Agenda Including Addeds
Civic Works Committee

The 11th Meeting of the Civic Works Committee

July 18, 2023

12:00 PM

Council Chambers - Please check the City website for additional meeting detail information. Meetings can be viewed via live-streaming on YouTube and the City Website.

The City of London is situated on the traditional lands of the Anishinaabek (AUh-nish-in-ah-bek), Haudenosaunee (Ho-den-no-show-nee), Lūnaapéewak (Len-ah-pay-wuk) and Attawandaron (Add-a-won-da-run).

We honour and respect the history, languages and culture of the diverse Indigenous people who call this territory home. The City of London is currently home to many First Nations, Métis and Inuit today.

As representatives of the people of the City of London, we are grateful to have the opportunity to work and live in this territory.

Members

Councillors C. Rahman (Chair), H. McAlister, P. Cuddy, S. Trosow, P. Van Meerbergen

The City of London is committed to making every effort to provide alternate formats and communication supports for meetings upon request. To make a request specific to this meeting, please contact CWC@london.ca or 519-661-2489 ext. 2425.

Pages

1. Disclosures of Pecuniary Interest

2. Consent

Environmental Stewardship and Action Community Advisory Committee

Report

7th Meeting of the Environmental Stewardship and Action Community Advisory Committee
June 7, 2023

Attendance

PRESENT: B. Samuels (Chair), D. Allick, I. ElGhamrawy, A. Hames, C. Hunsberger, C. Mettler, N. Serour, L. Vuong and A. Whittingham and H. Lysynski (Committee Clerk)

ABSENT: P. Almost, M. Griffith and L. Paulger

ALSO PRESENT: S. Chambers, P. Donnelly, M. Fabro, A. Rammeloo, S. Rowland, J. Skimming, J. Stanford, B. Westlake-Power and P. Yeoman

The meeting was called to order at 3:01 PM

1. Call to Order

1.1 Disclosures of Pecuniary Interest

That it BE NOTED that no pecuniary interests were closed.

2. Scheduled Items

2.1 Climate Emergency Action Plan 2022 Progress Report

That it BE NOTED that the Environmental Stewardship and Action Community Advisory Committee received the presentation appended to the Added Agenda from J. Stanford, Director, Climate Change, Environment and Waste Management and held a general discussion with respect to the Climate Emergency Action Plan 2022 Progress Report.

2.2 Stormwater Engineering Waterway Projects: We're More Than Just Ponds

That it BE NOTED that the Environmental Stewardship and Action Community Advisory Committee received a presentation appended to the Added Agenda from S. Chambers, Division Manager, Stormwater Engineering, and held a general discussion with respect to Stormwater Engineering Waterway Projects.

3. Consent

3.1 6th Report of the Environmental Stewardship and Action Community Advisory Committee

That it BE NOTED that the 6th Report of the Environmental Stewardship and Action Community Advisory Committee, from its meeting held on May 3, 2023, was received.

3.2 Municipal Council Resolution - 4th Report of the Animal Welfare Community Advisory Committee

That it BE NOTED that the Municipal Council resolution adopted at its meeting held on May 16, 2023, with respect to the 4th Report of the Animal Welfare Community Advisory Committee, was received.

4. Sub-Committees and Working Groups

None.

5. Items for Discussion

None.

6. Adjournment

The meeting adjourned at 5:18 PM.

Integrated Transportation Community Advisory Committee Report

7th Meeting of the Integrated Transportation Community Advisory Committee
June 21, 2023

Attendance

T. Kerr (Acting Chair), R. Buchal, E. Eady, D. Foster, A. Hussain, T. Khan, V. Labrano, D. Luthra, A. Santiago, J. Vareka and K. Mason (Committee Clerk)

Also Present: A. Cunningham, G. Dales, D. Hall, M. Stone

Remote Attendance: J. Bos, S. Corman, J. Dann, D. Dobson, A. Kostyria, J. Michaud, A. Miller, N. Moffatt, P. Singh, B. Westlake-Power, P. Yanchuck

The meeting was called to order at 3:01 PM, it being noted that R. Buschal, E. Eady, T. Khan, D. Luthra were in remote attendance.

1. Call to Order

1.1 Disclosures of Pecuniary Interest

That it BE NOTED that no pecuniary interest were disclosed.

2. Scheduled Items

2.1 Hamilton Road and Gore Road Environmental Assessment

That the Municipal Council BE ADVISED that the Integrated Transportation Community Advisory Committee recommends Alternative 2: Signalized Intersection A, from the Hamilton Road and Gore Road Intersection Improvement Environmental Assesstment;

it being noted that the presentation, as appended to the Agenda, from V. Pugliese, MTE Consultants, with respect to this matter, was received. (2023-T04)

2.2 (ADDED) Colonel Talbot Road 2-Lane Upgrade Project

That it BE NOTED that the presentation, as appended to the Added Agenda, from J. Kelso, AECOM Canada Ltd., with respect to the Colonel Talbot Road 2-Lane Upgrade Project, was received. (2023-T04)

3. Consent

3.1 6th Report of the Integrated Transportation Community Advisory Committee

That it BE NOTED that the 6th Report of the Integrated Transportation Community Advisory Committee, from the meeting held on May 17, 2023, was received. (2023-D14)

3.2 J. Collie Resignation

That the resignation from the Integrated Transportation Community Advisory Committee, from J. Collie BE RECEIVED with regret. (2023-C12)

3.3 Municipal Council Resolution – Final Connected and Automated Vehicle Plan

That it BE NOTED that the Municipal Council resolution, adopted at its meeting held on June 6, 2023, with respect to the Final Connected and Automated Vehicle Plan, was received. (2023-V01)

3.4 Municipal Council Resolution – 5th Report of the Integrated Transportation Community Advisory Committee

That it BE NOTED that the Municipal Council resolution, adopted at its meeting held on May 16, 2023, with respect to the 5th Report of the Integrated Transportation Community Advisory Committee, was received. (2023-P05)

3.5 Public Meeting Notice – Draft Plan of Subdivision and Zoning By-law Amendment – 954 Gainsborough Road

That it BE NOTED that the Public Meeting Notice, dated June 1, 2023, from A. Curtis, Planner I, related to the Draft Plan of Subdivision and Zoning By-law Amendment for 954 Gainsborough Road, was received. (2023-D12/D14)

3.6 Public Meeting Notice – Zoning By-law Amendment – 568 Second Street at Oxford Street East

That it BE NOTED that the Public Meeting Notice, dated May 31, 2023, from C. Parker, Senior Planner, related to Zoning By-law Amendments for 568 Second Street at Oxford Street East, was received. (2023-D14)

3.7 (ADDED) - Notice of Planning Application - Zoning By-law Amendment - 488-492 Pond Mills Road

That it BE NOTED that the Notice of Planning Application, dated June 14, 2023, from N. Pasato, Senior Planner, related to Zoning By-law Amendments for 488-492 Pond Mills Road, was received. (2023-D14)

3.8 (ADDED) - Notice of Planning Application - Official Plan and Zoning By-law Amendments - 50 King Street & 399 Ridout Street North

That it BE NOTED that the Notice of Planning Application, dated June 14, 2023, from S. Wise, Senior Planner, related to the Official Plan and Zoning By-law Amendments for 50 King Street and 399 Ridout Street North, was received. (2023-D14)

3.9 (ADDED) - Notice of Planning Application - Zoning By-law Change - New Comprehensive Zoning By-law - ReThink Zoning

That it BE NOTED that the Notice of Planning Application, dated June 14, 2023, from the ReThink Zoning Project Team, related to Zoning By-law Changes for the New Comprehensive Zoning By-law - ReThink Zoning, was received. (2023-D14)

4. Sub-Committees and Working Groups

4.1 Environment and Transit Sub-Committee Report

That the Environment and Transit Sub-Committee Report BE DEFERRED to the next Integrated Transportation Community Advisory Committee meeting. (2023-T03)

5. Items for Discussion

5.1 Huron Heights – Neighbourhood Connectivity Plan – Community Engagement

That it BE NOTED that the Huron Heights Neighbourhood Connectivity Plan Community Engagement Notice, dated May 26, 2023, from J. Dann, Director, Construction and Infrastructure Services, was received.(2023-T04)

5.2 Northridge – Neighbourhood Connectivity Plan – Community Engagement

That it BE NOTED that the Northridge Neighbourhood Connectivity Plan Community Engagement Notice, dated May 26, 2023, from J. Dann, Director, Construction and Infrastructure Services, was received.(2023-T04)

6. Adjournment

The meeting adjourned at 5:24 PM.

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: **RFP-2022- 224 Green Bin Processing Services**
Date: **July 18, 2023**

Recommendation

That, on the recommendation of the Deputy City Manager, Environment and Infrastructure, the following actions **BE TAKEN** with respect to the award of the work outlined in Request for Proposals (RFP-2022-224) Green Bin Processing Services:

a) The proposal submitted by Convertus Canada Inc., 307 Commissioners Rd W, No. 8, London, Ontario, N6J 1Y4, for Green Bin Processing Services to manage food waste and soiled paper **BE ACCEPTED** at their quoted processing unit rate of $89.75 per tonne (excluding HST), it being noted that this is being reported as an irregular bid as per the Procurement of Goods and Services Policy Section 19.4 (c) as only one (1) bid was received for this Request for Proposals, and that:

   i. the quoted processing unit rate of $94.50 per tonne (excluding HST) be accepted as submitted in 2023 to manage pet waste and/or food waste contained inside plastic bags should City Council wish to make Green Bin Program adjustments in the future,
   ii. the proposed annual rate be adjusted annually for inflation by the Consumer Price Index,
   iii. the term of contract be for four (4) years, with three (3), one (1) year renewal options at the sole discretion of the City, and
   iv. the minimum amounts of Green Bin materials that must be delivered to Convertus's processing facility are 15,000 tonnes (in 2024), 15,750 tonnes (in 2025), 16,540 tonnes (in 2026 and 17,360 tonnes (in 2027);

b) Civic Administration **BE AUTHORIZED** to undertake all the administrative acts that are necessary in connection with this work; and

c) Approval hereby given **BE CONDITIONAL** upon the Corporation entering into a formal contract or having a purchase order, or contract record relating to the subject matter of this approval.

Executive Summary

Part A – Procurement of Green Bin Processing Services

Procurement Process
Request for Proposal (RFP) 2022-224 for the Green Bin Processing Services was issued on December 20, 2022 and closed on March 13, 2023. Bidders were provided the evaluation criteria and specific details under the following categories:

- Project Team Experience and Capability
- Operation Plan and Details including process description, beneficial use of products, contingency plans, regulatory compliance and community impact
- Quality Assurance
- Innovative Features

Initially seven bidders registered by downloading the RFP documents and received the Addenda (i.e., called plan takers on Bids&Tenders procurement system). At time of closing, six bidders remained listed. One bid was received.

Results
The proposal from Convertus Canada Inc. (hereafter referred to as Convertus) was the one bid received. The Convertus bid met all terms and conditions of the City of London. References were reviewed. The status of environmental compliance was reviewed with the Ministry of the Environment, Conservation and Parks (MECP). Three meetings and two site visits were held with senior management staff at Convertus.

Overview of the Processing Services and Unit Price Offered by Convertus
The RFP included two mixes of Green Bin Materials to be processed:

- Material Mix #1: Food waste, non-recyclable/soiled paper, cooking oils and grease, and household plants; and
- Material Mix #2: Food waste, non-recyclable/soiled paper, cooking oils and grease, household plants, and pet waste (e.g., dog, cat, other).

Convertus submitted pricing and details for managing both mixes of materials:

- Material Mix #1 = $89.75 per tonne delivered of Green Bin materials. Assuming 15,000 tonnes per year is delivered, the amount would be $1,346,250; and
- Material Mix #2 = $94.50 per tonne delivered for Green Bin materials. Assuming 18,500 tonnes per year is delivered, the amount would be $1,728,250.

Cost Comparison with Other Municipal Organics Processing Facilities Contracts and Operations
Green Bin processing data from 13 Ontario municipalities responsible for processing Green Bin materials was collected by City staff. Approximate per tonne prices ranged from $90 to $200 per tonne for various mixes of Green Bin materials and processing technologies. London's proposed processing pricing provided by Convertus:

- is on the lower end of the municipal cost range;
- is viewed by City staff as being very competitive; and
- provides flexibility for future consideration and/or program changes.

Products to be Created from London's Green Bin Materials
London's Green Bin materials will be processed into three different products as noted below with further details provided in Appendix A:

1. Non-agricultural source materials (NASM) - which is applied to agricultural lands following the Nutrient Management Regulation.
2. Fertilizer (ammonium sulphate) – which is produced during the odour abatement process, at Convertus.
3. Compost (Small Supply) – Category AA compost (about 200 tonnes) to be made available to the City of London for special events promoting the Green Bin program.

Recommended Materials to be Collected in London's Green Bin Program
City staff are recommending that Material Mix #1 be collected at the start of the Green Bin program because they:

- generally ranked higher from London resident feedback in 2021;
- are the most commonly collected materials in other municipalities;
- are the easiest materials to compost;
- have lower processing costs;
- contribute to the cleanest possible end-product;
- reduce the inherent confusion that is introduced with the exclusion of non-degradable plastic bags; and
- represent more than 65% of available organics for the Green Bin.

City staff also recommend that Material Mix #2, which includes Material Mix #1 plus pet waste (e.g., dog waste, cat waste and litter, other pet waste), be identified as a future item for Council consideration. Convertus has identified pricing for Materials Mix #2 and has also offered the City of London the ability to introduce non-biodegradable plastic bags as a liner option for food waste at the unit rate of $94.50 per tonne.

Financial Impact/Considerations
Both Green Bin processing unit estimates provided by Convertus are below City staff estimates from 2018. All funding required for Green Bin processing is within the approved budget allocated for this service.

Part B – Other Green Bin Related Matters

Climate Change in the Context of the Climate Emergency Action Plan (CEAP)
Collecting source separated organics (Green Bin materials) and diverting this material from landfill avoids the creation of methane – a potent greenhouse gas with a global warming potential 28 times higher than carbon dioxide - as well as providing benefits through the production of a usable end product(s) to support this goal.

It is estimated that the net GHG emissions from organic waste management for the year 2030 would be approximately 20 to 27 per cent lower than if organics continued to be sent to landfill. The net cumulative GHG emissions over a 30-year period would be approximately 24 to 32 per cent lower.

Preliminary analysis suggests that when GHG reductions associated with the Green Bin program are added with the current and future capture of methane gas at the W12A Landfill, almost 90 per cent of the GHG associated with food waste and other organic material being targeted will be reduced.

Next Steps – Green Bin Start Date, Collection Schedule and Related Matters
Final Green Bin decisions and related matters will be presented to Civic Works Committee on August 15, 2023. This will include details on:

- Overview of multi-residential Green Bin pilot project;
- Start date for Green Bin curbside service;
- Start date for shifting from six collection zones to five collection zones;
- How Statutory Holidays will be handled as part of the collection system; and
- Proposed handling practices for pet waste, diapers and bulky materials.

Linkage to the Corporate Strategic Plan

Municipal Council continues to recognize the importance of waste management and the need for a more sustainable and resilient city in the development of its 2023-2027 Strategic Plan for the City of London. Specifically, London's efforts in waste management address the following Areas of Focus; Climate Action and Sustainable Growth and Well-Run City.

On April 23, 2019, the following was approved by Municipal Council with respect to climate change:

> Therefore, a climate emergency be declared by the City of London for the purposes of naming, framing, and deepening our commitment to protecting our economy, our eco systems, and our community from climate change.

On April 12, 2022, Municipal Council approved the Climate Emergency Action Plan which includes Area of Focus 5, Transforming Consumption and Waste as Part of the Circular Economy. In addition, the 60% Waste Diversion Action Plan, including the Green Bin program, addresses various aspects of climate change mitigation within the waste management services area including greenhouse gas (GHG) reduction.

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

Relevant reports that can be found at www.london.ca under Council meetings include:

- RFP-2022-105 Supply and Distribution of Green Bins and Kitchen Containers, (April 21, 2023 meeting of the Civic Works Committee (CWC), Item #2.3)
- Updates: Green Bin Implementation, (June 21, 2022 meeting of the Civic Works Committee (CWC), Item #2.3)
- Green Bin Program Design – Community Engagement Feedback (March 30, 2021 meeting of the CWC, Item #2.13)
- Community Engagement on Green Bin Program Design (November 17, 2020 meeting of the CWC, Item #2.3)
- Business Case 1 – 60% Waste Diversion Action Plan – 2020-2023 Multi -Year Budget (January 30, 2020 meeting of the Strategic Priorities & Policy Committee (SPPC), Item #4.12a)
- 60% Waste Diversion Action Plan – Updated Community Feedback (September 25, 2018 meeting of the CWC, Item #3.2)
- Public Participation Meeting 60% Waste Diversion Action Plan – Additional Information (September 25, 2018 meeting of the CWC, Item #3.2)
- 60% Waste Diversion Action Plan (July 17, 2018 meeting of the CWC, Item #3.1)

1.2 Previous Community Engagement with Respect to Types of Green Bin Materials Accepted

The Green Bin community engagement process was conducted in early 2021 to engage the community and solicit feedback in designing London's Green Bin program. The community engagement focused on five key decisions for overall program design which influence one another: types of materials accepted, size of curbside container, type of kitchen container and type of bin liners permitted. The engagement process also asked Londoners what concerns they may have with bi-weekly garbage collection.

The City's community engagement online platform, GetInvolved.ca, was used to provide information, and collect feedback on each of the key decision areas. The online feedback form received 3,777 responses, the webpage had 9,180 unique visitors and about 54,000 total page views. A comprehensive report was presented to CWC on March 30, 2021. With respect to what type of materials should be placed inside the Green Bin can be found below in Table 1.

Table 1: 2021 Online Feedback Form Question:
What Materials Should Be Placed Inside the Green Bin?

Material Type (check all that apply)	Responses (%)	Number of Responses
Food waste	99%	3,691
Soiled paper	79%	2,941
Cooking oils and grease	63%	2,335
Household plants	73%	2,738
Pet waste (dog and cat feces and kitty litter)	45%	1,679
Diapers/sanitary products(a)	21%	778
Yard waste	53%	1,990
Total Responses		**3,734**

(a) Diapers includes adult incontinence products and sanitary products refers to feminine hygiene products.

On April 13, 2021, Council resolved that:

a) the Civic Administration **BE AUTHORIZED** to undertake the Request for Proposals procurement process for a Green Bin material processor(s) that can compost and/or anaerobically digest:

   i) Mix #1 - Food waste, non-recyclable/soiled paper, cooking oils and grease, and household plants; and/or
   ii) Mix #2 - Food waste, non-recyclable/soiled paper, cooking oils and grease, household plants; and pet waste (e.g., dog, cat, other);

   it being noted that processors will have to clearly state what types of products will be created (e.g., compost categories AA, A, B, digestate, renewable natural gas, electricity, etc.) as well as describe the final end uses for these products.

At the June 15, 2023 meeting of the W12A Landfill Public Liaison Committee (PLC), the members passed a motion stating that the PLC is opposed to contaminating materials, such as human diapers and animal waste, being included within the Green Bin program.

2.0 Discussion and Considerations

Section 2.0 is divided into two parts:

Part A – Procurement of Green Bin Processing Services
Part B – Other Green Bin Related Matters

Part A – Procurement of Green Bin Processing Services

2.1 Procurement Process

Request for Proposal 2022-224 for the Green Bin Processing Services was issued on December 20, 2022 and closed on March 13, 2023. The RFP used a two-stage approach whereby a technical component and a separate financial component were required in bidders' submissions. Bidders were provided the evaluation criteria and specific details as part of the RFP under the following categories:

- Project Team Experience and Capability
- Operation Plan and Details including process description, beneficial use of products, contingency plans, regulatory compliance, and community impact
- Quality Assurance
- Innovative Features

Initially seven bidders registered by downloading the RFP documents and received the Addenda (i.e., called plan takers on Bids&Tenders procurement system). At time of closing six bidders remained listed. One bid was received.

In accordance with the Procurement of Goods and Services Policy, the Senior Manager, Procurement and Supply and the Deputy City Manager, Environment and Infrastructure, approved opening the technical submission of the only bid received. The Policy permits the review of a single submission (Irregular Bid) as follows (Section 19.4 c):

> 19.4 Only One Bid Received
>
> a. In the event only one bid is received in response to a competitive bid, the Senior Manager, Procurement and Supply may return the unopened bid to the bidder when, in the opinion of the Deputy City Manager (or delegate) and the Senior Manager, Procurement and Supply (or delegate), using criteria, based on the number of bids which might reasonably be expected on a given type of bid, additional bids could be secured. In returning the

unopened bid, the Senior Manager, Procurement and Supply shall inform the bidder that the City may be re-issuing the competitive bid at a later date.

b. In the event that only one bid is received in response to a request for competitive bid, the bid may be opened and evaluated in accordance with the City's usual procedures when, in the opinion of the Deputy City Manager (or delegate) and the Senior Manager, Procurement and Supply (or delegate), the bid should be considered by the City. If, after evaluation by the Deputy City Manager (or delegate) and the Senior Manager, Procurement and Supply (or delegate), the bid is acceptable, an award will follow the irregular result process described in Section 8.10. If the bid is found not to be acceptable, the procedures set out in Section 19.3.a. may be followed, with necessary modifications.

c. In the event that the bid received is found acceptable, it will be awarded as an Irregular Result under Schedule "A" of this Policy.

The technical submission was evaluated by an evaluation team from Waste Management, Waste Collection, Procurement and Supply with technical assistance provided by Dr. Paul van der Werf (i.e., an organics management specialist)**.** The submission is required to have a technical submission score of 70 percent or higher to have their sealed financial submission opened and reviewed.

The one bid received a score of 70 percent or higher and the financial submission was opened to complete the evaluation scoring.

2.2 Results

Background

The proposal from Convertus Canada Inc., London, Ontario (hereafter referred to as Convertus) was the one bid received. The Convertus bid met all terms and conditions of the City of London. References were reviewed. The status of environmental compliance was reviewed with the Ministry of the Environment, Conservation and Parks (MECP). Three meetings and two site visits were held with senior management staff at Convertus to discuss and/or view different aspects of the proposal.

Convertus operates 11 organic processing facilities across Canada and 1 facility in the United States. Its large municipal customers include the:

- Region of York, Ontario
- City of Ottawa, Ontario
- City of Surrey, British Columbia
- Regional District of Nanaimo, British Columbia
- City of Fredericton, New Brunswick

Overview of the Processing Services and Unit Price Offered by Convertus

The RFP included two mixes of Green Bin Materials to be processed:

- Material Mix #1: Food waste, non-recyclable/soiled paper, cooking oils and grease, and household plants; and

- Material Mix #2: Food waste, non-recyclable/soiled paper, cooking oils and grease, household plants, and pet waste (e.g., dog, cat, other).

The Convertus organics processing facility uses an in-vessel composting technology to produce compost and fertilizer. The facility is designed to process food waste, leaf and yard, diapers, sanitary products and pet waste. The in-vessel composting technology provides flexibility for the City of London.

In-vessel composting at Convertus involves the use of large concrete bunkers (containers) with a door. Inside the container monitoring takes place for temperature, moisture, and air flow as the decomposition process takes place. Green Bin materials are shredded before entering the container. After 14 to 16 days, the product is removed from the container and enters the screening line to create the final end product. Activities are completed indoors.

The odour abatement system includes a series of equipment, processes, and monitors (i.e., scrubbers, air-water heat exchangers, biofilters, dispersion stack). The odour abatement system was last upgraded in 2021.

Convertus submitted pricing and details for managing both mixes of materials:

- Material Mix #1 = $89.75 per tonne delivered of Green Bin materials. Assuming 15,000 tonnes per year is delivered, the amount would be $1,346,250; and

- Material Mix #2 = $94.50 per tonne delivered for Green Bin materials. Assuming 18,500 tonnes per year is delivered, the amount would be $1,728,250.

The above pricing also applies to Green Bin materials that may arrive from the multi-residential pilot project buildings that may start in advance of the curbside program.

Cost Comparison with Other Municipal Organics Processing Facilities Contracts and Operations

For the purpose of determining if competitive pricing was received from a single bid, additional comparisons were undertaken. Green Bin processing data from 13 Ontario municipalities responsible for processing Green Bin materials representing a total population of approximately 10.3 million people (about 70% of Ontario's population) was collected by City staff using direct contact with municipal representatives, available public reports from municipalities, and/or summary reports produced by others (Table 2). Also included in Table 2 is the City of London's proposed unit rates for both mixes of Green Bin materials.

It is important to note that prices vary by municipality due to many factors including, but not limited to:

- Quantity of materials to be processed from municipality;
- Type of materials contained in the Green Bin;
- How the materials are delivered to the processing facility;
- Location of the processing facility;
- Processing capacity of the processing facility;
- Minimum tonnage guaranteed;
- Age of processing facility;
- Type of processing facility (i.e., aerobic composting, anerobic digestion) and technology used;
- Length and conditions of contract;
- When contract was signed;
- Public or private ownership of the processing facility; and
- How municipal overheads may be assigned.

Approximate per tonne prices ranged from $90 to $200 per tonne for various mixes of Green Bin materials and processing technologies. In summary, compared with available information, the following comments can be made with respect to London's proposed processing pricing:

- It is on the lower end of the municipal cost range;
- It is viewed by City staff as being very competitive; and
- It provides flexibility for future consideration and/or program changes.

Table 2: Summary of Green Bin Processing (Composting and Anerobic Digestion) Costs in Ontario

Tonnes of Organics Managed Per Year by Municipality	Information from Number of Municipalities (and Combined Population)	Approximate Processing Cost Per Tonne Range	Average Processing Cost Per Tonne
10,000 to 45,000	8 (3,100,000)	$90 to $165	$125
Greater than 45,000	5 (7,200,000)	$90 to $200	$135
Averages Across Municipalities	13 (10,300,000)	$90 to $200	$130
City of London Material Mix #1			$89.75
City of London Material Mix #2			$94.50

Products to be Created from London's Green Bin Materials

London's Green Bin materials will be processed into three different products as summarized below with further details provided in Appendix A.

1. Non-agricultural source materials (NASM)

The Convertus facility produces mostly Category B compost, which is applied to agricultural lands as NASM. It is important to note this compost meets most Category AA compost requirements (e.g., metals, pathogens, foreign matter) but is designated as Category B because of how (i.e., lower moisture content) it is matured (i.e., cured).

NASM comprises treated and recycled materials from non-agricultural sources (e.g., food processing wastes, sewage biosolids, digestate) that can be applied to farmland in a beneficial way (e.g., add organic matter, plant nutrients to soil). Land application of NASM is intended to help maintain agricultural soil productivity and soil health. NASM is governed by the Nutrient Management Act and its Nutrient Management Regulation (i.e., Ontario Regulation 267/03).

The Nutrient Management Regulation includes rules for the storage, sampling, analysis and land application of NASM. The quality of NASM is assessed by determining the regulated metal concentrations, pathogen concentrations and odour potential. Further, a Nutrient Management Plan (Plan) must be developed for the location of land application. This is to ensure that material is land applied in an environmentally responsible way. The Plan is a legal document that must be prepared by a certified NASM Plan developer. Most require approval by the Ministry of Agriculture, Food and Rural Affairs (OMAFRA).

2. Fertilizer (ammonium sulphate)

Ammonium sulphate fertilizer is produced during the odour abatement process at Convertus. Ammonia (a form of nitrogen) is naturally generated during composting. When the air from the composting process, containing ammonia, leaves the composting vessels, it is scrubbed from the airstream using ammonia scrubbers. This system binds ammonia to sulphuric acid to create an ammonium sulphate fertilizer. The ammonium sulphate fertilizer has been registered with the Canadian Food Inspection Agency (CFIA) and is applied to agricultural lands.

3. Compost (Small Supply)

Convertus will produce small amounts (about 200 tonnes) of Category AA compost, at its London facility, from London Green Bin materials. They will adjust the moisture content of immature compost when it is discharged from a composting tunnel to facilitate the on-site maturation (i.e., curing) requirements for Category AA compost.

This compost will be made available to the City of London for special events promoting the Green Bin program.

Recommended Materials to be Collected in London's Green Bin Program

Material Mix #1
City staff are recommending that Material Mix #1 be collected at the start of the Green Bin program because they:

- generally ranked higher from London resident feedback in 2021;
- are the most commonly collected materials in other municipalities;
- are the easiest materials to compost;
- have lower processing costs;
- contribute to the cleanest possible end-product;
- reduce the inherent confusion that is introduced with the exclusion of non-degradable plastic bags; and
- represent more than 65% of available organics for the Green Bin.

List of Recommended Materials Mix #1 Items Include:
Food waste:
- Baked goods, candies
- Bread, cereal, pasta, noodles, rice, beans, grains
- Coffee filters and grounds, paper teabags
- Dairy products, including milk, yogurt, butter, cheese
- Dry baking ingredients, herbs, spices
- Eggs, eggshells
- Fats, cooking oils, food grease (liquid or solid)
- Fruits and vegetables (cooked or raw, including peels, scraps and pits)
- Meat, poultry, seafood, giblets, bones
- Nuts, seeds
- Salad dressing, mayonnaise, gravy, sauces

Food-soiled paper products:
- Paper napkins, paper towel, tissues (provided they are free of contaminants, such as household cleaners)
- Paper plates, cups, muffin wrappers (un-waxed and un-plasticized)
- Pizza boxes, cardboard
- Un-plasticized soiled paper food packaging (such as flour bags)
- Cardboard egg cartons

Other items:
- Household plants (including soil), cut flowers
- Pumpkins
- Wooden stir sticks, chop sticks, popsicle sticks, toothpicks
- Newsprint, paper bags (to wrap food and line containers)
- Waxed paper

Material Mix #2 – Future Considerations:
City staff also recommend that Mix #2 which includes Mix #1 plus pet waste (e.g., dog waste, cat waste and litter, other pet waste) be identified as a future item for Council consideration. Convertus has identified pricing for Mix #2 and has offered the City of London the ability to introduce non-biodegradable plastic bags as a liner option at the unit rate of $94.50 per tonne.

Comparison with Other Municipalities
A review of 15 Ontario municipalities and three Canadian programs found that all municipalities have a material mix that includes food waste, soiled paper, cooking oils and grease and household plants (except for one). About half of municipalities allow pet

waste and only two municipalities (York Region and Toronto) allow diapers/sanitary products (Table 3).

Table 3: Summary of Materials Included in Other Green Bin Programs

Municipality	Food	Soiled paper	Cooking oils and grease	House -hold plants	Pet waste	Diapers/ Sanitary Products	Yard waste
City of Toronto	Y	Y	Y	Y	Y	Y	
Region of York	Y	Y	Y	Y	Y	Y	
City of Guelph	Y	Y	Y	Y	Y		
Region of Niagara	Y	Y	Y	Y	Y		
City of Ottawa	Y	Y	Y	Y	Y		Y
Simcoe County	Y	Y	Y	Y	Y		
City of St Thomas	Y	Y	Y	Y	Y		Y
Region of Waterloo	Y	Y	Y	Y	Y		
City of Barrie	Y	Y	Y	Y			
Dufferin County	Y	Y	Y	Y			
Region of Durham	Y	Y	Y	Y			
City of Hamilton	Y	Y	Y				
Region of Halton	Y	Y	Y	Y			
City of Kingston	Y	Y	Y	Y			Y
Region of Peel	Y	Y	Y	Y			
City of Vancouver	Y	Y	Y	Y			Y
City of Calgary	Y	Y	Y	Y	Y		Y
City of Halifax	Y	Y	Y	Y			Y

Note: Y – Yes Included

2.3 Summary - City Staff Recommendations

Summary staff recommendations are highlighted on Table 4.

Table 4: Summary of Staff Recommendations

Item	Rationale
Accept the unit rate of $89.75 per tonne for Material Mix #1	• Lowest price • Contributes to the cleanest possible end-product; and • Represents more than 65% of available organics.
For future consideration, accept the unit rate of $94.50 per tonne for Material Mix #2	Should Council wish to add pet waste and/or food waste contained inside plastic bags in the future, a price approved in 2023 and subject to inflation has been established.
Flexibility in meeting Londoner's needs	Convertus, based on experience in other jurisdictions, has offered two pricing options that provide additional benefits.
Minimum tonnages as specified in the RFP	The minimum amounts of Green Bin materials that must be delivered to Convertus's processing facility are 15,000 (in 2024), 15,750 tonnes (in 2025), 16,540 tonnes (in 2026) and 17,360 tonnes (in 2027).
Term of contract	The term of contract will be four years, with three, one year options at the sole discretion of the City.

Part B – Other Green Bin Related Matters

2.4 Acceptable Material Types for Liners

Background

London's Green Bin program will not permit the use of (non-degradable) plastic bags to contain Green Bin materials. Direction was received from Council on April 13, 2021, as part of preparing for the Request for Proposal for Green Bin processing services:

b) the Civic Administration **BE AUTHORIZED** to design a Green Bin program that permits the use of the following liners, if a liner is deemed necessary by the household:
   i) Newsprint/household paper;
   ii) Purchased paper liners/bags; and
   iii) Purchased certified compostable bag liners;
   it being noted that should Mix #2 be selected all pet waste must contained inside a purchased certified compostable bag (leak free and tied tightly) to be an eligible item for the Green Bin.

Households can avoid a cost by using no-cost options such as household paper and paper bags (e.g., newsprint, cardboard, paper grocery bags, etc.). No-cost options may be less convenient, but they will be a preferred option for some. Paper retail bags are becoming more common as many stores are required to move away from plastic bags. Many municipalities promote creative "origami methods" of reusing household paper to wrap food waste.

For those that wish to purchase liners, it will be a new expense for some households. Liners can be purchased from hardware and grocery stores as well as online. The approximate cost per bag varies depending on the product, the amount purchased, and where it is purchased. Some examples on the price ranges as follows:

- Small Green Bin liners: Between $0.37 to $1.50 per bag;
- Kitchen container liners: Between $0.15 to $0.67 per bag.

In some cases, there will be a switch in purchasing practices whereby those household that currently purchase liners for garbage may switch some of those purchases to a certified compostable bag liner.

Comparison with Other Municipalities

A review of the use of Green Bin liners in 15 Ontario municipalities and three Canadian programs is found on Table 5. Most Ontario municipalities do not make liner use mandatory; however, some municipalities require the use of an approved liner when pet waste is placed in the Green Bin. Before the pandemic only Durham and Halton Regions required the use of liners, and due to the Covid-19 pandemic other municipalities now require the use of liners.

In many instances the liner is mandatory for either Green Bin (GB) or Kitchen Container (KC), but not for both. In these examples, the organics inside the cart cannot be loose for collection. In 2019 Ottawa began to allow plastic bags as a convenience. The liner material permitted is contingent on which materials are permitted in the Green Bin; for example, municipalities that accept diapers/sanitary products also permit the use of plastic bag liners.

Table 5: Summary of Acceptable Green Bin Liners

Municipality	Paper	Certified Compostable	Non-degradable plastic	Are liners mandatory for food waste?	Are liners mandatory for pet waste?
City of Toronto	Yes	Yes	Yes	Yes, for either GB or KC not both	Yes, for Green Bin
Region of York	Yes	Yes	Yes	Yes, for either GB or KC not both	Yes, for Green Bin
City of Guelph	Yes	Yes			
Region of Niagara	Yes	Yes			Yes
City of Ottawa	Yes	Yes	Yes (added in 2019)		Yes
Simcoe County	Yes	Yes			Yes
City of St. Thomas	Yes	Yes			Yes
Region of Waterloo	Yes	Yes		Yes for either GB or KC not both	Yes, for Green Bin
City of Barrie	Yes	Yes			Does not Collect
Dufferin County	Yes	Yes			Does not Collect
Region of Durham	Yes	Yes		Yes, for either GB or KC not both	Does not collect
City of Hamilton	Yes	Yes			Does not collect
Region of Halton	Yes	Yes		Yes	Does not collect
City of Kingston	Yes	Yes			Does not collect
Region of Peel	Yes	Yes			Does not collect
City of Vancouver	Yes				Does not collect
City of Calgary	Yes	Yes			Yes
City of Halifax	Yes				Does not collect

Notes: GB – Green Bin; KC – Kitchen container

2.5 Climate Change Considerations

As part of the City's Climate Emergency Action Plan (CEAP), Municipal Council has established a target of being net-zero community greenhouse gas (GHG) emissions by 2050. Collecting source separated organics (Green Bin materials) and diverting this material from landfill avoids the creation of methane – a potent greenhouse gas with a

global warming potential 28 times higher than carbon dioxide - as well as provides benefits through the production of a usable end product(s) to support this goal. It is important to note that the creation of methane within the landfill, as the organics break down, takes several years from the time the materials are buried until they decompose. Therefore, measuring climate change benefits requires an analysis that covers several decades to demonstrate the full benefit.

The net GHG emissions reduction benefit from using aerobic composting to process Green Bin materials is significantly greater than landfilling organics. For example, it is estimated that the net GHG emissions from organic waste management for the year 2030 would be approximately 20 to 27 per cent lower than if organics continued to be sent to landfill (Table 6).

Table 6: Greenhouse Gas Emissions from Green Bin Aerobic Composting (Greenhouse Gas (GHG) Calculator for Waste Management)

Organic Waste Management Option	Estimated Net Annual GHG Emissions (Tonnes CO_2 equivalents) for the year 2030	Estimated Net Cumulative GHG Emissions (Tonnes CO_2 equivalents) over 30 years
Without Green Bin (base case)	7,100 tonnes/year	313,000 tonnes
Green Bin with aerobic composting (15,000 tonnes per year of organics diverted from landfill)	5,700 tonnes/year (20% reduction - 1,400 tonnes/year lower)	237,000 (24% reduction – 74,000 tonnes lower)
Green Bin with aerobic composting (20,000 tonnes per year of organics diverted from landfill)	5,200 tonnes/year (27% reduction – 1,900 tonnes/year lower)	212,000 (32% reduction – 101,000 tonnes lower)

The net cumulative GHG emissions over a 30-year period would be approximately 24 to 32 per cent lower by diverting organics from landfill to aerobic composting (Table 4). The Organic Waste Greenhouse Gas (GHG) Calculator, available from Environment and Climate Change Canada, was used in these GHG emission reduction calculations. Additional details are presented in Appendix B.

Additional GHG reductions and benefits for the Green Bin Program include:

- Waste collection packers collecting the organics will be fuelled with compressed natural gas (CNG), which has lower greenhouse gas emissions and air pollutant emissions compared to diesel burning packers; and

- Convertus is within close proximity to the City's Exeter Road Operations Centre (EROC) where the vehicles are parked and maintained, the W12A Landfill Site, and the Flying J CNG fueling station.

Preliminary analysis suggests that when GHG reductions associated with the Green Bin program are added with the current and future capture of methane gas at the W12A Landfill, almost 90 per cent of the GHG associated with food waste and other organic material being targeted will be reduced.

2.6 Next Steps – Green Bin Start Date, Collection Schedule and Related Matters

Final Green Bin decisions and related matters will be presented to Civic Works Committee on August 15, 2023. This will include details on:

- Overview of multi-residential Green Bin pilot project;
- Start date for Green Bin curbside service;
- Start date for shifting from six collection zones to five collection zones;

- How Statutory Holidays will be handled as part of the collection system; and
- Proposed handling practices for pet waste, diapers and bulky materials.

3.0 Financial Impact/Considerations

Funding for the Green Bin program as part of the 60% Waste Diversion Action Plan was approved on March 2, 2020 and with budget amendments made and approved on January 12, 2021. The estimated amount allocated for the Green Bin program and related matters is $5 million annually with a capital cost estimated at $15 million. These estimates were prepared in 2018.

Both Green Bin processing unit estimates provided by Convertus in response to City's RFP are below City staff estimates from 2018. All funding required for Green Bin processing is within the approved budget allocated for this service.

Funding for Green Bin processing services was approved as part of the 2023 Annual Budget update on the understanding that the program was going to be implemented in mid-2023. Further delays dealing with vehicle supply chain issues have pushed the start date to late fall/early winter. For 2023, the unspent amount will be identified and reported through the 2023 Mid-Year Operating Budget Monitoring report that will be brought forward to committee in September 2023 and will form part of the Corporation's overall budget position for 2023.

Conclusion

The proposal from Convertus meets all terms and conditions of the City of London. The Green Bin processing units estimates provided by Convertus for both Material Mix #1 and #2 are below City staff estimates from 2018. Compared with other municipalities, are on the lower end of the municipal range; are viewed by City staff as being very competitive; and provide flexibility for future consideration and/or program changes.

Prepared by:	**Jessica Favalaro, B.Sc.** **Manager, Waste Diversion Programs**
	Mike Losee, B.Sc. **Division Manager, Waste Management**
Prepared and Submitted by:	**Jay Stanford, MA, MPA** **Director, Climate Change, Environment & Waste Management**
Recommended by:	**Kelly Scherr, P. Eng., MBA, FEC** **Deputy City Manager, Environment and Infrastructure**

c Steve Mollon, Senior Manager, Procurement and Supply

Appendix A Overview of Products from Green Bin Materials Processed Through Composting Processes

Appendix B Additional Details – Climate Change Considerations

Appendix A
Overview of Products from Green Bin Materials Processed Through Composting Processes
(prepared by Dr. Paul van der Werf)

A1.0 Introduction

Green Bin materials processed via composting results in the production of compost and in some cases fertilizer products. Detail in this appendix describe these products, their potential benefits and value, as well as summarizing their legal product quality requirements.

Convertus produces mostly Category B compost and ammonium sulphate fertilizer, at its London facility, and can produce small amounts of Category AA compost.

A2.0 Definitions

Compost
Compost is the solid output produced through the controlled aerobic microbial decomposition process (i.e., composting). The composting process goes through high temperature (>55C), which significantly reduces pathogens and weed seeds, and lower temperature phases. It results in a stable product that includes organic matter and small amounts of plant nutrients that can be beneficial to soil. In Ontario, this results in the production of Category AA, A or B composts.

Environmental Compliance Approval (ECA)
Facilities that process Green Bin materials are typically governed by an Environmental Compliance Approval (ECA) that is administered and supervised by the Ministry of the Environment, Conservation and Parks (MECP). The ECA includes various legally binding conditions that dictate how a site must be operated as well as the quality of compost.

Land Application
Ultimately compost will be applied to land. For highest quality AA and A composts this can include a wide spectrum of uses from home gardens to golf courses to agricultural use. Category B composts have some restrictions in terms of land application. They are often, with appropriate permitting, applied to agricultural land, as a non-agricultural source material (NASM).

Non-Agricultural Source Materials
Non-Agricultural Source Materials (NASM) comprise treated and recycled materials from non-agricultural sources that can be applied to farmland in a beneficial way (e.g., add organic matter, plant nutrients to soil).

A3.0 Materials Produced from Green Bin Material

The key material produced from the composting of Green Bin materials that can be applied to land is compost.

A3.1 Compost
Ontario's *Compost Quality Standards*[a] and the *Guideline for the Production of Compost in Ontario*[b] enable the composting of a broad range of materials and provide guidance for compost facility operators while protecting the environment and human health.

[a] Ontario Compost Quality Standards https://www.ontario.ca/page/ontario-compost-quality-standards
[b] Guideline for the Production of Compost in Ontario https://www.ontario.ca/page/guideline-production-compost-ontario

Under Ontario's Compost Quality Standards there are three categories of compost (AA. A and B) and each have quality standards for metals, pathogens, foreign matter and maturity. Category AA composts meet the highest quality standards. Compost facilities typically target the production of AA or A compost from Green Bin materials.

Category AA compost cannot include sewage biosolids, pulp and paper biosolids and domestic septage and this arguably precludes Green Bin materials that include diapers and sanitary products. The three categories of compost have different maximum concentrations of metals (Table A1) that cannot be exceeded. Importantly, all three categories must meet the same pathogen reduction and maturity requirements. Category AA and A have the same foreign matter (i.e., glass, metal and plastic) requirements while these requirements are less stringent for B composts.

Composts meeting Category AA and A standards are exempt from provincial approvals for transport and use. This means that these composts have broad uses including household gardens and landscaping; commercial gardens and landscaping; and horticultural applications.

Category B compost is not an exempt waste and requires ECA approvals for transportation and land application. "However, where Category B compost is applied to agricultural land as a nutrient and satisfies the requirements of O. Reg. 267/03 under the NMA[c], it is exempt from Part V of the EPA and Regulation 347 for use (it still requires approval for transportation)." [d]

All composts are considered a nutrient, under the *Nutrient Management Act* and require a *Nutrient Management Plan* and/or *NASM Plan* for application to farmland. The compost must be applied in accordance with the NMP or NASM Plan and *O.Reg. 267/03* (see additional detail in Section A3.2 of this report).[e]

Table A1: Maximum Concentration for Metals in Compost

Metal	Category AA (mg/kg dry weight)	Category A (mg/kg dry weight)	Category B (mg/kg dry weight)
Arsenic	13	13	75
Cadmium	3	3	20
Chromium	210	210	1060
Cobalt	34	34	150
Copper	100	400	760
Lead	150	150	500
Mercury	0.8	0.8	5
Molybdenum	5	5	20
Nickel	62	62	180
Selenium	2	2	14
Zinc	500	700	1,850

[c] Nutrient Management Act (NMA) https://www.ontario.ca/laws/statute/02n04
[d] Ontario Compost Quality Standards https://www.ontario.ca/page/ontario-compost-quality-standards
[e] Nutrient Management Protocol for Ontario Regulation 267/03 Made under the Nutrient Management Act, 2002 http://omafra.gov.on.ca/english/nm/regs/nmpro/nmpro07-12.htm

A3.2 Non-Agricultural Source Materials (NASM)
Some outputs from the composting of Green Bin materials are directed to farmland for land application. This can include Category B compost, as discussed above, which are designated as NASM.[f] NASM is governed by the Nutrient Management Act[g] and its Nutrient Management Regulation (i.e., Ontario Regulation 267/03[h]).

