Agenda
Civic Works Committee

The 12th Meeting of the Civic Works Committee

September 21, 2021, 12:00 PM

2021 Meeting - Virtual Meeting during the COVID-19 Emergency

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Meetings can be viewed via live-streaming on YouTube and the City website

Members

Councillors E. Peloza (Chair), J. Helmer, M. Cassidy, P. Van Meerbergen, S. Turner, Mayor E. Holder

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Pages

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: **Kensington Bridge – Environmental Assessment Appointment of Consulting Engineer**
Date: **September 21, 2021**

Recommendation

That on the recommendation of the Deputy City Manager, Environment & Infrastructure, the following actions **BE TAKEN** with respect to the appointment of a Consulting Engineer to complete the Kensington Bridge Environmental Assessment Study:

(a) AECOM Canada Ltd. **BE APPOINTED** as the Consulting Engineer to complete the Environmental Assessment of the Kensington Bridge Renewal Project at an upset amount of $252,880 (excluding HST) in accordance with RFP21-41 and Section 15.2 (e) 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 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.

Linkage to the Corporate Strategic Plan

The following report supports the 2019-2023 Strategic Plan through the focus areas of Strengthening our Community, Building a Sustainable City and Creating a Safe London for Women and Girls, by recognizing London's heritage and archeological resources, increasing access to transportation options, improving safety for all modes of transportation including active transportation connecting to downtown and building new infrastructure to support future development and to protect the environment.

Analysis

1.0 Context

The Kensington Bridge carries two lanes of eastbound traffic on Riverside Drive, bi-directional bike lanes and two sidewalks over the North Branch of the Thames River into Downtown London. Constructed in 1930, this three-span truss structure has serviced Londoners for almost 91 years and is the fourth oldest bridge in the City. This river crossing is in need of a major infrastructure renewal investment.

The Kensington Bridge has an overall span length of 32 m and overall width of nearly 15 m including the sidewalks, which are located exterior to the trusses. The west abutment is integrated with the West London Dyke System, there is a central pier, and the Thames Valley Parkway is located below the end spans of the bridge along both the east and west sides of the river. Bell Canada has multiple live conduits attached to the underside of the bridge, including both fibre optic and copper cables. London Hydro also has structure supported beneath the bridge.

A Cultural Heritage Evaluation Report completed in 2018, identified the Kensington Bridge as having design/physical, historic/associative and contextual value under Regulation 9/06 of the Ontario Heritage Act. Along with other factors, the structure is identified under Part V of the Ontario Heritage Act as it is located within the Blackfriars/Petersville Heritage Conservation District (HCD).

Previous major work on the bridge includes a deck replacement in 1960, construction of a concrete deck overlay in 1985, and structural steel repainting in 1996. Other minor works in recent years have included abutment refacing, sidewalk and deck repairs, bearing seat repairs, and replacement of the expansion joints. Recently, minor modifications have been made to the bridge deck to create a separated bike lane.

Current industry standard for the design life of a bridge is 75 years. Kensington Bridge has exceeded this design life and it is experiencing ongoing deterioration. Either a major rehabilitation of the structure would be required to extend its service life, or the bridge would need to be replaced or permanently removed. The Class Environmental Assessment process provides the tools necessary to evaluate the best, long term solution for this structure.

2.0 Discussion and Considerations

2.1 Project Objectives

The goal of this Environmental Assessment for the Kensington Bridge is to comply with the requirements of the Municipal Class EA Act and the MTO's Ontario Heritage Bridge Program to determine the recommended alternative for the future of this structure.

Generally, the scope of services shall be:

- Review and analyze all previous reports/investigations, plans, policies and information;
- Undertake technical analyses;
- Engage the public and stakeholders to allow public input throughout the study process and ensure active involvement in developing the recommendations for the future of the Kensington Bridge;
- Identify the preferred alternative for the Kensington Bridge;
- Document in a clear and transparent manner the process undertaken and provide formal documentation and presentations.

Figure 1, below provides a map of the location of Kensington Bridge.

Figure 1. Project Location

2.2 Anticpated Schedule

The Class “C” Environmental Assessment (EA) is expected to take approximately 18 months. Subject to the recommendations of the EA Study, and available budget, actual construction of the preferred alternative is tentatively scheduled for 2026.

2.3 Procurement Process

The consultant selection process for this assignment (RFP 21-41) has been undertaken in accordance with the City’s Procurement of Goods and Services Policy. The procurement process followed the two stage process with the first stage being an open, publicly advertised pre-qualification stage (RFQUAL19-17). Subsequently, a consultant shortlist comprising three engineering consulting firms was developed and these consultants were invited to submit detailed proposals and work plans. After the RFP was posted, three (3) addenda were issued to respond to questions, inquiries and requests for clarification. Proposals were received from the three consultants: Stantec Consulting Ltd., Dillon Consulting Limited and AECOM Canada Ltd. on July 30, 2021.

A two envelope RFP process was used, one envelope contained the technical project proposal and the second envelope contained the fee proposal. With the assistance of the Procurement Officer, 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.

At the end of the RFP process, the proponent with the highest score, demonstrating the ability to fully meet the City’s requirements and providing the best value for the City is AECOM Canada Ltd.. AECOM Canada Ltd. has experienced project team members, with the required qualifications. Their proven experience on similar projects combined with a project proposal that demonstrated a thorough understanding of the project goals

and objectives determined their suitability for this assignment. In accordance with Clause 15.2.g. of the Procurement Policy, the consultant will be considered for future project phases, subject to performance.

Conclusion

This project will provide the evaluation tools necessary to determine the preferred alternative to address the infrastructure renewal needs for the Kensington Bridge. The AECOM Canada Ltd. proposal has demonstrated a comprehensive understanding of the requirements for this project. Based on the competitive consultant procurement process, it is recommended that AECOM Canada Ltd. be appointed to undertake the Environmental Assessment for the Kensington Bridge in the amount of $252,880 (excluding HST).

