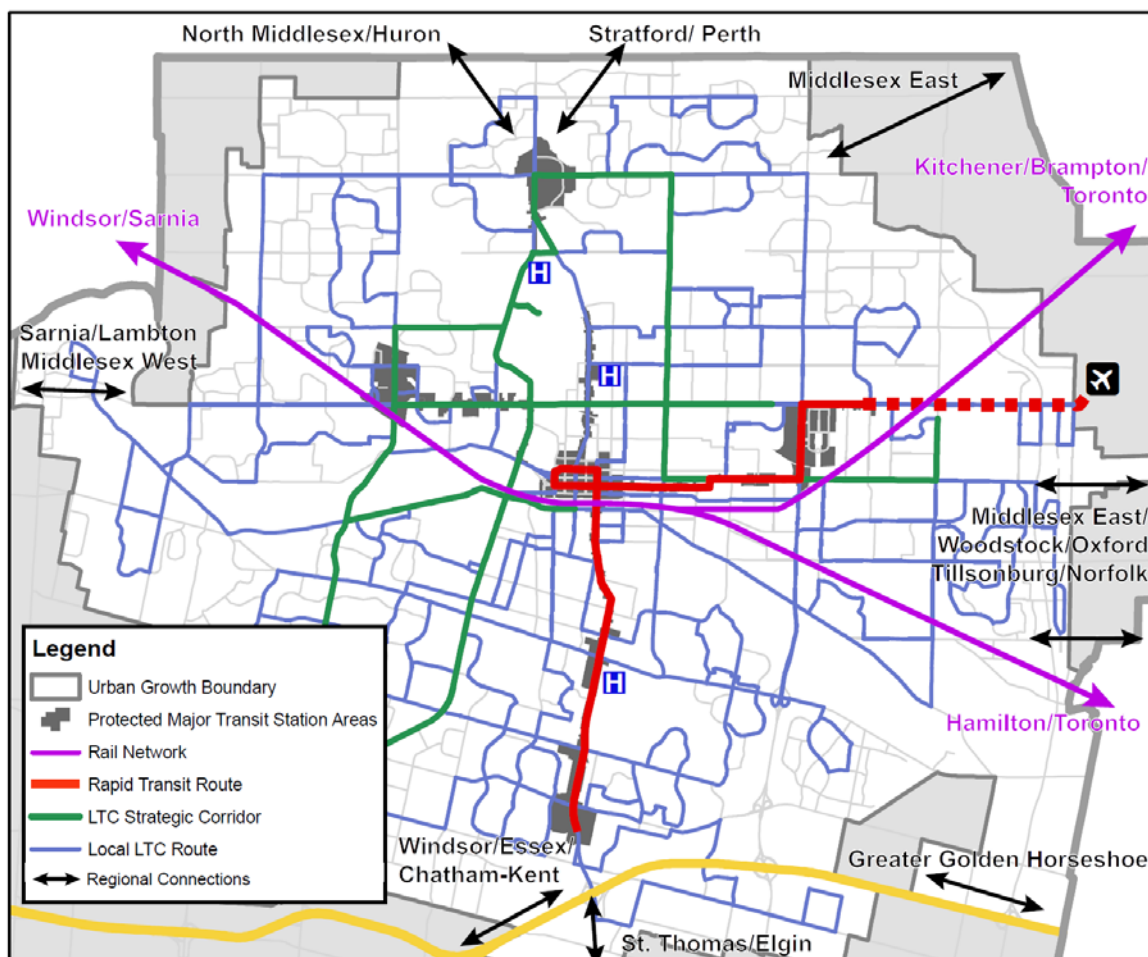


Figure 4: London Transit Network

### Rail System

The London Plan recognizes that the rail network provides important connections to the surrounding region, the Quebec-Windsor corridor and beyond. The Plan identifies that the primary hub for international, interprovincial, and inter-municipal connections by rail and bus will be directed to a central location within the Downtown, and that the City's rapid transit hub (the Downtown Loop) should coincide with the rail station within Downtown London to make rapid transit connections to rail as convenient as possible. The rail station is to be well connected to major destinations within the Downtown and these routes are to offer a very high level of pedestrian amenity.

The London rail station is located at 205 York Street and is owned and operated by ViaRail Canada. Currently, VIA operates six daily trains in each direction between London and Toronto Union Station. Five of these take the CN South Main Line route through Brantford, Aldershot & Oakville, and one route takes the CN North Main Line route through Stratford, Kitchener and Brampton. Additionally, four VIA trains each way connect London to Windsor daily with stops in Chatham and Glencoe. Finally, one daily train each way connects London with Sarnia, with stops in Strathroy and Wyoming.

In September 2021, Metrolinx announced the launch of pilot service along the North Main Line to London Station. The service launched on October 18, 2021, extending one

GO Train in each direction from Kitchener to London, serving stops at Stratford and St. Marys using existing VIA Rail Stations. Trips will run each weekday between Toronto's Union Station and London. The eastbound train leaves London VIA station at 5:30 am, arriving at Toronto's Union Station at 9:13 am. The westbound train leaves Union Station at 4:10 pm, arriving in London at 8:17 pm.

### Inter-Community Transit

The London Plan recognizes the importance of intercommunity transit and encourages collaborating with surrounding municipalities to foster regional rail and bus service. Regional transit is to be pursued and the requisite infrastructure to support it is to be established. The Plan identifies that supportive infrastructure can be established at the Transit Villages to allow for the regional population to easily connect to the Downtown and rail services.

Improving intercommunity bus service is identified as a key action of the provincial draft transportation plan as it plays an important role to connect people to jobs and essential services, especially in rural communities. Through the Ontario Community Transportation Grant Program, the Province has provided funding to support local transit and intercommunity bus service in areas that are currently unserved or underserved by public transit.

Locally, the Southwest Community Transit (SCT) association has been established as an organizational body to oversee intercommunity transit in the region. Working together with the South-Central Ontario Region Economic Development Corporation (SCOR EDC), participating transit providers include Brant Transit, Grey Transit, Huron Shores Area Transit, Middlesex County Connect, Norfolk County Transit, Perth County Connect, City of Sarnia, Strathroy-Caradoc & City of London and Tillsonburg Transit. SCT member inter-community routes are identified on the map below.



Figure 5: Inter-community routes in southwest Ontario. SCT, 2021.

