

Congestion Management Plan 2023-2026 - Update

Date: February 13, 2024
To: Infrastructure and Environment Committee
From: General Manager, Transportation Services
Wards: All

SUMMARY

The Congestion Management Plan (CMP) 2023-2026 was presented at the Infrastructure and Environment Committee (meeting held on October 25th, 2023) and then subsequently to Council (meeting held on November 8-9th, 2023). Since its adoption, there have been various requests via Councillor motions for Transportation Services to report back on a variety of specific aspects of the plan going forward. This report addresses the most recent compiled list of motions identified in IE10.5 - Congestion Management Update Request. Some of the key elements addressed in this report include:

- The feasibility of an increase to road occupation permit fees with the intent on recovering the full cost of a road closure including the congestion impacts;
- The status of work regarding "Don't Block the Box," requesting increased fines and the feasibility of expanding the red-light camera program to help deter this issue;
- Measures to improve upon wayfinding and accessibility around construction work zones;
- Opportunities to increase work hours for capital projects;
- The feasibility of fines that escalate for repeat offenders, such as illegal blocking of traffic lanes; and
- Measures to streamline delivery of goods to reduce congestion.

Some of the new technologies being explored through the updated Congestion Management Plan will require pilots to further develop concepts or to customize proven technologies in the Toronto context. Transportation Services staff have been working on a potential partnership with the Ontario Centre for Innovation that would serve as a catalyst for local Ontario-based companies to receive funding for pilots conducted on

City of Toronto streets. This report provides a summary of the proposed arrangement and seeks approval for staff to proceed.

RECOMMENDATIONS

The General Manager, Transportation Services recommends that:

1. City Council direct the General Manager, Transportation Services to engage the Canadian National Institute for the Blind and members of the visually impaired community to undertake a pilot to provide construction closure information in an accessible format for the visually impaired.
2. City Council direct the General Manager, Transportation Services to work with Toronto Police Service to develop a strategy to provide enforcement support of bylaw infractions such as blockage of signalized intersections and illegal blockage of bike lanes and dedicated transit lanes in support of the Traffic Agent program.
3. City Council direct the General Manager, Transportation Services to report back in Q3 of 2024 on a strategy to commence the charging of a road occupancy congestion management recovery fee that would be implemented in the Transportation Services 2025 budget proposal.
4. City Council direct the General Manager, Transportation Services to further develop a roll-out strategy including public consultation to commence the implementation of peak hour delivery restrictions and to report back on the proposed strategy in Q3 of 2024.
5. City Council authorize the General Manager, Transportation Services, to initiate Transportation Innovation projects outside of the Transportation Innovation Zone located at Exhibition Place and to include both pre-commercial and early-market technologies within the scope of future Innovation Challenges, when appropriate.
6. City Council direct the General Manager, Transportation Services, to enter into and execute a Memorandum of Understanding with the Ontario Centre for Innovation to collaborate on the piloting and evaluation of new technologies and Intelligent Transportation Systems within the transportation realm, upon such terms and conditions satisfactory to the General Manager, Transportation Services.
7. City Council authorize the City Solicitor to introduce the necessary bills to give effect to City Council's decision and City Council authorize the City Solicitor to make any necessary clarifications, refinements, modifications, technical amendments, or by-law amendments as may be identified by the City Solicitor, in consultation with the General Manager, Transportation Services.

FINANCIAL IMPACT

There is no financial impact from the adoption of the recommendations in this staff report.

All financial impacts for future years' budget will be included in the 2025 Budget submission.

The Chief Financial Officer and Treasurer has reviewed this report and agrees with the financial implications as contained in the Financial Impact Section.