NASM is made from treated and recycled materials from non-agricultural sources (e.g., food processing wastes, sewage biosolids, digestate) that can be applied to farmland in a beneficial way (e.g., add organic matter, plant nutrients to soil). It is important to note the land application of NASM is intended to help maintain agricultural soil productivity and soil health rather than a just a place to dispose, in this context, compost.

A full list of NASM is included in Schedule 4 of the Nutrient Management Regulation. In the context of Green Bin programs, it can include materials that meet Category 3 NASM standards such as compost that meets the requirements for Category B of the Compost Standards.

NASM does not include compost that meets the standards for Category AA or A, as described in the Ontario Compost Standard.

The Nutrient Management Regulation includes rules for the storage, sampling, analysis and land application of NASM.

The quality of NASM is assessed by determining the regulated metal concentrations, pathogen concentrations and odour potential.

Further, for Category 3 NASM (under which outputs from the Green Bin can fall) a Nutrient Management Plan (Plan) must be developed for the location of land application. This is to ensure that material is land applied in an environmentally responsible way.

Plan development includes measuring soils for pH, phosphorus and the concentration of 11 regulated metals. Plans must also include appropriate setbacks from sensitive features such as wells, surface water and adjacent properties and must also consider field topography (i.e., slopes) and soil depth. Further, NASM application rates (i.e., to determine nutrients being applied) need to consider the crop that is being grown and the soil itself.

The Plan needs to include a contingency plan that outlines what would be done if there is an emergency or spill.

The Plan is a legal document that must be prepared by a certified NASM Plan developer. Most require approval by the Ministry of Agriculture, Food and Rural Affairs (OMAFRA).

A3.3 Fertilizer
In some cases, where a compost nutrient(s) content is predictable and consistent, a compost facility can register this fertilizer content (i.e., guaranteed analysis) with the federal Canadian Food Inspection Agency (CFIA). In some cases, fertilizers can be manufactured from the chemical scrubbing of nutrient rich composting off-gases and these (e.g., ammonium sulphate) can be registered with the CFIA.

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[f] Non Agricultural Source Materials http://omafra.gov.on.ca/english/nm/nasm.html
[g] Nutrient Management Act, 2002 https://www.ontario.ca/laws/statute/02n04?_ga=2.193027565.1395093710.1659437030-127138190.1659437030
[h] Nutrient Management Regulation https://www.ontario.ca/laws/regulation/030267?&_ga=2.194713325.1395093710.1659437030-127138190.1659437030#BK281

A4.0 Green Bin Product Value and Uses

The estimated nutrient, organic matter, dollar value and uses of various Green Bin composts is depicted in Table A2. Dollar values were gathered from the local marketplace. These products are commodities, and their prices can vary widely, between processors, and fluctuate widely, depending on market conditions.

Compost, including those produced from Green Bin materials, can be an important source of soil organic matter. Soil organic matter has been declining in Ontario soils.[i] Soil organic matter has chemical benefits which include improving soil nutrient retention; physical benefits which include improving soil structure and water holding capacity; and biological benefits as a source of energy and nutrients to soil microorganisms. Further, soil carbon capture (via organic matter from compost) lowers greenhouse gas emissions to the atmosphere, conferring an important climate change benefit.[j]

Compost includes plant nutrients, such as nitrogen, phosphorus and potassium, as well as various plant micronutrients.

In general, higher quality products, that require minimal additional handling or processing will have the highest dollar value and the end uses with highest product quality specifications.

Table A2: Benefits and Value of Composts

Material	Nutrients (dry weight basis)	Organic Matter	$/tonne	Examples of Uses
AA Compost	1-2% Nitrogen 0-1% Phosphorus 0.5-1%Potassium	30-50%	$30-$35/tonne	AA - home use
A Compost	1-2% Nitrogen 0-1% Phosphorus 0.5-1%Potassium	30-50%	$30-$35/tonne	A - horticultural uses, golf courses
B Compost	1-2% Nitrogen 0-1% Phosphorus 0.5-1%Potassium	30-50%	$1-$5/tonne	B - agricultural use, land reclamation (NASM)
Fertilizer			$1-$200/tonne for CFIA registered fertilizers	Agricultural use

[i] Ministry of Agriculture, Food and Rural Affairs: Written Submission to the Standing Senate Committee on Agriculture and Forestry https://sencanada.ca/content/sen/committee/421/AGFO/Briefs/CBrown_submission_e.pdf

[j] Soil organic matter matters - Investing in soil quality for long-term benefits https://ec.europa.eu/eip/agriculture/sites/default/files/eip-agri_brochure_soil_organic_matter_matters_2016_en_web.pdf

Appendix B
Additional Details - Climate Change Considerations

B1.0 60% Waste Diversion Action Plan

The 60% Waste Diversion Action Plan (2018) identified the environmental benefits of implementing a city-wide Green Bin organics (sometimes referred to as source separated organics) program through waste diversion, reduced landfill impacts, better use of material and resources and the reduction greenhouse gas (GHG) emissions. The source of GHG reduction estimates for each of the proposed action items, including aerobic composting, was evaluated utilizing the Environment and Climate Change Canada's *Greenhouse Gas (GHG) Calculator for Organic Waste Management,* 2009 version.

B2.0 Climate Lens Framework

Since that time, the City of London has developed a Climate Lens Framework to facilitate the inclusion of climate change considerations into decision making. The Climate Lens Framework has been used as a guide for the evaluation of potential waste and organics management approaches compared with current waste management programs. A key piece of the Climate Lens Framework is to evaluate potential organics management approaches by estimating GHG emissions reduction.

Updates to the GHG emissions reduction estimates have been assessed using the Environment and Climate Change Canada's new *Greenhouse Gas (GHG) Calculator for Organic Waste Management,* released in April 2022. This tool has been updated to include additional factors when estimating the impact on GHG emissions of different organic waste management approaches, including composting (e.g., windrow, in-vessel), anaerobic digestion (wet and dry), energy from waste, and landfilling. Greenhouse gas emission reductions are provided for both cumulative lifecycle emission reductions (default assumption is 30 years) and year-by-year annual reductions. Lifecycle emission reductions that are modelled include:

- Avoided GHG emissions associated with reducing the generation of organic waste;
- Emissions from avoided energy commodity use;
- Upstream emissions from avoided fuel production; and
- Upstream emissions from avoided fertilizer production.

GHG Emission Reductions

The user inputs (Table B1) entered into the calculator for the waste composition and quantities were based on the materials accepted in the Green Bin Program (food waste and paper). The GHG analysis also considers the following when calculating GHG reductions:

- The landfill gas collection and flaring system that is in place to reduce methane emissions from the landfill;
- The distance to the compost facility;
- Type of composting facility (i.e. in-vessel, windrow, static pile); and
- If fertilizer offsets are produced from the final compost product.

Table B1: Environment Canada Greenhouse Gas Emissions Calculator Inputs and Assumptions

User Analysis Input	Input/ Assumptions	Explanation
Baseline	User input - landfill	All SSO goes to landfill in the baseline scenario
LFG recovery (option)	LFG recovery for flaring	City of London landfill flares the methane landfill gas collected.

User Analysis Input	Input/ Assumptions	Explanation
Composting	In-vessel	In-vessel aerobic composting is the technology used to process the SSO.
Composting – Offset fertilizer offset	Yes	Aerobic composting product will have beneficial use.
Organic composition proportions	90% - food 10% - paper	Proportion of the type of organic materials have been determined from completing waste composition audits.
Distance (km)	20 km 40 km	Average distance to landfill and Convertus Composting Facility Average distance from compost facility to final destination of compost

The GHG emissions reduction benefit from using source-separated organics aerobic composting is significantly greater than landfilling organics. Overall, it is estimated that the net GHG emissions (equivalent carbon dioxide) for the year 2030 would be approximately 20 to 27 per cent lower. The net cumulative GHG emissions (equivalent carbon dioxide) over a 30 year period would be approximately 24 to 32 per cent lower by diverting organics from landfill to aerobic composting.

The Organics Waste Management model estimates net GHG emissions reductions based on the following:

- The efficiency of the landfill gas collection and flaring system;
- Avoided generation and emission of methane gas from the landfill due to organic material being diverted to aerobic composting;
- Avoided greenhouse gas emissions resulting from applying NASM to soil, which reduces the need for chemical fertilizers and the associated emissions that come from chemical fertilizer production and application;
- Increased transportation-related emissions due to transporting NASM; and
- Increased carbon sequestration from applying NASM to soil, which helps to increase the amount of carbon held in soil organic matter.

The magnitude of the net cumulative GHG emissions over 30 years and the net annual 2030 GHG emissions for composting compared to landfilling are presented in Table B2.

Table B2: Greenhouse Gas Emissions from Green Bin Aerobic Composting (Greenhouse Gas Calculator for Waste Management)

Organic Waste Management Option	Estimated Net Annual GHG Emissions (Tonnes CO_2 equivalents) for the year 2030	Estimated Net Cumulative GHG Emissions (Tonnes CO_2 equivalents) over 30 years
Without Green Bin (base case)	7,100 tonnes/year	313,000 tonnes
Green Bin with aerobic composting (15,000 tonnes of organics diverted from landfill)	5,700 tonnes/year (20% reduction - 1,400 tonnes/year lower)	237,000 (24% reduction – 74,000 tonnes lower)
Green Bin with aerobic composting (20,000 tonnes of organics diverted from landfill)	5,200 tonnes/year (27% reduction – 1,900 tonnes/year lower)	212,000 (32% reduction – 101,000 tonnes lower)

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: **Western Road and Sarnia Road/Philip Aziz Avenue Corridor and Intersection Improvements Detailed Design Appointment of Consulting Engineer**
Date: **July 18, 2023**

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 engineer for the detailed design and tendering of the Western Road and Sarnia Road/Philip Aziz Avenue corridor and intersection improvements:

(a) AECOM Canada Ltd. **BE APPOINTED** as the consulting engineer to complete the detailed design and tendering services at an upset amount of $1,645,435.00, excluding HST;

(b) the financing for this assignment **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 assignment;

(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 agreements, if required, to give effect to these recommendations.

Executive Summary

Purpose

This report seeks the approval of Muncipal Council to appoint AECOM Canada Ltd. (AECOM) as the engineering consultant to undertake the detail design and tendering for the Western Road and Sarnia Road / Philip Aziz Avenue corridor and intersection improvements. In accordance with the City's Procurement of Goods and Services Policy, Council approval of this consultant contract award is required.

Context

On behalf of the City, AECOM completed a Municipal Class Environmental Assessment (EA) to address necessary infrastructure improvements for the Western Road and Sarnia Road / Philip Aziz Avenue corridor and intersection. The Environmental Study Report (ESR) recommended road and drainage improvements to Western Road from Platt's Lane to the Huron College entrance at Burnlea Walk and to Sarnia Road/Philip Aziz Avenue from Sleightholme Avenue to the Thames River. The ESR also recommended further assessment of pedestrian priority traffic signal phasing (an intersection scramble) at the Western Road/Sarnia Road/Philip Aziz Avenue

intersection be completed during detailed design.

Linkage to the Corporate Strategic Plan

Municipal Council's new Strategic Plan identifies "Mobility and Transportation" as a strategic area of focus. This report supports the Strategic Plan by identifying the building of infrastructure that provides safe, integrated, connected, reliable and efficient transportation choices.

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

- Civic Works Committee – April 12, 2023 – Western Road and Sarnia Road/Philip Aziz Avenue Corridor and Intersection Improvements – Environmental Study Report, Notice of Completion
- Civic Works Committee – May 11, 2021 – Sarnia Road/Philip Aziz Avenue and Western Road Environmental Assessment – Consultant Re-Start
- Civic Works Committee report – January 6, 2015 – Western Road and Sarnia Road / Philip Aziz Avenue Environmental Assessment – Consultant Award

2.0 Discussion and Considerations

2.1 Project Background

The City recently completed a Schedule C Municipal Class Environmental Assessment (EA) study to identify the long-term preferred solution for the Western Road and Sarnia Road / Philip Aziz Avenue corridor and intersection. The study area extended along Western Road from Platt's Lane northerly to the Huron College entrance (Burnlea Walk) and Sarnia Road / Philip Aziz Avenue from Sleightholme Avenue to the Thames River as shown on Figure 1.

Western Road between Huron College and Platts Lane is part of a primary transportation corridor that services Western University, and other local institutions such as University Hospital, in addition to some residential and commercial uses. Within this corridor, the Western Road and Sarnia Road/Philip Aziz Avenue intersection supports a large volume of pedestrians, cycling traffic, vehicles and frequent transit services. These modes of traffic are expected to increase in the future.

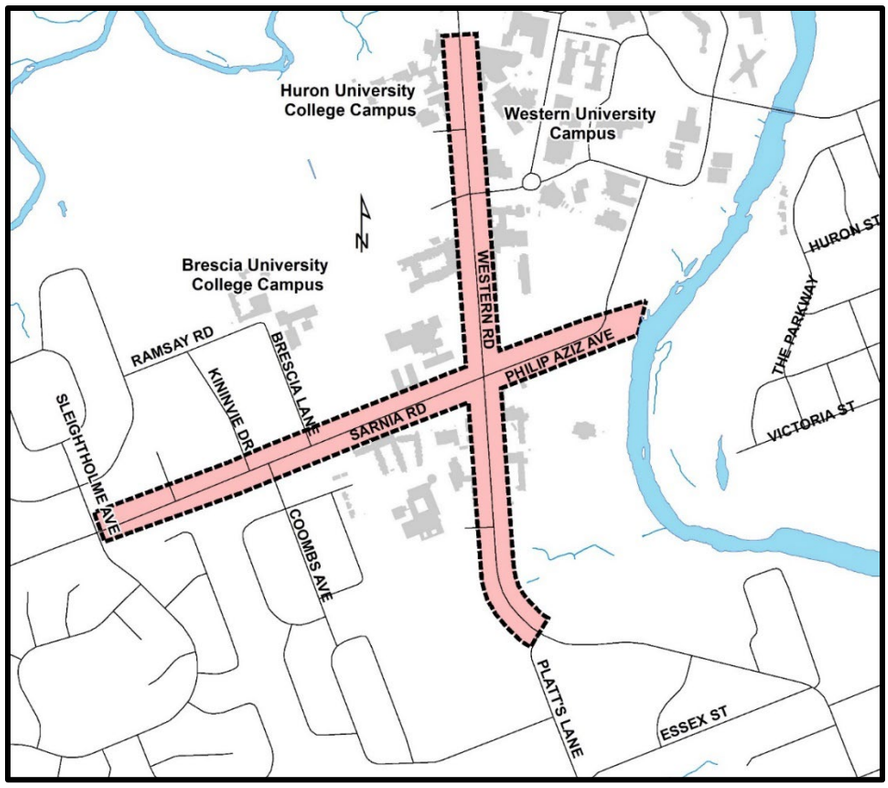

Figure 1: Environmental Assessment Study Area

The current City of London Transportation Master Plan recommends that the Western Road and Sarnia Road/Philip Aziz Avenue intersection be improved to accommodate increased traffic, address safety, and improve road width constraints along Philip Aziz Avenue.

The ESR recommended the following improvements to the Western Road and Sarnia Road/Philip Aziz Avenue Corridor and Intersection:

<u>Western Road (Platt's Lane to Burnlea Walk)</u>

- Extend the southbound right turn lane (from Western Road to Westbound Sarnia Road);
- Convert three existing bus stops on Western Road to bus bays;
- Provide new dedicated cycling lanes and wider pedestrian sidewalks from the north to south limits of the study area; and
- Restrict current and future access to and from select properties along Western Road.

<u>Sarnia Road (Sleightholme Avenue to Western Road)</u>

- Provide new dedicated cycling lanes and wider pedestrian sidewalks from the east to west limits of the study area.

<u>Philip Aziz Avenue (Western Road to Thames River)</u>

- Provide a new urban roadway cross-section, including cycle lanes, sidewalks, curb and gutter, and a relocated entrance to the Philip Aziz property.

<u>Western Road/Sarnia Road/Philip Aziz Avenue Intersection</u>

- Provide wider pedestrian crossings, with larger waiting areas;
- Provide improved cycle lane connectivity and pavement markings;

- Reconstruct the intersection to suit adjacent road alignments, maintaining a single northbound left turn lane to Sarnia Road; and
- Conduct an assessment of pedestrian priority traffic signal phasing (such as an intersection scramble) during the project design phase.

Stormwater Drainage

- Provide new storm sewers on Western Road, Sarnia Road, Philip Aziz Avenue with a new storm outfall to the Thames River.

Multi-Modal Levels of Service

- The project has been evaluated for the Multi-Modal Levels of Service provided at affected intersections, as well as segments of roadways within the limits. With improvements for pedestrians, cyclist, transit and other vehicles on the roadway, users will see an improvement in service and safety.

Climate Change

- Consideration for climate change, using the Climate Emergency Screening Tool criteria, has been reviewed including improving active transportation facilities and resiliency of the stormwater management system.

On April 25, 2023, Municipal Council accepted the ESR for the Western Road and Sarnia Road/Philip Aziz Avenue Corridor and Intersection Improvements subject to further assessment of pedestrian priority traffic signal phasing (an intersection scramble) at the Western Road/Sarnia Road/Philip Aziz Avenue intersection during the project design phase.

2.2 Consultant Procurement Process

The consultant selection process for this assignment has been undertaken in accordance with Section 15.2 (g) of the City's Procurement of Goods and Services Policy.

AECOM Canada Ltd. successfully completed the EA study for this project after a competitive procurement process. Due to the consultant's past performance, knowledge and understanding of the project, they were invited to submit a proposal to carry out the subsequent detailed design and tendering phases of the project. City staff have reviewed this proposal, including the financial and technical components, and confirmed that it addresses the required scope of work and provides good value for the city. The submitted fees are consistent with the earlier project phase and other similar city projects.

Subject to project performance, AECOM will be considered for the construction administration phases of the project.

3.0 Financial and Schedule Considerations

Funds are identified in the capital budget for the engineering and detailed design of the Western Road and Sarnia Road/Philip Aziz Avenue corridor and intersection improvements as per the Source of Financing attached as Appendix A. Additional funds will be required for construction of the project and will be requested as part of the upcoming 2024-2027 Multi-Year Budget process.

Coordination with adjacent projects, property owners, London Hydro, Western University, Brescia College and regulatory agencies is planned early in the design process. Network traffic management and a communications plan will be developed during detailed design to inform road users, outline detours during potential closures, and instruct local traffic movement.

A two phased construction schedule is proposed to accommodate the new storm sewers on Western Road, Sarnia Road, Philip Aziz Avenue with a new storm outfall to the Thames River. As part of the design phase, a construction phasing and project delivery schedule will be developed which will identify schedule milestones associated property acquisition and environmental approvals. It is anticipated that the first phase of construction will commence in 2025 and will include the reconstruction of Philip Aziz Avenue and the new storm sewer outfall to the Thames River. Some advance works and pre-engineering activites may commence in 2024. The second project phase will follow with improvements to the Western Road and Sarnia Road/Philip Aziz Avenue intersection.

4. 0 Conclusion

Improvements to the Western Road and Sarnia Road/Philip Aziz Avenue corridor and intersection are required to improve safety, complete the local active transportation network, accommodate growth in the area and improve drainage on Western Road.

AECOM Canada Ltd. has demonstrated a comprehensive understanding of the requirements for this project. Based on their past performance during the completion of the EA, it is recommended that AECOM Canada Ltd. be appointed to undertake the detail design and tendering for the Western Road and Sarnia Road/Philip Aziz Avenue corridor and intersection improvements in the amount of $1,645,435.00 (excluding HST). This approach will result in cost efficiencies and provides good value for the City.

Prepared by:	**Garfield Dales, P. Eng., Division Manager, Transportation Planning and Design**
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**
Appendix A:	Source of Financing

c: Josh Ackworth, AECOM Canada Ltd.
Andrew Denomme, City of London

#23139
July 18, 2023
(Appoint Consulting Engineer)

Chair and Members
Civic Works Committee

RE: Western Road and Sarnia Road/Philip Aziz Avenue Corridor and Intersection Improvements Detailed Design
(Subledger RD210009)
Capital Project TS1136 - Western Road Improvements - Huron College to Platt's Lane
Capital Project TS1627 - Philip Aziz - Western Rd to Thames River
Capital Project TS1670 - Intersection - Sarnia/Philip Aziz - Western Rd
Capital Project EW3788 - Western Road Watermain Upsizing (Platt's Lane to Sarnia Rd)
Capital Project ES241422 - Infrastructure Renewal Program - Sanitary Sewers
Capital Project ES254023 - Infrastructure Renewal Program - Stormwater Sewers & Treatment
Capital Project TS406723 - Traffic Signals - Maintenance
Capital Project TS512322 - Street Light Maintenance
AECOM Canada Ltd - $1,645,435.00 (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 recommendation of the Deputy City Manager, Environment and Infrastructure, the detailed source of financing is:

Estimated Expenditures	Approved Budget	Committed To Date	This Submission	Balance for Future Work
TS1136 - Western Road Improvements - Huron College to Platt's Lane				
Engineering	1,628,214	576,445	1,051,769	0
Construction	6,671,786	0	0	6,671,786
Relocate Utilities	400,000	0	0	400,000
City Related Expenses	100,000	0	0	100,000
TS1136 Total	8,800,000	576,445	1,051,769	7,171,786
TS1627 - Philip Aziz - Western Rd to Thames River				
Engineering	490,000	79,168	319,641	91,191
Construction	2,088,100	0	0	2,088,100
TS1627 Total	2,578,100	79,168	319,641	2,179,291
TS1670 - Intersection - Sarnia/Philip Aziz - Western Rd				
Engineering	928,125	0	118,771	809,354
EW3788 - Western Road Watermain Upsizing (Platt's Lane to Sarnia Rd)				
Engineering	185,328	0	59,978	125,350
Construction	1,707,983	0	0	1,707,983
EW3788 Total	1,893,311	0	59,978	1,833,333
ES241422 - Infrastructure Renewal Program - Sanitary Sewers				
Engineering	2,000,000	1,724,223	45,942	229,835
Engineering (Utilities Share)	12,859	12,859	0	0
Construction	10,409,529	9,721,561	0	687,968
City Related Expenses	25,000	2,192	0	22,808
ES241422 Total	12,447,388	11,460,835	45,942	940,611

#23139
July 18, 2023
(Appoint Consulting Engineer)

Chair and Members
Civic Works Committee

RE: Western Road and Sarnia Road/Philip Aziz Avenue Corridor and Intersection Improvements Detailed Design
(Subledger RD210009)
Capital Project TS1136 - Western Road Improvements - Huron College to Platt's Lane
Capital Project TS1627 - Philip Aziz - Western Rd to Thames River
Capital Project TS1670 - Intersection - Sarnia/Philip Aziz - Western Rd
Capital Project EW3788 - Western Road Watermain Upsizing (Platt's Lane to Sarnia Rd)
Capital Project ES241422 - Infrastructure Renewal Program - Sanitary Sewers
Capital Project ES254023 - Infrastructure Renewal Program - Stormwater Sewers & Treatment
Capital Project TS406723 - Traffic Signals - Maintenance
Capital Project TS512322 - Street Light Maintenance
AECOM Canada Ltd - $1,645,435.00 (excluding HST)

Estimated Expenditures continued	**Approved Budget**	**Committed To Date**	**This Submission**	**Balance for Future Work**
ES254023 - Infrastructure Renewal Program - Stormwater Sewers & Treatment				
Engineering	2,000,000	1,053,848	46,085	900,067
Construction	11,212,878	6,201,546	0	5,011,332
City Related Expenses	100,000	0	0	100,000
ES254023 Total	13,312,878	7,255,394	46,085	6,011,399
TS406723 - Traffic Signals - Maintenance				
Engineering	500,000	0	16,175	483,825
Construction	3,829,661	609,777	0	3,219,884
TS406723 Total	4,329,661	609,777	16,175	3,703,709
TS512322 - Street Light Maintenance				
Engineering	300,000	228,093	16,032	55,875
Construction	2,750,852	1,568,247	0	1,182,605
TS512322 Total	3,050,852	1,796,340	16,032	1,238,480
Total Expenditures	$47,340,315	$21,777,959	$1,674,393	$23,887,963
Sources of Financing				
TS1136 - Western Road Improvements - Huron College to Platt's Lane				
Debenture By-law No. W.-5577-64 (Note 1)	8,800,000	576,445	1,051,769	7,171,786
TS1627 - Philip Aziz - Western Rd to Thames River				
Debenture By-law No. W.-5676-194 (Note 2)	257,810	7,917	31,964	217,929
Drawdown from City Services - Roads Reserve Fund (Development Charges) (Note 4)	2,320,290	71,251	287,677	1,961,362
TS1627 Total	2,578,100	79,168	319,641	2,179,291
TS1670 - Intersection - Sarnia/Philip Aziz - Western Rd				
Debenture Quota (Note 3)	116,016	0	14,846	101,170
Drawdown from City Services - Roads Reserve Fund (Development Charges) (Note 4)	812,109	0	103,925	708,184
TS1670 Total	928,125	0	118,771	809,354
EW3788 - Western Road Watermain Upsizing (Platt's Lane to Sarnia Rd)				
Drawdown from Water Works Renewal Reserve Fund	1,703,980	0	53,980	1,650,000
Drawdown from City Services - Water Reserve Fund (Development Charges) (Note 4)	189,331	0	5,998	183,333
EW3788 Total	1,893,311	0	59,978	1,833,333

#23139
July 18, 2023
(Appoint Consulting Engineer)

Chair and Members
Civic Works Committee

RE: Western Road and Sarnia Road/Philip Aziz Avenue Corridor and Intersection Improvements Detailed Design
(Subledger RD210009)
Capital Project TS1136 - Western Road Improvements - Huron College to Platt's Lane
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Capital Project TS406723 - Traffic Signals - Maintenance
Capital Project TS512322 - Street Light Maintenance
AECOM Canada Ltd - $1,645,435.00 (excluding HST)

Sources of Financing continued	Approved Budget	Committed To Date	This Submission	Balance for Future Work
ES241422 - Infrastructure Renewal Program - Sanitary Sewers				
Capital Sewer Rates	7,934,529	7,934,529	0	0
Drawdown from Sewage Works Renewal Reserve Fun	2,250,000	1,263,447	45,942	940,611
Canada Community-Building Fund	2,250,000	2,250,000	0	0
Other Contributions	12,859	12,859	0	0
ES241422 Total	12,447,388	11,460,835	45,942	940,611
ES254023 - Infrastructure Renewal Program - Stormwater Sewers & Treatment				
Capital Sewer Rates	1,242,500	1,242,500	0	0
Drawdown from Sewage Works Renewal Reserve Fund	9,820,378	3,762,894	46,085	6,011,399
Canada Community-Building Fund	2,250,000	2,250,000	0	0
ES254023 Total	13,312,878	7,255,394	46,085	6,011,399
TS406723 - Traffic Signals - Maintenance				
Capital Levy	3,632,783	609,777	16,175	3,006,831
Drawdown from Transportation Renewal Reserve Fund	696,878	0	0	696,878
TS406723 Total	4,329,661	609,777	16,175	3,703,709
TS512322 - Street Light Maintenance				
Capital Levy	2,707,863	1,796,340	16,032	895,491
Drawdown from Transportation Renewal Reserve Fund	342,989	0	0	342,989
TS512322 Total	3,050,852	1,796,340	16,032	1,238,480
Total Financing	$47,340,315	$21,777,959	$1,674,393	$23,887,963

Appendix "A"

#23139
July 18, 2023
(Appoint Consulting Engineer)

Chair and Members
Civic Works Committee

RE: Western Road and Sarnia Road/Philip Aziz Avenue Corridor and Intersection Improvements Detailed Design
(Subledger RD210009)
Capital Project TS1136 - Western Road Improvements - Huron College to Platt's Lane
Capital Project TS1627 - Philip Aziz - Western Rd to Thames River
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Capital Project ES254023 - Infrastructure Renewal Program - Stormwater Sewers & Treatment
Capital Project TS406723 - Traffic Signals - Maintenance
Capital Project TS512322 - Street Light Maintenance
AECOM Canada Ltd - $1,645,435.00 (excluding HST)

Financial Note:	**TS1136**	**TS1627**	**TS1670**	**EW3788**
Contract Price	$1,033,578	$314,112	$116,717	$58,941
Add: HST @13%	134,365	40,835	15,173	7,662
Total Contract Price Including Taxes	1,167,943	354,947	131,890	66,603
Less: HST Rebate	-116,174	-35,306	-13,119	-6,625
Net Contract Price	$1,051,769	$319,641	$118,771	$59,978

Financial Note Continued:	**ES241422**	**ES254023**	**TS406723**	**TS512322**
Contract Price	$45,148	$45,288	$15,896	$15,755
Add: HST @13%	5,869	5,887	2,066	2,048
Total Contract Price Including Taxes	51,017	51,175	17,962	17,803
Less: HST Rebate	-5,075	-5,090	-1,787	-1,771
Net Contract Price	$45,942	$46,085	$16,175	$16,032

Financial Note Continued:	**Total**
Contract Price	$1,645,435
Add: HST @13%	213,905
Total Contract Price Including Taxes	1,859,340
Less: HST Rebate	-184,947
Net Contract Price	**$1,674,393**

Note 1: Note to City Clerk: The City Clerk be authorized to increase Debenture By-law No. W.-5577-64 by $5,000,000 from $3,800,000 to $8,800,000.

Note 2: Note to City Clerk: The City Clerk be authorized to increase Debenture By-law No. W.-5676-194 by $8,810 from $249,000 to $257,810.

Note 3: 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 TS1670 - Intersection - Sarnia/Philip Aziz - Western Rd for the net amount to be debentured of $116,016.

Note 4: Development charges have been utilized in accordance with the underlying legislation and the approved 2019 Development Charges Background Study and the 2021 Development Charges Background Study Update.

Jason Davies
Manager of Financial Planning & Policy

lp

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: **Appointment of Consulting Engineers for the Infrastructure Renewal Program**
Date: **July 18, 2023**

Recommendation

That on the recommendation of the Deputy City Manager, Environment and Infrastructure, the following actions **BE TAKEN** with respect to the appointment of consulting engineers for the Infrastructure Renewal Program:

(a) The following consulting engineers **BE APPOINTED** to carry out consulting services for the identified Infrastructure Renewal Program funded projects, at the upset amounts identified below, in accordance with the estimate on file, and in accordance with Section 15.2(e) of the City of London's Procurement of Goods and Services Policy:

(i) Development Engineering (London) Limited **BE APPOINTED** consulting engineers to complete the pre-design, and detailed design of Contract 1, Florence Street from Eleanor Street to Ashland Avenue, and Eleanor Street from Dundas Street to Frances Street reconstruction, in the total amount of $354,937.00 (including contingency), excluding HST;

(ii) Stantec Consulting Ltd. **BE APPOINTED** consulting engineers to complete the pre-design, detailed design and construction administration of Contract 3, Cavendish Crescent East reconstruction, and Greenway low level trunk sanitary sewer relocation, in the total amount of $767,672.40 (including contingency), excluding HST;

(iii) Archibald, Gray & McKay Engineering Ltd. **BE APPOINTED** consulting engineers to complete the pre-design and detailed design of Contract 7, Sterling Street from Oxford Street East to Salisbury Street, Salisbury Street from Sterling Street to Quebec Street, and Mornington Avenue from Sterling Street to Quebec Street reconstruction, in the total amount of $294,800.00 (including contingency), excluding HST;

(b) the financing for this project **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 project;

(d) the approval given, herein, **BE CONDITIONAL** upon the Corporation entering into a formal contract; and

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

Executive Summary

The purpose of this report is to award engineering consultant appointments for the Infrastructure Renewal Program. These consultant appointments will lead to infrastructure construction projects in 2024 and 2025. A detailed project information list, including timing and project limits, is contained in Appendix 'B'. Project location maps are contained in Appendix 'C'.

The Infrastructure Renewal Program is an annual program intended to maintain the lifecycle and operation of municipal infrastructure at an acceptable performance level. The engineering consultants work with city staff to complete the Infrastructure Renewal

Program projects and meet the challenging infrastructure lifecycle replacement needs. The engineering consulting work recommended within this report will support the reconstruction of an estimated $18,000,000 of capital infrastructure.

It is noted that this is the first round of Infrastructure Renewal Program projects to be released this year. It is anticipated that there will be an additional two rounds of projects released this year.

Linkage to the Corporate Strategic Plan

This recommendation supports the following 2023-2027 Strategic Plan areas of focus:

- Mobility and Transportation:
    - Londoners can move around the city safely and easily in a manner that meets their needs by incorporating cycling infrastructure and safety enhancements.
- Climate Action and Sustainable Growth:
    - The infrastructure gap is managed for all assets; and
    - London's infrastructure is built, maintained, and secured to support future growth and protect the environment; and
    - London has a strong and healthy environment by incorporating stormwater management quantity and quantity controls to protect downstream waterways, wetlands, watersheds and natural areas.

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

- CWC – May 28, 2018 – Revised Grouped Consultant Selection Process.

2.0 Discussion and Considerations

2.1 Work Description

The Infrastructure Renewal Program projects include watermain and sewer replacement/repairs, as well as restoration of areas disturbed by the construction activity. The scope of each project varies in length and depends on the infrastructure components requiring rehabilitation or replacement. Full road reconstruction will be part of the projects.

The City infrastructure design groups within each service area work closely together to co-ordinate infrastructure repair, rehabilitation and replacement. City staff prepare a list of the highest priority projects, taking into consideration condition assessment, capacity, criticality of the infrastructure link, and the safety and social impacts should the infrastructure link fail. City staff meet regularly throughout the year to co-ordinate their respective work, with the goal of aligning construction projects so more than one infrastructure element can be renewed, which significantly reduces social disruption and saves on construction costs. Design work starts early in the budget cycle, which allows projects to tender early in the season, so the most competitive construction pricing can be realized.

This report recommends the appointment of engineering consultants for three engineering assignments as identified in Appendix 'B'. All of the projects are scheduled for construction in 2024 and 2025. The proposed construction year and physical limits of the project assignments are summarized in Appendix 'B', and a location map is provided for each project in Appendix 'C'.

The following project information is of particular interest:

- Contract 1 – Florence Street and Eleanor Street reconstruction will result in the removal of 459.4 metres of combined sewer;
- Contract 3 – Cavendish Crescent East reconstruction and Greenway low level trunk sanitary sewer relocation is an important first step in the establishment of the West London Dyke extension. The project will relocate the existing Greenway trunk sanitary sewer into a new alignment that will not conflict with the location and construction of the new dyke wall; and
- Contract 7 – Sterling Street, Salisbury Street and Mornington Avenue reconstruction will result in the removal of 258.7 metres of combined sewer.

Funds have been budgeted in the water and sewer capital budgets to support the engineering work for the projects identified in Appendix 'A', 'Sources of Financing'. The design and construction administration fees for the new projects, recommended for approval in this report, are summarized in Table 1 below. All values below include 10% contingency and exclude HST.

Table 1: Summary of Project Assignments

Contract	Street(s)	Consultant	Design Fee	Construction Administration Fee	Total Fee
1	Florence Street and Eleanor Street	Development Engineering (London) Limited	$354,937.00	-	$354,937.00
3	Cavendish Crescent East and Greenway low level trunk sanitary sewer relocation	Stantec Consulting Ltd.	$391,783.97	$375,888.43	$767,672.40
7	Sterling Street, Salisbury Street, and Mornington Avenue	Archibald, Gray & McKay Engineering Ltd.	$294,800.00	-	$294,800.00

3.0 Financial Impact/Considerations

3.1 Procurement Process

The engineering consultant selection procedure for the Infrastructure Renewal Program utilized a grouped consultant selection process developed in partnership with the Financial Services - Purchasing and Supply Division, subsequently approved by Council June 12, 2018 and is used for all Infrastructure Renewal Program consultant appointments. This two-stage grouped procurement process is in accordance with Section 15.2(e) of the Procurement of Goods and Services Policy.

The first stage of the process is an open, publicly advertised Request for Qualifications. Statement of Qualifications submissions were received from a province wide group of nineteen prospective consultants. The Statement of Qualifications were evaluated by the Environmental Engineering Services Department resulting in a short-list group of fifteen engineering consulting firms.

The second stage of the process is a competitive Request for Proposal. Consultants from the short listed group are invited to submit a formal proposal to undertake a specific engineering assignment. Three consultants were invited to submit a proposal for each of the identified project assignments.

An evaluation of the proposals was undertaken by the Environment and Infrastructure Department including both a technical and cost component. Engineering consultants are

recommended based on their knowledge and understanding of project goals, their experience on directly related projects, their project team members, capacity and qualifications, and overall project fee.

The construction administration fee portion of the engineering consultant assignments is included for those projects of lower complexity, and for projects where construction administration fees can be reasonably estimated prior to the start of the design. Including construction administration fees as part of the initial consultant assignment reduces the number of required reports to committee and reduces the time required to award the final construction contract.

Conclusion

Replacing infrastructure at the end of its lifecycle is essential to building a sustainable city. The recommended engineering consultant assignments for the Infrastructure Renewal Program are another step forward in replacing London's aging infrastructure. The projects discussed within this report have been identified as high priority due to the age, poor condition and associated risk of failure associated with the infrastructure.

All the firms recommended through this engineering consultant appointment have shown their competency and expertise with infrastructure replacement projects of this type.

Prepared by:	**Kyle Chambers, P.Eng.** **Division Manager, Sewer Engineering**
Submitted by:	**Ashley Rammeloo, MMSc, P.Eng.** **Director, Water, Wastewater, and Stormwater**
Recommended by:	**Kelly Scherr, P.Eng., MBA, FEC** **Deputy City Manager, Environment and Infrastructure**

cc: D. Gough, K. Johnson, A. Rozentals

Appendix 'A' – Sources of Financing

Appendix 'B' – Project Information List

Appendix 'C' – Location Maps

Appendix "A"

#23148
July 18, 2023
(Appoint Consulting Engineers)

Chair and Members
Civic Works Committee

RE: Appointment of Consulting Engineers for the Infrastructure Renewal Program
(Subledger WS24C001) Florence Street and Eleanor Street
(Subledger WS20C011) Cavendish Crescent East
(Subledger WS24C007) Sterling Street, Salisbury Street and Mornington Avenue
Capital Project EW376523 - Infrastructure Renewal Program - Watermains
Capital Project ES241423 - Infrastructure Renewal Program - Sanitary Sewers
Capital Project ES254023 - Infrastructure Renewal Program - Stormwater Sewers & Treatment
Development Engineering (London) Limited - $354,937.00 (excluding HST) - Florence Street and Eleanor Street
Stantec Consulting Ltd. - $767,672.40 (excluding HST) - Cavendish Crescent East
Archibald, Gray & McKay Engineering Ltd.- $294,800.00 (excluding HST) - Sterling Street, Salisbury Street, and Mornington Avenue

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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 Date	This Submission	Balance for Future Work
EW376523 - Infrastructure Renewal Program - Watermains				
Engineering	2,500,000	587,208	576,941	1,335,851
Construction	15,787,316	12,071,870	0	3,715,446
City Related Expenses	59	59	0	0
EW376523 Total	18,287,375	12,659,137	576,941	5,051,297
ES241423 - Infrastructure Renewal Program - Sanitary Sewers				
Engineering	2,000,000	2,162	432,707	1,565,131
Construction	11,287,878	3,300,204	0	7,987,674
City Related Expenses	25,000	0	0	25,000
ES241423 Total	13,312,878	3,302,366	432,707	9,577,805
ES254023 - Infrastructure Renewal Program - Stormwater Sewers & Treatment				
Engineering	2,000,000	1,099,933	432,707	467,360
Construction	11,212,878	7,016,005	0	4,196,873
City Related Expenses	100,000	0	0	100,000
ES254023 Total	13,312,878	8,115,938	432,707	4,764,233
Total Expenditures	$44,913,131	$24,077,441	$1,442,355	$19,393,335

Sources of Financing				
EW376523 - Infrastructure Renewal Program - Watermains				
Capital Water Rates	12,193,444	12,193,444	0	0
Drawdown from Water Works Renewal Reserve Fund	4,668,931	0	0	4,668,931
Canada Community-Building Fund	1,425,000	465,693	576,941	382,366
EW376523 Total	18,287,375	12,659,137	576,941	5,051,297
ES241423 - Infrastructure Renewal Program - Sanitary Sewers				
Capital Sewer Rates	8,812,878	3,302,366	432,707	5,077,805
Drawdown from Sewage Works Renewal Reserve Fund	2,250,000	0	0	2,250,000
Canada Community-Building Fund	2,250,000	0	0	2,250,000
ES241423 Total	13,312,878	3,302,366	432,707	9,577,805

Appendix "A"

#23148
July 18, 2023
(Appoint Consulting Engineers)

Chair and Members
Civic Works Committee

RE: Appointment of Consulting Engineers for the Infrastructure Renewal Program
(Subledger WS24C001) Florence Street and Eleanor Street
(Subledger WS20C011) Cavendish Crescent East
(Subledger WS24C007) Sterling Street, Salisbury Street and Mornington Avenue
Capital Project EW376523 - Infrastructure Renewal Program - Watermains
Capital Project ES241423 - Infrastructure Renewal Program - Sanitary Sewers
Capital Project ES254023 - Infrastructure Renewal Program - Stormwater Sewers & Treatment
Development Engineering (London) Limited - $354,937.00 (excluding HST) - Florence Street and Eleanor Street
Stantec Consulting Ltd. - $767,672.40 (excluding HST) - Cavendish Crescent East
Archibald, Gray & McKay Engineering Ltd.- $294,800.00 (excluding HST) - Sterling Street, Salisbury Street, and Mornington Avenue

Sources of Financing Continued	**Approved Budget**	**Committed To Date**	**This Submission**	**Balance for Future Work**
ES254023 - Infrastructure Renewal Program - Stormwater Sewers & Treatment				
Capital Sewer Rates	1,242,500	1,242,500	0	0
Drawdown from Sewage Works Renewal Reserve Fund	9,820,378	4,623,438	432,707	4,764,233
Canada Community-Building Fund	2,250,000	2,250,000	0	0
ES254023 Total	13,312,878	8,115,938	432,707	4,764,233
Total Financing	$44,913,131	$24,077,441	$1,442,355	$19,393,335

Financial Note: (Excluding HST)	**EW376523**	**ES241423**	**ES254023**	**Total Excluding HST**	**Total Including HST**
Listed by Engineer and Contract					
Development Engineering (London) Limited - Florence Street and Eleanor Street	141,975	106,481	106,481	354,937	361,184
Stantec Consulting Ltd. - Cavendish Crescent East	307,068	230,302	230,302	767,672	781,183
Archibald, Gray & McKay Engineering Ltd.- Sterling Street, Salisbury Street, and Mornington Avenue	117,920	88,440	88,440	294,800	299,988
Total Per Capital Project (Excluding HST)	$566,963	$425,223	$425,223	$1,417,409	$1,442,355