At present, six inter-community routes intersect with conventional transit in London. Three of these (Huron Shores, Perth Connect and Middlesex Connect) use an LTC stop near Masonville Mall. Both Middlesex Connect routes use an LTC stop near Argyle Mall. Tillsonburg Transit uses an LTC stop at Victoria Hospital, and the Sarnia-Strathroy route has uses and LTC stop near the VIA station and at the London International Airport.

### Regional Bus

With the ending of Greyhound Bus Services in May 2021 and the Provincial deregulation of the intercommunity transit sector, which began in July 2021, several operators have begun or augmented service to London, including Badder Bus Lines, Megabus, Onexbus and Rider Express.

At present, Badder stops twice daily at the Flying J truck-stop at 3700 Highbury Avenue South on its route between Windsor and Toronto. Megabus also uses this location for its Toronto service as well as a stop at Western University. Onexbus provides service to Toronto at three different locations in London including York St. and Talbot St., Victoria

Hospital and White Oaks Mall. Finally, Rider Express stops at the Petro Canada gas station at 130 Wellington Road on its route between Windsor and Toronto.

### Mobility Master Plan

In November 2021, the City initiated the creation of a new Mobility Master Plan (MMP) which will outline transportation and mobility policies, plans and programs for the City for the next 25 years. The Plan will be developed with extensive public consultation and engagement. It is anticipated that key recommendations will be delivered throughout 2023, with the Plan finalized and documented in 2024. The findings and recommendations in this conceptual framework for regional transportation are not intended to presuppose the outcome of the MMP process.

## **2.4 Stakeholder Engagement**

A key aspect in developing the conceptual framework has been stakeholder engagement. Staff conducted interviews with the following groups to gain a better understanding of how regional transportation operations function, their experiences when operating in the city, and their longer-term needs and goals to improve regional connectivity:

- City of London, Major Projects Team (10-1-2021 & 10-22-2021)
- London Transit Commission (LTC) (10-1-2021 & 10-29-2021)
- City of Tillsonburg (10-5-2021)
- City of Stratford & County of Perth (10-6-2021)
- Municipality of Strathroy-Caradoc (10-7-2021)
- South Central Ontario Region Economic Development Corporation (SCOR EDC) (10-8-2021)
- County of Middlesex (10-7-2021)
- City of St. Thomas (10-13-2021).
- Robert Q Airbus (10-18-2021)
- London Economic Development Corporation (11-11-2021)
- City of London, London Tourism (11-17-2021).

A summary of the comments received include the following:

- Inter-community transit performs different roles for different communities (e.g., daily commute vs. a health-care visit or shopping in London). Early inter-community ridership-numbers were low (in part due to the COVID-19 Pandemic). Since September 2021 ridership numbers have increased as educational and employment facilities move to (partial) in-person classes and employment;
- There is a need to ensure two-way connectivity; inter-community routes provide mobility options for rural residents and vulnerable populations to access regional services and employment in London, but there are also opportunities for city residents to connect to rural employment, recreational and tourism destinations;
- The VIA station was identified as the most important inter-regional transportation hub in London. A long-term desire to operate inter-community transit to the Downtown was expressed, but there are concerns this would add significant driving-time at the expense of frequency of service. The LTC and high-frequency Rapid Transit system was seen in many cases as the most efficient way to move inter-community riders from outer hubs to the inter-regional hub in the Downtown.
- It was noted that the success of a regional transportation hub in Downtown will depend on strong pedestrian connectivity between Rapid Transit stops and VIA Rail and Metrolinx GO-Transit service offered at the rail station. Another identified major regional draw in Downtown London is Budweiser Gardens.

- At present, most regional transit providers rely on stops near the urban periphery that provide opportunities to transfer into the LTC hub and spoke network. The LTC has been hospitable in allowing regional carriers to use on-street LTC-stops and signage. However, there is a desire to use outer transit terminals to improve connectivity, but these are typically unavailable to inter-community transit as terminals are operating at overcapacity. Another complicating factor is that these terminals are owned and maintained by property-owners and not by the LTC. Currently, each regional transit service has its own marketing and route branding. There is a desire for better coordination between with LTC, including promoting regional routes to LTC riders, regional system mapping, shared marketing, etc.
- SCT is developing an electronic 'app' for online payment and on-demand transportation is in development that is scheduled for release by the end of 2021.

These comments from regional providers underscore that efficient and seamless integration between inter-regional transit and Rapid Transit corridors and local LTC routes that service employment and residential areas is crucial.

### 3.0 Preliminary Findings and Recommendations

Based on a review of the regional context, planning framework, area transportation network and stakeholder engagement, preliminary findings and recommendations are presented below to improve intercommunity transportation and integrate different modes of travel to facilitate easier transfers. Findings and recommendations have been categorized into two themes: mobility hubs and system-wide opportunities.

#### 3.1 Mobility Hubs

The core elements of a mobility hub include a major transit station and surrounding areas with concentrated residential and employment density. These areas serve a critical function in the regional transportation system as the origin, destination, or transfer point for a significant portion of transit trips and are locations of connectivity where different modes of transportation such as transit, active transportation, ride hailing, carshare and private vehicles are linked together. The goals of mobility hubs are generally defined as:

1. Create seamless, safe, and accessible connections between different modes of transportation in one convenient location.
2. Promote the use of public transit, active transportation (cycling and walking) and increase the ability of residents to travel without a car.
3. Use the momentum in transit-oriented development by establishing a mobility hub in a location where people already live and work.

In London, mobility hubs reflect the Primary Major Transit Station Areas (PMTSA's) identified in The London Plan as approved by the Province in May 2021. These areas align with the Downtown, Transit Village, and Rapid Transit Corridor Place Types in the London Plan and are intended to accommodate increased residential and employment growth with highly urban, mixed-use, transit-supportive forms of development.

#### Inter-Modal Hubs in London

Within a PMTSA, a key aspect is inter-modal connectivity and high-frequency transit services. As set out in the London Plan, the primary hub for international, interprovincial, and inter-municipal connections by rail and bus is directed to a central location within the Downtown PMTSA. Secondary hubs within Transit Village PMTSA's also perform an important inter-community transit role in the regional context. The roles of the primary and secondary hubs in the city are as follows:

- Downtown functions as the primary inter-regional hub and includes the rapid transit hub (Downtown Loop) and the train station having rail connections to Windsor/Sarnia, Kitchener and the GTA.
- Secondary hubs function as hubs for large areas of the city where local transit routes converge, and where there are current high levels of transit service. These

hubs also serve as major connection points for intra-regional routes from areas surrounding London.