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

Prepared by:	**Garfield Dales, P.Eng., Division Manager, Transportation Planning and Design**
Submitted by:	**Doug MacRae, P.Eng., MPA, Director, Transportation and Mobililty**
Recommended by:	**Kelly Scherr, P.Eng., MBA, FEC, Deputy City Manager, Environment and Infrastructure**
Attach:	Appendix A: Source of Financing
cc:	John Freeman, Manager, Purchasing and Supply Mary Ma, Procurement Officer, Purchasing and Supply Gary McDonald, Budget Analyst John Pucchio, AECOM Canada Limited

Appendix "A"

#21160
September 21, 2021
(Appoint Consulting Engineer)

Chair and Members
Civic Works Committee

RE: Kensington Bridge – Class C Environmental Assessment
(Subledger BR210003)
Capital Project TS176320 - Bridges Major Upgrades
AECOM Canada Ltd. - $252,880.00 (excluding HST)

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

Estimated Expenditures	**Approved Budget**	**Committed To Date**	**This Submission**	**Balance for Future Work**
Consulting	1,062,755	805,425	257,330	0
Land Purchase	2,500	2,500	0	0
Construction	4,967,297	664,221	0	4,303,076
City Related Expenses	20,000	0	0	20,000
Total Expenditures	$6,052,552	$1,472,146	$257,330	$4,323,076
Sources of Financing				
Capital Levy	959,226	959,226	0	0
Canada Community-Building Fund (Federal Gas Tax)	2,516,381	408,663	257,330	1,850,388
Drawdown from Self Insurance Reserve Fund	4,631	4,631	0	0
Drawdown from Capital Infrastructure Gap Reserve Fund	2,472,688	0	0	2,472,688
Other Contributions	99,626	99,626	0	0
Total Financing	$6,052,552	$1,472,146	$257,330	$4,323,076

Financial Note:

Contract Price	$252,880
Add: HST @13%	32,874
Total Contract Price Including Taxes	285,754
Less: HST Rebate	-28,424
Net Contract Price	$257,330

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: **Municipal Waste & Resource Materials Collection By-law Amendment**
Date: **September 21, 2021**

Recommendation

That, on the recommendation of the Deputy City Manager, Environment & Infrastructure, the draft amending by-law attached as Appendix A **BE INTRODUCED** at the Municipal Council meeting to be held on October 5, 2021, to amend the Municipal Waste & Resource Collection By-law (WM-12) to establish additional packaging requirements for curbside collection of ceramic toilets to enhance health and safety of the sanitation operators and the public.

Executive Summary

The City, as an employer, has an obligation under the *Occupational Health and Safety Act, 1990* to take necessary precautions to protect its employees. Discussions at joint health and safety meetings in response to previous occurrences (e.g., injuries) identified that the collection of ceramic toilets presents a potential hazard as a broken toilet (i.e., the cracked or broken toilet is set-out at the curb with jagged pieces or falls apart during the process of collection) presents similar safety concerns as with the handling of sharps. Without improved safety precautions in place to collect toilets, the collector is at risk of cuts or lacerations.

One additional step for householders is proposed to be introduced and included in By-law WM-12, being the requirement to place the toilet inside a cardboard box and completely seal before setting to the curb to be collected. Most new toilets purchased come with a box which would be available to package the old toilet. A summary of the toilet preparation and packaging requirements are:

- continue to separate the toilet tank from the bowl for two-piece toilets;
- place the tank and bowl in a sealed cardboard box; and
- clearly label ‘caution sharp’ for the collectors to identify the materials inside.

The 60% Waste Diversion Action Plan (WDAP) proposes a set of 21 actions to achieve 60% waste diversion of residential waste. Included in the set of actions is the diversion of ceramics (primarily toilets). It is estimated that between 100 and 150 tonnes of ceramics could be diverted through the EnviroDepots. This represents a preferable alternative approach if the householder does not wish to package the toilet in a box.

Starting October 1, 2021, toilets and other ceramics will be accepted at the EnviroDepots without charge. These items will be recycled into a crushed aggregate end-product. Material quality, handling procedures and other parameters will be monitored to determine next steps which could include banning the curbside collection of toilets as recycling markets are finalized. This would be subject of a future report to Civic Works Committee.

Funding for this initiative was approved as part of the 60% Waste Diversion Action Pan. It is estimated that it will cost between $10,000 and $15,000 annually (excluding initial minor capital costs at the EnviroDepots). These estimates will be reviewed as part of the ongoing work between October 1, 2021, and Spring 2022 before any further recommendations are made.

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 2019-2023 Strategic Plan for the City of London. Specifically, London's efforts in waste management address the three following areas of focus: Building a Sustainable City; Growing our Economy; and Leading in Public Service.

Context

1.0 Background Information

1.1 Purpose

The purpose of this report is to provide Civic Works Committee (CWC) and Municipal Council with amendments to the Municipal Waste & Resource Collection By-law (WM-12) to:

- establish additional packaging requirements for ceramic toilets placed at the curb for curbside collection to enhance health and safety of the sanitation operators and the public; and
- permit the drop-off of toilets and other ceramics, without packaging and fees, at the EnviroDepots for the purpose of recycling these items.

1.2 Previous Reports Related to this Matter

- Updates – 60% Waste Diversion Action Plan Including Green Bin Program (November 17, 2020, meeting of the Civic Works Committee (CWC), Item #2.2)
- Municipal Waste & Resource Materials Collection By-Law Amendment (September 22,2020, meeting of the CWC, Item # 10)
- 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)

2.0 Discussion and Considerations

2.1 London's Curbside Bulky Item Collection

London's waste management system provides bulky item collection as part of regular curbside collection service. Bulky items include most furniture such as couches, mattresses, box springs, carpet and bathroom fixtures (e.g., toilet). There are specific requirements for some items, for example, sharp objects including glass, broken ceramics, mirrors or sharp metal must be fully contained inside a cardboard box and taped shut to be collected. Two-piece toilets must have the tank and bowl separated and the toilet bowl empty of water.

Items that have specific collection requirements help to protect collection staff (City staff and contractors) and ensure that the item is successfully removed by collection crews. These safety practices are also helpful for householders as they prevent accidents. If residents do not follow the collection rules the item may be considered a non-collectable and will not be removed by collection staff.

