

**Environment, Transportation & Public Safety
Standing Committee Meeting Agenda**

Date: Wednesday, September 24, 2025

Time: 4:30 o'clock p.m.

Location: Council Chambers, 1st Floor, Windsor City Hall

All members will have the option of participating in person in Council Chambers or electronically and will be counted towards quorum in accordance with Procedure By-law 98-2011 as amended, which allows for electronic meetings. The minutes will reflect this accordingly. Any delegations have the option to participate in person or electronically.

MEMBERS:

Ward 3 – Councillor Renaldo Agostino

Ward 4 – Councillor Mark McKenzie

Ward 8 – Councillor Gary Kaschak

Ward 9 – Councillor Kieran McKenzie (Vice Chairperson)

ORDER OF BUSINESS

- | Item # | Item Description |
|--------|---|
| 1. | CALL TO ORDER – Election of Chairperson

READING OF LAND ACKNOWLEDGMENT

We [I] would like to begin by acknowledging that the land on which we gather is the traditional territory of the Three Fires Confederacy of First Nations, which includes the Ojibwa, the Odawa, and the Potawatomi. The City of Windsor honours all First Nations, Inuit and Métis peoples and their valuable past and present contributions to this land. |
| 2. | DISCLOSURE OF PECUNIARY INTEREST AND THE GENERAL NATURE THEREOF |
| 3. | ADOPTION OF THE MINUTES OF THE ETPS STANDING COMMITTEE |
| 3.1. | Adoption of the Environment, Transportation & Public Safety Standing Committee minutes of its meeting held July 30, 2025 (SCM 243/2025) |
| 4. | REQUEST FOR DEFERRALS, REFERRALS OR WITHDRAWALS |
| 5. | COMMUNICATIONS |
| 6. | PRESENTATIONS AND DELEGATIONS |
| 7. | COMMITTEE MATTERS |
| 7.1. | Minutes of the Active Transportation Expert Panel of its meeting held June 12, 2025 (SCM 236/2025) |
| 7.2. | Minutes of the Environment & Climate Change Advisory Committee of its meeting held July 17, 2025 (SCM 262/2025) |
| 7.3. | Minutes of the Transit Windsor Working Group of its meeting held August 13, 2025 (SCM 286/2025) |

- 7.4. Minutes of the Essex-Windsor Solid Waste Authority (EWSWA) Regular Board of its meeting held July 9, 2025 **(SCM289/2025)**

8. ADMINISTRATIVE ITEMS

- 8.1. Diaper Disposal Program Alternatives – City Wide **(S 110/2025)** *Author: Jim Leether, Senior Manager, Environmental Services*
- 8.2. Traffic Calming Policy Update 2025 - City Wide **(S 111/2025)** *Author: Awele Italiano, Road Safety Coordinator*
- 8.3. Response to CR11/2025, CQ 1-2025 and CQ 2-2025 - Traffic Impact Analysis of Greenfield and Infill Developments – City Wide **(S 112/2025)** *Author: Chris Gerardi, Engineer II*
- 8.4. Response to CQ 45-2024 – Traffic Flow Status – City Wide **(S 113/2025)** *Author: Ian Day, Senior Manager, Transportation*
- 8.5. Bicycle Parking Policy Implementation and Feasibility Update – City Wide **(S 114/2025)** *Author: Kathy Quenneville, Coordinator, Schools and Sustainable Mobility*
- 8.6. Proposed Alley Maintenance Standards and Policy Enhancements – City Wide **(S 116/2025)** *Author: Rob Slater, Executive Initiatives Coordinator on behalf of Ad Hoc Administrative Alley Committee*

11. QUESTION PERIOD

12. ADJOURNMENT



Committee Matters: SCM 243/2025

Subject: Adoption of the Environment, Transportation & Public Safety Standing Committee minutes of its meeting held July 30, 2025

Environment, Transportation & Public Safety Standing Committee Meeting

Date: Wednesday, July 30, 2025

Time: 4:30 o'clock p.m.

Members Present:

Councillors

Ward 3 - Councillor Renaldo Agostino

Ward 4 - Councillor Mark McKenzie

Ward 8 - Councillor Gary Kaschak

Ward 9 - Councillor Kieran McKenzie (Vice Chairperson)

PARTICIPATING VIA VIDEO CONFERENCE ARE THE FOLLOWING FROM ADMINISTRATION:

Sandra Gebauer, Council Assistant

ALSO PARTICIPATING IN COUNCIL CHAMBERS ARE THE FOLLOWING FROM ADMINISTRATION:

David Simpson, Commissioner, Infrastructure Services & City Engineer

Stephen Habrun, Executive Director Transit Windsor

Brian Lima, Executive Director Operations / Deputy City Engineer

Dan Seguin, Deputy Treasurer, Financial Accounting & Corporate Controls

Jim Leether, Senior Manager, Environmental Services

Ian Day, Senior Manager, Transportation

Stuart Diotte, Manager, Waste Collection Contract

Anna Ciacelli, Deputy City Clerk

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1. CALL TO ORDER

The Vice Chairperson calls the meeting of the Environment, Transportation & Public Safety Standing Committee to order at 4:31 o'clock p.m.

2. DISCLOSURE OF PECUNIARY INTEREST AND THE GENERAL NATURE THEREOF

None disclosed.

3. ADOPTION OF THE MINUTES OF THE ETPS STANDING COMMITTEE

3.1. Adoption of the Environment, Transportation & Public Safety Standing Committee minutes of its meeting held June 25, 2025

Moved by: Councillor Renaldo Agostino

Seconded by: Councillor Mark McKenzie

THAT the minutes of the Environment, Transportation & Public Safety Standing Committee meeting held June 25, 2025 **BE ADOPTED** as presented.

Carried.

Report Number: SCM 199/2025

4. REQUEST FOR DEFERRALS, REFERRALS OR WITHDRAWALS

None requested.

5. COMMUNICATIONS

None presented.

6. PRESENTATIONS AND DELEGATIONS

None presented.

7. COMMITTEE MATTERS

7.1. Minutes of the Windsor Licensing Commission of its meeting held May 21, 2025

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Moved by: Councillor Mark McKenzie

Seconded by: Councillor Gary Kaschak

Decision Number: **ETPS 1072**

THAT the minutes of the Windsor Licensing Commission meeting held May 21, 2025 **BE RECEIVED**.

Carried.

Report Number: SCM 195/2025

7.2. Minutes of the Environment & Climate Change Advisory Committee of its meeting held May 22, 2025

Moved by: Councillor Gary Kaschak

Seconded by: Councillor Mark McKenzie

Decision Number: **ETPS 1073**

THAT the minutes of the Environment & Climate Change Advisory Committee meeting held May 22, 2025 **BE RECEIVED**.

Carried.

Report Number: SCM 214/2025

7.3. Minutes of the Essex-Windsor Solid Waste Authority (EWSWA) Regular Board of its meeting held June 3, 2025

Moved by: Councillor Mark McKenzie

Seconded by: Councillor Renaldo Agostino

Decision Number: **ETPS 1074**

THAT the minutes of the Essex-Windsor Solid Waste Authority (EWSWA) Regular Board meeting held June 3, 2025 **BE RECEIVED**.

Carried.

Report Number: SCM 216/2025

7.4. Minutes of the Transit Windsor Working Group of its meeting held May 27, 2025

Moved by: Councillor Gary Kashack

Seconded by: Councillor Mark McKenzie

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Decision Number: **ETPS 1075**

THAT the minutes of the Transit Windsor Working Group meeting held May 27, 2025 **BE RECEIVED**.

Carried.

Report Number: SCM 232/2025

8. ADMINISTRATIVE ITEMS

8.1. Waste Collection By-law Amendments – City Wide

Councillor Kieran McKenzie inquires as to when the amended by-laws will be coming to Council. David Simpson, Commissioner, Infrastructure Services & City Engineer, appears before the Environment, Transportation, and Public Safety Standing Committee regarding the administrative report dated June 4, 2025, entitled “Waste Collection By-law Amendments – City Wide” and indicates that should the Committee approve the report today, the amendments will be made and brought to council in the near future.

Moved by: Councillor Renaldo Agostino

Seconded by: Councillor Mark McKenzie

Decision Number: **ETPS 1076**

- I. THAT Waste Collection By-law 2-2006 **BE AMENDED** as listed and attached in Appendix “A” of this report (collectively, the “Amendments”); and further,
- II. THAT the City Solicitor **BE DIRECTED** to prepare the necessary documents to amend By-law 2-2006.

Carried.

Report Number: S 81/2025

Clerk’s File: AB2025

8.2. Response to CQ25-2024 – Illegal Car Rallies and Excessive Noise from Motor Vehicles – City Wide

Councillor Gary Kaschak inquires about noise enforcement detection practices in Windsor. Mr. Simpson indicates that by-law officers respond to reports during business hours, with Windsor Police handling reports beyond those hours. There is an update planned to the noise by-law in its entirety, and Council can request specific elements be added to that by-law update.

Councillor Mark McKenzie asks about “noise detection” cameras, and if the proposed red light cameras are still expected to be installed. Mr. Simpson replies that the province may be revisiting the language in the automated speed enforcement legislation, but as of now the City is continuing to prepare the cameras for installation. Mr. Simpson believes that technology of noise detecting

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cameras is not yet fully mature, and other municipalities have attempted to use them with limited success. Ian Day, Senior Manager – Transportation, appears before the Environment, Transportation, and Public Safety Standing Committee regarding the administrative report dated June 25, 2025, entitled “Response to CQ25-2024 – Illegal Car Rallies and Excessive Noise from Motor Vehicles – City Wide” and adds that Administration investigated the results other municipalities had with noise detection cameras and issues were noted when multiple vehicles were in frame, and it could not be determined which vehicle was responsible for the noise. In addition, Ontario regulation does not currently permit cameras to be used for noise detection resulting in fines.

Councillor Kieran McKenzie mentions there has been a decrease in reported car rallies in the first six months of 2025 thanks to increased enforcement. He asks Mr. Day to comment on the enforcement efforts. Mr. Day replies that the increased enforcement has been a deterrent so far, with noise complaints and vehicle noise complaints also down. These numbers may change as the summer months progress. Mr. Day also explains that the city is looking at the municipality of Vaughan as an example with their successful pilot programs regarding car rallies and will examine their data to determine strategies to proceed in the upcoming year.

Councillor Gary Kaschak asks if there will be any delays on upcoming red-light camera installations. Mr. Day replies additional cameras are on schedule to be installed by late August/early September.

Moved by: Councillor Mark McKenzie

Seconded by: Councillor Gary Kaschak

Decision Number: **ETPS 1077**

THAT the report of the Senior Manager Transportation dated June 25, 2025 entitled “Response to CQ 25-2024 – “Illegal Car Rallies and Excessive Noise from Motor Vehicles-City Wide” **BE RECEIVED** by Council for information; and,

THAT administration **BE DIRECTED** to provide an update in early in Q1 of 2026 related to the data presented, including an analysis of the data from the implementation of initiatives in other municipalities, particularly Vaughan, Ontario, with consideration of enacting any administrative penalties that could be emulated if there is an ongoing need to address these issues in our community.

Carried.

Report Number: S 86/2025

Clerk’s File: SP2025

11. QUESTION PERIOD

Councillor Mark McKenzie inquires whether speed humps on residential streets could be painted to make them more visible in low-light conditions. Mr. Day replies that painting the entirety of the speed humps can create a hazard for vehicles and bicycles. Councillor Mark McKenzie asks if

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paint could be applied on the approach to make them more noticeable. Mr. Day replies that the city is within the OTM requirements, but more advanced warning options, such as signage, could be considered. Mr. Simpson adds that a report will be coming to the Committee regarding the speed humps, and Councillor Mark McKenzie's request could be included in that report.

Councillor Renaldo Agostino asks about adding a countdown to intersections with red light cameras, as he has been told by residents that other municipalities do this. Mr. Day replies that the countdown likely being referred to is for pedestrian crossings only, which may or may not align with the red-light traffic signals. A countdown clock specifically for the traffic signal is not used.

12. ADJOURNMENT

There being no further business, the Environment, Transportation & Public Safety Standing Committee is adjourned at 4:52 o'clock p.m. The next meeting of the Environment, Transportation & Public Safety Standing Committee will be held September 24, 2025.

Carried.

Ward 2 – Councillor Kieran McKenzie
(Vice Chairperson)

Deputy City Clerk / Supervisor of Council
Services



Committee Matters: SCM 236/2025

**Subject: Minutes of the Active Transportation Expert Panel of its meeting held
June 12, 2025**

Active Transportation Expert Panel

Meeting held June 12, 2025

A meeting of the Active Transportation Expert Panel is held this day commencing at 3:00 o'clock p.m. in the Public Works Boardroom, 1266 McDougall, there being present the following members:

Dr. Paul Henshaw
Teena Ireland
Wayne Lessard

Regrets received from:

Jocelyn Nikita
James Sommerdyk

Also present are the following resource personnel:

Kathy Quenneville, Chair, and Active Transportation Coordinator
Ian Day, Senior Manager Traffic Operations/Parking
Karen Kadour, Committee Coordinator

1. Call to Order

The Chair calls the meeting to order at 3:02 o'clock p.m. and the Expert Panel considers the Agenda being Schedule attached hereto, matters which are dealt with as follows:

2. Declaration of Conflict

None disclosed.

3. Adoption of the Minutes

Moved by Dr. Paul Henshaw, seconded by Teena Ireland,
That the minutes of the Active Transportation Expert Panel of its meeting held April 10, 2025, **BE ADOPTED** as presented.
Carried.

4. Business Items

4.1(a) Review of the Active Transportation Expert Panel Mandate

The Chair provides the Mandate as follows:

- The shift to an Expert Panel will foster a conducive environment for informal idea exchange: facilitate in-depth discussions and will provide an opportunity for collaborative engagement and enable the Expert Panel to collectively develop and refine ideas.
- The Expert Panel will address all modes of active transportation, rather than predominantly focusing on bicycling and walking.
- This inclusive approach will ensure that all perspectives and transportation methods are adequately represented, resulting in a well-rounded and holistic strategy for promoting active transportation.

Dr. Paul Henshaw advises at the first meeting of the Expert Panel, he asked a former Senior Manager to explain the Mandate. She responded that the role of the Expert Panel is to provide advice on the implementation of the Master Plan. Dr. Henshaw assumed that this explanation implies infrastructure.

The Chair remarks that the implementation of the Master Plan outlines not only infrastructure improvements, but it also outlines education, promotion and other areas.

Moved by Dr. Paul Henshaw, seconded by Tiina Ireland,

That the review of the Mandate of the Active Transportation Expert Panel as provided by the Chair **BE RECEIVED**.

Carried.

Ian Day remarks that if members wish to bring a matter forward; this is part of the forum to bring forward to discuss. He suggests not looking at this from a cycling perspective but through walking, carpooling, etc. as the input is invaluable. The Chair states that a summary of new initiatives can be provided at every meeting.

Wayne Lessard expresses concern that the membership of the Expert Panel currently only has 5 members when the Mandate stipulates that the number of members on the Expert Panel is seven (7). The Chair responds that the Striking Committee of Council determined the number of members to be on the Expert Panel is six (6).

Clerk's Note: As a member recently resigned, Council decided to leave the position vacant for the remainder of the term which leaves the number of members as five (5).

4.1(b) Update by the Active Transport Export Panel (ATEP) Subcommittee

Dr. Paul Henshaw refers to the document entitled "Possible ATEP-funded Initiatives". He reviews the following initiatives, pros, cons and cost as follows:

- **Initiatives**
- Sponsor ATEP members to attend provincial conferences, i.e. Bike Summit
- Provide bike parking at the fireworks
- Support the Downtown Windsor Community Collaborative
- Survey – Where are bikes in conflict with pedestrians
- Safety Village transportation for schools
- Videos – How motorists, pedestrians, and cyclists should use active transportation infrastructure

The Chair indicates there are many organizations that have free webinars and lower cost webinars, i.e. Association of Pedestrian and Bicycle Professionals. A list of additional resources will be e-mailed to the Expert Panel.

Dr. Paul Henshaw indicates that few volunteers were available to assist at the Bike to Fireworks event held in 2024. He proposes contracting the work for the Bike to Fireworks event to Bike Windsor Essex at a cost of \$500. It is generally agreed to defer the logistics for the Bike to Fireworks event to the Spring 2026.

In terms of the Downtown Windsor Community Collaborative, Dr. Paul Henshaw reports that this organization provides free bikes for vulnerable population. Where they would use the money is to equip youth bikes or could purchase locks for the bikes.

Dr. Paul Henshaw suggests doing an online survey at a potential low cost that asks cyclists questions such as where do you see bottlenecks, or dangerous intersections.

Dr. Paul Henshaw remarks that the Safety Village promotes safe riding for youth which encourages youth to ride their bikes.

Dr. Paul Henshaw asks if motorists, pedestrians and cyclists know how to use active transportation infrastructure. He suggests that videos could assist motorists, pedestrians and cyclists and proposes that a summer job be created for a student to make

the videos. The Chair adds that the City of Windsor has a Communications Department that could assist in the creation of the videos. She will contact communications to determine if this is feasible along with posting the videos on social media.

Moved by Dr. Paul Henshaw, seconded by Wayne Lessard,

That the consensus to defer the Bike to Fireworks 2025 initiative **BE APPROVED** and further, that a discussion regarding Bike to Fireworks in 2026 **BE HELD** at the spring meeting of the Active Transportation Expert Panel.

Carried.

Moved by Dr. Paul Henshaw, seconded by Wayne Lessard,

That **APPROVAL BE GIVEN** to inviting a representative from Bike Windsor Essex to the next meeting to present initiatives that could potentially be supported by the Active Transportation Expert Panel.

Carried.

4.1(c) ATMP Biennial Update Report & proposed Regional Receipt of Feedback

The Chair advises that the ATMP Biennial Update Report went to the Environment, Transportation & Public Safety Standing Committee and will be going to City Council on July 14, 2025. She remarks there are 114 action items within the report and requests that the ATEP review the document and provide feedback. She further invites members to attend the July 14, 2025, Council meeting.

4.3 New Business

Dr. Paul Henshaw indicates that the City of Windsor is assessed as a “Bronze Cycling Friendly City”. The Chair responds that she has a document from Share the Road that provides information on how to move forward to the next level (silver). She advises that the foregoing document will be provided for the next meeting.

5. Date of Next Meeting

The next meeting will be held on Tuesday, September 9, 2025, at 2:30 p.m. in a room to be determined.

6. Adjournment

There being no further business, the meeting is adjourned at 4:16 o'clock p.m.



Committee Matters: SCM 262/2025

Subject: Minutes of the Environment & Climate Change Advisory Committee of its meeting held July 17, 2025

ENVIRONMENT & CLIMATE CHANGE ADVISORY COMMITTEE (ECCAC)

Meeting held July 17, 2025

A meeting of the Environment & Climate Change Advisory Committee is held this day commencing at 5:30 o'clock p.m. via Zoom video conference, there being present the following members:

Councillor Angelo Marignani, Acting Chair
Maria Boada
Frank Butler
Mike Fisher
Sandra Janzen
Masoumeh Mazandarani
Jennifer Nantais
Michael Schneider

Regrets received from:

Councillor Kieran McKenzie

Guests in attendance:

Michael Janisse, Senior Manager Communications
Philippa von Zeigenweidt

Also present are the following resource personnel:

Matthew Johnson, Executive Director, Economic Development, Climate Change and Development
Brana Cesljarov, Supervisor
Michelle Moxley-Peltier, CEP Project Administrator
Amy Nevills, Environmental and Sustainability Intern Student
Karen Kadour, Committee Coordinator

1. Call to Order

Councillor Angelo Marignani, Acting Chair calls the meeting to order at 5:31 o'clock p.m. and the Committee considers the Agenda being Schedule A attached hereto, matters which are dealt with as follows:

2. Declaration of Conflict

None disclosed.

3. Minutes

Moved by Sandra Janzen, seconded by Mike Fisher,
That the minutes of the Environment & Climate Change Advisory Committee of its meeting held May 22, 2025, **BE ADOPTED** as presented.
Carried.

5. Subcommittee Reports

5.1 City of Windsor Bird Team Subcommittee

Jennifer Nantais, Chair, City of Windsor Bird Team Subcommittee provides the following highlights of her report:

- The Bird Team holds quarterly meetings – one meeting for every season (or as needed)
- The agenda for the meeting held recently included reflections on the World Migratory Bird Day Celebration.
- Suggests the Earth Day Committee take on the planning of the World Migratory Bird Day Celebration under the banner of a spring festival planning committee.
- How to incorporate zero waste events because plastic reduction is an important part of what Nature Canada measures toward our progress.
- Discussion was held regarding gathering data on where the wetlands are within the area. The City of Windsor does not have wording to protect wetlands in the Official Plan.
- Talked about the Canada Goose Management Plan as people have been questioning what is being done regarding the Canada Geese and how they are being managed.
- Bird friendly policies

Frank Butler expresses concern that aggressive female cardinals are smashing into his windows. Jennifer Nantais responds they are developing some resources to share this information as this is not just a problem for businesses and windows. She adds if there is tree coverage, the bird is seeing reflected in the window those trees and they also see their own reflection. So, territorial birds like cardinals will fight that other bird for territory. She indicates there are bird friendly window treatments which folks can get for free at Earth Day.

In response to a question asked by Maria Boada regarding if funding is needed by the Bird Team Subcommittee, Jennifer Nantais responds she will bring an ask for funding to the next meeting.

The Acting Chair reports with the closing of Sand Point Beach and the erection of a fence, he states that all the geese and swans and birds are now between the fence and the shoreline because of the protection by the fence. Jennifer Nantais responds that this shows that birds will use the space if they need it.

5.3 Public Education & Engagement

Maria Boada, Acting Chair provides the highlights of her report as follows:

- Had a successful engagement at Rock Bottom Bar & Grill with 30 to 40 people in attendance.
- It was a space for folks to network and information was provided relating to the climate stripes and how they are getting warmer and warmer. It is a visual representation of the temperature changes that we are experiencing with climate change.
- Had bingo cards to encourage people to think about ways they can green their own life.
- Information was provided relating to the role of the Environment & Climate Change Advisory Committee.
- People were encouraged to write on a whiteboard what they would like the city to do in terms of the environment.
- An event entitled “A Climate Picnic” will be held at Optimist Park which will feature outdoor games which will include trivia regarding the Environmental Master Plan, the Adaptation Plan, and the SNAP Plan. It will be held on July 18, 2025, from 6:30 p.m. to 8:30 p.m.

Maria Boada remarks that the Subcommittee would like to continue holding these events on a monthly or bi-monthly basis. She asks if a budget can be provided for the remainder of the year to assist in costs associated with the events.

Moved by Maria Boada, seconded by Sandra Janzen,
That **APPROVAL BE GIVEN** to providing an upset limit of \$400 to the Public Education and Engagement Subcommittee for expenses incurred at the upcoming events with a proviso not to exceed \$100 per event.
Carried.

5.5 Budget Subcommittee

Frank Butler, Chair provides the highlights of his report as follows:

- The Budget Subcommittee met twice on June 3 and July 4, 2025. The main discussions included the SNAP report as a whole and determining portion of the

full report to be reviewed & commented on. A draft report to ECCAC is targeted for mid-August & prior to a Sept full committee meeting.

- Several interrelated subjects such as the Hospital location and impact to report area and transportation considerations were discussed. There is a focus on the Green Initiatives component of SSNAP and is a focus of the subcommittee's review and future recommendations. These and other considerations will have financial consideration for the City's future budget & progress on the environmental front.
- In addition, he attended the following environmental meetings of importance to ECCAC:
 - Planning & Environment subcommittee, June 17th, 25
 - Urban Forest Master Plan (UFMP), Social Services Committee July 2, 2025 (moved with recommendations prior to council referral)
 - Radio nuclides discussion, July 14, '2025, Can Nuclear Safety Commission, CELA & other environmental NGOs.
 - These subjects should be of interest to ECCAC given our mandate and the UFMP should be noted for input, if possible, prior to Council decision making.
 - Waiting for the Legal Department to provide comments on the Black Oak Heritage Park.
 -

Councillor Angelo Marignani, Acting Chair notes that Maria Boada asked the question "what would you like to see the city do", and questions what response was received from the participants at her event. Maria Boada responds the remarks included funding transit, implementing the action plans that the city has, kickstarting loans or incentives for getting rentals for solar panels on residences, working with stakeholders to expand Ojibway Natural Urban Park; be serious about public transportation; use cars less; building a nuclear power plant, commit to increasing the city's tree coverage, need more long term energy solutions; increase funding for climate projects.

Michelle Moxley-Peltier asks Maria Boada if the participant indicated which City Plan that they want the city to implement as there are several plans. Maria Boada responds it was plans in general.

4.1 Sustainable Neighbourhood Action Plan (SNAP)

Matthew Johnson, Matthew Johnson, Executive Director, Economic Development, Climate Change and Development advises that SNAP refers to creating a Sustainable Neighbourhood Action Plan for Sandwich South lands. In terms of follow-up from the May 22, 2025, ECCAC meeting, he is looking for any feedback or recommendations that came from the presentation that was provided. He indicates that Michael Janisse, Senior Manager Communications is present and states if there are events where they may be a potential link or sync with for example the Earth Day event, that assistance can be provided.

He remarks there are numerous materials in their storage locker which can be made available to Maria Boada for her events.

Moved by Michael Schneider, seconded by Frank Butler,
That the reports of the Environment and Climate Change Subcommittee **BE RECEIVED.**
Carried.

4.3 New ECCAC Logo

Michael Janisse advises that a question was asked whether the new logo or this Committee should follow the branding standards or visual identity standards for the City of Windsor. He responds that the City has a Corporate Visual Identify Standards Guide and the recommendation put forward is that we work together on the development of this logo so that it aligns well with some of our current visual identity standards.

The Acting Chair asks of the three options that were provided is there a “winner” that has been selected. Michael Janisse advises his assumption is that the options were concepts for the Committee’s consideration and indicates he would like an opportunity to review the logos with his Corporate Communications Team. He indicates there can be challenges depending on if the logo is vertical or horizontal and how does this blend in with the city logo. He remarks that a review of the logos will require two weeks to review the options. He adds that the new logo is subject to a review by the Chief Administrative Officer.

4.2 Windsor International Film Festival (WIFF)

Maria Boada remarks that the sponsorship for WIFF for 2025 has been provided through the 2025 Operating Budget.

6. New Business

Mike Fisher refers to the Parks Department Naturalization of City Parks and asks for information in order to provide education and support. The Chair remarks that one direction the city will be taking is QR codes that will be placed on signs to provides the reasoning behind naturalization. Another direction was to collaborate with the Health Unit as there is a concern with tick infestation and a count will be undertaken. Michelle Moxley-Peltier advises that this could be education for homeowners or could provide examples from neighbouring municipalities. Matthew Johnson Indicates if the ECCAC is in support of these areas, that a motion can be put forward. Mike Fisher asks if the Parks Department has information on this matter and if this information can be provided. The Acting Chair to contact James Chacko, Executive Director of Parks for this information.

7. Date of Next Meeting

The next meeting will be held on September 11, 2025 at 5:30 p.m. in a room to be determined.

8. Adjournment

There being no further business, the meeting is adjourned at 6:39 o'clock p.m.