- The routes connecting the primary and secondary hubs provide the highest transit frequency and ridership in the city.

Based on the foregoing, the following map identifies the conceptual locations for primary and secondary regional transportation hubs in London.

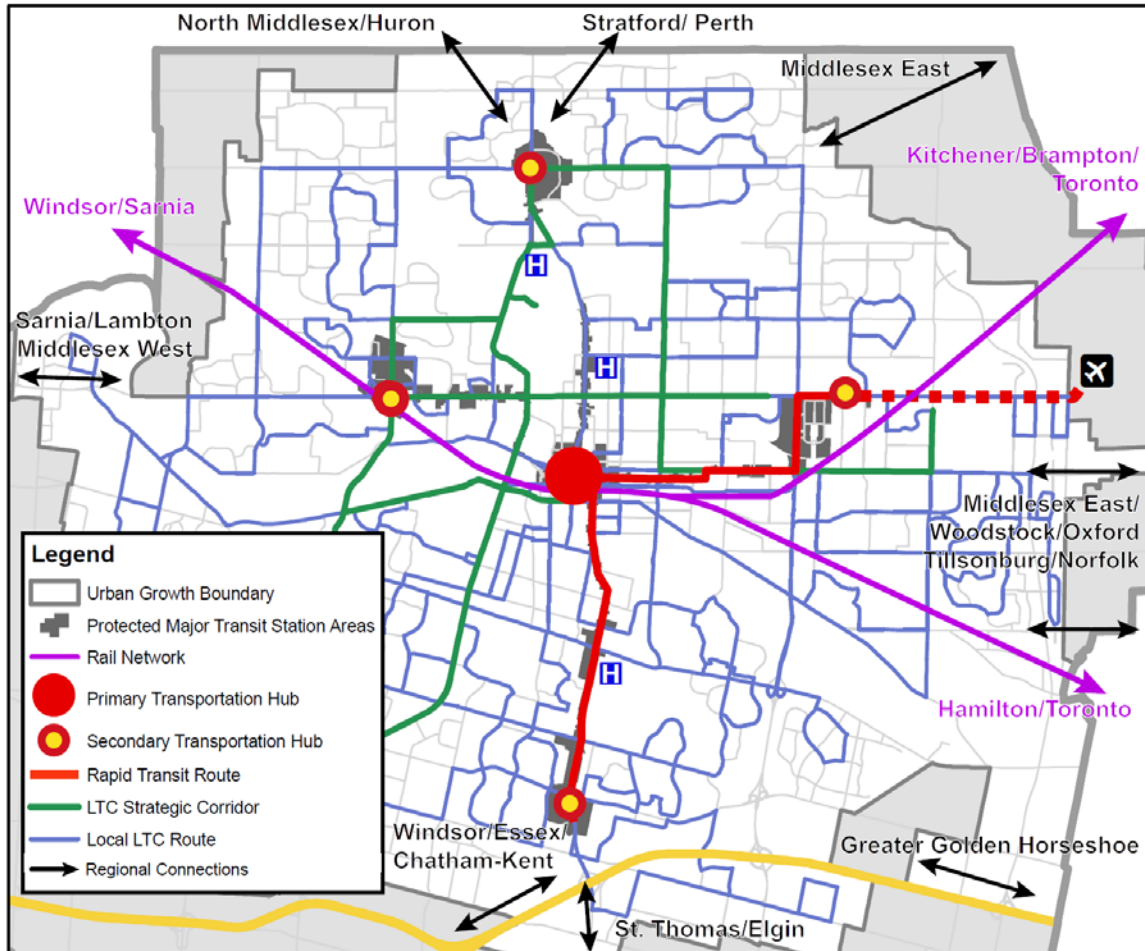


Figure 6: Primary and Secondary Regional Transportation Hubs in London

### 3.2 Regional Transportation Hub Principles

As identified above, a key goal of mobility hubs and their transportation infrastructure is to provide good connections between different modes in one convenient location. This goal is supported by six principles that help to address transportation needs and inform the development of a transportation hub:

#### 1. *Prioritize efficient and seamless modal integration*

By prioritizing on the seamless connection of sustainable transit options in one location, transportation hubs provide choice for people to efficiently connect to services and jobs and helps to minimize the ecological footprint in line with London's climate emergency declaration. An important goal of a transportation hubs is to reduce the dependence on private automobile use and the resulting emissions.

#### 2. *Consider the user experience and ensure safety and comfort for all travelers*

Based on the intermodal nature of regional transportation hubs, it is crucial to consider services that help users to plan their trip using a variety of transportation modes. While the level of passenger amenity will vary at each hub, hubs should support elements that enhance user experience include wayfinding, a universal fare-system, comfortable transit-shelter or waiting areas, and convenience retail services. Further, as mobility hubs have high pedestrian activity and vehicle movement, the design and infrastructure of a transportation hub needs to encourage a pedestrian oriented design, where passenger movement is protected from surrounding vehicles. Safety should be considered across all abilities and ages, allowing people with different abilities and experience with transit-services to use the system easily.



### 3. *Promote equity and viability across the region*

As the main goal of a multi-modal hub is to increase connectivity across the region, it is essential for transportation services to be available to the largest number of users across different communities. This requires consideration of the larger transportation network. Additionally, the hub needs to be viable for individuals across socioeconomic levels, so affordability is a key equity issue.

### 4. *Ability to accommodate for technological innovations and future growth*

Transportation hubs can integrate different transportation modes and services, with newer forms like (electric) bike sharing or autonomous vehicles emerging. As technology in transportation continues to evolve, the sustained success of mobility hubs will depend on the ability to adapt and expand to these changes. Therefore, the design should be flexible to accommodate for future growth and changes in technology and contribute to long-term viability and resiliency.

### 5. *Create opportunities for partnerships*

Partnerships between the public and private sector strengthen the integration between different transportation services. These partnerships make traveling more convenient and provide an opportunity for integration of payment services or traveller information systems. Partnerships may also occur between public sector transit providers, private mobility services and the commercial sector such as real-estate. These partnerships can help create transit-oriented development and other opportunities for economic development at the hub.

### 6. *Implement 'placemaking' to foster a sense of place*

Since many trips and activities will be centered around transportation hubs, an important consideration is the design of a high-quality public realm that fosters a sense of place with a positive identity that makes visitors feel at ease. As set out in the London Plan, implementing 'placemaking' by promoting an urban design that creates safe, diverse, walkable, healthy, and connected communities, creating a sense of place and character.

