Agenda
Civic Works Committee

The 7th Meeting of the Civic Works Committee

May 11, 2021, 12:00 PM

2021 Meeting - Virtual Meeting during the COVID-19 Emergency

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

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

6. Confidential (Enclosed for Members only)

6.1. Litigation / Solicitor-Client Privileged Advice

A matter pertaining to litigation or potential litigation; advice that is subject to solicitor-client privilege, including communications necessary for that purpose from the solicitor and officers and employees of the Corporation, and for the purpose of providing instructions and directions to officers and employees of the Corporation, with respect to litigation currently before the Superior Court of Justice, Court file No. 1181/20 affecting the municipality in relation to the Wilton Grove Road Sanitary Sewer Project.

6.2. Litigation / Solicitor-Client Privileged Advice

A matter pertaining to litigation or potential litigation; advice that is subject to solicitor-client privilege, including communications necessary for that purpose from the solicitor and officers and employees of the Corporation, and for the purpose of providing instructions and directions to officers and employees of the Corporation with respect to the Wilton Grove Road Sanitary Sewer Project.

6.3. Litigation / Solicitor-Client Privileged Advice / Confidential Information Supplied to the Corporation in Confidence

A matter pertaining to litigation or potential litigation; advice that is subject to solicitor-client privilege, including communications necessary for that purpose from the solicitor and officers and employees of the Corporation; information explicitly supplied in confidence to the municipality or local board by Canada, a province or territory or a Crown agency of any of them, and for the purpose of providing instructions and directions to officers and employees of the Corporation with respect to the City’s right-of-way abutting 840 Highbury Avenue.

7. Adjournment

Transportation Advisory Committee

Report

4th Meeting of the Transportation Advisory Committee
April 27, 2021
Advisory Committee Virtual Meeting - during the COVID-19 Emergency

Attendance

PRESENT: D. Foster (Chair), D. Doroshenko, T. Kerr, M. Rice, M.D. Ross and S. Wraight and J. Bunn (Committee Clerk)

ABSENT: A. Abiola, G. Bikas, B. Gibson, T. Khan and P. Moore

ALSO PRESENT: Sgt. S. Harding, A. Jain, J. Kostyniuk, T. Macbeth, D. MacRae, A. Miller, J. Stanford and B. Westlake-Power

The meeting was called to order at 12:16 PM.

1. Call to Order

1.1 Disclosures of Pecuniary Interest

That it BE NOTED that no pecuniary interests were disclosed.

2. Consent

2.1 3rd Report of the Transportation Advisory Committee

That it BE NOTED that the 3rd Report of the Transportation Advisory Committee, from its meeting held on March 23, 2021, was received.

2.2 Municipal Council Resolution - New Sidewalks in 2021 Infrastructure Reconstruction Projects

That it BE NOTED that the Municipal Council resolution, from its meeting held on March 23, 2021, with respect to New Sidewalks in 2021 Infrastructure Reconstruction Projects, was received.

2.3 Municipal Council Resolution - Implementation of the Automated Speed Enforcement (ASE) Program

That it BE NOTED that the Municipal Council resolution letter, from its meeting held on April 13, 2021, with respect to the Implementation of the Automated Speed Enforcement (ASE) Program, was received.

2.4 Municipal Council Resolution - Cycling and Transportation Demand Management Upcoming Projects

That it BE NOTED that the Municipal Council resolution, from its meeting held on April 13, 2021, with respect to Cycling and Transportation Demand Management Upcoming Projects, was received.

2.5 Temporary Traffic Changes to Dundas Place During the 2021 Construction Season

That it BE NOTED that the communication, dated April 14, 2021, from D. MacRae, Director, Roads and Transportation, with respect to temporary traffic changes to Dundas Place during the 2021 construction season, was received.

2.6 2021 TAC Work Plan

That it BE NOTED that the Transportation Advisory Committee 2021 Work Plan, as at April 19, 2021, was received.

3. Sub-Committees and Working Groups

3.1 Autonomous and Electric Vehicles Sub-Committee Report

That the following actions be taken with respect to the Autonomous and Electric Vehicles Sub-Committee Report, dated March 22, 2021, from M. Rice:

a) the attached, above-noted Sub-Committee Report BE FORWARDED to the Civic Works Committee and to the Connected and Automated Vehicle (CAV) Strategy Project Team for review; and,

b) the above-noted Report BE RECEIVED.

4. Adjournment

The meeting adjourned at 12:37 PM.

Autonomous and Electric Vehicles Report - Transportation Advisory Committee

Summary

Governments across the world have taken steps to reduce greenhouse gas emissions. How will this be done? Primarily, by phasing out fossil fuelled vehicles. While Electric Vehicles (EV) are already in the city of London, they are small in number. This will change as North American retools their automobile and truck assembly plants this decade.

In the natural evolution of these vehicles, it is predicted that we will also see the introduction of Autonomous Vehicles (AV). The attached report hopes to illustrate how they will be constructed and delve into the issues which the City of London will have to come to grips with in the near term as well as providing some recommendations for the CAV Working Group to consider as they prepare their report to Civic Work Committee later this year.

Proposed Motion for TAC Meeting #4

That the Civic Works Committee receive and refer the attached report to the Connected and Autonomous Vehicles (CAV) Work Group for inclusion in their ongoing review and report to Council in 2021.

Autonomous and Electric Vehicles Report - Transportation Advisory Committee

March 22, 2021

In this report Autonomous Vehicles will be abbreviated to AV, Electrical Vehicles will be EV, Connected Vehicles will be CV.

GENERAL INFORMATION

There have been many reports written that AV will be on the road in twenty years. That is a possibility, the more likely scenario will be a gradual phasing in of EV then AV from fossil fuel vehicles. Electrical vehicles are already in the city, they are small in number. They will grow in number after the renovation of the Detroit area assembly plants. Two major economic powers, United States and European Union, want to reduce greenhouse gas emissions by 2030. How will this be done? This will be done by phasing out fossil fuelled vehicles and introducing electric vehicles. In this report there will be more about the assembly plant. The report will give you some idea of how they will be constructed.

The London Free Press ran a series of articles on the future cars dated Dec.12, 2019. The car of the future will be powered by four small motors, this will free up storage space in the chassis for lead acid and lithium ion batteries. The heart of the car will be its information centre, also known as the dashboard, the vehicles will be purpose built around their electrical architecture. The vehicle will have embedded sensors, cameras and other electronics, the information centre will automatically give you a route that will give you a faster commute home. The information centre could and probably will be used to remind you of appointments and other daily activities.

Cybersecurity will be extremely important for everyone who uses a vehicle, cell phone, tablet as these devices can now be connected to your vehicle. QNX an operating system by Blackberry is going to be used in Hyundai vehicles that feature advanced driving and autonomous vehicle platforms. Hyundai is using the QNX system right now, they are being advertised on television since late 2019 and early 2020.

HISTORY

Now for a little history about EV/AV. A Scot's man, Robert Anderson develops the first crude electric car about 1832. In 1859 rechargeable batteries were invented. During the 1870's the manufacture of electric cars became practical. In 1887 in Des Moines, Iowa a patent for electric car was issued. The electric car was in a parade in Des Moines, Iowa in 1888; the car appeared in the 1893's World Fair. In the 1920's there were articles about a "Phantom Car" or AV Testing continued on this car. In the 1980's promising results from came from testing at Carneige Mellon University's NAVLAB. The technology caught on, many people thought that the results were science fiction, with many reference to the television series "The Jetsons". Different companies worked on technologies whose main theme was to drive down a municipal road, interact with other vehicles, citizens, infrastructure and natural elements. In 2014 a professor at New York University wrote a book called "ReProgramming Mobility, The Digital Transformation in the USA". He envision a do nothing or delayed approach to AV. He envisioned four scenarios: Growth, Collapse, Constraint, Transformation for more information go to HTTP://reprogrammingmobility.

WHAT OTHERS ARE DOING: A WORLD VIEW

Japanese automakers are teaming up to develop technologies and infrastructure strategy for AV. This is done out of fear that European and American automakers are taking the lead and establishing “global standards”. Another Asian country Singapore has an ongoing project called “Future Urban Mobility”. This project has been active since 2010 and has completed several sub projects. Germany plans to upgrade the Autobahn for AV use and allow vehicle to employ infrastructure communication. The Province of Ontario has created an ecosystem for success that featured the following:

- Population
- Local weather patterns
- Terrain
- Types of dominant road networks (examples Gravel Roads, Paved, Etc)

HOW IT WORKS

When on the road self-driving vehicles rely heavily on capturing the “live” built environment around them. The eyes of the system are 3D laser scanners that are constantly scanning everything around them to a millimetre accuracy. The acquired data is run through different algorithms, the vehicle’s algorithms looks at the acquired data and tries to make sense of what is going on around the vehicle. The algorithms help the vehicle make sense and the vehicle follows the rules of the road. Every second the vehicle is on the road it collects a tremendous amount of data, anything the vehicle can see generates data and that data is stored in real time.

WHAT HAPPENS TO THE DATA?

The data is available to automakers now, it can be used by who may be using the data to test AV with or without government permission. The AV will have an enhanced system that will be able to read and respond to our needs. The type of personal data that could be used by the automakers includes: Voice patterns, names, home address, place of employment, schools, etc. Some of the data will be useful for traffic management. The Federal and Provincial government must clearly define what is sensitive data and what data can the municipality use.

Here is an example of how it could be done. Uber and the city of Boston plan use the data which will manage growth, reduce pollution and reduce congestion. The data captured by 3D scanners on buildings, highways, rivers etc. could easily study changes over a period of one day, one month, one year or more.

DEFINITIONS BY TRANSPORT CANADA 2019

AUTOMATED VEHICLE: -uses a combination of controllers and on board computers along with sophisticated software which allows the vehicle to control at least some driving functions, instead of humans. Examples: steering, braking and acceleration, checking and monitoring the driving environment.

CONNECTED VEHICLE: -depends on the features installed a connected vehicle may be able to communicate with:

- its occupants such as through their mobile devices

- with other vehicles and road users
- with surrounding transportation infrastructure such as roadways and traffic lights
- internet based applications and entities

The province of Quebec has defined autonomous vehicles: to a vehicle equipped with an automated driving system that can operate a vehicle at driving level 3, 4, 5 as defined by SAE International Standard 3016. Further research at the Society of Automotive Engineers website needs to be undertaken so that the city can determine the level it is at. In addition, further research will assist London in identifying its future infrastructure needs. The Province of Quebec defines AV this way "can be operated without human monitoring or intervention. They may, also, be called driverless vehicles or intelligent vehicles.

ELECTRIC VECHICLES: -a vehicle that is partially or entirely powered by electricity

WHAT IS HAPPENING NOW?

All AV/CV are now at SAE level 2. These vehicles feature adaptive cruise control, park assist and automatic emergency braking. AV/CV vehicles use radar, Lidar(light detection) and possibly thermal imaging. These technologies enable real time positioning through GPS. The technologies use complex machine learning algorithms to process and respond to their surrounding environment, traffic and obstacles. CV technology often appears in tandem with AV technologies.

Vehicle to vehicle communication technology is available in Canada. The vehicle to vehicle communication enables two way data that provides information to the driver. The Vehicle to Vehicle (V to V) technology enables the vehicle to communicate with other vehicles and road infrastructure. This technology can improve situational awareness through the use of Dedicated Short Range Communication (DSRC).

This is what London can do. We must ask ourselves many questions about AV. The city needs to ask the province about the results of tests done in Stratford, ON. These tests have implications for safety, road infrastructure, mobility and land use planning. The city needs to know if there are any updates to the regulations and the city needs clearly defined regulations.

The city needs to start collecting data about anything related to AV/CV/EV. This means the city needs to ask questions, create working groups, hold workshops and educate the public. Here are some examples. How do the new technologies compliment public transit? How does the adoption of these technologies support the first and last kilometre of travel for urban transit users? Data and research will be needed to determine the life span of bridges and road infrastructure. This can be done by using sensors in bridge structures, along with working with Western University Faculty of Engineering Science. Perhaps there is a project at Western that could benefit both parties.

More questions to consider. How does the data from AV/CV change the design infrastructure and use of mobility services? AV/CV will disrupt human drivers, another huge impact will come in the employees who repair, service and use the AV/CV. They will need to upgrade their skills, retrain for another type of job. Who and how will this be done? Will it be in house or will the local college and university do the training. The city will need to redefine the skill set required for many jobs involving AV/CV.

QNX Platform made by Blackberry asked the City of Ottawa to assist them, they asked Ottawa to help construct a site with specified features. These features were a traffic light, roundabout, an on ramp, railway crossing, stop sign, yield sign and parking area. The site was, also, equipped with the latest communication technology. The site was designed as a miniature city. Blackberry was able to do more advanced testing in a lower risk environment. Other companies were able to test wireless networking technologies, advanced sensor car to car technology and car to infrastructure communication, and they were able to test a first responder scenario. These are examples of the use of 5G wireless technology.

The tests revealed that AV do not respond well as human drivers in extreme weather. There will be more information about extreme weather testing later in this report. Future plans include more testing in extreme weather conditions. The installation of 5G antennas to facilitate various 5G testing. AV will depend on the advances in technology. They will be incremental additions to today's technology.

WHAT CITIES CAN DO

It is possible that cities might have a dedicated lane for manually operated vehicle. The challenge will be how quickly will the consumer purchase AV/EV/CV. What will be the mix of privately owned, public transit mix? Future vehicle fleets will be EV so that cities can become greener. AV and EV along with bike paths, motor scooters and improved public transit needs to happen, this needs to be an integrated approach.

The challenges that need to be addressed are the accuracy of GPS map how up to date are they, teaching Artificial Intelligence how to function in extreme weather, ethical and legal challenges in a collision that might cause an injury are who is responsible: the driver, the manufacturer or the software developer. AV have to learn under extreme weather conditions. Rain makes it more difficult for the sensors to "see" their surroundings. The city might be required to find better or upgrade road markings. Snow covers the road markings. AV use Radar and Lidar to drive on the roadway, in extreme weather events cities may have to plow sooner, use more road salt, and other means to uncover road markings.

SNOW and AUTONOMOUS VEHICLES

In 2017 Finland conducted a test to see if a car could successfully navigate a snow covered road. They used two vehicles, Car A had three forwarding looking lasers, a mix of cameras, antennas, sensors, GPS and detailed positioning information to navigate its route. Car A reached a speed of forty kilometres per hour. A second car was built for urban driving. Car B had in addition to the technology in Car A two forward looking LIDARS sensors and one rear looking LIDAR. Car A was tested near Munio, in northwest Finland. The car was tested on an intelligent road the road was specifically built to be compatible with intelligent transportation systems. The road had 5G connectivity and relayed road conditions such as friction data and precise positioning. However Car A was not equipped with the ability to communicate with digital infrastructure. No information about the test was available on the internet.

Just recently, data was released by the University of Waterloo and the University of Toronto. The Canadian Adverse Driving Condition data set. The data set is based on actual scans of icy snow covered roads. It acts as a virtual training course for computer algorithms that allow AV to drive themselves. They wanted to see the worst driving conditions possible. The universities used a Lincoln MKZ hybrid that had a full suite of sensors, eight on board cameras, a LIDAR (Light detection and ranging) scanner, and GPS. The car had a recording mode that captured images at the rate of ten images per second.