Committee Matters: SCM 286/2025

**Subject: Minutes of the Transit Windsor Working Group of its meeting held
August 13, 2025**

TRANSIT WINDSOR WORKING GROUP

Meeting held Wednesday, August 13, 2025

A meeting of the Transit Windsor Working Group is held this day commencing at 2:00 o'clock p.m. in Room 522b, 350 City Hall Square West, there being present the following members:

Bernard Drouillard
Trevor Ramieri
Katie Stokes
Iain Sutcliffe

Regrets received from:

Jaykumar Patel

Also present are the following resource personnel:

Stephan Habrun, Acting Executive Director Transit Windsor
Jason Scott, Manager Transit Planning
Lisa Holmes, Council Agenda Coordinator
Christina Vacheresse, Council Resolutions Coordinator

1. Call to Order

Stephan Habrun, Chair calls the meeting to order at 2:04 o'clock p.m. and the Transit Windsor Working Group considers the Agenda being Schedule A, attached hereto, matters which are dealt with as follows:

2. Declaration of Conflict

None disclosed.

3. Minutes

Moved by Stephan Habrun, seconded by Trevor Ramieri,
That the minutes of the Transit Windsor Working Group of its meeting held May 27, 2025, **BE ADOPTED** as presented.
Carried.

4. Business Items

4.1 Terminals Update

The Chair reports that construction at the East Windsor Transit Terminal is underway and will include a new driver facility and platform. Further to this, construction at the West Windsor Transit Terminal has been delayed allowing for further discussions regarding work staging to take place. The intention is to keep this terminal fully operational during the project to minimize disruption to existing service routes.

4.2 Garage Renovation Updates

The Chair informs that a tender for Garage Renovations is tentatively scheduled to be issued in the fall of 2025 and, pending approval, construction is projected to begin in the winter of 2026. Current site plan discussions are taking place regarding the addition of new parking lots to allow for the relocation of staff parking prior to the commencement of new infrastructure.

4.3 Fall Service Change Preparations

The Chair advises that communications regarding new bus routes and service hours have been circulated to the community throughout the year in anticipation of Fall Service Changes. Future notices are scheduled to be delivered in the upcoming weeks to ensure a smooth transition when the new services launch in September.

The Chair informs that additional measures have been implemented to ease the transition from the current service delivery to fall service changes. On August 13, 2025, Transit Windsor staff are hosting an open house at the Downtown Windsor Transit Terminal to answer questions of regular riders and provide further information regarding the new bus routes. Staff will also attend high school orientation sessions throughout August to provide support for students transitioning from school bus extras to public transit. The Chair also states that staff will be on site at both the Downtown Windsor Transit Terminal and St. Clair College on September 2, 2025, to answer any passenger questions and connect them to the appropriate transfer routes.

The Chair reminds members of the Transit Windsor Working Group that the regular tunnel bus service will be ending on August 30, 2025, and adds that the Special Event service will be eliminated on or before December 20, 2025.

4.4 Creating a Refresher Training Program for Bus Operators

The Chair discloses that administration is developing a “Driver Refresher Training Program” that will be mandatory for all bus drivers to complete on three-to-five-year intervals. The curriculum will incorporate topics such as defensive driving training, policy and procedure review and updates, customer service standards, and non-violent conflict resolution. The Chair states that the goal of this program is to ensure that bus drivers remain current and compliant with service delivery standards and adds that the target implementation of this program is projected to occur in 2026.

Trevor Ramieri inquires whether consideration has been given to the inclusion of mental health first aid training as part of the program. The Chair responds that staff are exploring options to implement this as part of the curriculum, however, it would require consultation and approval from the City of Windsor’s Human Resources and Legal departments prior to inception.

4.5 Ridership Update

The Chair provides a brief introduction of the City of Windsor’s ridership statistics to date in 2025 and states that all transit stations have reported an overall decline in ridership compared to previous years. This trend correlates with the reduced acceptance rate of new international students in university and college programs and is comparable with data reported from other municipalities across Canada.

Jason Scott, Manager Transit Planning furthers these sentiments and informs the Transit Windsor Working group that overall ridership has reduced by 13% since 2024. However, he notes an encouraging rise in the average ridership of adults and youth and confirms that senior ridership has remained consistent with 2024 statistics. Katie Stokes asks if administration can provide a specific percentage to reflect the increase of adult and youth ridership. Jason Scott, Manager Transit Planning responds that this demographic has increased by 5 to 10% since 2024.

Katie Stokes inquires whether any of the ridership statistics presented are available to the public. The Chair responds that the information is provided quarterly at Council and Standing Committee meetings.

5. Other Business

Katie Stokes requests that administration provide an update on the status of the new Transit Windsor Fare System. The Chair responds that the City has begun drafting an RFP to recruit potential vendors, receive product cost estimates and labour fees for the installation of new fare systems. He states that current projections suggest the process may commence in early 2026.

Trevor Ramieri inquires if students will continue to be issued physical bus cards in the fall of 2025 and whether they will be required to surrender them in the winter should bus passes become electronic. The Chair responds that at this time all students will be issued a 12-month student bus card in alignment with current practices. Any changes to the process will first be negotiated with SRC, UWSA and OPUSS. Once an agreement has been reached, the results will be promptly communicated to students.

Katie Stokes inquires whether any of this information will be published online for members of the community to access. The Chair responds that any information regarding new processes will be communicated to residents once it is approved and scheduled to be rolled out as part of service delivery.

Conversation ensues regarding new signage and high school student ridership across Windsor and the opportunities it provides to increase overall ridership across all public transit routes. Discussion then takes place regarding the addition of new transit lines and the positive effects it will have on service delivery during peak operation periods.

6. Date of Next Meeting

The next meeting will be held on Wednesday, September 24, 2025, at 2:00 o'clock p.m. in a room to be determined.

7. Adjournment

There being no further business, the meeting is adjourned at 2:29 o'clock p.m.



Committee Matters: SCM 289/2025

Subject: Minutes of the Essex-Windsor Solid Waste Authority (EWSWA) Regular Board of its meeting held July 9, 2025



Essex-Windsor Solid Waste Authority Regular Board Meeting MINUTES

Meeting Date: Wednesday, July 9, 2025
Time: 4:00 PM
Location: Essex County Civic Centre
Council Chambers, 2nd Floor
360 Fairview Avenue West
Essex, Ontario N8M 1Y6

Attendance

Board Members:

Gary McNamara –Chair	County of Essex
Hilda MacDonald	County of Essex
Rob Shepley	County of Essex
Kirk Walstedt	County of Essex
Gary Kaschak –Vice Chair	City of Windsor
Kieran McKenzie	City of Windsor
Jim Morrison	City of Windsor

EWSWA Staff:

Michelle Bishop	General Manager
Steffan Brisebois	Manager of Finance & Administration
Cathy Copot-Nepszy	Manager of Waste Diversion
Tom Marentette	Manager of Waste Disposal
Madison Mantha	Project Lead
Teresa Policella	Executive Assistant

City of Windsor Staff:

Tony Ardovini	Deputy Treasurer Financial Planning
Jim Leether	Manager of Environmental Services
Brian Lima	Executive Director, Operations/Deputy City Engineer

County of Essex Staff:

Melissa Ryan	Director of Financial Services/Treasurer
David Sundin	Director, Legislative and Legal Services
Claire Bebbington	Deputy County Solicitor, Legislative and Legal Services

Absent:

Drew Dilkens	City of Windsor (Ex-Officio)
Michael Akpata	County of Essex
Mark McKenzie	City of Windsor
Mark Spizzirri	Manager of Performance Management and Business Case Development

1. Call to Order

The Chair called the meeting to order at 4:00 PM.

2. Motion to Move In-Camera

Moved by Rob Shepley

Seconded by Kirk Walstedt

That the Board move into closed meeting pursuant to Section 239 (2) (f), (k) of the Municipal Act, 2001, as amended for the following reasons:

- (f) advice that is subject to solicitor-client privilege, including communications necessary for that purpose.
- (k) a position, plan, procedure, criteria or instruction to be applied to any negotiations carried on or to be carried on by or on behalf of the municipality or local board.

**60-2025
Carried**

Moved by Kirk Walstedt

Seconded by Jim Morrison

That the EWSWA Board **rise** from the Closed Meeting at 4:09 PM.

**63-2025
Carried**

3. Declaration of Pecuniary Interest

The Chair called for any declarations of pecuniary interest, and none were noted. He further expressed that should a conflict of a pecuniary nature or other arise at any time during the course of the meeting that it would be noted at that time.

4. Approval of the Minutes

Moved by Hilda MacDonald

Seconded by Gary Kaschak

That the minutes from the Essex-Windsor Solid Waste Authority Regular Meeting, dated June 3, 2025, be ***approved and adopted***.

**64-2025
Carried**

5. Business Arising from the Minutes

No items were raised for discussion.

6. Correspondence

- A. June 26, 2025 e-mail from Charles O'Hara – Director, Resource Recovery Policy Branch Environmental Policy Division, Ministry of the Environment, Conservation and Parks Re: Proposed Amendments to the Resource Recovery and Circular Economy Act, 2016 and Planning for Small IC&I Collection

Moved by Hilda MacDonald
Seconded by Kieran McKenzie

- **That** the Board **receive** the correspondence as information.

**65-2025
Carried**

7. Delegations

- A. Brent Langille, B.Sc., P.Geo., QP_{ESA}, Senior Technical Director / Principal, RWDI
Presentation - Regional Landfill: Leachate Management

Mr. Langille was in attendance to present the Regional Landfill: Leachate Management presentation. The General Manager noted that some of the same information is also contained in the report related to Agenda Item 8A.

Upon conclusion of the presentation, discussion took place regarding the current status of leachate management, the impact of greenhouse vines on leachate management and the financial implications of a permanent leachate treatment plant.

Further, discussion took place regarding the timeline for construction and Ministry of the Environment approvals.

8. Waste Disposal

- A. Regional Landfill Reverse Osmosis Leachate Treatment Plant
Status and Next Steps

In conjunction with the presentation, the purpose of the report was to provide the Board with information regarding the Reverse Osmosis (RO) Leachate Treatment Pilot Plant operation and recommendations for next steps. The report provided details of efforts made to date with regard to long-term permeate management and provided recommendations for next steps towards a long-term full-scale facility.

Moved by Rob Shepley
Seconded by Kieran McKenzie

- **That** the Board **receive** the information contained in this report.
- **That** the Board **approve** proceeding with the permeate polishing pilot study in collaboration with Rochem Americas Inc.
- **That** the Board **approve** proceeding with a Concentrate Management Plan.
- **That** the Board **direct** Administration to report back with a procurement strategy for the development of a long-term leachate management facility.
- **Brent left at 5:18 pm**

**66-2025
Carried**

9. Waste Diversion

A. 2025 Green Bin Program: Promotion & Education (P&E) Update

The Manager of Waste Diversion provided a Green Bin Program P&E update. To ensure consistent messaging, she recommended that the Board direct Administration to provide a Green Bin Program Campaign Summary to the Clerk's Department at the City of Windsor, County of Essex and seven (7) County Municipalities so that the document would be placed on Council agendas as correspondence.

Delivery of the Green Bins will commence the week of July 21, 2025 to approximately 120,000 single-family homes across the Essex-Windsor Region and will continue through early October. The delivery schedule is available on the Authority's website, www.ewswa.org. Residents are encouraged to download the Recycle Coach app, as notifications regarding the program will be sent via the app.

Authority staff have been meeting with all municipal partners regarding the launch of the Green Bin program. Authority staff have also been actively attending various events throughout the region.

The Chair asked if there were any questions.

Kieran McKenzie commented that the campaign has been very effective and commended Administration on a job well done.

Mr. Morrison also commented that the campaign has been a very comprehensive program.

Mr. Kaschak commended the team and is proud to have been a part of the social media rollout event today.

Moved by Gary Kaschak
Seconded by Rob Shepley

- **That** the Board **receive** this report as information.
- **That** the Board **direct** Authority Administration to provide a Green Bin Program: Campaign Summary, as applicable to the Clerk's Department at the City of Windsor, County of Essex and seven (7) County Municipalities.

**67-2025
Carried**

10. Finance & Administration

A. 2025-2026 EWSWA Insurance

The Manager of Finance provided the Board an update on the Authority's comprehensive insurance program renewal for the period of July 1, 2025 to June 30, 2026.

The Chair asked if there were any questions. No questions were asked.

Moved by Kirk Walstedt

Seconded by Hilda MacDonald

That the Board **receive** this report as information.

**68-2025
Carried**

B. 2025 Six-Month Update – IC&I Tipping Fee & Tonnage

The Manager of Finance provided an update on the 2025 Industrial, Commercial and Institutional (IC&I) six-month tipping fee revenue and tonnages, as the 2025 Budget is anticipated to be negatively impacted due to the reduction in tonnage of greenhouse vines. He noted that Administration will continue to monitor and provide an update at a future meeting.

The Chair asked if there were any questions. No questions were asked.

Moved by Kieran McKenzie

Seconded by Gary Kaschak

That the Board **receive** this report as information.

**69-2025
Carried**

C. Procurement Policy EW-008 Revision

The Manager of Finance stated that the purpose of the report was to recommend that the existing Procurement Policy EW-008 ("Policy") be revised to include sections and wording that clarify and strengthen the Authority's legal

position when procuring for Goods and Services and when disposing of surplus assets. The revision also includes the adoption of a "Buy Canadian" policy.

The Chair asked if there were any questions.

Mr. Morrison asked how much the Authority procures from the United States (US) and if there are significant purchases that will have to be made from the United States.

The General Manager stated that the Authority procures most services locally, but some operating materials are purchased from US vendors due to lack of availability or cost. She provided examples of previous purchases from the US. She stated that for some items, it may be possible to obtain the products from within Canada. However, it will be difficult to purchase specialized or heavy equipment in Canada, as there are no Canadian companies with manufacturing facilities within Canada.

There were no further questions.

Moved by Jim Morrison

Seconded by Rob Shepley

That the Board **approve** the revised Procurement Policy EW-008.

**70-2025
Carried**

11. New Business

No items were raised for discussion.

12. Other Items

The General Manager acknowledged that Project Manager, Madison Mantha, has resigned as she is relocating to Guelph. She noted that Ms. Mantha assisted with the wind-up of the Blue Box program, roll out of the Green Bin Program as well as other projects. She thanked Ms. Mantha for all of her contributions.

Ms. Mantha thanked everyone for the acknowledgment and noted that there is so much opportunity for this region.

On behalf of the Board, the Chair wished Ms. Mantha all the best.

13. By-Laws

A. By-Law 13-2025

Moved by Gary Kaschak

Seconded by Hilda MacDonald

That By-Law 13-2025, being a By-law to Confirm the Proceedings of the Board of the Essex-Windsor Solid Waste Authority be given three readings and be **adopted** this 9th day of July, 2025.

**71-2025
Carried**

14. Next Meeting Dates

Wednesday, August 13, 2025

Wednesday, September 10, 2025

Tuesday, October 7, 2025

Tuesday, November 4, 2025

Tuesday, December 2, 2025

15. Adjournment

Moved by Rob Shepley

Seconded by Kirk Walstedt

THAT the Board stand **adjourned** at 5:41 PM.

**72-2025
Carried**

All of which is respectfully submitted.



Gary McNamara
Chair



Michelle Bishop
General Manager

Subject: Diaper Disposal Program Alternatives – City Wide

Reference:

Date to Council: September 24, 2025
Author: Jim Leether
Senior Manager, Environmental Services
(519) 974-2277 ext. 3123
Jleether@citywindsor.ca
Public Works - Operations
Report Date: 9/2/2025
Clerk's File #: E/14640

To: Mayor and Members of City Council

Recommendation:

- i. THAT Report S 110/2025 “Diaper Disposal Program Alternatives” be **RECEIVED** for information.

Executive Summary:

N/A

Background:

At its September 9th, 2023, meeting, Council directed CR356/2023:

“That Administration **BE DIRECTED** to implement a free program for diaper disposal drop off and/or pickup”.

This direction was made with the knowledge of the approved Regional Green Bin Organics Program that is to be implemented in October of 2025. Diapers and other incontinence items have been deemed as non-acceptable material under this new program and would not qualify for weekly collection under the new Green Bin Program, meaning residents with these items would need to hold and store them to be placed out with their regular waste collection that occurs on a bi-weekly schedule.

A review of diaper waste management practices in other municipalities showed that various approaches have been utilized to manage similar transitions, including curbside collection, drop-off depots, and access to transfer stations. Each of these options carries varying cost implications, all of which may contribute to increases in the overall tax levy. It was also noted that most municipalities do not offer any supplementary services, and residents typically rely on the regular waste stream for collection.

Discussion:

Four potential Diaper Collection Program alternatives were evaluated that encompass different levels of service:

1. *No Diaper Program/Service Offering.* Residents would be responsible for retaining diaper waste until their scheduled bi-weekly waste collection service, or alternatively, dispose of it at the Public Drop-Off Depot, subject to applicable fees.
2. *Free Diaper Disposal at Public Depot–Off Depot.* This alternative would require the City of Windsor to enter into an agreement with the Essex-Windsor Solid Waste Authority (EWSWA) to permit city residents to drop-off diaper waste at the Public Drop-Off Depot located at 3540 North Service Road E., Windsor, ON, at no cost to the resident. While this option would allow for free public disposal; a nominal processing and handling fee would be incurred by the City. By diverting diaper waste from curbside collection to the Depot, this approach may result in a reduction of curbside tonnage charges to the City, potentially creating a cost neutral solution. It is possible that some residents may be challenged in transporting their diaper waste to the Depot.
3. *City of Windsor Led Bi-Weekly Diaper Curbside Collection.* This alternative would require the City to hire one additional full-time, unionized Waste Collection Operator and utilize existing, fully funded equipment to provide alternating bi-weekly curbside collection of diaper waste, separate from the regular bi-weekly waste collection schedule. Additional costs associated with this option would include disposal tonnage fees for potential overtime expense for existing clerical staff, who may experience increased workloads due to program administration. Residents would be required to register for the program through 311 and meet defined eligibility criteria to participate.
4. *Contracted Bi-Weekly Diaper Curbside Collection.* Miller Waste Systems, the City of Windsor's existing curbside waste collection contracted service provider for waste, yard waste, and organic collection, has provided an informal quote to deliver a diaper-specific curbside collection service identical to that detailed in Alternative #3. If approved, this service could be negotiated and incorporated into the City's current waste collection contract with Miller Waste Systems. Residents would be required to register for the program through 311 and meet specific eligibility criteria to participate.

While evaluating potential level of service level alternatives, Administration also reviewed similar programs implemented by other municipalities across Ontario. Findings indicated that although such programs were initially utilized following the transition to bi-weekly waste collection, participation rates declined significantly within a few years as residents adapted their waste disposal habits to align with the new bi-weekly collection schedule.

Research also indicated that similar programs typically accommodated not only diapers, but also other incontinence products used by individuals of all ages. These items were found to integrate seamlessly into existing waste management programs without placing additional strain on operations.

It is also important to note that any type of diaper collection performed outside the regular garbage waste stream would still result in this material be directed to landfill. As such, this should not be classified as a diversion program since the items of topic are not readily recyclable or suitable for diversion.

Risk Analysis:

The new costs associated with implementing service Alternatives 3 and 4 are not currently accounted for within the approved forecast budget.

Climate Change Risks:

Climate Change Mitigation

Offering a diaper disposal collection program in Windsor, whether through a drop-off depot or bi-weekly curbside pickup in addition to regular garbage collection poses climate mitigation risks primarily due to the potential increase in greenhouse gas emissions from specialized collection routes.

Climate Change Adaptation

In the absence of weekly collection, residents may resort to improper disposal methods that pose risks to Windsor's climate adaptation efforts. Diapers discarded inappropriately can clog sewer systems, increasing the likelihood of flooding during heavy rainfall events.

Financial Matters:

A financial summary of the four potential diaper collection program alternatives is shown in Table 1.

Alternatives 1 and 2 present the most viable opportunities for a cost-neutral approach. Alternative 1 requires no additional action or expenditure. Alternative 2 has the potential to be cost-neutral, as residents who choose to deliver diaper waste directly to the Public Drop-Off Depot would reduce curbside tonnage collected by the City. This reduction could offset the processing fees incurred at the depot, thereby minimizing or eliminating net budgetary impact to the City. Alternatives 3 and 4 serve to be the most cost intensive service options.

Table 1: Overview of Diaper Waste Management Alternatives

Alternatives	Description	Estimated Annual Cost	Notes
Alternative 1	Status quo; no new services or costs	\$0	No budgetary impact.
Alternative 2	Free public depot drop-off	\$0	Expected to be budget neutral due to curbside collection tonnage decrease offsetting minor costs.
Alternative 3	City-led collection services	\$158,882	Total includes wages, admin overtime, disposal, and \$37,048 in cost associated with fleet maintenance and future capital replacement
Alternative 4 (Min)	Contractor services (832 hours/year @ \$92.81/hr.)	\$93,843 *	Total includes contractor, disposal, and admin overtime costs; assumes minimum service level
Alternative 4 (Max)	Contractor services (2080 hours/year @ \$92.81/hr.)	\$228,058 *	Total includes contractor, disposal, and admin overtime costs; assumes maximum service level

* Subject to annual adjustments in the Consumer Price Index and fuel costs.

Currently, there is no funding available to support Alternatives 3 or 4. Should such alternative collection program be implemented, funding would need to be identified in addition to the funding already committed for the mandated Green Bin Organics Program.

Consultations:

Essex Windsor Solid Waste Authority

City of Ottawa

Region of Niagara

Region of Waterloo

Region of Peel

Cindy Becker, Financial Planning Administrator- Public Works Operations

Michelle Moxleypeltier, CEP Project Administrator – Economic Development and Climate Change

Conclusion:

As there is currently no budget allocated to support this program, Administration recommends that no additional services be provided (Alternative 1). This recommendation is linked to the Residential Green Bin Organic Program and the City of Windsor transition to bi-weekly waste collection.

Approvals:

Name	Title
Mark Spizzirri	Manager, Performance Measurement and Business Case Development
Angela Marazita	Senior Manager, Fleet
Brian Lima	Executive Director, Operations / Deputy City Engineer
David Simpson	Commissioner, Infrastructure Services and City Engineer
Tony Ardovini	On behalf of Commissioner, Finance and City Treasurer
Ray Mensour	Chief Administrative Officer

Notifications:

N/A

Appendices:

N/A

Subject: Traffic Calming Policy Update 2025 - City Wide

Reference:

Date to Council: September 24, 2025

Author: Awele Italiano

Road Safety Coordinator

519-255-6100 ext. 6351

aitaliano@citywindsor.ca

Public Works - Operations

Report Date: 9/2/2025

Clerk's File #: ST/13863

To: Mayor and Members of City Council

Recommendation:

- I. THAT the current traffic calming policy (Traffic Calming Policy, 2022) **BE RESCINDED**; and,
- II. THAT the new updated 2025 Traffic Calming Policy attached as Appendix A to this report **BE APPROVED**.

Executive Summary:

N/A

Background:

At the City Council Meeting on September 6, 2022, the following direction was given through CR374/2022 ETPS 907:

"That administration be requested to report back to a future meeting of Council to provide a review of the Speed Hump Policy and options to approve the same."

In addition, at the City Council Meeting on November 25, 2024, the following direction was given through CR491/2024 ETPS 1032:

"That administration be directed to include information related to rumble strips in the upcoming report related to traffic calming."

This report responds to Council Resolution CR374/2022 and CR491/2024.

The first City of Windsor Traffic Calming Policy was adopted in 2005. Subsequent policy revisions in 2015, 2021, and 2022 were based on reviews of the best practices and guidelines from other municipalities. As a result of the last two policy revisions adopted by Council, the current Traffic Calming Policy (May 9, 2022) included the creation of the following six supporting procedures:

1. Expedited Temporary Traffic Calming Procedure
2. Arterial Roadway Traffic Calming Procedure
3. Bikeways Traffic Calming Procedure
4. New Neighbourhood Traffic Calming Procedure
5. Permanent Traffic Calming Procedure
6. Local Roadway Speed Hump Procedure

Discussion:

To provide a clear understanding of the demand for traffic calming measures, Administration reviewed the history of the traffic calming process. From 2015 to 2019, Transportation received an average of approximately 90 requests a year for Traffic Calming evaluation. From 2021 to 2025, the average had increased to 374 requests per year, attributed mainly to the 2022 Local Roadway Speed Hump Procedure. As of July 14, 2025, 854 traffic calming service requests have been received, of which included 284 service requests for speed humps.

Prior to the current administrative review of the City's existing Traffic Calming Policy, 132 streets were eligible for speed humps. However, only 12 of these streets successfully met all the necessary criteria and received speed hump installations with resident and Council support. Accordingly, 33 speed humps have been installed to date on 12 streets across the City. Using historical subsequent warrant evaluation trends as previously noted, Administration further estimates that 73 new speed humps could be installed across the City under the current Policy.

Due to the ongoing increase and accumulation of service requests, Administration recognized the need for a new approach. Administration has completed a comprehensive review of the policy and all procedures and has specifically combined all procedures into one clear guidance document. In addition, an updated Policy has also been prepared and is based on a data-driven approach to ensure that all decisions are made consistently and without opinion or bias.

Administration's comprehensive review included a benchmark of comparative municipal traffic calming programs, including but not limited to Hamilton, Oakville, Guelph, Vaughan, Markham, Chatham, Burlington, and London. As is proposed within the updated Policy, all comparator municipalities also utilize data driven approaches that involve speed and volume analysis being the industry standard. Administration also plans to utilize innovative cloud-base data provision technology, coupled with its portable traffic data collectors and Traffic Engineering Software (TES) to evaluate all outstanding and future traffic calming service requests. The updated Policy and guidance document further aligns with the recommendations detailed in the 2018 Canadian Guide to Traffic Calming – Transportation Association of Canada (TAC) / Canadian Institute of Transportation Engineers (CITE).

Guided by the updated Policy framework, only 4 streets out of the 284 services requests would pass pre-screening criteria. Furthermore, if all 4 streets pass subsequent warrant evaluation requirements, Administration estimates that up to 25 new speed humps would meet the criteria for installation, versus 73 speed humps required under the existing policy.

Updates to the Traffic Calming Policy

The updated Traffic Calming Policy and the new Traffic Calming Program guidance document (refer to Appendix A) includes the following guiding principles applied to all service requests:

- Upon receipt of a traffic calming service request, an initial pre-screening includes speed and volume analysis to determine if a minimum 10 km/h (85th percentile) speed threshold has been met;
- If speed and volume criteria are met, a minimum of 10 signatures supporting traffic calming measure implementation is also required from separate households with direct frontage on the street of concern;
- Administration would then conduct a traffic calming warrant review and determine the appropriate phased-in interim or permanent measure(s) for potential implementation;
- Public engagement then begins with the circulation of a survey detailing the proposed traffic calming measure(s), requiring a minimum of 51% support from impacted property owner/occupant(s) needed to then seek Council's approval of the proposed traffic calming measure(s) implementation;
- Once the service request is approved by Council, administration then proceeds with its installation; and
- A follow up review is conducted 12 months following installation of traffic calming measure(s) to examine the impact and their effectiveness before committing funding to permanent treatments if applicable.

Other Policy updates include the following:

- School Zones located on local and collector roads now automatically qualify for traffic calming implementation;
- Eliminated the requirement to facilitate Public Information Centre (PIC) meetings;
- For Council's consideration, the proposed traffic calming measure(s) first requires 51% support from impacted property owners/occupants prior to approval; and
- As per CR491/2024, rumble strips were added as a potential traffic calming measure.