## **3.2 Downtown Transportation Hub**

Downtown London serves as the centre for inter-regional, inter-community and local transit as the location of the city's rail station and future rapid transit hub (the Downtown Loop). The existing rail station is located at York Street and Clarence Street, and the rapid transit hub (Downtown Loop) under construction is to be located one block to the north along King Street with the nearest stop west of Wellington Street.

As a near-term action, it is recommended that the train station, King/Wellington Rapid Transit stop and the pedestrian routes linking them be considered together as the Primary Transportation Hub. To enable users to efficiently transfer between rail and Rapid Transit, transit station design needs to be extended beyond platform and waiting areas to encompass the wider public realm of the area and surroundings. The pedestrian routes should be designed as pedestrian priority areas with wider sidewalks, signage, and wayfinding to inform users where they need to go, and pedestrian-oriented lighting for enhanced visibility and safety.

Prior to the pandemic, regional bus service was primarily centred on the Greyhound Bus Terminal at York Street and Talbot Street. This location provided eight regional bus bays and 14,000ft<sup>2</sup> of space including a large baggage area and a passenger terminal. With its closure and subsequent industry deregulation, it is unclear how the regional bus network will be configured in the future. Regional bus platforms in the Downtown have not been identified by stakeholders as a near-term need. However, it is noted that the regional and inter-community carriers are recent entrants into London and are still developing their frequencies and stop locations. With the construction of Rapid Transit and Downtown Loop transit hub near the rail corridor and train station with Via Rail and Metrolinx service, regional bus service providers may again direct service to the core.

### Future Downtown Multi-Modal Hub

Should demand for regional bus connections to downtown re-emerge, a rail and regional bus multi-modal Downtown Transportation Hub in one location as envisioned by the London Plan would facilitate seamless travel between different modes. Using the Regional Transportation Hub principles identified above, a new inter-modal facility located between York Street and the rail corridor would allow for rail platforms, and near the Wellington Gateway to coordinate with Rapid Transit. Bus bays and platforms for regional and inter-community service would be integrated. As the major multi-modal hub in the region, it should also provide space for other modes of travel including:

- Pick up and drop-off zones to drop off passengers, taxis and shuttles;
- Secure bike parking (short- and long-term storage);
- Car parking/ carshare parking;
- Electric vehicle charging; and
- Micro-mobility including on-demand transit such as shuttles and e-scooters.

It is recognized that a new facility would require significant provincial participation, however a new regional multi-modal transportation hub located in the highest-order growth centre and incorporates seamless connections to rail, regional bus, rapid transit and active transportation would be a catalyst for transit-supportive development in the core, build ridership, and markedly improve connectivity for Southwestern Ontario.

### **3.3 Secondary Transportation Hubs**

The following provides a brief description of each secondary transportation hub and recommendations to improve connectivity for regional and inter-community transportation.

#### Wellington Gateway Secondary Transit Terminal (South RT)

As part of the Wellington Gateway Rapid Transit route to be constructed between 2023 and 2026, this project is to be in the vicinity of Wellington Road and Highway 401 and will replace the existing terminal at White Oaks Mall. The project is being funded as part of the larger project and is formally known as the 'Wellington Gateway Park-and-Ride'. The project is currently in the facility requirements and site selection phase. At a minimum, the new terminal will provide opportunities for park-and-ride spaces and sufficient bus platforms to meet LTC requirements for the southern portion of the city.

It is recommended that to accommodate regional transportation routes, the Wellington Gateway Park-and-Ride project aim to include provisions to allow for:

- two platforms for regional bus carriers that use Highway 401 to conveniently connect with the rapid transit system,
- two platforms for inter-community transit routes for communities to the south, west and east to seamlessly integrate with the rapid transit system, and
- the ability to support Alternative Service Delivery Models for transit service to industrial employment areas to the south and east.

#### East London Link Secondary Transit Terminal (East RT)

The East London Link Rapid Transit route is to be constructed between 2022 and 2024 and will connect Downtown with Fanshawe College via King Street, Dundas Street, Highbury Avenue and Oxford Street East. A potential extension to the London International Airport has been identified. At present, this rapid transit route will use the existing terminal at Fanshawe College. However, this terminal only has four platforms and is not able to be expanded. LTC has indicated that the terminal is currently over-capacity, and some local routes have been redirected to other parts of the campus and on-street stops. Inter-community buses are also unable to use the terminal.

It is recommended that opportunities to allow for all local LTC routes to converge on one location that is seamlessly connected with rapid transit be considered as part of ongoing and future transit planning. Any future opportunities will also need to include provisions to seamlessly integrate regional transportation routes for communities to the east, and the ability to support alternative service delivery models for transit service to industrial employment areas to the south and east.

### Masonville Secondary Transit Terminal

The existing Masonville terminal is located at the southwest intersection of Richmond Street North and Fanshawe Park Road East. This area is designated as PMTSA, and the current terminal has six platforms and generally functions as the location where local LTC routes in the north part of the city converge. The existing terminal is owned and operated by Cadillac Fairview Corporation Limited, the owners of the adjacent Masonville Mall. This terminal is over-capacity and is not able to accommodate all local LTC routes. The three inter-community routes that terminate in the area are also unable to use the existing terminal and must stop at an on-street LTC stop on Fanshawe Park Road East.

It is recommended that as part of any future planning for higher-order transit in the area, terminal planning include provisions to accommodate regional transportation routes to allow for higher-order transit to be integrated with inter-community transit routes for communities to the west, north and east.

### Wonderland/Oxford Secondary Transit Terminal

The Wonderland Road/Oxford Street West intersection is located within a designated PMTSA and serves as a focal point for transit service in the western part of the city. At present, five local and one LTC express bus converge on this area. These routes all use various on-street stops resulting in connections for riders that can be disconnected. An inter-community operator expressed interest in stopping at this location however the use of an on-street stop on a busy arterial road was not seen as desirable.

It is recommended that as part of any future planning for higher-order transit in the area, terminal planning include provisions to accommodate regional transportation routes to allow for higher-order transit to be integrated with inter-community transit routes for communities to the west.