During the two year study the vehicle drove over 1,000 kilometres of which 33 kilometres were in snowy harsh conditions.

The Universities teamed up with Scale AI a San Francisco, USA based Artificial Intelligence infrastructure company to label the data. Scale used a combination of computer and human imaging recognition. The company tagged more than 178,000 instances of passing vehicles. They,also, tagged more than 83,000 instances of humans and many other objects. This data was necessary as no one had any idea how AV would perform in a Canadian winter. The team did a statistical analysis, process validation and placed the data into a format that can be looked at. In the future both universities want to create technologies that can locate and track objects in adverse weather.

AV CV EV PROJECTS 2017-2020

- Scarborough, ON. Rouge Hill automated shuttle trial for six to twelve months starting fall 2020. The shuttle will take residents to GO station from under serviced area by public transit.
- Hamilton, ON. A connected and autonomous vehicle test bed will start in spring 2020. The test bed will be on five main streets in a two kilometre stretch of residential, commercial and eight industrial developments. The purpose of the project is to explore emerging autonomous technologies to consider future integration into traffic systems.
- Candiac, QC. Navya Shuttle Pilot was a fifteen passenger autonomous electric vehicle, it was done over a two kilometre route in a light industrial area of the city from Oct. 2018 –Oct. 2019. Its purpose was to improve transportation service in an area that was under serviced by public transit, its secondary purpose was to inform and help future planning. No information about the test results are available on the internet.
- Stratford, ON. AVIN TECHNOLOGY DEMONSTRATION ZONE (AVIN) It started in 2017 and is ongoing.
- Toronto, ON. UBER Self Driving Lab. The project stated in 2017 and is ongoing. The purpose was to improve automatic mapping to make the roads safer.
- Ottawa, ON. L5 Project The project started in 2019 and is ongoing. It has a sixteen kilometre test track with a five point two kilometre high speed test loop. The purpose of the project is to test cybersecurity, adverse weather conditions and interoperability of systems.
- Alberta The project is called ELA Pilot Project in Beaumont, AB. and started in 2019. It is a twelve passenger autonomous electric vehicle on various routes for short periods of time. It is a project of Pacific Western Transportation CO. it purpose is to allow the public to experience AV. A secondary purpose was to position the company the regional transportation industry as a technology leader and promote research.
- Montreal, QC. The project was a two year study using a twelve person shuttle between Olympic Stadium and Metro (subway) along with other stops along the way. The project had a dedicated route, the project lasted from Aug.2018 to Aug.2019, within several months they added a second shuttle. There is information about this electric bus project on the internet.

AV/CV/EV PROPULSION SYSTEM

There are several types:

- BEV or Battery Electric vehicle. They are vehicles that run on batteries and plug into an external source of electricity. These vehicles use regenerative braking to charge the battery. Regenerative braking was used by electrified railways between 1900 to 1970. It turns heat from braking into electricity to recharge the batteries.
- PHEV or Plug in Hybrid Electric Vehicles. They are hybrid vehicles that are internal combustion engines and plug into an external source of electricity.
- HFCV or Hydrogen Fuel Cell Vehicles. These vehicle derive their energy by converting chemical energy into electrical energy. These vehicles can refuel in five minutes and release no harmful tailpipe emissions. First responders will need to be very careful when responding to a vehicle involved in an accident. Hydrogen when enclosed in a cylinder can explode and burn if the cylinder is damaged. There is only a hand full of public hydrogen filling stations. These vehicles have a range of 500 kilometres.

RECHARGING BATTERIES

BEV takes about fourteen hours at home or eight hours at work to recharge. PHEV needs one to four hours to recharge. There are two types of charging stations: Standard and Fast.

Standard supplies 240 volts to the vehicle being charged. In Ontario the cost can be a flat rate of $4.00 regardless of the length of charge or at an hourly rate per minute based on the amount of time the vehicle is plugged in.

Fast charging stations supplies 400 volts to the vehicle being charged. Fast rate charging station charges $17.00 per hour and is billed by the minute. The bill is based on the total time at the station.

ONLY one vehicle at a time can be charged at a fast rate charging station, the other vehicle will charge at the standard rate. At Fast Rate Charging the manufacturers have designed the batteries to be charged up to 80 to 83 of a full charge before switching over to standard charging to complete the recharging.

AV,EV,CV will most likely be powered by a rare earth metal type of battery. Although North America has an abundance of rare earths the ore is shipped to China for processing. There are several companies planning on extracting the earths from mineral sands in the southeastern US and the tailings from Alberta oil sands. Rare earths are used in magnets that are used in electric motors. As society is moving towards a low carbon emission vehicle rare earths will become more valuable.

Battery materials will be made out of Lithium, Graphite and nickel, and rare metals. The price of these materials will increase. Lithium is expected to increase by 965%, Graphite 383%, Nickel 108% by the year 2050. The batteries will become the target of thieves. Cobalt is also used in EV, the EV battery is moving to nickel to increase the range an EV can drive before recharging. Eventually these new batteries will not be able to hold a recharge and will need to be replaced. The European Union and China now have regulations that require battery manufacturers to finance the cost of collecting and recycling these new types of batteries. Ontario is moving in this direction.

EV and PARKING.

An owner in Toronto wanted to install a parking pad on his property as he planned to purchase an EV. The City of Toronto said NO, the homeowner appealed to TLAB. TLAB agreed with the owner. The city of Toronto again said NO and banned the installation of parking pads. The city cited the following. The pads create an environmental concern, they increase the amount of storm water runoff, and increase the amount of sewage that flows into the lake. In addition the city cited lack of clarity in provincial regulation surrounding parking. In 2017 Toronto Hydro was supposed to install parking pads in select locations around the city of Toronto.

Toronto Hydro did not install the pads, they had been granted permission by TLAB. TLAB said the parking pads were allowed because they meet the following criteria: minor in nature, desirable appropriate use of the site and in keeping with the general intent and purpose of the zoning bylaw and the city's official plan. It is possible that once approved and built by Toronto Hydro the City of Toronto does not have a way to enforce what type of vehicle parks on the pad.

THE LATEST NEWS CONCERNING AV/EV

GM announced a major renovation to Detroit area assembly plant. The plant will produce an electric pickup truck in late 2021. The pickup will be a battery operated Hummer pickup. The plans call for the plant to produce multiple electric pickups and sport utility vehicles, they will have different prices on the vehicles. At the same time GM introduced "Origin" a passenger like vehicle.

The "Origin" has been plagued with technical challenges and uncertainty around regulations about self driving vehicles. The article was not clear when GM would receive permission to use the "Origin". National Highway Traffic Safety Administration require vehicle to have mirrors and other safety devices attached to vehicles. However this has changed. A company in Mountain View, CA. called NURO has received permission to use a low speed autonomous vehicle. There will be no humans in the vehicle.

National Highway Traffic Safety Administration (US) do not require safety devices on vehicles that do less than forty kilometres per hour, NURO received temporary permission from NHTSA. The company can control the vehicles remotely if needed. The company will make safety reports in real time. The company will be reaching out to the communities where the vehicle will operate. Along with this the company will be meeting with NHTSA on a regular basis. The company has plans to use less than 100 vehicles but has permission to use 2,500 vehicles. The vehicles will be equipped with cameras, lasers, radar sensors and will travel in regular traffic.

Concerns were raised about the electrical grid being able to handle the number of EV recharging. London Hydro was asked to develop a peer to peer charging network to remove barriers to rapid adoption of EV. EV PLUG the name of the project is designed to convert chargers into block chain nodes, enabling public and private owners to share charging stations. Another part of the project is to provide consumers with more information on charging behaviour and give electrical providers the capacity to manage electrical loads.

Recent television advertisement by Ford signals their intent to assemble electric vehicles. The recent awarding of a contract to CAMI to assemble electric vehicles strongly suggest that some of these vehicles will be on London's roads in the near future. The CAMI vehicles will most likely be produced for a very large parcel delivery company.

AN EASY PROJECT

Should you go to Toronto in the near future you may encounter this sign “10 Minutes to Eglinton”. These signs appeared on certain streets in Toronto and indicated how long it would take to get to a subway stop. The signs were generally accurate and some people wanted to know what these signs were all about. See the accompanying photo these signs have devices that capture the signal a cellphone sends out so that the cellphone can uplink and downlink. When the cellphone is put in search mode, it is trying to find the nearest cellphone tower. This will, also, occur when you turn the ignition to the on position, most cars late model are equipped with WiFi or Blue Tooth.

When two devices are in sequence along a route, a reading can be matched up and estimate the travel time. When your Bluetooth or WiFi is in search mode a signal is transmitted, the signal is encrypted and stored. MAC ID stores the information until a match is found at a downstream location. Once the system finds a match, the information is deleted. A record is generated on the time stamp and segment travel time. Signs are updated every minute.

MAC ID is not traceable to any individual device there are no data base linking device. Even when the system is looking for a match the data is encrypted. The system cannot be used to identify a specific user’s speed or travel time. This system is a common approach to detecting general traffic conditions by road authorities. More information about this system can be found on the City of Toronto’s web site.

FUEL TAX REVENUES

As consumers switch to EV how are municipalities going to deal with the loss of revenue? The gas tax is used to fund infrastructure, sport facilities and broadband connectivity in Ontario. Two cents per litre from the gas tax fund goes into public transit. Vehicle efficiency has caused the demand for fuels to go in a downward trend The more EV are sold the trend will continue to a point that municipalities will need to find a new way to generate funds to offset the decline in funding from senior levels of government.

Infrastructure needs to be replaced, repaired and renewed during its life span. Another question to be asked is how to ensure EV pays their fair share of taxes and not get a free ride. The Residential and Civil Construction Alliance of Ontario suggest as downtown cordon pricing and congestion parking taxes. A similar idea is being tried in London England. These ideas will be politically challenging. The article from the Toronto Star published on Feb.22, 2020 has another idea.

Their idea is to charge a small user fee on all drivers. The fee MUST go to infrastructure building and maintenance. The State of Oregon is trying a user fee system called OReGo. The system charges 1.8 cents per mile. It is hoped that this fee will replace all state fuel taxes. The project has only 1,600 vehicles enrolled at the moment.

Another user pay as you drive mileage system is the IFTA. The next time you are out and about look for an eighteen wheeler with a sticker that says IFTA on the tractor. IFTA stands for International Fuel Tax Agreement. It was set up for truckers that cross the international border, it measure the mileage, route and fuel purchase details. The information is reported quarterly, IFTA uses this information to calculate the fuel taxes owing in each state or province. A user fee system such as IFTA could be set and use the amount of kilometres you drive inside and outside the province to determine how much you should pay in user fees. The user fees MUST go to infrastructure building and repair fund.

RECOMMENDATIONS AND POLICY CHANGES

In ten to fifteen years the city will need to replace the present traffic signals with “Smart” traffic signals. This will allow the city to manage traffic flow more efficiently. “Smart” traffic signals will receive a significant amount of data that will need to be sorted or stored. “Smart” traffic signals will probably include photo radar, vehicle plate readers and other Software Designed Networks (SDN). Thus the city will need a Chief Technology Officer and Chief Privacy and Data Officer.

If council decides not to have a Chief Technology Officer, they should establish a working group consisting of a civil engineer, mechanical engineer, electrical engineer and anyone they feel is appropriate to the group. The purpose of the group is to review all new technology as it pertains to civic operations. The following questions need to be addressed:

- What will be the new regulation pertaining to data be?
- How will the data be stored?
- Will the data be stored in cloud computing?
- Will it be in a secure physical structure?
- Who will determine how the data is segregated into public or private?
- If the data is public, will the city be able to turn the data into a profitable venture?

(Note: The data that referred to in this paragraph is from vehicles to “smart” traffic lights.)

The city will need to reach out to Western University School of Engineering to get the latest updates on sensors in bridge infrastructure. The city will need to determine if there are any projects that could be sent to Western to be evaluated. These projects could be designed to improve the overall transportation system. Any project sent to Western should be mutually beneficial and should be designed to give students real life projects. A project such as what is the best paint for road markings that can be picked up by sensors or cameras during rainstorms and good weather.

The city needs to determine what type of future engineering students they will need. What will be the future trends? How can Western and Fanshawe teach and train the engineering student of the future? What is happening at the GM research facilities in Canada, how can London partner with this test facility? What are the latest research and applications being done in software and can they be used and applied by the city?

The city will need to get a copy of the Canadian Adverse Driving Data Set. This is available online at U of T or Waterloo. The data set needs to be examined, studied and how can it be applied in London. The question to be determined is how will the data set affect the city’s snow removal budget. Will the city still follow provincial guidelines or will the city put new guidelines in place, in addition what will be the cost to the taxpayer?

There are a number of ongoing and complete projects involving AV/CV/EV completed, can any data be shared with the city. The data needs to studied, evaluated and can the information used in London. Will there be any new projects emanating from the completed projects that London could be involved with? There are several projects underway involving regional transportation between London and surrounding communities. What type of data is going to be generated by these projects, can the projects be sustainable. If these projects are sustainable, will the vehicle be AV/CV/EV?

Charging stations will be necessary for electrical vehicles, in parts of the city where there are single dwellings an Electrical Safety Permit will be required. The charging station should be at the side of the house. Here are some challenges: in Heritage conservation districts will a Heritage Alteration Permit be required in addition to the ESA permit. If the homeowner in a HCD cannot install a charging station beside the residence, where will the owner be allowed to put the charging station? Another question what type of materials will be consistent with the character of the HCD, will the look of the charging station be modern or will it be something else. The heritage planner and heritage groups must be consulted to help determine the answers to these questions.

Townhouses, apartment buildings public spaces and public buildings will pose unique challenges for the city. Council first must determine what level EV's are at, and when that is established what will be the minimum number of charging stations required. The advice of a civil engineer, mechanical engineer and ESA should be used to set policy and determine regulations. ALL future construction MUST include detailed plans for the minimum number of charging stations with the provision of increasing the number of charging stations. This should be done with the cooperation of the developer before any permits are issued. Before any charging stations are installed the following questions must be answered:

- Does the building code need to be changed?
- Who does the inspection the city or ESA (Electrical Safety Authority)?

These questions can best be answered by examining the charging site at TD Call Centre on York Street and further enquiries may need to be done to get answers, insight or problems that may have arisen.

As the City of London is the largest shareholder in London Hydro what is the status of the Peer to Peer charging project. The data from this project or any other project should be reviewed by the Chief Data and Privacy Officer or Working Group. They will be able to determine whether the data conforms to provincial and federal laws and regulations, and can advise on council on any options.

IN terms of legal challenges:

- what is the acceptable risk to society, government and the legal system if a city owned AV/CV/EV is involved in an accident? Who is responsible? Is it the vehicle manufacturer, the company that designed and built the software, or somebody else?
- "Smart" traffic lights may possibly have software designed networks how do we integrate them into our car dominated urban planning in the future. Will the SDN be of use to law enforcement, can they be used to determine if the offence is serious or minor? If the offence is serious in nature how does law enforcement respond to the offence?

Earlier in this report we referred to an ongoing trial in Mountain View, CA. Council should monitor the progress of the project and expect periodic reports from staff.

Ontario is finalizing regulations concerning Lithium ion and other rare earth batteries. Council's policy should alignment with province. Lithium ion batteries will need to be replaced, when they are taken to a salvage operation photo id should be produced and strictly enforced for individuals. There needs to be a system in place to trace the ownership of all Lithium ion and rare earth batteries. These batteries could, also, be used to power alternative sources of energy as an example solar power farms.