A recent curbside audit in London (July-August 2021) identified 10 toilets at the 4,590 stops checked. This amounts to 0.2% of the stops having a toilet at the curb during this particular audit. Previous estimates suggest that there are between 500 and 600 tonnes of ceramics placed in the garbage annually with toilets being the majority of this amount.

2.2 Enhanced Health & Safety for Collection Staff and the Public

The City, as an employer, has an obligation under the *Occupational Health and Safety Act, 1990* to take necessary precautions to protect its employees. Discussions at joint health and safety meetings in response to previous occurrences (e.g., injuries) identified that the collection of ceramic toilets presents a potential hazard as a broken toilet (i.e., the cracked or broken toilet is set-out at the curb with jagged pieces or falls apart during the process of collection) presents similar safety concerns as with the handling of sharps. Without improved safety precautions in place to collect toilets the collector is at risk of cuts or lacerations.

How other municipalities manage toilets

- Toilet not collected curbside: St. Thomas, Woodstock, Barrie, Guelph, Kingston, Ottawa Valley, Windsor
- Box toilet if broken: Vaughan, Ajax, Pickering
- Separate two-piece toilet for curbside collection: Waterloo Region, Whitby, Halton Region, Niagara Region, Ottawa, Peel Region, Toronto, Markham, Richmond Hill, Aurora, Newmarket
- Separate two-piece toilet for curbside collection by appointment only: Ajax, Pickering
- No Collection Requirements: Oshawa, Peterborough, Simcoe County, Sudbury

What are the changes to the curbside collection of toilets?

One additional step for householders is proposed to be introduced and included in By-law WM-12, being the requirement to place the toilet inside a cardboard box and completely seal before setting to the curb to be collected. Most new toilets purchased come with a box which would be available to package the old toilet. A summary of the toilet preparation and packaging requirements are:

- Continue to separate the toilet tank from the bowl for two-piece toilets;
- Place the tank and bowl in a sealed cardboard box; and
- Clearly label ‘caution sharp’ for the collectors to identify the materials inside.

This additional packaging requirement may cause a minor inconvenience to residents. A small amount of additional time may be required to package the toilet inside a cardboard box and seal the box shut. The above changes will result in:

- safer handling of bulky items for sanitation operators (City staff and contractors);
- improved handling of toilets for the public setting out to the curbside for garbage collection; and
- reduced risk of shattered toilets resulting in litter on the boulevard and picked up by Londoners without proper safety precautions.

To enact these changes and make them enforceable, an amendment to the Municipal Waste & Resource Collection By-law (WM-12) (Appendix A) is required:

- add “toilets not properly packaged inside a cardboard box and sealed” to the definition of Non-collectable waste; and
- add “toilets” to Section 8.3 – Collector may not collect – municipal waste and/or resource materials.

New service - recycling toilets through the EnviroDepots

The 60% Waste Diversion Action Plan (WDAP) proposes a set of 21 actions to achieve 60% diversion of residential waste. Included in the set of actions is the diversion of ceramics (primarily toilets). It is estimated that between 100 and 150 tonnes of ceramics could be diverted through the EnviroDepots. This represents a preferable alternative approach if the householder does not wish to package the toilet in a box.

Starting October 1, 2021, toilets and other ceramics will be accepted at the EnviroDepots without charge. These items will be recycled into a crushed aggregate end-product. Material quality, handling procedures and other parameters will be

monitored to determine next steps which could include banning the curbside collection of toilets as recycling markets are finalized. This would be subject of a future report to Civic Works Committee.

How will this be change be managed?

The implementation of these changes will be done based on education and awareness as the first priority. The communications campaign, beginning in October, will include:

- 2021/2022 Waste Reduction & Conservation Calendar
- Newspaper ads
- City website information
- Printed materials
- Social media
- Notice left in the mailbox (or other visible location)

During the campaign, London residents who set out toilets not packaged properly (inside a cardboard box and sealed) for collection will be provided with information on how to correctly package a toilet for curbside garbage collection or preferably, encouraged to take it to the EnviroDepot. Emphasis will be on why these changes are necessary and how important it is to take the additional precautions when preparing garbage for collection. Residents who do not initially comply with the new packaging requirements but take steps to correct the issue may receive a courtesy collection, at the discretion of the City, one-time during the communications campaign (between October 1 and November 30, 2021).

Should compliance not be possible with education and awareness, other enforcement measures are available under the by-law such as removing the non-compliant items and charging a service fee (i.e., City collects at expense of owner).

3.0 Financial Impact/Considerations

Funding for this initiative was approved as part of the 60% Waste Diversion Action Pan. It is estimated that it will cost between $10,000 and $15,000 annually (excluding initial minor capital costs at the EnviroDepots). These estimates will be reviewed as part of the ongoing work between October 1, 2021 and spring 2022.

Conclusion

The proposed changes and actions in this report are supportive of health and safety for both workers and the public. The added packaging requirement is viewed as a minor inconvenience for householders because toilet replacement generally occurs infrequently. The opportunity to divert toilet and other ceramics is part of the 60% Waste Diversion Action Plan including the funding for this initiative.

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

Appendix A A By-law to Amend the Municipal Waste & Resources Collection By-law WM-12

APPENDIX A
A By-law to Amend the Municipal Waste & Resources Collection By-law WM-12

Bill No. 2021

By-law No.

A By-law to amend the Municipal Waste & Resources Collection By-law WM-12

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;

AND WHEREAS section 9 of the *Municipal Act, 2001* S.O. 2001, c.25, as amended, provides that a municipality has the capacity, rights, powers and privileges of a natural person for the purpose of exercising its authority under this or any other Act;

AND WHEREAS subsection 10 of the *Municipal Act, 2001* S.O. 2001, c.25, as amended, provides that a municipality may provide any service or thing that the municipality considers necessary or desirable for the public, and may pass by-laws respecting the economic, social and environmental well-being of the municipality, and the health, safety and well-being of persons;

AND WHEREAS the Municipal Council wishes to amend By-law No. WM-12, being “A by-law to provide for the Collection of Municipal Waste and Resource Materials in the City of London” to identify additional packaging requirements for toilets (inside a cardboard box and sealed) to increase health and safety for both the public and sanitation operators.