## **3.4 System-Wide Opportunities**

A key aspect in developing the conceptual framework has been stakeholder engagement. The dialogue not only provided valuable data and information on specific transit systems, but also resulted in the identification of opportunities to support regional transportation and mobility. Recommendations include:

- **Regional-scale Mapping:** It is recommended that all settlement areas, employment areas and mobility hubs in the region be mapped with transit routes and stops to create one regional map to support local intercommunity route planning and decision-making;
- **Foundations for a Transportation Plan:** It is recommended that a technical assessment and environmental scan be completed for Southwestern Ontario to better understand mobility patterns, key trends and issues influencing the region and its transportation network to support data-driven decisions;
- **Coordinated Marketing:** It is recommended that LTC continue to work with intercommunity transit partners to coordinate marketing initiatives, identify intercommunity routes on LTC maps and promoting routes to LTC riders;
- **Fare Integration:** SCT is developing an electronic 'app' for online payment and on-demand transportation that is scheduled for release by the end of 2021. It is recommended that fare integration for all regional and local transit services be investigated; and,
- **Flexibility:** To support improve access and ridership in smaller communities and industrial employment areas, it is recommended that flexible approaches in service delivery be considered including combinations of fixed-routes and on-demand services during low-demand periods (e.g., the weekend).

These five recommended improvements serve to strengthen regional connectivity in Southwestern Ontario by improving data collection methods for decision making, improving the user-experience, increasing service awareness, and allowing for flexibility to allow for innovation and alternative service delivery models.

## 4.0 Financial Impact and Considerations

There is no immediate financial impact associated with this report. Implementation of the recommendations in this report would require the financial support of senior levels of government. There is no funding, either currently approved or in the City's capital plan, for the measures outlined in this report. In addition to the upfront costs of establishing regional transportation hubs, it will be important to consider their ongoing operating costs and the responsibility for maintaining them.

### Next Steps

As Southwestern Ontario continues to increase in population and employment, regional transportation issues and the need to get ahead of rapid growth will become increasingly important. London will play a pivotal role as the largest urban centre and primary service hub in the region and the place where highway, railway, public transit, and regional bus networks converge.

This conceptual framework has been developed in consultation with stakeholders from both across London and from surrounding municipalities. In response to the provincial draft transportation plan, the framework identifies opportunities to improve regional connectivity in London for intercommunity transportation and to integrate different travel modes to make it easier for people in Southwestern Ontario to get around.

Council endorsement of this framework allows for it to be used as a basis to discuss regional transportation opportunities with the Province, with regional municipalities, and other transportation stakeholders in order to advance provincial leadership in regional transportation and mobility in Southwestern Ontario.

**Prepared by:** Isaac de Ceuster,  
Planner I, Long Range Planning & Research

**Prepared by:** Kevin Edwards MCIP RPP  
Manager, Long Range Planning, Research and Ecology

**Submitted by:** Gregg Barrett, AICP  
Director, Planning and Development

**Recommended by:** George Kotsifas P. Eng.,  
Deputy City Manager, Planning and Economic  
Development



# A Conceptual Framework for Regional Transportation



Civic Works Committee

December 14, 2021



# Need for Improved Regional Connectivity

- Several recent developments with implications for regional transportation
- Increasing population in London/Middlesex
- Employment growth leading to high demand for talent
- London CMA labour participation rates; lack of transportation is top barrier for low-income respondents
- Release of 'Connecting the Southwest' - A Draft Transportation Plan for Southwestern Ontario (2019)
  - Task force mandate to focus on improving regional connectivity and better integration of transportation services in the region
  - ensure plan is informed by local needs and interests



# Conceptual Framework Approach

- Review London in the regional context and identify the City Structure and planning framework
- Review existing and planned transportation networks and operations
- Interview several regional transportation stakeholders within and outside the city
- Identify opportunities to integrate different modes of regional travel, with a particular focus on rail, local transit and regional and inter-community bus

# Regional and City Context

**Road**  
 King's Highway ————

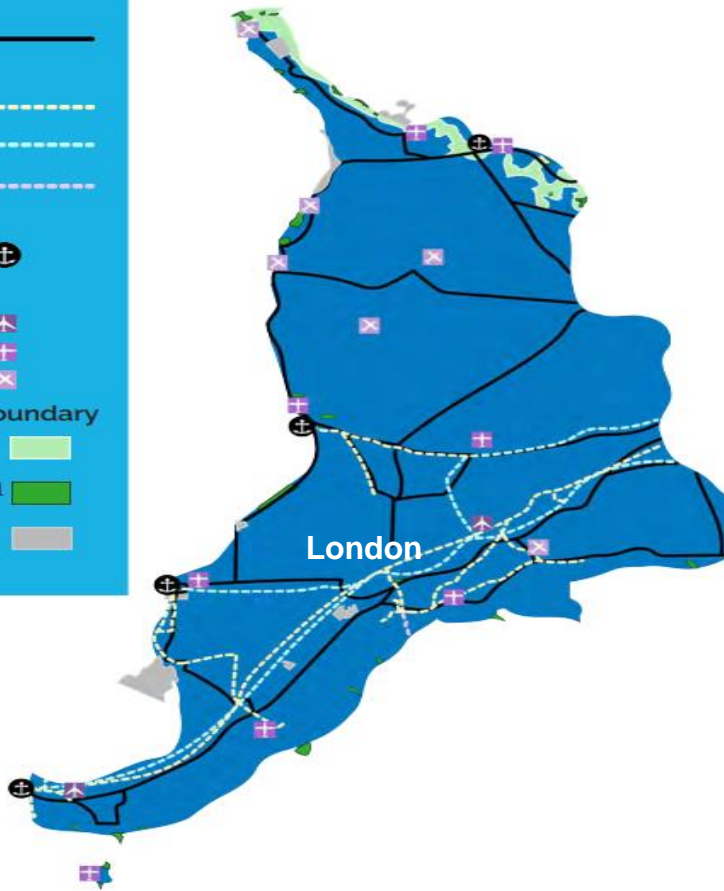
**Rail Line Use**  
 Freight - - - - -  
 Freight and Passenger - - - - -  
 Tourist - - - - -