Parking pads should not be allowed, someone will suggest this for charging stations. The LPAT will want to approve them citing the reasons earlier in this report. The city MUST say no because they cause more runoff during rainstorm and snow melt. In addition provincial regulations are poorly written and need to be clearly defined and understood by the city and general public.

Under the heading An Easy Project here is something the city can do. Should council decide this a worthwhile project, the project can be an easy way for council to introduce the concept of a CV. The public will feel like they are part of the process to integrate AV/CV/EV in the city. Where can this project be used? Many motorists are frustrated by delays at construction on major arterial roads this would be an excellent place to encourage motorists to seek alternate routes. The signs could be used on major arterial roads to indicate how long it takes to get from point A to Point B.

The trend for sharing fuel tax is trending down. What can council do? It can contact Residential and Civil Alliance of Ontario to get their suggestions. Council can contact the state of Oregon and ask questions about the challenges of OReGO. Council can enquire how IFTA works and the funds can be shared with the city. The CITY needs to articulate clearly that the province and federal government need to do something about fuel taxes in the future or else EV will get a free ride.

Some more final thoughts: the city will face many challenges in regards to AV/CV/EV information and data must be collected now and failure to do so will lead to chaos and a failure of leadership. Tough decisions will have to be made if carefully thought out and well explained to the public, the public will accept them.

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 Award – Dingman Creek Pumping Station Construction Tender T21-19**
Date: **May 11, 2021**

Recommendation

That on the recommendation of the Deputy City Manager, Environment & Infrastructure, the following actions **be taken** with respect to the award of contract for the construction of the Dingman Creek Pumping Station facility:

(a) the bid submitted by Hayman Construction Inc. at its tendered price of $21,632,010.00, excluding HST, for the Dingman Creek Pumping Station Construction project (RFT21-19), **BE ACCEPTED**, it being noted that the bid submitted by Hayman Construction Inc. was the lowest of four bids received and meets the City's specifications and requirements in all areas.

(b) Stantec Consulting Ltd, **BE AUTHORIZED** to carry out the resident inspection and contract administration for the Dingman Creek Pumping Station Construction project in accordance with the estimate, on file, at an upset amount of $749,029.38, including 10% contingency, excluding HST, in accordance with Section 15.2 (g) of the City of London’s Procurement of Goods and Services Policy.

(c) the financing for this project **BE APPROVED** as set out in the Sources of Financing Report attached, hereto, as Appendix ‘A’, noting the required wastewater capital budget transfers and adjustments.

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

(e) the approval given, herein, **BE CONDITIONAL** upon the Corporation entering into a formal contract, or issuing a purchase order for the material to be supplied and the work to be done, relating to this project; and

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

Executive Summary

Purpose

This report recommends award of a tender for the construction of the Dingman Creek Pumping Station to Hayman Construction Inc. in accordance with a two-stage tender process, and the continuation of consulting engineer services by Stantec Consulting Ltd. for the associated contract administration.

Context

The Dingman Creek Pumping Station project, including the recently completed forcemain, forms an essential element of the growth wastewater servicing strategy for southeast London. This project was accelerated and subsequently fast tracked to provide critical servicing to City developed industrial lands including the new Maple Leaf Facility. The construction of this pumping station is the culmination of three years of intense effort to deliver timely servicing. The new pumping station will be the second largest of London 37 pumping stations. The project will result in increased wastewater capacity and reduced maintenance costs for downstream infrastructure.

Linkage to the Corporate Strategic Plan

This report supports the 2019-2023 Corporate Strategic Plan in the following areas:

- Building a Sustainable City: Maintain or increase current levels of service; build infrastructure to support future development and protect the environment; and manage the infrastructure gap for all assets; and

- Strengthening Our Community: Continue to conserve London's heritage properties and archaeological resources.

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

Civic Works Committee, August 11, 2020, Item 2.3 – Request for Contract Increase - Dingman Creek Pumping Station Forcemain Installation Contract #2.

Civic Works Committee, June 18, 2019, Item 2.3 – Contract Award: Tenders T19-48 and T19-49, Dingman Creek Pumping Station Forcemain Installation.

Civic Works Committee, July 17, 2018, Item 2.7 – Dingman Creek and Colonel Talbot Pumping Stations Budget Adjustments.

Civic Works Committee, May 15, 2018, Item 2.5 – Appointment of Consulting Engineer – Design and Construction Administration Services – Dingman Creek Pumping Station Upgrades.

Civic Works Committee, April 17, 2018, Item 2.6 – South London Wastewater Servicing Study Municipal Class Environmental Assessment: Notice of Completion.

Civic Works Committee, August 29, 2017 – Appointment of Consulting Engineer, Dingman Creek PS Municipal Class EA.

2.0 Discussion and Considerations

2.1 Previous Work

The Dingman Creek Pumping Station is the result of multiple years of consultation and design. It was developed as a means to provide increased wastewater servicing capacity for the White Oaks and Pond Mills areas, as well as the strategic industrial growth area in southeast London, south of highway 401. These areas are currently serviced by the Wonderland Pumping Station, which also services the Lambeth area.

Constructed in 2009, Wonderland is now approaching its rated capacity as a result of residential and industrial growth in its sewershed. In addition, Wonderland is also challenged by high solids and grit content in the wastewater, resulting in high rates of equipment wear and increased maintenance costs as compared with other stations.

An environmental assessment process was undertaken and established that the preferred option for addressing both capacity and maintenance concerns would be the construction of a new facility at the site of the previously decommissioned Dingman Creek Pumping Station.

2.2 Key Facility Design Considerations

The primary purpose of the new Dingman Creek Pumping Station is to provide increased wastewater servicing capacity in order to enable growth in southeast and southwest London. Constructing a new facility with a dedicated forcemain rather than upgrading Wonderland Pumping Station effectively doubles the available capacity and

introduces redundancy in the system. Therefore, not only does constructing a new facility enable growth, it also increases overall system reliability.

A separate growth-funded project was planned for 2025 to provide peak shaving at the Dingman Creek Pumping Station (ES5171). Peak shaving is a process that reduces the overall maximum amount of flow, usually by storing wastewater at critical times. At the Dingman Creek Pumping Station it is important to ensure that the flow does not exceed the capacity of the downstream system to protect homes downstream from basement flooding and to prevent overlows. However, during detailed design of the pumping station project it was decided that, by providing enhanced screening and transfer capacity to the existing peak shaving facility, the new pumping station facility would be capable of providing the necessary peak flow capacity. This could be done for a lower overall capital cost than the budget that was projected for the new peak shaving facility.

In order to address concerns within the downstream infrastructure, the Dingman Creek facility will include service improvements such as solids screening and grit removal facilities that will remove difficult and abrasive solids from the wastewater stream. This is an enhanced feature not typically found in wastewater pumping stations, and it will play a significant role in reducing pump wear and solids deposition in the sanitary sewer system. In the situation where overflows must occur, this pre-treatment also reduces the environmental impacts of those unfortunate but sometimes necessary events.

2.3 Heritage Preservation

The new Dingman Creek facility will be constructed on lands recently purchased by the City. Those lands are the remnant residential portion of an extensive historical farm tract, and a yellow brick farmhouse constructed in 1869 remains on site. That farmhouse was in poor condition at the time of the purchase.

As part of the City’s commitment to preserve heritage properties, the Division decided to restore the exterior of the farmhouse in order to improve its appearance and ensure that it remains a stable structure for decades to come. In addition, the new facility is being constructed to resemble a barn structure, sight lines to the farmhouse are being maintained rather than obstructing views with new infrastructure, and tree plantings are planned to restore the feel of a tree-lined driveway. These features were added to the project in order to preserve the agricultural aesthetic of the area and complement the heritage building but did not result in any significant increase of overall contract cost. Of note, this same approach to preserving the historic feel of an area was also taken with the construction of the Wonderland Pumping Station by fashioning it after an agricultural silo.

3.0 Financial Impact/Considerations

3.1 Procurement Process

Considering the significant scale of this construction project and the specialized nature of the work, it was decided to undertake a two-stage procurement process whereby contractors were pre-qualified for the tendering process. Pursuant to a Request for Qualifications process (RFQUAL20-04), five general contractors were invited to bid on the Tender for construction of the new pumping station facility.

Request for Tender RFT21-19 was issued and all five pre-qualified prospective general contractors were invited to submit tenders. All five invited general contractors attended the site visit, with four of the five ultimately submitting tenders. The results are summarized below in ascending order. All tender prices shown exclude HST, but include $1,200,000.00 in contingency:

1. Hayman Construction Inc.: $21,632,010.00
2. Stonetown Construction Limited: $22,297,514.20
3. Baseline Constructors Inc.: $22,834,750.00

4. K&L Construction: $24,542,285.00

3.2 Sources of Financing

The tendered price for this construction project was higher than expected and it is believed that a portion of that increase is due to the impacts of COVID-19 on the cost of raw materials and equipment, especially since the majority of this equipment is made outside of Canada. An estimated $2M of the cost increase is thought to be attributable to these impacts. As the construction of the Dingman Creek Pumping Station is required to support imminent industrial growth the project cannot be delayed; therefore, it is recommended to proceed with the project in accordance with the detailed financing provided in the Source of Financing Report attached as Appendix 'A'.

Construction of the Dingman Creek Pumping Station facility was originally conceived as a 100% growth servicing project. Accordingly, the forcemain and a significant portion of the facility contemplated under RFT21-19 are funded through development charges. This funding includes additional non-rate (growth) supported debt financed through the City Services Wastewater Reserve Fund, which is required to address part of the tender price that exceeds the pre-tender budget estimate. The need for this additional funding will further stress the City Services Wastewater Reserve Fund which was already under pressure after previous adjustments made to accommodate the significant economic opportunity presented by the Maple Leaf processing plant for the City of London (Civic Works Committee, July 17, 2018, Item 2.7). Civic Administration will actively monitor this reserve fund and continue to explore measures that mitigate the financial pressures currently posed by the Wastewater and Treatment growth capital plan in light of these adjustments. As discussed in section 2.2 above, the Dingman Creek Peak Shaving (ES5171 - $7.9M) scheduled in 2025 has been identified as a project that can now be cancelled relieving some pressure on the reserve fund. The integration of the peak shaving functionality into the Dingman Creek Pumping Station design provides an integrated solution to peaks in wastewater flows at this location and results in a net reduced impact to the City Services Wastewater Reserve Fund.

Service improvements (solids screening and grit removal) that were included in the scope of the Dingman Creek Pumping Station during detailed design to address future downstream impacts will be funded via an additional drawdown from the Sewage Works Reserve Fund. It was determined that the most cost-effective opportunity to make these enhancements was as part of this construction project. As these enhancements benefit the existing wastewater system, they cannot be funded by development charges. It is estimated that $3.5M of the tender price is related to these enhancements.

4.0 Other Key Issues and Considerations

4.1 Timing to Support Economic Development

The additional capacity provided by the planned facility is essential in order to provide servicing for the new Maple Leaf processing facility in southeast London. That facility is currently under construction. In order to ensure that adequate wastewater collection capacity exists to handle the flows expected from that facility, construction must commence this summer. Given the projected timelines for this project, servicing will be in place in time to support the commissioning and production needs of the Maple Leaf facility.

Conclusion

The Dingman Creek Pumping Station Facility forms an essential component of the City's wastewater servicing strategy in south London. The tendering of this pumping station is the result of intense effort by staff to provide a highly complex multi-phase project in time to service the new Maple Leaf Foods facility and other City industrial lands. The pumping station will service growth in an environmentally responsible way while preserving the area's heritage.

Hayman Construction Inc. was selected as a capable general contractor for this type of facility through a prequalification process and has successfully completed similar projects for the City in the past. They submitted the lowest bid in a competitive tender process. Stantec Consulting Ltd. is the engineering consultant responsible for the design of the facility and forcemain, and also completed the contract administration for forcemain construction. It is therefore recommended that the construction tender be awarded to Hayman Construction Inc. and that Stantec Consulting Ltd be retained to provide the associated contract administration services using the sources of financing described.

Prepared by:	**Kirby Oudekerk, P.Eng., Division Manager, Wastewater Treatment Operations**
Submitted by:	**Scott Mathers, MPA, P.Eng., Director, Water, Wastewater and Stormwater**
Recommended by:	**Kelly Scherr, P.Eng., MBA, FEC, Deputy City Manager, Environment & Infrastructure**

cc: Kyle Murray, Director, Financial Planning & Business Support
Jason Davies, Manager III, Financial Planning & Policy
Zeina Nsair, Financial Business Administrator
John Freeman, Manager III, Purchasing & Supply
Chris Ginty, Procurement Officer
Peter Hayman, Hayman Construction Inc.
Nelson Oliveira, Stantec Consulting

Appendix "A"

#21062
May 11, 2021
(Award Contract)

Chair and Members
Civic Works Committee

RE: RFT21-19 - Dingman Creek Pumping Station
(Subledger FS20DC01)
Capital Project ES2332 - Dingman Creek PS Headworks
Capital Project ES5263 - Southwest Capacity Improvement
Capital Project ES5264 - Wonderland Pumping Station Upgrade
Hayman Construction Inc. - $21,632,010.00 (excluding HST)
Stantec Consulting Ltd. - $749,029.38 (excluding HST)

Finance and Corporate Services Report on the Sources of Financing:

Finance and Corporate Services confirms that the cost of this project cannot be accommodated within the financing available for it in the Capital Budget but can be accommodated with development charge funding and a drawdown from the Sewage Works Renewal Reserve Fund and that, subject to the adoption of the recommendations of the Deputy City Manager, Environment and Infrastructure, the detailed source of financing for this project is:

Estimated Expenditures	Approved Budget	Additional Funding Requirement	Revised Budget	Committed To Date	This Submission
ES2332 - Dingman Creek PS Headworks					
Construction	0	3,500,000	3,500,000	0	3,500,000
ES5263 - Southwest Capacity Improvement					
Engineering	2,028,815	0	2,028,815	1,266,603	762,212
Construction	17,966,453	4,082,600	22,049,053	8,536,320	13,512,733
City Related Expenses	4,732	0	4,732	4,732	0
ES5263 Total	20,000,000	4,082,600	24,082,600	9,807,655	14,274,945
ES5264 - Wonderland Pumping Station Upgrade					
Construction	5,000,000	0	5,000,000	0	5,000,000
Total Expenditures	$25,000,000	$7,582,600	$32,582,600	$9,807,655	$22,774,945
Sources of Financing					
ES2332 - Dingman Creek PS Headworks					
Drawdown from Sewage Works Renewal Reserve Fund (Note 1)	0	3,500,000	3,500,000	0	3,500,000
ES5263 - Southwest Capacity Improvement					
Drawdown from City Services - Wastewater Reserve Fund (Development Charges) (Note 2)	4,993,613	0	4,993,613	4,993,613	0
Drawdown from City Services - Wastewater Reserve Fund (Development Charges) - transfer from ES5171 - Dingman Creek PS Peak Shaving (Notes 2 and 3)	0	150,000	150,000	0	150,000
Debenture By-law No. W.-5642-466 (Serviced through City Services - Wastewater Reserve Fund (Development Charges)) (Notes 2 and 5b)	15,006,387	0	15,006,387	4,814,042	10,192,345
Debenture Quota (Serviced through City Services - Wastewater Reserve Fund (Development Charges)) - transfer from:					
ES2204-Colonel Talbot PS (Notes 2, 3 and 5b)	0	1,104,400	1,104,400	0	1,104,400
ES5169 - Oxford WWTP Expansion (Notes 2, 3 and 5b)	0	500,000	500,000	0	500,000
Additional Debenture Quota (Serviced through City Services - Wastewater Reserve Fund (Development Charges)) (Notes 2, 4 and 5b)	0	2,328,200	2,328,200	0	2,328,200
ES5263 Total	20,000,000	4,082,600	24,082,600	9,807,655	14,274,945