DECISION HISTORY

The Infrastructure and Environment Committee, at its meeting of October 25, 2023, adopted the Congestion Management Plan 2023-2026 with amendments.
<https://www.toronto.ca/legdocs/mmis/2023/ie/bgrd/backgroundfile-239866.pdf>

City Council, at its meeting on November 8, 2023, adopted the Congestion Management Plan 2023-2026 with amendments.
<https://www.toronto.ca/legdocs/mmis/2023/cc/bgrd/backgroundfile-240533.pdf>

City Council, at its meeting of July 28-29, 2020, authorized the use of the property of Exhibition Place for a Transportation Innovation Zone for up to five years on the condition that the operations of the innovation zone do not interfere with public access to the Exhibition Place grounds used as parks or open space.
<https://www.toronto.ca/legdocs/mmis/2020/ie/bgrd/backgroundfile-148233.pdf>

City Council, at its meeting on May 5, 2021, authorized the implementation of the Transportation Innovation Challenge program to be located at the Exhibition Place Transportation Innovation Zone.
<https://www.toronto.ca/legdocs/mmis/2021/ie/bgrd/backgroundfile-165845.pdf>

COMMENTS

The following subsections provide updates on the specific motions identified in IE10.5 - Congestion Management Update Request.

Improved wayfinding in construction zones (Recommendation in IE7.2) Status of new work zone signage, including content (Recommendation in IE9.9)

There are a number of major temporary road closures spanning multiple years throughout the City which necessitate pedestrian and/or cycling route diversion. The Transportation Services Work Zone Coordination team will be working with the various constructors on the right-of-way to implement wayfinding signage and to require constructors to provide paths that are free of tripping hazards or other obstructions.

Transportation Services will also continue to work with the Transit Expansion Office to require Metrolinx to include any potential opportunities for better wayfinding, accessibility measures and likewise to ensure that paths are free from obstructions and tripping hazards in both current and future Metrolinx work.

There are some instances, due to constantly changing construction work zone closure conditions, where the traditional approach of installing static wayfinding signs is ineffective as conditions change too frequently to keep signage current and placed appropriately. The Congestion Management Plan (CMP) 2023-2026 proposes the use of QR Codes on construction signage that would allow the public to get updated information about the respective construction closure including the contractor's name, duration of the project and wayfinding details if there is a need to divert traffic, pedestrians and/or cyclists.

While the suggestion to implement QR codes at construction work zones came from consultations with the accessibility community held last year as part of an initiative directed of staff from the Toronto Accessibility Advisory Committee (TAAC), Transportation Services recognizes that there is still the need to take this one step further to ensure that an accessible alternative be provided.

Currently proposed is the idea of making all of the construction work zone and detour route information accessible through the City's Open Data Portal and then continuing to work proactively and collaboratively with Canadian National Institute for the Blind (CNIB) and the accessibility community to further develop existing accessibility applications to help them incorporate construction work zone open data. Envisioned is an application that is GPS-based, developed for the blind, deafblind and partially sighted that will voice construction work zone details once the user is in relative proximity to the construction work zone. Transportation Services also envisions a pilot that will allow city residents with accessible needs to try the application and provide feedback before full implementation.

Transportation Services is currently in consultation with Strategic Public and Employee Communications (SPEC) with respect to the idea of incorporating the QR codes into the existing construction signage standards in a manner to minimize sign clutter. It is anticipated that the first QR Code construction signs will be piloted in early March of this year as a pilot in preparation for a more fulsome implementation this coming summer.

The status of work regarding "Don't Block the Box," requesting increased fines and best practices for "don't block the box" solutions beyond an increased fine, including the feasibility of expanding the red light camera program (MM5.26; IE7.2) and the feasibility of fines that escalate for repeat offenders, such as illegal blocking of traffic lanes

Regarding the suggestion to implement increased fines, so long as the set fine is set under the Provincial Offences Act, the City cannot unilaterally increase the set fine amount. Although the City can make an application for a particular set fine amount (including an increased set fine amount) associated with a particular offence, set fine applications are first sent to the Ministry of the Attorney General for their review before

being sent to the Regional Senior Judge of the Ontario Court of Justice who approves and establishes the set fine amounts under the Provincial Offences Act.

The current set fine amount associated with the offence provided in section 950-501B(1) of City of Toronto Municipal Code Chapter 950 (ie. Fail to clear signalized intersection/blockage of signalized intersection) is \$90.00.

Transportation Services has reviewed the proposal to increase the fines and has determined that it is appropriate that an application be made to request the set fine be increased from the current \$90 to at least, if not more than, the set fine for disobeying a red light which is \$260. This is in recognition that "Blockage of the Intersection" not only creates a safety issue for vulnerable road users but also has a negative impact, including congestion, on transit and other vehicles on the road.