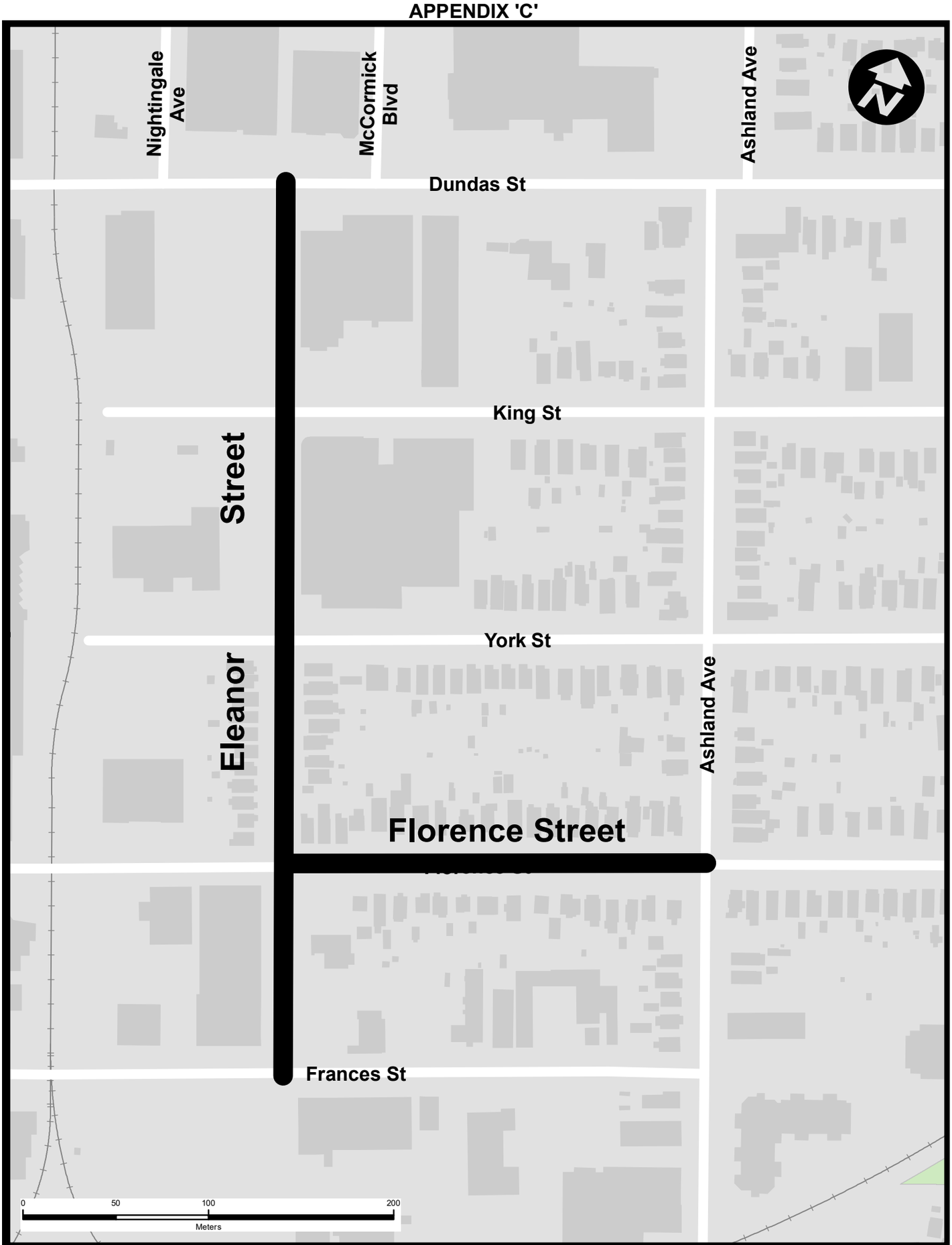
Financial Note: Charges per Capital Project	**EW376523**	**ES241423**	**ES254023**	**Total**
Contract Price	$566,963	$425,223	$425,223	$1,417,409
Add: HST @13%	73,705	55,279	55,279	$184,263
Total Contract Price Including Taxes	640,668	480,502	480,502	1,601,672
Less: HST Rebate	-63,727	-47,795	-47,795	-$159,317
Net Contract Price	$576,941	$432,707	$432,707	**$1,442,355**

Jason Davies
Manager of Financial Planning & Policy

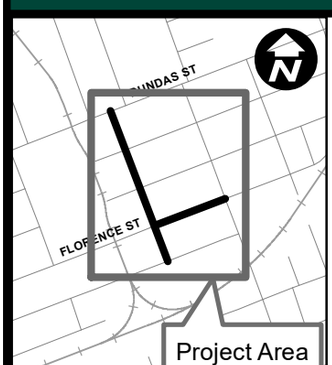
lp

Appendix 'B' - Project Information List						
Assignment	Consultant	Street	From	To	Length (m)	Construction Year
1	Development Engineering (London) Limited	Florence Street	Eleanor Street	Ashland Avenue	250	2025
		Eleanor Street	Dundas Street	Frances Street	460	2025
3	Stantec Consulting Ltd.	Cavendish Crescent East	Cavendish Crescent North	Wharncliffe Road North	515	2024
		Greenway low level trunk sanitary sewer relocation	Riverside Park	Mitchell A Baran Park	280	2024-2025
7	Archibald, Gray & McKay Engineering Ltd.	Sterling Street	Oxford Street East	Salisbury Street	490	2025
		Salisbury Street	Sterling Street	Quebec Street	125	2025
		Mornington Avenue	Sterling Street	Quebec Street	125	2025

APPENDIX 'C'



LOCATION MAP



Infrastructure Renewal Program

Florence Street from Eleanor Street to Ashland Avenue
Eleanor Street from Frances Street to Dundas Street

Approximate Project Limits

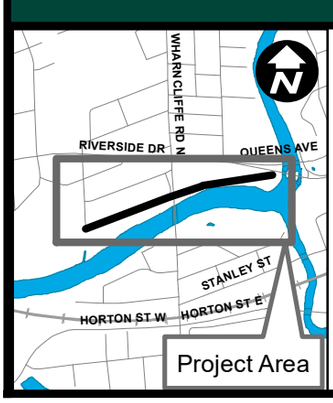
Map Produced by the Sewer Engineering Division

June 15, 2023 CM

London CANADA
300 Dufferin Avenue,
PO Box 5035
London, Ontario
N6A 4L9
www.London.ca

APPENDIX 'C'

LOCATION MAP



Infrastructure Renewal Program

Greenway Low Level Trunk Sanitary Sewer (GTSS) Realignment
Cavendish Crescent (east-west) from Cavendish Crescent (north-south/west leg) to Mitchell A. Baran Park

Approximate Project Limits

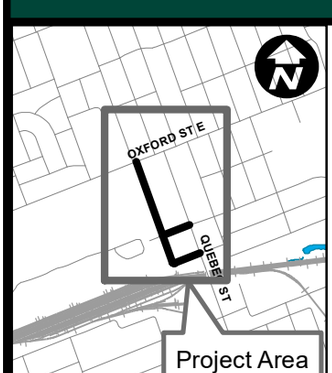
Map Produced by the Sewer Engineering Division

June 14, 2023 CM

London CANADA
300 Dufferin Avenue,
PO Box 5035
London, Ontario
N6A 4L9
www.London.ca

APPENDIX 'C'

LOCATION MAP



Infrastructure Renewal Program

Sterling Street from Oxford Street East to Salisbury Street
Salisbury Street from Sterling Street to Quebec Street
Mornington Avenue from Sterling Street to Quebec Street

Approximate Project Limits

Map Produced by the Sewer Engineering Division

June 15, 2023 CM

London CANADA
300 Dufferin Avenue,
PO Box 5035
London, Ontario
N6A 4L9
www.London.ca

Report to Civic Works Committee

To: **Chair and Members**
Civic Works Committee
From: **Kelly Scherr, P. Eng., MBA, FEC**
Deputy City Manager, Environment & Infrastructure
Scott Mathers, MPA, P.Eng.
Deputy City Manager, Planning and Economic Development
Subject: **Contract Award: Request for Proposal RFP-2023-141 Design, Fabrication, Delivery, Installation and Maintenance of Signage for Downtown Wayfinding Plan Phase 1**
Sign By-law Amendment
Date: **July 18, 2023**

Recommendation

That, on the recommendation of the Deputy City Manager, Environment & Infrastructure and the Deputy City Manager, Planning and Economic Development, the following actions **BE TAKEN** with respect to the Request for Proposal 2023-141 contract award to implement Phase 1 of the Downtown Wayfinding Plan:

(a) Everest Signs **BE APPOINTED** to undertake detailed design, fabrication, installation and maintenance at an upset limit of $125,350.00, excluding HST, in accordance with Section 12.2(b);

(b) the financing for this project **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 project;

(d) the approvals given, herein, **BE CONDITIONAL** upon the Corporation entering into a formal contract with Everest Signs for this work;

(e) the Mayor and the City Clerk **BE AUTHORIZED** to execute any contract or other documents, if required, to give effect to these recommendations; and,

(f) the proposed By-law to amend the Sign By-law, attached hereto as Appendix B, **BE INTRODUCED** at the Municipal Council meeting to be held on July 25, 2023 to enact the above-noted changes.

Executive Summary

The London Community Recovery Network recommended that the City of London; “identify actions to promote a walkable, accessible downtown; address physical barriers, use technologies available to support accessibility needs. Improve signage to help drivers, pedestrians and cyclists navigate; map the journey from the car to ultimate destinations. Uncertainty on timelines acknowledged broader plans to increase walkability/accessibility will take considerable time.”

The Downtown Wayfinding Plan and subsequent initial implementation addresses Municipal Council direction approved on February 23, 2021 to execute the implementation plan for this idea in support of London’s community recovery from COVID-19 (Focus on actions that get people moving around the core).

This report recommends a contract award to Everest Signs as the successful proponent to complete detailed design, fabrication and installation of the Downtown Wayfinding

Plan Phase 1 wayfinding signage to be installed in the downtown later this year. The contract will also include a two-year maintenance allowance to ensure signs are repaired in a timely and consistent manner, if damaged.

City staff are also recommending an amendment to the Sign By-Law to define a new type of sign “City-Owned Wayfinding Signs” and exempt this sign type from the Sign By-law.

Linkage to the Corporate Strategic Plan

The following report supports Council’s new Strategic Plan through the strategic focus area of “Mobility and Transportation”. Downtown Wayfinding Signage will enhance the quality and connectivity for all modes of mobility by improving the ease of navigation.

This report also supports the Strategic Plan through the strategic focus area of “Economic Growth, Culture, and Prosperity” by supporting revitalization and vibrancy in London’s Downtown.

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

- Civic Works Committee – February 9, 2021 – London Community Recovery Network – Ideas for Action by Municipal Council

2.0 Discussion and Considerations

2.1 Project Background

The Downtown Wayfinding Plan provides a comprehensive strategy to help people living, working, and visiting navigate within the downtown area. The goal is to create a wayfinding system that reinforces a sense of place, identity, and improves navigability and wayfinding within the downtown area. The plan was created in 2021 and 2022 with the benefit of consultation with the Accessibility, Transportation, and Cycling Advisory Committees and with the Downtown Business Improvement Area.

The Downtown Wayfinding Plan includes nine sign types and two banner types, with a proposed total of 124 signs and 130 banners. The plan recommends implementation over five phases and proposes locations for each sign and banner area.

Phase 1 will implement 14 signs, including six finger post signs, four parking identification signs, three small destination signs, and one large destination sign. These signs, detailed in Appendix C as an excerpt of the Downtown Wayfinding Plan, will introduce London residents and visitors to the overall program and provide improvements to downtown navigation. This phase will inform future phases and will develop greater support for the long-term full implementation of the Downtown Wayfinding Plan.

2.2 Project Description

The contract award will move Phase 1 of the wayfinding program from conceptual plan to implementation. The successful proponent is responsible for:

- detailed design of all phase one sign types;
- fabrication of signage and associated base/foundations;
- installation, including permitting and restoration; and,
- repair of signs for a period of two years after installation.

The Phase 1 signs in this project are planned to be installed by the end of 2023.

2.3 Sign By-law Amendment

When the Sign By-law S.-5868-183 was last updated, the downtown wayfinding project was not yet contemplated. Staff are recommending that city owned wayfinding signage be acknowledged and exempt from the Sign By-Law. The by-law amendment proposed in Appendix B will support installation and serve as formal recognition of these signs within the city right of way.

3.0 Financial Impact/Considerations

3.1 Request for Proposal Summary

The selection process for this assignment has been undertaken in accordance with Section 12 of the City's Procurement of Goods and Services Policy. Everest Signs was identified as the successful proponent for the project after a competitive, two phase evaluation process.

Submissions to the request for proposal for the Design, Fabrication, and Installation of Wayfinding Signage project were received on June 7, 2023 and reviewed by a team consisting of City staff from Transportation Planning & Design and Urban Regeneration. Based on the evaluation criteria and selection process identified in the request for proposal, the evaluation committee determined the proposal from Everest Signs provides the best overall value to the City. Three compliant proposals were submitted, with Everest Signs being of the best value to the City at $125,350.00 excluding HST.

The submitted fees are consistent with the previously approved budget for the creation and initial implementation of a Downtown Wayfinding Plan that was identified as a recommendation of the London Community Recovery Network. The successful proponent will be considered for future project phases subject to performance.

Conclusion

Civic Administration has reviewed the proposal submissions and recommends Everest Signs be appointed as the successful proponent to complete detailed design, fabrication, installation and repairs of the Phase 1 wayfinding signage program at the submitted price of $125,350.00, excluding HST.

Civic Administration also recommend that the Sign By-law be amended to allow city-owned wayfinding signs within city road allowances.

Prepared by:	**Garfield Dales, P. Eng., Division Manager, Transportation Planning & Design**
Submitted by:	**Doug MacRae, P. Eng., MPA, Director, Transportation and Mobility**
Recommended by:	**Scott Mathers, MPA, P.Eng., Deputy City Manager, Planning and Economic Development**
Recommended by:	**Kelly Scherr, P. Eng., MBA, FEC, Deputy City Manager, Environment and Infrastructure**

cc: Shailesh Garg, Everest Signs
Daniel Hall, City of London
Jim Yanchula, City of London
Adam Salton, City of London

Appendix A Sources of Financing Report

Appendix B By-law to amend the current Sign By-law S.-5868-183

Appendix C Downtown Wayfinding Plan – Family of Signs

Appendix "A"

#23138
July 18, 2023
(Contract Award)

Chair and Members
Civic Works Committee

RE: RFP-2023-141 Design, Fabrication, Delivery, Installation and Maintenance of Wayfinding Signage for City of London Downtown Wayfinding Plan
(Subledger RD220015)
Capital Project TS1055 - Downtown Wayfinding
Everest Signs - $125,350.00 (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 recommendation of the Deputy City Manager, Environmer and Infrastructure and the Director, Building and Chief Building Official, the detailed source of financing is:

Estimated Expenditures	**Approved Budget**	**This Submission**	**Balance for Future Work**
Construction	230,000	127,557	102,443
Total Expenditures	$230,000	$127,557	$102,443
Sources of Financing			
Drawdown from Economic Development Reserve Fund (Note 1)	230,000	127,557	102,443
Total Financing	$230,000	$127,557	$102,443

Financial Note:

Contract Price	$125,350
Add: HST @13%	16,296
Total Contract Price Including Taxes	141,646
Less: HST Rebate	-14,089
Net Contract Price	$127,557

Note 1: The Downtown Wayfinding project is funded from the London Community Recovery Network financing held within the Economic Development Reserve Fund.

Jason Davies
Manager of Financial Planning & Policy

lp

Appendix B

Bill No.

By-law No. S.-5868(_)-

A By-law to amend By-law S.-5868-183 entitled “A by-law prohibiting and regulating signs, and regulating the placing of signs upon highways and buildings”.

WHEREAS section 5(3) of the *Municipal Act*, *2001* S.O. 2001, c.25, as amended, provides that a municipal power shall be exercised by by-law;

NOW THEREFORE the Council of The Corporation of the City of London enacts as follows:

1. Section 2 “Definitions” is amended by adding the following definition:

““City-owned wayfinding signs” means any sign under the control of the City that identifies or gives direction to an attraction, event, business, institution or other physical location and may include a logo identifying the place of destination.”

2. Section 3.4 “Signs Exempt from This By-Law” is amended by adding the following exemption:

“(l) City-owned wayfinding signs.”

3. This By-law shall come into force and effect on the day it is passed.

PASSED in Open Council on .

Josh Morgan
Mayor

Michael Schulthess
City Clerk

First Reading - July 25, 2023
Second Reading - July 25, 2023
Third Reading - July 25, 2023

City of London

Downtown Wayfinding Plan

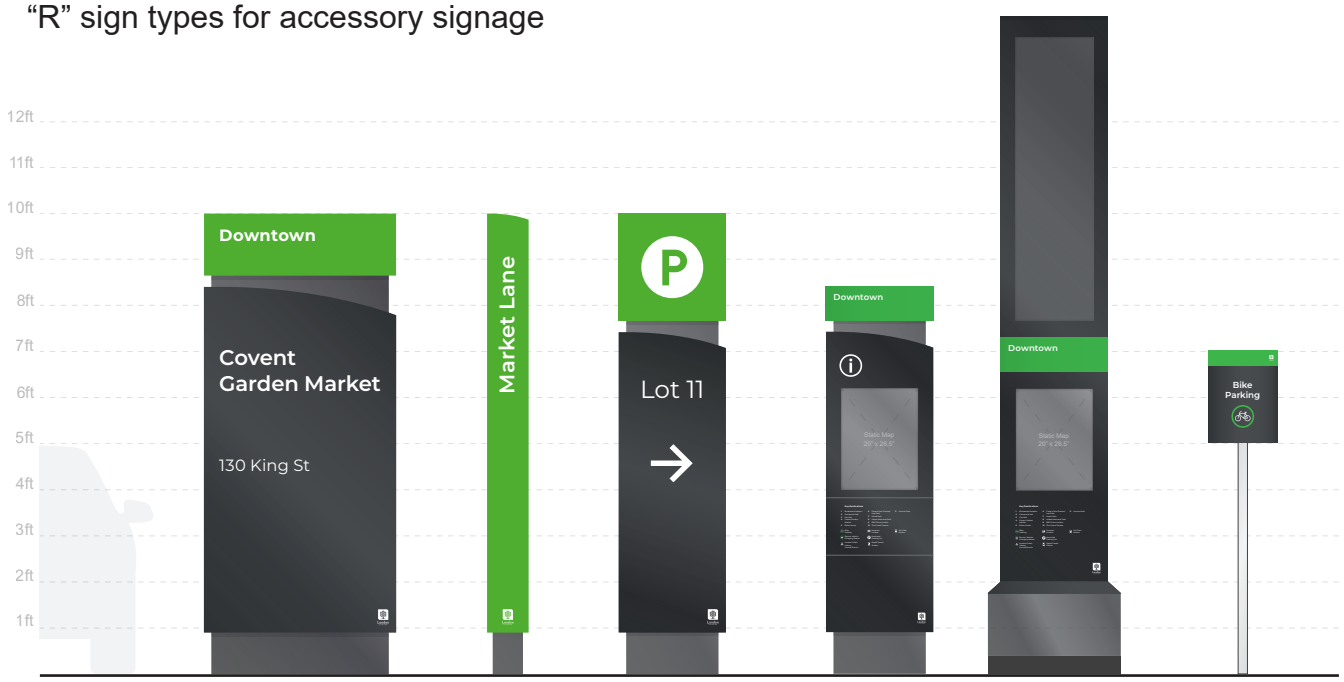
Family of Signs

October 2022

Product Family

The Downtown Wayfinding Plan family of products is has nine sign types and two banners for implementation within the downtown area. These sign types have been categorized by function:

- “A” sign types for identification signage and banners
- “B” sign types for directional signage
- “C” sign types for directory signage
- “R” sign types for accessory signage



Scale 1:50

A1.1
Large
Destination ID

A2.1
Small
Destination ID

A3.1
Parking ID

C1.1
Map Directory

C2.1
Map Directory
(Existing Pylon)

R1.1
Pole Mounted

A4.1
Large Banners

Scale 1:50

B1.1
Large Directional

B2.1
Small Directional

B3.1
Finger Post

A4.2
Small Banners

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: **Adelaide Street North Improvements**
Environmental Study Report, Notice of Completion
Date: **July 18, 2023**

Recommendation

That, on the recommendation of the Deputy City Manager, Environment & Infrastructure, the following actions **BE TAKEN** with respect to the Adelaide Street North Municipal Class Schedule C Environmental Assessment:

a) The Adelaide Street North Environmental Assessment Study **BE ACCEPTED**;

b) A Notice of Study Completion for the Project **BE FILED** with the Municipal Clerk; and,

c) The Environmental Study Report **BE PLACED** on the public record for a 30-day review period.

Executive Summary

Purpose

This report provides an overview of the Municipal Class Environmental Assessment (EA) study for the Adelaide Street North improvements and seeks approval to finalize the study and post it for the 30-day public review period. The study identifies improvements to the Adelaide Street corridor from Fanshawe Park Road East to 350m north of Sunningdale Road East, including Sunningdale Road East from Blackwater Road to the entrance of the Stoney Creek Community Centre. Near-term improvements are planned at the intersection of Adelaide Street North and Sunningdale Road East as part of the Sunningdale Road corridor improvements. The timing of the remainder of the Adelaide Street improvements identified in this environmental assessment are subject to the Mobility Master Plan.

Context

The City of London strives to provide sustainable transportation infrastructure and accommodation for all modes of transportation and users of all ages and abilities.

Adelaide Street North is characterized as an urban corridor with one lane of traffic in each direction, sidewalks on both sides, and a combination of on-road bicycle lanes and cycle tracks along portions of the corridor. The London Plan and the City's Complete Streets Design Manual designates Adelaide Street North and Sunningdale Road East as Civic Boulevards, which are intended to accommodate "multi-modal travel, with a priority on pedestrian, cycling and transit movements".

The need for the Adelaide Street North improvements project was identified in the 2019 Development Charges Background Study and affirmed in the 2021 Development Charges Background Study Update. The 2016 Cycling Master Plan recognizes the presence of existing facilities, and the Cycling Plan notes that "facility types will require

future site-specific assessment and investigation through future EAs and / or detailed design assignments".

The Adelaide Street North Improvements Environmental Assessment Study was initiated to fulfill the City's obligations as the proponent under the Ontario Environmental Assessment Act. The study reviewed the alternative transportation design solutions along the Adelaide Street North corridor to identify traffic operations, active transportation, and transit improvements in accordance with the City's Transportation Master Plan and Complete Streets Design Manual. Alternative designs were also evaluated along Sunningdale Road East from Blackwater Road to the Stoney Creek Community Centre. The study also assessed improvements to the Powell Drain culvert, investigated elements including reconfiguration of the inlet, integration of the two outlet systems, downstream erosion control infrastructure, and incorporation of natural channel design elements as appropriate.

The EA study area is in the north area of the City of London, as shown in Figure 1. The Adelaide Street North corridor limits extend approximately 1.75 km from north to south and is within a predominantly residential area. The study area north of Sunningdale Road East is currently agricultural uses but is planned to be developed with low and medium density residential communities, further increasing traffic volumes in the area. There is a significant natural environment area located adjacent to the Powell Drain, the major watercourse in the study area.

In 2021, an initial review of current major transportation projects was undertaken in the context of the City's Climate Emergency Action Plan using the Climate Emergency Screening Tool for Transportation projects. Based on the outcomes of review, Council directed that the corridor widening of Adelaide Street North be suspended and the Environmental Assessment be completed to inform intersection improvements near the Sunningdale Road East intersection which are planned in the near-term. The remainder of the corridor assessment and timing of future improvements are to be assessed under the ongoing Mobility Master Plan and future Development Charges Study. As finalization of the EA study was put on hold awaiting the outcomes of the climate emergency screening, additional consultation will be planned early in the design phase after the project construction timing is determined.

The completion and approval of this Environment Assessment Study does not commit the City to completing all recommended improvements. The final scope and timing of improvements will be considered as part the Mobility Master Plan, future budget processes and Development Charge Studies.

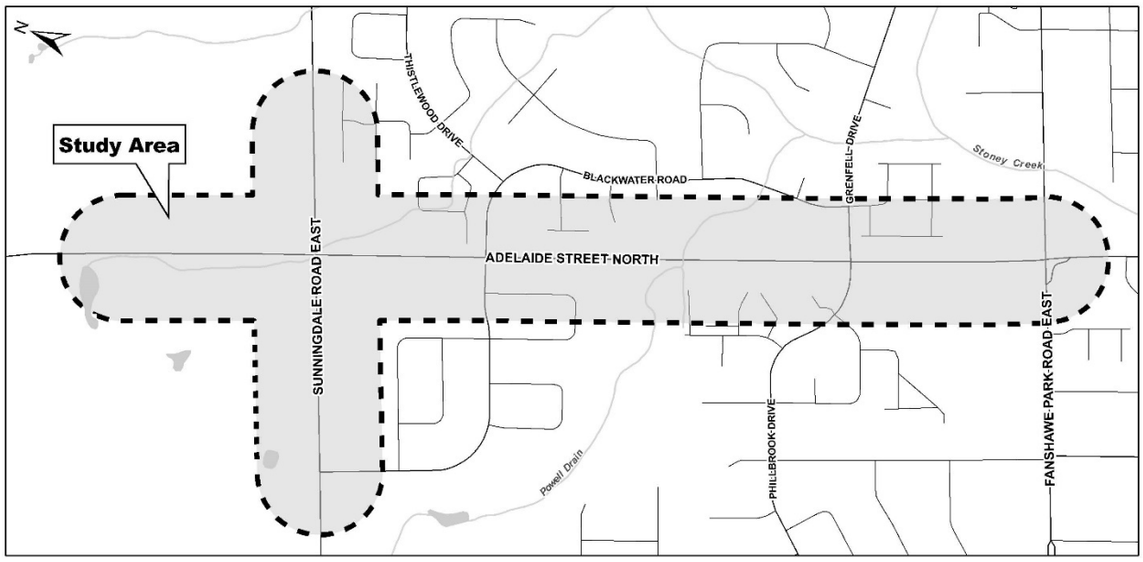


Figure 1: EA Study Area

Linkage to the Corporate Strategic Plan

Municipal Council's new Strategic Plan identifies "Mobility and Transportation" as a strategic area of focus. This report supports the Strategic Plan by identifying the building of infrastructure that provides safe, integrated, connected, reliable and efficient transportation choices.

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

- Civic Works Committee – May 29, 2012 – Sunningdale Road Improvements Environmental Study Report Project Number: TS1496
- Civic Works Committee – June 19, 2012 – London 2030 Transportation Master Plan
- Civic Works Committee – September 7, 2016 – London ON Bikes Cycling Master Plan
- Civic Works Committee – May 15, 2018 – Adelaide Street North Environmental Assessment Fanshawe Park Road East to Sunningdale Road East – Appointment of Consulting Engineer
- Strategic Priorities and Policy Committee – May 6, 2019 – Approval of 2019 Development Charges By-Law and DC Background Study
- Civic Works Committee – August 31, 2021 – Outcome of Climate Lens Screening Applied to Major Transportation Projects

2.0 Discussion and Considerations

2.1 Study Description

The Adelaide Street North Improvements EA was carried out in accordance with Schedule C of the Municipal Class Environmental Assessment (Class EA) requirements. The Class EA process is approved under the Ontario Environmental Assessment Act and outlines the process whereby municipalities can comply with the requirements of the Act.

The Class EA study has satisfied the requirements of the Ontario Environmental Assessment Act by providing a comprehensive, environmentally sound planning process with public participation. The Environmental Study Report documents the process followed to determine the recommended undertaking and the environmentally significant aspects of the planning, design, and construction of the proposed improvements. It describes the problem being addressed, the existing social, natural and cultural environmental considerations, the planning and design alternatives that were considered, and a description of the recommended alternative.

The study area is focused on the Adelaide Street North corridor from Fanshawe Park Road East to 350m north of Sunningdale Road East. The study area also includes Sunningdale Road East from Blackwater Road to the Stoney Creek Community Centre entrance.

2.2 Problem and Opportunity Statement

Phase I of the Municipal Class EA (MCEA) process involved the identification of the problem and opportunity statement. Based on the review of existing conditions, servicing studies, planning documents, preliminary traffic studies and collision data, the following summarizes the problems and opportunities within the study area:

Problem

Based on the recommendations of the City of London's Smart Moves Transportation Master Plan and confirmed through a corridor traffic analysis undertaken as part of the study, Adelaide Street North from Fanshawe Park Road East to Sunningdale Road East, has been identified as requiring improvements to address future traffic operational deficiencies based on planned growth in the area.

Opportunity

In addition to addressing future traffic operational deficiencies, there is also an opportunity to improve the corridor to meet the City's Complete Streets requirements which includes incorporating transit, active transportation, and safety initiatives.

2.3 Alternative Solutions

Phase II of the MCEA process includes an inventory of the existing socio-economic, cultural and natural environments, and technical considerations to identify alternative solutions to address the problem/opportunity statement. The following seven alternative solutions were developed for the Adelaide Street North improvements:

1. Do Nothing – Maintain the existing conditions on Adelaide Street North.
2. Limit Development – Restrict development in the surrounding area to projects already underway in order to limit growth.
3. Incorporate Travel Demand Management (TDM) Measures – Introduce TDM measures to reduce or redistribute the travel demand (e.g., carpooling, workplace changes, pricing, etc.).
4. Improve Alternative Routes – Undertake improvements (capacity or operational) on adjacent roads where justified (e.g., Highbury Avenue, Richmond Street).
5. Operational and/or Intersection Improvements – Improve existing intersection operations and undertake roadway geometric improvements (roundabouts, traffic signals, through lanes, turn lanes, etc.).
6. Provide Additional Travel Lanes – Widen Adelaide Street North with additional lanes to increase traffic capacity and accommodate future growth.

7. Accommodate Other Modes - Improve existing facilities to encourage active transportation (walking, cycling, etc.) and improve Adelaide Street North/Sunningdale Road East to accommodate existing transit services.

A broad range of evaluation criteria were developed, representing the environment as defined in the Ontario Environmental Assessment Act. These criteria were categorized along five main groups: Transportation/Technical, Cultural, Socio-Economic, Natural, and Cost. Through the evaluation of the above listed alternatives, a combination of Alternatives 3 and 5-7 were recommended to be carried forward to Phase III of the EA Study.

2.4 Design Alternatives

Phase III of the MCEA process involved the development and evaluation of alternative design concepts. The main outcome in this phase of the study was developing corridor cross-sections, intersection improvements, and review of the recommendations for the Sunningdale Road East intersection as previously evaluated in the Sunningdale Road Improvements Municipal Class EA (AECOM, 2013). Identification of the land requirements for the design alternatives was a key consideration when selecting the intersections and corridor improvement options; and determining appropriate mitigation measures such as minimizing socio-economic, cultural and environmental impacts.

Adelaide Street North Corridor

Based on the recommended combination of alternatives to provide additional lanes, accommodate all travel modes, improve operations and intersections, and incorporate Transportation Demand Management (TDM) measures, three alternative design concepts were considered for the Adelaide Street North corridor. Each concept featured two lanes of traffic in each direction, cycle tracks and sidewalks on each side, centre medians and dedicated turning lanes. The three concepts varied in terms of the extent of the widening either from the centreline to the west, or to the east.

Option 1: Widen Symmetrically from the Centreline

- This option generally widens Adelaide Street North from the centreline of the roadway (even widening on both the west and east side).
- Maximizes boulevard space on both sides of the road. Accommodates improvements to active transportation facilities and improves connectivity.
- Least impact to terrestrial environment, widening would be in areas previously disturbed. Least impact to aquatic environment.
- Minimal property impacts. Will allow for greatest buffer from residences on both sides. Minimal changes to long term noise levels.

Option 2: Widen to the East

- This option generally widens Adelaide Street North to the east side, while mostly maintaining the west side.
- No anticipated impacts to archaeological or cultural heritage resources.
- Limits boulevard space on east side. Increased run-off from road widening and impacts to the existing Powell Drain Culvert. Impacts to terrestrial environment, street trees.
- Encroachment onto properties in the east. Road will be in close proximity to residences on east side, significant noise impacts for those homes.

Option 3: Widen to the West

- This option generally widens Adelaide Street North to the west side, while mostly maintaining the east side.
- Accommodates improvements to active transportation facilities and improvements connectivity. Meets traffic capacity needs on Adelaide Street. No archaeological/cultural heritage impacts.
- Impacts to terrestrial environment and wetland at the west side of the Powell Drain.
- Limits boulevard space on west side. Encroachment onto properties in the west, road in close proximity to residences on the west. Increase in noise impacts.

Adelaide Street North and Sunningdale Road East Intersection

Two alternative design concepts were considered for the Adelaide Street North/Sunningdale Road East intersection; a roundabout and a signalized intersection.

Option 1: Roundabout

- Roundabouts provide overall benefits to safety, traffic operations and the environment. The design of roundabouts reduces vehicle entry speeds and the number of potential conflict points. As compared to signalized intersections, roundabouts provide for more free flow movements resulting in reduced fuel consumption and less emissions.
- In order to accommodate the projected growth of traffic at this intersection, three entry and circulatory lanes are required within the roundabout based on traffic modelling. This increases the size of the roundabout and accordingly increases property requirements and impacts adjacent land use.
- Due to the significant property requirements, a roundabout is not being recommended at this location.

Option 2: Signalized Intersection

- There is adequate space within the existing right of way to accommodate through and turning lanes at the intersection to meet projected traffic volumes and provide acceptable traffic operations based on modelled growth in this area. No additional property will be required at the intersection to accommodate a signalized intersection.
- As compared to roundabouts, signalized intersections do experience greater vehicle entry speeds and present several potential conflict points. Vehicle idling during a stop cycle or waiting to turn increases fuel consumption and emissions. Opportunities through signal timing to mitigate these issues will be considered during the design phase.

2.5 Powell Drain Culvert Crossing

Based on the preliminary preferred design concept for the widening of Adelaide Street North, a short extension of the Powell Drain culvert crossing may be required to the east to accommodate the grading limits. However, the use of a headwall at the existing outlet to accommodate the grade changes may mitigate the need for an extension. The extension of the Powell drain culvert to the east will need to be further explored during detailed design and through consultation with the Upper Thames River Conservation Authority. Preliminary recommendations are provided in the Geotechnical Investigation

Report for an extension of the culvert and installation of a headwall. Further subsurface information may be required to confirm the preferred construction method at the culvert crossing.

In addition, a wildlife culvert is proposed on the north side of the Powell Drain crossing at Adelaide Street North that can help mitigate the potential flooding at low-frequent storm events if needed. This wildlife culvert is proposed to enhance the animal passage across Adelaide Street North along the Powell Drain.

2.6 Recommended Alternative

Based on the evaluation completed it was determined that for the Adelaide Street North corridor Option 1**,** widening from the centreline (west and east side) will have the least overall impacts within the technical, natural environment, cultural/socio-economic environment, and costs parameters. Widening solely to the east or west sides with Options 2 and 3 would have significant property and environmental impacts. This alternative was developed to meet both technical requirements of the study and planning objectives established in the London Plan (Official Plan), 2030 Smart Moves Transportation Master Plan, City of London Cycling Master Plan (London ON Bikes), Complete Streets Design Manual and the Sunningdale Road East EA. The recommended corridor improvements and the implementation timing will be subject to further assessment as part of the ongoing Mobility Master Plan and future Development Charges Study. The key features of the typical cross section are shown in Figure 2 below.

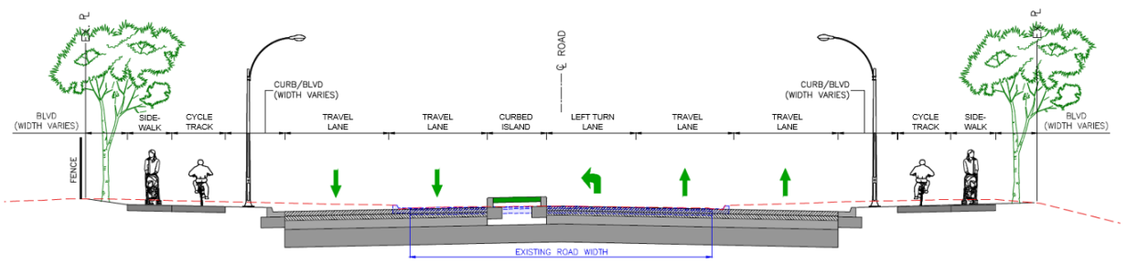


Figure 2: Adelaide Street North Typical Cross Section

Based on the evaluation completed which considered the various trade-offs between a roundabout and a signalized intersection, a signalized intersection is recommended at the intersection of Adelaide Street North and Sunningdale Road East. A signalized intersection at this location will not require additional property and will able to accommodate the anticipated growth in traffic. The design of the signalized intersection will consider accessibility and active travel modes.

The EA also identifies minor improvements to the Adelaide Street North/Fanshawe Park Road intersection for future consideration, noting that there is no planned project currently identified at this intersection.

The City's Complete Streets Design Manual requirements were considered when selecting the recommended alternative. The potential impacts to natural, socio-economic, cultural features, and costs were minimized. The recommended alternative was selected, developed, and refined through consultation with agencies, interested parties, First Nations, and the public.

The Transportation Planning and Design Climate Emergency Screening Tool (CEST) was applied to the Adelaide Street North Improvements project during the Environmental Assessment (EA). Assessment of climate change mitigation and adaptation issues material to the project determined that the implementation phasing of the EA recommendations should be reviewed with prioritization of the Sunningdale

Road East intersection to address short term safety and operational issues in coordination with Sunningdale Road corridor improvements. The remainder of the corridor improvements will be deferred and will be considered as part of the ongoing Mobility Master Plan. Further assessment of either potential mitigation and/or adaptation issues should also be undertaken during detail design.

The preferred EA alternative focuses on the improvements to operations of the transit corridor, mobility, and access for major destinations while also examining the provision of connectivity to major active transportation corridors. It is expected that the proposed improvements have a potential to:

- Manage congestion by providing feasible alternatives to single-occupant vehicle trips by providing increased capacity via safe and accessible infrastructure for active modes of transportation;
- Provide cycling infrastructure that increases connectivity within the cycling network and is considered safe to use for cyclists of all ages and abilities;
- Improve pedestrian safety, connectivity, and provide accessibility by introducing wider separated sidewalks;
- Help make transit more efficient by improving operations of the intersections;
- Help to improve the movement of people and goods within London by improving operations of the intersections;
- Implement strategies to minimize the need for the removal of mature and healthy trees;
- Improve quality of the stormwater by providing quality treatment measures;
- Incorporate additional risk management measures to improve resilience to water course flooding or intense rainfall by integrating low-impact development stormwater control measures into the design and minimizing the increase in impervious surfaces.

The preferred design concepts/improvements are shown on the preliminary design plans included as part of the Environmental Study Report (ESR). The draft ESR is available on the project webpage: london.ca/adelaide-street-north-EA.

3.0 Financial Impact/Considerations

3.1 Preliminary Cost Estimates

Preliminary cost estimates were developed for the recommended design concept considering work on both Adelaide Street North and Sunningdale Road East. The cost estimate breaks down the project into various parameters such as roadways, underground infrastructure, and traffic signals. The preliminary capital cost of implementation is estimated to be approximately $11.2M for Adelaide Street North and almost $5.3M for Sunningdale Road East with a 20% contingency applied, however the final cost estimate will be further refined during detailed design. Preliminary cost estimates for Adelaide Street North and Sunningdale Road East are shown in Table 1 and Table 2 below.

The complete cost of the project will be considered as part of the multi-year budget and the future Development Charges Study processes.

Table 1: Construction Cost Estimate for Adelaide Street North Improvements

Project Component	Estimated Cost ($ 2023 Dollars)
Roadworks	4,757,500
Storm Sewers & Appurtenances	838,000
Watermain & Appurtenances	23,000
Traffic Signals and Illumination	1,230,000
Miscellaneous	410,000
Utility Relocations (10%)	725,850
Property Acquisition	285,000
Subtotal	**8,269,350**
Contingency (20%)	1,653,870
Engineering & Consulting (15%)	1,240,402
Total	**11,165,000**

Table 2: Construction Cost Estimate for Sunningdale Road East and Adelaide Street North Intersection Improvements

Project Component	Estimated Cost ($ 2023 Dollars)
Roadworks	1,489,400
Storm Sewers & Appurtenances	657,700
Sanitary Sewers & Appurtenances	92,200
Watermain & Appurtenances	655,000
Traffic Signals and Illumination	410,000
Miscellaneous	260,000
Utility Relocations (10%)	356,430
Subtotal	**3,920,730**
Contingency (20%)	784,146
Engineering & Consulting (15%)	588,109
Total	**5,295,000**

4.0 Key Issues and Considerations

4.1 Property Impacts

Minimizing property requirements was a key criterion in the identification and evaluation of the alternative solutions by the project team.

Property acquisition is anticipated throughout the study area corridor to accommodate the proposed roadway and active transportation improvements. As part of this EA study, it was identified that the City will require frontages from the properties in the following locations:

- 614 Fanshawe Park Road East
- 1570 Adelaide Street North
- 1786 Adelaide Street North

The proposed new right-of-way limits were presented to the public during PIC #2 and are provided in the draft Environmental Study Report. The final right-of-way and the limits of property acquisition and dedication will be confirmed during the detailed design phase.

4.2 Access Management

In addition to the property parcels required, there are commercial, institutional and development properties along the corridor where access will be changing to right-in, right-out only movements due to the installation of centre medians.

- Median extension at Sunningdale and Adelaide Street intersection – property southwest of the intersection affected;
- Median extension at Fanshawe Park Road and Adelaide Street intersection – properties to the west, southeast of the intersection affected;
- Installation of centre medians on Sunningdale Road as part of road widening – midblock property affected;
- Installation of centre medians on Adelaide Street as part of road widening – future development southeast of the Adelaide/Sunningdale intersection affected.

As part of the consultation process for this study, the property owners fronting these locations were contacted and information regarding these changes was provided. Additional consultation will occur during the design phase.

4.3 Public and Agency Consultation

Consultation efforts were key to ensuring the successful completion of the Class EA process. Significant insight to the study area was gained through consulting and engaging residents and businesses, interested groups, and technical agencies who all have a unique understanding of the study area. Engaging early in the process also helped by initiating discussions earlier rather than later, when decisions may be more difficult to change and accommodate various interests. The input received throughout the duration of the study assisted the project team in developing and refining the study recommendations. For Schedule “C” Class EA studies, three mandatory points of consultation are required. For this study, the key contacts included Indigenous communities, Imperial Oil, utilities, residents, other agencies, and those who may be affected by the project.

A Notice of Study Commencement was issued in August 2018. The study team received correspondence from the public and agencies indicating their interest in the study and requesting to be kept informed.

The first public meeting was hosted at the Stoney Creek Branch of the London Public Library on November 14, 2018 and the second public meeting was hosted at A.B. Lucas Secondary School in the same format on June 5, 2019. Both public meetings served as an opportunity for the public to review the project information, ask questions, and provide input to the members of the study team.

Twelve Indigenous Communities and associations were notified of the study commencement and PICs via individualized emails and were provided with opportunities to provide input and identify any issues or concerns: Aamjiwnaang First Nation, Anishinabek Nation, Association of Iroquois and Allied Indians, Bkejwanong Territory (Walpole Island), Caldwell First Nation, Kettle and Stony Point First Nation, Chippewas of the Thames First Nation, Munsee-Delaware Nation, Delaware Nation at Moraviantown, Métis Nation of Ontario, Oneida Nation of the Thames, and Southern First Nations Secretariat. No project issues or concerns were identified by the Indigenous Communities.

The project information was also presented to the following City of London Advisory Committees for feedback: Cycling Advisory Committee, Transportation Advisory

Committee, Environmental Ecological Planning Advisory Committee, and the London Advisory Committee on Heritage during the 2018 to 2019 period.

During the upcoming 30-day public review, the Environmental Study Report (ESR) will be made available on the City of London website, at the City Hall, and at the closest public library to the study area. As per Ministry of the Environment, Conservation and Parks' (MECP) request, the draft ESR has been submitted for their technical review and is also available on the City's website: london.ca/adelaide-street-north-EA. The Environmental Study Report Executive Summary is attached as Appendix A.

There will be an opportunity to request a higher level of study (i.e., requiring an individual EA or imposing conditions on the project) through a Section 16 order request to the Minister of Environment, Conservation and Parks on the grounds that the order may prevent, mitigate or remedy adverse impacts on the existing Aboriginal and treaty rights. Requests that are not made on these grounds will not be considered by the Minister.

4.4 Implementation

In 2021, a review of several major transportation projects was undertaken with consideration to the City's Climate Emergency Action Plan using the Climate Emergency Screening Tool for Transportation projects. Based on the outcomes of this review, Council directed that the corridor widening of Adelaide Street North be suspended and requested that the Environmental Assessment be completed to inform intersection improvements at the Adelaide Street North and Sunningdale Road East intersection which are planned in the near-term. The remainder of the corridor assessment and timing of future improvements are to be assessed under the ongoing Mobility Master Plan and future Development Charges Study.

The updated project cost estimate and associated construction timing of the Sunningdale Road intersection improvement will also need to be reviewed along with other priorities as part of the upcoming 2024-2027 Multi-Year Budget and future Development Charges Background Study processes. The construction timing is also subject to completion of property acquisition, utility relocations, detailed engineering as well as securing required approvals. Coordination with adjacent City projects, property owners, and regulatory agencies is also a consideration planned early in the design process, providing opportunities for further consultation and to assist in finalizing the construction timing.

The completion and approval of this Environment Assessment Study does not commit the City to completing all recommended improvements. The final scope and timing of improvements will be considered as part the Mobility Master Plan, future budget processes and Development Charge studies.

Conclusion

Improvements to Adelaide Street North have been identified to accommodate all modes of transportation and users of all ages and abilities (pedestrians, cyclists, transit vehicles and motorists), improve the operation and accessibility of the intersections, reduce congestion during peak times, and provide active transportation connections to the existing facilities. A Municipal Class Environmental Assessment (EA) study was undertaken to confirm the preferred long-term solution in accordance with Schedule C of the Municipal Class Environmental Assessment process. The draft ESR has been uploaded to the project webpage and will be reviewed by the MECP prior to posting for the final public review.

This project has been reviewed with the Transportation Planning and Design Climate Lens Process's Climate Emergency Screening Tool. As the result of this review, a phased approach to project implementation was recommended to prioritize the short-term intersection improvements and allow the Mobility Master Plan to reassess the need for widening of the Adelaide Street North corridor in the future.