As part of the updated Policy, the following six pre-existing procedures are proposed to be consolidated into one supporting guidance document:

1. Expedited Temporary Traffic Calming Procedure
2. Arterial Roadway Traffic Calming Procedure
3. Bikeways Traffic Calming Procedure
4. New Neighbourhood Traffic Calming Procedure
5. Permanent Traffic Calming Procedure
6. Local Roadway Speed Hump Procedure

Vision Zero Action Plan

The City's Vision Zero Action Plan, endorsed by council under CR10/2024 at its meeting on January 15, 2024, is further strengthened by the updated Traffic Calming Policy. The measures introduced through this Policy are expected to contribute meaningfully to addressing driver behaviour, which remains a central strategic priority within the Plan.

Vision Zero is a strategic approach to aspire to reduce traffic fatalities and life-altering injuries, while increasing safe, healthy and equitable mobility for all road network users. Implementation of the City's Vision Zero Action Plan is a bold pledge to improve safety across the city, using a data-driven and targeted approach, focusing on the locations where improvements are most needed.

Risk Analysis:

The existing predominant resident-driven speed hump installation process lacks a robust data driven evaluation process which risks misallocation of funding resources to projects that may not warrant such traffic calming measures.

Resulting from all applicable existing traffic calming procedures, 66% of the speed humps and all other traffic calming measures installed from 2022 to date did not meet warrant criteria but instead were installed driven by resident requests allowable within the procedures. As a result, approximately \$577,350 was spent on unwarranted installations during that period—diverting funds away from streets that may meet warrant criteria for traffic calming measures.

Climate Change Risks

Climate Change Mitigation:

While traffic calming is primarily a safety measure, its impact on climate change mitigation lies in its ability to influence travel behavior and vehicle efficiency. Updating Windsor's Traffic Calming Policy and incorporating Vision Zero principles into road design can promote safer, more walkable, and bike-friendly streets, encouraging a modal shift toward active transportation and reducing reliance on motor vehicles.

However, some physical traffic calming devices, such as speed humps, may lead to increased emissions and fuel consumption due to frequent acceleration and deceleration, especially in high-traffic areas. Poorly designed or overly restrictive measures could also divert traffic to other routes, increasing congestion and emissions elsewhere.

Climate Change Adaptation:

Updating Windsor's Traffic Calming Policy and incorporating Vision Zero into road design can positively support climate change adaptation by improving community resilience to extreme weather events. These measures enhance pedestrian and cyclist safety and serve to reduce vehicular speeds. However; if traffic calming devices are not designed with climate adaptation in mind, they may unintentionally increase risks. For example, speed humps or narrowed lanes without proper drainage can worsen flooding, and rerouted traffic may strain infrastructure in other areas. Additionally, these interventions could conflict with emergency response routes or snow clearing operations if not carefully coordinated

Financial Matters:

Should the updated Traffic Calming Policy not be approved, Administration estimates that a total of up to approximately \$1,508,400 in funding from the Traffic Calming Initiatives project (#7069022) would be required to install potentially up to 73 speed humps and implement other traffic calming measures in response to service requests received to date, in accordance with the existing policy.

In contrast, Administration estimates that approximately \$620,100 in project funding would be required to install potentially up to 25 speed humps and implement other traffic calming measures in accordance with the updated Traffic Calming Policy.

Additionally, the updated Policy and supporting Traffic Calming Program would now propose reallocating the \$300,000 in total project funding for Council members to expedite temporary traffic calming measures (approved in principle for 2026 and 2027), and directing it instead toward funding only those traffic calming measures that are deemed warranted based on the updated Policy.

The table below details comparative estimated costs and budget implications associated with traffic calming implementation as guided by both the existing and updated traffic calming policies.

	Existing Traffic Calming Policy	Updated Traffic Calming Policy
Implementation of Speed Humps	\$730,000	\$250,000
Implementation of other Traffic Calming Measures	\$778,400	\$370,100
Total	\$1,508,400	\$620,100
10-Year Traffic Calming Initiatives Project Budget (approved in principle - 2025 to 2034)	\$7,950,552	

Consultations:

Sahar Jamshidi, Manager of Road Safety

Prem Patel, Manager of Transportation Planning and Design

Kathy Quenneville, Schools and Sustainable Mobility Coordinator

Jason Scott, Manager of Transit Planning

Michelle Moxleypeltier, CEP Project Administrator – Economic Development and Climate Change

Cindy Becker, Financial Planning Administrator – Public Works

Michael Dennis, Manager, Strategic Capital Budget Development and Control

Mark Spizzirri, Manager, Performance Measurement and Business Case Development

Jeff Jongsman, Senior Technologist, Transportation Planning & Design City of London

Jeff Hagan, Manager of Transportation, City of Chatham

Eric Bentzen-Bilkvist, Traffic Technologist City of Burlington

Dragana Crkvenjas, Traffic Technologist City of Oakville

Jamal Durrani, Project Manager, Community of Road Safety, City of Hamilton

Conclusion:

The existing traffic calming policy and procedures may result in unwarranted speed hump installations and unnecessary associated infrastructure costs. Implementation of the updated Traffic Calming Policy and supporting guidance document provides for a data-driven approach leading to the implementation of appropriate and targeted traffic calming measures and maximizes the utilization of available budgetary resources.

Planning Act Matters:

N/A

Approvals:

Name	Title
Mark Spizzirri	Manager of Performance Measurement and Business Case Development
Prem Patel	Senior Manager, Transportation (A)
Brian Lima	Executive Director, Operations / Deputy City Engineer
David Simpson	Commissioner, Infrastructure Services and City Engineer
Tony Ardovini	On behalf of Commissioner, Finance and City Treasurer
Ray Mensour	Chief Administrative Officer

Notifications:

N/A

Appendices:

Appendix A – Traffic Calming Policy

THE CORPORATION OF THE CITY OF WINDSOR POLICY

Service Area:	Office of the City Engineer	Policy No.:	
Department:	Transportation	Approval Date:	
Division:	Infrastructure Services	Approved By:	
		Effective Date:	On approval
Subject:	Traffic Calming Policy	Procedure Ref.:	- Traffic Calming Program
Review Date:		Pages: 2	Replaces: Traffic Calming Policy
Prepared By:	A. Italiano, Road Safety Coordinator		Date: May 9, 2022

1. POLICY

1.1. This policy governs the implementation of traffic calming for the Corporation of the City of Windsor.

2. PURPOSE

2.1. The purpose of this policy is to provide Administration and the general public with a simple and transparent framework to assess, design and implement traffic calming measures on primarily residential streets to reduce and maintain appropriate traffic speeds and volumes.

3. SCOPE

- 3.1. This policy covers all traffic calming related service requests for existing and new streets maintained by the city
- 3.2. This policy should be utilized in coordination with the City's Active Transportation Master Plan and School Neighbourhood Policy, where applicable.
- 3.3. This policy will be utilized for local and collector streets. Arterial streets will only use passive measures listed in the Traffic Calming Program.

4. RESPONSIBILITY

- 4.1 Council has authority to approve implementation and funding for traffic calming plans that are developed under this policy, and is responsible for approving amendments to this policy.
- 4.2 Administration is responsible for carrying out this policy as follows:
 - 4.2.1 The City Engineer or their designate are corporate leads for all transportation and associated public safety programs and are responsible for initiating amendments to the Traffic Calming Program.
 - 4.2.2 The Senior Manager of Transportation is responsible for:
 - 4.2.2.1 Overseeing implementation of this policy,
 - 4.2.2.2 Bringing forward traffic calming plans before Council for approval,
 - 4.2.2.3 Recommending operating and capital budget expenditures related to traffic calming, and

4.2.2.4 Recommending amendments to this policy to Council.

4.2.3 The Manager of the 311 Call Centre has overall responsibility for receiving public poll responses, and for reporting these responses to the Senior Manager of Transportation.

5. GOVERNING RULES AND REGULATIONS

5.1 This policy will be implemented in accordance with Attachment 1.

6. RECORDS, FORMS AND ATTACHMENTS

6.1. Records for this policy shall be prepared and retained in accordance with Records Retention By-Law 21-2013, as amended.

6.2. Attachments:

6.2.1. Attachment 1: Traffic Calming Program



TRAFFIC CALMING PROGRAM

Transportation Division
Public Works
Office of Commissioner of Infrastructure Services

Acknowledgments

The source of some of the reference material contained in this manual was retrieved from the following:

- Canadian Guide to Traffic Calming (Second Edition) – Transportation Association of Canada (TAC)
- Ontario Traffic Manual Book 15 – Pedestrian Crossing Treatments
- City of London, ON, Canada
- City of Chatham Kent, ON, Canada
- City of Hamilton, ON, Canada
- City of Guelph, ON, Canada
- City of Oakville, ON, Canada
- City of Burlington, ON, Canada
- City of Vaughan, ON, Canada
- City of Markham, ON, Canada

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INTRODUCTION

BACKGROUND

Under the Ontario Municipal Act, the City of Windsor (City) is required to build and maintain a safe and efficient road system for all road users such as cars, cyclists, pedestrians (including those with accessibility needs), transit, emergency vehicles, and snow removal equipment. When residents do not feel safe while driving a vehicle, riding a bike, or walking on the street, they forward their safety concerns to the City. In these cases, traffic calming measures may be required to mitigate those safety concerns.

Every year, the City receives multiple safety concerns related to speed, traffic volumes, and/or cut through traffic in residential areas. The City staff responds by reviewing the safety concern to determine if neighbourhood traffic calming measures are warranted to help alleviate the existing issues.

This document defines what traffic calming is and clarifies what traffic calming is not. This document also outlines how the traffic calming service requests should be initiated, reviewed, and implemented based on the experience gained by the City of Windsor and the other nearby municipalities. The goal of introducing traffic calming is to:

- Create safe streets that promote walking, cycling and transit use,
- Improve the quality of life in residential neighbourhoods,
- Positively change the public's behaviour,
- Support the Vision Zero Policy

VISION ZERO

Vision Zero is a philosophy that encourages changes in the way roads work to ensure all fatalities and life-altering injuries caused by auto collisions are eliminated. Its main goal is to make the road network safer, healthier, and equitable for all users, regardless of one's mode of travel, level of mobility, and other factors. The Vision Zero approach is as follows:

- Traffic deaths are preventable
- Humans make mistakes
- We must prevent fatal and severe injuries
- Road safety requires a systems approach
- Saving lives is not expensive

Traffic calming measures may assist in addressing driver behaviour which is one of the main strategic priorities outlined in the Vision Zero Policy.

Introducing traffic calming measures near schools should improve safety for all road users and thus respond to Vision Zero principles. By addressing some of the safety concerns that parents and caregivers have with respect to students walking/cycling to school, safety routes to and from school can be created, encouraging a more active lifestyle for students. Traffic calming measures in School Zones are not subject to the traffic calming process identified in this document. The City can install traffic calming measures in School Zones without the petition and survey requirements identified in this document.

TRAFFIC CALMING PURPOSE & GOALS

According to the Canadian Guide to Neighbourhood Traffic Calming, prepared by the Institute of Transportation Engineers (ITE) and the Canadian Guide to Traffic Calming – Transportation Association of Canada (TAC) February 2018:

“The purpose of traffic calming is to restore streets to their intended function.”

Traffic calming is intended to improve the enjoyment and pedestrian friendliness of the neighbourhood under review by reducing traffic speed and volume on a group of streets within a specific geographical area and by implementing proven methods to reduce identified problems. This Traffic Calming Program provides a framework that will enable City administration to determine proper and effective courses of action when dealing with concerns relating to traffic volume, excessive speed, and pedestrian, cyclist, and vehicular safety.

The main goals of the Traffic Calming Program guidance document are to:

- Educate residents about traffic calming so they can make more informed decisions and understand the rationale behind the City’s decision-making process
- Provide a procedure that City officials and the public are confident is an effective and fair tool in evaluating traffic speeding and/or volume issues
- Provide a standard format that is efficient in addressing all different types of traffic safety concerns
- Encourage public participation in the traffic calming process

This program will also provide the guideline, procedure and criteria for the initiation, review, and implementation of traffic calming measures within existing and new residential neighbourhoods. The procedures will ensure safety concerns related to speeding and excessive volume are handled in a fair, transparent and efficient manner.

WHAT IS NOT TRAFFIC CALMING

Unwarranted All-Way Stop Signs

- Results in higher speeds between stop signs
- Results in poor compliance with stop signs due to driver frustration
- Results in more frequent rear-end collisions caused by low percentage of motorists who perform a complete stop
- Requires frequent police enforcement as some motorists’ compliance is low, which creates a pressure on enforcement resources and is ineffective in the long term

- Increases potential risk to pedestrians especially children and seniors crossing the intersection, since not all motorists approaching an intersection will stop
- Inconsistent application of all way stops can create confusion, unexpected maneuvers and collisions

All-way stop signs should not be used as a tool to calm traffic. The City of Windsor currently uses an all-way stop warrant checklist which considers the numbers of pedestrians and vehicles sharing an intersection, the collision history and visibility of the intersection. When these criteria are evaluated, risks are minimized, and new safety concerns are not created.

'Children at Play' Sign

- 'Children at Play' signs can give parents a false sense of security since motorists often disregard these signs
- Children playing in the streets, while common place, is not condoned and is prohibited in the Highway Traffic Act and the City of Windsor's Traffic By-law
- Since children live on nearly every residential block, 'Children at Play' signs would need to be placed on every roadway
- Residential blocks with no signs might imply that no children live there, so it is acceptable to exceed the speed limit.

ADVANTAGES & DISADVANTAGES OF TRAFFIC CALMING

Advantages

- Reduced vehicle speeds
- Reduced traffic volumes
- Reduced number of cut through vehicles
- Improved neighborhood safety, especially for pedestrians and cyclists
- Reduced conflicts between roadway users
- Increase compliance with regulatory signs

Disadvantages

- May make it more difficult to get into and out of a neighbourhood every day
- Increase in emergency vehicle response time, although all traffic calming plans are reviewed by emergency services
- May result in expensive solutions (time and resources) to develop, implement, and maintain
- May shift or divert traffic onto other neighbouring streets
- Increased maintenance time and costs
- Adds sign pollution to residential areas

The principal purpose to reducing the speed of traffic in residential areas is to protect all vulnerable road users, such as pedestrians. Copied below is an excerpt from the Ontario Traffic Manual Book 15 - Pedestrian Crossing Treatments:

Pedestrians' Rights and Responsibilities

Notwithstanding the distinction between controlled and uncontrolled crossings, the rights and responsibilities for pedestrians are recognized in the Highway Traffic Act:

1. In the absence of statutory provisions or bylaw, a pedestrian is not confined to a street crossing or intersection and is entitled to cross at any point, although greater care may then be required of him or her in crossing. However, pedestrians crossing the highway must look to ensure the crossing can be made safely or possibly be held responsible for any ensuing collision.

2. Pedestrians must exercise due care even when they are lawfully within a crossing and have right-of-way. It is not an absolute right and they must still exercise care to avoid a collision with a vehicle.

3. If there is a crosswalk at a signalized intersection, pedestrians have to walk within the crosswalk

The above excerpt is stating whenever a pedestrian crosses a road, they have a duty of care to themselves to cross when it is safe. It is important to remember under the Highway Traffic Act motor vehicles are only required to stop or yield to pedestrians at a controlled crossing such as traffic signals or pedestrian signals. At all uncontrolled crossings pedestrians must wait for a safe gap in traffic sufficient for them to cross before entering the road.

When an area is studied for traffic calming, pedestrian crossing points are primary focus points where slowing traffic is particularly important. The installation of traffic calming measures such as speed cushions, raised crosswalks, raised intersections, or curb extensions do not change the rules of the Highway Traffic Act: however, pedestrians must still cross the road responsibly.



TYPES OF TRAFFIC CALMING

Traffic calming for the purpose of this program is broken into two categories:

- Passive Traffic Calming
- Physical Traffic Calming

PASSIVE TRAFFIC CALMING

Passive traffic calming are treatments that do not modify the geometry of the road such as education, targeted speed enforcement, radar speed feedback signs, pavement markings, on-street parking, and signage. They are simple modifications that are intended to increase driver awareness to speeding behaviour, visually reduce effective lane widths for a motorist and, in most circumstances, re-allocate some of the road space to cyclists and on-street parking

Passive treatments are implemented on a proactive and reactive basis and are typically applied uniformly over the entire road section, unlike physical treatments which are best described as spot treatments. The modifications associated with passive calming treatments are typically well received by the public. City staff will provide the public with advance notification, including a plan of the proposed modifications prior to implementation.

PHYSICAL TRAFFIC CALMING

Physical traffic calming are intrusive treatments that modify the shape and/or form of the roadway forcing drivers to slow down. They can be broken down into three categories: vertical deflections, horizontal deflections and physical obstructions.

Vertical traffic calming provides an obstruction that vehicles can travel over. The change in pavement height (and sometimes pavement materials) can cause discomfort to the occupants of vehicles that are exceeding the design speed of the traffic calming measure.

Horizontal traffic calming work by preventing vehicles from traveling in a straight line at excessive speeds by using measures such as raised islands and curb extensions.

Physical obstructions involve a full or partial closure of the road.

Examples of passive and physical traffic calming are listed in **Table 1** below. The list provided in Table 1 is not exhaustive. City staff retain the discretion to pilot traffic calming measures not included herein,

subject to the approval of the City Engineer. More details related to passive and physical traffic calming are found in the **Types of Traffic Calming Measures** section of this document.

Table 1 - Applicability of Traffic Calming Measures based on Road Classification and Route

Traffic Calming Measure	Road Classifications			Transit Route
	Local	Class II Collector	Class I Collector	
Passive Measures				
Education	Yes	Yes	Yes	Yes
Road Watch Program	Yes	Yes	Yes	Yes
Targeted Enforcement	Yes	Yes	Yes	Yes
Radar Speed Feedback Signs	Yes	Yes	Yes	Yes
Vehicle Activated Warning Signs	Yes	Yes	Yes	Yes
Pavement Markings	Yes	Yes	Yes	Yes
On-Road Sign Pavement Markings	Yes	Yes	Yes	Yes
On-Street Parking	Yes	Yes	Yes	Yes
Road Diet	Yes	Yes	Yes	Yes
Physical Vertical Traffic Calming				
Speed Hump	Yes	No	No	No
Textured Crosswalk	Yes	Yes	Yes	Yes
Raised Crosswalk	Yes	Yes	Yes	Yes
Raised Intersection	Yes	Yes	Yes	Maybe
Transverse Rumble Strips	Maybe	Maybe	Maybe	No
Physical Horizontal Traffic Calming				
Curb Radius Reduction	Yes	Yes	Yes	No
Lane Narrowing	Yes	Yes	Yes	No
Flexible Posts/Edge Bollard	Yes	Yes	Yes	Maybe
Traffic Calming Curb	Yes	Yes	Yes	Yes
Raised Median Island	Yes	Yes	Yes	Yes
Sidewalk/Curb Extension	Yes	Yes	Yes	Yes
Traffic Circle/Roundabout	No	Yes	Yes	Yes
Right-in/Right-out Island	Yes	Yes	Yes	No
Chicanes	Yes	No	No	No
Physical Obstruction				
Directional (Half) Closure	Yes	No	No	No
Full Closure ¹	Yes	No	No	No
Diagonal Diverter	Yes	No	No	No
Raised Median Through Intersection	Yes	Yes	Yes	No
Turn Prohibition Sign ²	Yes	Yes	No	No
Through Prohibition Sign ²	Yes	Yes	No	No
Traffic Calming Neighbourhood Sign ²	Yes	Yes	Yes	Yes

Note 1: The City's ATMP recommends the City strive to ensure that traffic calming does not encourage dead end streets to preserve connectivity for pedestrians.

Note 2: Only used in conjunction with physical measures.

TEMPORARY TRAFFIC CALMING

Temporary traffic calming measures are safety measures that can be implemented and removed rapidly with minimum civil work. The former Expedited Temporary Traffic Calming Procedure allowed for the implementation of temporary traffic calming measures without the full traffic calming warrant review. The Traffic Calming Program now only permits the implementation of temporary traffic calming measures if deemed warranted following a review.

STREETS THAT QUALIFY FOR TRAFFIC CALMING

Traffic calming will be considered for local, collector and arterial roads.

Local and Collector Streets:

A primary function of local streets is to provide access to adjacent properties. These streets are not intended for use as through routes or as corridors to move traffic within the overall road network. For collector streets, access to adjacent properties is balanced by a need to collect and distribute traffic travelling into and out of an area or neighbourhood. As with local streets, collector streets are generally not intended to be through routes or to move significant amounts of traffic from one part of the road network to another.

On local and collector streets, traffic calming is intended to achieve one or more of the following objectives: reduce vehicular speeds, discourage cut through, minimize conflicts between street users and improve the neighbourhood environment.

Arterial Roads:

Traffic calming for arterial roads requires a different approach than for local and collector streets. The primary purpose of traffic calming on these roads is to reduce excessive vehicle speeds, alleviate conflicts between road users, and eliminate inappropriate driver behaviour. Measures that restrict or divert traffic or introduce significant vertical deflections into the street are inconsistent with the typical role and function of the arterial roads and should not be implemented.

Speed management is a more significant challenge on arterial roads, especially through rural settlements where the main roadway through the town serves a dual role. Outside the town, the roadway provides high-speed travel over long distances. Within the built-up area, the same roadway may transition to accommodate local access, pedestrians of all ages and abilities, on street parking, bicycles, and the many other features unique to the character of a community. The type of road user also varies more in the rural area, ranging from commuter traffic, heavy vehicles (agricultural equipment and trucks) and other users to local motorists, pedestrians and cyclists. The adjacent road environment – wide-open spaces, long periods of uninterrupted traffic flow, roads designed for higher operating speeds – is not always conducive to encouraging driver behaviour compatible with an urban setting upon arrival at the town limits.

BIKEWAYS TRAFFIC CALMING

Administration will review the City's cycling network on an on-going basis to identify streets that may be classified as a local street bikeway to develop the All Ages and Abilities (AAA) network recommended in the Active Transportation Master Plan (ATMP).

Local street bikeways are streets with low traffic speeds and volumes that have been optimized for cyclists and those driving vehicles to share the roadway for travel through treatments such as traffic calming and traffic reduction by means of signage and pavement markings, as well as intersection crossing treatments, to allow through movements for cyclists while discouraging similar through trips by non-local motorized traffic (Ontario Traffic Manual (OTM) Book 18 - Cycling Facilities).

Administration may consider implementing permanent traffic calming on streets that are local street bikeways according to the OTM Book 18 selection guidelines. OTM Book 18 mentions that the appropriate motor vehicle speed and average daily vehicle traffic for a local street bikeway should be 40km/h or less, and less than 3,000 average daily vehicle traffic. Administration will assess the streets that are identified as a local street bikeway using the following methods:

- If the 85th percentile speed is found to be 50km/h or more, then traffic calming measures should be considered to lower the speed to reach the appropriate motor vehicle speed limit for a local street bikeway,
- If the average daily traffic is found to be 3,000 or more, then traffic calming measures should be considered to reduce the traffic volumes to reach the appropriate traffic volumes for a local street bikeway.

Local street bikeway projects will not require a petition or warrant review to implement traffic calming measures if they are ATMP-identified bikeway development projects.

Other measures may also be considered at critical locations where local bikeways intersect with major roads or other bikeways to minimize conflicts between motor vehicles and cyclists or pedestrians. Examples of crossing treatments include median islands, pedestrian corridors, signals and sensors. Administration will continue to explore new traffic calming measures and may test different measures as pilot projects to determine if they are suitable for temporary or permanent installation.

Applicable policies, guidelines and master plans should be considered during the review, including the City's Active Transportation Master Plan, School Neighbourhood Policy, the Canadian Guide to Traffic Calming – TAC and the Ontario Traffic Manual Book 18 - Cycling Facilities. The construction of traffic calming measures shall meet the requirements on the City of Windsor Development Manual and any relevant City of Windsor Engineering Standard Drawings.

Other affected agencies, such as Transit Windsor, Emergency Services, the Windsor Accessibility Advisory Committee (WAAC), the Active Transportation Expert Panel, the local School Board Transportation service provider, any affected Business Improvement Areas (BIA) and the Windsor-Essex County Health Unit (WECHU) may be invited to provide comments and feedback.

Projects will be proposed based on the prioritization criteria provided in the Active Transportation Master Plan. The number of projects proposed in any given year will depend on associated implementation cost and available budget. The length of time a project has been waiting for implementation funding will not

influence whether it is constructed in the coming season. Practical considerations may affect the selection of projects, some of which include the availability of funds restricted to specific activities or areas, and the potential to coordinate with other projects and the availability of alternate funding sources. Administration will present a report to Council for approval to fund and implement the Traffic Calming Plan. Other methods for presenting the results to Council may include an annual presentation as a part of the capital budgeting process.

Administration will notify the public when a Traffic Calming Plan is to be presented to Council for approval. Notification may be provided by any of the following means:

- A notice provided to adjacent households and commercial properties; or
- A notice posted at the location of the concern; or
- Information posted on the City's website, local newspaper or other media.

Opportunities to include traffic calming measures on residential streets with designated bikeways should be considered prior to road reconstruction projects.

The City's Active Transportation Master Plan encourages pedestrian connectivity for pedestrians and cyclists when considering dead-end streets as a traffic calming measure.

NEW NEIGHBOURHOOD TRAFFIC CALMING

Traffic Calming will be considered in all new neighbourhoods and placed based on the road classification in the City's Official Plan for the area. The designation of those streets will dictate the type of traffic calming devices that are to be implemented. Developers will be required to include engineering design plans for approved traffic calming devices in plans of subdivisions and new development. Traffic calming measures such as traffic circles, roundabouts, chicanes, sidewalk/curb extensions, lane narrowing, raised median islands, and raised median through intersections, are considered for new neighbourhoods.

The design and proposed location of traffic calming measures are required to be included in the application for a plan of subdivision or new development. Each measure location shall include the following elements:

- Traffic calming measures should meet the design criteria and all required signage and markings according to the latest version of the Canadian Guide to Traffic Calming – TAC,
- Traffic calming devices must permit and allow for the potential enhancement of safe movements by all non-motorized modes of travel,
- The design should consider requirements outlined in the City's Active Transportation Master Plan and School Neighbourhood Policy.

Proposed design drawings will be circulated to other City departments for review.



PROCEDURE GUIDELINES

The following guidelines should be taken into consideration when investigating, selecting and implementing techniques suitable for local conditions. Applying them will maximize the effectiveness of the traffic calming process, and will help to build community acceptance and support for the proposed solution:

- Identifying and agreeing upon the actual conditions.** It is not uncommon that the perceived nature of a traffic problem is substantially different from the real situation. In some cases, the difference is so great that a solution intended to eliminate the perceived problem might create a real problem that didn't exist before. For example, residents often mention "traffic volume" and "speeding" as concerns on their streets, but in some cases, the data shows there is no issue, or the problem is the opposite of the one stated. If the real problem is speeding, a measure which significantly reduces the traffic volume on a street might inadvertently encourage speeding if fewer cars remain on the street to slow traffic. It is therefore important to identify the real conditions. This will aid in selecting the appropriate measure and/or helping to prioritize the preferred technique(s), if it is determined that there is a situation that needs to be addressed.
- Quantifying the problem.** Some problems are more significant than others. Some are all-day problems, whereas others occur only at certain times of the day, or only in one direction. To select appropriate traffic calming measures, it is important to quantify the extent of the problem. This usually means gathering data, which can include obtaining or conducting traffic and vehicle classification counts, speed studies, licence plate traces, parking surveys, and collision statistics. Quantifying also aids the residents in understanding the nature and magnitude of the real problem.
- Considering the source of the problem.** Congestion on the arterial road system is the most common reason why motorists shortcut through a neighbourhood. If there is a cut through problem, opportunities to improve the operational efficiency of the network through low-cost measures such as traffic signal retiming, turn prohibitions and parking restrictions, may be considered before developing a traffic calming program directly on the residential street. Care should be exercised to avoid creating a speed management issue on the arterial road because of the operational changes.
- Considering enforcement and education first.** Enforcement and education techniques require no physical changes, are potentially less expensive and are usually faster to implement. While education and enforcement programs tend to be local and specific in nature and therefore not well documented, examples of some education programs are described in the National Highway Traffic Safety Administration's report titled *"Countermeasures That Work: A Highway Safety Countermeasure Guide for State Highway Safety Offices"*. Consideration should be given to enforcement and/or education programs, either stand-alone, or as a first step as part of an integrated solution. While police enforcement is not a viable long-term approach, some limited initial manned enforcement with occasional follow-up visits may be enough to manage the situation.