Transportation Services is recommending that the fines for improper stop at an intersection be increased as follows:

- from \$90 to \$450 for an improper stop at an intersection and,
- from \$120.00 to \$500.00 for an improper stop at an intersection in a community safety zone.

This is in recognition that, "Blockage of the Intersection" not only creates a safety issue for vulnerable road users but, also has a negative impact on transit and other vehicles congested on the road.

Transportation Services have also looked into the feasibility of using the existing Red Light Cameras (RLC) deployed throughout the City for the purposes of enforcing "Blockage of Signalized Intersections" infractions. The current red light camera system cannot be expanded to include additional offences other than the current offence of failing to stop at a red light. The authorities for the program itself are derived from the Highway Traffic Act and its regulations and are specifically designed to apply only to the offence where the vehicle enters an intersection when a red indication is shown. Accordingly, the red light camera system and the evidence it produces cannot be used in relation to the offence of blocking an intersection.

The more critical issue is that the City's current authority under the Highway Traffic Act to enact "Blockage of Signalized Intersections" offences is dependent on the infraction charges being laid against the driver of the vehicle rather than the owner of the vehicle. This fundamental issue makes automated enforcement (ie technology that captures the license plate and then charges the owner of the vehicle) not feasible. Provincial legislative changes might allow the City to charge the owner of the vehicle.

Aside from the legislative changes, the technology for automated enforcement of "Blockage of the Intersection" or any other such bylaw offences such as illegal parking or stopping in a bike lane, driving in a dedicated bus lane need to be tested before proceeding with a procurement for installation, operations and maintenance support.

Transportation Services have also explored the possibility of having Traffic Agents issue tickets for improper stopping at a signalized intersection. Legal Services have confirmed that only the police have the legal authority to undertake the operation for issuing tickets for moving violations such as pulling a vehicle over and requesting driver's license and other necessary identification from the driver. As an immediate solution, Transportation Services will need to engage the police for enforcement support.

Given these considerations, Transportation Services is recommending the following steps in terms of immediate, medium and longer term strategy:

- Transportation Services to engage Toronto Police Service (TPS) to try to develop a strategy for committed enforcement support of bylaw infractions such as improper stop at an intersection and to report back on the strategy in Q3 of this year.
- Once an enforcement strategy has been developed, apply to the Ministry of the Attorney General to increase the fines to \$450 for an improper stop at an intersection and to \$500 for improper stopping in community safety zones. If approved, the application would then be sent to the Regional Senior Judge of the Ontario Court of Justice for final approval and adjustment of the set fines.
- Transportation Services will work with Courts and Fines to strategize the tracking offenders and appropriate application of escalated fines.
- Submit the request to the Province to amend the Highway Traffic Act to make "block the box" type of offences owner liability offences.
- If the Province amends the Highway Traffic Act, the City would need to amend its by-law provision accordingly
- Continue efforts working in tandem with TPS on the piloting of new technology for automated enforcement of bylaw offences such as improper stop at an intersection, illegal stopping (eg on bike lanes) and illegal usage of dedicated transit lanes. Data collected from this pilot could help inform the province in making the decision to allow the necessary changes to the legislation to enable automated enforcement.

The feasibility of an increase to road occupation permits, including an escalating fee for long-term closures reflecting the full cost of a road closure including the impact on people experiencing worsened traffic conditions (IE7.2)

Through the congestion management plan, a 25% surcharge has been added to the fees that developers within construction hub areas pay to occupy the road to safely construct the development. However, this fee is intended to recover the costs associated with providing a higher level of service of construction work zone management oversight rather than reflecting the economic impacts of the congestion created by the road occupation.

The 25% surcharge covers costs associated with: the new online booking system to gain permission to access to the right-of-way ultimately providing expedited permitting

and better coordination and enforcement over the right-of-way, physical changes to support the closures such as temporary traffic signals or redesignation of areas for heavy vehicle storage and access routes and improved road maintenance for sidewalk repair and street sweeping to further mitigate the impacts of the dense construction activities in the construction hubs. Last year, the new fees recovered approximately \$1M combined from original five construction hubs however, it is anticipated that this amount should increase in 2024 given the four new and expanded hubs established late last year through the CMP 2023-2026. There are currently 9 legally defined construction hubs in the City of Toronto.