Alternative solutions and design concepts were developed to address the problems and opportunities. The recommended alternative for Adelaide Street North will increase the capacity and operational improvements at Sunningdale Road and Fanshawe Park Road intersections, provide two travel lanes in each direction with turning lanes at intersections, extend the dedicated cycle tracks in each direction, add new sidewalks and medians. The preferred alternative is expected to include the complete street elements that will promote active transportation and transit use while managing congestion and improving safety. The new infrastructure will also be designed to provide improved resiliency over the existing conditions.

The EA identifies an updated project cost estimate which considers recent, extraordinary construction cost escalation and includes underground servicing and new design standards.

Consultation was a key component of this study. The Class EA was prepared with input from Indigenous Communities, the public, advisory committees, agencies, utilities, and property owners in proximity to the study.

Pending Council approval, a Notice of Study Completion will be filed, and the ESR will be placed on public record for a 30-day review period. Stakeholders and the public are encouraged to provide input and comments regarding the study during this time. Accommodation will be made for those requiring hard copy review. Requests for a higher level of study or conditions may be submitted to the MECP based on impacts to constitutionally protected Aboriginal and treaty rights.

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

Attachment: Appendix A – Environmental Study Report Executive Summary

cc: Integrated Transportation Community Advisory Committee

APPENDIX A:
ENVIRONMENTAL STUDY REPORT EXECUTIVE SUMMARY

Adelaide Street North Municipal Class Environmental Assessment Study

Executive Summary

The City of London Transportation Master Plan (TMP) identified the improvements to Adelaide Street North and Sunningdale Road East (west of Adelaide Street North) corridors including new active transportation facilities and increasing the number of travel lanes from two to four. Based on the City's 2019 Development Charges Background Study and 2021 Development Charges Background Study Update, the widening of Adelaide Street North is expected to commence in 2029 and the widening of Sunningdale Road East in 2025 (from Adelaide to Bluebell). Accordingly, the City of London undertook a "Schedule C" Municipal Class Environment Assessment (Class EA) in order to address capacity and operational improvements on Adelaide Street North and to gain the required environmental assessment approval as a necessary first step towards implementation. The Schedule 'C' Class EA for this project completes Phases 1 to 4 to identify the problem or opportunity, identify alternative solutions, examine alternative design concepts for implementing the preferred solution and the preparation of an Environmental Study Report (ESR). An Environmental Study Report was previously prepared for Sunningdale Road East in May 2013.

In order to determine the need and extent of the capacity and operational improvements required for the Adelaide Street North corridor, a transportation and traffic analysis study was undertaken to assess current and future traffic demands. Under the existing (2018) traffic conditions, the section of Adelaide Street North, between Phillbrook Drive / Grenfell Drive & The Home Depot Plaza Entrance, is over capacity for the southbound direction during the AM peak hour. During the PM peak hour, this section is over capacity in the northbound direction. Respectively, some sections along Adelaide Street North are approaching capacity in the southbound direction during the AM peak hour and northbound traffic during the PM peak hour. Based on the future (2029 and 2039) traffic analysis completed, results indicate that additional through lanes are required for the Adelaide Street North corridor in order to accommodate future traffic demands.

Based on the existing planning policies applicable to the corridor and the transportation and traffic assessment completed, the following Problem Statement was developed for this study:

Based on the recommendations of the City of London's Smart Moves Transportation Master Plan and confirmed through a corridor traffic analysis undertaken as part of the study, Adelaide Street North, from Fanshawe Park Road East to Sunningdale Road East, has been identified as requiring improvements to address future traffic operational deficiencies.

In addition to addressing future traffic operational deficiencies, there is also an opportunity to improve the roadway to meet the City's Complete Streets standards which includes incorporating transit, active transportation, and safety initiatives.

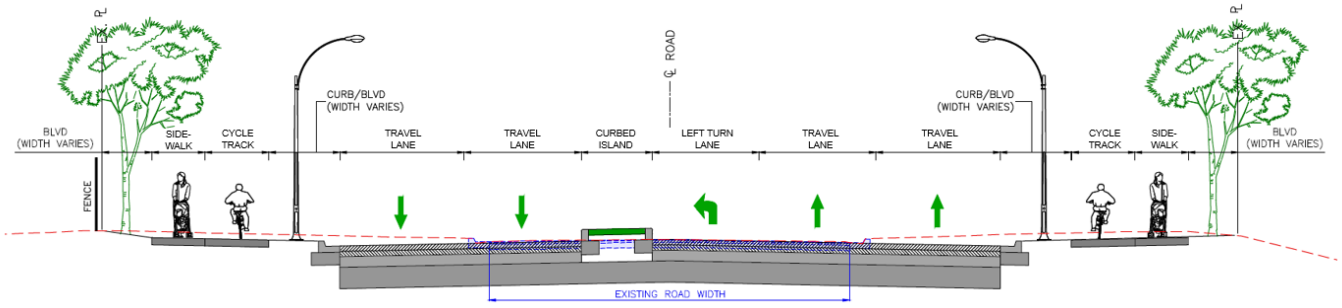
Adelaide Street North is characterized as an urban road with one lane of traffic in each direction, sidewalks on both sides, and a combination of on-road bicycle lanes and cycle tracks along portions of the corridor. The City's London Plan and Complete Streets Design Manual designates Adelaide Street North and Sunningdale Road East as Civic Boulevards, which are intended to accommodate "multi-modal travel, with a priority on pedestrian, cycling and transit movements".

Land use along Adelaide Street North includes a combination of low, medium and higher density residential uses, retail areas, a retirement residence and place of worship. North of Sunningdale Road East are primarily agricultural uses, though this area has been designated as Neighbourhoods and there are current plans for subdivision development. The City of London's Official Plan designates the land types adjacent to the Adelaide Street North study area as Neighbourhoods, Shopping Areas, Green Space and Main

Street. Several background reports were completed during the EA process including Archaeological, Cultural Heritage, Noise and Geotechnical assessments. A scoped Environmental Impact Study (EIS) was also completed to document existing natural heritage features within the study area in accordance with the City of London Official Plan (OP) and Environmental Management Guidelines.

A total of seven alternative planning solutions were considered for Adelaide Street North and carried through an evaluation process. Through the evaluation of the alternative solutions for Adelaide Street North, a combined approach was carried forward to address the problem statement. This included using Transportation Demand Management (TDM) measures, operational and intersection improvements, additional lanes, and accommodating other modes of travel.

Based on the preferred solution, three (3) alternative design concepts were considered for the Adelaide Street North corridor. Recommendations for Sunningdale Road East were mostly unchanged from the previous Sunningdale Road East Environmental Assessment Study. Each concept for the Adelaide Street North corridor featured two lanes of traffic in each direction, cycle tracks and sidewalks on each side, centre medians and dedicated turning lanes. The 3 concepts varied in terms of the extent of the widening either from centreline, to the west, or to the east. Based on the evaluation completed it was determined that widening Adelaide Street North from the centreline (west and east side) will have the least overall impacts within the technical, natural environment, cultural/socio-economic environment and costs parameters. The typical cross section developed for Adelaide Street North includes 2 through lanes, 2 curb lanes, a centre median, cycle tracks and sidewalks with varying boulevard width. The key features of the typical cross section developed for Adelaide Street North is shown below. Lane widths will be confirmed and finalized during the detailed design stage based on the City's design standards and guidelines.



In addition to formal study notices, the project benefited from regular correspondence with interested parties and two (2) Public Information Centres (PICs). The first PIC was held on November 14, 2018 at the Stoney Creek Branch of the London Public Library. The first PIC was held to present and obtain feedback on the EA planning process being followed; study background, existing conditions, and key issues and constraints; and alternative and recommended solutions. Approximately 55 people attended. The second PIC was held on Wednesday, June 5th, 2019 from 5:00pm to 7:00pm at A.B. Lucas Secondary School. The purpose of the second PIC was to present and obtain feedback on the alternative design concepts and evaluation criteria, the preliminary preferred alternative design concept and potential impacts and mitigation measures. A total of 28 participants attended.

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: **Appointment of Consulting Engineers for Contract Administration Services: Vauxhall Wastewater Treatment Plant Refurbishment Stage 1**
Date: **July 18, 2023**

Recommendation

That on the recommendation of Deputy City Manager, Environment and Infrastructure, the following actions **BE TAKEN** with respect to the appointment of consulting engineers for Contract Administration services for Vauxhall Wastewater Treatment Plant Refurbishment Stage 1:

(a) The following consulting engineers **BE APPOINTED** to carry out consulting services for the identified wastewater treatment operations infrastructure project, at the upset amounts identified below, in accordance with the estimate on file, and in accordance with Section 15.2(g) of the City of London's Procurement of Goods and Services Policy:

(i) Dillon Consulting Limited **BE APPOINTED** consulting engineers to complete part time inspection and contract administration of Vauxhall WWTP Refurbishment Stage 1 in the total amount of $133,515 (including contingency), excluding HST;

(ii) AECOM Canada Ltd. **BE APPOINTED** consulting engineers to complete part time inspection and contract administration support to Dillon for Vauxhall WWTP Refurbishment Stage 1, in the total amount of $40,000 (including contingency), excluding HST;

(b) the financing for this project **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 project;

(d) the Mayor and City Clerk **BE AUTHORIZED** to execute any contract or other documents, if required, to give effect to these recommendations.

Executive Summary

The engineering consultants named above both independently completed design assignments for refurbishments that are urgently needed at the Vauxhall WastewaterTreatment Plant (WTTP).

Dillon Consulting Ltd. was originally retained in 2015 to complete inspections of concrete infrastructure that was noted to be deteriorating due to its age. Dillon has now completed a subsequent design assignment to refurbish and repair the 80 year old tanks. AECOM Canada Ltd. completed the design to replace the ultraviolet disinfection system that has also reached end of life. The replacement also provides an increase in capacity that will allow more treatment capacity at Vauxhall to be realized and ensure efficient and effective disinfection of wastewater treated at the plant prior to discharge to the Thames River.

A construction tender for the this work is anticipated to be posted in early summer and each firm will provide contract administration and inspection services for their respective design scopes, with Dillon identified as the lead consultant.

Linkage to the Corporate Strategic Plan

This recommendation supports the following 2023-2027 Strategic Plan areas of focus:

- Climate Action and Sustainable Growth:
    - London is more resilient and better prepared for the impacts of a changing climate; and
    - Infrastructure is built, maintained, and secured to support future growth and protect the environment.

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

- CWC – October 20, 2020 – Vauxhall WWTP Upgrades – Engineering Design Consultant Award

- CWC – October 22, 2019 – East London Sanitary Servicing Study Municipal Class Environmnetal Assessment: Issuance of Addendum

2.0 Discussion and Considerations

2.1 Work Description

The East London Sanitary Servicing Strategy (ELSS) was completed in 2019 as a planning exercise for future wastewater servicing in the east end of London. As part of this process, the Vauxhall WWTP was identified as having additional treatment capacity which could be utilized if selected process upgrades were undertaken. This additional capacity could be used to service growth in east London over the next 15 to 20 years.

Growth in the east end is anticipated to primarily occur within the adjoining Pottersburg WWTP sewershed, while the Vauxhall sewershed is expected to only experience minor infill related growth. During the development of the East London Servicing Strategy, the oldest portion of the treatment infrastructure at the Pottersburg WWTP was noted to be in poor condition and has historically been more difficult to operate than Vauxhall.

The solution developed through the ELSS was to utilize the aging and underperforming infrastructure at Pottersburg as a pumping station to pump flow received at the Pottersburg WWTP to Vauxhall WWTP for treatment and eventual discharge to the Thames River. This strategy was anticipated to result in higher quality treatment for flows discharged and would provide operational flexibility to facilitate future maintenance activities that will occur at both plants. A pipeline was constructed in 2019 in support of this strategy. Construction of a pumping station at Pottersburg, which would utilize this pipeline to send flows to Vauxhall, is currently under design and will be tendered for construction in the future.

In order to unlock the additional treatment capacity at Vauxhall, refurbishment of deteriorating tankage and replacement of equipment that has reached end of life is required. This will involve concrete tank repairs, designed by Dillon Consulting Ltd., and the replacement of the ultraviolet disinfection system, designed by AECOM Canada Ltd.

The aeration tanks, which are the subject of the concrete repairs, were constructed in the late 1940s. These repairs are required to ensure the tankage remains structurally sound for the next 20 years and to address operational staff health and safety concerns with deteriorating concrete and unsecured guardrails.

The ultraviolet disinfection system, which is over 20 years old and has reached end of life, is being replaced with a new, more efficient unit of higher capacity. This will address Ministry of the Environment, Conservation and Parks criteria that is currently limiting the permitted treatment capacity of the entire plant. Once this unit is replaced, staff will

apply to the Ministry for a treatment capacity increase allowing future east London growth to be serviced.

3.0 Financial Impact/Considerations

3.1 Consulting Engineer Services

In accordance with Section 15.2 (g) of the City of London's Procurement of Goods and Services Policy, Civic Administration recommends that the engineering services associated with the increase in design and the inspection and Contract Administration services be awarded to ensure that the City receives the product specified and associated value.

Due to the knowledge and positive performance on the detailed design assignments, each consultant was invited to submit a proposal to carry out the inspection and Contract Administration for their project. A summary of the fees is included below:

- Dillon Consulting Limited - $133,515
- AECOM Canada Ltd. - $40,000

All values include a minimum 15% contingency and excludes HST.

Due to the relative complexity and duration anticipated for the two work scopes, Dillon Consulting Limited will serve as the lead Contract Administrator, with AECOM Canada Ltd. acting in a supporting role, providing inspection and support to Dillon.

Staff have reviewed the fee submissions, including hourly rates and the time allocated to each project task, as provided by each consultant. The submissions were found to be consistent with other project assignments of similar scope. The continued use of the identified consultant on each project for resident inspection and contract administration is of financial advantage to the City because the firm has specific knowledge of the project and has undertaken work for which duplication would be required if another firm were to be selected.

In addition to the financial advantage, there are also accountability and risk reduction benefits. The City requires a Professional Engineer to seal all construction drawings. These 'record drawings' are created based on field verification and ongoing involvement by the Professional Engineer. This requirement promotes consultant accountability for the design of these projects, and correspondingly, reduces the City's overall risk exposure. Consequently, the continued use of the consultant who created and sealed the design drawings is preferred in order to maintain this accountability process and to manage risk.

Funds have been budgeted in Wastewater Treatment Operations capital budgets to support the recommended awards, as identified in Appendix 'A' - Sources of Financing.

Conclusion

The planned upgrades at Vauxhall WWTP involve replacing infrastructure at the end of its lifecycle and rehabilitating existing infrastructure. This will maximize its remaining life and is essential to supporting future growth in a cost effective manner. It is recommended that Dillon and AECOM continue as the consulting engineers on their respective projects for the purpose of inspection and contract administration services in accordance with Section 15.2(g) of the City of London's Procurement of Goods and Services Policy. The recommended engineering consultant assignment awards will allow the construction projects to be completed in the best financial and technical interests of the City.

Prepared by:	**Kirby Oudekerk, P.Eng., DPA** **Division Manager, Wastewater Treatment Operations**
Submitted by:	**Ashley Rammeloo, MMSc, P.Eng.** **Director, Water, Wastewater, and Stormwater**

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

cc: Steve Mollon
Gary MacDonald

Appendix ‘A’ – Sources of Financing

Appendix "A"

#23144
July 18, 2023
(Appoint Consulting Engineer)

Chair and Members
Civic Works Committee

RE: Contract Administration Services: Vauxhall Wastewater Treatment Plant Refurbishment Stage 1
(Subledger FS20VX01)
Capital Project ES5024 - Vauxhall/Potts Capacity Upgrades & Flow EQ
Dillon Consulting Limited - 133,515.00 (excluding HST)
AECOM Canada Ltd. - $40,000.00 (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 recommendation of the Deputy City Manager, Environment and Infrastructure, the detailed source of financing is:

Estimated Expenditures	**Approved Budget**	**Committed To Date**	**This Submission**	**Balance for Future Work**
Engineering	487,189	287,189	176,569	23,431
Construction	3,551,952	0	0	3,551,952
Vehicles and Equipment	8,859	8,859	0	0
Total Expenditures	$4,048,000	$296,048	$176,569	$3,575,383
Sources of Financing				
Drawdown from Sewage Works Renewal Reserve Fund	4,048,000	296,048	176,569	3,575,383
Total Financing	$4,048,000	$296,048	$176,569	$3,575,383

Financial Note:	**Dillon**	**AECOM**	**Total**
Contract Price	$133,515	$40,000	$173,515
Add: HST @13%	17,357	5,200	22,557
Total Contract Price Including Taxes	150,872	45,200	196,072
Less: HST Rebate	-15,007	-4,496	-19,503
Net Contract Price	$135,865	$40,704	$176,569

Jason Davies
Manager of Financial Planning & Policy

lp

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: **RFP-2023-097 Streetscape Master Plan for Dundas Street**
Appointment of Consulting Engineer – Irregular Result
Date: **July 18, 2023**

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 engineer for the Streetscape Master Plan for Dundas Street – Argyle Core Area:

(a) Dillon Consulting Limited **BE APPOINTED** as the Consulting Engineer to complete the Streetscape Master Plan for Dundas Street – Argyle Core Area in the total amount of $159,899.30 excluding HST; in accordance with Sections 15.2 (d) and 8.10 (a) of the Procurement of Goods and Services Policy;

(b) the financing for this assignment **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 assignment;

(d) the approvals given herein **BE CONDITIONAL** upon the Corporation entering into a formal contract with the Consulting Engineer for the work; and,

(e) the Mayor and City Clerk **BE AUTHORIZED** to execute any contract or other documents including agreements, if required, to give effect to these recommendations.

Executive Summary

This report seeks the approval of the Municipal Council to appoint Dillon Consulting Limited as the consultant to undertake the Streetscape Master Plan for Dundas Street in the Argyle Core area. In accordance with the City's Procurement of Goods and Services Policy, Council approval of this consulting contract award is required. The award is noted as an irregular result because the value slightly exceeds the approved budget.

Linkage to the Corporate Strategic Plan

Municipal Council's new Strategic Plan identifies "Mobility and Transportation" and "Economic Growth, Culture and Prosperity" as strategic areas of focus. This report supports the Strategic Plan by identifying infrastructure that supports safe, integrated, connected, reliable and efficient transportation choices while creating an environment to support a vibrant business community along this urban corridor.

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

- December 14, 2020 – Planning and Environment Committee – Argyle Regeneration Study Recommendations
- June 21, 2021 – Planning and Environment Committee – Draft Argyle Core Area Community Improvement Plan
- September 20, 2021 – Planning and Environment Committee - Argyle Core Area Community Improvement Plan

2.0 Discussion and Consideration

2.1 Project Background

The Argyle Core Area Community Improvement Plan (CIP) was completed in 2021 and established the following goals and objectives for the Argyle Core Area:

1. Develop a high quality pedestrian realm by providing a pedestrian-oriented streetscape and public spaces that are safe, clean, accessible and pleasant.

2. Improve mobility by providing interconnected community-wide transportation network that is safe, convenient, and prioritizes active mobility.

The Argyle Core Area CIP study area is shown in Figure 1 below. The scope of the Streetscape Master Plan includes the full length of the Dundas corridor within the CIP and extends from Highbury to just east of Wavell Street.

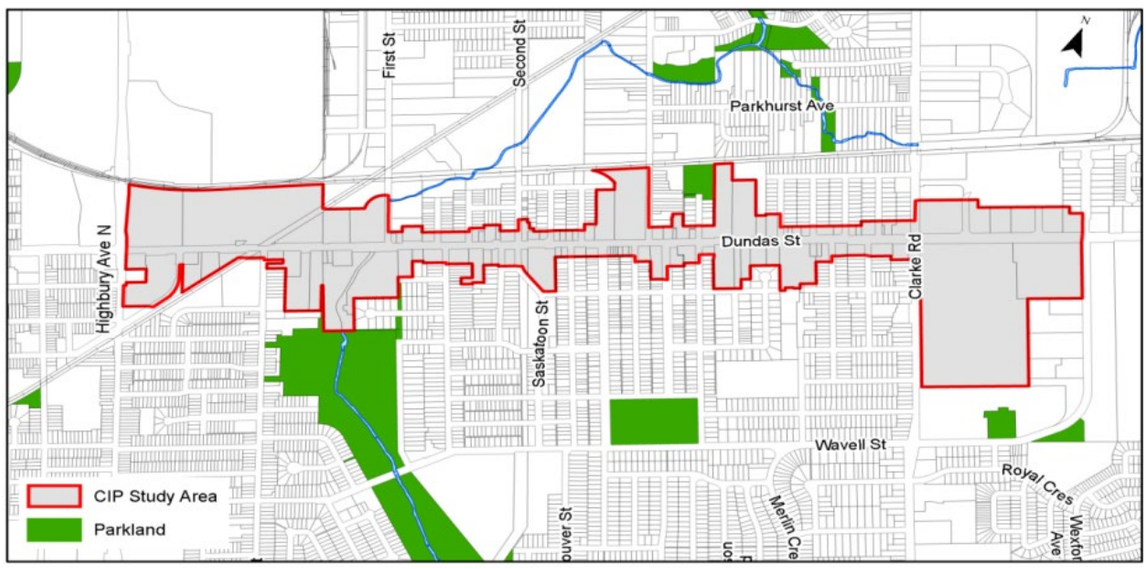


Figure 1: Community Improvement Study Area

As part of the CIP recommendations, the first action item identified for the City is the development of a Streetscape Master Plan for the Dundas Street corridor, to support The London Plan vision for urban corridors as high-quality spaces with neighbourhood amenities including parks, civic spaces, and attractive outdoor seating areas, accessible to the public.

Generally, the scope of the Streetscape Master Plan includes the following components:

- An urban design concept derived from the existing urban fabric and character.

- Streetscape guidelines that include street furniture, street signage and wayfinding, bicycle parking, planters, and canopies/awnings.

- Landscape guidelines that include soft and hard landscaping, median planting, boulevard trees, screening, landscape buffering, and the protection and enhancement of significant view and focal points such as the Pottersburg Creek and Kiwanis Park.

- A review of pedestrian, cyclist, and vehicular networks, including analysis of how each mode can be integrated with existing and planned transit services.

- A review of access management along Dundas Street to improve traffic operations and safety for active transportation modes.

- A review of opportunities to widen sidewalks as part of future infrastructure renewal projects.

- Develop strategies to screen parking and vacant lots/plazas to minimize the visual and physical impact of parking, parking lots, vehicular access points and vacant lots on the streetscape.

- Recommendations for infrastructure to achieve environmentally sustainable streetscape design.

- Provide a streetscape plan for future infrastructure projects.

- A long-term plan for streetscape improvements that considers redevelopment opportunities along the corridor and street widening.

Consultation with the public, businesses and the Argyle Business Improvement Area will be important when developing the Streetscape Master Plan. Public Information Centres are included in the scope of work to solicit feedback on the vision, alternatives, and proposed Streetscape Master Plan.

3.0 Consultant Procurement Process

The consultant selection process for this assignment (RFP 2023-097) has been undertaken in accordance with the City's Procurement of Goods and Services Policy. The procurement process followed the two stage competitive process with the first stage being an open, publicly advertised pre-qualification stage (RFQUAL 21-16). Subsequently, a consultant shortlist comprised of three engineering consulting firms was developed and these consultants were invited to submit detailed proposals. Proposals were received from three consultants: Stantec Consulting Ltd., Dillon Consulting Limited and Arcadis Professional Services (Canada) Inc. The selection committee evaluated the proposals against an established evaluation criteria which included an understanding of project objectives, team member's qualifications and experience on directly related projects.

The evaluation committee determined that the submission from Dillon Consulting Limited provides the best value for the City. Dillon Consulting Limited has experienced project team members with the required qualifications. Their proven experience on similar projects combined with a strong project proposal that demonstrated a thorough understanding of the project goals and objectives determined their suitability for this assignment. The consultant will be considered for future project phases subject to performance.

The financial proposal submitted by the consultant exceeds the available budget by 7%

including contingency. In accordance with section 8.10 a) of the City's Procurement of Goods and Services Policy, if the value of the lowest compliant bid, or highest scoring proposal, exceeds the City Council approved budget, including any contingency allowance, Council approval of this consulting contract award is required as an irregular result. Despite the budget overage, Civic Administration are recommending to proceed with the award of this consulting assignment based on the value to the City resulting from the Consultant's past experience and performance on projects of similar scope and complexity. The project budget and contingency will also be closely monitored during the course of the project to identify opportunities for any budget efficiences.

3.0 Financial Impact and Considerations

The 2023 budget update identified $150,000 in the capital budget for the completion of the Streetscape Master Plan for Dundas Street – Argyle Core Area as per the source of financing attached as Appendix A. The value of the recommended submission slightly exceeds the approved budget by 7%. The exceedance is recommended to be absorbed by a related capital account intended for corridor planning purposes.

There are no anticipated additional annual operating costs to the Environment and Infrastructure Department budget associated with this consulting assignment.

The services are scheduled to commence in August 2023 and the final Streetscape Master Plan is anticipated in the spring of 2024.

Conclusion

A Corridor Improvement Plan (CIP) was completed in 2021 for the Argyle Core Area with the goal of promoting a welcoming, well-maintained and safe destination for businesses and shops. Recognizing the significance of Dundas Street within the Arygle area, the development of a Streetscape Master Plan for this corridor will support the London Plan vision for high quality spaces along urban corridors.

Dillon Consulting Limited has provided a proposal that demonstrates a comprehensive understanding of the requirements for this project. Based on the competitive consultant procurement process, it is recommended that Dillon Consulting Limited be appointed to undertake the Streetscape Master Plan for the Dundas Street Argyle Core Area in the amount of $159,899.30, excluding HST.

Prepared by:	**Garfield Dales, P. Eng., Division Manager, Transportation Planning and Design**
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**
Schedule A:	Source of Financing

c: Steve Mollon, City of London
Andrew Denomme, City of London
Steven Funk, City of London
Kate Preston, Dillon Consulting Limited

Appendix "A"

#23141
July 18, 2023
(Appoint Consulting Engineer)

Chair and Members
Civic Works Committee

RE: RFP 2023-097 Streetscape Master Plan for Dundas Street – Argyle Core Area Appointment of Consulting Engineer
(Subledger NT23RD03)
Capital Project TS3229 - Streetscape Master Plan Dundas Street Argyle BIA
Capital Project TS103119 - Long Term Corridor Protection EA Studies
Dillon Consulting Limited - $159,899.30 (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 recommendation of the Deputy City Manager, Environment and Infrastructure, the detailed source of financing is:

Estimated Expenditures	Approved Budget	Committed To Date	This Submission	Balance for Future Work
TS3229 - Streetscape Master Plan Dundas Street Argyle BIA				
Engineering	150,000	0	150,000	0
TS103119 - Long Term Corridor Protection EA Studies				
Engineering	796,388	18,972	12,714	764,702
Total Expenditures	$946,388	$18,972	$162,714	$764,702
Sources of Financing				
TS3229 - Streetscape Master Plan Dundas Street Argyle BIA				
Drawdown from Community Investment Reserve Fund	150,000	0	150,000	0
TS103119 - Long Term Corridor Protection EA Studies				
Drawdown from City Services - Roads Reserve Fund (Development Charges) (Note 1)	796,388	18,972	12,714	764,702
Total Financing	$946,388	$18,972	$162,714	$764,702

Financial Note	TS3229	TS103119	Total
Contract Price	147,405	12,494	159,899
Add: HST @13%	19,163	1,624	20,787
Total Contract Price Including Taxes	166,568	14,118	180,686
Less: HST Rebate	-16,568	-1,404	-17,972
Net Contract Price	$150,000	$12,714	$162,714

Note 1: Development charges have been utilized in accordance with the underlying legislation and the approved 2019 Development Charges Background Study and the 2021 Development Charges Background Study Update.

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 & Infrastructure
Subject: **Contract Price Increase: 2022 Sewer Lining Contract**
Date: **July 18, 2023**

Recommendation

That, on the recommendation of the Deputy City Manager, Environment and Infrastructure, the following actions **BE TAKEN** with respect to the 2022 Sewer Lining Contract:

a) The 2022 Sewer Lining Contract (RFP-2022-120) contract value with Insituform Technologies Ltd. **BE INCREASED** by $33,795.70 to $4,407,511.80 (excluding HST) in accordance with Section 20.3 (e) of the Procurement of Goods and Services Policy;
b) the financing for these projects **BE APPROVED** as set out in the Sources of Financing Report attached hereto as Appendices 'A';
c) the Civic Administration **BE AUTHORIZED** to undertake all the administrative acts that are necessary in connection with these projects; and
d) the Mayor and City Clerk **BE AUTHORIZED** to execute any contract or other documents, if required, to give effect to these recommendations.

Executive Summary

The City of London uses trenchless sewer repairs, where appropriate, to repair damaged sewers without having to perform open cut construction. Cured In Place Pipe (CIPP) repairs involve inserting a resin filled felt or fibreglass tube into a sewer, inflating the tube and adding heat (via steam or hot water) or ultraviolet light to cure the resin. The result is a "new" sewer with a life expectancy of 50+ years.

The 2022 Sewer Lining contract requires an amendment due to additional cleaning and restoration costs. The City's Procurement of Goods and Services Policy requires Council approval for this amendment.

Linkage to the Corporate Strategic Plan

This recommendation supports the following 2023-2027 Strategic Plan area of focus:

- Climate Action and Sustainable Growth:
  - The infrastructure gap is managed for all assets; and
  - London's infrastructure is built, maintained, and secured to support future growth and protect the environment;

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

- Civic Works Committee – July 26, 2022 – Request for Proposal RFP2022-120 Contract Award of 2022 Sewer Lining (CIPP).

2.0 Discussion and Considerations

2.1 Discussion

The City of London's annual Sewer Lining Program uses trenchless technologies to reinstate and extend the life of existing storm and sanitary sewer infrastructure. This program avoids the large capital costs of open-cut construction by using cost effective trenchless technology. The installation of a liner can be completed in several days as compared to months for open cut repairs greatly reducing the social impacts.

The City of London began installing full-length sewer lining repairs in 1989. Beginning in the late 1990s, the Sewer Lining Program was expanded and became an important part of London's capital renewal strategy. Since 2007, there have been 244 km of liners installed through the annual Cured In Place Pipe (CIPP) lining program.

The 2022 program consisted of approximately 1 km of trunk sanitary sewer lining. The large diameter sanitary sewers required flow bypass to accommodate the lining. The sewers lined in 2022 included:

- 535m of trunk sanitary sewer along Thames Valley Parkway (TVP) from Grosvenor Street to the south side of Oxford Street East (all 900mm diameter sanitary sewer).
- 460m of trunk sanitary sewer along Eleanor Street from Dundas Street to Frances Street (1050mm and 1200mm diameter sanitary sewer).

The 2022 CIPP Sewer Lining Program (RFP-2022-120) was awarded to Insituform Technologies Limited at the tender price of $4,077,716.10 including $300,000.00 contingency. During the project, it was determined there was a benefit to extend the Gibbons trunk sanitary sewer lining from Oxford St E to Ann St, which was initially scheduled for 2023. Due to unexpected challenges, a large portion of the contract contingency had already been committed. A contract extension of $296,000.00 was approved by the City Manager via delegated authority on August 23, 2022 to advance this section of lining work. This took advantage of 2022 prices, an existing Thames Valley Pathway detour, and temporary sewer infrastructure already in place for the 2022 project.

As the work on the lining contract extension commenced, unanticipated debris and property access issues were encountered. Additional time and effort were needed to complete the added work, including restoration. An additional $33,795.70 is required to process payment for this work, bringing the total upset limit for the contract to $4,407,511.80.

3.0 Financial Impact/Considerations

An additional $33,795.70 is required to cover the additional costs associated with the 2022 Sewer Lining Contract for additional sewer cleaning, property access, and restoration costs. This funding is available in the approved Wastewater capital budget as per the Source of Financing attached as Appendix 'A'.

Conclusion

In accordance with Section 20.3 (e) of the Procurement of Goods and Services Policy, it is recommended that the contract value be amended for 2022 Sewer Lining Contract (RFP-2022-120) to address additional cleaning and restoration required as part of the contract.

Prepared by:	**Kyle Chambers, P.Eng.** **Division Manager, Sewer Engineering**
Submitted by:	**Ashley Rammeloo, MMSc, P.Eng.** **Director, Water, Wastewater, and Stormwater**
Recommended by:	**Kelly Scherr, P.Eng., MBA, FEC** **Deputy City Manager, Environment and Infrastructure**

cc: Yanzhen Ou, Program Manager, Sewer Engineering
Dave Jones, Senior Technologist, Sewer Engineering

Appendix ‘A’ – Source of Financing:

Appendix "A"

#23147
July 18, 2023
(Contract Increase)

Chair and Members
Civic Works Committee

RE: Contract Price Increase: 2022 Sewer Lining Contract
(Subledger WW220003)
Capital Project ES269320 - Sewer Relining
Insituform Technologies Ltd. - $4,407,511.80 (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 recommendation of the Deputy City Manager, Environment and Infrastructure, the detailed source of financing is:

Estimated Expenditures	**Approved Budget**	**Committed To Date**	**This Submission**	**Balance for Future Work**
Construction	4,516,710	4,438,453	34,390	43,867
Total Expenditures	$4,516,710	$4,438,453	$34,390	$43,867
Sources of Financing				
Capital Sewer Rates	4,516,710	4,438,453	34,390	43,867
Total Financing	$4,516,710	$4,438,453	$34,390	$43,867

Financial Note:

Contract Price	$4,407,512
Less amount previously approved	4,373,716
Contract Price	33,796
Add: HST @13%	4,393
Total Contract Price Including Taxes	38,189
Less: HST Rebate	-3,799
Net Contract Price	$34,390

Jason Davies
Manager of Financial Planning & Policy

lp

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: **Comments Provided to Federal Government on Recycled Content, Labelling Rules, and Registry for Plastic Products**
Date: **July 18, 2023**

Recommendation

That, on the recommendation of the Deputy City Manager, Environment & Infrastructure, this report **BE RECEIVED** for information.

Executive Summary

In November 2018, through the Canadian Council of Ministers of the Environment (CCME), the federal, provincial and territorial governments adopted the Canada-wide Strategy on Zero Plastic Waste. The same organizations also adopted a Canada-wide Action Plan on Zero Plastic Waste to implement the Strategy. Numerous steps and actions have been taken with respect to the management of plastics.

City staff have been working with the Association of Municipalities of Ontario (AMO), Regional Public Works Commissioners of Ontario (RPWCO), Municipal Waste Association (MWA) and the City of Toronto acting as one entity called the Municipal 3Rs Collaborative (M3RCs). This includes providing comments through consultations and holding proactive conversations with the Federal Government about plastics.

As part of the most recent public consultation on the Strategy on Zero Plastic Waste, released April 18, 2023, Council directed staff on May 16, 2023 to:

- provide written feedback on the proposed plastic regulatory framework and technical document through the federal government process by the May 18, 2023 deadline;
- provide a copy of the written submission to the Civic Works Committee at a future meeting; and
- provide a copy of the written submission to the Environmental Stewardship and Action Community Advisory Committee for information as part of ongoing discussions dealing with Blue Box transition in London.

The City of London's two-part response is attached in Appendix C. In general, City staff are supportive of the direction the Federal Government is heading with respect to plastics management and addressing the impacts past management decisions have caused.

Linkage to the Corporate Strategic Plan

Municipal Council continues to recognize the importance of waste diversion and waste management in its 2023-2027 Strategic Plan for the City of London specifically in the strategic area of focus Climate Action and Sustainable Growth. On April 23, 2019, the following was approved by Municipal Council with respect to climate change:

> Therefore, a climate emergency be declared by the City of London for the purposes of naming, framing, and deepening our commitment to protecting our economy, our eco systems, and our community from climate change.

On April 12, 2022, Municipal Council approved the Climate Emergency Action Plan which includes Area of Focus 5, Transforming Consumption and Waste as Part of the Circular Economy.

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

Relevant reports that can be found at www.london.ca under Council meetings include:

- Updates: Blue Box Transition and Next Steps (January 10, 2023 meeting of Civic Works Committee (CWC), Item #2.2)
- Updates: Blue Box Transition and Next Steps (June 21, 2022 meeting of CWC, Item #2.4)
- Comments on Environmental Registry of Ontario (ERO): Proposed Blue Box Regulation (November 17, 2020 meeting of CWC, Item #2.1)
- Response to the Association of Municipalities of Ontario (AMO) Regarding Transition of Recycling (May 26, 2020 meeting of CWC, Item #2.4)

1.2 Background

In regard to waste and resource management policy development, changes and directions, City staff are grateful for the work undertaken and shared by the Association of Municipalities of Ontario (AMO), Regional Public Works Commissioners of Ontario (RPWCO), Municipal Waste Association (MWA) and the City of Toronto acting as one entity called the Municipal 3Rs Collaborative (M3RCs). This ensures that comments are regularly submitted on behalf of municipalities in regard to policies, regulations and legislation regarding waste management and the circular economy.

City staff are active members of M3RCs via RPWCO including being co-chair of the RPWCO Waste Subcommittee. City staff also participate with MWA.

In some cases, comments will also be sent directly by the City of London after approval by Committee and Council. However, the time available to read, review and respond to matters from regulatory authorities, the Province of Ontario and the Federal Government often does not provide enough time for individual municipalities, like London, to respond directly.

In November 2018, through the Canadian Council of Ministers of the Environment (CCME), the federal, provincial and territorial governments adopted the Canada-wide Strategy on Zero Plastic Waste., the Strategy takes a circular economy and lifecycle approach to plastics and provides a framework for action in Canada. The Strategy also builds on the Ocean Plastics Charter that was adopted by Canada, France, Germany, Italy, the United Kingdom, and the European Union in 2018.

The federal, provincial and territorial governments also adopted a Canada-wide Action Plan on Zero Plastic Waste to implement the Strategy. The Plan sets out tangible actions and clear timelines to better prevent, reduce, reuse, recover, capture and clean up plastic waste and pollution in Canada.

Regarding the work completed and ongoing over the last five years at the Federal Government regarding the reduction and management of plastic waste, the City of London has been mostly engaged via M3RCs. This has included written responses and direct dialogue with Federal Government staff.

On May 16, 2023, Council resolved that:

> That the following actions be taken with respect to the public consultation, released April 18, 2023, from the Environment and Climate Change Canada's "Strategy on Zero Plastic Waste":

a) the Civic Administration BE DIRECTED to provide written feedback on the proposed plastic regulatory framework and technical document through the federal government process by the May 18, 2023 deadline;
b) the Civic Administration BE DIRECTED to provide a copy of the written submission to the Civic Works Committee at a future meeting; and,
c) the Civic Administration BE DIRECTED to provide a copy of the written submission to the Environmental Stewardship and Action Community Advisory Committee for information as part of ongoing discussions dealing with Blue Box transition in London. (2023-D22)

2.0 Discussion and Considerations

2.1 Recycled Content and Labelling Rules for Plastics

Appendix A contains the Table of Contents for the document entitled Recycled Content and Labelling Rules for Plastics: Regulatory Framework. The purpose of the document is noted as:

> "This document outlines a regulatory framework for plastic packaging and certain single-use plastics that includes recycled content requirements and labelling rules for recyclability and compostability. It is intended to provide an updated and more detailed overview of the regulatory approach the Government is proposing for the draft regulations, which are currently under development. This regulatory framework has taken into account the significant feedback we received from partners, stakeholders and the public during consultations on these proposed rules and requirements. The draft regulations are targeted for publication in *Canada Gazette*, Part I, before the end of 2023, which will be followed by a further consultation period before the regulations are finalized. Partners and stakeholders are invited to review this document and provide feedback before May 18, 2023."

2.2 Federal Plastics Registry is Needed

Appendix B contains the Table of Contents for the document entitled Consultation Paper: A Proposed Federal Plastics Registry for Producers of Plastic Products. The purpose of the document is noted as:

> The Government of Canada has committed to supporting provincial and territorial extended producer responsibility (EPR) efforts by establishing a federal plastics registry and requiring producers to report on plastics in the Canadian economy. A federal plastics registry will support adoption of EPR rules in Canada that are consistent, comprehensive and transparent. The registry will also support the implementation and monitoring of other measures that are part of the Government's zero plastic waste agenda, including recycled content requirements for plastic products. A plastic registry would improve the efficiency and effectiveness of EPR as it is practised in Canada and increase value recovery rates, keeping plastics in the economy and out of the environment. This would help achieve the goal of zero plastic waste, which could eliminate $500 million in costs, reduce greenhouse gas emissions by 1.8 megatonnes, and create 42,000 direct and indirect jobs.
>
> The purpose of this consultation paper is to seek stakeholder input as the Government develops this registry. Partners, stakeholders and interested members of the public are invited to provide comments.

2.3 City of London Response

The City of London's two-part response is attached in Appendix C. In general, City staff are supportive of the direction the Federal Government is heading with respect to plastics management and addressing the impacts past management decisions have caused.

3.0 Financial Impact/Considerations

There are no financial impacts/considerations to London taxpayers associated with this report. There will be financial impacts/considerations, costs and benefits, as this process moves forward.

Conclusion

In general, City staff are supportive of the direction the Federal Government is heading with respect to plastics management and addressing the impacts mismanagement has caused.

Prepared and Submitted by:	**Jay Stanford, M.A., M.P.A. Director, Climate Change, Environment, and Waste Management**
Recommended by:	**Kelly Scherr, P.Eng., MBA, FEC, Deputy City Manager, Environment & Infrastructure**

c Environmental Stewardship and Action Community Advisory Committee

Appendix A Table of Contents - Recycled Content and Labelling Rules for Plastics: Regulatory Framework Paper
Appendix B Table of Contents – Technical Paper: Federal Plastics Registry
Appendix C Submission to Federal Government

APPENDIX A
Table of Contents - Recycled Content and Labelling Rules for Plastics: Regulatory Framework Paper

APPENDIX B
Table of Contents – Technical Paper: Federal Plastics Registry

APPENDIX C
Submission to Federal Government

300 Dufferin Avenue
P.O. Box 5035
London, ON
N6A 4L9

May 18, 2023

Sent by email:
plastiques-plastics@ec.gc.ca

Tracey Spack, Director
Plastics Regulatory Affairs Division
351 Saint-Joseph Blvd
Gatineau QC K1A 0H3

Re: City of London Comments on Recycled Content and Labelling Rules for Plastics: Regulatory Framework Paper and Technical Paper: Federal Plastics Registry

On behalf of the City of London, please find below comments on the above two consultation opportunities. Thank you for this opportunity to comment.

The City of London's previous comments on this matter were contained in a submission dated October 7, 2022 from the Association of Municipalities of Ontario (AMO), the City of Toronto and the Municipal Waste Association through the Municipal Resource, Recovery and Research Collaborative (M3RC). At that time we collectively stated that we "are supportive of the Government of Canada's goal of generating robust data through the federal plastics registry, and to make that data available to all stakeholders through an open data platform."

Recycled Content and Labelling Rules for Plastics: Regulatory Framework Paper

This regulatory framework is essential for moving forward with proper systems to increasingly prevent valued plastics items from becoming a waste or litter.

3. Scope of Application

Supportive. It is key that this section is aligned with provincial approaches and strengthen them where possible. Duplication and redundancy will pose unnecessary costs on industry.

4. Recycled Content Requirements

Supportive.

5. Recyclability and compostability labelling rules

Supportive. In our experience, clearly identifying Prohibitive activities (5.2) is key. Measuring recyclability (5.3) has been done in Ontario for years for the residential sector. Consistency (standardization) in how measurement programs are completed between a Canada-wide framework and provincial systems will improve efficiencies for all.

5.3.3 Criterion 1: collection

Supportive. This section will impact municipalities and local businesses the most as we are the closest level of government to the consumer from a collection services perspective.

In Ontario, it is key that the Federal framework recognize that extended producer responsibility legislation is in place. What is currently described in this section may suggest a separate collection system for plastics needs to be available. Wording should be provided that refers to multi-material collection systems are acceptable.

5.4 Recyclability labelling requirements

Supportive. As part of implementing the framework it is key that educational information from labelling is also applied to labelling information on recycling bins. This will be up to recycling systems operators and where bins are to be located.

5.5 Compostability labelling requirements

Concerns have been identified. Labeling requirements for compostable items continue to cause some concerns for local governments in Ontario based on ongoing discussions with Association of Municipalities of Ontario, the City of Toronto, the Regional Public Works Commissioners of Ontario and the Municipal Waste Association (collectively knows as the Municipal 3Rs Collaborative – M3RCs).

As previously documented in the November submission, it is a complex challenge to manage these products in the existing organics processing infrastructure given how diverse it is. While the requirements point to demonstration of successful in-field composting at one facility in Canada, this would not mean it successfully can be processed at the majority of facilities and existing infrastructure. For example, in a number of anaerobic digestion facilities these compostable items may be screened out of the process with conventional plastics and result in increased process residues and operating costs.

We would suggest that the criteria for labelling an item as compostable be modified to consider the following thresholds:

1. Is the product accepted for collection in >80% of households?
2. Can the product be successfully composted/processed in existing, operating organics infrastructure?

A standard that replicates on-site performance at organics management facilities needs to be applied to these products to support the environmental claims being made to ensure these items can be effectively sorted by consumers into the proper stream and that the infrastructure can manage them successfully. The current proposal of demonstrated success at one facility in Canada would not address the significant issues that have been experienced in Ontario and other parts of Canada.