- **Applying traffic calming measures on an area-wide basis, not on a localized, site by site basis.** In considering measures to resolve a speeding, cut through and/or other driver behaviour problem in one location, any potential effects on adjacent streets must be considered. These effects might include traffic diverted to other streets, motorists who speed up after passing a traffic calming measure, or changes in turning movements that increase delay at another intersection. If these local area effects are not considered in advance, a traffic calming solution might simply create or exacerbate problems elsewhere in the community.
- **Avoiding restricting access and egress.** Generally, residents, transit operators, emergency service providers and other members of the community will be more supportive of traffic calming measures that do not unduly restrict access into and out of their area. Diverters, barriers and closures can limit entry for people who live or work on a street, and often there are as many residents opposed to these types of measures as those in support. Measures which restrict access might also divert traffic to other streets, creating or exacerbating problems elsewhere in the neighbourhood.
- **Using self-enforcing measures.** Generally, measures that maintain a 24-hour presence and do not require police enforcement to be effective, are preferable. For example, consider using speed humps instead of speed limits, semi barriers (i.e., egress only) and diverters instead of turn prohibition signs, and traffic circles or roundabouts instead of all-way stop signs to minimize the need for police enforcement. Measures that can be circumvented, such as turn prohibitions or partial closures, are best used at intersections with major streets, where visibility and the presence of other traffic may discourage motorists from disobeying or ignoring these measures. The effectiveness of all physical traffic calming measures can generally be enhanced through quality landscaping of the measure, where appropriate. Usually, horizontal and vertical presence of a landscaped measure increases drivers' awareness of their immediate environment, which can result in increased safety, assuming visibility is not impaired.
- **Not impeding non-motorized modes.** The purpose of traffic calming is to reduce the negative effects of motor vehicles while improving conditions for other travel modes. Consequently, traffic calming measures should be designed to permit cyclists and pedestrians to safely and efficiently travel along and crossroads. Techniques to accommodate non-motorized modes should include elements such as gaps in barriers for bicycles or median refuges for pedestrians crossing streets.
- **Considering all services.** Input shall be obtained early in the process from all service providers, including Transit, Police, Fire, ambulance and other emergency services, as well as garbage collection, snow plowing and street cleaning. These collaborators should be actively involved in the planning and design of the traffic calming plan. Doing so will help to minimize delays and impacts to these critical public services and will address a common concern often raised by persons objecting to traffic calming measures.
- **Monitoring and follow-up.** It is important to report back to the community and decision-making bodies about the degree of success of implemented traffic calming measures. This helps to justify expenditures and enhances the credibility of traffic calming efforts. It may also be useful to implement measures on a temporary trial basis for one year to monitor their effect, and to prepare contingency plans in case the measure does not produce desired results or receives adverse community reaction. Removal of ineffective or outdated measures should also be considered. Therefore, depending on the measure or plan being evaluated and the problem being addressed, there is a need to collect comparable traffic volume, speed and collision data before and after implementation.



TRAFFIC CALMING PROCEDURE

A traffic calming project is initiated when a resident, business or group submits a concern specifically related to vehicle speeds and/or volumes. Requests are submitted by contacting 311.

There are five stages of a traffic calming project:

Stage 1: Project Initiation

Stage 2: Project Development

Stage 3: Project Approval

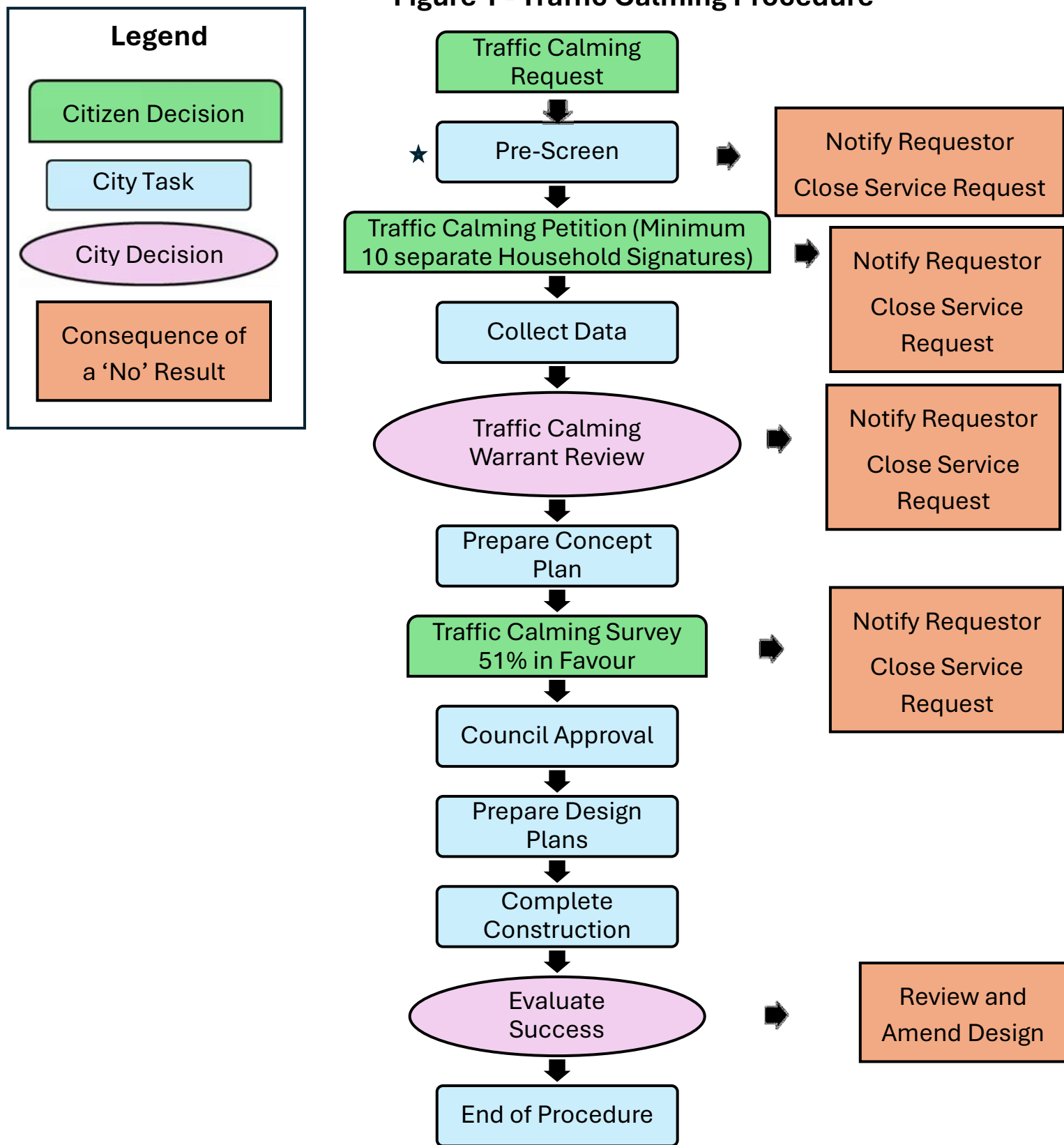
Stage 4: Project Implementation

Stage 5: Project Evaluation

A traffic calming project ends when the traffic calming project implemented is a success.

The following traffic calming procedure will be used when a traffic calming service request is received as shown in **Figure 1**.

Figure 1 - Traffic Calming Procedure



★ Arterial roads that pass the pre-screening will not require a petition or warrant review to implement passive measures.

STAGE 1: PROJECT INITIATION

PRE-SCREENING

Upon receiving the request, Administration will conduct a pre-screening using cloud base data. During the pre-screening the street is evaluated for eligibility and must meet all the following criteria, otherwise the review process ends:

- Local, Collector, or Arterial road in the City's Official Plan
- Longer than 300 metres
- Has not been evaluated for traffic calming in the last 3 years
- Speed Limit of 50km/h or lower (only applies to local and collectors)
- Residential property that are fronting the street
- Average daily traffic volume is estimated to be more than 500 vehicles per day
- A minimum 85th percentile speed of 10km/h over the speed limit

Administration will pre-screen the location of concern within the stop control to stop control limits.

For locations not meeting the above initial screening, City staff may assess passive measures to address traffic concerns.

Arterial roads that pass the pre-screening will not require a petition or warrant review to implement passive measures. Evaluation and implementation of passive measures for arterial roads will be based on engineering judgement.

It should be noted that School Zones are exempt from the traffic calming process identified in this document and automatically qualify for traffic calming. Where schools have a speed limit of 40 km/h, traffic calming plans may be prepared and residents of the street will be notified of the implementation plan.

TRAFFIC CALMING PETITION

To move forward with the evaluation, a petition with a minimum of 10 signatures with names and addresses from separate households with direct frontage on the street of concern must be submitted to the City of Windsor within 30 days of the petition being sent. The petition must include the location, the nature of the problem, the time of day which the problems are most significant, as well as any suspected contributing factors. The name, address, and contact information are required from the petition organizer, so that City staff can follow up on the request.

A successful traffic calming petition confirms that there is some neighbourhood support for the initiative. If a petition is not successful, the traffic calming process ends.

The City's traffic calming program is intended to address long-term speeding issues. Therefore, traffic calming is not implemented where there is ongoing development and changing traffic patterns. Residents should only contact the City to request initiation of the evaluation process if traffic concerns persist once traffic patterns have had the opportunity to stabilize.

DATA COLLECTION

Once the traffic calming petition is successful, the data collection commences. The collection of data is to evaluate whether there is traffic problems present within the location of concern. The data collection may include any of the following:

- Vehicle volume count to determine average daily vehicle volume
- Speed study to determine existing speed data
- Collision data within the last 3 years
- Study to quantify cut through traffic, if necessary
- Routes for trucks, transit, and emergency services
- Existing roadway conditions (e.g. pavement condition, signing, marking)
- Presence of sidewalks on one or both sides of the road
- Presence of special pedestrian generators such as school, playground, community centre, senior homes, libraries, retail etc. abutting the street of concern
- History of traffic operations for the area within the last 5 years

TRAFFIC CALMING WARRANT REVIEW

Once the data collection is complete, City staff conducts a traffic calming warrant review the points criteria identified in **Table 2**. The speed study uses the 85th percentile speed data. Vehicle volume count uses the measured average daily traffic (ADT) counts.

Table 2: Traffic Calming Warrant Review

Traffic Calming Warrant Review				
Location:			Date Reviewed:	
Roadway Type:	<input type="checkbox"/> Collector Road	<input type="checkbox"/> Local Road		
Traffic Data				
	Feature	Range	Criteria	Score
1a	Speed	0 to 35	5 points for every 2 km/h that the 85th percentile speed is greater than 10 km/h over the speed limit.	
1b	High Speed	0 to 5	5 points if minimum of 5% of daily traffic exceeds speed limit by 15-20 km/h.	
2	Volume	0 to 20	Local Roads: 5 points for every 1,500 ADT Collector Roads: 5 points for every 2,000 ADT	
3	Short-Cutting Traffic	0 to 15	5 points if there is a presence of 25% or more short-cutting traffic. Additional 5 points for every 10% increment above 25%.	
4	*Collisions	0 to 10	1 point for every reducible collision/year over a 3 year period and 5 points for every collision involving a vulnerable road user within a 3 year period.	
Road Characteristics				
	Feature	Range	Criteria	Score
5	Sidewalks	0 to 10	10 points for no sidewalks with evidence of pedestrian activity, 5 points if the road does not have a continuous sidewalk on at least one side	
6	Pedestrian Generators	0 to 15	5 points for each nearby pedestrian generator such as a school, playground, community centre, libraries, retail centres, etc.	
Total				
Local Road = minimum 35 points				
Collector Road = minimum 52 points				
Does the location meet the minimum requirements?				

* A vulnerable road user is an individual who is at a higher risk of injury or death in a collision with a motor vehicle. This includes pedestrians, cyclists, and individuals with mobility devices.

The collision data used for the criteria should be limited to those collision types which may have been prevented by traffic calming treatments. Excluding the collisions which may not have been prevented ensures that the project does not receive a higher priority for an outlying safety issue beyond the scope of traffic calming. High collision rate areas should be given broader consideration and reviewed outside of

the Traffic Calming Program. In addition to collisions with vulnerable road users, engineering judgement must be used to identify collisions which may be reduced based on suitable traffic calming measures. Both mid- block and intersection collisions may be considered if they meet the above criteria. To ensure that longer streets do not receive a higher priority versus a shorter street because of the higher likely number of collisions due to length, a collision rate is utilized. The collision rate is expressed as the number of collisions per kilometre of roadway.

A project should score at least 35 points in the warrant evaluation if they are local road and 52 points if they are a collector road. Prioritization will be based on points from the warrant evaluation. Additional factors may include other project schedules, available funding and other considerations.

Should a location fail to meet these requirements, residents will be notified in writing and the investigation for traffic calming measures will discontinue. However, City staff may continue to address the concerns of the residents by means of possible passive measures.

STAGE 2: PROJECT DEVELOPMENT

TRAFFIC CALMING CONCEPT PLAN

When reviewing a street, Administration will typically define a study area from stop control to stop control. Some elements of professional judgment will be required in finalizing the limits. If cut through traffic is confirmed as an issue, the study area should consider potential alternative routes cut through traffic would take if measures were implemented.

Cut through traffic may be confirmed by estimating the number of trips made by residential and other types of units along the road. If the measured traffic volume is greater than the estimated volume, cut through traffic may be assumed.

The data collected combined with site visits, historical information, future maintenance and construction plans will be taken into consideration to determine potential traffic calming measures.

The appropriate traffic calming measures will be determined based on **Table 1**. **Table 1** provides general recommendations for traffic calming measures according to road classification and transit route. The traffic calming plan could include different types of traffic calming measure(s).

Applicable policies, guidelines and master plans should be considered during the review, including the City's Active Transportation Master Plan, School Neighbourhood Policy and the Canadian Guide to Traffic Calming – TAC. Any traffic calming construction work shall meet the requirements on the City of Windsor Development Manual and any relevant City of Windsor Engineering Standard Drawings.

The proposed traffic calming plan should include:

- Description of all aspects of the project
- Description of the problem including results of data collection
- Proposed design layout with signage
- Description/photos of proposed treatment with cost estimate.

STAGE 3: PROJECT APPROVAL

TRAFFIC CALMING SURVEY

Once the concept design is complete the City will mail a letter to all dwelling units and commercial properties within the study area to disclose the final details of the proposed Traffic Calming Plan and request participation in a telephone survey using the City's 311 system (or other means appropriate) to identify community acceptance. A minimum of 51% approval rate is required to indicate support for the Traffic Calming Plan. If the threshold is met, the Traffic Calming Plan will be deemed to have been approved by the community in the study area. If this threshold is not met, the project ends and a notification of failure to meet the community support levels will be sent to the residents on the mailing list. However, City staff may continue to address the concerns of the residents by means of possible passive measures.

Approved Traffic Calming Plans will be prioritized using the points score outlined above, with consideration to implementation cost. Projects will be proposed in priority sequence for approval to proceed with implementation. The number of projects proposed in any given year will depend on associated implementation cost and available budget. The length of time a project has been waiting for implementation funding will not influence whether it is constructed in the coming season. Practical considerations may affect the selection of projects, some of which include the availability of funds restricted to specific activities or areas, the potential to coordinate with other projects and the availability of alternate funding sources. Although a project may be appropriate for traffic calming, it may take several years before it proceeds to implementation. The City's traffic calming website provides details about traffic calming projects and status.

COUNCIL APPROVAL

Administration will present a report to the Environment, Transportation and Public Safety Standing Committee containing the Traffic Calming Plan and the results of the prioritization process (including details of costs and public support) for consideration and recommendation to Council about implementation and funding the Traffic Calming Plan. Additional methods for presenting the results of the process to the Council include an annual presentation as a part of the capital budgeting process. Other methods may be developed as necessary. Council makes the decisions about funding for the implementation of the traffic calming measures.

STAGE 4: PROJECT IMPLEMENTATION

Administration will create detailed engineering drawings, if necessary, prior to installation. Once the detailed drawings are prepared, the capital cost estimates should be updated and refined for budgeting purposes.

The City will mail a letter to all dwelling units and commercial properties within the study area to disclose the anticipated construction start date.

Administration may decide it is beneficial to phase in the traffic calming plan using temporary or removable traffic calming measures such as flexible bollards. This will allow time to examine the impact of the measures and their effectiveness before committing funding to permanent treatments.

EVALUATION & MONITORING

Outcome reviews will be undertaken 12 months following installation of traffic calming measures to evaluate effectiveness. The scope of outcome reviews will be dependent on the objectives of the project, and will generally include the collection of speed, volume, and collision data for comparison against pre-installation data.

- Due to the types of roads for which traffic calming will be implemented, it is highly unlikely that any significant collision trends will be present over an analysis period of 12 months. Additional time may be required to evaluate collision data after the traffic calming measures are implemented.
- The outcome review will in most cases not include a diverted traffic analysis. These may be considered if comparable data was collected prior to installation and this was a key objective for the installation.

Success with traffic calming will be a reduction in vehicle speed, volume, and/or collisions. Depending on the outcome achieved, Administration may choose to evaluate the site through the warrant/prioritization process to see if it still has a need for traffic calming and how it compares to other potential sites. If Administration decides that the traffic calming measures have not been effective, they may recommend additional traffic calming measures. Prior to implementing the additional traffic calming measures, a report will be delivered to Council reviewing the performance of existing traffic calming measures.

TYPES OF TRAFFIC CALMING MEASURES

PASSIVE MEASURES

Passive traffic calming measures do not require construction of physical modifications to the roadway. Passive traffic calming often results in lower cost and prevents constructing a more-permanent change to the roadway. Physical (vertical and horizontal) traffic calming measures will be considered by the City when either the passive measures have not alleviated the neighbourhood concerns or the City determines the need for their installation. Below is a list of passive measures.

EDUCATION



Activities that change people's perceptions and help alter driver behaviour are most preferred. Meetings and workshops with neighbours and the City can help implement and direct traffic calming applications. Most traffic problems are a result of human behaviour. Through outreach programs, slow down lawn signage, brochures, bumper stickers related to obeying the speed limit, neighbourhood watch programs, and the City's Active and Safe Routes to School program, residents can play a big part in spreading the information.

Advantages:

- Flexible in the duration of meetings, workshops, etc.
- Inexpensive compared to other alternatives

Disadvantages:

- Difficult to measure the effectiveness
- May take time to be effective
- Potential challenge in generating citizen participation

ROAD WATCH PROGRAM

Road Watch is a community-driven program that gives residents and visitors the opportunity to report dangerous and aggressive drivers to the Windsor Police Service (WPS). WPS operates the Road Watch Program, and the road watch citizen report forms are available at the City of Windsor Police Stations, or they can be obtained online at www.windsorpolice.ca.

Advantages:

- Inexpensive compared to other alternatives

Disadvantages:

- Difficult to measure the effectiveness
- May take time to be effective
- Potential challenge in generating citizen participation

TARGETED SPEED LIMIT ENFORCEMENT

Targeted speed limit enforcement purpose is to make drivers more aware of their speed within a residential area. This measure typically only provides a temporary benefit, since speed limit enforcement is not available on a regular, on-going basis.

The Windsor Police work with the Transportation Department of the City in addressing speeding issues within residential areas.

Advantages:

- Does not require time for design
- Does not slow emergency vehicles
- Effective in reducing speeds in a short timeframe
- Automated speed studies can determine best enforcement times

Disadvantages:

- Effectiveness may be temporary
- Expensive to maintain a continued program of enforcement
- Fines lower than enforcement cost
- Time and resources constrained

RADAR SPEED FEEDBACK SIGNS



www.townofsananselmo.org

Post or pole-mounted radar speed feedback signs provide immediate feedback alerting the driver of their speed. Ideally this will encourage drivers to obey the speed limit. Additional enforcement or physical measures are encouraged to reinforce the treatment.

Advantages:

- Inexpensive
- Does not require time for design
- Does not slow emergency vehicles
- Effective in reducing speeds in a short timeframe

Disadvantages:

- Requires power source
- Only effective for one direction of travel
- Long-term effectiveness is uncertain
- Subject to vandalism

VEHICLE ACTIVATED WARNING SIGNS



unipartdorman.com

Solar powered electronic signs equipped with radar speed detectors alert drivers of hazards ahead when activated by speeds surpassing a programmed threshold.

The advantages and disadvantages are the same as the radar speed feedback signs.

PAVEMENT MARKINGS



alertdriving.co.nz



ctre.iastate.edu

Pavement markings, such as traverse bars or chevrons, may be used to provide drivers more notice about their speed. These are only appropriate in certain areas, such as rural locations or transition zones where drivers are being reminded of a change in roadway character.

Advantages:

- Inexpensive
- Quick implementation
- No increase in noise
- No impact to emergency vehicles, snow plowing, street sweeping, and police
- No adverse effect on vehicle operations

Disadvantages:

- Requires regular maintenance
- May be less effective during winter months due to snow/ice cover

ON-ROAD SIGN PAVEMENT MARKINGS



[google.com/maps](https://www.google.com/maps) (Queen St. S., Hamilton, Ontario)



[google.com/maps](https://www.google.com/maps) (S. Sterling Ave., Tampa, Florida)

Sign pavement markings may be used to provide on-road messages, such as “MAX 50 km/h”, “Stop Ahead”, “School Ahead”, or “SLOW”. The advantages and disadvantages are the same as the pavement markings.

ON-STREET PARKING



google.com/maps (McKay Ave, Windsor, ON)

On-street parking may help to lower speeds along streets by narrowing the travel lanes and encouraging drivers to be more alert for vehicles or other drivers entering or exiting vehicles.

Advantages:

- Inexpensive
- Vehicle speed and traffic volume reduction
- Reduced traffic noise
- Provides a buffer between traffic and pedestrians on the sidewalk

Disadvantages:

- May reduce visibility for pedestrians crossing the roadway
- May reduce visibility for motorists exiting their driveway to enter the roadway
- May obstruct street sweeping and snow removal operations
- Could increase rear-end or sideswipe collisions

ROAD DIET



Roadsbridges.com

Reconfiguration of a roadway to allocate reclaimed road width for other uses, such as turning lanes, bike lanes, pedestrian refuge islands or parking.

Advantages:

- Low cost
- Vehicle speed reduction

Disadvantages:

- Additional pavement markings require regular maintenance

PHYSICAL VERTICAL TRAFFIC CALMING

Vertical traffic calming measures provide an obstruction that vehicles can travel over. The change in pavement height (and sometimes pavement materials) can cause discomfort to the occupants of vehicles that are exceeding the design speed of the traffic calming measure. It should be noted that most vertical traffic calming measures are not preferred along roadways that are emergency vehicle routes or transit routes. To reduce the chances of potential liability issues, vertical traffic calming measures should be signed and marked in accordance with reference material provided by the Institute of Transportation Engineers (ITE) and the Transportation Association of Canada (TAC) as provided within the Canadian Guide to Traffic Calming - Second Edition, published in February 2018.

Vertical traffic calming measures typically perform better when they are installed in a series, as opposed to a single isolated measure. The deceleration and acceleration of a vehicle, while negotiating a series of vertical traffic calming measures, is dependent on the number and spacing of the installations. The implementation of vertical traffic calming measures can result in some traffic diverting onto parallel streets. This essentially moves the cut through traffic problem to another location instead of solving it. Consideration should be placed on the concept of improving the overall neighbourhood. Below is a list of vertical traffic calming measures.

SPEED HUMP



Kildare Road South of Onieda Court, Windsor, ON



Victoria Avenue South of Park Street, Windsor On

Speed humps provide a vertical, tactile alert to drivers, encouraging lower speeds. Speed humps are typically 80mm in height and 4m in length.

Advantages:

- Low Cost
- Effective in reducing vehicle speed

Disadvantages:

- Increases response time for emergency vehicles
- Negative impact on transit buses
- Increases noise and air pollution in neighbourhood

Note: The City of Windsor does not recommend fully painting speed humps with a solid colour. Fully painting a speed hump with a solid colour could potentially create a safety hazard by reducing traction, especially when wet, causing wheels to slip. This hazardous condition can potentially lead to accidents, especially for motorcyclists and cyclists.

If required due to sign visibility, speed hump visibility or other factors, speed hump warning signs may be considered for placement in advance of the speed hump.

TEXTURED CROSSWALK



www.fhwa.dot.gov

Berkley, CA

Brick pavers or other materials are used to help distinguish the pedestrian crosswalk from the roadway. This feature may also help to remind drivers to remain alert to the presence of pedestrians and other non-motorized traffic.

RAISED CROSSWALK



www.fhwa.dot.gov

Alexandria, Virginia

Raised crosswalks serve as a visual and tactile alert to drivers of the presence of pedestrians and other non-motorized traffic.

Advantages:

- Provides a more visible pedestrian crossing
- Quicker response time for emergency vehicles than speed humps
- Effective in reducing vehicle speed, but not as well as speed humps
- Addition of brick or textured materials can improve aesthetics

Disadvantages:

- More expensive than speed humps
- Increases response time for emergency vehicles
- Increases noise and air pollution in Neighbourhood
- May be damaged by snow plows

RAISED INTERSECTION



www.fhwa.dot.gov

google.com/maps (Riverside Dr at Riverdale Ave, Windsor, ON)

Raised intersections provide visual and tactile encouragement for drivers to lower their speed, particularly on their approach to the intersection where non-motorized traffic especially may be present.

Advantages:

- Provides a more visible pedestrian crossing
- Provides traffic calming along two roads
- Quicker response time for emergency vehicles than speed humps
- Effective in reducing vehicle speed, but not as well as speed humps
- Addition of brick or textured materials can improve aesthetics

Disadvantages:

- Very expensive compared to speed humps and speed tables
- Increases response time for emergency vehicles
- Increases noise and air pollution in the surrounding neighbourhood
- Could create drainage impacts
- May be damaged by snow plows

PERMANENT & TEMPORARY TRANSVERSE RUMBLE STRIPS



Ctre.iastate.edu



Grand Marais Rd, Windsor, ON (2024)

Transverse rumble strips are raised bars, grooves, or buttons closely spaced at regular intervals on the roadway that create both noise and vibration in a moving vehicle. They are used to alert the driver of an upcoming traffic control.