Appendix "A"

#21062
May 11, 2021
(Award Contract)

Chair and Members
Civic Works Committee

RE: RFT21-19 - Dingman Creek Pumping Station
(Subledger FS20DC01)
Capital Project ES2332 - Dingman Creek PS Headworks
Capital Project ES5263 - Southwest Capacity Improvement
Capital Project ES5264 - Wonderland Pumping Station Upgrade
Hayman Construction Inc. - $21,632,010.00 (excluding HST)
Stantec Consulting Ltd. - $749,029.38 (excluding HST)

ES5264 - Wonderland Pumping Station Upgrade	**Approved Budget**	**Additional Funding Requirement**	**Revised Budget**	**Committed To Date**	**This Submission**
Debenture Quota (Note 5a)	5,000,000	0	5,000,000	0	5,000,000
Total Financing	$25,000,000	$7,582,600	$32,582,600	$9,807,655	$22,774,945

Financial Note: Construction	**ES2332**	**ES5263**	**ES5264**	**Total**
Contract Price	$3,439,465	$13,279,023	$4,913,522	$21,632,010
Add: HST @13%	447,130	1,726,273	638,758	2,812,161
Total Contract Price Including Taxes	3,886,595	15,005,296	5,552,280	24,444,171
Less: HST Rebate	-386,595	-1,492,563	-552,280	-2,431,438
Net Contract Price	$3,500,000	$13,512,733	$5,000,000	$22,012,733

Financial Note: Engineering	**ES5263**
Contract Price	$749,029
Add: HST @13%	97,374
Total Contract Price Including Taxes	846,403
Less: HST Rebate	-84,191
Net Contract Price	$762,212
Total Construction & Engineering	**$22,774,945**

Note 1: The additional funding requirement for the service improvement costs (solids and grit removal) is available as a drawdown from Sewage Works Renewal Reserve Fund. The uncommitted balance in the reserve fund will be approximately $43.68 million with the approval of the project.

Note 2: 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.

Note 3: Approved Development Charges funding totalling $1.75 million is available from ES5171-Dingman Creek PS Peak Shaving ($150 thousand), ES2204-Colonel Talbot PS ($1.10 million) and ES5169-Oxford WWTP Expansion ($500 thousand) to fund a portion of the $4.08 million funding requirement. The future budget for ES5171 - Dingman Creek PS Peak Shaving will be removed from the wastewater growth capital budget as it is now redundant and also necessary to offset pressure in the City Services Wastewater Reserve Fund.

Note 4: Additional non-rate (growth) supported debt of $2.33M, financed through City Services Wastewater Reserve Fund, will be required to fund the balance of the budget shortfall. The uncommitted balance in the reserve fund will be approximately $3.14 million with the approval of this additional debt, which will further stress the Fund placing significant strain on the 10-year forecasted balance. Administration will monitor this reserve fund and explore measures to mitigate the financial pressure currently posed by the Wastewater and Treatment growth capital plan in light of these adjustments.

Note 5: 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 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.

a) An authorizing by-law should be drafted to secure debenture financing for project ES5264 - Wonderland Pumping Station Upgrade for the net amount to be debentured of $5,000,000.
b) The City Clerk be authorized to increase Debenture By-law No.W.-5642-466 by $3,932,600 from $15,006,387 to $18,938,987.

Kyle Murray
Director, Financial Planning & Business Support

jg/ms

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: **Sarnia Road/Philip Aziz Avenue and Western Road Environmental Assessment**
Date: **May 11, 2021**

Recommendation

That, on the recommendation of the Deputy City Manager, Environment & Infrastructure, the following actions **BE TAKEN** with respect to the extension of a Consulting Engineering Assignment for the Western Road and Sarnia Road / Philip Aziz Avenue Environmental Assessment:

(a) AECOM Canada Ltd **BE APPOINTED** Consulting Engineers to complete the Environmental Assessment Study for the Western Road and Sarnia Road \ Philip Aziz Avenue area in the amount of $309,980 (excluding HST), in accordance with Section 15.2 (g) of the Procurement of Goods and Services Policy;

(b) The financing for this appointment **BE APPROVED** as set out in the Sources of Financing Report attached hereto as Appendix A;

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

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

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

Executive Summary

This report seeks the approval of the Council to amend an existing consultant contract to restart the Western Road and Sarnia Road / Philip Aziz Avenue Environmental Assessment (EA). The EA study will identify transportation needs in the area of the intersection and also specifically include much needed improvements easterly along Philip Aziz Avenue and northerly on Western Road.

The purpose of the EA is to satisfy the requirements of the Environmental Assessment Act by providing a comprehensive, environmentally sound planning process with public participation. The study will also facilitate dialogue between the various interested stakeholders including Western University and Brescia College.

In accordance with the City's Procurement of Goods and Services Policy, Council approval of this contract amendment is required.

Linkage to the Corporate Strategic Plan

The following report supports the 2019–2023 Strategic Plan through the strategic focus areas of Building a Sustainable City, Growing Our Economy and Leading in Customer Service by contributing to improved mobility options with a complete streets lens and a focus on climate change mitigation and adaptation.

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

- 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 Background

Early in 2015, the City initiated a Class ‘C’ Environmental Assessment (EA) for the Western Road and Sarnia Road/Phillip Aziz Avenue intersection to identify the transportation needs of all users, and to make recommendations for improvements to address mobility, safety and drainage deficiencies.

AECOM Canada Ltd. was selected to complete the original 2015 Environmental Assessment following a two stage procurement process, and they were awarded the project with an original assignment value of $360,362.00. AECOM progressed the EA to the beginning development of a recommended solution in mid-2016. Concurrently, a review of higher order transit alternatives in the area was also underway. In late 2016, in order to avoid potential conflicts between the respective studies, the City made the decision to pause this EA until such time as greater clarity was known regarding future transit in this area. In addition, Western University was looking to explore ways to reduce traffic flow through their campus.

2.2 Discussion

With the recent completion of the rapid transit study and council direction on implementation, the City is re-initiating this EA in order to evaluate and address the mobility, safety and drainage deficiences in the area. AECOM has provided an updated fee proposal to address the completion of this EA. While some of the previous work can be used, it does need to be reviewed and updated to ensure it complies with current legislation, environmental regulations, processes and reporting requirements such as the London Plan and the climate emergency declaration. Consultation efforts with various stakeholders such as Western University, indigenous groups, UTRCA, residents and business owners will also need to be reinitiated.

Drainage deficiencies on Western Road will require a new storm outlet to the Thames River via Philip Aziz Avenue, with extensive requirements to update and complete an environmental impact study including a species at risk screening, significant wildlife habitat screening and various field investigations.

AECOM Canada Ltd completed the work for the initial assignment as per City requirements however the EA was paused by the City before a final recommended solution was developed. Extending the original assignment with AECOM to now complete the EA, while requiring additional funding, allows for efficiencies and provides value to the City as there is significant background knowledge within the firm and many of the same staff working on the project. The negotiated consultant fee for this assignment includes restarting the EA process, public consulation and complying with new environmental requirements.

3.0 Financial Impact/Considerations

Funds are available in the Western Road Improvement project (TS1136) and Philip Aziz Improvements (TS1627). There are no ongoing operating costs associated with the

award of this assignment. The Source of Financing Report is appended to this report under Appendix A.

4.0 Key Issues and Considerations

The need for this environmental assessment has been identified as a result of growth and proximity to the Western University campus with significant traffic and pedestrian volumes on both Western Road and Sarnia Road and the existing mobility, safety and drainage deficiencies. The study will present an opportunity to enhance the area with streetscaping compatible with the University surroundings and complementary to the features to the north. The study will also provide a recommended plan to address traffic constraints at the intersection and for all road users throughout the corridors. The recommendations will identify the needs and balance the requirements for the full range of potential users within the community including users of all ages and abilities, pedestrians, cyclists, transit vehicles and motorists.

Conclusion

AECOM Canada Ltd. has demonstrated an understanding of the requirements for this project and can effectively leverage previous work. It is recommended that the assignment for AECOM Canada Ltd. be awarded this assignment in the amount of $309,980 (excluding HST) to allow the consultant to complete the Environmental Assessment and planning of infrastructure improvements.

Prepared by:	**Garfield Dales, P. Eng. Division Manager Transportation Planning & Design**
Submitted by:	**Doug MacRae, P. Eng., MPA Director Transportation & Mobility**
Recommended by:	**Kelly Scherr, P. Eng., MBA, FEC Deputy City Manager, Environment & Infrastructure**
Schedule A:	Source of Financing
c:	John Freeman, Manager, Purchasing and Supply AECOM Canada Ltd.

Appendix "A"

#21065
May 11, 2021
(Award Consultant)

Chair and Members
Civic Works Committee

RE: Sarnia Road/Philip Aziz and Western Road Environmental Assessment
(Subledger RD210009)
Capital Project TS1136 - Western Road Improvements - Huron College to Platt's Lane
Capital Project TS1627 - Philip Aziz - Western Road to Thames River
AECOM Canada Ltd. - $309,980.00 (excluding HST)

Finance and Corporate Services Report on the Sources of Financing:

Finance and Corporate Services 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**
TS1136 - Western Rd Improvements - Huron College to Platt's Lane				
Consulting	1,400,000	333,656	236,577	829,767
Construction	1,900,000	0	0	1,900,000
Utilities	400,000	0	0	400,000
City Related Expenses	100,000	0	0	100,000
TS1136 Total	3,800,000	333,656	236,577	3,229,767
TS1627 - Philip Aziz - Western Rd to Thames River				
Consulting	490,000	0	78,859	411,141
Construction	2,000,000	0	0	2,000,000
TS1627 Total	2,490,000	0	78,859	2,411,141
Total Expenditures	$6,290,000	$333,656	$315,436	$5,640,908
Sources of Financing				
TS1136 - Western Rd Improvements - Huron College to Platt's Lane				
Debenture No. W.-5577-64 (Note 1)	3,800,000	333,656	236,577	3,229,767
TS1136 Total	3,800,000	333,656	236,577	3,229,767
TS1627 - Philip Aziz - Western Rd to Thames River				
Debenture Quota (Note 2)	249,000	0	78,859	170,141
Drawdown from City Services-Roads Reserve Fund (Development Charges) (Note 3)	2,241,000	0	0	2,241,000
TS1627 Total	2,490,000	0	78,859	2,411,141
Total Financing	$6,290,000	$333,656	$315,436	$5,640,908

Appendix "A"

#21065
May 11, 2021
(Award Consultant)

Chair and Members
Civic Works Committee

RE: Sarnia Road/Philip Aziz and Western Road Environmental Assessment
(Subledger RD210009)
Capital Project TS1136 - Western Road Improvements - Huron College to Platt's Lane
Capital Project TS1627 - Philip Aziz - Western Road to Thames River
AECOM Canada Ltd. - $309,980.00 (excluding HST)

Financial Note:	**TS1136**	**TS1627**	**Total**
Contract Price	$232,485	$77,495	$309,980
Add: HST @13%	30,223	10,074	40,297
Total Contract Price Including Taxes	262,708	87,569	350,277
Less: HST Rebate	-26,131	-8,710	-34,841
Net Contract Price	$236,577	$78,859	$315,436

Note 1: Note to City Clerk: The City Clerk be authorized to increase Debenture By-law No. W.-5577-64 by $3,550,000 from $250,000 to $3,800,000.

Note 2: 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 requested to prepare and introduce the necessary by-laws.

An authorizing by-law should be drafted to secure debenture financing for project TS1627 - Philip Aziz - Western Rd to Thames River for the net amount to be debentured of $249,000.

Note 3: Development charges have been utilized in accordance with the underlying legislation and the approved 2019 Development Charges Background Study and 2021 Development Charges Background Study Update.

Jason Davies
Manager of Financial Planning & Policy

ms

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: **Appointment of Consulting Engineers for Construction Administration Services**
2021 Infrastructure Renewal Program Sackville Street and 2021 Infrastructure Renewal Program Watson Street
Date: **May 11, 2021**

Recommendation

That on the recommendation of the Deputy City Manager, Environment & Infrastructure, the following actions **BE TAKEN** with respect to the appointment of consulting services for the construction administration of the 2021 Infrastructure Renewal Program Sackville Street project and Watson Street project:

(a) IBI Group **BE AUTHORIZED** to carry out the resident inspection and contract administration for the Sackville Street project in accordance with the estimate, on file, at an upset amount of $229,284.00, including 10% contingency, excluding HST, in accordance with Section 15.2 (g) of the City of London's Procurement of Goods and Services Policy.

(b) AECOM Canada Ltd **BE AUTHORIZED** to carry out the resident inspection and contract administration for the Watson Street project in accordance with the estimate, on file, at an upset amount of $262,661.30, including 10% contingency, excluding HST, in accordance with Section 15.2 (g) of the City of London's Procurement of Goods and Services Policy.

(c) the financing for this project **BE APPROVED** as set out in the Sources of Financing Report attached, hereto, as Appendix 'A'.

(d) the Civic Administration **BE AUTHORIZED** to undertake all the administrative acts that are necessary in connection with these projects.

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

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

Executive Summary

Purpose

This report recommends the continuation of consulting engineer services for construction administration for the 2021 Sackville Street Infrastructure Renewal Project and the 2021 Watson Street Infrastructure Renewal Project. These projects will reconstruct Sackville Street from Ormsby Street to CNRA Park, and all of Watson Street, respectively.

Context

Sackville Street has been identified for reconstruction under the annual Infrastructure Renewal Program as the sanitary sewer, storm sewer and watermain within the project limits are at the end of their useful life. Watson Street has similarly been identified for reconstruction under the annual Infrastructure Renewal Program. Location maps depicting the approximate limits for each reconstruction project are provided in Appendix 'B'.

Linkage to the Corporate Strategic Plan

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

- Building a Sustainable City:
    - London's infrastructure is built, maintained, and operated to meet the long-term needs of our community.

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

- Civic Works Committee – June 8, 2016, Appointment of Consulting Engineers, Infrastructure Renewal Program 2017-2018, Recommendation a) (x), (ix)
- Civic Works Committee – May 15, 2018, Authorization of Consultant Engineers for Resident Inspection and Contract Inspection (2018), Recommendation b).

2.0 Discussion and Considerations

2.1 Project Description

Sackville Street

The Sackville Street project includes the following improvements:

- Watermain replacement including water service renewal to the property line,
- Storm sewer and sanitary sewer replacement,
- Partial replacement of existing private drain connections,
- Renewal of existing sidewalk, and
- Full road reconstruction including new asphalt, curb, and gutter.