Information received by the City of London suggests that Environment and Climate Change Canada and the Province of Ontario completed a study to examine compostable products performance in aerobic composting and anaerobic digestion facilities. The results of this study would be valuable to inform this discussion. We would urge both Environment and Climate

Change Canada and the Ontario Ministry of the Environment, Conservations and Parks to release the study findings as part of this consultation process.

5.6 Timelines

Supportive.

Technical Paper: Federal Plastics Registry

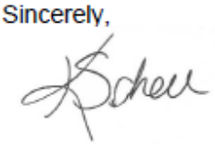
Supportive. This Technical Paper will be very important for the producers of plastics items. We want to express our support for the rationale stated by the Federal Government in the report:

> **"1.1.1 Why a federal plastics registry is needed**
> The registry will serve to improve our knowledge of plastic waste, value recovery, and pollution across Canada. It will provide important information to inform the government on future compliance promotion and enforcement activities and will help to identify gaps in the plastics value chain where further government action may be required. The registry would be a key source of information that the Government of Canada will use to support the implementation and monitoring of different measures that are part of the government's zero plastic waste agenda. A federal plastic registry would standardize the data that is collected on provincial and territorial Extended Producer Responsibility (EPR) programs and provide useful information for stakeholders, government and Canadians. Furthermore, it will support provincial and territorial EPR programs in force or under development, and provide useful baseline data to provinces and territories when expanding EPR into new product categories."

Most plastic items have an important role in society. Their proper management is essential to reduce impacts and prevent future challenges. Consistent action across Canada will allow for economic development opportunities as part of the circular economy, create economies of scale and common approaches that are easier to understand for the consumer.

Thank you again for this opportunity to comment. We look forward to participating directly or indirectly in the next steps. Please do not hesitate to contact Jay Stanford if you require further details (519-661-2489, ext. 5411 or jstanfor@london.ca).

Sincerely,



Kelly Scherr, P.Eng., M.B.A., F.E.C.
Deputy City Manager
Environment & Infrastructure

Jay Stanford, M.A., M.P.A.
Director, Climate Change, Environment & Waste Management

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Environmental Stewardship and Action Community Advisory Committee

Report

8th Meeting of the Environmental Stewardship and Action Community Advisory Committee
July 5, 2023

Attendance

B. Samuels (Chair), I. El Ghamrawy, M. Griffith, A. Hames, C. Hunsberger, N. Serour, A. Whittingham and K. Mason (Acting Committee Clerk)

Also Present: Councillor J. Pribil, S. Corman, J. Stanford, B. Westlake-Power

The meeting was called to order at 3:09 PM, it being noted that I. El Ghamrawy, M. Griffith and N. Serour were in remote attendance.

1. Call to Order

1.1 Disclosures of Pecuniary Interest

That it BE NOTED that no pecuniary interests were disclosed.

2. Scheduled Items

None.

3. Consent

3.1 7th Report of the Environmental Stewardship and Action Community Advisory Committee

That it BE NOTED that the 7th Report of the Environmental Stewardship and Action Community Advisory Committee, from its meeting held on June 7, 2023, was received.

3.2 Resignation - P. Almost

That it BE NOTED that the resignation of P. Almost was received with regret.

3.3 Ministry of the Environment, Conservation and Parks (MECP) review of the Environmental Assessment (EA) for the expansion of the W12A Landfill

That it BE NOTED that the Ministry of Environment, Conservation and Parks review of the Environmental Assessment for the expansion of the W12A landfill was received.

3.4 Notice of Application - ReThink Zoning

That it BE NOTED that the Notice of Planning Application dated June 5, 2023 with respect to the New Comprehensive Zoning By-law - ReThink Zoning was received.

4. Sub-Committees and Working Groups

None.

5. Items for Discussion

5.1 Yard and Lot Maintenance By-law PH-9

That Municipal Council BE REQUESTED to pass a motion, in the spirit of the following, to direct staff to undertake a review of the Yard and Lot Maintenance By-law PH-9:

Whereas, biodiversity loss is a growing concern that requires immediate attention and action from municipal authorities;

Whereas, the Yard and Lot Maintenance By-law PW-9 poses conflicts with other objectives of the City of London to conserve natural heritage and biodiversity (Environmental Policies, the London Plan 2022), to mitigate and adapt to climate change (Climate Emergency Action Plan, 2022), and to create liveable, complete street designs (London Complete Streets Design Manual, s2.5 Green Infrastructure 2018);

Whereas, Londoners are increasingly engaging in environmental stewardship including maintaining boulevard-facing gardens, Low-Impact Development (LID) such as rain gardens, and naturalization projects;

Whereas, there is a lack of easily accessible public information regarding the Yard and Lot Maintenance By-law PW-9 and its enforcement, hindering residents' understanding of their responsibilities and the City's expectations;

Whereas, there have been concerns raised regarding poor and inconsistent complaint-driven enforcement of the Yard and Lot Maintenance By-law PW-9 leading to mischaracterizations of by-law provisions, destruction of private property and potential negative impacts on the City’s reputation and liveability;

Whereas, the Yard and Lot Maintenance By-law PW-9 and Naturalized Areas and Wildflower Meadows policy include imprecise and prescriptive language that is not reproducible in enforcement, and therefore poses legal risks to the City that could potentially result in litigation and financial burdens;

Whereas, the Ontario Court of Justice has found other municipal by-laws similar in effect to the City of London’s Yard and Lot Maintenance By-law PH-9 to be void for vagueness and uncertainty in their language and for unjustifiably violating the freedom of expression guaranteed by section 2(b) of the Canadian Charter of Rights and Freedoms, 1982;

Therefore, be it resolved that the London City Council directs municipal staff to undertake a comprehensive review of the Yard and Lot Maintenance By-law PW-9 and related policies;

Be it further resolved that the review should address the following aspects:

i) Clarifying the intent and purposes of the By-law;
ii) Providing statistics on enforcement of the By-law and assessing the effectiveness of enforcement processes and procedures;
iii) Identifying and addressing any legal risks associated with the By-law, aiming to minimize potential litigation and financial burdens on the City;
iv) Comparing the By-law’s alignment with other City policies and strategies, particularly those related to natural heritage, complete street designs, and the Climate Emergency Action Plan;
v) Consulting with Indigenous communities about the By-law and prohibited plants;
vi) Evaluating and improving mechanisms and public education to ensure consistent enforcement and compliance with the By-law;

Be it further resolved that the municipal staff present their findings and recommendations to Council within a reasonable timeframe, allowing for

further discussion and potential amendments to the Yard and Lot Maintenance By-law PW-9;

Be it further resolved that enforcement of the Yard and Lot Maintenance By-law PW-9 in cases where there is not an immediate safety risk be paused while the By-law's legal validity is under review;

Be it further resolved that the City hold a Public Participation Meeting (PPM) to invite feedback from the community on the Yard and Lot Maintenance By-law PW-9 and staff recommendations.

6. Deferred Matters / Additional Business

6.1 (ADDED) Resignation of L. Paulger

That it BE NOTED that the resignation of L. Paulger was received with regret.

6.2 (ADDED) Municipal Council Resolution - 6th Report of the Animal Welfare Community Advisory Committee

That it BE NOTED that the Municipal Council Resolution from its meeting held on June 27, 2023, with respect to the 6th Report of the Animal Welfare Community Advisory Committee, was received.

7. Adjournment

The meeting adjourned at 3:36 PM.

From: Brendon Samuels [redacted]
Sent: Friday, July 14, 2023 10:01 AM
To: CWC <cwc@london.ca>
Subject: [EXTERNAL] Delegation request

To whom it may concern,

I would like to request virtual delegation status for the upcoming Civic Works Committee meeting on Tuesday July 18. I wish to speak to item 4.1 on the agenda. I would also like to refer the Committee to the following attachment which appeared on the 8th agenda for the Environmental Stewardship and Action Community Advisory Committee and provides background information related to item 4.1:
https://pub-london.escribemeetings.com/filestream.ashx?DocumentId=100385

Thank you,

Brendon Samuels
Chair, Environmental Stewardship and Action Community Advisory Committee

2022 Annual Report

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THE LONDON TRANSIT COMMISSION

COMMISSION - CURRENT

SHERYL ROOTH	CHAIR
STEPHANIE MARENTETTE	VICE CHAIR
SCOTT COLLYER	COMMISSIONER
JERRY PRIBIL	COMMISSIONER
DAVID FERREIRA	COMMISSIONER

SENIOR MANAGEMENT - CURRENT

KELLY PALECZNY	GENERAL MANAGER
MIKE GREGOR	DIRECTOR OF FINANCE
SHAWN WILSON	DIRECTOR OF OPERATIONS
KATIE BURNS	DIRECTOR OF PLANNING
CRAIG MORNEAU	DIRECTOR OF FLEET & FACILITIES
JOANNE GALLOWAY	DIRECTOR OF HUMAN RESOURCES

EXECUTIVE SUMMARY

London Transit's vision in the 2019-2022 Business Plan is to be *the valued and trusted mobility choice for Londoners*. The vision is supported by the mission statement which is *moving Londoners – progressively, reliably and affordably.*

The vision and mission are supported by five linked and, in certain respects, competing strategic outcomes, namely:

- An integrated, affordable and valued mobility choice
- An engaged, diverse and respectful workplace
- Demonstrated fiscal accountability
- Being open, transparent and understood
- Effective utilization of infrastructure

Consistent with the Business Planning Process, each year an Annual Report is completed and shared publicly. The report provides an overview of how the LTC performed against each of the strategic outcomes identified in the Business Plan.

Yearly, each of the Strategic Outcomes is graded by administration based on the following scale.

Grade	Criteria
Excellent	All initiatives set out in the Business Plan under the objective have been successfully achieved
Good	Progress toward completion of all initiatives under the objective is consistent with expectations in the Business Plan
Satisfactory	Progress toward completion of all initiatives under the objective is slower than expectations in the Business Plan
Needs Improvement	Significant focus needs to be directed at the initiatives under the objective

While 2022 saw relief from most pandemic-related restrictions, it was not immune from pandemic-related impacts; the two most significant of which were supply chain and labour market. While transit riders began to return to pre-pandemic travel patterns and service expectations at an increasing rate, the ability of the organization to respond with increased service levels to better match the increased demand was significantly hampered.

In order to increase service levels to first return to pre-pandemic levels and then begin implementation of the 2021 and 2022 service improvements, the depleted Operator complement needed to be addressed. As such, a focused effort on Operator recruitment and on boarding began in mid-2021, and will continue through the remainder of 2023. Between April 2021 and the end of 2022, 122 Operators were hired, trained and placed in service.

While recruitment and on-boarding for the Operator position ran relatively smoothly throughout 2022, the vacancies in the Fleet and Facilities department proved more difficult to fill. This coupled with a higher rate of short term absences throughout the year, resulted in difficulties completing the work assigned to each shift in order to ensure bus availability for service each day. Adding to this difficulty was the delay in receipt of the 2022 replacement bus order, which resulted in the need to maintain 17 buses longer than anticipated. In a number of cases, the decision was made to park the bus scheduled for retirement rather than perform costly repairs however this approach negatively impacted the total fleet availability.

The aforementioned impacts resulted in service levels not being increased to pre-pandemic levels in 2022, notwithstanding the significant increases in ridership. The differential between the service levels operating and those required to meet the demand negatively impacted a number of the measures utilized to assess the conventional transit service performance in 2022.

The table below sets out the performance against the outcomes for the 2022 fiscal year, none are graded excellent given the deviation from the Business Plan required as the result of the pandemic.

Strategic Outcome	Grade	Comments
An integrated, affordable and valued mobility choice	Satisfactory	While service levels were not able to meet demand through 2022, efforts were focused on ensuring that service provided was reliable.
Demonstrated fiscal accountability	Good	Notwithstanding significant price escalation on key budget items including fuel and bus prices, budgets were managed within the Commission's resources.
Being open, transparent and understood	Good	Continued use of communication tools such as social media and Commission website to ensure up to date information was available for all stakeholders.
Effective utilization of infrastructure	Good	Capital programs continued as planned through 2022 noting some modifications were required due to significant inflationary pressures.
An engaged, diverse and respectful workplace	Good	Overall priority centered on ensuring the health and safety of all employees (including psychological health)

When considering the grades provided, it is important to recognize that they were measured against progress on the initiatives included in the Business Plan while also giving consideration to the ongoing issues associated with operating a transit system through a pandemic, which in some cases necessitated deviation from specific initiatives.

The recognition by all levels of government of the value that a viable public transit service provides to its community resulted in the provision of the Safe Restart Funding Program, which provided for funding to support the continuation of services noting the losses in revenue and increased operating costs that were being experienced by all transit systems. During the pandemic period, historical measures including rides per service hour and cost recovery ratios were no longer the driving factors in decision making, with discussions centering on ensuring that adequate service levels remained in place to provide the ability for transit riders to access essential services and jobs. In 2022, $6.5 million in Safe Restart funding was utilized to balance the operating budget, without access to this funding, significant service level reductions would have needed to occur.

This recognition provided a reminder to transit systems that the value they provide is measured by three key stakeholder groups; the transit customer, the community at large, and the taxpayer.

What also became clear is that each group's values cannot be measured solely by the traditional metrics that transit systems have relied upon. Further, the onset and continuation of the pandemic which has resulted in significant shifts in the manner in which people work and move in their communities has significantly impacted the transit system's ability to predict and plan for the future. Ensuring transit systems are able to adapt quickly to changing circumstances while addressing the top priorities of all stakeholders will be the key to sustainable systems going forward.

In closing, while 2022 brought with it new challenges as the organization faced labour force and supply chain issues which hampered abilities to return to pre-pandemic service levels and add service growth, notwithstanding these challenges, London Transit employees continued to demonstrate their creativity, resiliency, dedication and commitment to providing public transit services in London.

AN INTEGRATED, AFFORDABLE AND VALUED MOBILITY CHOICE

The strategic objective calls for the continued development and delivery of accessible public transit services that are integrated with other modes of transportation, dynamic in nature and considered a valued investment to all stakeholders. The following table sets out an assessment of the 2022 performance against key elements of this strategy, noting the measures used to determine the grading have historically included ridership change and total ridership, service hour change and total service hour investment, customer satisfaction rating, and investment share allocation.

Given the ongoing global pandemic that continued to impact operations in 2022, performance against the key elements of this strategy were viewed in light of the organizational impacts associated with operating under these conditions. As such, some of the elements are listed as N/A noting initiatives included in the annual work program intended to address these elements were put on hold as part of the organization's pandemic response. Additionally, while the manner in which the system operated throughout the majority of 2022 was not consistent with pre-pandemic years, progress was still graded on those elements that remained applicable. Public transit services continued to be provided to all areas of London normally served by transit throughout 2022, albeit in some cases at reduced frequency. Details with respect to perceived progress toward each of the elements are commented on in greater detail following the table below.

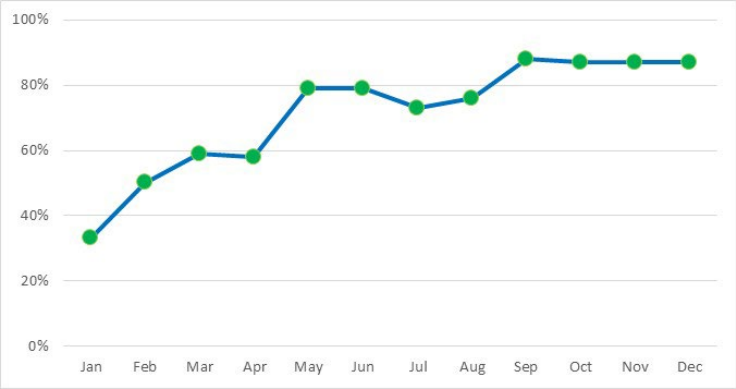
Key Elements	Grade
Ongoing development of a safe, integrated and accessible public transit service ensuring the service meets the needs of a growing, competing and changing market.	Satisfactory
Use of proven technology supporting the effective, efficient delivery of transit services.	Good
Exploration of initiatives intended to grow transit ridership	N/A
Continued focus on improving the customer experience	Excellent
Progressing in the development and delivery of integrated, accessible public transit services	N/A

Conventional Transit Services

Expectations for the conventional transit service for 2022 included a return to pre-pandemic service levels as well as the gradual introduction of service improvements that had been deferred in previous years due to the pandemic. Unfortunately, ongoing issues with resources (people and equipment) availability continued to negatively impact the ability to increase and maintain service levels throughout 2022. As a result, service levels remained at approximately 90% of pre-pandemic levels throughout the year.

Notwithstanding the inability to increase service levels, ridership levels on the conventional service grew to the highest of the pandemic period in 2022. The following graph illustrates ridership as a percentage of pre-pandemic levels in 2022.

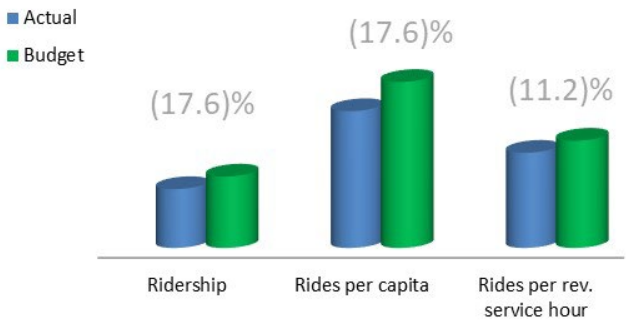
2022 Conventional Transit Ridership as a Percent of 2019 (Pre-Pandemic)



As the graph illustrates, after another significant drop in January due to another pandemic wave, ridership began to steadily climb for the remainder of the year, levelling off and remaining at approximately 90% of pre-pandemic levels in September through December.

As noted in the following chart which compares actual 2022 ridership and related measures to 2022 budget, the budgeted return of service levels and ridership was not met.

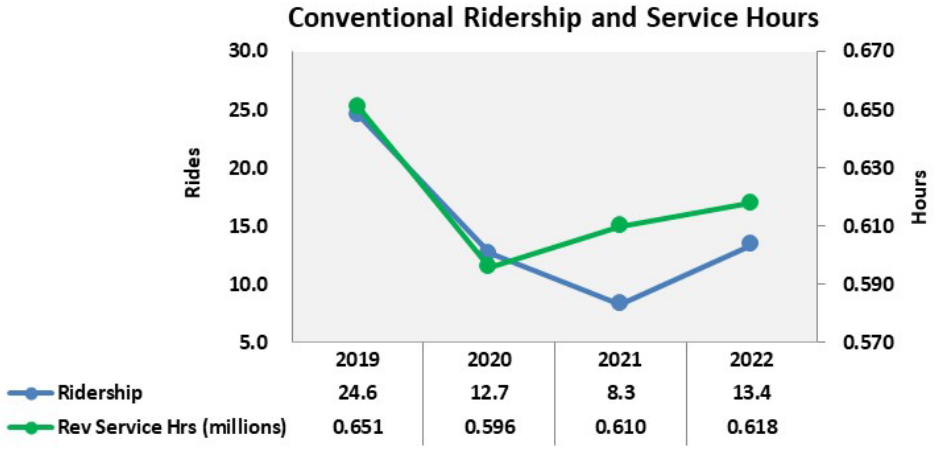
2022 Ridership Performance Actual vs. Budget

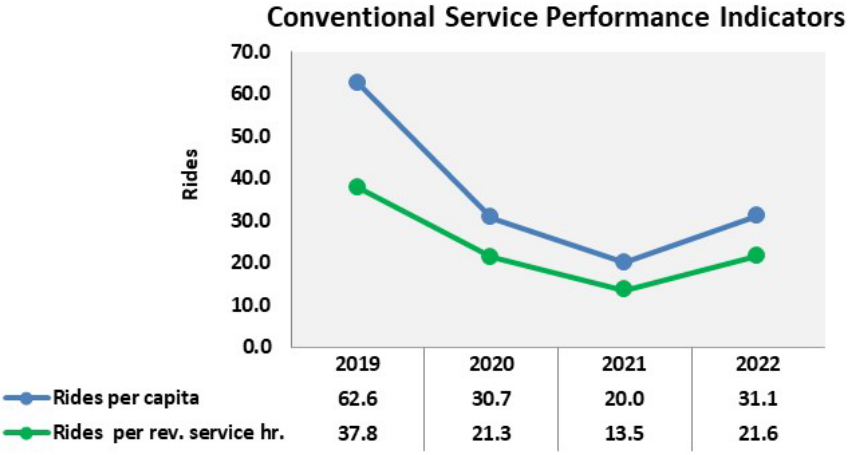


The continuation of the Safe Restart Funding program, supported by the Provincial and Federal governments, provided an offset for the revenue losses associated with the lower than budget ridership, which in turn allowed the continued operation of services at a much higher level than could have been supported by the fare box revenue alone. The recognition of the need for the continued operation of public transit services throughout the pandemic period by all levels of government represents an opportunity for transit systems to begin to transition away from the traditional focus on R/C ratios and minimum boarding thresholds toward a focus on the value the services provide to the community. This is not to say that the traditional efficiency and effectiveness measures should be discounted entirely, but rather viewed in tandem with other positive impacts the transit system brings to the community including community access, economic benefits, climate and health benefits, and reduced congestion levels.

The ridership and service hour performance over the period of 2019-2022 is set out in the

following chart, noting that the pandemic-related impacts on the organization in the years 2020 through 2022 result in the inability to directly compare these years to 2019. The previous year's data is provided for transparency purposes and as an indication of where the measures were pre-pandemic.





[1]Rides per capita: total rides divided by population – provides for comparison of ridership levels across municipalities of varying populations

[2]Rides per revenue service hour: total rides divided by total hours vehicles are providing service – measures the efficiency of the system

The total service hours provided in 2022 were the highest of the pandemic period; however did not reach the levels to which they were budgeted due to ongoing resource limitations. Ridership in 2022 was also the highest of the pandemic period, reaching approximately 55% of the annual ridership in 2019.

Continuing the discussion with respect to the value versus the volume of public transit, the measure of 'rides per revenue service hour' provides a good example of how two different stakeholder groups will view and prioritize this measure. From the tax payer's perspective, the higher the number the better, as it indicates that the vehicles on the road are being heavily utilized and fare box revenue is supporting a large portion of the operating cost of the vehicle. Conversely, from the customer's perspective, a lower number means they will be more likely to

have a seat while completing their trip versus standing on a crowded bus.

Continuing this discussion, when viewing total ridership from the graphs above from a volume perspective, the 13.4 million trips provided in 2022 could be viewed as being too low, or not enough to warrant the service levels from the taxpayer perspective. However from the perspective of the community at large, 13.4 million trips were provided on public transit, which enabled Londoners to get to work, school and other essential destinations. From the customer's perspective, the levels of service that continued to operate ensured access to their community.

In addition to comparing against internal key performance indicators, London Transit also measures service performance by comparison to a peer group of Ontario transit systems (with bus operations only and with populations greater than 100,000). The following table sets out a comparison of 2021 key service performance indicators for LTC versus the identified Ontario group average noting the 2022 group data will not be published until the fall of 2023. The comparison information is compiled and published by the Canadian Urban Transit Association (CUTA).

Conventional Transit Services – Summary Performance Comparison

Description Service Performance	2021 Peer Average	2021 LTC	Ranking
Ridership (millions)	6.3	8.3	**6th**
Rides per capita	15.2	19.7	**4th**
Rides per service hour	12.0	13.4	**4th**
Service hours per capita	1.2	1.5	**5th**

Note: Peer group includes 16 Ontario transit systems in municipalities with a population greater than 100,000. (York Region, Mississauga, Durham Region, Brampton, Hamilton, Waterloo Region, London, Windsor, Oakville, Burlington, St. Catharines, Sudbury, Barrie, Guelph, Thunder Bay and Kingston).

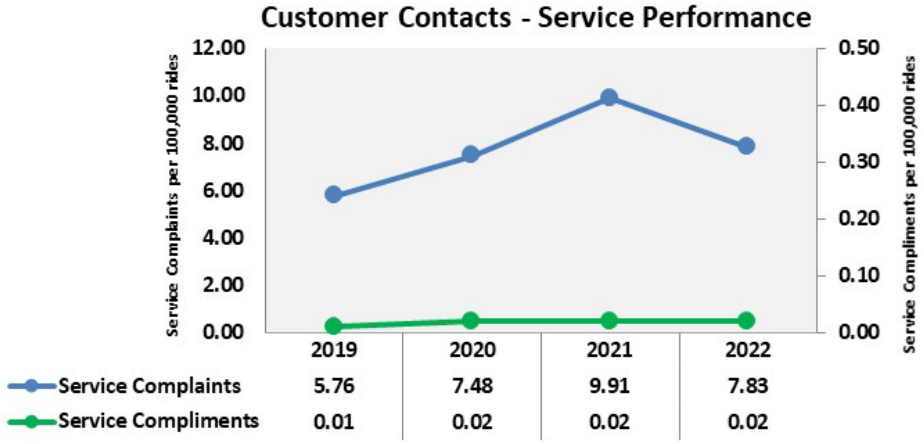
As illustrated in the table, London remained in the top half of the service performance measures against peer group in 2021, noting ridership and service hour performance were significantly impacted by the various pandemic waves and associated public health measures in place.

Service quality is also measured through feedback from the customer, which beginning in 2016 included the addition of the feedback received through the Voice of the Customer surveys. Historically customer contacts were relied upon as the only measure of customer satisfaction; however, given that customers of any service are far more likely to contact the provider with a complaint when they have had a poor experience versus calling to provide a compliment when they have had a good experience, the Voice of the Customer program was launched to gain a better understanding of our customers perspectives both with respect to the priorities they place on determining what qualities are inherent in a good public transit service as well as how they rank London's service against those priorities. Unfortunately the annual Voice of the Customer Survey had to be put on hold during the pandemic, and as such there are no current results to share.

In addition to the Voice of Customer feedback, customer satisfaction levels are also gauged through tracking both the number and nature of customer contacts received via email, social media, and telephone. In 2022, society in general was looking to return to conditions consistent with pre-pandemic times while at the same time businesses struggled to ramp up to meet the

heightened demand given labour market and supply chain issues. The resulting imbalance between customer expectations and the service provider's ability to deliver has led to a decrease in overall satisfaction levels, and increased customer frustrations. The nature of interactions with unhappy customers in 2022 transitioned from traditional expressions of dissatisfaction to exchanges including profanity, name calling, and in some cases, verbal assault. One of the primary focuses of public communications in 2023 will be the need for respectful interactions when utilizing LTC services.

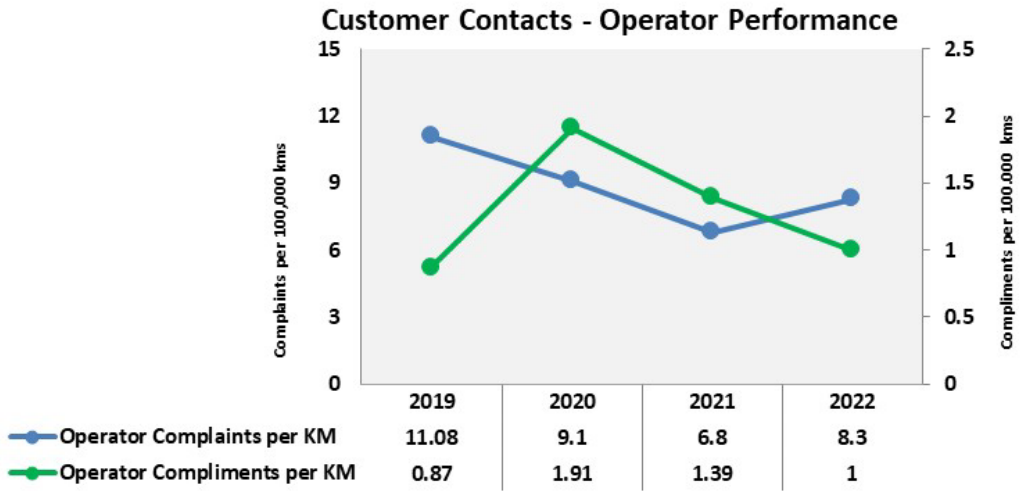
The following chart provides an illustration of the trend in customer complaints and compliments relating to the conventional service performance over the period 2019 through 2022.



In an effort to have comparable statistics, the values in the chart illustrate the total complaints and compliments per 100,000 riders. While this approach normalizes the number being displayed, it does not account for the extreme variances in operating conditions pre and during the pandemic period.

In 2022, the top categories of complaints with respect to service received were late scheduled and missed passenger complaints, which relate to service not arriving at a stop at the scheduled time, not arriving at the stop at all, or driving by a passenger waiting at a stop. The nature and extent of construction projects spanning much of 2022 impacted a significant number of routes, and given resource limitations, tripper buses were not able to be assigned to routes experiencing schedule adherence difficulties. These factors, in combination with the additional complexities of determining detour routing resulting from the addition of cycling infrastructure on many corridors, resulted in schedule adherence issues system wide for the majority of 2022 leading to complaints regarding late service. Likewise, the need for detours and stop closures relating to the numerous construction projects resulted in numerous routes being on detour with regular stops closed and temporary stops in place. Early in the summer, it was discovered that many of the closed stop/temporary stop signs were missing from poles (primarily in the core), which left customers unaware of detours and/or waiting at the wrong locations. Given these issues, a new audit process was established and is conducted by Inspectors on a regular basis to ensure proper and accurate signage is posted along all detoured routes.

The other major area of analysis regarding service quality is Operator performance, which is assessed in terms of both complaints and compliments. Performance results from the customer contact system for 2019 to 2022 are set out in the following chart.

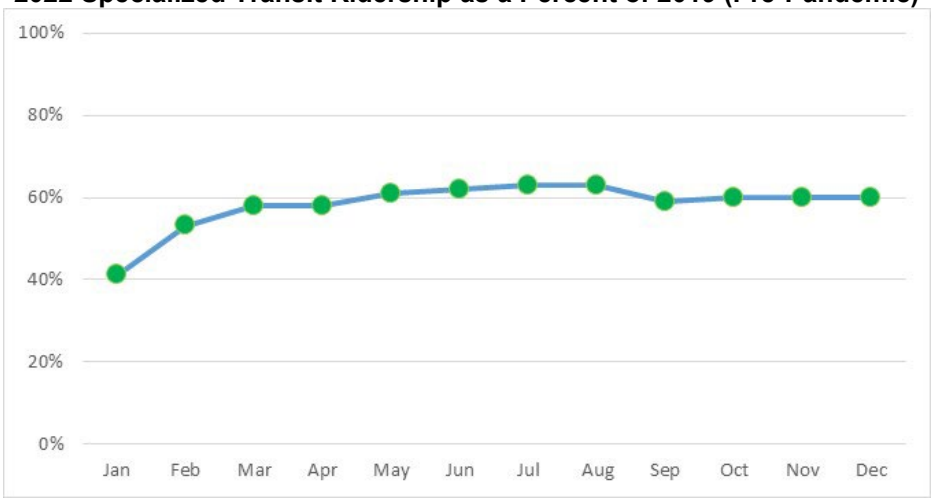


Driving related Operator complaints have been lower than pre-pandemic in total as well as in virtually all categories tracked. Operator compliments have remained higher than pre-pandemic levels through the years 2020-2022, but have been trending downward back toward pre-pandemic levels.

Specialized Transit Services

Consistent with the conventional service, specialized services continued to operate throughout 2022, ensuring mobility to the registrants who rely on the service for access to the community. The graph below illustrates the ridership throughout 2022.

2022 Specialized Transit Ridership as a Percent of 2019 (Pre-Pandemic)



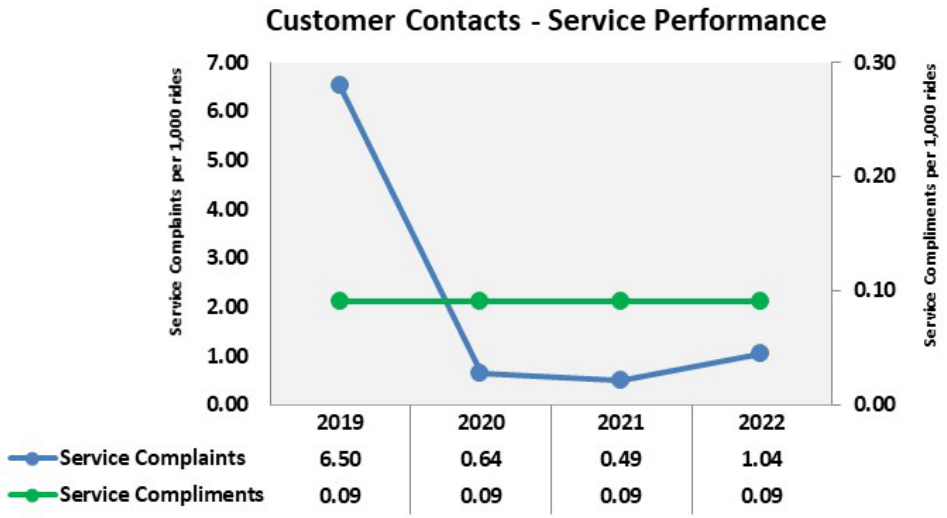
The following table provides a comparison of ridership and service hours actual to budget performance for 2022.

2022 Ridership and Service Hours Actual to Budget Performance

Description	Actual	Budget	Amount Better (Worse)	Percent Better (Worse)
Total ridership	222,900	280,700	(57,800)	(20.6)%
Service hours	119,100	146,400	(27,300)	(18.6)%
Registrants	10,950	11,000	(50)	(0.5)%
Total trips/registrant	20.4	25.5	(5.1)	(20.0)%

2022 saw challenges with respect to resource availability (people and vehicles) for the specialized service contractor consistent with those faced on the conventional service. While the budget planned for a return to pre-pandemic service levels and the phased introduction of growth hours, the growth was not able to be implemented. The lower than budgeted service hours is directly tied to the lower than budgeted ridership.

As referenced in the chart below, service complaints are down significantly during the pandemic period as compared to previous years. Compliments relating to service have remained consistent over the four year period.



The top category of complaints in 2022 was “service received”, which includes issues such as length of trip, drop off locations, pick-up locations, as well as other complaints that may encompass more than one of the categories listed in the table above. A significant number of the complaints in this category in 2022 were directly tied to the nature and extent of construction projects and related road closures and detours in place throughout the city. Preferred pick-up and drop off locations in many cases needed to be altered, and the length of trips was extended noting traffic in general was slower throughout the city.

As with conventional transit, specialized transit performance results are assessed from a service perspective in comparison to all other Ontario specialized transit systems. The following table sets out a comparison of key service performance indicators for LTC in 2021 versus the identified Ontario group average.

Specialized Transit Services – Summary Performance Comparison

Description	2021 Ontario Average	2021 LTC
Service Performance		
Service hours per capita	0.2	0.3
Total trips per capita	0.3	0.4
Total trips per service hour	1.6	1.4
Trips per eligible registrant	26.8	16.1

Average includes all specialized services operating in Ontario

London's performance in 2021 was consistent to 2020 in terms of peer group comparison, indicating that the operational impacts of the pandemic were felt equally across specialized services in Ontario.

DEMONSTRATED FISCAL ACCOUNTABILITY

The strategy calls for prudent fiscal and operational management, supporting sustainability, competitive positioning, affordability and valued return on investment. The investment return includes social, economic and environmental returns. As discussed earlier in this report, the return on investment in public transit services for the City needs to be expanded to include elements that are priorities to each stakeholder group going forward. The elements set out in the table below focus primarily on the priorities of the taxpayer.

Key Elements	Grade
Providing a high quality and economically sustainable transportation service	Good
Ensuring decisions regarding investment (operating and capital) are evidenced-based, and are consistent with the goals and objectives of the organization and services	Excellent
Establishing a sustainable financial strategy, one that reflects the unique dynamics (characteristics) of each investment source	Good
Fostering an environment of continuous improvement that is, doing the right things at the right time in the most effective and efficient manner	Good
Optimizing investment and utilization of existing and new technologies supporting the effective and efficient delivery and management of the service	Good

2022 Operating Budget Program

The 2022 operating budget program for conventional and specialized transit services totalled approximately $92 million. The 2022 operating program finished the year with a $6.5 million unfavourable variance which was offset by the Safe Restart Funding program provided by the Federal and Provincial governments.

The major factors contributing to the budget deficit include the following:

- Overall unfavourable revenue performance relating to:
    - lower than budgeted ridership throughout 2022 due to a slower than anticipated return of ridership
    - lower than budgeted Provincial Gas Tax contributions as the result of reduced service levels

  which were offset by expenditure performance relating to:
    - lower than expected labour costs relating to reduced service levels
    - lower than expected contract costs for the specialized service relating to reduced service levels

As noted in the following chart, the actual source of 2022 operating investment remained relatively consistent with budget noting city investment levels have, for the most part, been flat-lined over the course of the last four years, given the economic climate and related constraints on public investment.

2022 Operating Budget Source of Investment
Conventional and Specialized Transit Systems

Description	2022 Actual	2022 Budget
Transportation/Operating revenue	37.2%	37.6%
Provincial gas tax	8.9%	11.8%
City of London	46.8%	45.0%
Safe Restart	7.1%	5.6%
	100.0%	100.0%

Financial performance is compared to the Commission's peer group in the same manner as service performance for the respective services. In terms of conventional services, in comparison to the peer group, London's performance is at or near the top in all key financial performance indicators, as noted in the following table.

Conventional Transit Services – Summary Performance Comparison

Description Service Performance	2021 Peer Average	2021 LTC	Ranking Out of 16
Financial Performance			
Operating cost per ride	$9.64	$6.06	**15th**
Municipal cost per ride	$7.70	$3.87	**16th** (lowest)
Total Operating Cost Sharing			
Municipality	58.6%	42.1%	**16th** (lowest)
Passenger & Operating	22.6%	31.0%	**2nd**
Provincial gas tax + Safe Restart	18.8%	27.0%	**2nd**

Note: Peer group includes 16 Ontario transit systems in municipalities with a population greater than 100,000. (York Region, Mississauga, Durham Region, Brampton, Hamilton, Waterloo Region, London, Windsor, Oakville, Burlington, St. Catharines, Sudbury, Barrie, Guelph, Thunder Bay and Kingston).

As noted, LTC's municipal operating investment is well below the peer group average, ranked 16th (lowest) of the 16 transit systems comprising the peer group in 2021. As discussed previously in this report, the metrics for 2021 were significantly impacted by the operating conditions during the pandemic noting that service continued to operate notwithstanding declines in ridership. The service levels that remained in place were significantly higher than what would be traditionally warranted based on ridership levels; however, this was done so in an effort to provide a viable transportation option that would attract riders back to the service.

Similar impacts were experienced on the specialized transit services, with significant jumps in costs per ride experienced across the province.

Specialized Transit Services – Summary Performance Comparison
Ontario Specialized Systems

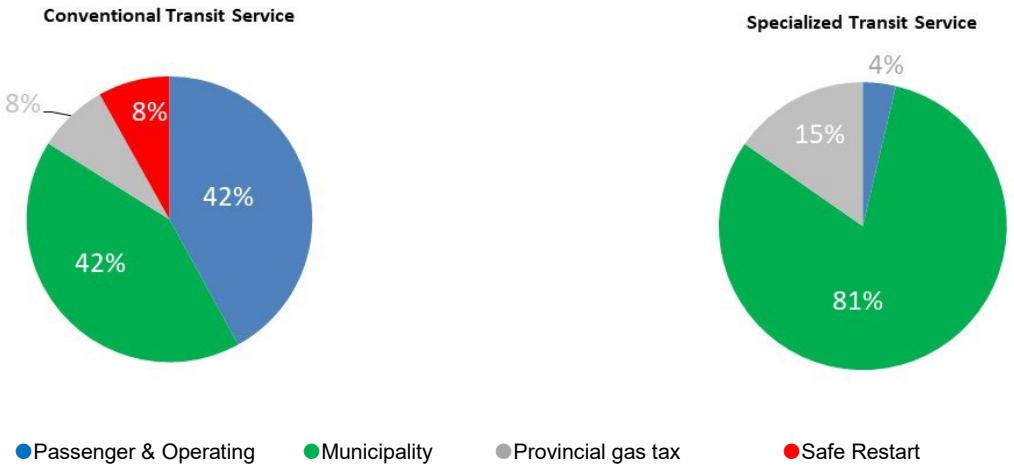
Description Service Performance	2021 Peer Average	2021 LTC
Financial Performance		
Total cost per ride	$63.42	$53.32
Municipal cost per ride	$58.83	$52.50
Total Operating Cost Sharing		
Municipality	92%	82%
Passenger & Operating	5%	3%
Provincial gas tax	3%	15%

Consistent with the conventional service, the 2022 metrics have varied significantly due to the levels of service that continued to operate through low ridership periods. Of note, given the overall savings in the specialized operating budget as a result of reduced service levels on a contracted service, there is no Safe Restart funding associated with this budget, in fact, given the funding guidelines, the savings from the specialized budget were required to offset to the additional costs on the conventional service when applying the funding.

The charts below set out the investment share of the various funding sources for both the conventional and specialized services for 2022. As indicated earlier in this report, the Safe Restart funding was utilized in 2022 to balance the overall operating budget (the net of increased cost on the conventional service and savings on the specialized service).

As the charts indicate, approximately 8% of the conventional transit service operating budget was funded with Safe Restart funding. Had this funding program, supported by the Provincial and Federal governments, not been provided, significant service reductions would have been required in order to balance the operating budget.

2022 Percent Share of Source Investment
Conventional and Specialized Transit Services

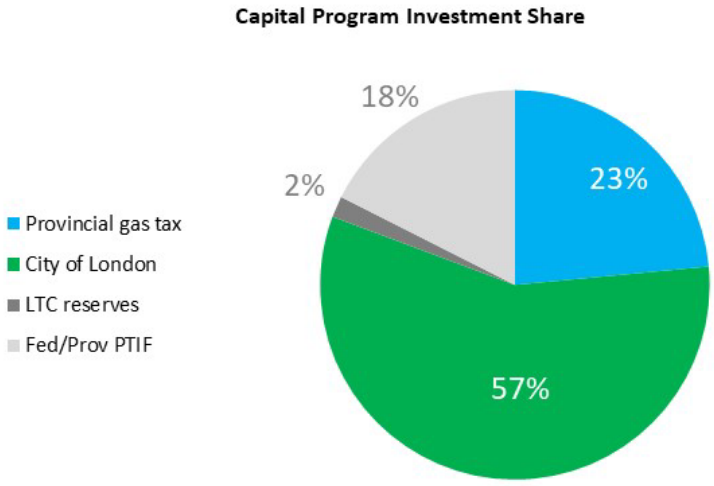


2022 Capital Budget Program

The 2022 capital investment program totalled approximately $17.5 million, funding a number of projects including:

- Bus replacement: a $12.6 million project providing replacements for 17 buses was completed in 2022. The bus replacement program is critical to supporting fleet reliability and lowering fleet maintenance costs by moving to an average fleet age of six years.
- Bus expansion: a $3.6 million project providing for 5 expansion buses to allow for implementation of the 2022 conventional service improvements
- A total of $1.3 million was spent on other various projects in 2022 including bus stop upgrades, shop and garage equipment, service fleet replacement and facility upgrades

All of the capital programs operated within budget. Capital investment in 2022 was shared as follows.



BEING OPEN, TRANSPARENT AND UNDERSTOOD

The strategy calls for all stakeholder communications to be conducted in an open, transparent, timely and inclusive manner supporting common knowledge and understanding. The following table sets out an assessment of 2022 performance against key elements of this strategy, noting the measures used to determine the grading include the number of communication tools employed, the frequency of use of the communications tools, and stakeholder satisfaction ratings.

Key Elements	Grade
Developing informed relationships with all stakeholders both internal and external to LTC	Good
Employing a consistent communication brand supporting clear, concise and timely communication	Good
Investing in and effectively utilizing a variety of communication forms and technology to build and sustain informed relationships	Good
Developing and implementing mechanisms to provide for enhanced engagement with employees	Good

The requirement for strong communications to all stakeholders was heightened through the pandemic given the service impacts experienced throughout the year. Corporate social media accounts and media alerts were relied upon to keep riders informed of service impacts, and were done so in a manner to provide the most advance notice possible.

Customers and the public at large have a number of options to interact with London Transit. Those looking for dialogue, or some form of response, can use the customer service phone line or email. In addition to telephone and email, information is also made available through the corporate website, Facebook and Twitter accounts. Stop level notices are also utilized when applicable.

The following table provides an overview of the makeup of the various methods that customers and the public can utilize to find information with respect to public transit services. It should be noted that some information is limited to only one source (e.g. Commission agendas limited to corporate website), and as such, the addition of alternative methods of interaction may not directly impact others. The table below sets out the percent make-up of the various methods of interaction between LTC and the public at large.

Percent Make Up of Interaction Methods

Percent Make Up	2019	2020	2021	2022
Information line - answered calls	2.2%	2.7%	3.3%	3.6%
Interactive voice response	4.6%	4.6%	5.9%	5.2%
Website - main site visits	41.4%	38.3%	47.3%	48.5%
Website - Infoweb real-time	13.0%	12.1%	17.3%	20.9%
Facebook page visits	1.8%	5.6%	3.3%	2.8%
Twitter Impressions	36.9%	36.7%	22.9%	19.0%
Total	100.0%	100.0%	100.0%	100.0%

LTC also recognizes the importance of internal communications, keeping employees informed and thanking them for their efforts. In 2022, COVID boards were kept updated, providing employees with up-to-date information specific to the ongoing pandemic. Additionally, there are a number of mechanisms in place for internal employee communications including the employee newsletter and handouts, internal communications screens, and internal bulletin boards as well as direct communication (verbal and written), all of which are utilized throughout the year.