Advantages:

- Require little to no maintenance
- No effect on resident access, on-street parking, street sweeping and police enforcement

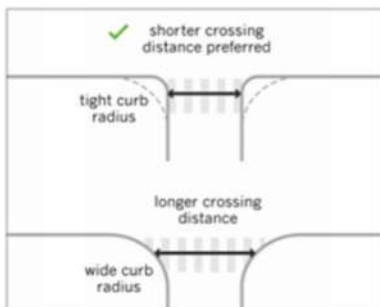
Disadvantages:

- Negative effect on snow plowing operations
- Increased noise level in immediate vicinity
- May detract from appearance of street

PHYSICAL HORIZONTAL TRAFFIC CALMING

Horizontal traffic calming measures incorporate raised islands and curb extensions to prevent vehicles from traveling in a straight line at excessive speeds. Vehicles either slow down while maneuvering around the horizontal obstacle, or slow down due to the physical perception of a narrower roadway. To reduce the chances of potential liability issues, horizontal traffic calming measures should be signed and marked in accordance with reference material provided by the Institute of Transportation Engineers (ITE) and the neighbourhood Traffic Calming (TAC). The implementation of horizontal traffic calming measures can result in some traffic diverting onto parallel streets. This essentially moves the problem instead of solving the problem. Consideration should be placed on the concept of improving the neighbourhood (not just improving the street). Below is a list of horizontal traffic calming measures.

CURB RADIUS REDUCTION



www.mto.gov.on.ca

Reductions in curb radii force drivers to manoeuvre turns at lower speeds, encouraging lower speeds on the approaches to the intersection.

Advantages:

- Shortens pedestrian crossing time
- Forces vehicles on approach to come to a full stop

Disadvantages

- Large axle vehicles are unable to negotiate the turn without driving over the sidewalk, which puts pedestrian safety at risk

LANE NARROWING



www.fhwa.dot.gov

Narrow lanes tend to encourage lower speeds as drivers feel slightly constricted. This may be achieved through physical alterations as well as the addition of on-street parking, bike lanes, pavement markings, movable planters or traffic calming curbs.

Advantages:

- Up to a 10km/h speed reduction in 85th percentile speed
- If lanes are physically narrowed and space is not allocated to other modes, then there would be a reduced crossing distance for pedestrians
- Quick implementation if using pavement markings and no physical change
- Less impact on traffic noise, fuel consumption, and emissions compared to speed humps
- No effect on emergency vehicles, resident access, snow plowing, street sweeping, and police enforcement

Disadvantages

- Cyclist may feel squeezed closer to vehicles if no bicycle lanes are provided.
- Pavement markings require regular maintenance
- Pavement markings may be less effective in the winter months due to snow/ice cover
- Reduced separation between oncoming vehicles

FLEXIBLE POSTS/EDGE BOLLARD



Calderwood Ave near Bliss Ave, Windsor, ON



Totten St, Windsor, ON

Flexible posts can be used to give drivers the perception of lane narrowing and create a sense of constriction. Flexible posts anchored to the pavement to create or extend centre medians, bulb-outs or chicanes.

Advantages:

- Up to 5km/h speed reduction in 85th percentile speed
- If lanes are physically narrowed and space is not allocated to other modes, then there would be a reduced crossing distance for pedestrians
- Quick implementation if using pavement markings and no physical change
- Less impact on traffic noise, fuel consumption, and emissions compared to speed humps
- No effect on emergency vehicles, resident access, snow plowing, street sweeping, and police enforcement due to its removal during the winter season and its ability to bend and regain its ability to stand back up

Disadvantages

- Cyclist may feel squeezed closer to vehicles if no bicycle lanes are provided
- Pavement markings require regular maintenance
- Pavement markings may be less effective in the winter months due to snow/ice cover
- Reduced separation between oncoming vehicles

TRAFFIC CALMING CURB



facebook.com/MunicipalityofLeamington
(Talbot St. W. at Queens Ave.),



South National St, Windsor, ON

Precast concrete curb used to create curb extensions, traffic circle centre islands, chicanes or protected bicycle lanes.

Advantages:

- Quick implementation
- If lanes are physically narrowed and space is not allocated to other modes, then there would be a reduced crossing distance for pedestrians
- Minimal effect on emergency vehicles, resident access, street sweeping, and police enforcement

Disadvantages

- May effect snow plow, depending on the location if placed during the winter season

RAISED MEDIAN ISLAND



www.fhwa.dot.gov



google.com/maps (Rossini Blvd at Wyandotte St, Windsor, ON)

Raised median islands may be used to provide a physical refuge area for pedestrians and other non-motorized traffic. They may also be used to help narrow travel ways. These features help to encourage lower driver speeds.

Advantages:

- If designed well, can have a positive aesthetic value
- Opportunity for landscaping and improved aesthetics

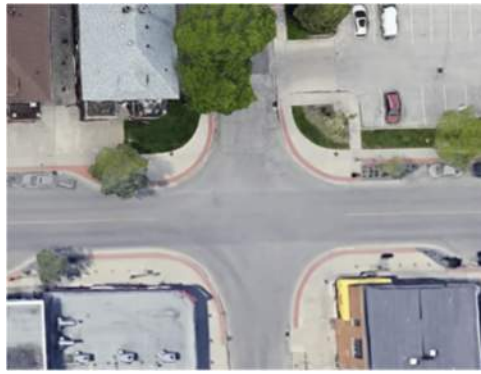
Disadvantages:

- Effectiveness is limited by the absence of vertical deflection
- May interrupt driveway access to adjacent properties
- Increased cost for maintenance of landscaping if this measure involves landscaping

SIDEWALK/CURB EXTENSION



ContextsensitiveSolutions.org



google.com/maps (Erie St at Langlois Ave, Windsor, ON)

Curb extensions reduce the distance pedestrians and other non-motorized traffic must travel when crossing the street. They may also be used to narrow travel ways, or reduce curb radii, slowing driver speeds.

Advantages:

- Encourages a safer pedestrian environment by providing a shorter crossing distance and
- increased visibility
- Very effective in front of elementary schools in addressing pick-up, drop off parking
- issues
- Prevents parking too close to intersections, keeping sight lines open
- Opportunity for landscaping and improved aesthetics

Disadvantages:

- Effectiveness is limited by the absence of vertical deflection and if traffic volumes are low
- Difficult for right-turning emergency vehicles
- Increased cost for maintenance of landscaping if this measure involves landscaping
- May require bicyclists to briefly merge with vehicular traffic

TRAFFIC CIRCLE/ROUNDBABOUT



google.com/maps (35th & Raleigh St., Denver, CO)



google.com/maps (Sandwich St., Windsor, ON)



google.com/maps (Banwell Rd at Mulberry Dr)



google.com/maps (Erie St at Parent Ave, Windsor, ON)

Traffic circles and roundabouts require drivers to slow their approach and yield to traffic while transitioning through the intersection. May be designed to be traversable for larger vehicles and emergency response vehicles.

Advantages:

- Effective in reducing vehicle speed
- Improved traffic flow
- Can reduce severity of motor vehicle collisions
- Reduction in left-turn collisions
- Opportunity for landscaping and improved aesthetics
- Reduction in noise and air pollution compared to signalized and stop controlled intersections

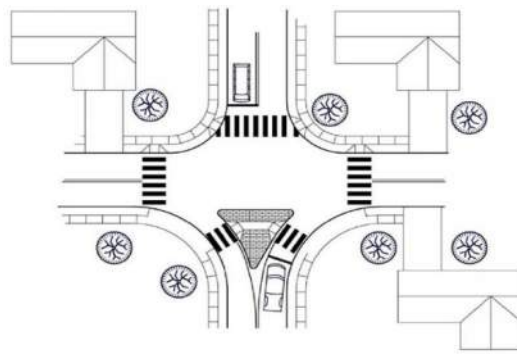
Disadvantages:

- Difficult for left-turning emergency vehicles
- Possible need for right-of-way, depending on size of raised island
- Increased cost/labor for maintenance of landscaping if this measure involves landscaping

RIGHT-IN/RIGHT-OUT ISLAND



www.fhwa.dot.gov



www.fhwa.dot.gov

Right in/right out islands are raised triangular islands located on an intersection approach to limit the side street to right turn in and out movements. They restrict vehicle flow to help eliminate left turn movements into and out of driveways, reducing the potential for conflicts.

The advantages and disadvantages are the same as the directional closure. In addition, there may be increased safety risk for pedestrians as drivers may be focused on turning their heads to view oncoming traffic and not pay attention to pedestrians on their right side trying to cross.

CHICANES



en.wiktionary.org/wiki/chicane



www.fhwa.dot.gov

Chicanes are bump-outs on opposite sides of the road that require drivers to slow down to zigzag through the roadway configuration.

Advantages:

- Discourages high speeds by forcing horizontal deflection
- Easily negotiable by emergency vehicles
- Opportunity for landscaping and improved aesthetics

Disadvantages:

- Must be designed carefully to discourage drivers from deviating out of the appropriate lane
- Curb realignment and landscaping can be expensive, especially if there are drainage issues
- Increased cost/labor for maintenance of landscaping if this measure involves landscaping

PHYSICAL OBSTRUCTION

Physical obstructions are the most severe traffic calming tool and are only used when it is determined a vertical or a horizontal measure won't address the identified problem. The primary purpose of physical obstructions is to eliminate cut through traffic by prohibiting specific vehicle movements. It is important to note that physical obstructions are intended to deter motor vehicle traffic only and not to obstruct bicycle or pedestrian traffic. These types of measures are typically implemented at intersections, but may also be applied at some mid-block locations. Obstructions range from those that have a relatively minor impact on vehicular access to those that severely restrict access such as a road closure. It is important to remember once the vehicle restricted movement is in place area residents must live with it every day. Below is a list of obstructive traffic calming measures.

DIRECTIONAL (HALF) CLOSURE



www.stocktongov.com



Charleston, South Carolina

Partially restricts the flow of vehicles along the street. This measure is strictly for volume control and has little impact on driver speeds.

Advantages

- Traffic volume reduction up to 60%
- There may also be a reduction in travel speeds around the intersection
- Eliminates right angle collisions

Disadvantages

- Restricts resident access to the neighbourhood; and
- May divert significant volume of traffic to parallel streets that do not have traffic calming measures

FULL CLOSURE



www.victoria.ca



Los Angeles, CA

A full closure or cul-de-sac eliminates through traffic for motor vehicles at one end of a road, serving as a volume control measure.

Advantages

- Eliminates all cut through traffic
- Eliminates right angle collisions
- Reduced traffic noise

Disadvantages

- Restricts resident access to the neighbourhood
- May divert significant volume of traffic to parallel streets that do not have traffic calming measures
- May restrict emergency vehicle access

DIAGONAL DIVERTER



www.sanantonio.gov



Halifax, NS

Diagonal diverters allow some traffic to flow through the intersection in restricted ways to discourage (not necessarily eliminate) through traffic.

- Traffic volume reduction between 20% and 70%
- Eliminates right angle collisions

Disadvantages

- Restricts resident access to the neighbourhood; and
- May divert significant volume of traffic to parallel streets that do not have traffic calming measures

RAISED MEDIAN THROUGH INTERSECTION



www.pedbikesafe.org

Little Rock, AR

Raised medians through an intersection prohibits cross traffic in one direction. This helps reduce or eliminate through traffic in one direction. Small gaps may be included to allow bicycle and other non-motorized traffic to pass through.

The advantages and disadvantages are the same as the directional closure.

TURN PROHIBITION SIGN



www.fhwa.dot.gov

Turn prohibitions should serve a similar purpose as directional closures or diagonal diverters. The advantages and disadvantages are the same as the directional closure.

THROUGH PROHIBITION SIGN



www.fhwa.dot.gov

Through traffic prohibitions should serve a similar purpose as full closures, diagonal diverters, or raised medians through intersections. The advantages and disadvantages are the same as the full closure.

TRAFFIC CALMING NEIGHBOURHOOD SIGN



Dandurand Avenue, Windsor, ON



www.citywindsor.ca

Traffic Calmed Neighbourhood signs help to alert drivers of the presence of traffic calming measures. Ideally this will provide additional encouragement for drivers to lower speeds and increase alertness to the presence of non-motorized traffic. Only used in conjunction with physical traffic calming measures.

Subject: Response to CR11/2025, CQ 1-2025 and CQ 2-2025 - Traffic Impact Analysis of Greenfield and Infill Developments – City Wide

Reference:

Date to Council: September 24, 2025

Author: Chris Gerardi

Engineer II

519-255-6100 ext. 6830

cgerardi@citywindsor.ca

Public Works - Operations

Report Date: 9/2/2025

Clerk's File #: ST2025

To: Mayor and Members of City Council

Recommendation:

- I. That report "Response to CR11/2025, CQ 1-2025 and CQ 2-2025 - Traffic Impact Analysis of Greenfield and Infill Developments" **BE RECEIVED** for information.

Executive summary:

N/A

Background:

At the City Council Meeting on January 13, 2025, the following direction was given through CR11/2025 DHSC 676:

*That administration **BE DIRECTED** to increase the scope in evaluating the traffic impacts of infill developments and to look at ways to recuperate the funding required through development charges or through the application process.*

Report Number: S 152/2024 SCM 367/2024

Clerk's File: Z/14848 8.9

Two Council Questions (CQ) were also raised at that meeting:

- **CQ 1-2025:** Requested a report on the creation of a policy for reviewing traffic flow and impacts in areas with substantial new residential development, including cost recovery options.

- **CQ 2-2025:** *Requested a report on the cost to the city of conducting Traffic Impact Analyses for private developments, and whether existing fee structures sufficiently recover those costs.*

This report responds to CR11/2025, CQ 1-2025 and CQ 2-2025.

As part of a Planning Act application, developers are required by City Administration to submit a Transportation/Traffic Impact Study (TIS) if the proposed development could adversely affect the City's transportation network as determined by staff. The purpose of a TIS is to assess the impact of a development proposal on the surrounding traffic, transit, cycling, and pedestrian systems, ensuring the project supports safe, efficient, and sustainable mobility.

The TIS also helps to determine whether infrastructure upgrades are needed and ensures developers contribute to mitigating any negative traffic impacts. For infill developments, which are typically surrounded by existing infrastructure, traffic improvements are generally limited to entrance/egress upgrades, such as turn lanes or, and for larger developments, possibly traffic signal installation or upgrades if present.

The policy that outlines the TIS requirements is drawn from the City of Windsor's Official Plan, and within it contains a Terms of Reference for Transportation Impact Studies (Appendix A). To further support preparation of a TIS, the City also provides its Transportation Impact Study Guidelines (Appendix B) via website access to fundamentally ensure that the TIS identifies all impacts resulting from a proposed development.

A TIS also incorporates known pre-existing and/or future issues that may exist in areas surrounding the site-specific proposed development location. Applicants are specifically required to coordinate with the involved City planner to determine if there are any other known development proposals in the area. If there are proposed developments in the nearby area, the traffic volumes generated by these developments must be accounted for in the TIS analysis. For example, if three developments are proposed along the same corridor, the second development must consider the traffic from the first, and the third must account for traffic from both the first and second developments. While the goal of a TIS is to understand the impact of the specific development, cumulative effects are considered.

When assessing intersections, staff typically request a conservative scenario that accounts for long-term background growth. While a specific development may contribute only a small portion of total traffic, the TIS may still identify the need for infrastructure improvements. It's important to recognize that background traffic growth can originate from anywhere — not just from nearby developments. This is particularly true for arterial roads, which serve not only Windsor but also facilitate traffic from neighbouring municipalities. Windsor is experiencing city-wide growth, and development across Essex County continues to increase also, cumulatively contributing to regional traffic volumes.

The cost and preparation of a TIS is the sole responsibility of the developer. Typically, the need for a TIS is identified early in the development application process. Changes to

a development, during the application process, can introduce new transportation concerns warranting further study revisions. Preparation of a TIS may also be more appropriate at later stages of the planning process once the development concept is more fully formed. Transportation staff may require revisions to the TIS either due to changes to the development proposal or because it is deemed incomplete.

Planning and Development Services may allow applications to proceed to a stage of the development process that requires council approval before a final TIS is submitted. In such cases, a satisfactory TIS and implementation of any recommended improvements become conditions of either Site Plan or Development Approval.

Discussion:

TIS Guideline Update

A comprehensive review of Windsor's Terms of Reference for Transportation Impact Studies and the Transportation Impact Study Guidelines has been completed. Windsor's traffic impact practices were benchmarked against those of Hamilton, Ottawa, Sarnia, and London. All comparator municipalities utilize TIS Guidelines, which are considered an industry standard.

The resulting update consolidates industry standards and maintains consistency with respect to the City's accepted methodologies and parameters. These updates include:

- Clarifying deliverables and submission standards;
- Adapting to new software and file formats;
- Updating references and key Plan application (e.g., Active Transportation Master Plan); and
- TIS requirement condition for any an infill development in an existing residential area where additional traffic can worsen existing conditions.

Windsor's Official Plan's Terms of Reference for Transportation Impact Studies is being proposed to refer directly to the Transportation Impact Guidelines; officially tying these two documents together. Staff recommend that traffic impact requirements in Windsor continue to be governed by a guideline rather than a formal policy. This approach provides the flexibility to address the varying scope and complexity of TIS requirements on a case-by-case basis.

As the City advances its traffic management and safety efforts, including planned updates to the Transportation Master Plan and Vision Zero strategy, further revisions to the TIS Guidelines may be necessary in future.

Traffic Projections

Development applications are reviewed by administration in accordance with the policy direction of the Provincial Planning Statement, the City of Windsor Official Plan and TIS guidelines. One of the key evaluation criteria is the compatibility of the proposal with the surrounding area, which implicitly includes consideration of potential traffic impacts.

Administration will now include traffic projections in rezoning reports—especially for infill developments. These projections will compare:

- Traffic generated under current zoning.; and
- Traffic generated under the proposed development.

For example, increasing a multi-unit residential development from 100 to 120 units may only add a few additional peak-hour vehicular trips—often considered negligible. Further, in many cases, switching from commercial to residential use can reduce traffic volumes. Similarly, redeveloping former institutional sites (e.g., schools) into multi-residential units may also lower traffic impacts.

This practice will help Council better understand the implications of zoning changes, particularly in established neighbourhoods.

Risk Analysis:

There are no risks related to receiving this report.

Climate Change Risks:

Climate Change Mitigation

Improving traffic flow and reducing congestion on Windsor's roads can significantly lower greenhouse gas emissions. By minimizing vehicle idling and encouraging the use of sustainable transportation options, such as public transit, cycling, and walking, the city can enhance air quality and contribute to climate change mitigation.

Climate Change Adaptation

The City's Climate Change Adaptation Plan encourages increase resiliency through improved infrastructure planning, including traffic systems to reduce vulnerability to climate impacts. All new transportation infrastructure provided by the developer is required to comply with City standards, including those related to stormwater management.

Financial Matters:

As per the City's Official Plan, the cost of preparing a TIS is the responsibility of the developer. City Transportation staff determines whether a TIS is required for a proposed development. If so, City staff are responsible for defining the TIS scope including, but not limited to, the analysis of any other known development proposals and/or pre-existing traffic constraints in the area. City staff also review submitted TIS reports, verify their validity, compliance with the City's TIS Guidelines and manage any necessary revisions. In some cases, multiple rounds of review and resubmission may be required.

Development applications are subject to standard application fees. The scoping/review of TIS submissions and related traffic projections is carried out by in-house staff. Specifically, two positions in Transportation (Transportation Planner I, Development Review Technician) perform this activity and are sufficiently offset through the recovery of associated development application fees.

Consultations:

Cindy Becker	Financial Planning Administrator – Public Works
Ray Sayyadi	Transportation Planning Engineer
Elara Mehriou	Transportation Planner I
Michelle Moxley-Peltier	CEP Project Administrator, Environmental Sustainability and Climate Change
Adam Szymczak	Planner III – Development
Frank Garardo	Planner III – Policy and Special Studies
Jason Campigotto	Deputy City Planner – Growth
Greg Atkinson	Deputy City Planner – Development
Neil Robertson	City Planner/ Executive Director Planning and Development Services

Conclusion:

The updated Transportation Impact Study (TIS) Guidelines reflect current best practices, align with peer municipalities, and directly responds to Council's direction to enhance the evaluation of infill development impacts. By formally linking the Terms of Reference with the Guidelines, clarifying submission standards and with the introduction of a new trigger requiring the preparation of a TIS in support of infill developments, the City is better equipped to manage growth while maintaining a safe and efficient multi modal transportation network.

The cost of preparing a TIS remains the sole responsibility of the developer, who must retain a qualified professional engineer. Transportation will continue to define the scope required of each study based on the uniqueness of the proposed development.

Planning Act Matters:

N/A

Approvals:

Mark Spizzirri	Manager, Performance Measurement and Business Case Development
Prem Patel	Senior Manager, Transportation (A)
Brian Lima	Executive Director, Operations / Deputy City Engineer
David Simpson	Commissioner, Infrastructure Services and City Engineer
Tony Ardovini	On behalf of Commissioner, Finance and City Treasurer
Ray Mensour	Chief Administrative Officer

Notifications:

N/A

Appendices:

Appendix A - OP TOR Transportation Impact Study
Appendix B - Transportation Impact Study Guidelines

Transportation Impact Study and/or Transportation Impact Statement

Purpose:

The purpose of these studies is to identify the transportation network improvements and on-site design elements necessary to accommodate additional vehicle, cyclist, pedestrian, and transit traffic and parking the proposed development will generate and ensure its impact on adjacent land uses is safe and acceptable;

All Transportation Impact Studies and Transportation Statements must be prepared in accordance with the City of Windsor [Transportation Impact Study Guidelines](#), which outlines detailed technical requirements, thresholds, methodologies, and formatting standards.

Where a Transportation Impact Study is required, such study shall:

1. Include the collection and projection of traffic related data from the nearby and adjacent road network based on existing and future conditions;
2. Assess trip generation, assignment, and distribution from the proposed development as well as existing, permitted, and proposed developments within the Study Area to a horizon year directed by the City during the pre-application process;
3. Assess street and intersection capacity and queuing including current and projected operational deficiencies that may arise as a result of growth from background traffic, future conditions and traffic generated by the proposed development;
4. Describe and recommend measures required to achieve the transportation goals, objectives and policies set out in the Transportation Chapter of this Plan and the City's capital projections included in the Development Charges By-law;
5. Describe and recommend specific site design practices, including Transportation Demand Management measures, to ensure priority is given to sustainable modes of transportation over vehicle use;
6. Employ Transportation Association of Canada and other applicable guidelines regarding driveway access design, location, throat length and function;
7. Describe the final outcome that will be achieved by the transportation network with the proposed development and associated improvements to the network to the defined planning horizon;
8. Describe how the proposal will promote development patterns that will generate positive impacts on transportation;
9. Ensure that driveway, loading and vehicular and bicycle parking requirements are provided and suitably located in the development;
10. Ensure that facilities are provided for ease and safety of pedestrian movement through the

development including, but not limited to, walkways, pedestrian crossings, and overpasses/underpasses; and

11. Evaluate the proportion of development that is in proximity to existing or planned transit stops along transit routes.
12. Names and sections of technical guidelines used, and assumptions made, shall be attached to the study.

Qualifications:

A Transportation Impact Study must be completed by a professional transportation engineer certified to practice in Ontario, to the satisfaction of the City.

Transportation Impact Study Guidelines

1 Introduction

The Corporation of the City of Windsor, in accordance with Windsor's Official Plan, has set out goals of growing business and allowing responsible development while also protecting infrastructure and ensuring that transportation is efficient, convenient, and meets the needs of all citizens. A principal factor in achieving these goals is identifying, planning for, and where necessary mitigating the impacts of development on the transportation network and on the people who rely on it. For these reasons, a Transportation Impact Study (TIS) is required for development applications that have the potential to adversely affect the transportation network in the City of Windsor. For the purposes of this document the terms Traffic Impact Study and Transportation Impact Assessment can be used interchangeably with Transportation Impact Study.

This document provides guidelines for the preparation of TIS in support of development applications. They are intended to address most applications; however, situations not envisioned by these regulations may occur, as may extraordinary developments or conditions. Therefore, the City of Windsor retains the right to vary these requirements at its discretion.

1.1 Public Record

All TIS reports submitted to the City will become part of the public record. Information from these reports may be included in reports to Council or other public documents or shared with other municipalities or agencies, and excerpts from the study reports may be shared with other applicants or consultants to allow other transportation impact studies to accurately reflect the anticipated traffic due to area developments.

2 General Requirements

2.1 Details Not Addressed

For any details not addressed in these guidelines, proper professional practice based on established standards and methodologies shall be followed. Consultants are required to confirm unaddressed details with Transportation staff before beginning the study.

2.2 Need for a Transportation Impact Study

A TIS may be required if any of the following conditions are met:

- The proposed development is anticipated to generate 100 auto trips or more in the peak hour of traffic for the development.
- The proposal includes a new access on or connection to an arterial road.
- The proposal includes a new access or connection at any location where stopping or turning sight distance standards (based on the standards and methodologies given in the Transportation Association of Canada *Geometric Design Manual*) are not met.
- The proposal includes the closure of an existing through road.

- Site generated traffic associated with the proposed development will result in an intersection or driveway turning movement becoming critical (see definition below) or will make operations for a critical movement worse. A critical movement is defined as follows:
 - All intersections
 - Any movement where the 95th percentile queue exceeds available storage.
 - Unsignalized intersections
 - Any movement with level of service “E” or worse.
 - Signalized intersections
 - Any movement with level of service “F.”
 - Through movements and shared through/turning movements: any movement with v/c of 0.85 or higher.
 - Exclusive turning movements: any movement with v/c of 1.0 or higher.
- The proposal is an infill development in an existing residential area where additional traffic can worsen existing conditions.

2.3 Transportation Statement (Limited Scope Study)

For some applications, the need for a transportation impact study may be based only a single factor or a limited number of factors. In these cases, a limited scope *transportation statement* dealing with the specific areas of concern identified may be required in rather than a full TIS. Transportation Statement are also often referred to as memos.

Typically, a Transportation Statement is requested when the triggering factor is not related to the proposed development's trip generation. Some examples are:

- To confirm the expected trip generation is low.
- To supplement a previously submitted Transportation Impact Study
- Road safety concerns
- Where the sole factor triggering factors are related to the site entrance; such as a sightline distance deficiency.

The City of Windsor, at its sole discretion, will determine whether a transportation statement will be sufficient, as well as the specific scope for the transportation statement.

2.4 Qualifications to Carry Out a Transportation Impact Study

A TIS must be prepared by or under the supervision of a Professional Engineer (or Limited Engineering Licence holder practicing within the limits of his/her licence) licensed in the Province of Ontario with experience and expertise in the field of transportation and traffic engineering and the preparation of traffic impact studies, who must stamp, sign, and date the report, and take professional responsibility for the work.

A transportation statement (limited scope study) must be prepared by or under the supervision of an individual with experience and expertise in the field of transportation and traffic engineering and the preparation of traffic impact studies, who must sign and date the transportation statement, and take professional responsibility for the work. If the scope of the transportation statement includes elements that constitute *the practice of professional engineering* (as defined by the

Professional Engineers Act), then this individual must also be a Professional Engineer (or Limited Engineering Licence holder practicing within the limits of his/her licence) licensed in the Province of Ontario, and the transportation statement must be stamped.

2.5 Study Updates

An updated analysis to confirm that the findings of the original TIS are still valid will be required for any development that does not proceed within 3 years of the original study date.