Watson Street

The Watson Street project includes the following improvements:

- Watermain replacement including water service renewal to the property line,
- Storm sewer upsizing and sanitary sewer replacement,
- Storm sewer outfall upsizing,
- Landscape restoration around storm sewer outfall,
- Partial replacement of existing private drain connection,
- Renewal of existing sidewalk, and
- Full road reconstruction including new asphalt, curb, and gutter.

Infrastructure replacement needs have been coordinated within the Environment & Infrastructure Service Area. The funding for these projects comes from the approved 2020 and 2021 Wastewater and Treatment, Water capital works budgets.

3.0 Financial Impact/Considerations

3.1 Consulting Engineer Services

Staff have reviewed the fee submissions for both projects, including the time allocated to each project task, along with hourly rates provided by each of the consultant's staff members. That review of assigned personnel, time per project task, and hourly rates was consistent with other Infrastructure Renewal Program assignments of similar scope. The continued use of IBI Group for Sackville Street and of AECOM Canada Ltd for Watson Street is of financial advantage to the City because this 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 required to maintain this accountability process and to manage risk.

Sackville Street

IBI Group was awarded the detailed design of the Hamilton Road Project by Council on June 14, 2016, which also included the design of Sackville Street. Sackville Street was later separated into its own design assignment due to project scope changes and budget constraints. Due to the consultant's knowledge and positive performance on the detailed design, the consultant was invited to submit a proposal to carry out the resident inspection and contract administration for the project. IBI Group submitted a proposal which includes an upset limit of $229,284.00, including 10% contingency, excluding HST.

In accordance with Section 15.2 (g) of the City of London's Procurement of Goods and Services Policy, civic administration is recommending that IBI Group be authorized to carry out the remainder of engineering services, as construction administrators, for a fee estimate of $229,284.00, including 10% contingency, excluding HST. These fees are associated with the construction resident inspection and contract administration services to ensure that the City receives the product specified and associated value.

The approval of this work will bring the total engineering services for this project, as well as Hamilton Road design and supervision to $1,300,622.20, including 10% contingency, excluding HST, for both detailed design and construction administration.

Watson Street

AECOM Canada Ltd was awarded the detailed design of the Watson Street project by Council on June 14, 2016. Due to the consultant's knowledge and positive performance on the detailed design, the consultant was invited to submit a proposal to carry out the resident inspection and contract administration for the project. AECOM Canada Ltd submitted a proposal which includes an upset limit of $262,661.30, including 10% contingency, excluding HST.

In accordance with Section 15.2 (g) of the City of London's Procurement of Goods and Services Policy, civic administration is recommending that AECOM Canada Ltd be authorized to carry out the remainder of engineering services, as construction administrators, for a fee estimate of $262,661.30, including 10% contingency, excluding HST. The approval of this work will bring the total engineering services for this project to $785,430.80, including 10% contingency, excluding HST, for both detailed design and construction administration.

Conclusion

IBI Group and AECOM Canada Ltd. have both demonstrated an understanding of the City's requirements for Sackville Street and Watson Street respectively, and it is recommended that these firms continue as the consulting engineers for the purpose of resident inspection and contract administration services as it is in the best financial and technical interests of the City.

Prepared by: **Ashley M. Rammeloo, MMSc, P.Eng., Division Manager, Sewer Engineering**

Submitted by:	**Scott Mathers, MPA, P.Eng., Director, Water, Wastewater & Storm Water**
Recommended by:	**Kelly Scherr, P.Eng., MBA, FEC, Deputy City Manager, Environment & Infrastructure**

CC: D. Gough, C. Ginty, K. Chambers, A. Rozentals

Appendix ‘A’ – Sources of Financing

Appendix ‘B’ – Location Maps

Appendix "A"

#21061
May 11, 2021
(Appoint Consulting Engineers)

Chair and Members
Civic Works Committee

RE: Construction Administration Services for 2021 Infrastructure Renewal Program for Sackville Street and Watson Street
(Subledger WS20C013) Sackville
(Subledger WS17C00D) Watson
Capital Project ES241420 - Infrastructure Renewal Program - Sanitary Sewers
Capital Project ES241421 - Infrastructure Renewal Program - Sanitary Sewers
Capital Project ES254020 - Infrastructure Renewal Program - Stormwater Sewers and Treatment
Capital Project ES254021 - Infrastructure Renewal Program - Stormwater Sewers and Treatment
Capital Project EW376520 - Infrastructure Renewal Program - Watermains
Capital Project EW376521 - Infrastructure Renewal Program - Watermains
IBI Group - $229,284.00 (excluding HST) - Sackville Street
AECOM Canada Ltd. - $262,661.30 (excluding HST) - Watson Street

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Finance and Corporate Services Report on the Sources of Financing:

Finance and Corporate Services 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
ES241420 - Infrastructure Renewal Program - Sanitary Sewers				
Engineering	3,102,988	2,978,934	124,054	0
Engineering (Utilities Share)	68,176	68,176	0	0
Construction	7,399,205	7,273,446	0	125,759
Construction (Utilities Share)	1,257,613	1,257,613	0	0
ES241420 Total	11,827,982	11,578,169	124,054	125,759
ES241421 - Infrastructure Renewal Program - Sanitary Sewers				
Engineering	2,000,000	386,388	69,996	1,543,616
Construction	11,615,864	7,913,344	0	3,702,520
Construction (Utilities Share)	116,098	116,098	0	0
City Related Expenses	25,000	0	0	25,000
ES241421 Total	13,756,962	8,415,830	69,996	5,271,136
ES254020 - Infrastructure Renewal Program - Stormwater Sewers and Treatment				
Engineering	3,059,215	2,925,356	124,055	9,804
Construction	10,552,502	8,559,391	0	1,993,111
City Related Expenses	100,000	9,141	0	90,859
ES254020 Total	13,711,717	11,493,888	124,055	2,093,774
ES254021 - Infrastructure Renewal Program - Stormwater Sewers and Treatment				
Engineering	1,186,636	379,965	69,996	736,675
Construction	8,757,940	8,757,940	0	0
City Related Expenses	100,000	0	0	100,000
ES254021 Total	10,044,576	9,137,905	69,996	836,675

Appendix "A"

#21061
May 11, 2021
(Appoint Consulting Engineers)

Chair and Members
Civic Works Committee

RE: Construction Administration Services for 2021 Infrastructure Renewal Program for Sackville Street and Watson Street
(Subledger WS20C013) Sackville
(Subledger WS17C00D) Watson

EW376520 - Infrastructure Renewal Program - Watermains	**Approved Budget**	**Committed To Date**	**This Submission**	**Balance for Future Work**
Engineering	3,077,209	3,041,724	19,174	16,311
Construction	14,814,352	14,058,961	0	755,391
Utilities	1,457	1,457	0	0
City Related Expenses	96	96	0	0
EW376520 Total	17,893,114	17,102,238	19,174	771,702
EW376521 - Infrastructure Renewal Program - Watermains				
Engineering	2,500,000	337,856	93,328	2,068,816
Construction	13,719,930	8,089,247	0	5,630,683
EW376521 Total	16,219,930	8,427,103	93,328	7,699,499
Total Expenditures	$83,454,281	$66,155,133	$500,603	$16,798,545
Sources of Financing				
ES241420 - Infrastructure Renewal Program - Sanitary Sewers				
Capital Sewer Rates	5,642,540	5,642,540	0	0
Drawdown from Sewage Works Reserve Fund	2,263,196	2,013,383	124,054	125,759
Federal Gas Tax	2,596,457	2,596,457	0	0
Other Contributions (Utilities)	1,325,789	1,325,789	0	0
ES241420 Total	11,827,982	11,578,169	124,054	125,759
ES241421 - Infrastructure Renewal Program - Sanitary Sewers				
Capital Sewer Rates	9,140,864	6,049,732	69,996	3,021,136
Drawdown from Sewage Works Reserve Fund	2,250,000	0	0	2,250,000
Federal Gas Tax	2,250,000	2,250,000	0	0
Other Contributions (Utilities)	116,098	116,098	0	0
ES241421 Total	13,756,962	8,415,830	69,996	5,271,136
ES254020 - Infrastructure Renewal Program - Stormwater Sewers and Treatment				
Capital Sewer Rates	2,277,960	2,277,960	0	0
Drawdown from Sewage Works Reserve Fund	8,977,362	6,759,533	124,055	2,093,774
Federal Gas Tax	2,445,671	2,445,671	0	0
Other Contributions	10,724	10,724	0	0
ES254020 Total	13,711,717	11,493,888	124,055	2,093,774

Appendix "A"

#21061
May 11, 2021
(Appoint Consulting Engineers)

Chair and Members
Civic Works Committee

RE: Construction Administration Services for 2021 Infrastructure Renewal Program for Sackville Street and Watson Street
(Subledger WS20C013) Sackville
(Subledger WS17C00D) Watson

ES254021 - Infrastructure Renewal Program - Stormwater Sewers and Treatment	**Approved Budget**	**Committed To Date**	**This Submission**	**Balance for Future Work**
Capital Sewer Rates	820,480	820,480	0	0
Drawdown from Sewage Works Reserve Fund	6,974,096	6,067,425	69,996	836,675
Federal Gas Tax	2,250,000	2,250,000	0	0
ES254021 Total	10,044,576	9,137,905	69,996	836,675
EW376520 - Infrastructure Renewal Program - Watermains				
Capital Water Rates	10,753,000	10,753,000	0	0
Drawdown from Capital Water Reserve Fund	7,140,114	6,349,238	19,174	771,702
EW376520 Total	17,893,114	17,102,238	19,174	771,702
EW376521 - Infrastructure Renewal Program - Watermains				
Capital Water Rates	11,672,800	7,790,583	93,328	3,788,889
Drawdown from Capital Water Reserve Fund	3,910,610	0	0	3,910,610
Federal Gas Tax	636,520	636,520	0	0
EW376521 Total	16,219,930	8,427,103	93,328	7,699,499
Total Financing	$83,454,281	$66,155,133	$500,603	$16,798,545

Financial Note: IBI Group	**ES241421**	**ES254021**	**EW376521**	**Total**
Contract Price	$68,785	$68,785	$91,714	$229,284
Add: HST @13%	8,942	8,942	11,923	29,807
Total Contract Price Including Taxes	77,727	77,727	103,637	259,091
Less: HST Rebate	-7,731	-7,731	-10,309	-25,771
Net Contract Price	$69,996	$69,996	$93,328	$233,320

Financial Note: AECOM Canada Ltd.	**ES241420**	**ES254020**	**EW376520**	**Total**
Contract Price	$121,909	$121,910	$18,842	$262,661
Add: HST @13%	15,848	15,848	2,449	34,145
Total Contract Price Including Taxes	137,757	137,758	21,291	296,806
Less: HST Rebate	-13,703	-13,703	-2,117	-29,523
Net Contract Price	$124,054	$124,055	$19,174	$267,283

Total **$500,603**

Jason Davies
Manager of Financial Planning & Policy

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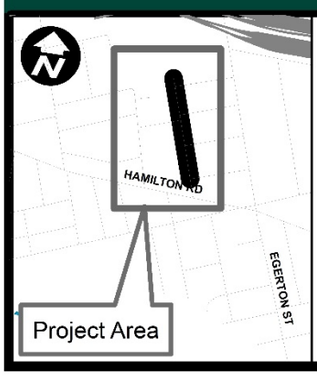
APPENDIX 'B'

LOCATION MAP



2021 Infrastructure Renewal Program
Contract 9

Sackville Street from Ormsby Street to CNRA Park

Project Area

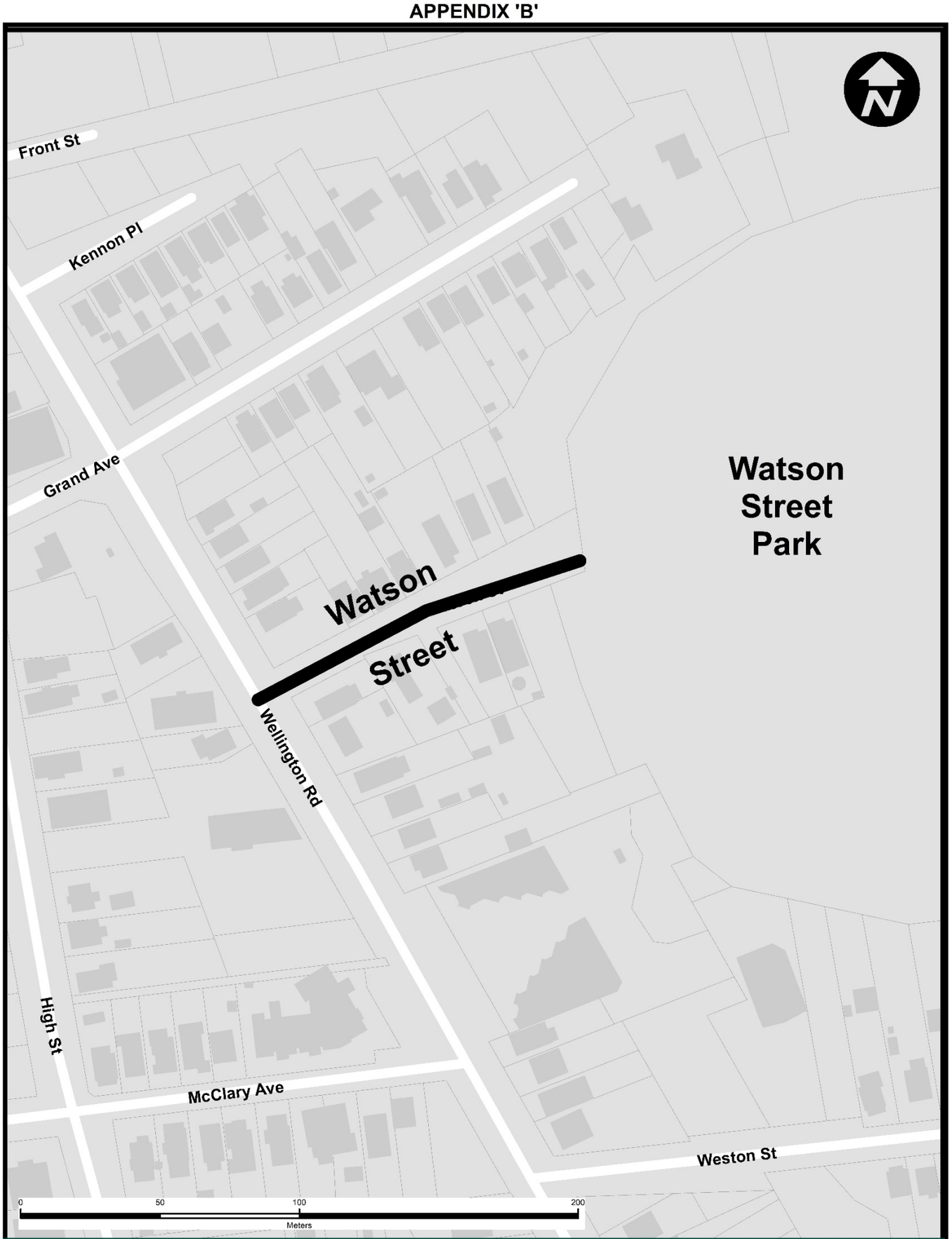
Map Produced by the Sewer Engineering Division

March 16 2021 CM

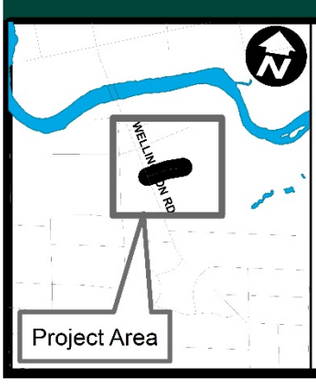
London CANADA

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

APPENDIX 'B'



LOCATION MAP



2021 Infrastructure Renewal Program
Contract 7

Watson Street from Wellington Road to Watson Street Park

Project Area

Map Produced by the Sewer Engineering Division

March 16 2021 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
Subject: **RFP21-30 Supply and Delivery of Hydraulic Drum Brush Chippers**
Date: **May 11, 2021**

Recommendation

That, on the recommendation of the Deputy City Manager, Environment & Infrastructure:

a) The submission from Vermeer Canada Inc. 10 Indell Lane, Brampton, Ontario L6T 3Y3, for the supply and delivery of one (1) 18" Hydraulic Brush Chipper and three (3) 15" Hydraulic Brush Chippers at a total purchase price of $382,045.80, excluding HST, **BE ACCEPTED**; in accordance with Section 12.2 b) of the Procurement of Goods and Services Policy which states: Awards under the RFP process require the following approval: Committee and City Council must approve an RFP award for purchases greater than $100,000;

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

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 in accordance with Section 12.2 b) of the Procurement of Goods and Services Policy; and

d) That the funding for this purchase **BE APPROVED** as set out in the Source of Financing Report attached, hereto, as Appendix A.