EFFECTIVE UTILIZATION OF INFRASTRUCTURE

The strategy calls for acquisition and maintenance of required infrastructure supporting service reliability, noting infrastructure includes fleet, facility, technology and other fixed assets. The following table sets out an assessment of 2022 performance against key elements of this strategy, noting the measures used to determine the grading include average fleet age, nature and extent of technology employed, and capital investment in new infrastructure.

Key Elements	Grade
Linking asset planning and service planning	Excellent
Effectively utilizing proven technology to meet business/service needs (e.g. smart bus technology to assist with the delivery of quality customer service)	Excellent
Completing evidence based assessments on the acquisition and maintenance of critical infrastructure	Excellent
Continuous review and improvement of systems, processes and procedures supporting effective use of all assets	Good

The reliable accessible infrastructure strategy addresses the maintenance, retention, and acquisition of equipment, facilities, and fleet. Specific programs and policy direction associated with the strategy are reflected in the Commission's Asset Management Plan. The following table sets out the assessment of LTC assets as at December 31, 2022.

Assets	Grade
Facility – 450 Highbury	Satisfactory – adequate for short term
Facility – 3508 Wonderland	Very good – fit for the future
Rolling stock	Very good – fit for the future
Shelters, stops and pads	Very good – fit for the future
Fare and data collection systems	Satisfactory – adequate for short term
AVL/radio system (smart bus)	Good – adequate for now
Shop equipment and tools	Very good – fit for the future
Smart card system	Very good – fit for the future
All other infrastructure	Very good – fit for the future

The assigned assessment ratings were assessed on infrastructure needs associated with current service growth plans and an ongoing commitment to investing, as a priority, in a state of good repair both in terms of capital investment and maintaining and development of proactive preventative maintenance programs for buses including, ancillary system versus reactive and establishing full service agreements covering both maintenance and upgrades for technology (system) based infrastructure.

Strict adherence to the strategy over the past 10 years has resulted in the elimination of the infrastructure deficit with the exception of the Highbury Avenue facility. Changes in funding stream guidelines in 2022 resulted in the Highbury Facility replacement being moved to the forefront of transit-related infrastructure projects, and the business case for the replacement was submitted to the Provincial and Federal governments for consideration. Project approval is anticipated some time in 2023, subsequent to which the detailed design work will be undertaken.

AN ENGAGED, DIVERSE AND RESPECTFUL WORKPLACE

The strategy calls for the development of a results-oriented organization attracting, developing and retaining exceptional individuals creating an engaged, diverse and respectful workplace. The following table sets out an assessment of 2022 performance against key elements of this strategy, noting the measures used to determine the grading include training and development hours, employee turn-over rate and employee satisfaction ratings.

Key Elements	Grade
Developing a culture that is inclusive, supportive, and collaborative, respecting individual dignity, promotes accountability and open communication	Good
Developing a learning organization supporting employees being successful in their roles, that recognizes performance and develops human resource capacity to ensure business continuity	Good
Developing a qualified and diverse workforce, reflective of community demographics	Good
Creating a safe work environment and encouraging employee health and wellness and increased focus on employee mental health	Good
Effectively using technology to support employees in their roles	Good

The overall rating of the strategy is defined as good, noting 2022 saw:

- continued development of performance-based management
- ongoing emphasis on recruitment and selection, ensuring the organization's staffing continues to meet the business needs
- enhancements to LTC's training and development team to meet the needs of onboarding requirements to ensure staff have the skills and abilities to perform their positions effectively
- ongoing review and change to the organization's structure, reflecting the performance review management program principle of ensuring the most efficient and effective use of resources
- refinement of numerous pandemic-related procedures and protocols intended to protect employees and riders from exposure to the pandemic
- continued focus and attention directed toward employee psychological health and wellness
- constant communication to employees through a number of mediums on general information as well as with regard to pandemic-related procedures and protocols as they evolved throughout the year

The planning and development of the organization is considered an ongoing initiative. Prior to being filled, vacant positions are reviewed and assessed to ensure the resources are required and/or whether there is opportunity to re-invest the resources elsewhere in the organization where they may be more needed.

LOOKING FORWARD

The theme of the 2019-2022 Business Plan is “Maintaining the Momentum” intended to relay the underlying objectives of the Plan, which are to continue with initiatives tied to improving service for both conventional and specialized customers, and in conjunction improve the overall customer experience. The four year Business Plan included a number of key initiatives, all intended to contribute to the underlying objective. The onset of the global pandemic in March 2020 resulted in the need to direct focus away from some initiatives included in the Business Plan toward ensuring the conventional and specialized services continued to operate in a manner that was safe for both employees and riders.

While the pandemic remained a concern through 2022, ridership returned to the highest rate since the onset of the pandemic, which was a challenge to accommodate given labour and supply chain issues, leading to customer frustrations with service reliability. Significant focus was directed at recruitment throughout 2022 for both London Transit and the contracted service provider for the specialized service in an effort to get increased complement levels to allow for additional service to be put in place. Progress was made for both services, however not to the extent that service improvements beyond the pre-pandemic service levels could be implemented. 2023 is set to see significant improvements in service levels on both the conventional and specialized services with the planned introduction of the approved growth hours from 2021 and 2022 that have yet to be implemented. By May 1, 2023 both the conventional and specialized services had returned to pre-pandemic service levels, with the plan for the remainder of the year being to implement the outstanding growth hours.

While ridership levels and demand have returned, the travel patterns and priorities for riders has changed, due in part to the continued option of working from home for many employers. These changes, coupled with the planned growth in the community stemming from immigration over the coming year, will all be assessed in detail as part of the next 5 Year Service Plan process, which will launch later in 2023. This process will also include consideration of how the integration of the conventional and specialized services can result in an improved and more sustainable service for all Londoners. The final plan will set the framework for service improvements for the period of 2025-2029.

In addition to the service improvements planned for 2023, a number of transformational infrastructure projects that are underway will reach significant milestones in 2023. Funding approval from senior levels of government is anticipated to be confirmed for both the Electric Bus Procurement project and the Highbury Avenue Facility Replacement in 2023, subsequent to which the projects will proceed. With respect to the Electric Bus Procurement, pending funding approval, a contract for the supply of a turnkey program providing 10 electric buses and related charging infrastructure will be awarded later in 2023, and retrofit work at the Wonderland Road facility required to accommodate the new buses and charging infrastructure will get underway. Pending funding approval for the Highbury Facility Replacement, a contract for the detailed design will be awarded and work will begin on the detailed design for the replacement facility.

2023 will also see the development and submission of the next multi-year operating budget covering the period of 2024-2027 which will be critical in determining the availability of funding to implement the 5 year service plan and ridership growth strategies. These initiatives are included in Municipal Council’s Strategic Plan as required in order to reach a number of expected results under the Mobility and Transportation outcome. Notwithstanding inclusion in the Strategic Plan, the multi-year budget process is anticipated to be challenging given the inflationary impacts across all sectors resulting in increased costs to continue the same service

levels, coupled with the myriad of growth initiatives included in the Strategic Plan that are will be competing for the same available funding. Finally, Mobility Master Plan update will continue through 2023, and when complete will provide long-term mode share targets for all modes of transportation in the city as well as recommended strategies and supporting policies to assist in meeting the targets. Transit specific recommendations in the final Mobility Master Plan will be incorporated into LTC's Business Plan and 5 Year Service Plans.

In summary, 2023 will see important research undertaken to gain a better understanding of new and pending ridership patterns and expectations which will inform the path forward for public transit services in London. The multi-year budget allocations for growth in public transit services over the next four years will determine the rate at which the identified initiatives can be undertaken.

July 16, 2023

To the members of the Civic Works Committee,

Earlier in the year I was joined by other concerned citizens at your committee to sound the alarm on the degraded delivery of paratransit services in the city post-pandemic. After years of neglect and underfunding, the paratransit system is broken and in urgent need of renewal. At this meeting, you supported our call for urgent changes to the system, including an increase in ride capacity, an online booking system and the ability for riders to pay using smart cards. The commission's response to these requests was largely "no action required" with claims that these improvements were already in progress.

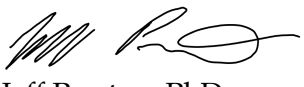
I was disheartened to read the largely self-congratulatory 2022 Annual Report submitted for your review despite these ongoing issues. Within the report, the commission self-assesses a "satisfactory" level of service despite the countless reports of missed rides and long re-dial times to book rides on paratransit. More troubling, though, is the commission assessing they have done a "good" job of being open and transparent in a year where they filed a clearly erroneous AODA Compliance Report despite easily identified examples of non-compliance. Almost a month after our request to the Accessibility Directorate to audit the LTC, we have heard little from the commission about this glaring error beyond a comment that they will comply with whatever directives are given by the province.

As part of your review of this report, I implore the Civics Works Committee to ask several important questions of the commission:

- How was a "fully compliant" report submitted to the Ontario government when the service is not complying with multiple requirements under the legislation?
- What has been done in the past month to resolve the instances of non-compliance identified in our letter to the Accessibility Directorate?
- Given their lack of awareness or execution of AODA directives, should "accessibility" be added as a key strategic priority to be actively monitored going forward?

While it may seem like accessibility impacts a small segment of the population, the concerns we have been enumerating serve as a litmus test for all the things a transit service should be: functional, inclusive, reliable and democratic. Ultimately, a transit service that is not accessible to disabled people is not accessible to any of us. I look forward to hearing how the commission will move toward an accessible future.

Thank you for once again taking seriously the concerns of disabled Londoners.



Jeff Preston, PhD
Associate Professor, King's University College at Western University

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: **Mobility Master Plan Update**
Strategies, Mode Share Target Options and Project Evaluation Frameworks
Date: **July 18, 2023**

Recommendation

That, on the recommendation of the Deputy City Manager, Environment & Infrastructure, this report on the development of the Mobility Master Plan **BE RECEIVED** for the purpose of providing Municipal Council with information on strategies in development, potential mode share target options and draft project evaluation frameworks for the Mobility Master Plan development.

Executive Summary

Purpose

The purpose of this report is to provide Municipal Council with information currently under consideration for the development of the Mobility Master Plan (MMP). The intent is to solicit initial Council feedback, consult externally, and return to the Civic Works Committee with recommendations at a future date. There are three main items discussed in this report:

- strategies in development
- mode share target options
- draft project evaluation frameworks.

These items are important as they are foundational elements that will determine how the MMP will recommend prioritizing funding for infrastructure projects and programs and identify policy recommendations.

This report will be followed by another report to Civic Works Committee later this year that will make recommendations on these topics for Council approval after further public consultation on the content.

Context

The London Plan identifies that a Transportation Master Plan may be prepared and updated regularly to implement the mobility policies of the plan including supporting sustainable land use, mobility choices and safety. This is particularly prudent now with London's rapid growth and in light of the Council-approved Climate Emergency Action Plan (CEAP). On November 2, 2021, Council approved the general framework for the community engagement program for the development of the Mobility Master Plan and the general scope for the consultant assignment to assist in preparation of the plan. In December 2022, Council approved the MMP Vision and Guiding Principles.

The purpose of this project is to create a new integrated Mobility Master Plan that identifies the mobility policy framework, infrastructure projects and supportive programs with a 25-year horizon. The MMP will build on and supersede the current Smart Moves

2030 Transportation Master Plan (2030 TMP) and the London ON Bikes Cycling Master Plan. The plan is being created using a thorough consultation process, technical analysis, and consideration of The London Plan, Council's Strategic Plan and associated initiatives such as the CEAP.

Creation of the MMP is a three-phase process. Phase 1 was focussed on consultation and listening to Londoners and created the MMP Vision and Guiding Principles. Phase 2 is now underway which overlays technical analysis for the creation of the infrastructure, program and policy recommendations. This report describes the considerations for the creation of the Phase 2 decision-making framework.

Phase 3 will include refinement of the recommended plan including key policy recommendations, implementation phasing and development of a monitoring program to track and measure success.

Linkage to the Corporate Strategic Plan

The completion of the MMP is specifically identified in the new Strategic Plan within the Mobility and Transportation Area of Focus as a strategy to increase access to sustainable mobility options. The completion and implementation of the MMP will advance and support numerous strategies under several Areas of Focus including Wellbeing and Safety, Climate Action and Sustainable Growth, Economic Growth, Culture and Prosperity, Housing and Homelessness and a Safe London for Women, Girls and Gender-Diverse and Trans People.

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

- November 2, 2021, Civic Works Committee, Initiation of the Mobility Master Plan Development
- March 1, 2022, Civic Works Committee, Mobility Master Plan Appointment of Consultant
- April 20, 2022, Civic Works Committee, Appointment of Transportation and Mobility Big Data Provider – Irregular Result
- November 29, 2022, Civic Works Committee, Mobility Master Plan Update

1.2 Mobility Master Plan Process Overview

Development of the MMP has been broken into three phases as illustrated below.

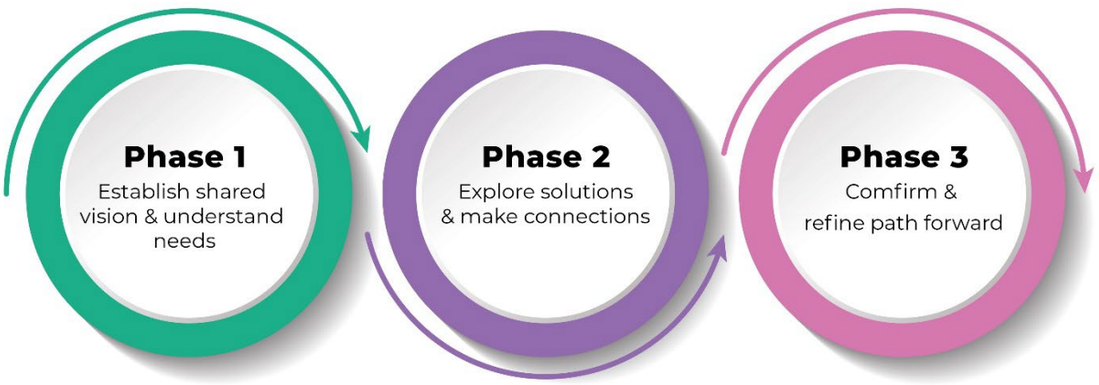


Figure 1: Mobility Master Plan Process

Phase 1 was initiated in April 2022 and included the development of the MMP Vision and Guiding Principles which were approved by Council in December 2022. More information on the Vision and Guiding Principles can be found in Appendix A.

Phase 1 included extensive community consultation to provide a deeper understanding of what the community cares about, uses, has challenges with and wants out of a transportation and mobility system. This information is summarized in the Phase 1 Engagement Summary Report which can be found on the project website at getinvolved.london.ca/mobility-master-plan.

Development of the MMP is now in Phase 2. Key tasks as part of Phase 2 include:

- Development of strategies to achieve the vision
- Confirmation of a mode share target
- Determination of future infrastructure needs based on forecasted population and employment growth and the confirmed mode share target
- Development of Transportation Demand Management (TDM) strategies
- Development of a long list of potential infrastructure projects
- Evaluation of potential projects
- Confirmation of the recommended projects to develop integrated, connected and efficient networks for each mode of mobility

This report provides information on initial Phase 2 activities including the development of strategies to achieve the vision, mode share target options and the draft project evaluation frameworks. Recommendations on these topics will follow through a subsequent report after additional consultation on the content. The direction received from Council at that time will inform the remainder of Phase 2 including the identification of infrastructure projects.

Phase 3 will include refinement of the recommended plan including key policy recommendations, implementation phasing and development of a monitoring program to track and measure success.

Meaningful community consultation will continue through all phases of the development of the MMP.

2.0 Discussion and Considerations

2.1 Strategies in Development to Achieve the Vision

The Council approved vision for the MMP is discussed in Appendix A. One of the key aspects of the vision is to provide Londoner's with choices for how they move around

the city. This is particularly important given London's rapid growth and increasing demands on the mobility system.

To achieve the vision of the MMP, contribute to the vision and key directions outlined in The London Plan, and take action on the Climate Emergency, there is a need to increase the viability of walking, cycling and transit to provide viable options to personal vehicles for everyday needs. This aligns with a planning paradigm shift occurring in London and across Canada to advance the full spectrum of sustainable city building objectives. London's rapid growth can more quickly effect the change that is desired and make London a more liveable city and a more attractive destination for immigration and employment. In London, a greater focus on enabling mobility options is supported by all of the MMP guiding principles.

Within the broader context of sustainably contributing to London's growth, there are eight strategies in development to support achieving the vision of the MMP. The strategies in development are as follows:

1. Use the Mobility System to Support London's Desired Future Land Use
2. Make Transit the Option of Choice for More Trips
3. Make Walking and Cycling Attractive Mobility Options to Meet Daily Travel Needs
4. Strategically Manage Road Capacity at Key Locations
5. Support London's Role as a Regional Hub
6. Put People First on London's Streets
7. Provide a Mobility System that Enables More Equitable Participation in City Life
8. Prepare for Change

The proposed strategies are discussed in greater detail in Appendix B.

2.2 Mode Share and Why it is Important

Mode share is the proportion of all person trips in the city that are made using each mode of mobility. For the purpose of the MMP, the various modes of mobility have been categorized as follows:

- Walking
- Cycling
- Transit
- Personal Vehicle - Driver
- Personal Vehicle - Passenger

Mode share is an important metric which helps inform pressures on the mobility system and how cities should invest in mobility infrastructure. A large percentage of personal vehicle trips leads to more congestion and a lack of sustainability in a growing city. To achieve the vision of the MMP and provide Londoner's more viable options for how they move around, London should strive for a more balanced approach and supporting all types of mobility. For future planning, the total number of people trips that the mobility system needs to accommodate will be determined based on forecasted population and employment growth. Mode share determines what percentage of those trips will be by each mode and the capacity needs of each type of mobility infrastructure.

The influence that mode share has on how investments are prioritized is also an equity issue. Many people do not have access to a personal vehicle and/or are unable to drive. Walking, cycling and transit can be more cost-effective choices for individuals, but are less feasible options in a transportation network dominated by personal vehicles. A lack of affordable, reliable and efficient mobility options is a barrier to many in accessing and maintaining a job, childcare, education, health care, groceries and other everyday needs.

In addition to infrastructure investment planning and equity, mode share also impacts greenhouse gas (GHG) emissions, road congestion and physical and mental health. Why mode share is important is discussed in more detail in Appendix C.

Many factors influence mode share and there is a two-way relationship between mode share and the city's built form. Both factors influence financial and environmental sustainability and the ability to achieve the MMP vision.

Some of the key factors which influence mode share include:

- land use and population and employment density;
- transit service levels; and
- active transportation infrastructure and maintenance.

These mode share factors are discussed in more detail in Appendix C.

2.3 2030 TMP Mode Share Targets and Current Status

There has been mixed success with the walking, cycling and transit targets set in the 2030 TMP. An increase in walking and cycling mode share has been observed while a decrease in transit mode share has been measured. While transit mode share has decreased there has been an increase in the total number of transit trips. This trend has occurred because population growth has outpaced the number of trips.

While comparing the current transit mode share against the interim 2020 target, it is important to recognize that implementation of some of the rapid transit recommendations in the TMP are ongoing and not yet in service. The planning, approvals, funding and implementation of large infrastructure projects is a lengthy process. Currently, the City is completing three major infrastructure projects as part of a rapid transit network. The completion of these projects and provision of the higher-order service in the coming years will make transit a more viable option for many trips. The beneficial impacts to transit mode share from this initiative will begin to be realized in the near-term.

More information on mode share trends and the 2030 TMP mode share targets is provided in Appendix D.

2.4 2050 Mode Share Target Options

The project team has developed a range of three potential 2050 mode share targets for the MMP. These options were developed by conducting analysis of:

- London's current (2019) mode share (23% transit, walk, cycle);
- London's current and planned 2050 population and employment density;
- Key current transit supply and demand metrics in London including annual rides per capita, annual rides per revenue vehicle hour and revenue vehicle hours per capita; and,
- Jurisdictional review of other municipalities.

When compared to the mode share targets in London's 2030 TMP, this range of mode share targets presents a more measured increase in transit use, recognizing the challenge of significantly increasing the share of trips made using transit within the context of existing development patterns and population growth. The growth in transit trips needs to significantly out pace growth in population to increase the share of trips made using transit. Building on the demonstrated trend of increased shares of walk/cycle trips, and given the potential with electric micromobility and London's high proportion of short-distance trips, the mode shares presented are more ambitious for walk/cycle compared to the 2030 TMP.

The range of mode share options presented below are all achievable for London with varying degrees of interventions and corresponding contributions to the Vision. As previously discussed mode share is extremely important for many reasons including that it will determine how final MMP will recommend prioritizing funding for infrastructure projects and programs for each mode of mobility

2.4.1 Mode Share Target Option 1: 25% Walk, Cycle, Transit

Option 1 represents a continuation of current trends set in the 2030 TMP based on the existing policy environment. In this option, London's projected land use would continue as it is currently planned in The London Plan, including 55% of new units being built outside of the existing built-up area and much of the intensification allocated to Central London and Rapid Transit Corridors. Currently in-progress rapid transit routes are assumed to be in place and transit service and active transportation facilities are assumed to continue to grow at similar rates as currently experienced. Under this option, policies, programs, procedures, or approaches to infrastructure incrementally shift towards enabling and encouraging more sustainable mobility options.

The 2019 and projected 2050 mode shares for Option 1 are outlined in Table 5 including a shift from 23% to 25% of daily trips being made by walking, cycling and transit—the Option 1 2050 mode share targets are very similar to the 2019 levels.

Table 1: 2050 Mode Share Target Option 1

Mode	Daily Mode Share (%)	
	2019	2050 Target Option 1
Walking and Cycling	15	16
Transit	8	9
Personal Vehicle – Passenger	16	16
Personal Vehicle – Driver	61	59

What does this mean for Londoners?

- In comparison to 2019, the average Londoner would use transit, walk, and cycle slightly more often and use personal vehicles slightly less.

What does this mean for the mobility system within the context of population growth?

- The number of daily transit trips is expected to increase by 59%;
- The number of walking and cycling trips per day is expected to increase by 62%; and,
- The number of daily car trips is expected to increase by 46%, with significantly increasing congestion levels.

What does London need to do to achieve this?

- Transit revenue vehicle hours (transit service provision) would likely be required to increase 59% compared to 2019 (in line with growing travel demand).
- Continue to implement cycling and pedestrian facilities as well as transportation demand management initiatives at current rates.
- Continue to implement road capacity improvements at a similar rate.

2.4.2 Mode Share Target Option 2: 30% Walk, Cycle, Transit

Option 2 represents a swift change in policies, programs, procedures, infrastructure and land use towards enabling and encouraging a reduced reliance on personal vehicles and an increased use of transit, walking and cycling.

The 2019 mode share and 2050 targets for Option 2 is outlined in Table 6, including a shift from 23% to 30% of daily trips being made using walking, cycling and transit.

Table 2: 2050 Mode Share Target Option 2

Mode	Daily Mode Share (%)		
	2019	2050 Target Option 1	2050 Target Option 2
Walking and Cycling	15	16	18
Transit	8	8	12
Personal Vehicle – Passenger	16	17	15
Personal Vehicle – Driver	61	59	55

What does the Option 2 mode share target mean for Londoners and the mobility system?

Based on the 2016 Household Travel Survey, London residents make a total of approximately 24 trips to and from their home in an average week (a trip to work and back would count as two trips). If the transportation and mobility network was improved based on Option 2, the average Londoner would likely choose to adjust their 24 trips per week in the following ways:

- Take transit for one additional trip a week; and,
- Walk or cycle for one additional trip a week; and,
- Drive their personal vehicle for two less trips a week.

It is important to note that the above trip changes are city-wide averages. How individual Londoners change how they move around the city would vary from person to person. Some Londoners would increase walking, cycling and transit use by more than the average Londoner depending on individual circumstances. There may be little to no change for those with mobility challenges and/or those who already walk, cycle and/or take transit for a large portion of their trips. Conversely, some Londoners may increase their sustainable trips more than the average and the preferred mode switch would be variable by person and circumstances such as weather and seasonality.

What does this mean for the mobility system within the context of population growth?

- The number of daily transit trips would need to increase by 116%;
- The number of walking and cycling trips per day would need to increase by 83%; and,
- The number of daily car trips will increase by 35% (slower than population growth).

What does London need to do to achieve this?

- Transit investment: The provision of transit revenue vehicle hours will need to slightly more than double (about 2.1 times current levels) compared to 2019 with corresponding increases in operating costs. Increasing revenue vehicle hours requires the purchase of more buses and potentially the

expansion of existing storage facilities. Transit service will also have to be more reliable and competitive throughout the city, likely taking the form of a frequent priority network. A transit priority network requires significant capital investment to increase the bus fleet and implement transit priority measures such as queue jump lanes, transit signal priority and dedicated bus lanes.

- Land Use: Increasing permitted heights and densities along Rapid Transit Corridors and at Transit Villages to achieve 100-200 people and jobs per hectare[a] would help increase the utilization of each hour of transit service. This would create a more cost-effective service and make travel distances walkable/bikeable for more people. Further encouraging transit-supportive densities in greenfield development (greater than 100 people and jobs per hectare) will also be essential. An estimated 25-30% of London's 2050 population would need to live in areas with at least 100 people and jobs per hectare (currently projected to be 16% in 2050 based on the 45% intensification target). This mode share target may be achieved without changes in planned land use, however, more service hours and higher operating costs will be needed to achieve the same level of required ridership along with bolder incentives to shift to active transportation.
- Cycling and Walking: Implementing a city-wide grid of protected cycling facilities would be needed to enable and encourage the volume of trips made by bike necessary to meet this target. Sidewalks need to be available, accessible and attractive for city-wide mobility to both encourage more walking trips and enable access to transit. The park pathways system would also need to expand more than currently anticipated.
- Policies and Programs: Accompanying infrastructure investments, increases in service levels, and land use changes, robust policies and programs will be required to encourage mode shift. These include policies that limit road expansion and systematically improve the viability of sustainable mobility options by prioritizing those options on many city streets in all neighbourhoods and addressing barriers to their use. Transportation Demand Management programing is also critical in encouraging mode shift, building a culture of sustainable transportation, and encouraging new developments that are built with transportation demand management principles.
- The Road Network: Given that the number of daily vehicle trips is still projected to increase 35%, operational improvements to facilitate traffic movement and some targeted capacity increases will be necessary to meet this demand.

2.4.3 Mode Share Target Option 3: 35% Walk, Cycle, Transit

The Option 3 mode share target represents a fundamental shift in how mobility decisions are made in London. Policies, programs, procedures, and approaches to infrastructure and land use must consistently aim to meet growing travel demand largely using transit, walking and cycling and these more sustainable mobility options must be a viable and attractive option for all Londoners across the city.

The 2019 mode share and 2050 target for Option 3 are outlined in Table 7, including a shift from 23% to 35% of daily trips being made by walking, cycling and transit.

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[a] While some of the lands along Rapid Transit Corridors and at Transit Villages are projected to achieve over 100 people and jobs per hectare, significant lands in these areas are projected to achieve in the 30-100 people and jobs per hectare range or even under 30 in many areas.

Table 3: 2050 Mode Share Target Option 3

Mode	Daily Mode Share (%)			
	2019	2050 Target Option 1	2050 Target Option 2	2050 Target Option 3
Walking and Cycling	15	16	18	21
Transit	8	8	12	14
Personal Vehicle – Passenger	16	17	15	15
Personal Vehicle – Driver	61	59	55	50

What does the Option 3 mode share target mean for Londoners and the mobility system?

If the transportation and mobility network was improved based on Option 3, the average Londoner would likely choose to adjust their 24 trips per week in the following ways:

- Take transit for one or two additional trips a week; and,
- Walk or cycle for one or two additional trips a week; and,
- Drive their personal vehicle for three less trips a week.

As mentioned in Option 2, these are simply averages. How Londoners change how they move around the city would vary from person to person and season to season. Some Londoners may increase how much they walk, cycle and take transit more than the average person, while others may make little to no change.

Impact on the mobility network within the context of population growth includes:

- The number of daily transit trips would need to increase 148%;
- The number of walking and cycling trips per day would need to increase 113%; and,
- The number of daily car trips will increase 26% (slower than population growth).

What does London need to do to achieve this in 2050?

- Transit investment: The provision of transit revenue vehicle hours will need to more than double (at least 2.3 times current levels) with corresponding increases in operating costs. Similar to Option 2 increasing revenue vehicle hours will require the purchase of significantly more buses and potentially the construction of additional storage facilities. Also similar to Option 2, transit service will also have to be even more reliable and competitive throughout the city likely taking the form of a frequent priority network with some type of transit priority measures on approximately 45 km of the City's major road network.[b] Investments of this magnitude may require additional revenue sources.
- Land Use: Increasing permitted heights and densities along Rapid Transit Corridors and at Transit Villages would be necessary to increase the utilization of each hour of transit service. This would create a more cost-effective service and make travel distances walkable/bikeable for more people. In addition, increased building heights and densities would need to be permitted in greenfield developments, as described in Option 2, and an increased intensification target (i.e. more new units being built within the 2016 Built Area) would likely be necessary to achieve these mode share

[b] This is a high-level estimate based on LTC's high ridership routes most of which are forecasted to operate on corridors with moderate to high levels of congestion in 2050.

targets. Increasing the proportion of new development that is accommodated within the 2016 Built Area would enable more areas to achieve a density around 100 people and jobs per hectare making transit a more viable option and making transit service provision more cost effective. Initial estimates indicate an intensification target of around 70% may be required to achieve this mode share target, however, the specific intensification target would need to be determined based on additional analysis including consideration of area servicing requirements.
An estimated 25 to 40% of London's 2050 population would need to live in areas with at least 100 people and jobs per hectare (currently projected to be 16% in 2050 based on the 45% intensification target). The changes in intensification targets would require amendments to The London Plan. Without these changes in land use policies and permissions, along with bold active transportation incentives and potentially automobile disincentives, revenue vehicle hours and operating costs may need to increase at least 150% from 2019 (with each hour serving less rides than in a more transit-supportive land use scenario).

- Cycling and Walking: Like Option 2, implementing a city-wide grid network of protected cycling facilities and providing available, accessible and attractive sidewalks city-wide, particularly for major trip generators, are essential for achieving this target. Additionally, a full network of secondary cycling routes connecting to the primary network would likely be required to enable people of all ages and abilities to cycle almost anywhere in the city on cycling facilities appropriate for the road context. Achieving Option 3 would also likely require reallocating space currently devoted to vehicular traffic to provide space for other modes such as dedicated transit lanes and/or cycling facilities in locations throughout the city. Extensive new and improved or widened pathways would also be required to attract more users.
- Policies and Programs: Like Option 2, working towards this target would require significant policy and programming interventions to accompany infrastructure and transit service. In this case however, the City would likely need to implement policies and disincentives to driving to encourage additional mode shift such as limiting the availability of parking, making parking more expensive, converting vehicle lanes to other modes, and/or potentially road user charges.
- The road network: With a projected 26% increase in the number of daily vehicle trips, congestion during peak periods is likely to be manageable with operational improvements to facilitate traffic movement and limited targeted capacity increases.

2.5 Climate Emergency Action Plan Goals

Transportation-related GHG emissions are largely a function of the total distances travelled by vehicles and the fuel efficiency of vehicles on the road. Trips that start and end in London account for about half of transportation emissions according to estimates provided by Google's Environmental Insights Explorer. Inbound and outbound trips to and from London account for the other half due to the longer distances travelled and associated higher fuel use.

Electrification will play an important role in reducing emissions. However, the electric vehicle percentage of all vehicles was less than 1% in London at the end of 2022 and the pace of overall vehicle fleet turnover is slow.

The CEAP considerations are discussed in Appendix E and will be further considered throughout the MMP process.

2.6 Draft Project Evaluation Framework

The MMP will provide short and long-term infrastructure project recommendations through to 2050. All transportation related infrastructure projects will be evaluated as part of the MMP process to identify priority networks for infrastructure improvements across all modes.

A draft project evaluation framework has been developed based on the guiding principles which were approved by Council in December 2022 based on community consultation. The draft project evaluation framework can be found in Appendix F.

Once projects are identified for each individual travel mode using the project evaluation framework, they will be combined into one integrated multi-modal network. The goal of this process is to evaluate and prioritize multi-modal project recommendations, within the context of the entire mobility system.

2.7 Next Steps

Following this report, the community will be further consulted on the development of strategies to achieve the vision, mode share target options and the draft evaluation frameworks.

Based on the feedback from this consultation and additional technical review, the project team will report back to the Civic Works Committee and Council later this year to receive direction that will inform the remainder of Phase 2 work and Phase 3.

Confirmation of the mode share targets will allow the project team to determine the extent of walking, cycling, transit and vehicle infrastructure needs based on forecasted capacity needs by mode. Potential projects will then be evaluated based on the project evaluation frameworks. Once projects are identified for each individual mode using the project evaluation frameworks, they will be combined into one integrated multi-modal network. A public engagement event is anticipated in early 2024 to share with the community the proposed plans for each mode.

Consultation is integral to achieving a plan that Londoners can support. Therefore, the project schedule is being adapted to accommodate meaningful consultation in advance of key decisions points. The third and final phase of the project will continue throughout 2024 and will include the development of an implementation plan informed by project prioritization and project cost estimates.

Conclusion

The report provides Council with an update on the development of the Mobility Master Plan and information currently under consideration. The project to develop the Plan is early in the second of three phases. This report solicits feedback on the decision-making framework for the Phase 2 identification of infrastructure, programs and policies.

The report provides three mode share target options. and related mobility strategies in development. The project team will continue to consult on these topics in the coming months and will provide recommendations to Civic Works Committee later this year. The selection of the mode share target and supporting strategies is important to inform the development of a mobility network that aligns with the goals and objectives of the MMP.

This report also includes information on the draft project evaluation framework which has been developed based on the Mobility Master Plan Guiding Principles. The final evaluation framework will form part of the process to determine and prioritize planned mobility improvements and will be finalized in the coming months with community input.

This report was informed by the Phase 1 Engagement Summary Report which can be found on the project website getinvolved.london.ca/mobility-master-plan.

The project team will continue to progress the development of the Mobility Master Plan using a thorough consultation process, technical analysis, and consideration of The London Plan, Council's Strategic Plan and associated initiatives such as CEAP. Reports to the Civic Works Committee will be submitted to ensure that Council members are engaged and can provide direction to the Mobility Master Plan as it progresses. Recommendations to council on the topics of this report are anticipated later this year. Extensive public consultation and engagement will continue in all phases of this process which is expected to continue throughout 2024.

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Appendix A:	Mobility Master Plan Vision and Guiding Principles
Appendix B:	Proposed Strategies to Achieve the Vision
Appendix C:	Mode Share and Why it is Important
Appendix D:	2030 TMP Mode Share Targets and Current Status
Appendix E:	Climate Emergency Action Plan Goals
Appendix F:	Draft Project Evaluation Framework

c: Mobility Master Plan Internal Steering Committee
Integrated Transportation Community Advisory Committee

APPENDIX A

Mobility Master Plan Vision and Guiding Principles

The vision for the Mobility Master Plan was approved by Council in December 2022, and is as follows:

In 2050, Londoners of all identities, abilities and means will have viable mobility options to allow them to move throughout the city safely and efficiently, as well as providing connectivity to the region. The movement of people and goods will be environmentally sustainable, affordable, and supportive of economic growth and development.

The vision and guiding principles were developed in alignment with key City of London Plans and Strategies including:

- Council's Strategic Plan
- London's Official Plan which is referred to as The London Plan
- Climate Emergency Action Plan (CEAP);
- Safe Cities London Action Plan;
- Conceptual Framework for Regional Transportation in London; and
- other plans and strategies.

These existing plans and strategies include a number of relevant transportation and mobility policies and objectives, including:

- Growth in the city is more inward and upward with the highest densities directed to the Downtown, Transit Villages and Rapid Transit Corridors
- Designs reflect a complete streets approach which balance the needs of all road users
- People can access neighbourhood amenities and transit within a 10-minute walk
- Transit is affordable, reliable and efficient and can get you where you need to go when you need to be there
- People feel safe moving around the city and do not experience violence, harassment, racism or discrimination
- GHG emissions from transportation are eliminated
- There are sidewalks on both sides of most streets
- There is a connected network of safe and comfortable bike facilities

Feedback collected throughout 2022 confirmed that the vision is in line with Londoners' current needs and aspirations for the future.

Five guiding principles, as shown in Figure A-1, were also prepared to establish the framework for the decision-making process for the development of the Mobility Master Plan. They are proposed to ensure that the policies and actions developed through the Mobility Master Plan work towards achieving the vision. Similar to the vision, the guiding principles were reviewed and refined through community consultation and were approved by Council in December 2022.

Figure A-1: Mobility Master Plan Guiding Principles

APPENDIX B

Proposed Strategies to Achieve the Vision

1. Use the Mobility System to Support London's Desired Future Land Use

The London Plan describes the inextricable relationship between land use and mobility. Where homes, businesses, services, and jobs are located impacts where and how people travel around London. Higher-density development and mixed-use areas that combine residential, commercial, and other land uses are key components of a transportation and mobility network that are supportive of each other. This integration leads to shorter travel distances that, when combined with high-quality transit service and comfortable walking and cycling facilities, makes accessing destinations without a vehicle more viable and enjoyable.

Given the significant GHGs emitted from vehicles, these types of walkable and complete neighbourhoods where Londoners' daily needs are nearby and can be accessed without a vehicle are a key component of the CEAP.

London's future land use will continue to be a mix of areas with varying densities and uses. As such, the MMP needs to explore opportunities that advance the mobility vision within all land use contexts and support the development of compact mixed-use communities.

The MMP will be exploring opportunities that focus on enabling increased density in those areas defined in The London Plan as Transit Villages and along Rapid Transit Corridors, as well as increased density and a greater mix of uses in greenfield areas, in addition to encouraging the provision of context-sensitive multi-modal travel services across all land uses.

2. Make Transit the Option of Choice for More Trips

London Transit plays an essential role in the city's mobility system, serving over 20 million trips annually prior to the COVID-19 pandemic, with ridership having nearly recovered to pre-pandemic levels by 2022. Transit ridership has also increased by 9% between 2011 and 2019.

Despite this, there are challenges to increasing transit ridership that need to be addressed. Challenges include long travel times for cross-city trips, longer travel times by bus compared to personal vehicles, infrequent service on some routes, and buses that are slowed due to congestion on city streets making travel times long and unreliable.

Consistent with other large and growing cities, expanding and improving transit service and associated infrastructure to make it a viable and attractive mobility option for more trips in London will be a key component of moving more people efficiently as London's population continues to grow.

To make transit the option of choice for more trips, potential opportunities will focus on making transit more attractive such as improved frequency, travel time, reliability, and first/last mile connections. Encouraging denser mixed-use development that promotes transit use and developing transportation demand management (TDM) policies and programs to encourage more transit trips will also be considered.

3. Make Walking and Cycling Attractive Mobility Options to Meet Daily Travel Needs

Walking and cycling have an important role to play in London's future mobility system as environmentally sustainable, affordable, space-efficient and healthy travel options. Currently, gaps in London's sidewalk and protected cycling networks make the viability of active mobility inconsistent across the city. As a result, many Londoners do not have access to safe and comfortable mobility options to access daily needs. Mobility options that do not feel safe or comfortable are less attractive to Londoners.

However, approximately 40% of morning peak period car trips in London are 3 km or less. Many of these shorter trips are well-suited to active mobility options, which means there is significant potential to increase active mobility.

To make walking and cycling attractive mobility options, the MMP will explore improved infrastructure and policies that enable both neighbourhood and cross-city walking and cycling, for people of all ages and abilities in all communities. This could include protected cycling lanes, safe intersections, connected and comfortable sidewalks. It would also include transportation demand management programs and supporting the development of compact mixed-use communities to reduce trip distances.

4. Strategically Manage Road Capacity at Key Locations

Despite the goal of decreasing reliance on personal vehicles, a key function of the road network continues to be the efficient movement of vehicles including personal, freight, and service vehicles. Congestion is an issue during peak periods on the major road network and this will continue with forecasted population and employment growth. In addition to slowing goods movement in the city, increased travel time caused by congestion makes access to jobs and services more challenging for those that need to drive and for people taking transit.

The MMP is aiming to be strategic about the design and location of road capacity improvements to create a more sustainable system and create a more livable attractive city. By strategically focussing new capacity towards meeting the needs of new developments and then augmenting the existing and robust road network through targeted initiatives at key locations, London can improve conditions while minimizing the need for costly new major infrastructure.

To strategically manage road capacity, the MMP will also explore transportation demand management opportunities that facilitate options to driving alone that will maximize the efficiency of the existing road network and increase the multi-modal people-moving capacity of corridors.

5. Support London's Role as a Regional Hub

As a regional hub that is home to major healthcare, post-secondary education, employment, recreation and entertainment opportunities, London has an important role in supporting mobility for people from surrounding communities and this demand will continue to increase as London and neighbouring municipalities grow. The recent announcement of new large employment and logistic centers in the region will also impact how people and goods move between and within London, surrounding communities and other locations across the province. As the largest centre in the region with direct connectivity to the provincial freeway network, London and its mobility network will play an important role in supporting this regional development including the movement of people and goods across all modes including transit, road, rail and air. London's VIA Rail train station and London Airport reinforce London's role as a regional

hub by providing services for longer distance trips and connectivity to London from afar. London Airport and CN and CP rail lines also support regional goods movement in and out of the city.

London's services, opportunities and amenities serve residents but also the many communities that surround London, contributing to the city's economic prosperity. In the morning peak period, nearly 10% of all trips in London originate from outside of the city.

While some inter-municipal transit options have recently been created and are growing, these are limited, meaning most of the travel demand coming from outside of London is personal vehicle demand, contributing to traffic congestion and GHG emissions. The mobility system has a role to play in maintaining and strengthening London's role as a regional hub and enabling access to essential services and employment located in the city.

As part of the MMP, opportunities that will be explored include working with other jurisdictions to provide more inter-municipal transit and multimodal mobility options, exploring park and ride facilities for regional travellers, and supporting the planning and development of potential improvements to passenger rail service in Southwestern Ontario.

6. Put People First on London's Streets

London's streets are the backbone of the mobility network, providing far-reaching access to every corner of the city. London's street space is also a scarce resource that is in high demand. Over previous decades, many of London's streets have been designed primarily to serve the movement of vehicles. This has made safe, convenient, and comfortable mobility and access challenging for people moving by other modes. It also creates traffic frustration and dissatisfaction for many residents. To accommodate growing travel demand and to improve efficiency, safety, sustainability and equity, the design of London's streets needs to focus on movement of and access for people using all modes.

Opportunities that will be considered in the next phase of the MMP to put people first on London's streets will focus on identifying mechanisms to consistently implement multi-modal mobility options throughout the city. This could build on London's existing Complete Streets policies, with an emphasis on road safety, personal security and optimizing the people- and goods-moving capacity of London's mobility system.

7. Provide a Mobility System that Enables More Equitable Participation in City Life

The mobility system is critical for providing access to daily needs and enabling full participation in city life. As such, an equitable city needs a mobility system that works for everyone. However, many Londoners face barriers to accessing the city. This has been cited as a contributor to London's lower-than normal labour market participation rate. Barriers can take many forms, for example the mobility options available to each Londoner can dictate what job or recreational opportunities exist within a reasonable travel time. Available mobility options can also influence affordability and not feeling safe while moving around the city.

The MMP is incorporating equity at its core and will seek opportunities to use the mobility system to achieve a more equitable city. Equity considerations will be embedded into the MMP engagement, network, and policy development processes.

Opportunities that will be explored to enable more equitable participation in city life will focus on integrating mobility equity into City policies and processes. This could include consultation, maintenance considerations, and project prioritization and design with the aim of contributing to mobility equity.

8. Prepare for Change

Much has changed since London's last Transportation Master Plan approval in 2013 and society will continue to evolve over the coming decades. Some prominent trends that will shape long-term planning for London's mobility system include climate change, and the continued recovery from the COVID-19 pandemic. London is also experiencing a rapidly increasing and aging population that includes immigration from other communities with more public transportation options. Remote work scenarios and the emergence of new technologies and business models impacting mobility, such as ride-hailing, connected and autonomous vehicles, and zero emission vehicles will also influence the mobility system. Of great importance, with personal vehicles making up 31% of all GHG emissions in London in 2019, the mobility system has a large role to play in both meeting the 2050 net-zero emissions target and becoming more resilient to increasingly extreme weather.

Opportunities will focus on helping London manage a changing mobility landscape in a way that furthers the MMP vision through exploring improved data collection to monitor evolving travel trends, developing policy to promote more climate-resilient infrastructure, and exploring policies and programs to manage the arrival of new technologies and new business models in a way that supports the MMP vision.