3 Transportation Impact Study Requirements

3.1 Study Area

The study area will include:

- All site accesses (in cases where the subject development is an individual site) or all proposed connections to the existing road network (in cases where the subject development is a subdivision)
- All intersections where site traffic will increase the volume for a movement by 5% or more
- All intersections where site traffic will cause a movement to become critical (as defined in Section 2.1) or will cause operations for an already critical movement to worsen

Consultants are required to confirm the study area with Transportation staff before beginning the study.

3.2 Horizon Year(s) / Scenarios

For smaller developments (i.e. generating less than 500 peak hour, peak direction trips) that are built in a single phase, typical analysis scenarios are as follows:

- Existing Conditions (current year)
- Future Background Conditions (current year + 5 years)
- Future Total Traffic Conditions (current year + 5 years)

For developments built over more than one phase, the TIS should be phased based. Particularly If access to the site will vary between phases (e.g. if some accesses or auxiliary lanes will not be built until later phases, or if an access that will be ultimately signalized will operate under stop control in an interim phase), then an interim analysis (both background and total traffic conditions) should be performed for each phase. Consultants shall confirm phase based TIS requirements with transportation staff.

When a significant delay is anticipated for completion of the proposal. the TIS shall address the anticipated date of operation and operational year plus horizon year(s).

For larger developments (i.e. generating 500 peak hour, peak direction trips or more), horizon years should be determined in consultation with Transportation staff.

Under certain circumstances induced demand might need to be consider at the direction of Transportation Planning Staff.

3.3 Time Periods

In all cases, the time periods selected for analysis shall include the hour of the week in which the impact of development traffic on traffic operations is greatest. Typical analysis periods are given in the table below:

Land Use Category	Weekday AM Peak Hour	Weekday PM Peak Hour	Saturday Peak Hour	Other – See Notes
Residential	X	X		
Commercial – Retail	X	X	X	
Recreation / Amusement/ parking complex		X	X	e.g. movie theatres, batting cages, golf courses. In addition to typical peak hour, consider if peak use time falls out of typical daily peak hours in the adjacent streets.
Commercial – Office	X	X		
Restaurant	Note	X	X	Include weekday AM if open in this period.
Industrial	X	X		
Elementary or Secondary School	X	X		In addition to typical peak hour, consider if peak use time falls out of typical daily peak hours in the adjacent streets.
College, University, or Vocational School	X	X		
Place of Worship	Note	Note	Note	Analyze peak hour on main day of worship. If a significant amount of traffic (i.e. enough that the criteria in Section 2.1 are met) is associated with other events throughout the week, also analyze other identified peaks.

Multi-use developments shall be analyzed for all periods noted for each of the proposed land uses. Alternately, the analysis time periods for multi-use developments may be established based on discussions between the consultant and Transportation Planning staff.

The analysis peak hours for types of land uses not identified should be established based on discussions between the consultant and Transportation Planning staff.

3.4 Background Traffic

3.4.1 Background Growth & Other Area Developments

Transportation staff shall be consulted to confirm background growth assumptions and other area developments to include in background traffic.

- Data older than 3 years should not be used in the analysis
- Growth rate cannot be applied on year 2020 and year 2021 data because of covid-19 pandemic.

Coordinate with the involved planner to determine if there are any other known development proposals in the area. If there are proposed developments in the nearby area, the traffic generated by these developments must be accounted for in the TIS analysis.

3.4.2 Transportation Network Changes

Where information is available (e.g. future road improvement planned in the 5-year capital plan), the analysis shall consider planned network changes in the study area in addition to the current situation when application.

If possible, any proposed improvements to address background conditions shall be in accordance with relevant official documents (e.g. the Official Plan and Secondary Plans, a relevant Transportation Master Plan, or environmental assessments for any proposed area projects). If improvements that are not in keeping with official documents/plans are proposed, these must be clearly identified and justified.

3.5 Site Generated Traffic

3.5.1 Trip Generation

Estimates of trip generation for the proposed development should follow the procedures in the most recent version of the *ITE Trip Generation Manual*.

If the *ITE Trip Generation Manual* does not contain a suitable land use. A survey of a similar local facility or first principles approach can be used. Confirm with Transportation to determine an acceptable method for projecting trip generation.

3.5.2 Modal Split

Justification shall be given for any modal split adjustments to the trip generation rates from established sources. Mode shares targets should be incorporated as assumed for this area per the Active Transportation Master Plan (pg. 35 of report). It should be noted that trip generation rates in the *ITE Trip Generation Manual* are for vehicle trips specifically and in most cases already reflect a typical degree of non-auto modal split. Any further decreases to the auto mode share

should be justified by explaining how the mode share will be achieved (e.g. transportation demand management measures, active transportation, and transit).

3.5.3 Trip Distribution

Trip distribution estimates should be based on market studies, origin-destination surveys, or transportation planning models where available. In cases where these sources are not available, trip distribution estimates should be developed in accordance with good engineering practice and site observations.

4 Evaluation of Impacts

4.1 Capacity Analysis at Intersections & Accesses

Analysis will be done using a software package employing Highway Capacity Manual methodology; Synchro/SimTraffic is preferred. The consultant may elect other software such as Arcady, Sidra for specific capacity analysis assignments such as roundabouts.

4.1.1 Values for Analysis

- **Bus blockages:** bus blockages should be entered in accordance with the current transit schedule and the location of transit stops. If increased transit frequency is proposed for future, or if new transit stop locations are proposed, this should be reflected in future scenarios.
- **Lane widths:** lane widths used for analysis should be the actual existing or proposed lane widths, as appropriate.
- **Lost time:** in versions of Synchro or HCS where lost time is specified, lost time should normally be equal to the sum of the amber and all-red times. In versions with a lost time adjustment, the lost time adjustment should normally be zero. Any other approaches for lost time should be justified.
- **Peak hour factor:** the observed peak hour factor obtained from count data should be used for analysis. Normally, the intersection peak hour factor should be used for all movements; however, if the peaking characteristics for a leg or movement are significantly different from those of the intersection, the leg or movement peak hour factor should be used as appropriate. If the peaking characteristics of site traffic are significantly different from those of the surrounding road network, an adjustment to the peak hour factor for total traffic conditions may be appropriate; justification for such adjustments should be provided in the report.
- **Pedestrian calls:** for each approach, pedestrian calls should be equal to the number of pedestrians crossing in the peak hour, up to a maximum of one call every cycle. Analyze LPI where higher number of crossing pedestrian is expected.
- **Right turn on red (RTOR):** RTOR should only be used for exclusive turning lanes. RTOR should be disabled when right turns are made from a shared lane.
- **Saturation flow rate:** use of saturation flow rates above the Synchro default should be justified with a saturation flow study.

- **Storage lane lengths:** when determining storage lane lengths, the taper should not be considered part of the storage length.
- **Truck Percentage:** the observed truck / heavy vehicle percentage for each movement should be used. If the development will generate a significant number of truck trips, future traffic scenarios should include adjustments to truck percentages to reflect increased truck volumes.

All values not addressed specifically above (e.g. link speed, grade, adjacent parking lanes) must reflect actual conditions, either existing or proposed.

4.1.2 Signal Timings

Existing traffic signal timings shall be used for analysis unless unsatisfactory operations will result, in which case any assumed modifications to existing timings must be clearly identified in the report. New or modified signal timings shall be in accordance with City of Windsor guidelines; Transportation Planning should be consulted to confirm that proposed timings will be acceptable.

The City of Windsor's philosophy is to coordinate the signal timings along corridors, including crossing arterials. Proposed changes to signal timings (or proposed new signals) at one intersection along an arterial should consider the need for coordination along the corridor, as well as the need to provide a high level of capacity and good arterial level of service along the corridor. The consultant is to coordinate with City staff to obtain the latest signal timing plan. The consultant is to submit all original simulation files particularly when a signalized intersection is analyzed and/or modification to existing timing plan is proposed

4.2 Acceptable vs. Unacceptable Conditions

Criteria for acceptable vs. unacceptable conditions may vary depending on factors such as:

- Surrounding environment (e.g. urban core vs. suburban/rural fringe)
- Availability of non-auto modes to access the site
- Existing deficiencies in the study area
- For temporary conditions, the duration of an impact

Transportation staff shall be consulted to determine the appropriate criteria for a given development.

Sight distance shall be analyzed at all accesses and deficiencies shall be considered unacceptable in all cases regardless of duration.

4.3 Traffic Calming

For new residential subdivisions, The City of Windsor requires that the site plans shall not encourage cut-through traffic. The Site plans shall have inherent safety and traffic calming tools. If the above condition cannot be met for new residential the report must identify how the City of Windsor Traffic Calming Policy requirements for new developments will be met.

4.4 Non-Auto Modes

The report shall provide a discussion of impacts to non-auto modes, including identifying pedestrian and cyclist connections to the surrounding network and pedestrian and cyclist linkages between the site and transit stops. Discussion should be provided with respect to the Active Transportation Master Plan as it relates to the development (for instance, by confirming that proposed connections in a new subdivision adhere to the requirements of *Ontario Traffic Manuals* (Book 15 and Book 18 specifically)).

Where appropriate active transportation facilities (sidewalk, cycle tracks, multi-use trails/paths) do not exist, corresponding non-auto modes shall not be considered. Where active transportation as a non-auto mode of travel is considered in the analysis, the consultant shall review the immediate surrounding area, address deficiencies and evaluate required improvements including safe road crossings.

4.5 Safety Analysis

4.5.1 Sight Distance

A sight distance review shall be carried out for any new accesses and for any existing accesses where a sight distance deficiency has been identified. Turning and stopping sight distance requirements in the Transportation Association of Canada *Geometric Design Manual* shall be used for evaluation.

4.5.2 Collision Review

If the proposed development has the potential to impact a high collision location, a collision review may be required, including a forecast of the effect that the proposed development will have on collisions in the study area. Transportation Planning staff should be consulted to determine whether any high collision locations have been identified in the study area.

4.6 Warrants

When determining the need for off-site modifications, warrants that have been established or adopted by the City of Windsor should be used as applicable, such as:

- All-way stops: City of Windsor all-way stop warrant (*Ontario Traffic Manual Book 5*).
- Intersection signalization: *Ontario Traffic Manual Book 12 – Signals* (note: the City of Windsor does not use the 4-hour warrant as justification for signals)
- Traffic calming: City of Windsor traffic calming policy

The list above is not exhaustive, and the applicable warrants may change from time to time. If needed, Transportation staff can be consulted for guidance as to what warrants are currently in effect.

For the following items, the warrants given in the most recent version of the Ontario Ministry of Transportation *Geometric Design Standards for Ontario Highways* and *Transportation Associate*

of Canada Guidelines have not been officially adopted by the City of Windsor, but are considered by City staff to reflect good professional practice:

- Right turn storage lanes
- Left turn storage lanes
- Acceleration and deceleration lanes/tapers

For off-site modifications relating to items under the authority of other agencies (e.g. railway crossings or provincial highways), these agencies shall be consulted as necessary for their applicable warrants and standards.

It should be noted that the meeting of a warrant does not guarantee that a particular off-site modification will be constructed at a particular time or at all. When (or whether) changes to the transportation network may made can be dictated by factors such as budget, coordination with other works, prioritization against other projects, available land, compatibility with other planned changes, community needs, and other concerns.

5 Parking

Typically, the adequacy of parking supply is not analyzed as part of a TIS unless the applicant has proposed a variance from the parking requirement in the zoning by-law. If the need for a parking study has been identified (either by the consultant or by City staff), this can be documented as part of the TIS report or provided as a separate document.

Parking Study – Scope/Definition

A parking study shall be prepared by a qualified transportation consultant; the document shall show that the supply given will meet the parking demands of the proposed development. This must include justification for the deviation from the by-law requirements. The study may include a survey of parking demand at similar proxy sites and/or review from published sources for justification. The study will include measures that the developer can implement to decrease parking demand on the site. The parking study should not consider the number of bedrooms in their analysis as the City of Windsor measures parking rate based on the number of units.

The applicant must show through the parking study that reduced parking standards will not negatively affect the parking supply in the area or result in spillover parking in adjacent areas. If a study refers to available on-street parking a field count must be conducted to confirm the availability of on-street parking at peaking times.

6 Documentation

A traffic impact study report will include at least the following information:

- Professional details

- Name(s) of the report author(s)
- Name, seal and signature of the person(s) taking professional responsibility for the report contents
- Development characteristics
 - Precise location identification (municipal address if available, or lot & concession)
 - Proposed land use type(s)
 - Existing Official Plan and zoning by-law designations for the site (and proposed designations, if an OP or zoning amendment is proposed for the development)
 - Development size for each land use type/building/etc. (site area, gross floor area, gross leasable area, number of employees/dwelling units, etc. as appropriate)
 - Anticipated date of opening
 - Anticipated hours of operation (if applicable)
 - Location and type of accesses, clearly distinguishing between existing and proposed accesses and noting the movements permitted
 - Development phasing (including the above details for each phase)
- A site plan for the proposed development, showing the full right-of-way width of all adjacent roads and streets, including any existing entrances opposite the proposed development and any transit stops on adjacent roads
- General study details
 - Horizon years
 - Time periods analyzed
 - Study area map
- Trip generation, distribution, and assignment assumptions
- Volume diagrams showing all peak hours analysed:
 - Existing traffic
 - For each horizon year:
 - Future background traffic
 - New site trips
 - Pass-by trips (if the development will experience pass-by traffic)
 - Future total trips
- Analysis Details
 - For each scenario:
 - Lane configurations at all intersections analysed
 - Level of service, volume to capacity ratio, and delay for all movements (except free-flow movements at unsignalized intersections) at all intersections analysed
 - Identification of all critical movements along with proposed mitigation measures (if applicable)
 - Non-auto modes discussion
 - Traffic calming discussion (if applicable)
 - Summary of the sight distance review (if applicable)
 - Collision review (if applicable)
- Conclusions

- An overall statement of whether the transportation network can or cannot accommodate the development, along with:
 - Details of the mitigation measures and network improvements required to accommodate the development.
 - Details of any special restrictions on the development (e.g. limits on types of tenant or hours of operation) required for the network to be able to accommodate the development.
- Speak to any concerns identified in the scope of work. (if applicable)
- Concise, written in an executive summary style, and structured to stand alone for easy consumption.
- Appendices
 - Traffic count data (The counting files in original format as well as in spreadsheet must be forwarded to Transportation Planning department)
 - Operational analysis reports.
 - Warrant worksheets (if applicable).
 - Referenced pages from ITE, TAC and other manuals need to be included in report.
 - Synchro/Sim Traffic simulation files (and other software were applicable) must be forwarded to Transportation Planning department.

Subject: Response to CQ 45-2024 – Traffic Flow Status – City Wide

Reference:

Date to Council: September 24, 2025

Author: Ian Day

Senior Manager, Transportation

519-255-6247 x6053

iday@citywindsor.ca

Public Works - Operations

Report Date: 9/2/2025

Clerk's File #: ST2025

To: Mayor and Members of City Council

Recommendation:

- I. THAT the report in response to CQ 45-2024 – “Traffic Flow Status” **BE RECEIVED** by Council for information.

Executive Summary:

N/A

Background:

On Monday, October 28, 2024, Councillor Fred Francis asked the following Council Question - **CQ 45-2024:**

Asks that Administration provide a traffic flow status report for City Council's review. This report should identify if changes, reviews, or updates need to be made to the current Transportation Master Plan. Also, the report should identify any problematic trends or patterns that have been seen regarding traffic flow throughout the city.

Traffic Congestion Pressures:

Ongoing population and employment growth in the Windsor-Essex region has increased overall travel demand, placing greater strain on the transportation system. Windsor experiences daily traffic flow patterns like most cities, with morning (6:30-8:30 a.m.) and afternoon (4:00-7:00 p.m.) peak hours. Major arterial roads (Appendix A) like Wyandotte Street, Tecumseh Road, Dougall Avenue and Walker Road are subject to heavy traffic.

Traffic flow is also significantly impacted by high volumes of commercial and passenger border traffic, which contributes to congestion and presents economic and safety

concerns. Major construction projects can significantly impact traffic flow, necessitating the implementation of temporary detour routes and adjustments to signal timing.

Congestion arises when the demand for travel exceeds the capacity of roadways, transit vehicles, or other transportation infrastructure. Typical causes of congestion include:

- Bottlenecks at intersections, interchanges, and other locations where traffic signals, merging lanes, or special events disrupt the normal flow of traffic.
- Severe weather (heavy rain or snow) reduce visibility and road safety.
- Temporary reductions in roadway capacity, including construction zones and maintenance activities.
- Traffic incidents, such as crashes or breakdowns, which either partially block roadways or cause passing motorists to slow down

Discussion:

Approximately 60% of traffic congestion is non-recurring, caused by occasional disruptions such as motor vehicle collisions, severe weather, construction zones, poor signal timing and special events. The remaining 40% recurring congestion typically results from consistent traffic flow bottlenecks in the transportation network particularly during peak-hour demand periods.

Identification of Traffic Congestion and Flow Patterns

Recent observations and preliminary data analysis indicate that traffic flow and congestion issues are present across most of Windsor's arterial corridors. Staff identify key contributors to congestion such as high traffic volumes, limited capacity (Volume-to-Capacity: V/C), motor vehicle collision incidents, or inefficient traffic management. Combined with collision data, this information is integrated into the City's Traffic Engineering Software (TES) to manage travel time queries along arterial corridors, undertake road capacity calculations, analyze travel delay patterns and obtain a comprehensive understanding of regional traffic dynamics.

Real-time data from sources, like GPS and traffic sensors, assists to identify congested areas and differentiate between recurring and non-recurrent congestion. The City has installed cameras at 151 of its 292 signalized intersections to monitor traffic conditions and uses Advanced Traffic Management System (ATMS) adaptive signal timing software on three key arterial roads to dynamically adjust light cycles based on real-time traffic conditions which allow for immediate adjustments to signal timing. Further, Transit Windsor's priority system leverages GPS technology to monitor buses in real time. This system integrates with the City's ATMS to enable intelligent signal timing adjustments in order to maintain bus schedules and reduce idle time at intersections.

Congestion Analysis Case Study – Dougall Avenue

The City completed a comprehensive corridor review of Dougall Avenue, spanning from Tecumseh Road to Norfolk Avenue in 2025. This corridor had previously been equipped with ATMS adaptive signal programming due to consistently high traffic volumes and significant vehicle stacking, particularly between Eugenie Street and West Grand Boulevard.

While the adaptive signal program along this corridor has improved traffic flow, concerns remain about whether the corridor is operating at peak efficiency. Additional review within this corridor was further informed by a combination of field observations, CCTV footage, and detailed data analysis, including:

- Base signal timing plans;
- Adaptive timings plans;
- Turning movement counts;
- HITS (Highway Incident Tracking System) reports;
- Time-Space Diagrams;
- Adaptive system settings; and,
- Pedestrian conflict timing data.

The review identified key issues and explored other potential improvements pertaining to adjustments to adaptive signal settings, updates to base signal timing, modifications to time of-day program, and infrastructure enhancements. The recommended improvements are noted below:

Short-Term (Within 1 Year)

- Upgrade all detection along the corridor with modern technology.
- Prioritize through movements on the main street; reduce side street movements and left turns from the main corridor.
- Allow the ATMS to adjust signal timing plans more frequently than the current 10-minute intervals.
- Update base signal timing plans to better align with consistent changes made by the adaptive system.
- Implement ATMS alarms to notify staff of issues such as stuck pedestrian push buttons or malfunctioning detection zones on arterial roads.

Medium-Term (2-3 Years)

- Standardize the speed limit along the corridor to 50 km per hour and retime signal coordination accordingly.
- Install blank-out signs to alert drivers of upcoming delays.
- Add additional count stations (at South Cameron and the EC Row Expressway on/off ramps).

Long-Term

- Reconfigure the interchange ramps infrastructure at EC Row Expressway to improve traffic flow and safety.

Traffic Congestion Management Approaches

i) Corridor Analyses

Based on the success of the Dougall Avenue corridor case study, Administration recommends conducting additional corridor studies in 2026 along the following primary arterial routes:

- Wyandotte Road East - from Ouellette Ave to Banwell
- Howard Avenue – from Cabana Road East to Tecumseh Road East
- Tecumseh Road - from Ouellette Avenue to Banwell Road
- Walker Road - from Wyandotte Street East to City Limits

ii) Technology Enhancements

Expansion of the City's ATMS adaptive signal programming along key corridors (i.e., Wyandotte Street from Parent Avenue to Lauzon Road, Tecumseh Road from Jefferson Boulevard to Yolanda Street) has the potential to significantly reduce congestion and improve traffic flow along these corridors.

As well, the Transportation Division has begun upgrading vehicle detection systems throughout the City to thermal units and will pilot a LiDAR-based detection system in early 2026 with Fortran Technologies, supporting more accurate and responsive traffic management.

In addition, staff have been evaluating three cloud-based traffic data platforms which use GPS data from vehicles to deliver real-time insights into traffic speed, volume and travel times. Staff are currently in the procurement phase for a preferred cloud-based traffic data platform that will support more responsive and informed traffic issue management decisions.

iii) Congestion Management Plan (CMP)

Congestion management is a systematic approach to addressing short term congestion and is reviewed at a City-Wide level. Congestion management involves implementing a combination of objective and performance based strategies to reduce traffic volumes and improve flow.

A CMP provides a mechanism for municipalities to ensure their roadway investment decisions are made with a clear focus on desired outcomes that are aligned with the plan using a data-driven analysis approach, and may include strategies such as:

- Construction management techniques to minimize disruption during infrastructure projects;
- Targeted methods to promote active and alternative transportation, such as walking, cycling, and carpooling,
- Efforts to increase transit use, improving accessibility and reliability;
- Alternative route planning to help residents avoid congested areas; and,
- Deployment of ATMS, including the use of artificial intelligence to optimize traffic flow and system performance.

Outcomes and recommendations from completed or planned corridor studies serve as key inputs to the CMP.

iv) Transportation Master Plan

A Transportation Master Plan (TMP) is a strategic, long-term planning document that guides the development of a municipality's transportation network. It encompasses all modes of travel and supports infrastructure, policy, and land use decisions aligned with

principles of equity, sustainability, safety, and accessibility. The TMP is informed by technical analysis, stakeholder engagement, and alignment with municipal and provincial policy frameworks.

The City of Windsor's current TMP, established jointly with the County of Essex, has not been updated since it was developed in 2005. Given the significant evolution in Windsor's transportation landscape and regional growth, the existing plan and its supporting model are no longer adequate to meet today's needs, particularly the shift toward multimodal mobility.

The TMP evaluates current and projected traffic volumes and defines requirements for infrastructure elements such as infrastructure improvements (i.e., road widening, interchanges), traffic controls (i.e. signals, stop signs), lane configurations, transit stop locations, traffic calming measures and transportation demand management strategies.

The noted corridor studies of key arterial routes and the development of the City-wide CMP would serve as a foundational input for the TMP

Risk Analysis:

There are no risks associated with receiving this report.

Climate Change Risks

Climate Change Mitigation:

Congestion management plays a vital role in reducing greenhouse gas (GHG) emissions by minimizing vehicle idling and frequent acceleration, two major contributors to air pollution. By improving traffic flow and reducing delays, these strategies help lower fuel consumption and emissions. Effective congestion management approaches include promoting public transit and active transportation, enhancing traffic signal timing for smoother vehicle movement, and supporting a transition to zero-emission vehicles.

Climate Change Adaptation:

Effective congestion management supports Windsor's commitment to sustainability and climate resilience. By implementing green infrastructure to manage stormwater, reduce urban heat islands, and applying a climate lens to infrastructure planning for long-term resilience, these efforts contribute to cleaner air, reduced reliance on fossil fuels, and more livable environments.

Financial Matters:

The estimated cost to complete the corridor studies and develop a city-wide CMP is \$290,000. Should Council choose to direct administration to proceed, sufficient approved in principle funding is available in the 2026 budget under OPS-008-20 Traffic Signal Upgrades and Replacements (7209000) to support this work and would need to be pre-committed if work were to commence in 2025.

Extending the ATMS along Wyandotte Street from Parent Avenue to Lauzon Road will cover 16 intersections and is expected to take approximately two years to complete. The estimated cost for implementation is \$616,000. There is sufficient approved in principle funding in OPS-010-07 Advanced Traffic Management System (ATMS) Capitol Software/ Hardware Upgrades (7003326) to complete this project should council direct administration to proceed in 2026-2027. These funds would also need to be pre-committed if work were to commence in 2025.

Expansion of the ATMS along Tecumseh Road East from Jefferson Boulevard to Yolanda Street is estimated to cost \$269,500 and would be included in the 2028 capital budget of OPS-010-07 Advanced Traffic Management System (ATMS) Capitol Software/ Hardware Upgrades (7003326). There is sufficient approved in principle funding in the project, however these funds would need to be pre-committed if work were to commence at any point earlier than 2028.

Developing a TMP is typically a three-year process, contingent on budget, scope, and the complexity of the Terms of Reference. The estimated cost is approximately \$1,500,000 and would be added as a future budget request. This funding is not included in the current budget and given the magnitude of the request, a delay, reduction of scope, cancelling one or more projects, or an increase in the budget may be required to accommodate this request.

A complete costing breakdown of all enhancements discussed in this report is summarized in Table 1.

Table 1 – Congestion Management and Traffic Flow Costs

Topic	Item	Cost (HST not included)
Corridor Studies	Wyandotte Street East	\$ 45,000
	Howard Avenue	\$ 30,000
	Tecumseh Road East	\$ 50,000
	Walker Road	\$ 40,000
Congestion Management Plan (CMP)	City-wide Assessment	\$125,000
Wyandotte Street East ATMS Expansion	Intersections hardware cost - 16 @ \$31,000 each	\$496,000
	Intersections software licence cost - 16 @ \$7500 each	\$120,000
Tecumseh Road East ATMS Expansion	Intersections hardware cost - 7 @ \$31,000 each	\$217,000
	Intersections software licence cost - 7 @ \$7500	\$52,500
Transportation Master Plan (TMP)	City-wide Assessment	\$1,500,000

Consultations:

Shawna Boakes, Senior Design Engineer, PBX Engineering

Stephen Habrun, Director, Operations and Planning, Transit Windsor (A)

Michelle Moxley-Peltier, CEP Project Administrator, Economic Development and Climate Change

Prem Patel, Manager, Transportation Planning and Design

Cindy Becker, Financial Planning Administrator, Financial Planning

Mike Dennis, Manager, Strategic Capital Budget Development & Control

Conclusion:

The completion of corridor studies along Windsor's main arterial roads, combined with the development of a city-wide CMP, will allow for a structured framework for identifying congested areas in the city, analyzing root causes, evaluating potential strategies, and implementing targeted solutions. This process is cyclical, and data driven, involving continuous monitoring, evaluation, and refinement of strategies to ensure sustained improvements in traffic flow and performance of the transportation network. The CMP would ultimately serve as a critical foundation to a new future City-wide TMP.