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

1. By-law WM-12 is hereby further amended in Section 1.1 – Definitions by deleting the definition of Non-collectable Waste and by replacing it with the following new definition:

Non-collectable waste - defined

"non-collectable waste" shall include but not be limited to grass clippings, washers, dryers, refrigerators, stoves, dehumidifiers, freezers and air conditioners, televisions, monitors, computers, computer peripherals, printers, copying and multi-function copying devices, telephones, answering machines, cellular devices, pagers, image devices, audio and video devices; explosives, flammable or volatile substances, liquid or gaseous wastes, caustic substances and acids, poisons, pesticides, herbicides, radioactive materials, septic tank pumpings, industrial process sludge, biohazardous waste, infected materials including dressings and bandages not placed inside a sealed and leak-free bag; personal protective and hygiene products including, surgical and non-surgical masks, gloves, wipes, tissues, napkins, paper towel that may result in the spread of infectious disease, not placed inside a sealed and leak-free bag; sawdust, cigarette ash, fireplace ash and vacuum dust, not placed inside a sealed bag; hay, straw, manure and excreta from farm premises; live animals or birds, carcasses or parts thereof of any animal or bird save for food preparation and consumption wastes; stock of any wholesaler or retailer, trade waste; tree trunks and stumps; Christmas trees; trucks, automobiles or any other vehicle, vehicle parts; tires; construction materials; scrap metals, propane tanks; sharps not packaged and labelled in rigid containers; toilets not properly packaged inside a cardboard box and sealed; organic material which has not been drained of all liquids; and other materials as designated by the City Engineer from time to time.

2. By-law WM-12 is hereby amended by adding Section 8.3 (h):

(h) broken glass, toilets and other sharp objects that are not properly packaged inside cardboard and tape;

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

Passed in Open Council on October 5, 2021.

Ed Holder
Mayor

Catharine Saunders
City Clerk

First Reading – October 5, 2021
Second Reading – October 5, 2021
Third Reading – October 5, 2021

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: **Sewage Overflows and Bypasses into the Thames River – Sanitary Cross Connections**
Date: **September 21, 2021**

Recommendation

That, on the recommendation of the Deputy City Manager, Environment and Infrastructure, the following report on Sewage Overflows and Bypasses into the Thames River – Sanitary Cross Connections, **BE RECEIVED** for information.

Executive Summary

Purpose

The purpose of this report is to provide Council with an overview of sanitary cross connections. Sanitary cross connections cause overflows of wastewater and contravene the City's Waste Discharge and Drainage By-law's and have the potential to adversely impact the natural environment.

Context

Household wastewater comes from toilets, sinks, showers, washing machines and other drains and is directed through a pipe to the sewer collection system to be ultimately treated at a wastewater treatment plant. A sanitary cross connection exists when a pipe or the home's internal plumbing is mistakenly tied into the stormwater system releasing sewage into the natural environment. Sanitary cross connections are rare in the City and are most often associated with residential properties. A sanitary cross connection is often the result of a plumbing or construction error and are typically discovered unexpectedly. Municipalities across North America continue to address the issues associated with sanitary cross connections and London is not immune to the challenges they present.

Linkage to the Corporate Strategic Plan

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

1. Building a Sustainable City:
    - London's infrastructure is built, maintained, and operated to meet the long-term needs of our community
    - Protect and enhance waterways, wetlands, and natural areas

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

September 26, 2017 – Civic Works Committee – Domestic Action Plan (DAP): London – Proposal Update

April 17, 2018 – Civic Works Committee – London Pollution Prevention and Control Plan Final Master Plan

September 24, 2019 – Civic Works Committee – Wastewater Treatment Operations Environmental Assessment – Master Plan Study Initiation

April 20, 2021 – Civic Works Committee – Sewage Overflows and Bypasses Into the Thames River

2.0 Discussion and Considerations

2.1 Sanitary Lateral Cross Connections

2.1.1 What is a Sanitary Lateral Cross Connection?

A sanitary cross connection is an illegal connection to a municipal storm sewer that conveys wastewater from a building, most commonly a residential home. They are often discovered unexpectedly through the City's Close Circuit Television (CCTV) program. Another indicator of a sanitary cross connection is the discovery of wastewater material at a municipal storm sewer outlet.

A properly configured property is illustrated by the diagram provided in Appendix 'A'.

2.1.2 Sanitary Cross Connection Types

There are two primary types of sanitary cross connections:

- Partial Sanitary Cross Connection – one or more, but not all plumbing fixtures within a dwelling are contributing wastewater flows to a municipal storm sewer.

- Complete Sanitary Cross Connection – all plumbing fixtures within the dwelling are contributing wastewater flows to a municipal storm sewer.

The type of sanitary cross connection can be determined through dye testing of each plumbing fixture within a dwelling such as a sink, toilet, or shower. A complete cross connection may be confirmed outside the dwelling provided that suitable access is available.

Correcting a partial sanitary cross connection may be accomplished through the reconfiguration of existing plumbing inside a dwelling, ensuring that wastewater flows from all internal fixtures are conveyed to a municipal sanitary sewer.

Sometimes a complete sanitary cross connection can be corrected outside the dwelling and within the City's road allowance by intercepting and confirming the existing sanitary private drain connection (PDC) and redirecting wastewater flows through it and into the municipal sanitary sewer servicing the street.

2.1.3 Survey of Several Ontario Municipalities

As previously mentioned, sanitary cross connections are not unique to the City of London. To gain a better understanding for what municipalities are doing to address

sanitary cross connections, City staff conducted a survey of other municipalities. The following are key take-aways based on these discussions:

- Municipalities struggle with residents who are reluctant to allow the City to confirm a suspected sanitary cross connection on their property through a simple dye testing process;
- None of the municipalities contacted have gone to the extreme of conducting a dye test under a search warrant through provisions of the Provincial Offences Act;
- Municipalities struggle to persuade residents to correct a sanitary cross connection when one is confirmed despite their understanding of the negative and continuous impact on the natural environment;
- Of the municipalities surveyed, none have successfully implemented a grant program to address sewer cross connections;
- Of the municipalities surveyed, all are correcting “complete” sanitary cross connections within the municipal right-of-way (where feasible), at no cost to property owners;
- Municipalities are sharing information regarding known sanitary cross connections with the Ministry of the Environment, Conservation and Parks (MECP); and
- At least two of the municipalities surveyed are publicly reporting the number of existing sanitary cross connections.