APPENDIX C

Mode Share and Why it is Important

Mode share is the proportion of all trips that are made using each mode of mobility. For the purpose of the MMP, the various modes of mobility have been categorized as follows:

- Walking
  - including wheelchairs, mobility scooters or other mobility aids
- Cycling
  - including e-bikes, cargo power-assisted bikes, electric kick-scooters
- Transit
  - including specialized public transit
- Personal Vehicle - Driver
  - including motorcycle
- Personal Vehicle - Passenger
  - including carpooling, taxi, accessible taxi or other ride sharing service such as Uber.

Freight trucks are not included in the mode share because mode share captures person-trips. However, accommodating commercial freight traffic is very important in planning the London road network as the majority of the goods people rely on daily are moved by truck for at least part of their journey. Commercial and industrial activities generate a substantial amount of truck traffic and trucks of all sizes move throughout the city to make deliveries and connect to rail and air providers. The safe and efficient movement of goods is important for the economy and shippers and businesses benefit from reliable travel times. Trucks can benefit from higher use of non-vehicle modes because it helps manage congestion, minimizing travel times.

Road Congestion

Congestion is a common reality for growing cities. While it is a characteristic of a region's economic well-being, it also effects the economy and quality of life. Managing congestion is a goal of the MMP that will be delivered on through a variety of approaches. These include increasing road capacity through infrastructure improvements, making more efficient use of space by supporting sustainable modes, operational measures such as traffic signal improvements and transportation demand management programs such as carpooling and transit incentives.

Personal vehicles take up more space than any other form of travel, as shown in Figure C-1 below. As such, personal vehicles use most of the people-moving capacity of transportation corridors due to the amount of space required to move each individual. Transit, walking and cycling require less space.

Figure C-1: The space requirements to move 69 people by walking, bus, cycling and personal vehicle

Source: http://blog.cellbikes.com

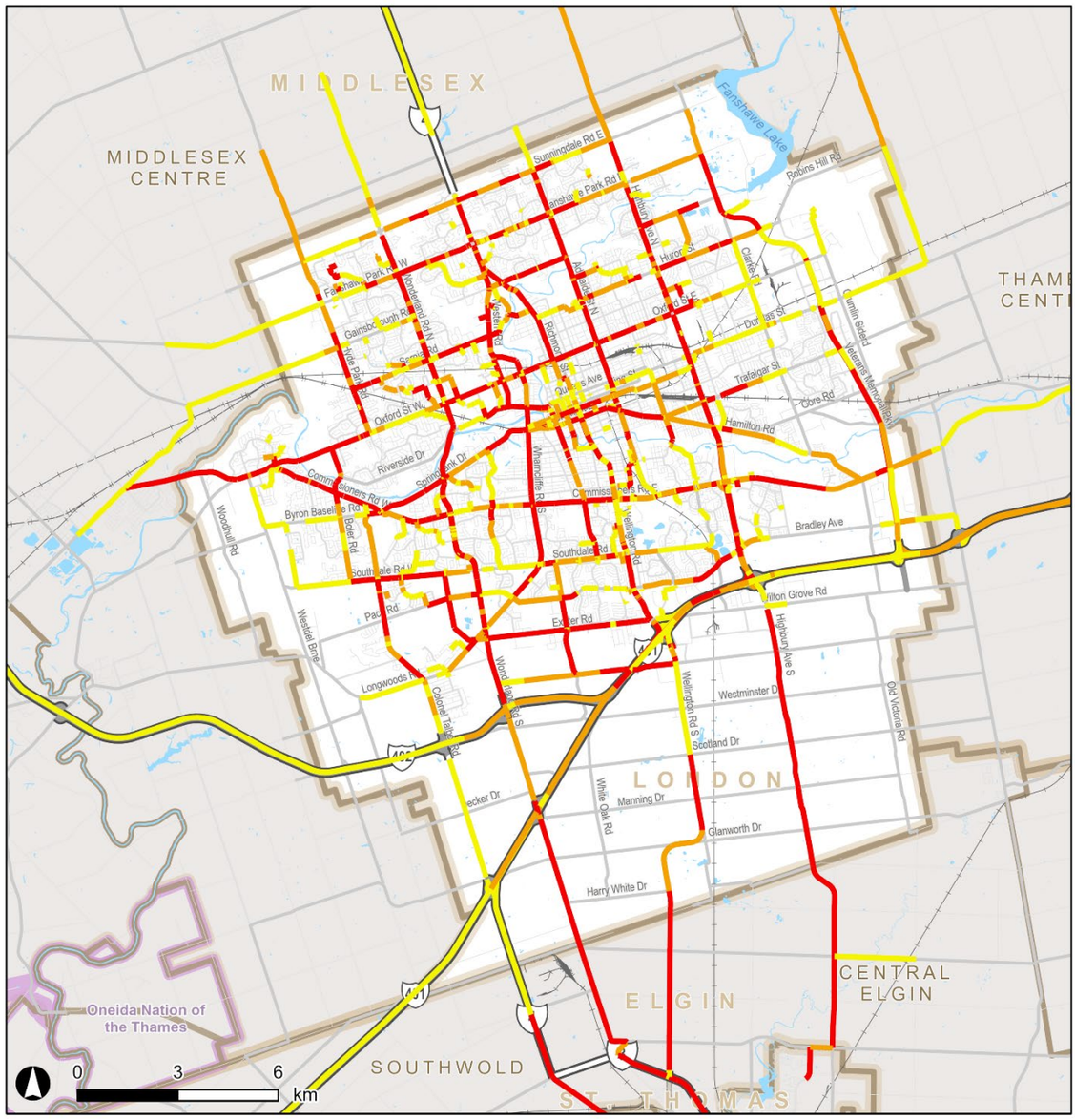
To manage congestion and increase the people-moving capacity of existing streets, London needs to increase the utilization of space-efficient modes by making walking, cycling and transit viable options for more trips. This frees up more space on the roadway for the trips which will remain by personal vehicle, as well as for goods movement.

Widening transportation corridors to accommodate more general traffic lanes is often suggested as a measure to improve traffic congestion. However, numerous studies show that adding new road capacity does not improve congestion beyond the short term. Adding road capacity makes driving more attractive and encourages people to drive further and for more trips. This phenomenon is referred to as “induced demand” and has been the subject of research within economics, transportation and planning professionals across North America where urban road networks have been observed to repeat a cycle of road building followed shortly thereafter by congestion.

Population Growth

As the population continues to grow, so does the number of trips by each mode. If the share, or percentage, of trips by personal vehicle remains the same, the number of personal vehicles on the road will grow, resulting in significantly increased congestion levels beyond what infrastructure expansion and operational measures can accommodate.

Figure C-2, below, illustrates the various levels of road congestion forecasted for 2050 based on how London is currently growing and moving as a city. The forecasted road congestion is based on a mobility network that includes the currently approved Bus Rapid Transit Routes (East London Link, Downtown Loop and Wellington Gateway) and other road projects included in the 20-year budget forecast. The modelling does not include the Rapid Transit projects that were not approved to application for external funding. It also does not include the Wonderland Road widening to six-lanes from Commissioners Road to Sarnia Road based on the recent application of the climate lens to transportation projects and subsequent Council direction to suspend the Discover Wonderland Environmental Assessment subject to the outcome of the MMP.



Legend

- Low Congestion
- Moderate Congestion
- High Congestion

Figure C-2: 2050 Forecasted Road Congestion Based on Currently Approved Project from the Current Transportation Master Plan

GHG Emissions

Mode share also directly impacts London's ability to meet its climate goals. About 43% of London's GHG emissions are generated by transportation including personal vehicles, commercial fleet vehicles, and goods movement. Figure C-3 illustrates the trend in transportation-related GHG emissions since 2005 for all transportation as well as for personal vehicles. As per CEAP, London is striving for net-zero emission by 2050 as well as an interim target to reduce community-wide emissions by 65% below 2005 levels by 2030.

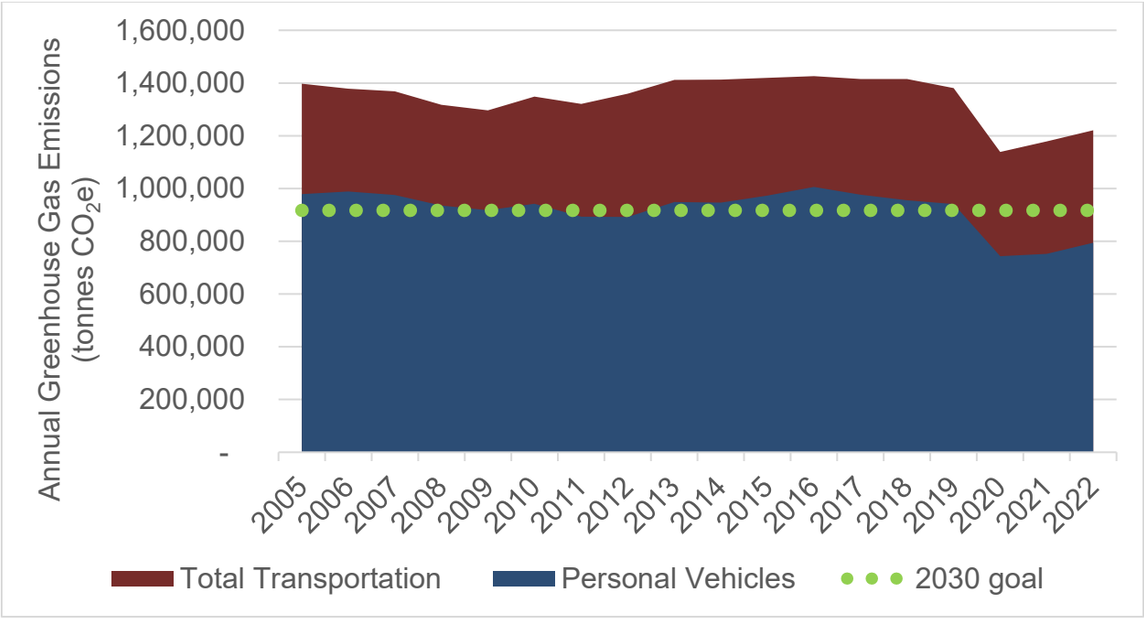


Figure C-3: Annual GHG Emissions from Transportation

The adoption of Electric Vehicles (EVs) and Connected and Automated Vehicles (CAVs) are part of the solution but not the complete solution. The pace of EV adoption in London is slower than the overall pace in Ontario and Canada as a whole. This is an important consideration given the need for significant near-term emission reductions to reach the 2030 emission reduction targets as well as the net-zero emissions goal for 2050. The use of EVs also does not address public health and safety concerns related to automobile dependency, such as road safety for people who walk and bike. The introduction of CAVs is also an evolution. Reducing the number of vehicle trips taken and the distance travelled by personal vehicles, including trips to and from London, remains a priority for local climate action.

To support achieving the CEAP climate goals, the MMP will identify policies and programs to support less reliance on personal vehicles. This could include transportation demand management strategies such as car-pooling and working with employers on corporate transit incentives.

Physical and Mental Health

In addition to the points above, increasing the percentage of trips by walking and cycling also supports a healthy lifestyle. Being physically active at any age has many physical and mental health benefits, such as lowering the risk of several chronic diseases (heart disease, stroke, high blood pressure, osteoporosis and certain types of cancer), obesity, reduced stress and improved mental health.

According to Statistics Canada, in 2018/2019 only 49% of adults and 44% of children and youth in Canada were getting the recommended level of physical activity to achieve optimal health benefits.

Equity

Reducing reliance on personal vehicles to make other modes of mobility more viable options, also relates to equity. Many people do not have access to a personal vehicle and/or are unable to drive. This limits their mobility options and what is accessible to them.

Based on Stats Canada, in 2019 the average household expenses were:

- $22,400 – shelter
- $10,400 – food

- $1,700 – public transportation
- $2,400 – health care
- $3,600 – clothing
- $11,200 - vehicle

In that same time-period the average after-tax income of 25 to 34-year-olds in Ontario was $43,500. A quarter of people were making $26,000 or less. Mobility costs (public transportation and/or vehicle costs) represent a significant portion of personal expenses.

Walking, cycling and transit can be more cost-effective choices for individuals but are less feasible and attractive in a transportation network dominated by personal vehicles. A lack of affordable, safe, reliable and efficient mobility options is a barrier to many in accessing and maintaining a job, childcare, education, health care, groceries and other everyday needs.

Infrastructure Planning

Mode share is an important metric which helps inform how cities invest in mobility infrastructure. Historically, transportation master plans have recommended improvements based on the forecasted vehicular demand. It is a process which is primarily driven by demand rather than a vision.

To achieve the vision of the MMP, future mobility needs will need to be determined within the context of achieving transformational goals and focus on the actions which support achieving them. The MMP process is primarily driven by the vision, with consideration for demand.

The London Plan and MMP Vision aims for a more attractive livable city based on policies that support walkable neighbourhoods, safe and connected cycling facilities, reliable and efficient transit, managing road congestion, and achieving London's climate goals. To achieve those goals, London needs to achieve a balanced approach to investing in all types of mobility infrastructure. The total number of people trips that the mobility system needs to accommodate will be determined based on forecasted population and employment growth. Mode share determines what percentage of those trips will be by each mode and the capacity needs of each type of mobility infrastructure.

Infrastructure planning within the context of achieving the Vision also helps manage the financial profile of capital growth programs.

Factors Influencing Mode Share

Current Mode Share

Current mode share is the baseline for how Londoners move around the city today and how much change is required to achieve a new target. The MMP baseline year for future comparisons is 2019, which is before the onset of the COVID-19 pandemic. The daily mode share in 2019 is shown in Table C-1 below.

Table C-1: 2019 Daily Mode Share

Mode	2019 (%)
Walking and Cycling	15
Transit	8
Personal Vehicle – Passenger	16
Personal Vehicle – Driver	61

The 2019 base year represents typical travel patterns prior to the significant fluctuations in travel witnessed immediately after the start of the pandemic where there was a significant decline in travel in general and transit ridership in particular. This serves as a stable baseline from which to plan.

The influences of the pandemic are being considered. While travel demand has largely recovered (pre-pandemic transit ridership has nearly returned and people are moving around the city in higher numbers), changes brought about by COVID-19 continue to influence travel. Among the more significant changes is the continuing trend of working from home. The future travel demand forecasts used to propose MMP mode share targets assume a continuation of some level of work from home for industries where that is feasible. While the population is forecasted to increase by 58% between 2019 and 2050, daily trips are estimated to increase by 49%.

It will be critical to monitor work from home and other trends throughout the life of the MMP. If travel demand increases faster than expected, it will be important to factor that into mobility planning**.**

Active Transportation Infrastructure

High quality walking, cycling and transit infrastructure encourages greater use of these modes. On the other hand, adding capacity for personal vehicles can encourage people to drive more and make the experience for those using active modes more difficult and unsafe.

Sidewalks play a crucial role in making communities more walkable. Without accessible sidewalks many are limited in how far they feel comfortable walking and what they can access.

The London Plan policy is that most streets shall have sidewalks on both sides, with some exceptions and this is a requirement for all new neighbourhoods. However, there are many existing neighbourhoods with limited sidewalks, in particular the ones built in the 1950’s to 1980’s. Sidewalks built in this era were designed with a focus on the personal automobile resulting in far fewer sidewalks, more meandering streets and wider roads. Currently there are over 400 kms of urban and neighbourhood streets with no sidewalks.

Sidewalks are being constructed in these neighbourhoods through local road reconstruction projects, infrastructure lifecycle renewal projects, and through the New Sidewalk Program, which is informed by community requests. In support of these projects and programs, the City is preparing neighbourhood connectivity plans as a guide for the priority installation of new sidewalks in legacy areas of the city with limited sidewalk connectivity. Staff have developed a community engagement strategy to guide communities in thinking holistically about pedestrian connectivity in their neighbourhood.

The lack of sidewalks on major roads to developing greenfield areas is also an issue. An example is the lack of walking connectivity between Victoria on the River to the rest of the city. Adding sidewalks to streets like Commissioners Road East and/or Hamilton Road may require the road to be upgraded from a rural cross section with deep ditches to an urban cross section with curbs and storm sewers. The timing of road reconstruction projects like this may be influenced by other needs such as servicing and other coordinated improvements. Providing safe walking and cycling connectivity to new neighbourhoods separated from the existing network can be a challenge.

MMP feedback from Londoners indicates that the sidewalk network is not expanding fast enough.

With respect to cycling infrastructure, the London Plan policy is to plan for and create a continuously linked cycling network throughout the city. Many people shared that they want to bike more but feel unsafe doing so. A recent poll found that fear is the biggest obstacle to cycling more for 48% of Ontarians (Source: Crestview Strategies, April 2023). There is a strong desire for more separation between people on bikes and drivers.

Currently, London’s network includes 35 km of protected and in-boulevard bike lanes as shown in red on Figure C-4. These bike facilities have a physical separation between the bike lane and traffic such as a concrete curb.

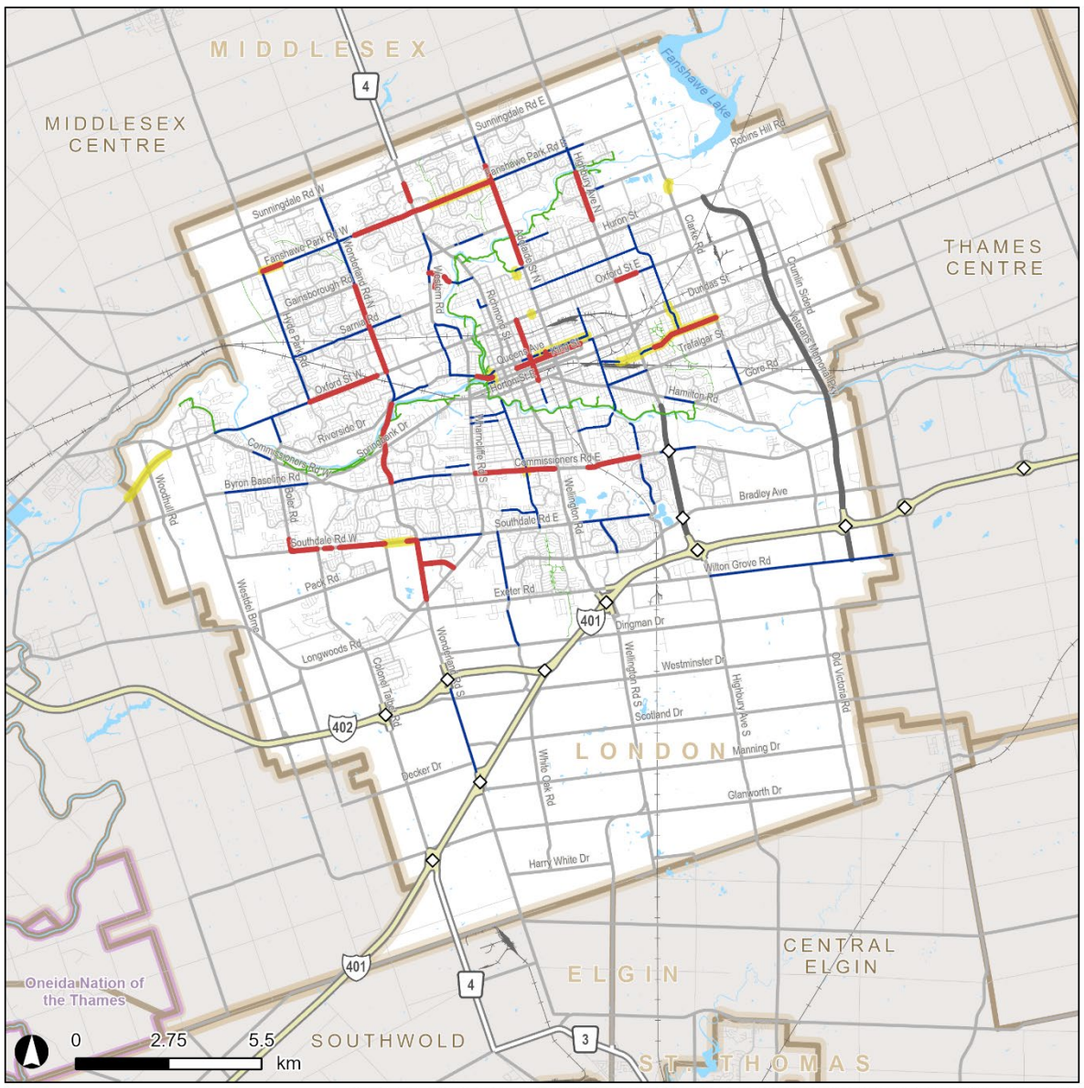


Figure C-4: Cycling Facilities in London

Plans are in place to implement 35 km more protected cycling facilities over the next five years. There is more cycling as a result of new infrastructure. The core cycling network has seen 50% year-over-year growth, with an average of 600 riders a day riding on the new lanes on Colborne and Dundas Streets in recent months.

Although London has made progress in recent years, the cycling network remains disconnected and has some important gaps to fill. Currently only 23% of residents are within 500 m of a protected bike lane and those protected bike lanes still do not extend far enough for many trips due to gaps in the network.

London enjoys 45 km of pathways along the main spine of the Thames Valley Parkway (TVP) along with 140 km of secondary pathways which are also continuing to grow based on the 2016 Cycling Master Plan. The TVP is well used.

Due to the high volumes and varying uses, demand exists for parts of the TVP to be widened or twinned.

Maintenance of Active Transportation Infrastructure

Winter maintenance of existing sidewalks and cycling facilities directly impacts how people choose to move around the city. It can be a challenge for many to walk or cycle in the snow and ice. Every bus trip starts and ends with a walk, so sidewalk winter maintenance also impacts transit use.

Every winter, many Londoners share that snow and ice are a barrier to moving around the city. In 2019, Civic Administration completed a review of winter maintenance program supports which outlined options for improved winter maintenance on sidewalks and streets. The current Provincial Minimum Maintenance Standards (MMS) for sidewalks is 8 cm of snow accumulation before equipment is deployed and it allows 48 hours after the snowfall ends to clear the sidewalk. Council directed additional funding to improve this sidewalk threshold to 5 cm. This was reaffirmed in the 2023 budget update. It was a decision supported by many Londoners, however many public voices indicate that further improvements are needed.

Civic Administration also receives many requests related to winter maintenance of cycling facilities. The pathway system is also an important recreation and mobility connection for people walking and cycling, and staff have heard desires for improved winter maintenance of it as well. On-street bike lanes are subject to the provincial Minimum Maintenance Standards (MMS) that require snowplowing. Pathways and in-boulevard bike facilities are not subject to the MMS. The current City standard is that pathways, including parts of the Thames Valley Parkway, are treated similar to sidewalks and cleared once 5 cm of snow has accumulated and within 48 hours after snowfall has ended. To mitigate negative environmental impacts, pathways are generally not salted or sanded. In-boulevard cycling facilities are not currently plowed.

The condition of sidewalks and some cycling facilities is also a concern for many residents. Currently about 2% of sidewalks are considered in poor to very poor conditions. That is equivalent to approximately 30 km of sidewalk. This can be a challenge and safety concern for those with visual impairments, balance concerns, and those using wheelchairs or other mobility aids.

Transit Service Levels

Increasing transit service often leads to substantial increases in ridership because the service is more useful for everyone. Longer operating hours and more frequent buses means passengers can travel when they want to, wait less, and have the freedom to change their plans.

Land Use, Population and Employment Density and Location

Areas with high concentrations of people and jobs result in destinations that are closer together and require shorter trips. Short trips are more conducive to walking and cycling. Concentrating people and jobs closer also makes providing transit service more efficient and effective as there are more people destined for these areas.

Directing population and employment growth along Rapid Transit Corridors and in Transit Villages supports higher-order transit service, which benefits the entire transit network. Dispersed pockets of people and jobs are less efficiently served by transit.

Land use composition and growth distribution are major influencing factors on mode use. Increasing density and encouraging a varied range of land uses (combining residential, commercial, and other land uses) are essential to making walking, cycling, and transit trips viable. Neighbourhoods with these characteristics tend to reduce the amount residents need to drive as origins and destinations are closer together. Research indicates that each 10% increase in population density typically reduces the 'per capita vehicle km travelled' (VKT) by 1 to 3%. Dense mixed-use neighbourhoods are even more effective, typically reducing VKT by 5 to 15% compared to single-use neighbourhoods.[c]

Table C-2 presents guidelines on transit service by population and employment density. These should be considered as guidelines for future development and should not be taken as required thresholds for certain levels of service. The densities noted below are consistent with The London Plan density targets for Protected Major Transit Station Areas. Providing service that exceeds these thresholds is often warranted and beneficial for growing transit ridership. However, lower densities combined with higher levels of service means more transit service is required per capita to serve these areas.

Table C-2: Transit Supportive Density Guidelines

Land Use Type	Density (People and Jobs Per Hectare)	Transit service type(s) that these densities are most conducive to
Very High Density	More than 200	• Rapid Transit (headways under 5 mins)
High Density Urban	100-200	• Rapid Transit • Frequent Transit (bus every 10 mins)
Low Density Urban	50-100	• Frequent Transit • Local Transit (bus every 30 mins)
High Density Suburban	30-50	• Local Transit • Demand-responsive transit connecting to hubs
Low Density Suburban	10-30	• Demand-responsive transit connecting to hubs
Very Low Density	Less than 10	• No service

Source: Metrolinx. 2017. Transit Needs and Opportunities – Background Paper for Regional Transportation Plan Review.

Trip Length

There are already many short trips in London – nearly 40% of all trips within London are 3 km or less and an additional 32% are between 3 and 7 km as per Table C-3. Most of these trips are currently made by personal vehicles, with vehicle-oriented land use being a significant contributing factor. Building more compact and active mobility friendly communities and investing in a connected network of sidewalks and protected cycling facilities can help support the use of walking and cycling for some of these shorter trips. From a GHG perspective, longer distance trips are important and are typically best suited to transit or carpooling.

[c] Victoria Transport Policy Institute. TDM encyclopedia – More efficient land use management.

Table C-3: Trip Length Distribution for Daily Trips Within London (2019)

Trip Distance	Proportion of Daily Trips (%)
0-3 km	38
3-7 km	32
7-15 km	26
15 km+	4

Source: London Travel Demand Model

APPENDIX D

2030 TMP Mode Share Targets and Current Status

Peak Period vs. Daily Mode Share

The current 2030 TMP proposed weekday peak period mode share targets. The peak period represents the morning and afternoon “rush hours” and are the busiest travel times of the week.

The MMP is proposing to use daily targets, which means that the targets would apply to all trips throughout the entire day. This is the preferred approach for the MMP because people travel at all times of the day and a daily target provides guidance for mobility decisions that will benefit everyone, not just those that travel during peak periods. Working towards an ambitious daily target means maximizing the number of walking, cycling and transit trips by providing Londoners with quality walking, cycling and transit options that enable access to a wide variety of destinations throughout the city, rather than only focusing on typical peak period trips. Working towards a daily target can be more financially sustainable and also means building more compact communities that provide more amenities and destinations closer to home.

The 2030 TMP mode share target for 2020 and mode share trends are summarized in Table D-1 below. For the 2030 TMP mode share targets, only peak period mode share information was presented in the 2030 TMP. Daily mode shares have been estimated based on factors between daily and peak period mode shares from the 2016 Household Travel Survey. Additionally, mode share totals from the 2030 TMP do not add up to 100% due to the inclusion of an “Other” category.

Given the significant impact that the COVID-19 pandemic had on travel patterns in 2020, 2019 data has been used to assess progress towards the 2030 TMP target. The 2019 mode share was estimated using the London Travel Demand Model. The model was updated to reflect 2019 conditions from the previous 2016 version that was developed based on the 2016 Household Travel Survey. This update included adding 2019 population and employment, updating the transportation network to reflect projects completed between 2016 and 2019, and including transit service changes to reflect service in 2019. The model was also calibrated to 2019 conditions using City of London traffic counts, LTC boarding data and ‘big-data’ travel demand data.

Table D-1: 2030 TMP Mode Share Target for 2020 and Mode Share Trends

Mode	2009 Actual (%)		2020 Target from 2030 TMP (%)		2019 Actual (%)	
	Peak Period	Daily	Peak Period	Daily	Peak Period	Daily
Walking and Cycling	9	9	11	10	17	15
Transit	13	11	15	14	9	8
Personal Vehicle - Passenger	11	14	68	75	12	16
Personal Vehicle - Driver	63	63			62	61

Note: Only peak period mode share target information was presented in the 2030 TMP with personal vehicle drivers and passenger combined. Daily mode shares have been estimated based on factors between daily and peak period mode shares from the 2016 Household Travel Survey. Additionally, mode share totals from the 2030 TMP do not add up to 100% due to the inclusion of an “Other” category.

Walking and Cycling Trends

As shown in Table D-1, an increase in walking and cycling trips was observed between 2009 and 2019. Active transportation data collection during this ten-year period was a growing and evolving action for the City of London. Improvements to active transportation data collection methods were likely able to capture more active transportation trips, leading to a higher proportion of total trips made using active modes.

Other available data on walking and cycling trends was also reviewed to provide insight on increased walking and cycling trends. Between 2010 and 2018, EcoCounter automatic counters were introduced on pathways and on-street bike lanes. The technology was first tested and, by 2018, the program had expanded to eleven locations city-wide. Many locations did not have sufficient data to make year-over-year claims about active transportation patterns. However, the EcoCounter data generally indicates that active travel grew year over year in London.

Transit Trends

As shown in Figure D-1, the total number of trips taken by transit increased from 2011 to 2019. While the total number of trips has increased, the average number of trips per person (trips per capita) has been declining. This trend has occurred because population growth has outpaced the number of trips.

The 4% decline in the number of trips per capita is comparable with the transit daily mode share decline from 12% to 9% from 2009 to 2019.

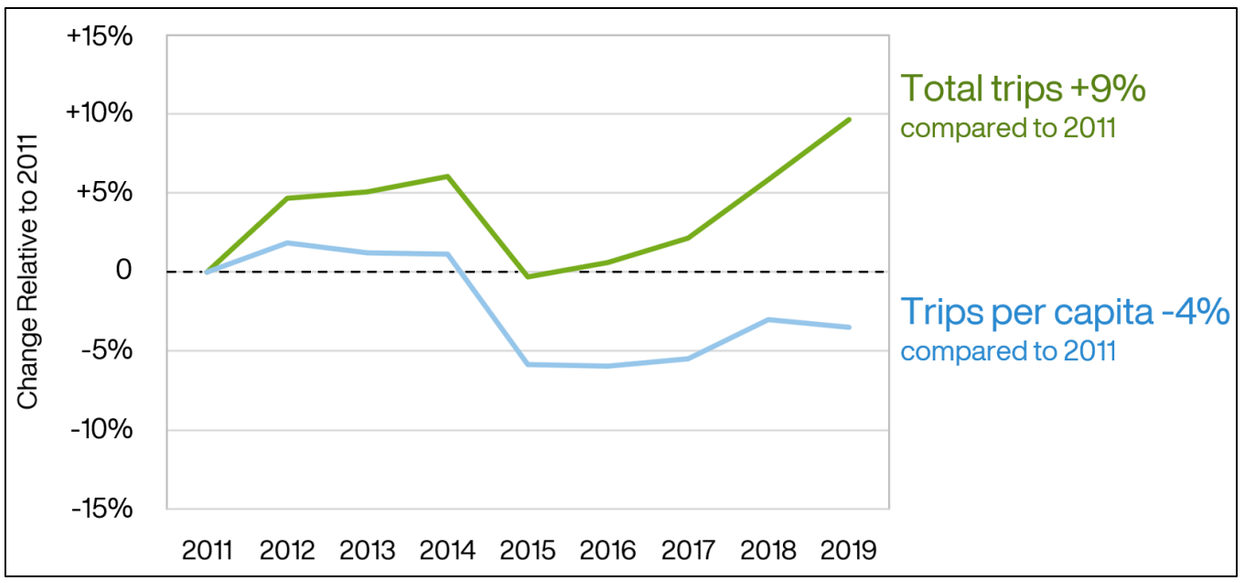


Figure D-1: Change in Transit Demand, 2011 to 2019

Source: CUTA Statistics

Note: Data from 2020 and 2021 have been excluded to illustrate trends prior to COVID-19.

Along with the increase in the total number of trips, the total number of revenue vehicle hours has also been increasing as shown in Figure D-2. The increase in revenue vehicle hours has slightly exceeded population growth (revenue vehicle hours per capita). Areas benefitting from the increased service included targeted higher frequency service on high ridership routes to reduce the frequency of crush capacity conditions to improve service.

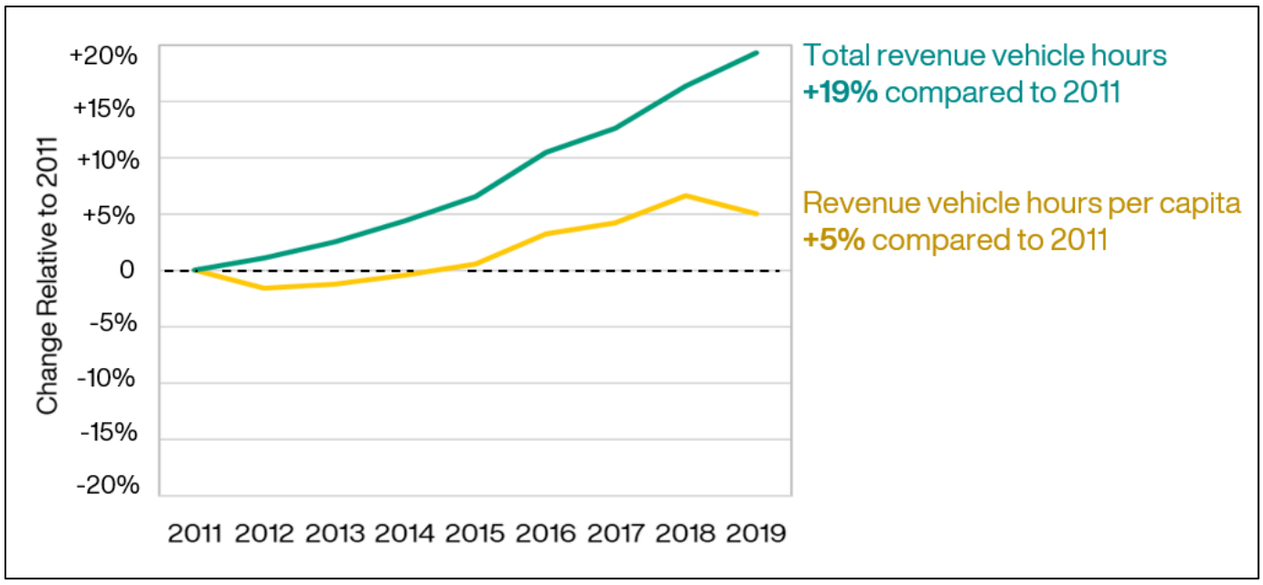


Figure D-2: Change in Transit Supply, 2011 to 2019

Source: CUTA Statistics

To have achieved the 2020 transit mode share target set in the 2030 TMP, total number of transit trips needed to have more than doubled from 2009 to 2020. Actual transit trips increased 28% between 2009 and 2019[d] as shown in Figure D-3.

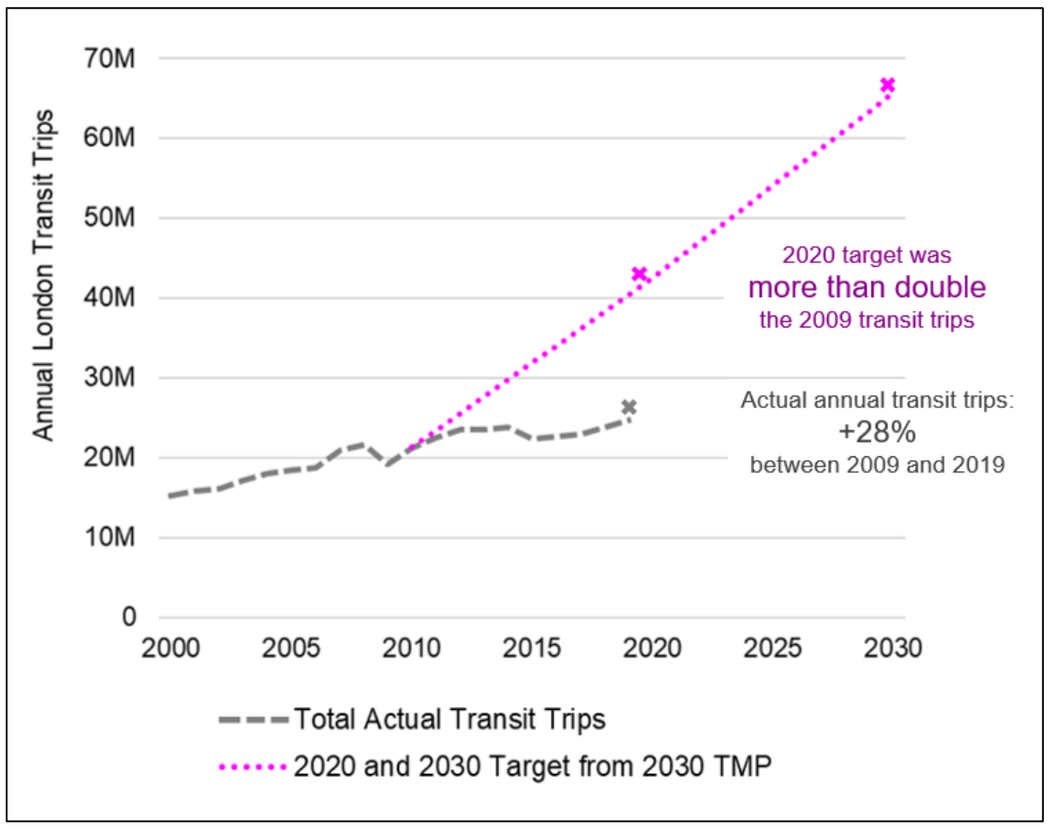


Figure D-3: Forecast London Transit Ridership for 2030 TMP Mode Share Targets

Source: CUTA Statistics; London Travel Demand Forecasting Model

Note: Given the significant drop in transit use in 2020 due to the COVID-19 pandemic, 2019 actual CUTA ridership statistics were used to assess progress towards the 2020 target, rather than 2020 actual CUTA ridership statistics.

[d] Given the significant drop in transit use in 2020 due to the COVID-19 pandemic, 2019 actual CUTA ridership statistics were used to assess progress towards the 2013 TMP target

Infrastructure Implementation

While comparing the current transit mode share against the interim 2020 target, it is important to recognize that implementation of some of the rapid transit recommendations in the TMP are ongoing and not yet in service.

The 2030 TMP was finalized in 2013. One of the foundational recommendations to grow transit use was to implement a rapid transit network that could provide a viable mobility alternative for more Londoners. The planning, approvals, funding and implementation of large infrastructure projects is a lengthy process. Currently, the City is completing three major infrastructure projects as part of a rapid transit network. The completion of these projects and provision of the higher-order service in the coming years will make transit a more viable option for many trips. The beneficial impacts to transit mode share from this initiative will begin to be realized in the near-term.

The construction of infrastructure to support walking and cycling has a much shorter lead time and is more conducive to phasing. The increased construction of sidewalks, cycling facilities and pathways to support walking and cycling based on the 2016 Cycling Master Plan and annual programs such as the New Sidewalk Program and Infrastructure Renewal Program may have contributed towards the success in exceeding the active modes target. Similar to rapid transit, active transportation has benefitted from significant provincial and federal funding since the completion of the 2013 TMP. Another positive contributor to the positive walking and cycling trend may be the introduction of complete streets standards and walkable communities for healthy lifestyles as part of recent residential and mixed use developments.

Land Use - Intensification Targets

The mixed success with the walking, cycling and transit targets may also be a function of shifts in London's land use pattern and growth distribution over the past ten years to develop compact mixed-use communities.

The pace at which the recommendations of the 2030 TMP were assumed to be implemented was ambitious, however progress is underway. The 2030 TMP helped inform the development of The London Plan. The London Plan included extensive community consultation and confirmand many of the mobility policies. It was approved by Council in 2016 and became fully in force and effect in May 2022.

The London Plan currently targets 45% of all new housing units to be built within the 2016 Built Area (as defined in The London Plan – Our City). The remaining 55% of units are planned to be built in greenfield sites within the Urban Growth Boundary, but outside of the 2016 Built Area. As shown in Figure D-4 below, the average intensification rate since 2016 is 39.2%, which is approaching the 45% intensification target.

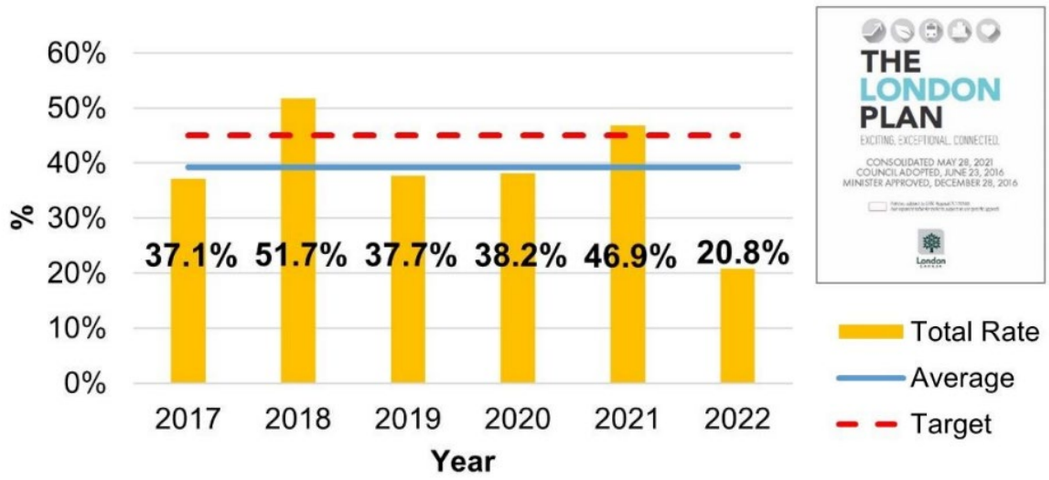


Figure D-4: Intensification Rate

While Central London and areas along Rapid Transit Corridors and Transit Villages can anticipate future intensification, these areas are geographically limited as currently planned and therefore may not achieve enough of the desirable densities noted in Table C-2 depending on future planning goals and supporting analysis. Larger geographic areas of continuous high-density development may be needed to reach the desired density to sustain transit service in an efficient manner. Future development will be directed by The London Plan policies that support intensification around planned Rapid Transit Corridors. New zoning regulations are also being developed to implement those policies and to help realize The London Plan goals. While The London Plan place types were developed to align land use and mobility objectives, higher intensity may be considered in some areas through future London Plan updates to ensure the land use pattern supports rapid transit investments. Ontario’s Bill 23 will also contribute by facilitating development with infill and slightly higher densities.

APPENDIX E

Climate Emergency Action Plan Goals

Transportation-related GHG emissions are largely a function of the total distances travelled by vehicles and the fuel efficiency of vehicles on the road. Any measure taken that reduces the number of vehicle trips taken will reduce emissions. This can be accomplished by walking, cycling, taking transit, carpooling, working from home, virtual meetings, trip chaining, etc. Improving vehicle fuel economy, along with low emission fuels and zero emission vehicles, will also reduce emissions. The Mobility Master Plan will be focussing on measures that reduce the proportion of personal trips that are conducive only to motor vehicle use and instead facilitating sustainable options.

The CEAP has the following 2030 Milestone Outcomes related to transportation emissions which will be considered throughout the MMP process:

Table E-1: CEAP 2030 Milestone Outcomes – Transportation Related

Expected Result	2030 Milestone Outcome
Walkable, Complete Neighbourhoods	Ensure the majority of Londoners live within an easy walk of their daily needs.
Increased Active Transportation and Transit	Strive to reduce the annual number of in-town personal vehicle trips per person in London by 30-50% from 2019 levels (around 550 trips per person)
More Zero Emission Vehicles	Strive for at least 50% of the km travelled on London's roads to be by zero emissions vehicles.

Impact of the COVID Pandemic on Transportation Emissions

The work-from-home measures taken for the COVID pandemic had a significant impact on transportation energy use in 2020 and in 2021 which continued in to 2022 with the total volume of fuels sold at gas stations being 15% lower in 2022 than it was in 2019. On a per-person basis, this works out to be about 20% lower.

Prior to COVID-19, vehicle ownership in London had grown by over 4% every year on average between 2010 and 2019, much faster than London's overall population growth. As of December 2019, there were almost 292,000 light-duty vehicles registered in London – an increase of almost 89,000 since 2010. When compared to London's population, vehicle registration increased from 557 vehicles for every 1,000 people in 2010 up to 711 vehicles in 2019. However, as of December 2022, the number of light-duty vehicles registered in London dropped to about 268,000 vehicles. This works out to 617 vehicles for every 1,000 people.

Google's Environmental Insights Explorer tool has provided data up to 2021, which identified a 27% increase in the amount of cycling from 2019 to 2021. This is consistent with other Ontario cities along with the emerging popularity of electrically assisted bicycles (e-bikes) and other forms of micromobility such as electric kick-scooters (e-scooters).