**Waterways**  
 Marine Port ⚓

**Airports**  
 Major ✈️  
 Secondary ✈️  
 Local ✈️

**Administrative Boundary**  
 Niagara Escarpment Plan 🟩  
 National or Provincial Park 🟩  
 First Nation Reserve 🟫

Map not to scale



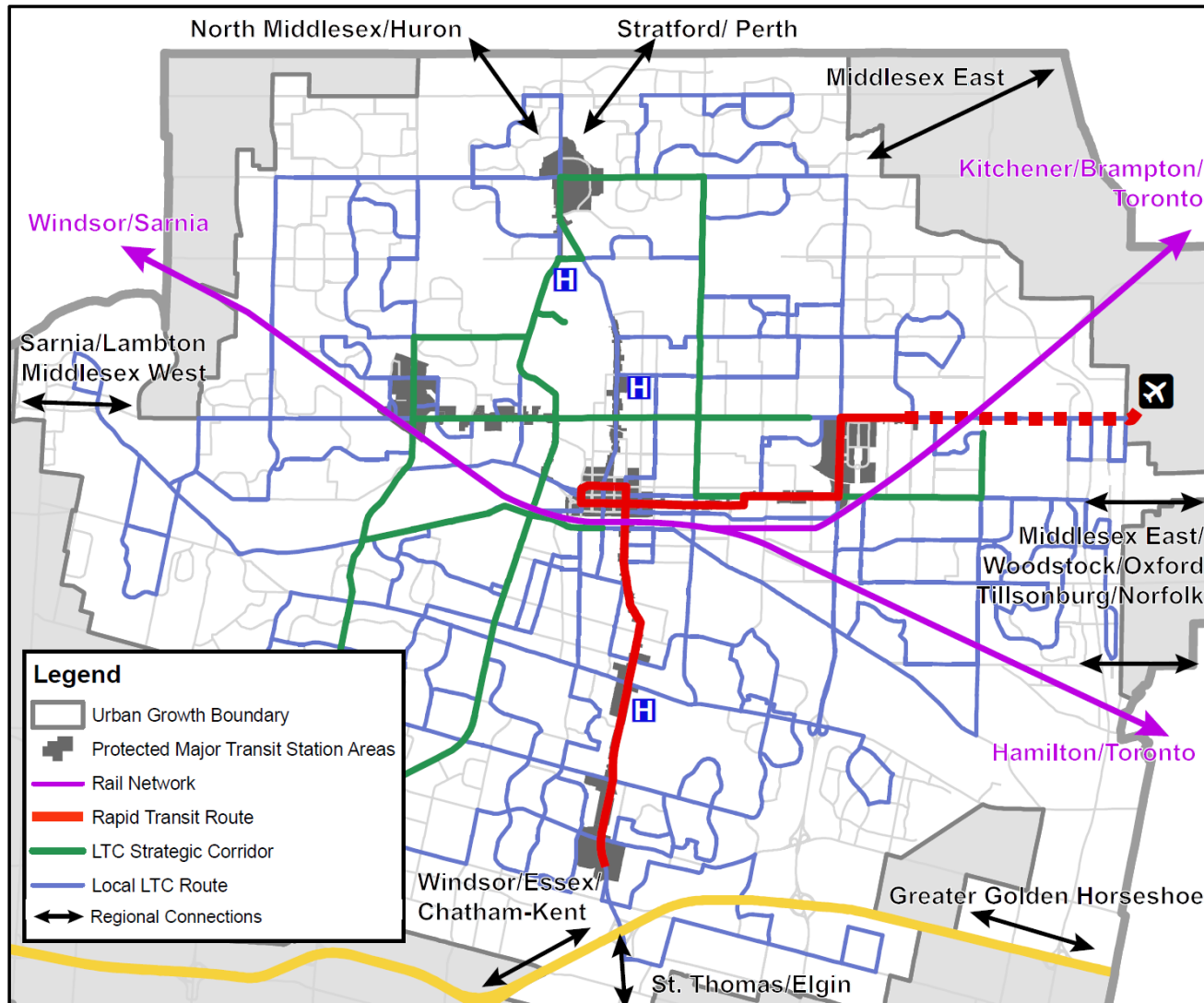
**Legend**

River and Creek System	Gateways	Trail Connections	University/College
Thames Valley Corridor	Highway	Central London	Hospital
Downtown	Major Gateway Streets	Primary Transit Area	City Hall
Transit Villages	Rail Network	Urban Growth Boundary	Research Centre
Employment Lands	High Speed Rail		Airport
Main Streets	Rapid Transit Corridors		
Rural London	Future Rapid Transit Corridors		





# London Area Transit Network



# Inter-Community Transportation

- Improving rural inter-community transportation is a key action item of the draft Provincial transportation plan
- The Province is currently providing funding to support inter-community bus service for underserved areas; Southwest Community Transit (SCT) is the association that oversees intercommunity transit in the region
- 5 inter-community routes currently intersect with London





# Interviews

- City of London, Major Projects Team
- London Transit Commission
- City of Tillsonburg
- City of Stratford & County of Perth
- Municipality of Strathroy-Caradoc
- County of Middlesex
- SCOR EDC
- City of St. Thomas
- Robert Q Airbus
- LEDC
- Tourism London



# What We Heard

- Diversity of roles: commute vs health-care visit or shopping
- Need to ensure two-way connectivity: provide mobility options for rural residents and connections for city residents to rural employment, recreational and support opportunities
- VIA station identified as most important inter-regional hub in London. Long-term desire to operate inter-community transit to Downtown but concerns this would take too much time
- LTC and BRT system seen as most efficient way to move inter-community riders from outer hubs to inter-regional hub Downtown
- Success of a mobility hub in Downtown will depend on strong pedestrian connectivity between BRT stops and VIA/GO transit.



# What We Heard

- Inter-community services typically connect near London's secondary hubs closer to urban area periphery.
- LTC very hospitable for using stops & signage. Desire to use terminals, but they are typically unavailable to inter-community transit and are operating at overcapacity.
- Desire for better coordination marketing with LTC, including promoting regional routes to LTC riders, regional system mapping and shared marketing.
- SCT is working on an electronic 'app' for online payment & on-demand transportation.

# Findings

- The core elements of a mobility hub include inter-modal connectivity and concentrated density.
- In London, mobility hubs reflect the PMTSAs identified in the London Plan as approved by the Province in May 2021.
- London's Primary and Secondary Regional Hubs:
  - Downtown functions as the primary inter-regional hub including the rapid transit hub and train station
  - Secondary hubs serve large areas of the city and as major connection points for intra-regional routes
  - Routes connecting primary and secondary hubs provide highest transit frequency and ridership



# Regional Transportation Hub Principles

- Prioritize efficient and seamless modal integration
- Consider the user experience and ensure safety and comfort for all travelers
- Promote equity and viability across the region
- Ability to accommodate for technological innovations and future growth
- Create opportunities for partnerships
- Implement 'placemaking' to foster a sense of place