Executive Summary

Fleet and Operational Services is responsible for reviewing and replacing vehicles and equipment that have reached the end of their optimum lifecycle. Brush chipper units are an integral piece of equipment utilized by Forestry in providing tree maintenance services and specifically for cleanup of trees, brush and limbs from roadways, parks and greenspaces. These brush chipper machines are also critical for Forestry crews responding to tree damage and branch removal service requests after inclement weather.

A Request for Proposals (RFP) was initiated in consultation with staff in the Forestry Division with a primary objective of replacing four existing brush chippers that have reached the end of their optimal life.

Based on the analysis and evaluation of the submissions received, Fleet Services in conjunction with the Forestry Division and Purchasing and Supply recommend that RFP21-30 be awarded to Vermeer Canada Inc. for the supply and delivery of one (1) 18" Hydraulic Brush Chipper and three (3) 15" Hydraulic Brush Chippers.

The recommendation provides the best overall value to the City of London having met the operational requirements of the Forestry Division, scoring the highest on the evaluation and supporting a safe and healthy workplace.

Linkage to the Corporate Strategic Plan

Building a Sustainable City
London's infrastructure is built, maintained, and operated to meet long-term needs of our community

- Manage assets to prevent future infrastructure gaps

Leading in Public Service
Londoners experience exceptional and valued customer service

- Increase responsiveness to our customers
- Increase efficiency and effectiveness of service delivery

Analysis

1.0 Background Information

Fleet and Operational Services is responsible for reviewing and replacing vehicles and equipment that have reached the end of their optimum lifecycle. An RFP was initiated in consultation with staff in the Forestry Division with a primary objective of replacing four (4) existing brush chippers that have reached the end of their optimal life as determined by Fleet Planning in conjunction with Fleet Maintenance and Forestry.

The brush chipper units are an integral piece of equipment utilized by Forestry in providing tree maintenance services and specifically for cleanup of trees, brush and limbs from roadways, parks and greenspaces. These brush chipper machines are also critical for Forestry crews responding to tree damage and branch removal service requests after inclement weather.

The existing brush chippers were manufactured in 2013 and 2014 and have a 7-year targeted lifecycle. These units have now reached their optimum lifecycle and are due to be replaced this year. The optimum life cycle is determined considering both the performance, reliability, and maintenance/repair cost aspects of aging equipment as well as the best time to remarket these assets for maximum resale values.

As part of the replacement process Corporate Health and Safety Specialists and the Forestry Managers were involved in the review of the final specifications for the RFP document. Worker safety and ergonomic design were key considerations in the development of the specification and evaluation process.

Specifically, two items, mechanical/hydraulic winches and hydraulic tongue jacks were upgraded to promote enhanced safety and health for Forestry Workers. The hydraulic winch devices assist in lifting and moving larger branches and limbs and can pull in larger heavy pieces into the chipper to reduce physical stress and risk of injury. The hydraulic powered tongue jacks also assist the operator by reducing repetitive motion and heavy lifting injuries during machine set up at the work site. These additions impacted the original estimated replacements costs.

The type of engine used to power these units was also reviewed, looking for efficiencies and opportunities to reduce environmental impact. Replacement of the diesel engines currently used with gasoline powered engine units will provide added benefits. These gasoline powered engines have an idle down control system that will automatically reduce the RPM of the engine to an idle position when high power demands are not required. This will reduce both greenhouse gas (GHG) emissions, fuel consumption and reduce costs compared to diesel engines.

2.0 Discussion and Considerations

2.1 Purchasing Process

To allow interested bidders to showcase their products for these specialized pieces of equipment an RFP process was chosen as the procurement method.

Through Purchasing and Supply, Fleet and Operational Services initiated the proposal process on February 23, 2021, for Supply and Delivery of one (1) 18” and three (3) 15” Brush Chipper units for the Forestry Operations Division. The RFP closed on March 16, 2021 and two (2) bids were received and evaluated.

2.2 Evaluation and Results

The evaluation team was chaired by a Procurement Officer and consisted of staff representing Forestry Operations and Fleet and Operational Services. The following evaluation criteria was used to evaluate the submissions:

- Mandatory Requirements
- Company Certification, Experience and Past Performance
- Specifications for both size units
- Efficiency, Safety and Regulatory Compliance
- Service Support, Delivery, Training, and Warranty
- Price

After evaluation Vermeer Canada Inc. achieved the highest score.

2.3 Disposal of Decommissioned Units

Bidders were asked to provide optional trade-in values on the existing, City owned brush chippers. The trade-in values submitted by Vermeer Canada Inc. met and exceeded the City's target salvage value threshold therefore Fleet has recommended accepting trade values from the successful vendor on three (3) units. Based on consultation with the service area the fourth unit will be retained in the fleet for one year to assist with service level demands and growth.

3.0 Financial Impact

3.1 Project Budget

The Fleet and Operational Services approved capital replacement budget for this project was set at $350,000. The recommended bid from Vermeer Canada Inc. is $382,045.80 (excluding HST).

The difference between the estimated replacement cost and recommended bid is attributed to the following;

- additional health and safety items being added to the specifications after the project cost estimate; and

- continued market changes and challenges in the vehicle and equipment industry that include increased supply chain costs due to the current pandemic, costs of raw materials, and inflationary increases across the manufacturing sector.

3.2 Project Funding

Funding details for this procurement are outlined in the Source of Financing attached as Appendix A. The additional funding required for the additional safety items and will be funded from Parks and Forestry capital account UF2047.

Ongoing operating costs for fuel, maintenance, inspection, service, overhead and future capital replacement is funded through the Fleet internal rental rate process and charged back to the respective service areas. There are only minor expected operational, maintenance and future capital funding impacts associated with this purchase going forward.

Conclusion

Based on the analysis and evaluation of the submissions received, Fleet Services in conjunction with the Forestry Division and Purchasing and Supply recommend that RFP21-30 be awarded to Vermeer Canada Inc. 10 Indell Lane, Brampton, Ontario L6T

3Y3 for the supply and delivery of one (1) 18” Hydraulic Brush Chipper and three (3) 15” Hydraulic Brush Chippers.

The recommendation provides the best overall value to the City of London having met the operational requirements of the Forestry Division, scoring the highest on the evaluation and supporting a safe and healthy workplace.

Prepared by:	**Mike Bushby, B.A.** **Division Manager Fleet and Operational Services**
Submitted by:	**Jay Stanford, MA, MPA** **Director, Climate Change, Environment & Waste Management**
Recommended by:	**Kelly Scherr, P. Eng., MBA, FEC,** **Deputy City Manager, Environment & Infrastructure**

Attached: Appendix A – Source of Finance

Appendix "A"

#21066
May 11, 2021
(Award Contract)

Chair and Members
Civic Works Committee

RE: RFP21-30 Supply and Delivery of Hydraulic Drum Brush Chippers
(Work Orders 2498034-2498037)
Capital Project ME202101 - Vehicles and Equipment Replacement - TCA
Capital Project ME201701 - Vehicles and Equipment Replacement - TCA
Capital Project UF2047 - Urban Forest Strategy
Vermeer Canada Inc. - $382,045.80 (excluding HST)

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

Estimated Expenditures	**Approved Budget**	**Committed To Date**	**This Submission**	**Balance for Future Work**
ME202101 - Vehicles and Equipment Replacement - TCA				
Vehicles and Equipment	4,462,241	2,218,916	269,578	1,973,747
ME201701 - Vehicles and Equipment Replacement - TCA				
Vehicles and Equipment	5,034,705	4,791,372	86,221	157,112
UF2047 - Urban Forest Strategy				
Consulting	207,380	207,380	0	0
Construction	1,659,460	1,201,971	0	457,489
Vehicles and Equipment	32,970	0	32,970	0
UF2047 Total	$1,899,810	$1,409,351	$32,970	$457,489
Total Expenditures	$11,396,756	$8,419,639	$388,769	$2,588,348
Sources of Financing				
ME202101 - Vehicles and Equipment Replacement - TCA				
Capital Levy	117,460	117,460	0	0
Drawdown from Vehicles and Equipment Reserve Fund	4,344,781	2,101,456	269,578	1,973,747
ME202101 Total	$4,462,241	$2,218,916	$269,578	$1,973,747
ME201701 - Vehicles and Equipment Replacement - TCA				
Capital Levy	45,558	45,558	0	0
Drawdown from Vehicles and Equipment Reserve Fund	4,944,717	4,701,384	86,221	157,112
Drawdown from Self Insurance Reserve Fund	44,430	44,430	0	0
ME201701 Total	$5,034,705	$4,791,372	$86,221	$157,112
UF2047 - Urban Forest Strategy				
Capital Levy	1,899,810	1,409,351	32,970	457,489
Total Financing	$11,396,756	$8,419,639	$388,769	$2,588,348

Appendix "A"

#21066
May 11, 2021
(Award Contract)

Chair and Members
Civic Works Committee

RE: RFP21-30 Supply and Delivery of Hydraulic Drum Brush Chippers
(Work Orders 2498034-2498037)
Capital Project ME202101 - Vehicles and Equipment Replacement - TCA
Capital Project ME201701 - Vehicles and Equipment Replacement - TCA
Capital Project UF2047 - Urban Forest Strategy
Vermeer Canada Inc. - $382,045.80 (excluding HST)

Financial Note:	**ME202101**	**ME201701**	**UF2047**	**Total**
Contract Price	$264,915	$84,731	$32,400	$382,046
Add: HST @13%	34,439	11,015	4,212	49,666
Total Contract Price Including Taxes	299,354	95,746	36,612	431,712
Less: HST Rebate	-29,776	-9,524	-3,642	-42,942
Net Contract Price	$269,578	$86,221	$32,970	$388,770

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: **Supply and Install 2022 to 2028 Infill Trees**
RFT20-80 – Irregular Result
Date: **May 11, 2021**

Recommendation

That on the recommendation of the Deputy City Manager, Environment & Infrastructure the following actions **BE TAKEN** with respect to the Supply and Install of 2022 to 2028 Infill Trees:

a) the irregular bid submitted by Kamarah Tree Farms at its tendered price of $3,233,920.00 (excluding HST) **BE ACCEPTED** in accordance with the 'Procurement of Goods and Services Policy' Section 8.10 Irregular Result, Clauses a) and b), Section 13.2 Clause b), and Section 19.3 Clause b) i) and ii);

b) the approval hereby **BE CONDITIONAL** upon the Corporation negotiating prices, terms and conditions with Kamarrah Tree Farms to the satisfaction of the Manager of Purchasing and Supply and the Managing Director, Environmental and Engineering Services and City Engineer;

c) the approval given herein **BE CONDITIONAL** upon the Corporation entering into a formal contract for the material to be supplied and the work to be done relating to this program (RFT20-80), and subject to future budget approval;

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

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

Linkage to the Corporate Strategic Plan

This report supports the Strategic Plan in the following areas:

- Building a Sustainable City:
  - Infrastructure is built, maintained and operated to meet the long-term needs of our community; and
  - Growth and development is well planned and sustainable over the long term
- Leading in Public Service:
  - Exceptional and valued customer service; and
  - Leader in public service as an employer and a steward of public funds.

Analysis

1.0 Discussion and Considerations

1.1 Purpose

The purpose of this report is to seek Council approval to establish a five year (2022 to 2026) with two additional optional years (2027 and 2028) contract with Kamarah Tree Farms to provide supply and installation of trees for the City of London.

Tree planting is an annual program that is performed on an ongoing basis as London has embarked upon completion of the Urban Forest Strategy, Tree Planting Strategy,

Emerald Ash Borer Strategy and Climate Change Initiatives to increase canopy cover to 34% by the year 2065.

The planting that will be undertaken through this contract includes the planting of infill boulevard trees, open space trees, tree replacement for capital contracts and boulevard trees in newly assumed subdivisions on behalf of developers. The development industry funds the planting in new subdivisions through a cost recovery arrangement.

This long term planting contract was a recommendation within the Urban Forestry Strategy. The new contract allows for soil augmentation at all locations which provides a better medium to support the growth of young trees and reduce mortality rates. The contract also provides enhanced watering prescription and tree stock inspection prior to purchase. These measures are specifically designed to create better survivability within the often harsh planting environment in the road right-of-way. The improved quality of planting will provide more resilient trees with a better life-cycle contribution to the Urban Forestry Strategy canopy goals.

The tree replacement supply across the province is under pressure. This contract will supply the city with a multi-year supply of trees to meet strategy requirements and avoid a shortage of tree supply to meet strategy goals.

2.0 Financial Impact/Considerations

2.1 Purchasing Process

A public Request for Tender (RFT) was issued July 3, 2020 for the supply and install of infill trees. Only one bidder submitted documents. Civic Administration has reviewed the tender bid and recommends that Kamarah Tree Farms be awarded the contract. Due to receipt of only one competive bid, this result is being reported as an Irregular Result per the Procurement of Goods and Services Policy Section 8.10, Clauses a and b; and Section 13.2 Clause b.

> 8.10 Irregular Result
>
> a. The value of the lowest compliant bid is in excess of the City Council approved budget including any contingency allowance;
>
> b. The specifications of a competitive bid cannot be met by two (2) or more suppliers;
>
> 13.2 Awards under the RFT process require the following approval:
>
> b. Committee and City Council must approve award of contracts when a tender result is irregular as per Section 8.10 of this Policy; and

The bid received from Kamarah Tree Farms exceeds the available Council approved budget for this tree planting RFT. In accordance with Section 19.3 Clause b) i) and b) ii) of the Procurement of Goods and Services Policy, Civic Administration will waive the need for revised competitive bids and enter negotiations with the respondent for the purchase and installation of trees that aligns with the City's future budget availability for this contract which is subject to future Council budget approvals.