Sanitary lateral cross connections are a problem that is not unique to the City of London. They represent a sewer system overflow, with significant environmental impacts, and are problematic for municipalities to resolve with property owners.

2.1.4 London’s Sanitary Lateral Cross Connections

Through annual maintenance and capital programs, and sometimes citizen observations, City staff continue to confirm and document sanitary and storm cross connections. Cross connections involving sanitary sources leading to the City’s storm sewer system are of particular focus due to their negative and continuous impacts to the natural environment. Cross connections involving storm sources leading to the City’s sanitary sewer system also raise concerns as they contribute undesirable flows during significant wet weather events.

Confirmed sanitary cross connections are based on evidence of sanitary waste in existing storm sewers and outlets through visual observation, sampling and/or sewer camera/video (CCTV) inspection. Upon the permission of the property owner, a dye testing process is generally conducted to confirm the specific plumbing fixtures contributing to the illegal discharge. At the conclusion of the dye testing, the cross connection can be properly classified as either “partial” or “complete”.

The City maintains a list of properties that have confirmed/suspected storm or sanitary cross connections. In 2011, the City initiated an extensive campaign, reaching out to property owners with either confirmed or suspected sanitary cross connections. Due to the challenges and complexities associated with property owner cooperation, the campaign was only marginally successful.

As at July, 2021 the City has a total of 37 confirmed/suspected sanitary cross connections on record, representing approximately 0.03% of the total number of private drain connections in the City of London. Of this total, 23 are confirmed. Seventeen of the confirmed locations are considered ‘complete’ and 6 are identified as ‘partial’. Fourteen suspected cross connections require the property owner’s permission to enter their home to conduct a dye test.

Finally, of the 37 confirmed/suspected sanitary cross connections, 35 are single residential homes and 2 are identified as commercial.

The City of London strives to correct confirmed sanitary cross connections on a proactive basis and has realized some recent successes this year where City staff have worked in partnership with the property owners.

In 2011, a Disconnection of Sewer Cross Connection Loan Program was established, providing financial assistance to property owners who are often confronted with considerable expenses to rectify a sanitary cross connection. The structure of this loan program is similar to the City's Lead Water Service Replacement Program. Despite the financial assistance available to the property owners, the City has realized poor uptake to date.

2.2 Strategy to Address London's Sanitary Lateral Cross Connections

The following strategy is proposed in attempt to accelerate the elimination of cross-connections:

1. Notify the London office of the Ministry of the Environment, Conservation and Parks (MECP), to make them aware of the number of confirmed sanitary lateral cross connections in the hope of highlighting the severity of this issue with the Province.
2. Reach out again to the 37 identified property owners regarding their sanitary lateral cross connections to:
    - gain the cooperation of property owners to allow City staff to undertake dye testing of the building/property;
    - encourage property owners to rectify confirmed sanitary cross connections on their property; and
    - introduce/remind property owners of the City's Disconnection of Sewer Cross Connection Loan Program.
3. Undertake at the City's expense the disconnection of any cross-connection that can be completed within the right-of-way.

The City will continue to work cooperatively with the MECP, property owners, and licensed plumbers/drainage contractors to reach an appropriate solution specific to each property to resolve sanitary cross connection. Documentation of these confirmed/suspected locations and future locations will be appropriately tracked to demonstrate the City's due diligence.

3.0 Financial Impact/Considerations

The current estimate to rectify the cross-connections within the municipal right-of-way is $300,000. Funding is currently available in the Council approved Water and Wastewater & Treatment multi-year budget that can be applied to correcting cross-connections.

Conclusion

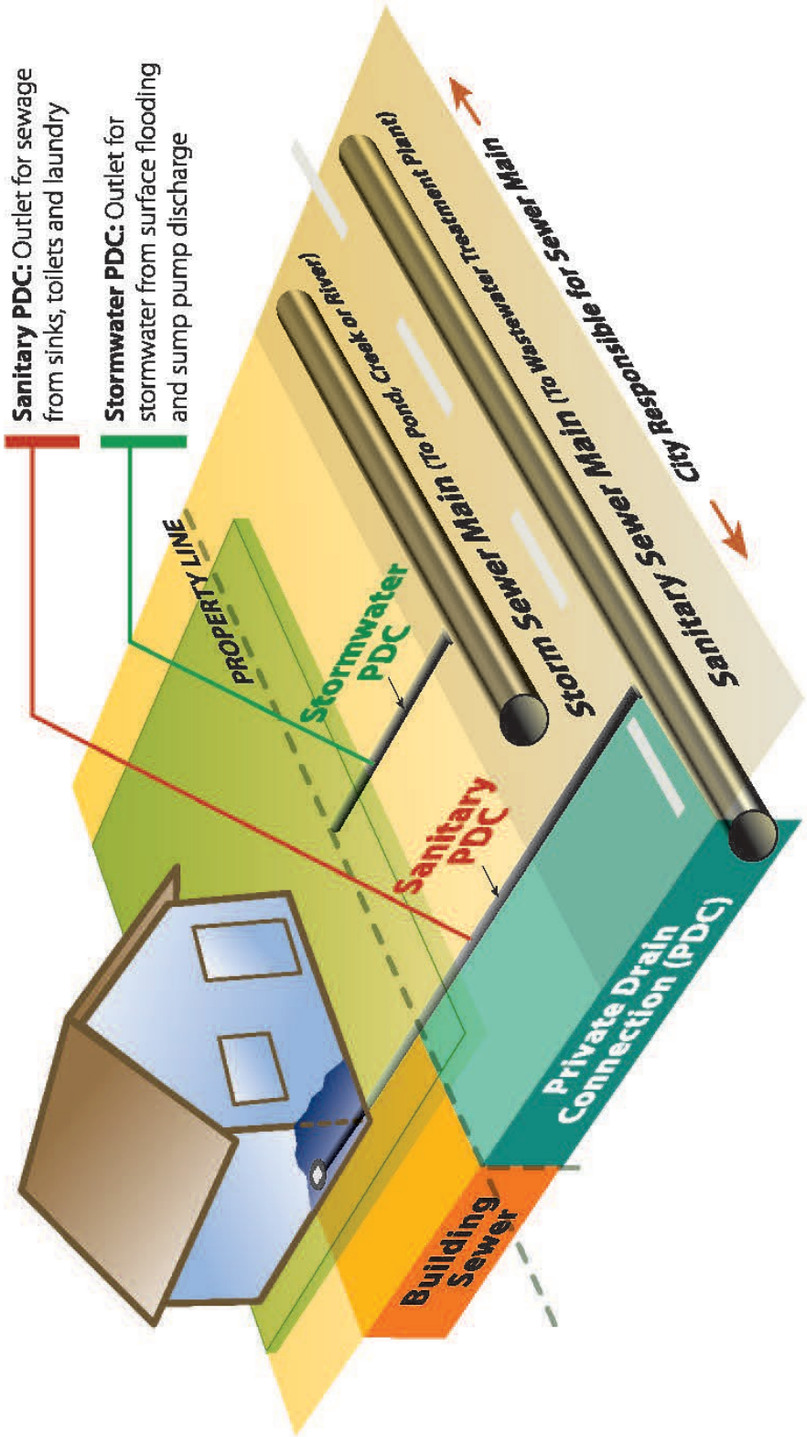
Municipalities across North America continue to deal with the challenges of sanitary cross-connections and the City of London is not immune to this complex issue. Sanitary cross connections are illegal and negatively impact the natural environment. Despite the host of challenges associated with this chronic issue, the City of London continues to be proactive in resolving each case while working in partnership with private property owners to gain their cooperation in an effort to protect and maintain a healthy natural environment.