Throughout the MMP process the CEAP goal of striving to reduce the annual number of in-town personal vehicle trips per person in London by 30 to 50% from 2019 levels will be further considered. The detailed mobility modelling being undertaken for the MMP will provide an opportunity to consider what may be feasible and to build strategies to achieve. As a comparison, the estimated number of personal vehicle trips per person was 13% lower in 2021 during the pandemic.

The Role of In-Boundary vs Inbound and Outbound Trips on Transportation Emissions

Trips that start and end in London account for about half of transportation emissions according to estimates provided by Google's Environmental Insights Explorer. Inbound and outbound trips to and from London account for the other half due to the longer distances travelled and associated higher fuel use.

For inbound and outbound trips, personal vehicles account for virtually all of the trips taken. London currently has regional bus service and inter-community bus services connecting London with surrounding communities and other major provincial centres. VIA Rail has limited rail service between London and Toronto and GO Transit provides services between London and Toronto. Many of London's employers draw employees commuting in from regional communities such as Ilderton, Ingersoll, St. Marys, St. Thomas, Strathroy, and Woodstock. Many Londoners also commute to work to large employers in Ingersoll, Woodstock, Waterloo Region, and even the Greater Toronto and Hamilton Area. London residents are also expected to supply talent to new regional employers such as Amazon and Volkswagen near St. Thomas.

As a result, City of London programs promoting carpooling, transit and working from home will play an important role for reducing these inbound and outbound trips, including the future launch of a Transportation Management Association to serve Londoners and London's employers.

Given that about half of transportation-related GHG emissions are for in-town trips, encouraging mode shifts towards more walking, cycling, and taking transit will play an important role in reducing emissions alongside trip-reduction measures such as carpooling and working from home.

Pace of Transportation Electrification

Electrification will play an important role in reducing emissions. However, the pace of overall vehicle fleet turnover is slow. On average, new model year vehicles represent about 8 to 9% of all vehicles registered in London, with the average age of vehicle registered today being around eight years old. About 10% of vehicles registered today are over 15 years old.

As of the end of 2022, there were almost 2,100 electric vehicles registered in London, which represents 0.8% of all registered vehicles. In terms of new vehicles, 3.2% of new 2022/23 Model Year vehicles registered in London were electric vehicles. This is below the rates seen across Canada. As of the third quarter of 2022, Ontario's EV market share of 6.0% was below the national average of 7.7% and far behind British Columbia and Quebec at 15.6% and 11.8% respectively. London's EV market share was lower than Ontario's share due to the low availability of EVs in smaller markets like London.

Given these trends, mode share improvements remain an important means for reducing transportation emissions in the near term.

Impact of Electric Micromobility

As noted earlier, the emerging popularity of e-bikes and e-scooters are expected to increase the number of trips and the distance of trips taken by these modes. To support this, in 2023, the City of London joined the Province of Ontario's pilot project to test the use of privately-owned e-scooters, as well as cargo e-bikes for both personal use as well as commercial use.

Impact of a Warmer Climate

With climate change, winters are expected to be warmer in the future. As outlined in Canada's Climate Atlas, the number of Icing Days (days where the temperature does not exceed 0°C) in London over the 2021-2050 period are expected to drop to 42 days per year from the historical level of 59 days over the 1976-2005 period. As a result, there will be more winter days where conditions will be favourable for safe walking and cycling.

The changing climatic conditions also highlights the importance of resiliency of transportation infrastructure and ensuring that it is designed and built to withstand these changing conditions.

APPENDIX F

Draft Project Evaluation Framework

In addition to identifying robust policies, programs, and actions, the MMP will be developing short and long-term road, transit, and cycling infrastructure project recommendations through to 2050. At the master-planning level, only capital infrastructure projects that play a strategic role in the mobility system by adding people-moving capacity to accommodate projected growth are evaluated. This is because of the long-term strategic nature of the MMP.

As such, rehabilitation, maintenance, upgrade or amenity projects that do not change capacity or operational improvements that may impact capacity (i.e. traffic signal timing) are not included in the MMP infrastructure project evaluation. However, policies or actions in the MMP can be developed to guide these other infrastructure and operational projects that will also be an important part of the future mobility system.

Infrastructure Projects to be Evaluated

A list of all existing and newly identified potential capacity-related infrastructure projects will be evaluated as part of the MMP process to inform the creation of priority networks for infrastructure improvements. This list will include already documented capacity-related infrastructure projects (i.e. from the 2030 TMP, 2019 Development Charges Background Study, etc.) and additional projects identified through the MMP study process to address capacity-related issues/gaps. Types of projects that will be evaluated as part of the MMP are listed in Table F-1. Walking is not included in this detailed evaluation process because most sidewalks have sufficient capacity to accommodate future demand and there are existing policies that are implementing sidewalks on streets that currently lack them. The MMP will work to identify key connectivity gaps in the network and help to identify priority areas.

Table F-1: Types of Capacity-Related Infrastructure Projects to be Evaluated

Roads	Transit	Cycling
• New roads/bridges • Widening of existing roads/bridges • Inter-regional links	• Rapid transit • Transit priority corridors • Isolated priority measures • Inter-regional transit links	• New cycling facilities • Upgraded cycling facilities (i.e. converting from a shared facility ‘sharrow’ to a separated or protected facility bike lane) • New and upgraded multi-use trails

Draft Evaluation Framework

The MMP Guiding Principles and London’s identified mobility needs serve as the basis for evaluating projects, supporting a clear connection from the City’s policy direction and needs to the recommended networks. Projects will be scored based on one to three key indicators per Guiding Principle for each mode, depending on available data. Each of the five guiding principles are being weighted equally.

Projects will be scored in two phases:

1. **Benefit Score:** Evaluation against four of the five guiding principles including Environmentally Sustainable, Equitable, Healthy and Safe, and Integrated, Connected and Efficient.

2. **Cost Score:** Combining the benefit score with the lifecycle cost of the project (the Financially Sustainable Guiding Principle)

This two-staged approach sets a minimum threshold for the benefit score, preventing the pursuit of low-value investments. The benefit score threshold will be determined once project scores are available to enable calibrations with the range of actual results.

Once projects are scored, additional analysis on network-wide considerations, feasibility and phasing will be conducted to determine final MMP project recommendations.

Infrastructure recommendations will be developed by evaluating them under a “target” scenario. The “target” scenario represents London’s desired future and enables the MMP to identify projects, policies and programs to achieve that. Specifically, the target scenario is one where London’s mode share target is achieved.

Projects in each category will be assessed relative to other projects in the same category to account for the significant difference in cost and impact of each of these types of projects (i.e. inter-regional road links will be evaluated against other inter-regional road links).

The draft scoring frameworks per mode are listed below:

Table F-2: Draft Capacity-related Road Infrastructure Project Scoring Framework

Guiding Principle	How can a road infrastructure project advance this guiding principle?	Key Indicator
Benefit Score		
Integrated, connected and efficient	Travel time savings	Travel time on the road link in the peak period
	Facilitate goods movement	Heavy trucks in maximum peak period, adjacent to freight trip generators, and/or near rail facilities
Environmentally sustainable	Minimize the impact on natural heritage	Impact on natural heritage
	Potential for Induced Demand & GHG emissions	Projects that encourage people to make more or longer trips by driving will score lower
Equitable	Improve access for equity denied populations	Directly serves an equity denied population, with minimal or no negative impact (i.e. significant property impacts, loss of neighbourhood green space etc.)
	Provide services useful to people whose trip originates in an area with an equity denied population	Number of people using the project who live in an area with an equity denied population
Healthy and safe	Promote sustainable mode use	Integrates walking, cycling and/or transit facilities/features directly into the project
	Address a known/existing road safety issue	City of London Potential Safety Improvements (PSI) score

Guiding Principle	How can a road infrastructure project advance this guiding principle?	Key Indicator
Cost Score		
Financially sustainable	Provide good value for the financial investment	Lifecycle cost per point

Table F-3: Draft Capacity-related Transit Infrastructure Project Scoring Framework

Guiding Principle	How can a transit infrastructure project advance this guiding principle?	Key Indicator
Benefit Score		
Integrated, connected and efficient	Encourage increases in transit ridership	Number of additional riders who are expected to use the transit corridor in 2050 relative to today
	Travel time savings and reliability	Travel time on the road link in the peak period
	Provides good access to diverse destinations	Directly serves a variety of destinations including: • Downtown, Transit Villages, Institutional (including educational and health care institutions) and the Airport • Rapid Transit Corridor • Urban Corridor, Shopping Area, Main Street • Green Space, Heavy Industrial, Light Industrial, Commercial Industrial, Future Industrial Growth
Environmentally sustainable	Minimize the impact on natural heritage	Impact on natural heritage
Equitable	Improve access for equity denied populations	Directly serves an equity denied population, with minimal or no negative impact (i.e. significant property impacts, loss of neighbourhood green space etc.)
	Provide services useful to riders whose trip originates in an area with an equity-denied population	Number of riders using the project who live in an area with an equity-denied population
Healthy and safe	Promote sustainable and accessible mode use	Integrates walking and/or cycling facilities/features directly into the project
	Address a known/existing road safety issue	City of London Potential Safety Improvements (PSI) score
Cost Score		
Financially sustainable	Provide good value for the financial investment	Lifecycle cost per point

Table F-4: Draft Cycling Impact Analysis Scoring Framework

Guiding Principle	How can a cycling infrastructure project advance this guiding principle?	Key Indicator
Benefit Score		
Integrated, connected and efficient	Improve and expand cycling network reach and connectivity	The number of links that connect on either end of proposed link or midway through the link
	Serve areas of current or potential high-cycling-demand	Population and employment density within a 250 m buffer of the facility;
	Improves inter-modal connectivity	Connects with local or regional transit facilities
Environmentally Sustainable	Minimize the impact on natural heritage	Impact on natural heritage
	Encourage a shift towards cycling for short-distance trips (2 km or less)	Number of existing 3 km or less personal vehicle trips, within a 250 m buffer of the facility (personal vehicle trips weighted based on the size of the buffered area)
Equitable	Improve access for equity denied populations	Directly serves an equity-denied population, with minimal or no negative impact (i.e. significant property impacts, loss of neighbourhood green space etc.)
Healthy and safe	Provide good access to diverse destinations	Number of trip generators within a 250 m buffer of the facility (a preliminary list of destinations includes rapid transit stations, schools, parks, public facilities (i.e. libraries, community/recreation centres, etc.)
	Potential to improve safety in equity-denied neighbourhood	Collision History
	Project provides illumination or other personal security measures where none currently exist	The distance of cycling facilities that are illuminated or new measures
Cost Score		
Financially Sustainable	Provide good value for the financial investment	The cost of cycling projects is considered as part of a feasibility review when specific facility types are considered

Cycling project evaluation requires a slightly different considerations than for road or transit infrastructure projects. This is because of the scale and breadth of the cycling network (200+ links typically considered as part of a candidate cycling network) and the need to focus on implementation considerations (i.e. the feasibility of building an appropriate cycling facility along a given corridor).

Some additional considerations for cycling project evaluation include:

- Cycling facility feasibility review: Appropriate classes of cycling infrastructure must be identified for the roadway context (i.e., shared,

designated, or separated). The overall goal of the feasibility review is to identify the lowest impact approach to building appropriate and attractive cycling infrastructure.

- Cycling network lens: Cycling network spacing targets will help to inform the selection of links city-wide. The desired grid spacing of the network can be established on a gradient (i.e., denser spacing target within downtown area, lower target within suburban areas, denser grid within equity-denied neighbourhoods etc.) or can be uniform across the city. Specific targets will be developed in subsequent phases of cycling network development work. In general, the cycling network should:
    - Create a connected network;
    - Be visible and quickly accessible to promote and enable the viability of cycling;
    - Connect residents to school, work, and recreation, transit; and,
    - Attract new riders by providing a network of all ages and abilities facilities such as bicycle boulevards, protected bike lanes, cycle tracks and multi-use paths.

Developing an Integrated Multi-Modal Network

Once projects are identified for each mode, these will be combined into one multi-modal network. The goal of this is to evaluate and refine multi-modal project recommendations, within the context of the whole mobility system.

The multi-modal network evaluation includes two components:

- Integrating projects across all modes into one multi-modal network, providing appropriate connections between modes and determining/resolving conflicting projects where necessary; and,
- Evaluating the performance of the entire system and identifying any remaining gaps.

Mobility Master Plan Update

A Better London For All

Mobility Master Plan

Civic Works Committee

July 18, 2023

Sarah Grady
Traffic & Transportation Engineer

London CANADA

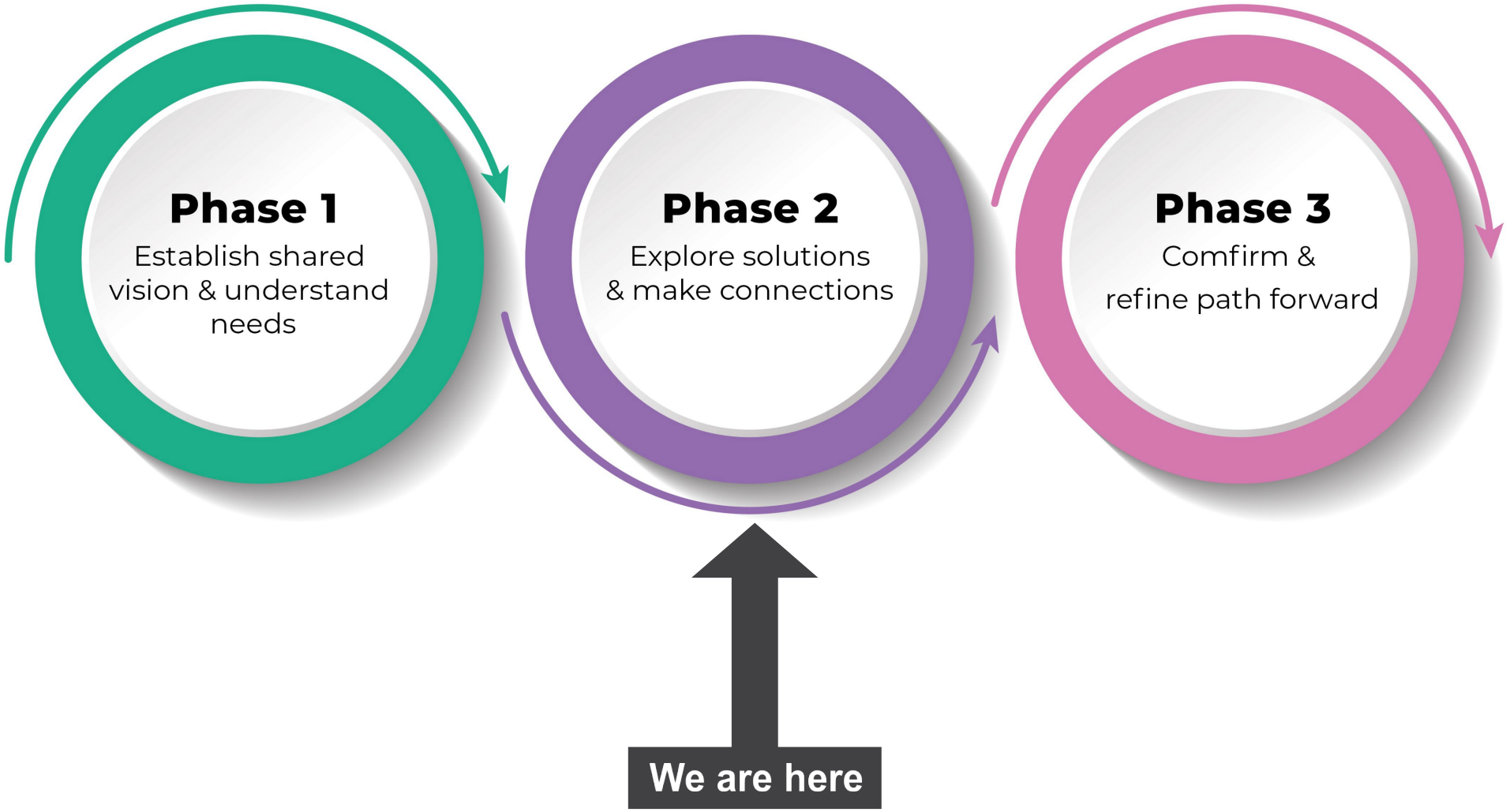
Purpose

The purpose of this report is to provide Municipal Council with information currently under consideration for the development of the Mobility Master Plan:

- Strategies in development
- Mode share target options
- Draft project evaluation frameworks

This report will be followed by another report to Civic Works Committee later this year that will make recommendations on these topics for Council approval after further public consultation on the content.

Process Overview



London CANADA

Strategies in development

1. Use the Mobility System to Support London's Desired Future Land Use
2. Make Transit the Option of Choice for More Trips
3. Make Walking and Cycling Attractive Mobility Options to Meet Daily Travel Needs
4. Strategically Manage Road Capacity at Key Locations
5. Support London's Role as a Regional Hub
6. Put People First on London's Streets
7. Provide a Mobility System that Enables More Equitable Participation in City Life
8. Prepare for Change

Mode share target options

Mode share is the proportion of all person-trips in the city that are made using each mode of mobility.

Mode share is an important metric for various reasons, including that it helps inform pressures on the mobility system and how cities should invest in mobility infrastructure.

Three mode share target options are discussed in the report.

Draft project evaluation frameworks

Developed based on the Guiding Principles:

Next Steps

- Continue to consult with the community
- Report with recommendations on these topics to CWC later this year
- Determine infrastructure needs based on forecasted capacity needs by mode
- Evaluate potential projects based on the project evaluation frameworks
- Develop a draft integrated multi-modal network
- Phase 2 public engagement event anticipated in early 2024

Meaningful community consultation will continue throughout all phases of the development of the MMP.

Phase 3 will continue throughout 2024 and will include the development of an implementation plan informed by project prioritization and project cost estimates.

Thank You

A Better London For All

Mobility Master Plan

From: londondev@rogers.com <londondev@rogers.com>
Sent: Friday, July 14, 2023 12:06 PM
To: CWC <cwc@london.ca>
Subject: [EXTERNAL] Delegation request for July 18th meeting Item: 4.3 Mobility Master Plan

Hello

Pleas see my request for delegation status for the 4.3 Item Mobility Master Plan at CWC on July 18th.

If have missed the deadline to request status I will contact the Chair directly asking for delegation status.

Let me know.

Thanks Mike

Mike Wallace
Executive Director
London Development Institute (LDI)
519-854-1455
londondev@rogers.com

Dear Colleagues,

The importance of transit in the Mobility Master Plan Update report to the July 18, 2023 Civic Works Committee has reinforced for me the importance of London Transit Commission in delivering not only the MMP, but many aspects of Council's 2023 to 2027 Strategic Plan.

This crucial role is occurring in the context of the need for LTC to lead or participate significantly in a number of important priorities, such as:

- The start of rapid transit operations on the East London Link, Wellington Gateway and Downtown Loop and the finalization of design of the last phases of these projects
- The electrification of the transit fleet and the London Transit Commission Highbury Avenue Facility Demolition and Rebuild
- Integration in London's rapid growth including London's Housing Pledge: A Path to 47,000 units by 2031, the City's role as a regional transportation centre and in support of economic development

By-law No. L.T.C.-1-158 provides that the Commission "shall consult with Municipal Council on local transportation system policy and on general administration and affairs in relation to general municipal policy". The relationship between Council and LTC will be more important than ever over the next few years and, as a result, would benefit from more structure than has generally been required in the past.

As such, I make the following motion for the consideration of the Civic Works Committee today:

That the London Transit Commission be formally requested to:

a) Develop a detailed 2023 to 2027 work plan providing clear information on how LTC will implement Council's 2023 to 2027 Strategic Plan, with particular focus on the Mobility and Transportation Strategic Area of Focus and its Outcomes, Expected Results and Strategies, but also on other Strategic Areas of Focus that are associated with LTC and its operations;

b) Report back to the Strategic Priorities and Policy Committee with the results of (a) at its meeting on October 31, 2023; and,

c) Provide, at minimum, semi-annual reports to the Strategic Priorities and Policy Committee starting in January 2024 and through the term of the Strategic Plan to allow for continued consultation with Municipal Council on local transportation system policy and on general administration and affairs in relation to general municipal policy as per the current Bylaw.

And, given the age of the Bylaw governing the relationship between the City of London and LTC, I further move that:

d) City staff be directed to review the current bylaw and report back with any recommended changes to reflect the necessary collaboration between LTC and the City of London in delivering on Council's 2023 to 2027 Strategic Plan.

Sincerely,

Josh Morgan, London Mayor

From: Andrew Hunniford [redacted]
Sent: Saturday, July 15, 2023 8:19 PM
To: CWC <cwc@london.ca>
Subject: [EXTERNAL] Agenda Item 4.3 July 18th, Mobility Master Plan Update Strategies, Mode Share Target Options and Project Evaluation Frameworks

Andrew Hunniford
[redacted]
London Ontario

Civics Works Committee

Subject: Recommendation to Increase Targets and Goals for Active Transportation in London

Dear Members of the Civics Works Committee,

I am writing to express my strong support for the consideration of increasing targets and goals for shifting the mode of transportation from single passenger vehicles to active modes, such as cycling, walking, and other forms of sustainable transportation. As an engaged resident of London and downtown business owner, I believe that prioritizing active transportation is not only crucial for the well-being of our community but also for the overall sustainability and livability of our city.

While there is no definitive deadline, it is widely recognized that urgent action is needed to mitigate the impacts of climate change and transition to a more sustainable future urgently. We took the steps to declare an emergency and should be looking to act accordingly.

https://getinvolved.london.ca/climate#:~:text=London's%20Climate%20Emergency%20Action%20Plan,and%20Make%20London%20More%20Resilient%E2%80%9D.

The Intergovernmental Panel on Climate Change (IPCC), a leading international body for climate science, has emphasized the importance of limiting global warming to well below 2 degrees Celsius above pre-industrial levels, having exceeded 1.5 degrees Celsius warming this year achieving this goal will require substantial reductions in greenhouse gas emissions within the next few years and far sooner than 2050 tragically.

I would like to commend the committee for its efforts in fostering a cycling culture and establishing Active Transportation Infrastructure. However, I strongly urge the committee to take bolder steps in light of the rapidly changing situation by setting higher targets and goals for active transportation, particularly cycling, and recommend the following measures:

1. Expand and Enhance Thames Valley Parkway: I recommend prioritizing the expansion of the Thames Valley Parkway network by adding new paths, improving existing routes, and ensuring better connectivity. This will create a more comprehensive and accessible network that connects key areas of the city, including residential, commercial, and educational zones. By doing so, we can encourage more residents to choose cycling as a safe and efficient mode of transportation.

2. Safety Upgrades: To increase the appeal and safety of cycling infrastructure, I recommend investing in safety measures along the cycling routes. This includes implementing protected

bike lanes, improving intersections, installing clear and visible signage, and providing adequate lighting. Enhancing safety will not only attract more cyclists but also contribute to a sense of security and comfort for those already utilizing the cycling infrastructure.

3. Collaborative Partnerships: I suggest fostering collaborative partnerships with local businesses, organizations, and community groups to promote active transportation. Initiatives such as bike-sharing programs, incentives for cyclists (e.g., discounts or rewards), and partnerships with employers to encourage cycling to work can significantly boost the adoption of cycling as a primary mode of transportation.

Increasing the targets and goals for active transportation aligns with our city's commitment to sustainability, public health, and environmental stewardship. By prioritizing cycling, walking, and other sustainable modes of transportation, we can reduce traffic congestion, improve air quality, enhance public health, and create a more vibrant and connected community.

[redacted]

I kindly request the Civics Works Committee to present this recommendation to the City Council and advocate for their support in setting higher targets and goals for active transportation. By doing so, we can pave the way for a healthier, more sustainable, and livable future for the residents of London.

Thank you for your attention to this matter and for your dedication to improving our city's infrastructure.

sincerely,

Andrew Hunniford

--

Andrew Hunniford

[redacted]

From: Andrea Loewen [redacted]
Sent: Sunday, July 16, 2023 7:57 PM
To: CWC <cwc@london.ca>
Subject: [EXTERNAL] Mode Share Options

Good morning, Civic Works Committee members,

I have read through the agenda for this week's meeting and wanted to connect with you regarding the *Mode Share Options* of the *Mobility Master Plan*.

MMP roll out is very slow:
Before sharing my thoughts on that, I wanted to say that the pace with which the *Mobility Master Plan* (MMP) is being rolled out is remarkably slow and hope that your team will be able to speed this whole process along. The amount of Carbon going into the air, the number of people moving to London, and the frequency of devastating weather events are all increasing.

Stop public participation and move on:
I have participated in all the MMP requests for surveys and opportunities to speak and am not sure why the public input is allowed to continue. I was at the *Home County Music & Art* festival this weekend where I discovered a City tent staffed by casual workers asking to complete the survey. The information has been gathered -- residents can't complain that an opportunity to speak wasn't provided. It's time to move on into action mode.

Can you please help the staff members move much faster and prevent this report from being sent back to staff to be turned around in months-time?

Mode Share Options:
Regarding the Mode Share Options, London cannot consider itself as a progressive city if Option 1 is chosen. Can you please strike that one off the list?

I prefer to see comparison information like what was provided in one spot so I created a spreadsheet for myself. I decided to share it with you in case using it is helpful. I have attached it as a PDF at the bottom of this email.

Option 3 is by far the best option even though it feels like a very low bar to anticipate 35% as an anticipated absolute percentage increase in walking, cycling, and transit use. Expecting one third of residents to move around NOT in a car is a very reasonable ask.

How can I help Londoners reduce their car trips? I would love to assist where I can -- our family of four rarely uses our one vehicle.

Regarding the idea to widen roads:
Lastly, having lived in Vancouver where growth just can't happen "out" because of hard boundaries like rivers and mountains, they have had to figure out how to grow "up." They also can't increase the width of roadways because they can't take the space. Let's use this same mindset for London.

Making roads wider does not reduce traffic congestion. Here is a site that outlines some current research on that topic. The important summary is this:

"This phenomenon, known as “induced demand,” has been proven to happen over and over again. **Numerous studies** have examined the evidence and concluded that adding road capacity fails to address congestion because it adds new drivers to the road and increases the overall distance driven."

Thank you for your attention. I appreciate the gravity and importance of the decisions your team is making.

With gratitude,
Andrea Loewen Nair

Co-Owner: The Core Family Health Centre, serving over 7000 patients with 6 family doctors
Co-Owner: Infinity School
Board of Directors, London Cycle Link
Member, Old South Business Association -- website forthcoming
Winner: Live Net Zero Challenge - national competition through *Canadian Geographic Magazine*

[redacted]

Mode Share Target Options

	Options	1	2	3
	Walk, Cycle, Transit Percentage	**25%**	**30%**	**35%**
	Percentage increase from 2019 (23%)	2	7	12
	Number of daily transit trips is expected to increase by...	59%	116%	148%
	Number of walking and cycling trips per day is expected to increase by...	62%	83%	113%
	Number of daily car trips is expected to increase by...	46%	35%	26%
	What does that mean for vehicle congestion	worse	this percentage is slower than population growth	this percentage is slower than population growth
How does City of London achieve the above?	Transit	Slight improvements to transit & cycling infrastruce at current pace, more land paved over for roads.	-double transit bus hours -buy more buses -need more bus storage -$ for improved transit functionality	-more than double with corresponding operating costs
	Land Use		-increased building heights & densities -city-wide proctected cycling grid -better sidewalks	"This would create a more costeffective service and make travel distances walkable/bikeable for more people" <-- Similar (density, height increase)
	Policies & Programs		-limit road expansion -better mobility options -culture of sustainable transport -new development has transit, cycling plan	<-- Similar with corresponding increases needed
	Road Network		Targeted capacity increases	Increases would be manageable

I am writing to you as a resident of old north and resident physician in the emergency medicine program at Western who formerly served as a paramedic with Middlesex London Paramedic service from 2006-2018. After having reviewed the vision and proposed options outlined in the mobility master plan (MMP) I am concerned London is continuing to pursue a vision of transportation infrastructure that is expensive, unsafe, inequitable, and inefficient. The assumptions that the MMP are based upon represent an outdated model of urban development that prioritizes personal vehicle travel at the top of a transportation hierarchy at the expense of the immense space and cost of doing so. I am asking the members of the civic works committee to view this report not through the lens of a collection of councillors struggling to manage a number of high-priority challenges, but from the perspectives of individuals who are tasked with shaping London for generations to come. With this perspective in mind, my hope is that you will consider a true *mode shift* to a model of transportation design that will revolutionize the way people travel in the London and introduce a paradigm that is based upon sustainability, efficiency, equity, and safety. With this approach London will be a more liveable city for all and a compelling location business and travel.

In reviewing all three options presented by the MMP update it feels as though they are really missing the mark on the degree of change that will be required for sustainability, let alone climate, safety, and equity targets. I'm afraid my familiarity with the London plan isn't comprehensive enough to comment on their land use plans, but there's no comment on the missing middle housing growth that's required to meet London's intensification targets and the housing targets that are intended to meet the current housing shortfall. Neighbourhoods like mine in old North are going to need to embrace multi-unit residences and low-rise buildings and to meet the 10-minute targets in the MMP we will also have to start seeing growth of small business in all neighborhoods that at this point seem to be prohibited, this is going to require opening up zoning citywide. Personal vehicle use targets under all three scenarios are markedly misaligned with what will be required for sustainable growth and all three options appear to be maintaining a vision of London that harkens back to the year 2000. It's not going to look that way in 2050 and if we're going to grow sustainably we need to rethink the space we allot for every single vehicle. I would first ask MMP working group what population forecast they are using because these estimates do not seem to reflect the potential growth we will see based upon current trends as well as the increased migrant population we will see as a result of climate and economic instability. One instance of how far off we could be is outlined in the Watson Forecast presented at the Strategic priorities meeting on Dec 6.
https://beta.ctvnews.ca/local/london/2022/11/30/1_6175361.amp.html

If we're really going to tackle this problem in a sustainable way London's vision has to be grander and invert our funding priorities. A true mode shift requires a vision for transit that aims to be amongst the best in the world and funding will need to flow from increasing vehicle capacity to building a comprehensive transit system. That plan will need to accommodate the growth that we're targeting and will need to grow alongside it, including consideration for alternate modes of transit despite the awesome scalability and flexibility of buses. To optimize this mode shift we will also need an expansive and integrated active transport system to capitalize on efficiency and individual experience with the side effect of improved health outcomes.

Finally, the MMP is missing a significant opportunity here. If we create a reliable, frequent, and comprehensive transit service, and truly integrated active transportation network we can then partner with employers and devise a plan for them to subsidize transit use by their employees and while showing employers how much value they can unlock by reducing the land they allocate to parking. This creates new opportunities for housing growth and intensifies our

commercial/industrial growth in a way that means less green space development and less demand for infrastructure expansion, it ultimately also makes London a much more desirable municipality for employers who are looking to build in a new centre.

Why Mode Shift?

1. Cost savings: Mode shifts can lead to cost savings for both individuals and cities. For individuals, opting for public transportation, walking, or cycling can be more cost-effective than owning and maintaining a private vehicle. For cities, investing in public transportation and active transportation infrastructure can be more financially efficient compared to building and maintaining extensive road networks for cars.

2. Increased productivity: Efficient and reliable public transportation systems can improve overall productivity by reducing travel times and congestion. When people can rely on public transit to commute efficiently, they spend less time stuck in traffic and have more time for work, leisure, or other productive activities.

3. Reduced healthcare costs: Mode shifts that promote active transportation like walking and cycling can have positive impacts on public health. Encouraging physical activity through active transportation can lead to reduced healthcare costs associated with sedentary lifestyles, obesity, and related health issues.

4. Improved air quality: Shifting away from private cars and promoting sustainable modes of transportation can help improve air quality by reducing vehicle emissions. This, in turn, can lead to health benefits and cost savings associated with lower pollution-related healthcare expenses.

5. Boosted local economy: Investments in public transportation and active transportation infrastructure can stimulate local economies. Improved transportation options can attract businesses, enhance access to job opportunities, and increase property values around well-connected transit hubs.

Cities Who Have Embraced Mode Shift

One recent example of a significant mode shift includes Paris, France, who over the last 15 years implemented a series of significant adjustments to their transportation system that has revolutionized the way people travel and the livability of the city. Paris implemented mode shift initiatives for several reasons, driven by various factors and goals:

1. Environmental concerns: One of the primary motivations for mode shift in Paris is the need to address environmental challenges, particularly air pollution and carbon emissions. Shifting away from private vehicles toward more sustainable modes of transportation, such as cycling, walking, and public transit, helps reduce greenhouse gas emissions and improve air quality.

2. Sustainable urban development: Mode shift aligns with Paris' vision for sustainable urban development. By prioritizing active transportation and public transit, the city aims to create more livable, pedestrian-friendly neighborhoods, reduce traffic congestion, and create a healthier urban environment.

3. Public health: Encouraging active transportation, such as walking and cycling, promotes physical activity and improves public health. Paris recognizes the importance of promoting healthier lifestyles and reducing sedentary behaviors associated with car dependence.

4. Enhancing mobility and accessibility: Improving public transportation and active transportation options helps enhance mobility and accessibility for all residents. By providing efficient, reliable, and affordable alternatives to private cars, Paris aims to ensure that transportation is accessible to everyone, regardless of income or ability.

5. Quality of life: Mode shift initiatives are also aimed at improving the overall quality of life in Paris. By reducing traffic congestion, noise pollution, and the dominance of cars in the urban landscape, the city aims to create more pleasant and vibrant public spaces that prioritize people over vehicles.

6. Economic benefits: Mode shift can bring economic benefits to the city. By investing in public transportation, cycling infrastructure, and pedestrian-friendly spaces, Paris aims to attract businesses, tourism, and investment. Additionally, reducing reliance on private cars can result in cost savings for individuals and the city, such as reduced spending on infrastructure maintenance and healthcare costs related to pollution and sedentary lifestyles.

Overall, Paris implemented mode shift initiatives as part of its broader commitment to sustainability, public health, improved mobility, and creating a more inclusive and livable city for its residents and visitors.

Some key actions Paris has undertaken include:

1. Extensive cycling infrastructure: Paris has significantly expanded its cycling infrastructure, including the implementation of over 1,000 kilometers of bike lanes, bike-sharing programs, and bike parking facilities. The city's bike-sharing program, Vélib', is one of the largest in the world and encourages residents and visitors to choose cycling as a mode of transportation.

2. Pedestrianization: Paris has been actively pedestrianizing certain areas, particularly in the city center. Prominent examples include the transformation of the banks of the Seine River into pedestrian-only areas, car-free zones in historic neighborhoods like Le Marais, and the designation of car-free days in some parts of the city.

3. Introduction of low-emission zones: Paris has implemented low-emission zones (LEZs) in an effort to combat air pollution. These zones restrict the entry of high-polluting vehicles into the city center, encouraging the use of cleaner and more sustainable modes of transportation.

4. Expansion of public transportation: Paris has continually invested in its public transportation system, with an extensive network of metro lines, buses, trams, and regional trains. The city has expanded metro lines, improved connectivity, and introduced new rolling stock to enhance the quality and capacity of public transport services.

5. Car-sharing and car-free initiatives: Paris has launched car-sharing programs, such as Autolib' and Free2Move, to encourage car-sharing and reduce private car ownership. Additionally, the city

periodically organizes car-free days, where certain areas are closed to private vehicles, promoting alternative modes of transport and reducing car dependency.

6. Encouraging electric mobility: Paris has been proactive in promoting electric mobility. The city has established charging infrastructure for electric vehicles and introduced incentives for the purchase of electric cars, including subsidies and exemptions from congestion charges.

These initiatives reflect Paris' commitment to mode shift, with a focus on promoting active transportation, improving public transit, reducing car dependency, and mitigating environmental impacts. The city's efforts align with its goal of creating a more sustainable, livable, and pedestrian-friendly urban environment.

Several cities around the world have undergone significant mode shifts for transportation over the past two decades. Here are a few notable examples:

1. Copenhagen, Denmark: Copenhagen has made remarkable progress in promoting cycling as a primary mode of transportation. The city has invested heavily in cycling infrastructure, including dedicated bike lanes, bridges, and parking facilities. As a result, the percentage of trips made by bicycle has significantly increased, making Copenhagen one of the world's leading cycling cities.

2. Bogotá, Colombia: Bogotá implemented a transformative Bus Rapid Transit (BRT) system called TransMilenio, which has revolutionized public transportation in the city. The BRT system provides efficient, reliable, and affordable transportation options, reducing car dependency and improving mobility for residents.

3. Curitiba, Brazil: Curitiba is renowned for its innovative and efficient bus rapid transit system known as the Rede Integrada de Transporte (RIT). Curitiba's RIT system has helped reduce traffic congestion, decrease air pollution, and improve access to public transportation, making it a model for other cities around the world.

4. Seoul, South Korea: Seoul has undergone a significant mode shift by investing in a comprehensive public transportation system. The city has expanded its subway network, increased bus services, and implemented smart transportation technologies. These initiatives have led to a decrease in private car usage and a shift towards using public transportation.

5. Portland, Oregon, USA: Portland has prioritized sustainable transportation options and has been at the forefront of promoting cycling, walking, and public transit. The city has developed an extensive network of bike lanes, pedestrian-friendly streets, and a well-connected light rail system, encouraging residents to choose alternative modes of transportation.

These examples demonstrate how cities can successfully implement policies and infrastructure improvements to encourage mode shifts towards sustainable and efficient transportation options. The specific initiatives and approaches taken by each city may vary, but the common goal is to reduce reliance on private cars and promote more sustainable modes of transport.

Conclusion

Thank you for accepting my letter. Of course, I am not expecting that the various examples I outlined above will be debated on a day laden with such a monumental agenda, but I am imploring you all to consider a vision for London that is more sustainable, more efficient, more equitable, and safer for all Londoners and the generations to come. The vision I am proposing will require courage, but the alternative of the status quo is rife with economic, health, and climate burdens for generations to come.

Thank you for taking the time to review my submission. Please feel free to contact me should you have any further questions.

Sincerely,

J. Colin Evans
[redacted]
London, ON
[redacted]

300 Dufferin Avenue
P.O. Box 5035
London, ON
N6A 4L9

To the members of CWC,

This submission is a follow up on the Climate Emergency Action Plan (CEAP) update we received on May 30th 2023, where we learned that GHG intensity of Ontario's grid in 2022 is estimated to have increased by over 40% from 2018 levels which has resulted in an increase in local emissions. I would like to submit a three-part motion address the ongoing planned use of natural gas in our electricity grid, both provincially and locally, and ensure we are consistent with the direction of the Federal Government and its proposed Clean Electricity Regulations (CER).

On Dec. 23, 2022, Minister Smith directed the IESO to ensure municipal approval for new gas projects. On May 12, Toronto City Council passed a motion opposing any new or expanded fossil gas power generation in the city. On May 16th, the IESO announced almost 600 megawatts of new gas-fired generation projects in communities including Toronto, Brampton, Halton Hills, Thorold, Windsor and St. Clair Township. I'm unaware of any plans for expanded fossil gas power generation in London, but I'd like to ensure we are doing our due diligence to indicate we don't support more gas-powered electricity generation to ensure we achieve our CEAP targets.

In London, there are currently numerous co-generation facilities that cause emissions. Collectively they account for around 3-11% of our emissions in London. These facilities are more efficient than standard natural gas to heat or power installations, but overall, they do contribute to our emissions. I am to understand that the various facilities are working on reducing emissions, but I would like to fully understand their plans to align to our community target of net-zero by 2050.

Therefore, I seek your support on the following motions.

Whereas: The Government of Ontario is planning to increase electricity generation and greenhouse gas pollution from Ontario's gas-fired power plants by more than 300% by 2030 and by 700% by 2043, reversing approximately 60% of the greenhouse gas pollution reductions achieved by phasing out our coal-fired power plants;

And whereas: Greenhouse gas pollution is causing temperatures in Canada to rise at more than double the rate of the rest of the world, causing impacts to the operations and citizens of London;

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And whereas: London is taking measures to mitigate and adapt to the climate impacts caused by increasing greenhouse gas pollution;

And whereas: The planned increase in electricity-related greenhouse gas pollution will reduce the effectiveness of London's greenhouse gas reduction efforts;

And whereas: There are feasible, cost-effective alternatives to increasing gas-fired electricity generation without increasing greenhouse gas pollution at costs well below the current price for Ontario's nuclear energy (10.9 cents/kWh)

Therefore, I'd like to move the following:

- Motion to direct the Mayor of the City of London to submit a letter to request the Government of Ontario to develop and implement a plan to move Ontario to a net zero-carbon electricity grid by 2035, consistent with the 2035 date of the proposed Federal Government Clean Electricity Regulations (CER), to help Ontario and London meet our climate targets **BE APPROVED**. And that this resolution be sent to the Premier of Ontario, the Minister of Energy, the Minister of the Environment, Conservation and Parks, all local MPPs and the Association of Municipalities of Ontario.
- Motion to direct Civic Administration to reach out to London facilities currently reporting emissions publicly though the joint federal/provincial Greenhouse Gas Reporting Program to request details on their greenhouse gas reduction plans to achieve net-zero emissions by 2050 and include in a future Climate Emergency Action Plan update **BE APPROVED**.
- Motion to direct Civic Administration to contact Enbridge and London Hydro to discuss the implementation requirements, roles, responsibilities, and potential impacts of CER in London and area **BE APPROVED**.

Thank you for your continued support on climate action.

Councillor Skylar Franke

The Corporation of the City of London
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Background

The Government of Ontario is planning to ramp up the greenhouse gas pollution from Ontario's gas-fired power plants by more than 300% by 2030 and by 700% by 2043[1] to meet rising electricity demand and to replace the output of the Pickering Nuclear Station, whose operating license expires in 2024. This plan will eliminate approximately 60% of the greenhouse gas reductions Ontario achieved by phasing-out its dirty coal-fired power plants.

The Independent Electricity System Operator (IESO) announced on May 16, 2023 that it is contracting for almost 600 megawatts of new gas-fired generation capacity to meet our summer peak hour demands.

Greenhouse gas pollution is causing temperatures in Canada to rise at more than double the rate in the rest of the world, causing adverse impacts for the citizens of London, such as heat waves, rain, flooding and winter storms with related property damage and public health impacts.

The current direction of the Provincial Government appears to be in the opposite direction of the Federal Government which is developing the Clean Electricity Regulations (CER) with the desire of being a net-zero electricity grid by 2035. The CER can help transition Canada to a net-zero electricity grid by 2035 while ensuring a reliable and affordable electricity system. The three core principles guiding the Canada-wide consultations on CER are:

1. Maximize greenhouse gas reductions to achieve net-zero emissions from the electricity grid by 2035;
2. Ensure grid reliability to support a strong economy and ensure Canadians are safe by having energy to support their cooling needs in the summer and warmth in the winter; and,
3. Maintain electricity affordability for homeowners and businesses.

This work on clean electricity will be key to reaching Canada's 2030 and 2050 climate targets. Electricity is fundamental to the Canadian economy. The Federal Government describes this important work as a joint effort with provinces, territories, Indigenous partners, utilities, non-government organizations, academics, industry, and interested Canadians. It will also require a number of interrelated actions across the economy.

London has declared a Climate Emergency, adopted GHG reduction goal of net-zero by 2050 and approved a Climate Emergency Action Plan.

[1] Relative to 2017 levels, found in the 2022 Data Tables for the IESO's 2022 Annual Planning Outlook

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The planned increase in GHG pollution associated with electricity will reduce the effectiveness of London's climate adaptation and mitigation efforts. It will decrease the effectiveness of electrification programs (deep building retrofits, EV programs) due to increased GHGs associated with electricity, discourage development of distributed renewable energy initiatives, delay municipal transition to the clean economy of the future, and prevent Ontario from meeting its GHG reduction commitment. **We have already seen this impact our efforts to reduce emissions locally.**

Ontario can phase-out the use of its gas-fired power plants for electricity purposes by 2035 by an integrated combination of energy efficiency investments, demand response (load shifting from peak to off-peak periods), wind and solar energy, Quebec waterpower and energy storage. The costs of the alternatives to gas-fired generation are less than Ontario Power Generation's current price per kilowatt-hour (kWh) for power from nuclear plants (10.9 cents per kWh).

Ontario can increase its investments in quick-to-deploy and low-cost energy efficiency programs. Ontario can cost-effectively maximize its energy efficiency efforts by paying up to the same price for energy efficiency measures as it is currently paying for power from nuclear plants. Ontario can become a leader in developing increasingly low-cost renewable energy. Ontario should support renewable energy projects that have costs that are below what we are paying for nuclear power and work with communities to make the most of these economic opportunities.

For example, Great Lakes wind power could meet more than 100% of our electricity needs at a cost that is 40% lower than the cost of new nuclear reactors.
While Ontario's demand for electricity peaks on hot summer days when our air-conditioners are running full out, Quebec's demand for electricity peaks on cold winter nights. As a result, Hydro Quebec has a huge surplus of water power available for export to Ontario during summer months.

In 2030, the total capacity of Ontario's electric vehicle batteries will be more than double the capacity of Ontario's gas-fired power plants. EVs are parked for 95% of the hours of the day on average. EV batteries can be charged during off-peak hours (nights and weekends), and they can supply power back to the grid during peak demand hours.

The phase-out of Ontario's gas-fired power plants for electricity purposes will help London and the Province of Ontario to achieve their greenhouse gas pollution reduction goals.