Pursuant to sections 7, 8 and 259(1) of the City of Toronto Act, 2006 (“COTA”), the City can pass by-laws imposing fees or charges on persons, (a) for services or activities provided or done by or on behalf of it; (b) for costs payable by it for services or activities provided or done by or on behalf of any other municipality or any local board; and (c) for the use of its property including property under its control. Pursuant to subsection 259(3), the costs included in a fee or charge may include costs incurred by the City or local board (extended definition) related to administration, enforcement and the establishment, acquisition, and replacement of capital assets.

Fees are defined as charges imposed on users of a service to recover the costs of providing that specific service. They require a reasonable nexus between the cost of the services provided and the amount of the fee charged.

The City already charges fees for temporary street occupation, both in a Construction Hub and outside of a Construction Hub, as found in Appendix C – Schedule 2, Transportation Services, to City of Toronto Municipal Code Chapter 441, Fees and Charges. Transportation Services would need to explore the actual costs (ie. administration, enforcement costs) which are imposed on the City due to the occupancy of the right of way by builders and determine if it can substantiate an increase in cost to the City over time, it may be feasible that the City could charge an escalating fee. Transportation Services would also need to first look at the amount of the fees currently charged by the City, deducting those amounts from any revised updated cost estimate.

Taxes are distinct from fees under law.

The City’s authority to levy taxes (other than traditional property taxes) is provided by Part X of COTA. Subsection 267(1) allows the City by by-law to impose a direct tax in the City, provided it is not a tax prohibited by subsection 267(2). Such a taxation by-law must also state the subject to the tax, the tax rate or the amount of tax payable, and the manner in which the tax is to be collected.

A Congestion Fee (Tax) might be feasible if it was a direct tax. Any consideration of a Congestion Fee (Tax) would require close consultation with Finance staff and would require careful tax design. Transportation Services staff must first conduct further examination in order to assess whether a Congestion Fee (tax) could be feasible.

Transportation Services staff are recommending to initially proceed with an approach to recover these traffic management costs as part of the 2025 budget consideration. In

parallel, the investigations to implement road occupation fees that reflect the impacts to congestion will continue and likewise, if possible, a strategy would be included through the 2025 budget consideration process. Further, Transportation Services has recently retained the services of a consultant to undertake a study to understand the costs of congestion and to relate that to a Congestion Fee (Tax) model.

Next steps for the congestion management plan, including engagement (IE7.2)

Transportation Services has a long history of consulting with internal and external stakeholders including cycling, pedestrian, and accessibility advocacy groups for each of its signature programs such as the Vision Zero Road Safety Plan, Cycling Network Plan and the Congestion Management Plan.

More recently, Transportation Services staff established two stakeholder advisory groups and chaired four stakeholder workshops in May 2023 with the cycling and accessibility community to garner ideas to be included within the CMP 2023-2026. These efforts culminated in a Virtual Town Hall meeting held on January 30, 2024 summarizing the conclusion of the consultation phase and the commencement of a proposed new consultation phase as we begin to implement changes for improvement to all road users.

Transportation Services is committed to broadening this stakeholder engagement to include other groups such as TTC Riders and CAA for consultation other aspects of the congestion management plan roll-out.

In addition, Transportation Service will continue to engage with City staff, including the Noise Enforcement Team within the Municipal Licensing and Standards (MLS) Division. Noise Enforcement Team staff regularly attend Construction Hub Coordination Industry Outreach meetings to coordinate work and outline City regulations of construction noise, including noise exemption permit processes.

An improved process to account for emergency service impacts (Recommendation in EC8.8)

Safe access for emergency vehicles is a fundamental part of the complete street design process. Staff currently use several tools to assess roadway geometry, including design standards and guidelines, to support vehicle maneuverability, while balancing road safety. These tools include vehicle turning "swept path" simulations, as well as roadway standards and the City of Toronto's Lane Width Guidelines, which were developed in consultation with emergency services. For each street design project, emergency services feedback on design elements, potential impacts and monitoring strategies are considered and incorporated. After a major complete street design project is installed, Transportation Services monitors projects and publishes data and adjusts based on feedback from the public, City Council and key internal stakeholders including emergency services.