Prepared by:	**Rick Pedlow, C.E.T., Division Manager, Sewer Operations**
Submitted by:	**Scott Mathers, MPA, P. Eng., Director, Water, Wastewater & Stormwater**
Recommended by:	**Kelly Scherr, P. Eng., MBA, FEC** **Deputy City Manager, Environment & Infrastructure**

CC: K. Oudekerk, S. Chambers, M. McKillop

Appendix ‘A’	Diagram of Building Sewer and Private Drain Connection (PDC) Details

Appendix ‘A’
Diagram of Building Sewer and Private Drain Connection (PDC) Details



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: **Increase Contract Award: West London Dyke Norman Bradford (Oxford Street) Bridge Concrete Repairs**
Date: **September 21, 2021**

Recommendation

That, on the recommendation of the Deputy City Manager, Environment & Infrastructure, the following actions **BE TAKEN** with respect to increasing the existing contract for Phase 7 West London Dyke project:

(a) The Upper Thames River Conservation Authority **BE AUTHORIZED** to carry out added works for Phase 7 of the West London Dyke reconstruction by increasing the City's cost share by $176,526.62, 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'; and

(c) the Civic Administration **BE AUTHORIZED** to undertake all the administrative acts that are necessary in connection with this work.

Executive Summary

Purpose

This report seeks Council approval to increase the City's share of the West London Dyke Phase 7 construction contract, administered by the Upper Thames River Conservation Authority (UTRCA), to allow for concrete repair works under the Norman Bradford bridge. This bridge crosses the Thames River at Oxford Street.

Context

The most recent reconstruction of West London Dyke Phase 7, from St. Patrick Street to north of Oxford Street is currently under construction and should be completed by late fall with some landscaping and amenity features to be added in 2022. Ro-buck Contracting Ltd. is undertaking this work under a contract administered by the UTRCA with a funding share provided by the City. Part of this work included construction of an underpass under the Norman Bradford Bridge to allow for safe pedestrian crossing to connect to the Thames Valley Parkway north of Oxford Street. This report seeks approval to increase the City's funding share to allow for the concrete repairs to the Norman Bradford Bridge to occur under this contract in order to allow the pedestrian pathway to be opened to the public upon completion of this phase of dyke.

Linkage to the Corporate Strategic Plan

This project supports the 2019-2023 Strategic Plan through the following: Building a Sustainable City, Build infrastructure to support future development and protect the environment, Improve London's resiliency to respond to future challenges, and Maintain or increase current levels of service; manage the infrastructure gap for all assets.

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

Civic Work Committee – August 31, 2021 – Increase Contract Award: West London Dyke Reapplication of Anti-Graffiti Coating to Phases 1 and 2

Civic Works Committee – November 17, 2020 – West London Dyke – Phase 7 and Fanshawe Dam Safety Study PO Boost

Civic Works Committee – July 14, 2020 – Upper Thames Conservation Authority and City of London Flood Protection Projects: West London Dyke Phase 7

Civic Works Committee – March 10, 2020 – Upper Thames River Conservation Authority and City of London Flood Protection Projects

Civic Works Committee – August 12, 2019 – Upper Thames River Conservation Authority and City of London Flood Protection Projects

Civic Works Committee – June 18, 2018 – Upper Thames River Conservation Authority and City of London Flood Protection Projects

Civic Works Committee – July 17, 2017 – Water and Erosion Control Infrastructure (WECI) Program: 2017 Provincially Approved Project Funding (Sole Sourced)

Civic Works Committee – August 22, 2016 – Water and Erosion Control Infrastructure (WECI) Program: 2016 Provincially Approved Project Funding (Sole Sourced)

Civic Works Committee – February 2, 2016 – West London Dyke Master Repair Plan Municipal Class Environmental Assessment Study

Strategic Priorities and Policy Committee – January 28, 2016 – Downtown Infrastructure Planning and Coordination

2.0 Discussion and Considerations

2.1 Norman Bradford Concrete Repairs

As per Reg 104/97, the structural integrity, safety and condition of every bridge shall be determined through the performance of at least one inspection every second calendar year under the direction of a Professional Engineer and in accordance with the Ontario Structure Inspection Manual, O.Reg. 472/10, s.2. Given this requirement, the City of London undertakes a condition assessment of the City's bridge inventory every two years. This inspection was last completed in 2019 by AECOM Canada Ltd.