Planning Act Matters:

N/A

Approvals:

Name	Title
Mark Spizzirri	Manager, Performance Measurement and Business Case Development
Brian Lima	Executive Director, Operations and Deputy City Engineer
David Simpson	Commissioner, Infrastructure Services and City Engineer
Tony Ardovini	On behalf of Commissioner, Finance and City Treasurer
Ray Mensour	Chief Administrative Officer

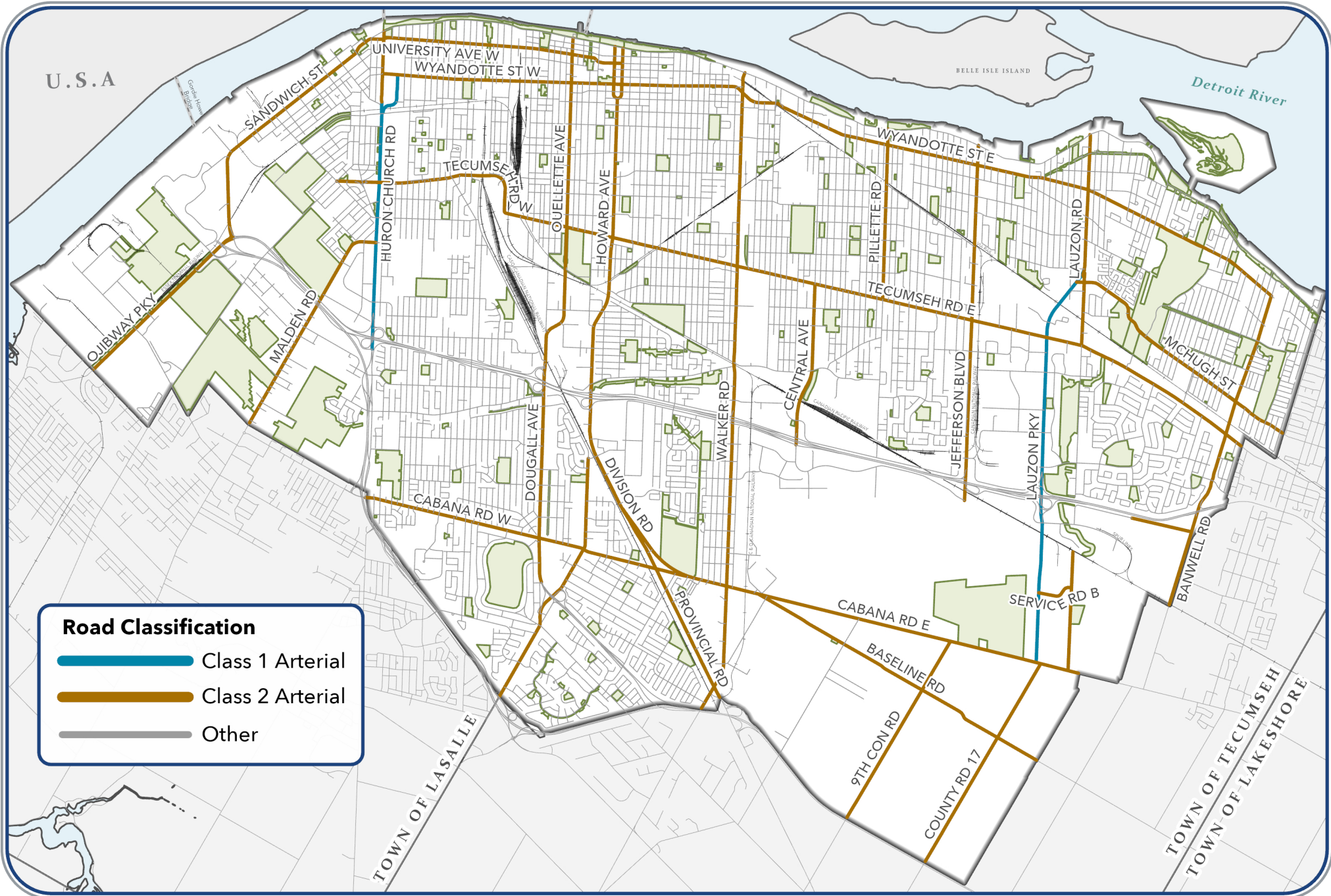
Notifications:

N/A

Appendices:

Appendix A: Arterial Road Map

Windsor Arterial Road Network



Subject: Bicycle Parking Policy Implementation and Feasibility Update – City Wide

Reference:

Date to Council: September 24, 2025
Author: Kathy Quenneville
Coordinator, Schools and Sustainable Mobility
519-255-6100 ext.6287
kquenneville@citywindsor.ca

Public Works - Operations
Report Date: 9/4/2025
Clerk's File #: ST2025

To: Mayor and Members of City Council

Recommendation:

- I. THAT report S 114/2025, "Bicycle Parking Policy Implementation and Feasibility Update" **BE RECEIVED** for information.

Executive Summary:

N/A

Background:

On July 31, 2024 the Environment, Transportation and Public Safety Standing Committee (ETPS) considered Report S 75-2023 Bicycle Parking Policy, and the following direction was given through CR363/2024 ETPS 1018, ETPS 1005:

*"That administration **REPORT BACK** to the Environment, Transportation and Public Safety Standing Committee on the costs to retrofit existing facilities, to meet the new Bicycle Parking Policy requirements, including identifying priorities and funding requirements which would be required for installation and maintenance; and,*

*That administration **BE DIRECTED** to report back on the opportunity and feasibility to create a bike locker parking service pilot program in the City parking garages in the downtown core."*

Bicycle Parking Policy

The City's Bicycle Parking Policy (refer to Appendix A) outlines ideal provisions for bicycle parking at City-owned facilities. As defined by the Policy, short-term bicycle parking refers to parking intended for visitors to a building or City facility, typically for stays of a few hours, whereas long-term bicycle parking refers to bicycle parking spaces intended for use by building occupants who require extended stays beyond a few hours. Short-term bicycle parking provisions typically involve the installation of a bicycle rack outside a facility while long-term bicycle parking provisions can involve indoor or covered secured bicycle parking lockers.

Based on the application of the Bicycle Parking Policy, short- and long-term bike parking requirements were recommended for each respective City facility type as shown in Table 1. A preliminary assessment of short- and long-term bike parking at City facilities was conducted through site visits and input from facility managers. The bike parking suitability of each facility site was evaluated based on bike parking installation requirements and available space. Additional in-depth assessment of each facility would ultimately be required to fully validate bike parking accommodation.

Table 1 – Recommended Bicycle Parking Requirements for City Facilities

City Facility	Short-Term (# of facilities) *	Long-Term (# of facilities) **
Parks and Splash Pads	145	N/A
Libraries and Art Galleries	11	7
Pools (Outdoor and Indoor)	6	6
City Hall and Administrative Offices	7	12
Community Centers & Recreation Complexes	11	9
Transit Terminals and Stops	3	3
Municipal City Parking Lots and Garages	N/A	2
TOTAL	183	39

* Assumed short-term bike racks not required for park land without amenities (such as play structures/equipment and/or washrooms), as well as administrative facilities not receiving the public.

** Long-term bike parking (in facilities other than public parking garages) are assumed to have secure spaces within the facility or on facility grounds for employee bike parking. Some facilities did not have interior or exterior space to accommodate long-term bike parking.

Bicycle Parking Planning and Zoning

Section 24.30 of Zoning By-law 8600 contains provisions that outline the number of bicycle parking spaces required, size of the bicycle parking spaces and the location of bicycle parking spaces that apply to new residential and institutional / commercial / industrial developments. Essentially, bicycle parking is required if a parking area provides 10 or more parking spaces for any use. The current provisions do not apply retroactively to existing developments.

Discussion:

This report details potential City owned facility upgrades necessary to facilitate or increase onsite bike parking, explores alternative bike parking strategies and includes a review of the City's zoning by-law, with consideration of potential amendments of same to address development minimum bike parking requirements.

Retrofitting City Facilities with Short- and Long-term Bike Parking

Short-term bike parking (i.e. bike racks) is currently installed at 127 of the 183 City-owned facilities. Administration identified 56 additional locations at City-owned facilities where short-term bike parking is recommended for installation (i.e. bike rack - minimum).

Long-term bike parking is currently offered at three of 39 City-owned facilities. Administration identified 36 other locations at City-owned facilities where long-term bike parking is recommended for installation.

Notably, the long-term bike parking lockers at Parking Garage 2 (2 bike parking spaces), as well as short-term bike racks (17 bike parking spaces) were introduced in June 2020 as a pilot project to offer public bike parking in the core and to help launch Bike Month. Similar provisions also exist at Parking Garage 1 (2 bike parking spaces) and one bike rack (7 parking spaces). Both garage bike parking areas are in a dedicated space under 24-hr surveillance and do not occupy vehicle parking spaces.

To expand long-term bike parking capacity in the Downtown Core, Administration proposes to further secure the space housing the bike racks in Parking Garage 2 by adding a security gate and electronic access. This bike parking room would either be accessed through daily short-term rental, or by monthly membership rental.

A complete listing of recommended bicycle parking facility enhancements needed to comply with the City's Bike Parking Policy is detailed in Appendix B.

Bike Corrals

A bike corral is another short-term bicycle parking enhancement that is designed to provide high-capacity bicycle parking by repurposing a traditional on-street vehicle parking space (refer to Appendix B) within areas such as the Downtown Windsor Business Improvement Areas (BIAs).

Bike corrals can be beneficial for bicycle parking; however, expanded implementation should also consider underutilization of existing bike racks in BIAs. It is further recognized that the responsibility for bike corral procurement and installation is not currently prescribed within the Bike Parking Policy.

As short-term bicycle parking demands increase, the need for bike corrals could be re-evaluated through a pilot to ensure infrastructure aligns with evolving mobility patterns and community needs.

Event Bike Parking

Administration has evaluated the feasibility of providing bike parking for City-led and community events (refer to Appendix B). To advance this initiative, Administration could purchase and lease out to event vendors a portable event bike parking facility (customized shipping sea container equipped to park up to 18 bicycles), with the potential to expand capacity through additional units. Another option Administration can consider is to purchase and lease out to event vendors additional event bike valet racks (i.e. one rack is equipped to park up to 8 bicycles).

Event organizers would be required to indemnify the City against loss or damage related to use of the equipment, provide a valid certificate of insurance, as well as provide on-site security staff to manage bicycle parking during the event. All aforementioned costs, including transportation of the bike parking container by the City or its agent would be borne entirely by the event organizers.

Bicycle Parking Standards – Recommended Zoning By-Law Amendments

Windsor's current Zoning By-law 8600 bases bicycle parking requirements for new developments on the number of vehicle parking spaces in a parking area, which often results in insufficient bike parking. A more effective and recommended approach used in other Ontario municipalities is a tiered, demand-based system that sets requirements based on land use and occupancy.

Such alternative best practices of a tiered, demand-based system include:

- Separate standards for short-term and long-term parking, ensuring visible, accessible spaces for visitors and secure, weather-protected spaces for residents and employees.
- Uses specific ratios tailored to occupancy and development types, rather than tied merely to vehicle parking.
- Higher development standards near active transportation and transit corridors.
- The City's Development Manual should be amended to include reference to the Bicycle Parking Policy to ensure consistency in application.

If the zoning by-law is amended to include a tiered, demand-based bicycling parking standard, only new developments will be subject to the new provisions. This is due to the fact that Section 34(9) of the Ontario Planning Act "grandfathers" all legally existing development, therefore the new zoning by-law regulations cannot be applied retroactively to existing developments. The zoning by-law provisions are applied to future developments or expansions and additions where applicable. The amendment of By-Law 8600 is currently on the Planning Department's list of future housekeeping items. Should Council wish to prioritize this amendment, direction may be provided to Planning Department staff through a Council Resolution.

Risk Analysis:

If there is insufficient bike parking to meet the needs of City employees and the public, it may discourage cycling as a viable, sustainable and accessible transportation option. Furthermore, if the Zoning By-law 8600 is not updated to incorporate demand-based bike parking standards, then bike parking provisions within developments may discourage cycling and hinder ongoing efforts toward achieving active transportation targets identified in the 2019 Active Transportation Master Plan.

Climate Change Risks:

Climate Change Mitigation

By increasing the availability of secure and accessible bike parking, more residents may choose cycling over driving. Shifting to more active forms of transportation assists in the reduction of air pollution, traffic congestion and associated greenhouse gas emissions.

Climate Change Adaptation

As climate change presents more global and local threats, active transportation provides an alternative and affordable mode of travel, where other methods of travel may not be available.

Financial Matters:

Table 2 outlines the estimated costs associated with implementing the bicycle parking infrastructure and services described in this report. The estimated total cost to retrofit the remaining 56 City-owned facility locations recommended for **short-term bike parking** installation is **\$310,000**. The estimated cost to implement secured **long-term bike parking** retrofits at 36 City-owned facility locations is approximately **\$703,100** (excluding provisional items).

Table 2 - Bike Parking Policy Implementation Costs

Bike Parking Type	Item	Cost (Excluding HST)
Short-Term Bike Parking Retrofit	Bike racks (56 at \$1,750 ea.), requiring concrete pads at 53 locations (\$4,000 ea.), including installation	\$ 310,000
Long-Term Bike Parking Retrofit	Bike lockers (30 at \$15,100 each) and concrete pads (26 at \$8,600 each),	\$ 703,100
	Bike racks (6 at \$1,750 ea.), requiring concrete pads at 4 locations (\$4,000), including installation	
	Provisional: Bluetooth access technology (30 bike lockers at \$7,672.33 each)	\$ 230,170
	Parking Garage 2 Bike Room - Secure gate with electronic access	\$ 10,000
Bike Corrals	Cost per corral, including installation	\$ 6,000
	Annual 2025 revenue loss from removal of one metered parking space	\$ 5,265
Event Bike Parking Options	Portable event bike parking facility equipment (excludes transportation cost of \$650)	\$ 6,575
	Portable bike valet rack (cost per rack)	\$ 840

Bike lockers at either of the Parking Garages 1 and 2 are available for monthly rental through a rental agreement with City Parking Services and currently generate nominal revenue. A membership fee of \$28.00 would be a one-time fee that would provide 24/7 access to the bike parking room. The following bike parking pricing plans would be available: 1 month (\$ 22), 4 months (\$ 65), 1 year (\$135); daily rate (\$ 2).

The current fee associated with Parking Garage bike locker rentals is not part of the City's User Fee Schedule or Parking By-Law 9023 Schedule "T". Administration will request an amendment to Parking By-Law 9023 to include bike parking fees through a CAO Report.

As of July 31, approximately \$453,000 in uncommitted funding is available for use in the Citywide Bikeway Development Initiatives project 7111031. Approximately \$3,703,500 was included and approved in principle in the 2025 approved capital budget 10-year forecast to which \$400,000 of the 2026 funding, has been pre-committed as per Report S27/2025 (CR134/2025) for planned active transportation projects. Uncommitted funding in this project will be further evaluated after a grant funding application decision is received under the Canada Public Transit Fund (CPTF) submitted in 2025.

Should Council wish to proceed with any of the options presented in Table 2 of this report, additional funding may be needed to fund the bike parking infrastructure contemplated to be compliant with the City's Bicycle Parking Policy requirements.

Consultations:

Sahar Jamshidi, Manager, Road Safety, Operations
Kathy Roeder, Financial Planning Administrator, Public Works
Mike Dennis, Manager, Strategic Capital Budget Development & Control
Bill Kralovensky, Manager Transportation Operations
James Chacko, Executive Director Parks Recreation and Facilities
Dave Nicholls, Manager Parks Operations and Horticulture
Samantha Magalas, Assistant Manager Recreation Programming
Dante Lapico, Manager Facility Operations
Jim Leether, Senior Manager of Environmental Services
Stuart Diotte, Manager of Waste Collection Contract, Operations
Roberta Harrison, Manager of Maintenance, Public Works
Greg Atkinson, Deputy City Planner
Laura Diotte, Manager, Planning
Adam Szymczak, Planner III
Laura Ash, Project Lead, Parks Development, Parks and Facilities
Larisa Johnstone, Coordinator of Technical Support, Parks and Facilities
Cole Nadalin, Supervisor of Energy Contracts
Michelle Moxley-Peltier, CEP Project Administrator
Mark Nazarewich, Deputy City Solicitor
City of Windsor Active Transportation Expert Panel

Conclusion:

A phased bike parking retrofit approach to City owned facilities, exploration of alternative strategies such as event parking, and zoning by-law updates offer opportunities to strengthen the City's active transportation network by enhancing access to increased bike parking at municipal facilities, events and within future developments.

Planning Act Matters:

N/A

Approvals:

Name	Title
Mark Spizzirri	Manager of Performance Measurement and Business Case Development
Prem Patel	Senior Manager Transportation (A)
Brian Lima	Executive Director, Operations and Deputy City Engineer
David Simpson	Commissioner, Infrastructure Services and City Engineer
Tony Ardovini	On behalf of Commissioner, Finance and City Treasurer
Ray Mensour	Chief Administrative Officer

Notifications:

N/A

Appendices:

Appendix A – City Bicycle Parking Policy
Appendix B – Bike Parking Infrastructure

THE CORPORATION OF THE CITY OF WINDSOR POLICY

Service Area:	Office of the Commissioner of Infrastructure Services	Policy No.:	
Department:	Public Works Operations	Approval Date:	September 9, 2024
Division:	Transportation Planning	Approved By:	CR363/2024
		Effective Date:	September 9, 2024
Subject:	Bicycle Parking Policy	Procedure Ref.:	<ul style="list-style-type: none">- Bicycle Parking Standards and Guidelines- Bicycle Parking at City Facilities and Buildings- Bicycle Parking in the Public Right-of-Way- Temporary Bicycle Parking for Events
Review Date:	September 2029	Pages:	Replaces: Bicycle Parking on Public Property Policy
Prepared By:	R. Toufeili, Policy Analyst C. Gerardi, Policy Analyst		Date: July 14, 2004

1. **POLICY**

1.1. This policy governs the implementation of bicycle parking for the Corporation of the City of Windsor.

2. **PURPOSE**

2.1. The purpose of this policy is to provide Administration and the general public with a framework on how bicycle parking will be implemented in order to support active transportation throughout the City of Windsor.

3. **SCOPE**

3.1. This policy covers:

- 3.1.1. bicycle space requirements and standards;
- 3.1.2. bicycle parking at City facilities and buildings;
- 3.1.3. bicycle parking in the right-of-way;
- 3.1.4. temporary bicycle parking for events; and,
- 3.1.5. bicycle parking to support transit facilities.

3.2. This policy should be utilized in coordination with the City's Active Transportation Master Plan and the Bicycle Parking on Public Property Policy.

4. **RESPONSIBILITY**

4.1. Council has authority to approve implementation of bicycle parking under this policy and is responsible for approving amendments to this policy.

4.2. Administration is responsible for carrying out this policy as follows:

4.2.1. The City Engineer and the Commissioner of Economic Development and Innovation are corporate leads for all transportation and associated public safety programs and are responsible for initiating amendments to the Bicycle Parking Policy.

4.2.2. The Transportation Planning Senior Engineer is responsible for:

4.2.2.1. Overseeing implementation of this policy,

4.2.2.2. Bringing forward bicycle parking plans before Council for approval,

4.2.2.3. Recommending operating and capital budget expenditures related to bicycle parking, and

4.2.2.4. Recommending amendments to this policy to Council.

5. GOVERNING RULES AND REGULATIONS

5.1. This policy will be implemented in accordance with the following bicycle parking guidelines and procedures:

5.1.1. Bicycle Parking Standards and Guidelines

5.1.2. Bicycle Parking at City Facilities and Buildings

5.1.3. Bicycle Parking in the Public Right-of-Way

5.1.4. Temporary Bicycle Parking for Events

5.2. Where there are existing bicycle parking deficiencies as it relates to this policy, Council may put forward locations to be prioritized and brought to compliance in steps over a period of time.

6. RECORDS, FORMS AND ATTACHMENTS

6.1. Records for this policy shall be prepared and retained in accordance with Records Retention By-Law 21-2013, as amended.

6.2. Attachments:

6.2.1. Attachment 1: Bicycle Parking Standards and Guidelines

6.2.2. Attachment 2: Procedure – Bicycle Parking at City Facilities and Buildings

6.2.3. Attachment 3: Procedure – Bicycle Parking in the Public Right-of-Way

6.2.4. Attachment 4: Procedure – Temporary Bicycle Parking for Events

Bicycle Parking Standards and Guidelines

1.0 Introduction

The Bicycle Parking Policy Guidelines provides information on the expected standards of short-term and long-term bicycle parking spaces. These guidelines are intended to serve developers and City Administration in selecting the appropriate bicycle parking racks for bicycle parking on private property and in the public right-of-way.

1.1 Bicycle Parking Guidelines Goals and Objectives

- Provide increased community connectivity by facilitating bicycle storage for cyclists throughout the city;
- Promoting active transportation by increasing secure bicycle parking;
- Increasing convenience for cyclists as new developments are built;
- Creating a culture shift through increased and secured bicycle parking.

2.0 Definitions

The following definitions are applicable to this policy, and are included in zoning by-law 8600:

Bicycle parking space means an area used for the parking of an operable *bicycle*.

Short-term bicycle parking space means a *bicycle parking space* for the use by visitors of a *building*. These spaces are located within 15 m of, and is visible from, the main entrance of the *building* the *bicycle parking space* is intended to serve.

Long-term bicycle parking space means a *bicycle parking space* for the use by occupants or tenants of a *building*. These are located within a *building* or sheltered *structure* with a secure means of access.

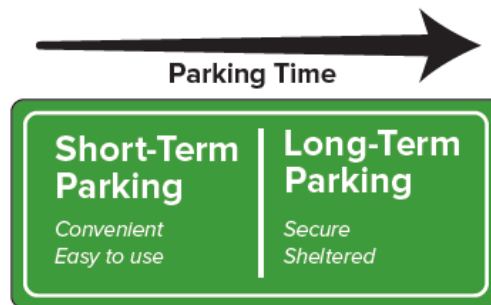


Figure 1 - Short-Term to Long-Term Bicycle Parking
Source: Association of Pedestrian and Bicycle Professionals

A summary of components for short-term and long-term bicycle parking is shown in **Table 1**. Further details are provided in the next sections of the Policy

Table 1 – Summary of Short-Term and Long-Term Bicycle Parking

Component	Short-Term Bicycle Parking	Long-Term Bicycle Parking
Typical length of time	Between a few minutes and a few hours	Several hours, overnight
Typical Locations, Uses	Commercial/Retail, Libraries, Parks, Community Centres, etc.	Residential, Employment & Transit Stations
Typical Users	Visitors	Residents, Employees, Bicycle & Ride Commuters
Accessibility/Availability & Security	<p>Easy access, available to the public.</p> <p>Should be located close to a building entrance for the sake of convenience.</p> <p>Reliant on public exposure and natural surveillance.</p>	<p>Secured access, requires registration and the use of a key device.</p> <p>Actively monitored by CCTV and/or by security staff.</p>
Types of infrastructure	<p>Bicycle Racks (on-street, and on private or public property)</p> <p>Post and Ring Bicycle Racks</p> <p>On-street Bicycle Corrals (sets of bicycle racks installed within a parking lane at an intersection)</p>	<p>Bicycle Lockers – Individual lockers that can store 1 bicycle.</p> <p>Bicycle Cages – Caged & sheltered enclosures, typically attached to offices and/or multi-unit dwellings.</p> <p>Bicycle Rooms – Rooms within buildings specifically for bicycle parking.</p> <p>Secured Parking Areas – A separate building or an extension dedicated to bicycle parking.</p>
Weather Protection	<p>Optional:</p> <p>Can be provided in the form of bicycle shelters or awnings.</p>	Required.

Sources: the Association of Pedestrian and Bicycle Professionals (APBP), City of Toronto, Seattle Department of Transportation (SDOT)

3.0 Short-Term Bicycle Parking

Short-term bicycle parking is primarily meant to be used by the visitors of a building.

3.1 Accessibility

The following accessibility criteria should be used when providing short-term parking spaces:

- Placement on the ground floor of the building location; free of stairs or obstacles to access
- In close proximity to the building entrance; within 15 meters
- Way-finding signage should be provided to help guide cyclists to the space

3.2 Design

The following should be provided as part of the design for a bicycle rack used for short-term bicycle parking:

- Supports the bicycle upright without putting stress on the wheels
- Allows locking of the bicycle frame along with one or two wheels through the use of a U-lock
- Is securely anchored to the ground
- Resists, cutting, bending and deformation

3.2.1 Size

A bicycle parking space parked horizontally should have minimum dimensions of 1.8 meters in length, 0.6 meters of width and 1.9 meters of vertical clearance from the ground. For bicycles parked in a vertical position the required space is 0.6 metres by 1.2 metres with a vertical dimension of 1.9 metres.

3.2.2 Materials

Materials for bicycle racks should be long lasting and strong. The following criteria should apply to the materials used for the bicycle racks:

- Industrial grade materials or galvanized steel should be used
- Wood, materials with the potential to rust should be avoided
- Malleable or materials which are easily bent should be avoided
- The outer surface should be smooth in order to prevent any damages or scratches to the bicycle
- Avoid materials that weaken when welded to prevent broken racks and theft

3.2.3 Installation

Bicycle racks should be secured and installed properly using the options and as detailed in Table 2 below:

Note: It is highly recommend that all racks be on concrete pads.

Table 2 – Anchoring Surfaces and Methods

Surface	Rack Base	Anchoring Methods	Notes
Concrete (sidewalk, pad, poured footing, or non-post-tensioned floor)	Embedded leg	Embed (dig post hole, support rack temporarily, fill hole with concrete, allow to set, remove temporary support)	Suitable for new sidewalk construction. Permanent. Difficult to replace when damaged.
	Surface flange, flat-bar base, or base frame.	Wedge anchor bolt Tamper-proof spike Industrial adhesive	Suitable for new or existing sidewalk. Easy to replace when damaged. Should not be installed over most vaulted sidewalks. Stainless steel flanges recommended to prevent rust stains on concrete.
Concrete post-tensioned floor	Flat-bar base	Industrial adhesive	Post-tensioned concrete floors should not be drilled.
Asphalt	Embedded leg	Provide a concrete footing, proceed as above	Do not anchor directly into asphalt.
	Surface flange		
	Base rail or frame	Landscape nails (6" to 12" long spikes, typically 1/4" to 3/8" in diameter)	Drill pilot hole through asphalt using hammer drill and masonry bit. Drive nails with sledgehammer.
Unpaved	Embedded leg	Provide a concrete footing, proceed as above	Do not anchor directly into ground.
	Surface flange		
	Base rail or frame	Landscape nails	Drive nails with sledgehammer.

Adapted from APBP Bicycle Parking Guidelines

3.2.4 Spacing

When bicycle racks are installed they require adequate space to manoeuvre. **Table 3**, adapted from *City of Toronto Guidelines for Design and Management of Bicycle Parking Facilities* and *City of Mississauga Bicycle Parking Zoning By-Law Directions*, outlines the requirements for spacing when selecting the location and design of bicycle parking. Furthermore, **Figures 2 to 5** is shown below on these requirements.

Table 3 – Bicycle Parking Spacing Requirements

Situation	Requirements
Distance between rack and wall/obstacle	<ul style="list-style-type: none"> - Minimum 0.45 m if bicycles parked parallel to obstacle; - Minimum 2.5 m if bicycles parked perpendicular to obstacle and rack has double-sided access; - Minimum 0.6 m if bicycles parked perpendicular to obstacle and rack has single-sided access (side facing wall would not accommodate bicycles).
Aisle width	<ul style="list-style-type: none"> - Preferred spacing: 1.8 m for typical bicycle racks this leaves approximately 4.2 m between racks, however this spacing will differ depending on the design of the rack.
Space between rack ends (linear series of racks placed end to end)	<ul style="list-style-type: none"> - 0.9m for maximum parking capacity.
Distance between rack and wall, curb or other obstacle	<ul style="list-style-type: none"> - Minimum 1.5 m for racks perpendicular to wall or other obstacle - Minimum 0.7m for racks parallel to wall, or other obstacle
Distance between individual racks	<ul style="list-style-type: none"> - Minimum 2.5 m for racks parallel to wall, or other obstacle or racks (3.5 m preferred in areas with high bicycle parking turnover). - Minimum 1.0 m for racks perpendicular to wall or other obstacle.
Vertical bicycle racks and clearances	<ul style="list-style-type: none"> - Horizontal bicycle parking: 1.9 m minimum clearance - Stacked bicycle parking: minimum 1.2 m vertical clearance required - Vertically bicycle parking: 1.9 m minimum height and 1.2 m minimum length
Special Considerations	<ul style="list-style-type: none"> - In locations where trailers, cargo bikes and long bikes frequent (ex. grocery stores, parks, schools) the portions of the bicycles racks on the ground should have an additional 0.9m of in-line clearance.