> 19.3 No Acceptable or Equal Bids
>
> b. The Managing Director and the Manager of Purchasing and Supply jointly may waive the need for a revised competitive bid and enter into negotiations with the lowest responsive bidder, emanating from a competitive bid, under the following circumstances:
>
> i. the total cost of the lowest responsive bid is in excess of the funds appropriated by City Council for the project; and
>
> ii. the Managing Director and the Manager of Purchasing and Supply agree that the changes required to achieve an acceptable bid will not change the general nature of the requirement described in the competitive bid.

Based on quantities estimated to be required annually over the next five to seven years, Kamarah Tree Farms' annual tender value for the supply and install of infill trees is $3,233,920 (excluding HST). This result exceeds the funds available for this tree planting program which is estimated at $2,086,000 annually. The estimate of funds available includes Council approved budgets and developer contributions as described in more detail in the following section. This variance can be managed under Section 19.3 of the Procurement of Goods and Services Policy by negotiating to adjust the number of trees that are purchased annually to align with the City's available budget and developer contributions. The actual amount of infill trees purchased and installed in any given year will be driven by the available approved budgets and the cost of trees in that year. Part of the cost increase is related to the improved planting and after-care procedures to ensure better survivability. While the quantity of tree planting is expected to be slightly reduced, the automatic inclusion of inspection, soil augmentation and watering is a cost effective approach that will result in better survivability for a improved program life-cycle investment.

2.2 Financial Impact

This contract seeks to commit funding from a variety of future sources across multiple years. As such this circumstance is not suitable for a standard Source of Financing which typically commits current and life-to-date capital funding. The funding for this contract will be available, subject to future Council budget approvals, via the sources of financing illustrated in the tables below:

Capital Project	Annual Forecasted Budget ($)	Maximum Annual Commitment ($)
UF1235 – Street Tree Planting	411,000	411,000
UF2044 – Management of Emerald Ash Borer	400,000	400,000
TS3014 – Road Network Improvements (local & rural)	11,128,000[1]	100,000
UF2047 – Urban Forest Strategy	1,600,000	500,000
UF1129 – Downtown Street Tree Planting	225,000	125,000
Total Annual Commitment	**n/a**	**1,536,000**

1) Represents the average annual budget, 2022 to 2028, for local & rural road network improvements. Tree plantings in the right-of-way are included when certain roads are reconconstructed and the amount is variable depending on the projects. Other capital project sources may also identify planting needs.

In addition to the committed capital funding, other sources of financing are also included in the City's budget for this project are as follows:

Operating / Other	Maximum Annual Commitment ($)
Forestry Operations Operating Budget	100,000
Other - Developer Contributions[1]	450,000
Total Annual Commitment	**550,000**

1) Note – the annual funding available via developer contributions is dependent upon new subdivision assumptions each year. Planting in new subdivisions is funded through a cost recovery arrangement with developers. Actual available funds may be more, or less, than the forecasted amount presented.

The following table summarizes the expenditures that could result over seven years (from 2022 to 2028) if the future budgets are approved as expected over the course of this contract and the maximum number of infill trees are purchased each year:

Description	Value ($)
Total Annual Commitment	2,086,000
Total Commitment, Years 1 to 5	10,430,000
Optional Commitment, Years 6 and 7	4,172,000
Total Potential Contract Commitment (Over 7 Years)	14,602,000

Future operating costs for tree maintenance that result from planting these infill trees will form part of future assessment growth requests. Purchasing and Financial Planning and Policy have been consulted throughout this process and contributed to this report.

Conclusion

Tree planting is an important service provided to meet the goals of the Urban Forest Strategy and other urban forest objectives. Securing the City's tree supply through a multi-year contract was a recommendation of the Strategy. This contract will help the City of London achieve these objectives.

Prepared by: **John Parsons, C.E.T.**
Division Manager, Road Operations

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

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

cc: John Freeman, Manager of Purchasing and Supply
Jason Davies, Manager, Financial Planning and Policy
Kamarah Tree Farms, RR1, Lakeside, ON, N0M 2G0

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: **Supply and Delivery of Intersection Detection Systems**
Date: **May 11, 2021**

Recommendation

That on the recommendation of the Deputy City Manager, Environment & Infrastructure, the following actions **BE TAKEN** with respect to the Supply and Delivery of Intersection Detection Systems:

a) Black & McDonald Limited **BE AWARDED** the contract to supply and deliver intersection detection systems in the amount of $573,896.20 (excluding HST) in accordance with Section 12.2(a) of the Procurement of Goods and Services Policy;

b) the financing for this project **BE APPROVED** in accordance with the Sources of Financing Report attached hereto as Appendix A;

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

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

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

Linkage to the Corporate Strategic Plan

The following report supports the Strategic Plan through the strategic focus area of “Building a Sustainable City”. Enhanced intersection detection supports access for bicycling and improvements to the traffic signal system to reduce congestion.

Analysis

1.0 Background Information

The Traffic Engineering Division is seeking to procure 20 intersection detections systems as a part of the new Transportation Intelligent Mobility Management System (TIMMS). Each complete detection system will be able to detect vehicles on all intersection approaches to aid the new Advanced Traffic Management System (ATMS) with optimizing corridor signal timing for groups of intersections, as well as providing accurate traffic count data.

2.0 Discussion

On January 28, 2021 a Request for Proposal was issued to call for proposals for the procurement of intersection detection systems. Four (4) proponents submitted proposals for evaluation. These proposals were evaluated by a team from the Traffic Engineering Division with the assistance of the Purchasing and Supply Division.

The review and evaluation were scored based on general performance criteria including the company certification, proponent experience, past performance and ability to provide training for equipment installation and operation, specifications, and the cost proposal.

Based on the evaluation criteria and selection process identified in the Request for Proposals, the evaluation committee unanimously concluded that the proposal from Black & McDonald Limited provides the best value to the City. Black & McDonald Limited has proven experience in supplying intersection detection equipment, combined with meeting the general performance specification demonstrated in their suitability for the undertaking.

The Smartmicro intersection detection system proposed by Black & McDonald Limited has been implemented in several other Canadian municipalities including:

- The City of Mississauga (2017);
- The City of Brampton (2017);
- The City of Guelph (2020); and,
- The Town of Collingwood (2019).

Conclusion

Based on the technical evaluation of the proposals, it is recommended that Black & McDonald Limited be awarded the contract for the supply 20 intersection detection systems in the amount of $573,896.20 (excluding HST) in accordance with Section 12.2(a) of the Procurement of Goods and Services Policy.

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

May 3, 2021/
Attach: Appendix A – Source of Finance

cc. Purchasing and Supply
Black & McDonald Limited, 31 Pullman Court, Scarborough, ON, M1X 1E4

Appendix "A"

#21051
May 11, 2021
(Appointment of Consultant)

Chair and Members
Civic Works Committee

RE: Supply and Delivery of Intersection Detection Systems
(Subledger TF190022)
Capital Project TS180519 - TIMMS PTIS - Transportation Intelligent Mobility Mngmt System
Black & McDonald Limited - $573,896.20 (excluding HST)

Finance and Corporate Services Report on the Sources of Financing:

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

Estimated Expenditures	**Approved Budget**	**Committed To Date**	**This Submission**	**Balance for Future Work**
Construction	803,328	219,331	583,997	0
Traffic Signals	6,265,272	2,660,491	0	3,604,781
Total Expenditures	$7,068,600	$2,879,822	$583,997	$3,604,781
Sources of Financing				
Debenture Quota (Note 2)	188,520	76,805	15,575	96,140
Public Transit Infrastructure Stream (PTIS) - Federal Funding	2,827,440	1,151,929	233,599	1,441,912
Public Transit Infrastructure Stream (PTIS) - Provincial Funding	2,355,963	959,844	194,646	1,201,473
Drawdown from City Services - Roads Reserve Fund (Development Charges) (Note 1)	1,696,677	691,244	140,177	865,256
Total Financing	$7,068,600	$2,879,822	$583,997	$3,604,781

Financial Note:

Contract Price	$573,896
Add: HST @13%	74,606
Total Contract Price Including Taxes	648,502
Less: HST Rebate	-64,506
Net Contract Price	$583,997

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.

Note 2: 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 TS180519 - TIMMS PTIS - Transportation Intelligent Mobility Mngmt System for the net amount to be debentured of $188,520.00

Jason Davies
Manager of Financial Planning & Policy

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Report to Civic Works Committee

To: **Chair and Members**
Civic Works Committee
From: **George Kotsifas, P.Eng.**
Managing Director, Development & Compliance Services & Chief Building Official
Subject: **RFT21-07 – Innovation Park Assumption Works: Tender Award**
Date: **May 11, 2021**

Recommendation

That, on the recommendation of the Managing Director, Development & Compliance Services & Chief Building Official, the following actions **BE TAKEN** with respect to the award of contract for the Innovation Park Assumption Works project:

(a) the bid submitted by Cassidy Construction London Ltd., at its tendered price of $3,237,130.99, excluding HST, **BE ACCEPTED**; it being noted that the bid submitted by Cassidy Construction London Ltd., was the lowest of seven (7) bids received;

(b) the financing for this project **BE APPROVED** as set out in the Sources of Financing Report attached hereto as Appendix 'A';

(c) that 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 or issuing a purchase order for the material to be supplied and the work to be done relating to this project (Tender No. RFT21-07); 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

Purpose

This report recommends the award of a tender, Innovation Park Assumption Works, to Cassidy Construction London Ltd, to undertake construction works in Phases 2 through 4 of the Innovation Industrial Park.

Context

The completion of these works will bring the roads and infrastructure within Phases 2 through 4 to a level of completeness and finish to begin the final stages of the assumption. Currently the infrastructure is under the stewardship of the City of London's Industrial Land Development group and the assumption process will transfer them to the City of London's various Operations groups. The project works primarily consists of asphalt repair and top coat, curb and gutter repairs, and sidewalk installation.

Linkage to the Corporate Strategic Plan

The Innovation Park Assumption Works project supports the 2019 – 2023 Strategic Plan through the strategic focus area of "Growing Our Economy" specifically by "invest in City Building projects", ensure job growth through attraction of new capital from diverse range of markets and industries" and "continue to invest in land acquisition and

servicing to recruit and retain new industrial employers”.

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

Board of Control – June 6, 2008 – Contract Award – Tender No. 08-44, Innovation Park Industrial Subdivision Phase 1, Stage 1 and Phase 2

Board of Control – May 13, 2009 – Contract Award – Tender No. 09-43, Innovation Park Industrial Subdivision Phase 4 – Stage 1 and External Works – Bradley Avenue Watermain

Board of Control – November 4, 2009 – Contract Award – Tender No. 09-104, Innovation Park Industrial Area Sanitary Trunk Sewer Extension

Board of Contorl – February 10, 2010 – lnfrastructure Stimulus Fund Contract Award: Tender No. 10-12, lnnovation Park lndustrial Subdivision Phase 3

Finance and Administrative Services Committee – December 15, 2010 – lnfrastructure Stimulus Funding Program Update

Finance and Administrative Services Committee – January 19, 2011 – lnfrastructure Stimulus Funding Program Extension Request

Built and Natural Environment Committee – August 15, 2011 – Infrastructure Stimulus Fund Contract Award: Tender 11-78, Innovation Park Industrial Subidivison Phases 1 and 2 Site Grading and Surface Works

Built and Natural Environment Committee – September 26, 2011 – Contract Award: Tender 11-91, Innovation Park Industrial Subidivison Phase 3 Sanitary Sewer Extension

Civic Works Committee – July 17, 2011 – Contract Award – Tender 12-80 - Infrastructure Stimulus Fud Contract Award: Tender 11-78, Innovation Park Industrial Subidivison Phases 2 and 4 Site Grading

2.0 Discussion and Considerations

2.1 Tender Summary

Tenders for the Innovation Park Assumption Works project were opened on February 16, 2021. Seven (7) contractors submitted tender prices as listed below, excluding HST.

Contractor		Tender Price Submitted
1.	Cassidy Construction London Ltd.	$3,237,130.99
2.	J-AAR Excavating Limited	$3,275,572.13
3.	Dufferin Construction Company, a division of CRH Canada Group Inc.	$3,308,188.30
4.	Bre-Ex Construction Inc	$3,372,641.30
5.	Aar-Con Excavating	$3,398,989.00
6.	L82 Construction Ltd	$3,421,273.50
7.	Coco Paving Inc.	$3,657,000.00

All tenders have been checked by the Environmental and Engineering Services Department and the City's consultant, AECOM Canada Ltd.

The tender estimate just prior to tender opening was $4,161,685.00, excluding HST. The low tender is approximately 28% below the pretender estimate, with the highest bid within 12% of the lowest, indicating a competitive bidding environment. All tenders include a contingency and cash allowances of $600,000.00.

3.0 Financial Impact/Considerations

No new funds are required for this project as the accounts sourced are within existing and approved budgets.

4.0 Key Issues and Considerations

4.1. Park Engagement

With Innovation Park having many established, new, and under construction companies in the various phases of the park engagement with them will be key to making these works a success. A notice has previously been sent out in the fall of 2020 making them aware of the upcoming project and asking for their input. Several companies contacted staff for further details about the project and its timing. Staff will continue to have a dialogue as required with the companies to ensure these works are as least disruptive as possible. Further notices regarding the project award and commencement date will be issued.

Conclusion

Award of the tender to Cassidy Construction London Inc. for the Innovation Park Assumption Works project will allow for the final stages of assumption from the Industrial Land Development group to the City's respsective Operational divisions to commence. These works will bring the the road and underlaying infrastructure up to final specifications.