For example, in the case of the Midtown Yonge Complete Street project, Toronto Paramedic Services conducted an analysis of response times within the ActiveTO

Midtown Complete Street pilot area to assess the impact of the pilot. For the purpose of the analysis, the pilot area was defined as the Yonge Street corridor from Bloor Street to Davisville Avenue, plus a 1000 metre buffer in all directions. Response times increased by 36 seconds within the ActiveTO pilot area which was still less than the increase experienced on a city-wide basis in 2022 compared to the same period in 2019 (pre-pandemic).

More information: <https://secure.toronto.ca/council/agenda-item.do?item=2023.IE1.4>

Expansion of the capital coordination program, and an approach that improves integration across major capital projects, streamlines processes and enhances oversight and accountability (IE7.2)

Toronto is in a period of significant growth and development with a focus on building affordable housing, expanding transit and the necessary infrastructure updates to support this growth. The volume of construction work (both public works and private development) is resulting in direct impacts to daily travel in Toronto despite current capital coordination efforts. At the same time, there are opportunities to update the City's existing capital project coordination and delivery processes, and thereby better meet the expectations of Council, staff and the public. Given the complexity and broad scope of issues to be updated, KPMG was engaged to review leading industry practices and propose opportunities for improvements to City processes. KPMG's work (completed in 2023) validated staff concerns and recommended that the City take a more comprehensive approach to coordinating major capital projects and growth initiatives – particularly in areas of concentrated major growth and capital investment (both public and private). The consultant's work complemented and supported a major internal project (completed in December 2023) that identified required improvements for our Capital Delivery processes.

To deliver the expected improvements, Infrastructure Services is launching a Strategic Capital Coordination Office (SCCO), managed from the Deputy City Managers Office (DCMO), to support strategic capital coordination planning amongst public and private sector stakeholders within growth areas, and to enhance our annual capital delivery program to incorporate process improvements. An iterative, phased approach to implementing the SCCO has been initiated, starting with existing temporary staffing resources until the full mandate is realized, we have gathered lessons learned, and the related level of effort is better understood.

As per a motion moved by City Council on IE7.2, the General Manager of Transportation Services will be reporting in Q2 2024 with a more in-depth overview of the Strategic Capital Coordination Office and its governance, including additional information on its mandate and progress to-date.

The potential to increase work hours for capital projects

By permitting capital projects to operate under extended hours, as allowed by noise bylaw 591-3.1.d., the City aims to increase overall construction efficiency while mitigating congestion and inconvenience to the public.

While traditionally, City-led construction projects operate from 7 a.m. to 7 p.m., Monday through Friday, Engineering and Construction Services (ECS) has worked with its construction contractors to successfully implement longer working hours on many projects as well as to consider changes to the work during construction, when opportunities are identified. A recent example of this is the expedited work on the Adelaide Street streetcar tracks at the intersections of Yonge, York and Bay Streets, demonstrating the potential benefits of this approach.

The decision to extend work hours involves a cost-benefit evaluation of capital budgets and economic impact, weighing the benefits of accelerated completion against the potential for increased noise and other impacts on local communities. The strategy involves a thorough consideration of various factors during the project's design phase, including:

Location:

- The location of the construction project and its proximity to residential areas or businesses such as hotels where overnight noise could have challenging implications.

Nature of the work:

- Construction work is carefully sequenced and often requires periods of downtime to allow, for example, concrete to cure or there are sometimes activities that take longer before proceeding with the next step.
- While there are technologies for noise suppression such as broadband reversing alarms, sometimes called 'quakers' or 'croakers', there are still many construction methodologies such as piling, moving of dirt and debris and use of cement mixers that generate noises that cannot be as easily suppressed. The City regularly investigates and implements innovative technologies to mitigate the effects of extended working hours.

Labour force:

- It is critical to evaluate the availability and safety of workers.

Public outreach:

- Communication with the community and all stakeholders is crucial to ensure community support and understanding of the project's benefits and temporary inconveniences.

Research and analysis were conducted on the effectiveness of extending construction working hours in 2015 and 2016 and those learnings continue to be leveraged (see link below).