The 2019 condition assessment indicated that the Norman Bradford Bridge (Oxford Street bridge) required repairs to the north soffit and fascia as well as some localized repairs around the western deck drains. These repairs were considered non-structural and would not normally be a high priority to address; however, given the introduction of the new pathway under the bridge, these repairs are now required to be addressed from a user safety perspective in order to prevent falling concrete.

Figure 1: Area of unsound/ delaminated concrete on soffit and fascia (North Side)

AECOM completed a full detailed design package for all required repairs of the Norman Bradford Bridge in 2020. To prevent falling concrete onto the new pathway, it is recommended to complete the works from the West Abutment and Pier 1 ahead of a full bridge rehab, as these works directly impact pedestrian safety. Should these works not be completed under this current contract, the pathway connection will be required to remain closed until the works can be completed after Ro-Buck's one-year warranty period expires.

Given the pedestrian safety concerns and to avoid overlapping warranty periods from multiple contractors, it is recommended to complete these concrete repairs under the current West London Dyke Phase 7 contract.

2.1 Norman Bradford Guard Rails

The original issued-for-tender design planned to reinstate the existing guard rails on the south side of Oxford Street upon completion of the dyke work. Upon further review, it was determined that the existing guard rails on both sides of Oxford Street did not provide adequate protection. In order to meet crash test standards, the guard rails are required to be upgraded in order to provide pedestrian and motorist protection.

3.0 Financial Impact/Considerations

At this time, it is proposed that the concrete repairs be completed under the current contract to avoid a one-to-two-year pathway closure while contractor warranty periods expire. Robuck provided a quote of $78,526.62 to complete the concrete repair work and a cost of $98,000 to complete the guard rail replacement has been provided by Ro-buck Contracting Ltd. Staff have reviewed Robuck's fees and hours and have deemed the quote to represent a fair and consistent price with previously completed repair work.

Conclusion

It is recommended that the City's share to the West London Dyke Phase 7 construction contract that is administered by UTRCA, be increased to repair the concrete works and guard rail installation for the Norman Bradford Bridge.

Prepared by: **Shawna Chambers, P.Eng., DPA, Division Manager, Stormwater Engineering**

Submitted by:	**Scott Mathers, MPA, P. Eng., Director, Water, Wastewater, and Storm Water**
Recommended by:	**Kelly Scherr, P. Eng., MBA, FEC** **Deputy City Manager, Environment & Infrastructure**
Attachments:	Appendix 'A' – Source of Financing
CC:	John Freeman Gary MacDonald Alan Dunbar Jason Davies Geoff Smith Monica McVicar Karl Grabowski Jeff Bruin

Appendix "A"

#21163
September 21, 2021
(Increase Contract Award)

Chair and Members
Civic Works Committee

RE: West London Dyke Norman Bradford (Oxford Street) Bridge Concrete Repairs
(Subledger SWM20001)
Capital Project ES2474 - UTRCA Remediating Flood Control Works within City Limits
Capital Project PK213520 - Maintain Thames Valley Parkway (2020-2023)
Capital Project TS176320 - Bridges Major Upgrades
Upper Thames River Conservation Authority - $176,526.62 (excluding HST)

Finance Supports Report on the Sources of Financing:

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

Estimated Expenditures	Approved Budget	Committed To Date	This Submission	Balance for Future Work
ES2474 - UTRCA Remediating Flood Control Works within City Limits				
Engineering	6,485,357	6,485,357	0	0
Construction	9,892,742	6,101,580	49,862	3,741,300
City Related Expenses	80,859	80,859	0	0
ES2474 - Total	16,458,958	12,667,796	49,862	3,741,300
PK213520 - Maintain Thames Valley Parkway (2020-2023)				
Engineering	234,794	67,348	0	167,446
Construction	613,206	272,290	39,954	300,962
City Related Expenses	2,000	0	0	2,000
PK213520 - Total	850,000	339,638	39,954	470,408
TS176320 - Bridges Major Upgrades				
Engineering	1,062,755	1,062,755	0	0
Land Purchase	2,500	2,500	0	0
Construction	4,967,297	664,221	89,817	4,213,259
City Related Expenses	20,000	0	0	20,000
TS176320 - Total	6,052,552	1,729,476	89,817	4,233,259
Total Expenditures	$23,361,510	$14,736,910	$179,633	$8,444,967

Sources of Financing

ES2474 - UTRCA Remediating Flood Control Works within City Limits				
Capital Sewer Rates	1,000,000	1,000,000	0	0
Debenture By-law No.-W.5610-251	2,750,000	0	0	2,750,000
Drawdown from Sewage Works Renewal Reserve Fund	12,657,213	11,616,051	49,862	991,300
Other Contributions	51,745	51,745	0	0
ES2474 - Total	16,458,958	12,667,796	49,862	3,741,300

Appendix "A"

#21163
September 21, 2021
(Increase Contract Award)

Chair and Members
Civic Works Committee

RE: West London Dyke Norman Bradford (Oxford Street) Bridge Concrete Repairs
(Subledger SWM20001)

PK213520 - Maintain Thames Valley Parkway (2020-2023)	**Approved Budget**	**Committed To Date**	**This Submission**	**Balance for Future Work**
Canada Community-Building Fund (Federal Gas Tax)	850,000	339,638	39,954	470,408
TS176320 - Bridges Major Upgrades				
Capital Levy	959,226	959,226	0	0
Drawdown from Self Insurance Reserve Fund	4,631	4,631	0	0
Drawdown from Capital Infrastructure Gap Reserve Fund	2,472,688	0	0	2,472,688
Canada Community-Building Fund (Federal Gas Tax)	2,516,381	665,993	89,817	1,760,571
Other Contributions	99,626	99,626	0	0
TS176320 - Total	6,052,552	1,729,476	89,817	4,233,259
Total Financing	$23,361,510	$14,736,910	$179,633	$8,444,967

Financial Note:	**ES2474**	**PK213520E**	**TS176320**	**Total**
Contract Price	$49,000	$39,263	$88,264	$176,527
Add: HST @13%	6,370	5,104	11,474	22,948
Total Contract Price Including Taxes	55,370	44,367	99,738	199,475
Less: HST Rebate	-5,508	-4,413	-9,921	-19,842
Net Contract Price	$49,862	$39,954	$89,817	**$179,633**