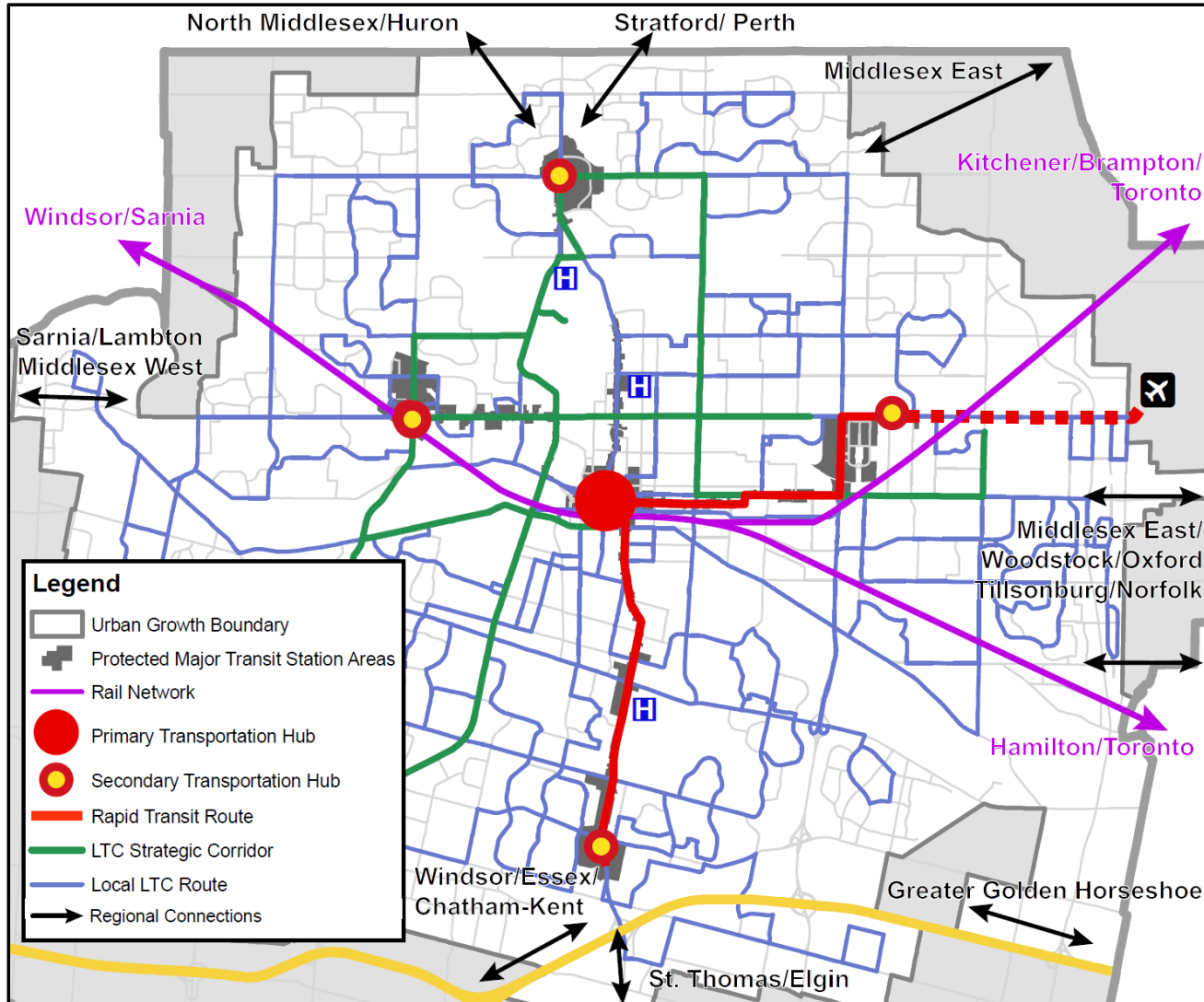


# Regional Hub Opportunities

- Downtown Regional Hub
  - Train Station/King-Wellington/Connecting streets
  - Future Downtown Multi-Modal Terminal
- Secondary Regional Hubs
  - Wellington Gateway Terminal and Park-and-Ride
  - East Link Terminal
  - Masonville Terminal
  - Wonderland/Oxford Terminal



# Conceptual Regional Transportation Hubs





# System-Wide Opportunities

Stakeholder conversations identified additional system-wide opportunities:

- Regional-scale mapping to support local inter-community route planning
- Undertake technical assessments and environmental scans to better understand regional patterns and trends
- Coordinated marketing initiatives
- Investigate fare integration
- Flexible approaches to service delivery including combinations of fixed-routes and on-demand services



# Next Steps

- Southwestern Ontario continues to increase in population and employment. The need to get ahead of rapid growth will become increasingly important.
- London will play a pivotal role as the largest regional urban centre and place where highway, railway, public transit and regional bus networks converge.
- The framework identifies opportunities to improve regional connectivity and integrate different travel modes to make it easier to get around.
- Council endorsement allows it to be used to discuss regional transportation opportunities, and advance Provincial leadership in regional transportation and mobility in Southwestern Ontario.



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Mayor Ed Holder  
City of London  
300 Dufferin Ave.  
P.O. Box 5035  
London, ON  
N6A 4L9

Re: Regional Transportation Conceptual Framework – Report to Civic Works Committee

Dear Mayor and Council,

On behalf of the Board of Directors of the South Central Ontario Region Economic Development Corporation (SCOR EDC), I am writing to you to communicate our support for the conceptual framework developed by the City of London.

Over the past months, we have been working in partnership with London Civic Administration to identify and assess opportunities to strengthen the intercommunity transit connections across Southwestern Ontario. As the largest city in the region, London serves as a hub for commerce, entertainment, and important services such as healthcare and education for the 2.5 million people calling Southwestern Ontario home. At the same time, the South Central Ontario Region's competitiveness is rooted in the strong economic, social, and environmental interconnectedness of its rural and urban communities.

Building a strong recovery and renewal for Ontario will require enhancing regional transportation options and accessibility across the entire region. South Central Ontario Region and the Greater Toronto and Hamilton Area form the single largest domestic economic partnership in Canada – with more than \$20 billion worth of goods and services moving by road, rail and air each year. Finding opportunities to strengthen regional transportation connections will continue to be critical for our shared future.

SCOR EDC is a not for profit economic development corporation owned by the Counties of Brant, Elgin, Middlesex, Norfolk and Oxford. This region includes five Counties, 28 municipalities and lies in the heart of Southwestern Ontario. SCOR EDC has been working with Ministry partners and other regional and provincial stakeholders to address transportation related gaps across our service area and beyond. The formation of Southwest Community Transit (SCT) was a critical piece of that coordination that SCOR EDC has completed. We see connections to larger urban neighbors such as London as a critical component for a synchronized transportation system across the region. As an organization that has committed resources to this development we find value in collaborating with the City of London on the exploration of a conceptual framework.