<https://www.toronto.ca/legdocs/mmis/2016/pw/bgrd/backgroundfile-92685.pdf>

The shift in work and commuting patterns post-pandemic further underscores the need for flexible and adaptive construction scheduling.

The City continues to explore opportunities for upcoming contracts to work longer hours, to enhance the efficiency of construction projects while minimizing their impact on the public.

Measures to streamline delivery of goods to reduce congestion

The concept of streamlined delivery of goods to reduce congestion implies the implementation of citywide peak hours restrictions on the delivery of supplies and materials in parallel with noise bylaw exemptions allowing for deliveries to take place either during the early morning or late night. It was noted that this practice has been done in other municipalities however, further investigation is required to help inform decisions in the City of Toronto context.

It is important to note that these types of constraints have been done in the past around major events such as the Pan Am Games in 2015 and there are plans to reconsider this for the upcoming FIFA 2026.

Most notable was during the pandemic whereby Transportation Services worked with Municipal Licensing and Standards (MLS) to implement a pilot to allow for off-peak deliveries by temporarily suspending the loading and unloading provision of the Noise Bylaw (which prohibits noise from loading and unloading between 11 p.m. and 7 a.m. on weekdays). The emphasis was however, on allowing for additional time for the delivery of goods given the concerns that some supplies were running out and suppliers looked to do more deliveries during off-peak periods to meet the increased consumer demand.

Depending on the industry, implications for these types of constraints can either be helpful or very problematic. It is anticipated that the construction industry would welcome the opportunity to make early morning deliveries to development sites and could benefit from concrete or other building materials being delivered in a timely manner and unhampered by congestion. In sharp contrast, small businesses may find this problematic as it may incur additional costs to have staff working longer hours for receipt of goods and supplies, additional security support needs and increased insurance costs.

Given the range of positive and negative implications, a public consultation process including interested stakeholders and relevant City divisions is being recommended to properly assess the impacts and to implement a phased-in approach whereby certain industries that can benefit from this may be implemented first and other industries that are negatively impacted may need incentives before aligning.

As each industry makes the change in terms of delivery, there will be incremental improvements in the movement of goods combined with decreased congestion and improved safety given the removal of heavy vehicles from peak hour traffic.

The City's Needs to Pilot New Technologies

There are a number of new technologies and innovative approaches being considered in the Congestion Management Plan with respect to Artificial Intelligence (AI) with traffic

signals, advanced AI based transit signal priority strategies, new areas of automated enforcement including 'block-the-box', illegal parking and stopping that will require the City to first test the new technologies on City right-of-way in a manner that does not negatively impact traffic.

The City established a Technology Innovation Zone (TIZ) in 2020 at Exhibition Place and has completed a few technology innovation projects including automated sidewalk winter maintenance; micro utility devices (otherwise known as sidewalk robots); and parking and curbside vehicle detection. Transportation Services is now seeking authority to expand the existing Technology Innovation Zone concept to allow for pilots to occur citywide.

Transportation Services is also working in partnership with the local telecommunications companies to create a virtual testbed whereby technologies can be physically implemented in the field but tested in a safe, secure cloud computing environment.

Most recently, Transportation Services has engaged the Ontario Centre for Innovation (OCI) in a partnership arrangement whereby they would fund Ontario based companies seeking to conduct pilots within the City of Toronto based on the City's priorities for congestion mitigation and improved safety and accessibility for all road users. Essentially, the arrangement would allow the City to invoice the Small and Medium Enterprise (SME) proposing the new technology solution to recover the costs for the pilot whereas, OCI would reimburse the SME.

There would be no mandatory requirement for the City to further invest in the SMEs technology however, any proven technology solutions could be procured in the future as a pre-qualified product. Transportation Services is seeking the authority to enter into the Memorandum of Understanding with the OCI that speaks to the arrangement whereby both parties would work together to review and assess potential applicants for funding by OCI.

In parallel, Transportation Services will continue to work with Legal Services and Purchasing and Material Management to establish the framework of engagement with the potential SMEs applying to the program.

CONTACT

Roger Browne
Director, Traffic Management
Transportation Services
Tel: 416-392-5372
E-mail: Roger.Browne@toronto.ca

SIGNATURE

Barbara Gray
General Manager
Transportation Services