Prepared by:	**Chris McIntosh, P. Eng.** **Manager III, Engineering Planning (Industrial Land)**
Submitted by:	**Mark Henderson, Director, Business Liaison and Industrial Land Development Strategy**
Recommended by:	**George Kotsifas, P. Eng.** **Managing Director, Development & Compliance Services & Chief Building Official**

Appendix 'A' Sources of Financing
Appendix 'B' Location Map

CC: Chris Ginty, Purchasing and Supply
Gary McDonald, Budget Analyst
Cassidy Construction London Inc.
AECOM Canada Ltd

Appendix "A"

#21036
April 20, 2021
(Tender Award)

Chair and Members
Civic Works Committee

RE: RFT21-07 - Innovation Park Assumption Works: Tender Award
(Subledger SWM20004)
Capital Project ID1168 - Innovation Park
Capital Project ID2058 - Innovation Park - Swr Oversizing Works
Capital Project ID2058-3A - Innovation Park - Sewer Oversizing - Dr. Oetker
Capital Project ID1150 - ILDS Internal Servicing
Cassidy Construction Ltd. - $3,237,130.99 (excluding HST)

Finance and Corporate Services Report on the Sources of Financing:
Finance and Corporate Services confirms that the cost of this purchase can be accommodated within the financing available for it in the Capital Budget, and that, subject to the approval of Managing Director, Development and Compliance Services and Chief Building Official, the detailed source of financing is:

Estimated Expenditures	**Approved Budget**	**Committed To Date**	**This Submission**	**Balance for Future Work**
ID1168 - Innovation Park				
Engineering	3,244,693	3,244,693	0	0
Construction	15,709,090	14,715,536	993,554	0
Relocate Utilities	4,625,314	4,625,314	0	0
Street Lights	93,235	93,235	0	0
City Related Expenses	2,458,248	2,458,248	0	0
Other	130,264	130,264	0	0
ID1168 Total	$26,260,844	$25,267,290	$993,554	$0
ID2058 - Innovation Park - Swr Oversizing Works				
Engineering	604,434	604,434	0	0
Construction	7,182,679	6,703,055	479,624	0
Relocate Utilities	3,609	3,609	0	0
City Related Expenses	115,259	115,259	0	0
Other	359,019	359,019	0	0
ID2058 Total	$8,265,000	$7,785,376	$479,624	$0
ID2058-3A - Innovation Park - Swr Oversizing Works - Dr. Oetkers				
Engineering	8,663	8,663	0	0
Construction	305,067	209,358	95,709	0
City Related Expenses	1,270	1,270	0	0
ID2058-3A Total	$315,000	$219,291	$95,709	$0
ID1150 - ILDS Internal Servicing				
Engineering	7,305,255	350,086	0	6,955,169
Construction	10,487,334	1,640,931	1,725,217	7,121,186
City Related Expenses	100,000	13,193	0	86,807
ID1150 Total	$17,892,589	$2,004,210	$1,725,217	$14,163,162
Total Expenditures	$52,733,433	$35,276,167	$3,294,104	$14,163,162

Appendix "A"

#21036
April 20, 2021
(Tender Award)

Chair and Members
Civic Works Committee

RE: RFT21-07 - Innovation Park Assumption Works: Tender Award
(Subledger SWM20004)
Capital Project ID1168 - Innovation Park
Capital Project ID2058 - Innovation Park - Swr Oversizing Works
Capital Project ID2058-3A - Innovation Park - Sewer Oversizing - Dr. Oetker
Capital Project ID1150 - ILDS Internal Servicing
Cassidy Construction Ltd. - $3,237,130.99 (excluding HST)

Sources of Financing

ID1168 - Innovation Park				
Drawdown from Industrial Land Acquisition Reserve Fund	6,519,227	5,525,673	993,554	0
Drawdown from Industrial Oversizing Reserve Fund	3,806,637	3,806,637	0	0
Drawdown from London Connect Inc Reserve Fund	3,491,000	3,491,000	0	0
Provincial Grants	9,325,000	9,325,000	0	0
Superbuild Funding	1,288,594	1,288,594	0	0
Other	1,830,386	1,830,386	0	0
ID1168 Total	$26,260,844	$25,267,290	$993,554	$0
ID2058 - Innovation Park - Swr Oversizing Works				
Debenture By-law No. W-1926(a)-188 (Serviced through Industrial Land Reserve Fund)	2,800,000	2,800,000	0	0
Drawdown from Industrial Oversizing - Sewer Reserve Fund	3,246,529	2,805,820	440,709	0
Drawdown from City Services - Wastewater Reserve Fund (Note 1)	670,600	631,685	38,915	0
Superbuild Funding	1,547,871	1,547,871	0	0
ID2058 Total	$8,265,000	$7,785,376	$479,624	$0
ID2058-3A - Innovation Park - Swr Oversizing Works - Dr. Oetkers				
Drawdown from Oversizing Sewer Reserve Fund	287,620	200,230	87,390	0
Drawdown from City Services - Wastewater Reserve Fund (Note 1)	27,380	19,061	8,319	0
ID2058-3A Total	$315,000	$219,291	$95,709	$0
ID1150 - ILDS Internal Servicing				
Drawdown from Industrial Land Acquisition Reserve Fund	3,609,255	0	0	3,609,255
Drawdown from Economic Development Reserve Fund	14,283,334	2,004,210	1,725,217	10,553,907
ID1150 Total	$17,892,589	$2,004,210	$1,725,217	$14,163,162
Total Financing	$52,733,433	$35,276,167	$3,294,104	$14,163,162

Appendix "A"

#21036
April 20, 2021
(Tender Award)

Chair and Members
Civic Works Committee

RE: RFT21-07 - Innovation Park Assumption Works: Tender Award
(Subledger SWM20004)
Capital Project ID1168 - Innovation Park
Capital Project ID2058 - Innovation Park - Swr Oversizing Works
Capital Project ID2058-3A - Innovation Park - Sewer Oversizing - Dr. Oetker
Capital Project ID1150 - ILDS Internal Servicing
Cassidy Construction Ltd. - $3,237,130.99 (excluding HST)

Financial Note:	**ID1168**	**ID2058**	**ID2058-3A**	**ID1150**
Contract Price	$976,370	$471,329	$94,054	$1,695,378
Add: HST @13%	126,928	61,273	12,227	220,399
Total Contract Price Including Taxes	1,103,298	532,602	106,281	1,915,777
Less: HST Rebate	-109,744	-52,977	-10,572	-190,560
Net Contract Price	$993,554	$479,624	$95,709	$1,725,217

Financial Note:	**Total**
Contract Price	$3,237,131
Add: HST @13%	420,827
Total Contract Price Including Taxes	3,657,958
Less: HST Rebate	-363,853
Net Contract Price	$3,294,104

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

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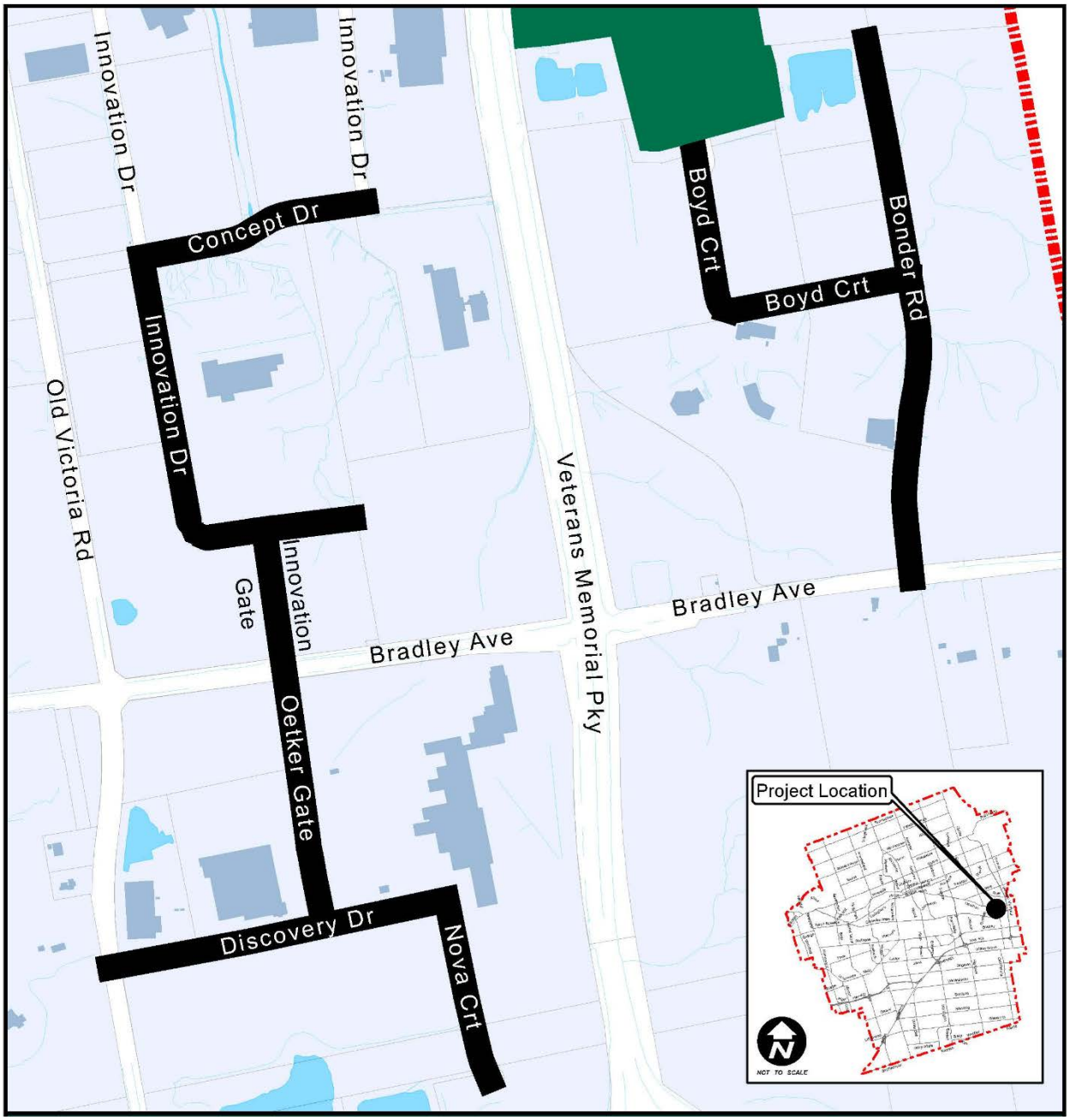
Appendix B Location Map – Innovation Park Assumption Works

Project Limits:

Concept Drive, Innovation Drive (south of Concept Drive), Innovation Gate, Oetker Gate, Discovery Drive, Nova Court, Bonder Road, Boyd Court.



Cycling Advisory Committee

Report

3rd Meeting of the Cycling Advisory Committee
April 21, 2021
Advisory Committee Virtual Meeting - during the COVID-19 Emergency

Attendance

PRESENT: J. Roberts (Chair), B. Hill, J. Jordan, A. Pascual (Committee Clerk), C. Pollett, and O. Toth.

ABSENT: C. DeGroot and E. Raftis

ALSO PRESENT: G. Dales, D. Hall, S. Harding, D. MacRae, L. Maitland, A. Miller, C. Saunders, J. Stanford, S. Wilson, and S. Wise.

The meeting was called to order at 4:03 PM; it being noted that the following Members were in remote attendance: B. Hill, J. Jordan, C. Pollett, J. Roberts, and O. Toth.

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 2nd Report of the Cycling Advisory Committee

That it BE NOTED that the 2nd Report of the Cycling Advisory Committee from its meeting held on March 17, 2021, was received.

3.2 Municipal Council Resolution with respect to the Cycling and Transportation Demand Management Upcoming Projects

That it BE NOTED that the Municipal Council Resolution from its meeting held on April 13, 2021, with respect to the Cycling and Transportation Demand Management Upcoming Projects, was received.

3.3 Letter of Resignation - B. Cowie

That it BE NOTED that the letter of resignation from B. Cowie, was received; it being noted that the Cycling Advisory Committee expressed their thanks to B. Cowie for his contributions to the Committee and the community.

3.4 (ADDED) Municipal Council Resolution with respect to the Temporary Bicycle Lanes on Dundas Place

That it BE NOTED that the Municipal Council Resolution from its meeting held on April 13, 2021, with respect to Temporary Bicycle Lanes on Dundas Place, was received.

3.5 (ADDED) Dundas Place Traffic Changes Update

That it BE NOTED that the communication, as appended to the agenda, from D. MacRae, Director, Roads and Transportation, with respect to the Dundas Place Traffic Changes Update, was received.

4. Sub-Committees and Working Groups

None.

5. Items for Discussion

5.1 Public Meeting Notice – Official Plan Amendment – Masonville Secondary Plan (Resubmitted)

That the following actions be taken with respect to the Public Meeting Notice, dated March 10, 2021, from S. Wise, Senior Planner, related to an Official Plan Amendment for the Masonville Secondary Plan:

a) a Sub-Committee BE ESTABLISHED, to review the above-noted Masonville Draft Secondary Plan and report back at a future meeting of the Cycling Advisory Committee (CAC);

b) the Civic Administration BE REQUESTED to attend the above-noted future CAC meeting to discuss the Sub-Committee Report to be brought forward;

c) the Civic Administration BE REQUESTED to provide maps of the cycling routes in the area under the Masonville Draft Secondary Plan and how they connect with existing cycling infrastructure and integrates with the Cycling Master Plan; and,

d) the above-noted Notice BE RECEIVED.

5.2 City of London PumpTrack

That the following actions be taken with respect to the City of London PumpTrack:

a) the Civic Administration BE ADVISED that the Cycling Advisory Committee (CAC) supports the creation of a pumptrack facility; and,

b) the Civic Administration BE REQUESTED to investigate the placement of this type of facility in the City of London and report back at a future meeting of the CAC with the findings, including funding opportunities available;

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.

6. Adjournment

The meeting adjourned at 5:46 PM.

DEFERRED MATTERS

CIVIC WORKS COMMITTEE

as of May 3, 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	Q4, 2020	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: b) the Civic Administration BE DIRECTED to report back to Civic Works Committee by December 2017 with: i) a Business Case including a detailed feasibility study of options and potential next steps to change the City's fleet of garbage packers from diesel to compressed natural gas (CNG); and, 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	Q2, 2021	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:	August 12, 2019	Q2, 2021	K. Scherr J. Stanford	

File No.	Subject	Request Date	Requested/Expected Reply Date	Person Responsible	Status
	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.				
4.	**745-747 Waterloo Street** That, on the recommendation of the Managing Director, Planning and City Planner, the following actions be taken with respect to the application of The Y Group Investments and Management Inc., relating to the property located at 745-747 Waterloo Street: b) the Civic Administration BE REQUESTED to review, in consultation with the neighbourhood, the traffic and parking congestion concerns raised by the neighbourhood and to report back at a future Planning and Environment Committee meeting; it being further noted that the Planning and Environment Committee reviewed and received the following communications with respect to this matter: a communication from B. and J. Baskerville, by e-mail; a communication from C. Butler, 863 Waterloo Street; and, a communication from L. Neumann and D. Cummings, Co-Chairs, Piccadilly Area Neighbourhood Association; it being pointed out that at the public participation meeting associated with these matters, the individuals indicated on the ~~attached~~ public participation meeting record made oral submissions regarding these matters; it being further noted that the Municipal Council approves this application for the following reasons: the recommended Zoning By-law Amendment would allow for the reuse of the existing buildings with an expanded	October 2, 2018	Q2, 2021	K. Scherr	

File No.	Subject	Request Date	Requested/Expected Reply Date	Person Responsible	Status
	range of office conversion uses that are complementary to the continued development of Oxford Street as an Urban Corridor, consistent with The London Plan polices for the subject site. Limiting the requested Zoning By-law Amendment to the existing buildings helps to ensure compatibility with the surrounding heritage resources and also that the requested parking and landscaped area deficiencies would not be perpetuated should the site be redeveloped in the future. While the requested parking deficiency is less than the minimum required by zoning, it is reflective of the existing conditions. By restricting the office conversion uses to the ground floor of the existing building at 745 Waterloo Street and the entirety of the existing building at 747 Waterloo Street (rather than the entirety of both buildings, as requested by the applicant), the parking requirements for the site would be less than the parking requirements for the existing permitted uses. The applicant has indicated a willingness to accept the special provisions limiting the permitted uses to the ground floor of the existing building at 745 Waterloo Street and to the entirety of the existing building at 747 Waterloo Street.				
5.	**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	Q2, 2021	K. Scherr J. Stanford	
6.	**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;	July 14, 2020	Q4, 2021	D. MacRae A. Salton	

File No.	Subject	Request Date	Requested/Expected Reply Date	Person Responsible	Status
	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.				
7.	**Street Renaming By-law, Policies and Guidelines** That the following actions be taken with respect to the street renaming of Plantation Road: 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;	September 22, 2020	TBD	G. Kotsifas	
8.	**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,	November 17, 2020	June 2021	K. Scherr J. Stanford	

File No.	Subject	Request Date	Requested/Expected Reply Date	Person Responsible	Status
	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.				
9.	**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, 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.	March 30, 2021	TBD, September 2021	K. Scherr J. Stanford	
10.	**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	