Jason Davies
Manager of Financial Planning & Policy

jg

DEFERRED MATTERS

CIVIC WORKS COMMITTEE

as of September 13, 2021

File No.	Subject	Request Date	Requested/Expected Reply Date	Person Responsible	Status
1.	**Rapid Transit Corridor Traffic Flow** That the Civic Administration BE DIRECTED to report back on the feasibility of implementing specific pick-up and drop-off times for services, such as deliveries and curbside pick-up of recycling and waste collection to local businesses in the downtown area and in particular, along the proposed rapid transit corridors.	December 12, 2016	Q3, 2021	K. Scherr J. Dann	
2.	**Garbage and Recycling Collection and Next Steps** That, on the recommendation of the Managing Director, Environmental and Engineering Services and City Engineer, with the support of the Director, Environment, Fleet and Solid Waste, the following actions be taken with respect to the garbage and recycling collection and next steps: ii) an Options Report for the introduction of a semi or fully automated garbage collection system including considerations for customers and operational impacts.	January 10, 2017	Q1, 2022	K. Scherr J. Stanford	
3.	**Bike Share System for London – Update and Next Steps** That, on the recommendation of the Managing Director, Environmental and Engineering Services and City Engineer, the following actions be taken with respect to the potential introduction of bike share to London: that the Civic Administration BE DIRECTED to finalize the bike share business case and prepare a draft implementation plan for a bike share system in London, including identifying potential partners, an operations plan, a marketing plan and financing strategies, and submit to Civic Works Committee by January 2020; it being noted that a communication from C. Butler, dated August 8, 2019, with respect to the above matter was received.	August 12, 2019	Q3, 2021	K. Scherr J. Stanford	

File No.	Subject	Request Date	Requested/Expected Reply Date	Person Responsible	Status
4.	**Best Practices for Investing in Energy Efficiency and GHG Reduction** That Civic Administration BE REQUESTED to develop a set of guidelines to evaluate efficiency and Greenhouse Gas reduction investments and provide some suggested best practices.	June 18, 2019	Q4, 2021	K. Scherr J. Stanford	
5.	**MADD Canada Memorial Sign** That the following actions be taken with respect to the memorial sign request submitted by Shauna and David Andrews, dated June 1, 2020, and supported by Mothers Against Drunk Driving (MADD) Canada: a) the Civic Administration BE DIRECTED to engage in discussions with MADD Canada regarding MADD Canada Memorial Signs and bring forward a proposed Memorandum of Understanding with MADD Canada for Council's approval; it being noted that MADD will cover all sign manufacturing and installation costs; it being further noted that the Ministry of Transportation and MADD have set out in this Memorandum of Understanding ("MOU") the terms and conditions for the placement of memorial signs on provincial highways which is not applicable to municipal roads; it being further noted that MADD provides messages consistent with the London Road Safety Strategy; and, b) the Civic Administration BE DIRECTED to work with MADD Canada to find a single permanent location in London for the purpose of memorials.	July 14, 2020	Q4, 2021	D. MacRae A. Salton	
6.	**Street Renaming By-law, Policies and Guidelines** That the following actions be taken with respect to the street renaming of Plantation Road:	September 22, 2020	TBD	G. Kotsifas	

File No.	Subject	Request Date	Requested/Expected Reply Date	Person Responsible	Status
	b) the Civic Administration BE DIRECTED to undertake a review of City's By-laws, Policies and Guidelines relating to street naming processes and approvals and report back to the Civic Works Committee on any recommended changes to the process(es) that would support and implement the City's commitment to eradicate anti-Black, anti-Indigenous and people of colour oppression; it being noted that the report back is to include a review of the request set out in the above-noted petition, recognizing that, historically, the word "Plantation" has a strong correlation to slavery, oppression and racism;				
7.	**Updates - 60% Waste Diversion Action Plan Including Green Bin Program** d) the Civic Administration BE DIRECTED to: i) continue to prioritize work activities and actions that also contribute to the work of the London Community Recovery Network; and, ii) submit a report to the Civic Works Committee by June 2021 that outlines advantages, disadvantages, and implementation scenarios for various waste reduction and reuse initiatives, including but not limited to, reducing the container limit, examining the use of clear bags for garbage, mandatory recycling by-laws, reward and incentive systems, and additional user fees.	November 17, 2020	Q3, 2021	K. Scherr J. Stanford	
8.	**Green Bin Program Design - Community Engagement Feedback** That, on the recommendation of the Managing Director, Environmental and Engineering Services and City Engineer the following actions be taken with respect to the staff report dated March 30, 2021, related to the Green Bin Program Design and Community Engagement Feedback: e) the Civic Administration BE DIRECTED to report back at a future meeting of the Civic Works Committee on the outcome of the procurement processes and provide details on the preferred mix of materials to collect in the Green Bin and any final design adjustments based on new information; and,	March 30, 2021	TBD, September 2021	K. Scherr J. Stanford	

File No.	Subject	Request Date	Requested/Expected Reply Date	Person Responsible	Status
	f) the Civic Administration BE DIRECTED to report back to the Civic Works Committee by September 2021 on municipal programs options, advantages, disadvantages and estimated costs to address bi-weekly garbage concerns.				
9.	**Imperial Road Sidewalk - Councillor M. Cassidy** That the Civic Administration BE DIRECTED to report back to a future meeting of the Civic Works Committee with the results of the photometric study on Imperial Road and the detailed design of the proposed sidewalk on the east side of Imperial Road prior to tendering or commencing work; it being noted that a communication, dated March 24, 2021, from Councillor M. Cassidy, with respect to this matter, was received.	March 30, 2021	TBD	K. Scherr D. MacRae	
10.	**3rd Report of the Cycling Advisory Committee** b) the following actions be taken with respect to a City of London PumpTrack: ii) the Civic Administration BE REQUESTED to report back on the process and fees associated with a feasibility study with respect to the establishment of a pumptrack facility in the City of London; it being noted that the communication, as appended to the agenda, from B. Cassell and the delegation from S. Nauman, with respect to this matter, was received	May 11, 2021	TBD	K. Scherr, S. Stafford	