SCOR EDC is supportive of the recommended action to take the prepared conceptual framework for regional transportation forward to federal and provincial governments to inform continued discussions and identify tangible opportunities to invest in a stronger Southwest Ontario.

Sincerely,

A handwritten signature in cursive script, appearing to read 'Robert Chambers'.

Robert Chambers  
Chair, SCOR EDC

**DEFERRED MATTERS**

**CIVIC WORKS COMMITTEE**

**as of December 6, 2021**

<b>File No.</b>	<b>Subject</b>	<b>Request Date</b>	<b>Requested/Expected Reply Date</b>	<b>Person Responsible</b>	<b>Status</b>
1.	<p><b><u>Rapid Transit Corridor Traffic Flow</u></b>                      That the Civic Administration BE DIRECTED to report back on the feasibility of implementing specific pick-up and drop-off times for services, such as deliveries and curbside pick-up of recycling and waste collection to local businesses in the downtown area and in particular, along the proposed rapid transit corridors.</p>	December 12, 2016	Q1, 2022	K. Scherr J. Dann	
2.	<p><b><u>Garbage and Recycling Collection and Next Steps</u></b>                      That, on the recommendation of the Managing Director, Environmental and Engineering Services and City Engineer, with the support of the Director, Environment, Fleet and Solid Waste, the following actions be taken with respect to the garbage and recycling collection and next steps:                      ii) an Options Report for the introduction of a semi or fully automated garbage collection system including considerations for customers and operational impacts.</p>	January 10, 2017	Q1, 2022	K. Scherr J. Stanford	
3.	<p><b><u>Bike Share System for London – Update and Next Steps</u></b>                      That, on the recommendation of the Managing Director, Environmental and Engineering Services and City Engineer, the following actions be taken with respect to the potential introduction of bike share to London:                       that the Civic Administration BE DIRECTED to finalize the bike share business case and prepare a draft implementation plan for a bike share system in London, including identifying potential partners, an operations plan, a marketing plan and financing strategies, and submit to Civic Works Committee by January 2020; it being noted that a communication from C. Butler, dated August 8, 2019, with respect to the above matter was received.</p>	August 12, 2019	Q1, 2022	K. Scherr J. Stanford	

File No.	Subject	Request Date	Requested/Expected Reply Date	Person Responsible	Status
4.	<p><b><u>Best Practices for Investing in Energy Efficiency and GHG Reduction</u></b>  That Civic Administration BE REQUESTED to develop a set of guidelines to evaluate efficiency and Greenhouse Gas reduction investments and provide some suggested best practices.</p>	June 18, 2019	Q4, 2021	K. Scherr J. Stanford	
5.	<p><b><u>MADD Canada Memorial Sign</u></b>  That the following actions be taken with respect to the memorial sign request submitted by Shauna and David Andrews, dated June 1, 2020, and supported by Mothers Against Drunk Driving (MADD) Canada:</p> <p>a) the Civic Administration BE DIRECTED to engage in discussions with MADD Canada regarding MADD Canada Memorial Signs and bring forward a proposed Memorandum of Understanding with MADD Canada for Council's approval;</p> <p>it being noted that MADD will cover all sign manufacturing and installation costs;</p> <p>it being further noted that the Ministry of Transportation and MADD have set out in this Memorandum of Understanding ("MOU") the terms and conditions for the placement of memorial signs on provincial highways which is not applicable to municipal roads;</p> <p>it being further noted that MADD provides messages consistent with the London Road Safety Strategy; and,</p> <p>b) the Civic Administration BE DIRECTED to work with MADD Canada to find a single permanent location in London for the purpose of memorials.</p>	July 14, 2020	Q3, 2022	D. MacRae A. Salton	
6.	<p><b><u>Updates - 60% Waste Diversion Action Plan Including Green Bin Program</u></b>  d) the Civic Administration BE DIRECTED to:</p> <p>i) continue to prioritize work activities and actions that also contribute to the work of the London Community Recovery Network; and,</p>	November 17, 2020	Q1, 2022	K. Scherr J. Stanford	

File No.	Subject	Request Date	Requested/Expected Reply Date	Person Responsible	Status
	<p>ii) submit a report to the Civic Works Committee by June 2021 that outlines advantages, disadvantages, and implementation scenarios for various waste reduction and reuse initiatives, including but not limited to, reducing the container limit, examining the use of clear bags for garbage, mandatory recycling by-laws, reward and incentive systems, and additional user fees.</p>				
7.	<p><b><u>Green Bin Program Design - Community Engagement Feedback</u></b>  That, on the recommendation of the Managing Director, Environmental and Engineering Services and City Engineer the following actions be taken with respect to the staff report dated March 30, 2021, related to the Green Bin Program Design and Community Engagement Feedback:</p> <p>e) the Civic Administration BE DIRECTED to report back at a future meeting of the Civic Works Committee on the outcome of the procurement processes and provide details on the preferred mix of materials to collect in the Green Bin and any final design adjustments based on new information; and,</p> <p>f) the Civic Administration BE DIRECTED to report back to the Civic Works Committee by September 2021 on municipal programs options, advantages, disadvantages and estimated costs to address bi-weekly garbage concerns.</p>	March 30, 2021	Q1, 2022	K. Scherr J. Stanford	
8.	<p><b><u>3rd Report of the Cycling Advisory Committee</u></b>  b) the following actions be taken with respect to a City of London PumpTrack:</p> <p>ii) the Civic Administration BE REQUESTED to report back on the process and fees associated with a feasibility study with respect to the establishment of a pumptrack facility in the City of London; it being noted that the communication, as appended to the agenda, from B. Cassell and the delegation from S. Nauman, with respect to this matter, was received</p>	May 11, 2021	TBD	K. Scherr, S. Stafford	

File No.	Subject	Request Date	Requested/Expected Reply Date	Person Responsible	Status
9.	<p><b><u>Blackfriars Bridge</u></b>  That consideration of the Blackfriars Bridge remaining closed to vehicles indefinitely BE REFERRED to a future meeting of the Civic Works Committee in order for the Civic Administration to complete the required usage study as required in the Provincial EA, provide the related report to council, and allow for a more fulsome public engagement with respect to this matter.</p>	November 2, 2021	TBD	K. Scherr, D. MacRae	