Adapted from City of Toronto Guidelines for Design and Management of Bicycle Parking Facilities and Mississauga Bicycle Parking Zoning By-Law Directions

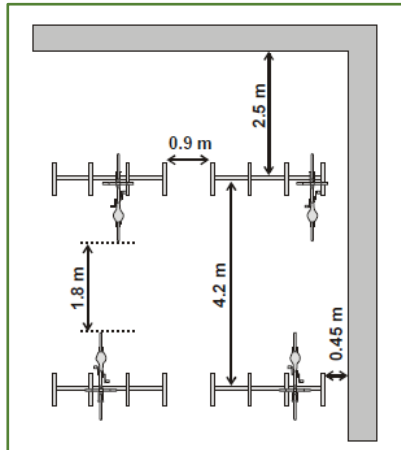


Figure 2 - Spacing for Multi-Bicycle Racks

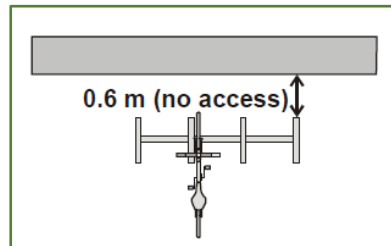


Figure 4 - Spacing for racks with single sided access

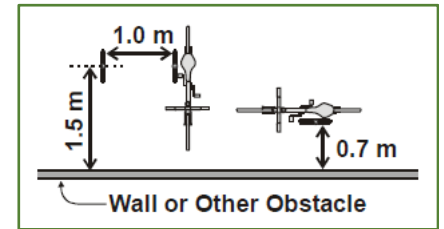


Figure 3 - Spacing required for different orientations

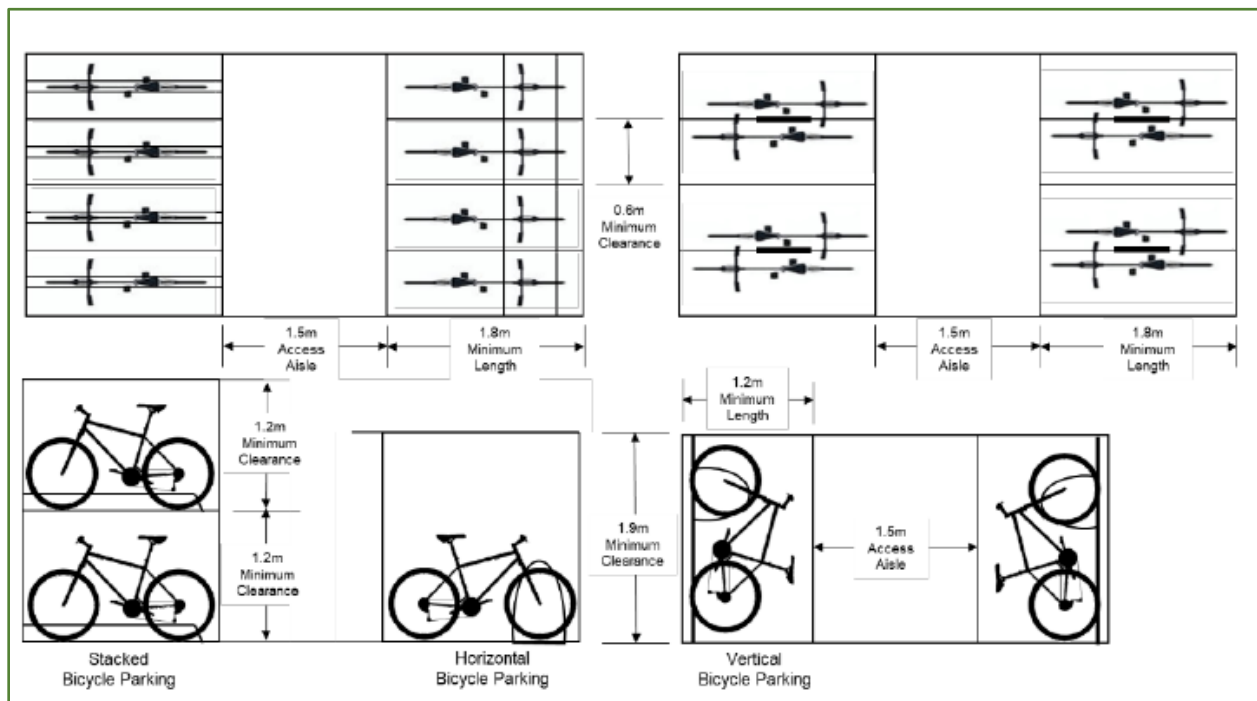


Figure 5 - Vertical clearances for varying bicycle spaces

3.3 Security

Security is required in order to prevent theft, with the following requirements:

- Areas where spaces are placed should be well lit and visible
- Spaces should be anchored and installed as per section 3.2.3 to ensure that they can not be easily damaged or moved
- Locking mechanisms do not need to be provided with or on the rack however the rack should allow for locking of the bicycle frame along with one or two wheels through the use of a U-lock

3.4 Additional Considerations

The following are additional considerations when providing short-term bicycle parking and racks in the city:

- Placing the space in a sheltered area for weather protection
- Long-term bicycle parking measures can apply for short-term use if increased shelter and security is preferred (section 4.0)

3.4.1 The following bicycle racks are preferred based on meeting important performance criteria:

- *Post and Ring*: this is a common style of bicycle rack which is less prone to unintended perpendicular parking.
- *Inverted U*: also called staple or loop bicycle rack, this rack has two points of ground contact and can be installed in series to create a larger parking area.
- *Wheelwell-secure*: this cradles one wheel and contains bicycles wells, however it doesn't not accommodate as many bicycle types as the inverted U and post and ring style racks.

4.0 Long-Term Bicycle Parking

Long-term bicycle parking is primarily meant to be used by the occupants or tenants of a building. This includes building residents and routine users within a workplace. Long-term bicycle parking may also be used by visitors. This parking provides a more secured and sheltered space for cyclists to park their bicycles in comparison to short-term bicycle parking.

Some common examples of long-term bicycle parking include:

- Room within a residential building or workplace;
- Secure enclosures within a parking garage or lot;
- Bicycle lockers in front of a workplace; and,
- Bicycle lockers at a transit center.

4.1 Accessibility

The following accessibility criteria should be used when providing long-term parking spaces:

- Free of any major obstacles to access; ground floor preferred
- Way-finding signage should be provided to help guide cyclists to the space as they may not always be in obvious locations based on limited space availability at the site
- The space should be in good condition and simple to operate
- Should be placed in areas which do not create a blind spot for motor vehicles on the site

4.2 Design

4.2.2 Bicycle Lockers

The following are considerations for bicycle lockers:

	Description
Locking Mechanism	Control Access Systems: - Keys - Electronic Keypad

	<ul style="list-style-type: none"> - Swipe Cards - Bluetooth Technologies - Coin Operated - Personal Locks
Models	<ul style="list-style-type: none"> - Secure durable lockers are made of materials which are long lasting and durable. These should withstand regular use and intense weather conditions. Models which are specifically designed for long-term bicycle parking should be used. - Transparent panels can be placed on the lockers if surveillance of locker contents is desired. - Models may be stackable if desired based on available space and demand.
Installation	<ul style="list-style-type: none"> - Bicycle Lockers should be installed on a level surface. - Sufficient clearance is required for locker doors. - Concrete surfaces are ideal, however surfaces should be selected and matched to the model requirements. Anchor bolts should be used to fix lockers into place. - Bicycle Lockers are best placed away from sidewalks and areas with high pedestrian traffic.

4.2.3 Bicycle Cages

The following are considerations for bicycle cages:

	Description
Locking Mechanism	Control Access Systems: <ul style="list-style-type: none"> - Key - Swipe Cards or Pass
Models	<ul style="list-style-type: none"> - Racks are installed within the cage and bicycles are further locked to these racks - Smaller cages are preferred to limit the number of people with access to one cage - Made of tight and strong mesh or perforated metal sheets, with access through a solid door
Installation	<ul style="list-style-type: none"> - Can be installed in or outside of a building/parking garage - Bicycle racks must be firmly secured to the ground or vertical structures - A single cage of 5.6 m x 5.4 m can accommodate approximately 20 bicycles. A cage of this size occupies the same area as two car parking spaces.

4.2.4 Indoor Bicycle Storage

The following are considerations for indoor bicycle storage spaces through a parking garage or bicycle rooms:

	Description
Locking Mechanism	Controlled Access Systems: <ul style="list-style-type: none"> - Keys - Swipe Cards - Electronic Keypad - Bluetooth Technologies
Models	<ul style="list-style-type: none"> - Indoor storage can be provided in a parking garage; typically on the ground floor level to facilitate access for cyclists and to minimize interactions with vehicles in the parking garage. Bicycle cages or lockers can be provided within the garage.

	<ul style="list-style-type: none"> - A room within a building can be used to provide secure parking spaces; typically on the ground floor or near an elevator to facilitate access. Multiple rooms can be provided.
Installation	<ul style="list-style-type: none"> - Bicycle racks must be firmly secured within the area - Reserving an area in the bicycle room for self-serve bicycle repair and maintenance will add an additional level of service to the facility; features can include a bicycle stand, basic tools and/or an air pump.

4.3 Security

The following methods may be applied in order to provide secure and controlled access to long-term bicycle parking for users:

- Keyed, smartcard or Bluetooth access to the parking space
- Attendant overseeing the spaces and allowing people to access
- Leased space based on agreement with the property owners or managers
- Coin operated spaces

In addition, long-term bicycle parking spaces are not always placed in high traffic or visibility areas and it is advised that security cameras be placed in order to monitor the spaces.

THE CORPORATION OF THE CITY OF WINDSOR PROCEDURE

Service Area:	Office of the Commissioner of Infrastructure Services	Procedure No.:	
Department:	Public Works Operations	Approval Date:	September 9, 2024
Division:	Transportation Planning	Approved By:	CR363/2024
		Effective Date:	September 9, 2024
Subject:	Bicycle Parking at City Facilities and Buildings	Policy Ref.:	Bicycle Parking Policy
		Pages:	Replaces:
Prepared By:	R. Toufeili, Policy Analyst C. Gerardi, Policy Analyst		Date:

1. PURPOSE

1.1. This procedure is intended to provide details for implementation of the Bicycle Parking Policy when providing bicycle parking at City facilities and buildings.

2. SCOPE

2.1. This procedure provides details and outlines requirements for providing bicycle parking at City of Windsor facilities and buildings.

3. RESPONSIBILITY

3.1. Responsibility for implementing this procedure is outlined in the Bicycle Parking Policy.

4. PROCEDURE

4.1. Bicycle parking should be provided at all City facilities and buildings including;

- 4.1.1. Parks and splash pads;
- 4.1.2. Libraries and art galleries;
- 4.1.3. Pools (outdoor and indoor);
- 4.1.4. City Hall and administrative offices;
- 4.1.5. Community centers;
- 4.1.6. Arenas and skating rinks;
- 4.1.7. Transit terminals; and,
- 4.1.8. Municipal parking lots and garages.

4.2. Short-Term and Long-Term Bicycle Parking

Bicycle parking may be provided for short-term and long-term use based on the facility type. All facilities, other than parks, splash pads and pools, should accommodate long-term bicycle parking. **Table 1** outlines the recommended requirements for short-term and long-term bicycle parking based on the City Facility.

Table 1 – Recommended Bicycle Parking Requirements for City Facilities

City Facility	Short-Term	Long-Term
Parks and Splash Pads	X	
Libraries and Art Galleries	X	X
Pools (Outdoor and Indoor)	X	X
City Hall and Administrative Offices	X	X
Community Centers	X	X
Arenas and Skating Rinks	X	X
Transit Terminals and Stops	X	X
Municipal City Parking Lots and Garages		X

Bicycle parking needs will be assessed according to the intensity and type of use to be serviced. At minimum, bicycle parking spaces should be provided in quantities as outlined in Zoning By-Law 8600. The capacity of the rack or spaces should be consistent with the bike parking needs in the area.

Multiple unit bike racks will be used if required to meet the bike parking needs of the area, subject to the approval of the manager of Urban Design & Community Development, in BIAs, and areas designed Civic Image, Schedule G; of the City's Official Plan only.

Per section 4.0 of the Bicycle Parking Standards and Guidelines, "Long-term bicycle parking is primarily meant to be used by the occupants or tenants of a building. This includes building residents and routine users within a workplace. Long-term bicycle parking may also be used by visitors."

Long term parking space users at these facilities will primarily be targeted to City employees.

Short-term bicycle parking should be provided near active areas such as playgrounds, splash pads, washrooms, organized sports fields or courts. It is also ideal to include temporary bike parking near public event spaces, picnic areas and scenic overlook points.

4.3. End-of-Trip Facilities

End-of-trip facilities are provided in order to provide increased convenience and reinforces the importance of bicycle parking. **Table 2** Outlines the ancillary

facilities which may be implemented at City facilities and buildings and the appropriate locations where they may be provided.

Table 2 – End-of-Trip Facilities for City Facilities and Buildings

End-of-trip Facility	Location
Water Fountains/Access to Drinking Water	<ul style="list-style-type: none"> - Parks and splash pads - Libraries and art galleries - Pools (outdoor and indoor) - City Hall and administrative offices - Community centers - Arenas and skating rinks
Shower and Change Stations	<ul style="list-style-type: none"> - Pools (outdoor and indoor) - City Hall and administrative offices - Community centers - Arenas and skating rinks
Washrooms	<ul style="list-style-type: none"> - Parks and splash pads - Libraries and art galleries - Pools (outdoor and indoor) - City Hall and administrative offices - Community centers - Arenas and skating rinks
Bicycle Repair Stations	<ul style="list-style-type: none"> - Parks and splash pads - Libraries and art galleries - Pools (outdoor and indoor) - City Hall and administrative offices - Community centers - Arenas and skating rinks
Electric Charging Station	<ul style="list-style-type: none"> - For consideration on a case-by-case basis.

4.4. Transit Terminals and Stops

4.4.1. Bicycle parking should be provided to support transit facilities. Long-term bicycle parking should be provided at transit terminals including the following locations:

4.4.1.1. Tecumseh Mall Bus Terminal

4.4.1.2. Downtown Bus Terminal

4.4.1.3. The Windsor Aquatic Center

4.5. Parking spaces (short-term and long-term) are to be provided in accordance with the Bicycle Parking Standards and Guidelines.

THE CORPORATION OF THE CITY OF WINDSOR PROCEDURE

Service Area:	Office of the Commissioner of Infrastructure Services	Procedure No.:	
Department:	Public Works Operations	Approval Date:	September 9, 2024
Division:	Transportation Planning	Approved By:	CR363/2024
		Effective Date:	September 9, 2024
Subject:	Bicycle Parking in the Public Right-of-Way	Policy Ref.:	Bicycle Parking Policy
		Pages:	Replaces:
Prepared By:	R. Toufeili, Policy Analyst C. Gerardi, Policy Analyst		Date:

1. **PURPOSE**

1.1. This procedure is intended to provide details for implementation of the Bicycle Parking Policy when providing bicycle parking in the public right-of-way.

2. **SCOPE**

2.1. This procedure provides details and outlines requirements for providing bicycle parking in the public right-of-way. Furthermore, this procedure outlines the process for the implementation of bicycle corrals in the public right-of-way.

3. **RESPONSIBILITY**

3.1. Responsibility for implementing this procedure is outlined in the Bicycle Parking Policy; and furthermore,

3.2. The Manager of Urban Design and Community Development is responsible for ensuring that the post and ring program is coordinated with the appropriate parties, such as BIAs, and increasing bicycle parking within the right-of-way where streetscaping is implemented.

4. **PROCEDURE**

4.1. Bicycle parking may be provided within the right-of-way through the general post-ring program or using bike corrals. Increased bicycle parking is encouraged in high pedestrian traffic areas such as in the Business Improvement Areas or near bus stops.

4.2. Bicycle parking may be provided using the Bicycle Corral Program in this procedure. This should be implemented to increase the availability of bicycle parking in the right-of-way where there is limited space in the boulevard and there is sufficient space available on-street.

4.3. Post and Ring Program

Post & ring style bike racks and multiple unit bike racks will be the City Standard on public-right-of-ways and on public property throughout the City of Windsor and will be powder coated steel with raised lettering that reads "City of Windsor". Raised lettering may not be available for multiple unit bike racks, however, consideration should be given to customizing these units in some way. The rack selection should follow the principles outlined in the Bicycle Parking Standards and Guidelines.

- 4.3.1.** The bike rack must be durable and low maintenance. Factors such as metal gauge, welding type and finish are key indicators of durability. The bike rack should be rust resistant, vandalism resistant, and resistant to noticeable wear from normal use. The preferred finish is powder coated steel.
- 4.3.2.** The bike rack must be competitively priced while meeting the security, capacity, appearance and maintenance requirements expressed in the bike parking policy. The cost should be compared on a per bike capacity.
- 4.3.3.** A BIA or other privately funded group may choose to exceed the price limit, if they agree to fund the difference between the city standard and any proposed modifications to the bike rack. Proposed modifications can include changes to lettering, and cap only. As indicated above, a galvanized finish may be considered. The BIA or other privately funded group will be expected to fully fund the additional expenses specific to the BIA such as BIA name, logo and powder coating finish. Any proposed modifications are subject to the approval of the Manager of Urban Design & Community Development and the Executive Director of Operations.
- 4.3.4.** Bicycle parking spaces should be placed following the principles outlined in the Bicycle Parking Standards and Guidelines.
- 4.3.5.** A minimum 6ft pedestrian clearance will need to be maintained.

4.4. Post and Ring Program Warrant Process

In BIAs, the need for Bike Parking is determined by the BIAs themselves. As long as their requests are compliant with City Standards, their requests should be accommodated.

Outside of BIA's the Guidelines to install Bike Parking is as follows.

- 4.4.1.** Parties will be required to apply for encroachment agreements.
- 4.4.2.** Parties will be responsible for purchase, installation and maintenance of the bike rack.
- 4.4.3.** Not to be installed were bike parking on private property could be provided.
- 4.4.4.** Limited to areas were vehicle parking is typically provided by on-street parking.
- 4.4.5.** The program is not meant to provide parking for private residences, residential areas are excluded.
- 4.4.6.** If existing City provided bike parking in the immediate area is unable to accommodate Bike Parking demands.

4.5. Bike Corral Program

Bike Corrals are used as a method to provide bicycle parking in greater quantities in the traditional auto on-street parking lane, along the curb. Corrals can be installed seasonally within an existing automobile parking spot or intersection corner if it does not pose any sight line or transit concerns.

The rack selection should follow the principles outlined in the Bicycle Parking Policy.

4.5.1. The bicycle corral should be located as close as possible to the entrances of high demand locations.

4.5.2. Bicycle corrals may be placed on street corners provided they do not create any safety or operational issues, as street corners provide a number of benefits. Placing corrals on corners will provide greater visibility benefits for pedestrians and improve access for cyclists.

4.5.3. Bicycle corrals should be placed on main streets as opposed to side streets in order to increase visibility and convenience for cyclists to reach their destination.

4.5.4. Bicycle corrals should not be located in areas which will obstruct:

- Bus stops
- Access to fire hydrants
- Turning bus movements
- Locations of manholes and sewer valves
- Parking meters

4.5.5. Bicycle racks should be securely bolted to the ground to avoid theft or vandalism. Principles outlined in the Bicycle Parking Standards and Guidelines should be used to select the appropriate rack types and installation methods.

4.5.6. Racks should be placed in a method which provides a sufficient buffer for the bicycle from the vehicular travel lane. A minimum 5 foot maneuvering zone should be provided on either end of the bicycle in order to provide cyclists with space to orient themselves. Racks can be angled to increase the available space at the ends of the bicycles.

4.5.7. A physical barrier may be placed between the corral and vehicle travel lane.

4.6. Bike Corral Program Warrant Process

Bike Corrals should be considered after it has been determined that private side bike parking and the Post & Ring Program is unable to meet the need for Bike Parking in the area. Due to the need to remove on-street parking, and added cost associated with maintenance and removal, Bike Corrals should be limited to BIAs. Only post & ring style bike racks should be considered outside of BIAs.

THE CORPORATION OF THE CITY OF WINDSOR PROCEDURE

Service Area:	Office of the Commissioner of Infrastructure Services	Procedure No.:	
Department:	Public Works Operations	Approval Date:	September 9, 2024
Division:	Transportation Planning	Approved By:	CR363/2024
		Effective Date:	September 9, 2024
Subject:	Temporary Bicycle Parking for Events	Policy Ref.:	Bicycle Parking Policy
		Pages:	Replaces:
Prepared By:	R. Toufeili, Policy Analyst C. Gerardi, Policy Analyst		Date:

1. PURPOSE

1.1. This procedure is intended to provide details for implementation of the Bicycle Parking Policy when providing temporary bicycle parking for public events.

2. SCOPE

2.1. This procedure provides details and outlines requirements for providing temporary bicycle parking at special events within Windsor for event organizers to access.

3. RESPONSIBILITY

3.1. Responsibility for implementing this procedure is outlined in the Bicycle Parking Policy.

4. PROCEDURE

4.1. Temporary event bicycle parking may be provided by event organizers for their special events in Windsor. Temporary bicycle racks which are portable and modular are required for event attendees to park their bicycles. A bike parking sign to place in a visible area indicating available bike parking.

4.2. Private event coordinators will be responsible to provide their own staff and/or volunteers to monitor and provide a valet service for event attendees who wish to use the temporary bicycle parking.

4.3. Temporary event bike parking racks shall be placed in a location which does not obstruct any entrances or walkways for pedestrians.

4.4. Temporary event bike parking should be placed in areas of high visibility to promote active transportation, such as near event entrances or admissions tents.

4.5. Bikes shall be kept secure and be monitored by administering staff or volunteers.

City of Windsor Facility Short-Term Bike Parking

City Facility	Address	# of Bike Racks	Comments	Bike Rack Needed	Concrete Pad Needed
Parks & Splash Pads					
Aboriginal Park	2376 Northway Ave.	0		1	1
AKO Park	4271 Alice St.	1		0	0
Alexander Park	3700 Riverside Dr. E	1		0	0
Alton C Parker Park	450 Brodhead St.	1		0	0
Assumption North Park	2400 Riverside Dr. W	2		0	0
Assumption Park	2730 University Ave. W	0	No amenities	0	0
Avon Court Park	3925 Lennon Crt	1		0	0
Avondale Playlot Park	402 Grand Marais W	1		0	0
Balsamo Park	2240 Dandurand Ave.	0	Small Park with play structure	1	1
Bellewood Park	2600 Youngstown St.	1		0	0
Black Oak Heritage Park	599 Broadway St.	0	No amenities	0	0
Bradley Park	3460 Cross St.	1		0	0
Bridges Bay Park	7390 Riverside Dr. E	0	No amenities	0	0
Bridgeview Park	1899 Grove Ave.	2		0	0
Brock Park	3278 Russell St.	0	Very small park	0	0
Brookview Park	1097 Brookview Cres.	0	Swing set & bench	1	1
Bruce Avenue Park	700 Bruce Ave.	1		0	0
Brumpton Park	8890 Cedarview St.	1		0	0
Bush Park	9475 Esplanade Dr.	1		0	0
Cadillac Street Park	290 Drouillard Rd.	0	No amenities	0	0
Calderwood Park	1859 Calderwood Ave.	0		1	1
Captain John Wilson Park	3950 Ducharme St.	1		0	0
Caron Avenue Park	774 Caron Ave.	0	Fenced Community Garden	0	0
Centennial Park	1530 Riverside Dr. W	0	Add rack near washrooms	2	2
Central Park	3301 Woodland Ave.	2		0	0
Charles Clark Square Park	215 Chatham St. E	1		0	0
Chopin Park	1298 Rossini Blvd.	0		1	1
City Hall Square Park	350 City Hall Square W	7		0	0
Civic Green Park	217 Riverside Dr. E	0	Parkette, no amenities	0	0
Civic Terrace Park	200 Riverside Dr. E	0	Add rack near washrooms	1	1
Clairview Bikeway Park	8101 Clairview Ave.	0	No amenities	0	0
Clay Park	1498 Hall Ave.	0		1	1
Coletta Park	2979 Coletta Crt.	1		0	0
College Avenue Bikeway Park	3690 College Ave.	0	No amenities	0	0

Appendix B – Bike Parking Infrastructure

Compton Court Park	600 Compton Crt.	0	No amenities	0	0
Cora Greenwood Park	11824 Little River Blvd.	1		0	0
Crowley Park	3325 College Ave.	1		0	0
Curry Park	1400 Richardie Blvd.	0		1	1
Curry Playlot Park	1074 Curry Ave.	0		1	1
Dawson Park	1003 Dawson Rd.	1		0	0
Derwent Park	7925 Forest Glade Dr.	0	Cricket pitch coming soon	1	1
Devonshire Heights Park	1697 Calderwood Ave.	1		0	0
Devonshire Park	2005 Devonshire Crt.	1		0	0
Dieppe Gardens Park	70 Riverside Dr. W	0	Next to washrooms	1	0
Dynasty Park	605 Dynasty St.	1		0	0
East End Park	569 Adelaide Ave.	0		1	1
East Riverside Park	11736 McNorton St.	0		1	1
East Riverview Park	8788 Riverside Dr. E	0	No amenities	0	0
Elizabeth Kishkon Park	1415 Banwell Rd.	2		0	0
Ernest Atkinson Park	2005 Riverside Dr. W	2		0	0
Esdras Park	1191 Esdras Ave.	1		0	0
Factoria Park	1775 Factoria Rd.	0	Play structure	1	1
Fazio Park	3012 Fazio Dr.	0	Small fenced-in playground	0	0
Festival Plaza Park	340 Riverside Dr. E	0	Add bike rack near washrooms.	1	1
Field Of Dreams Park	1434 Curry Ave.	0		1	1
Firgrove Boulevard Park	9850 Firgrove Dr.	0	No amenities - boulevard	0	0
Flora Park	430 Flora Ave.	1		0	0
Fontainebleau Park	2960 Rivard Ave.	1		0	0
Ford Test Track Park	3001 Seminole St.	0	Rack(s) on concrete near pavilion	1	0
Forest Glade Optimist Park	3265 Forest Glade Dr.	3		0	0
Francois Court Park	895 Francois Crt.	1		0	0
Fred Thomas Park	400 Wyandotte St. E	4		0	0
Ganatchio Park	10554 Riverside Dr. E	0	No amenities	0	0
Ganatchio Trail Park	400 Riverdale Ave.	0	Swing set	1	1
Garry Dugal Park	1247 Drouillard Rd.	1		0	0
Garwood Park	765 Irvine Ave.	1		0	0
Gateway Park	1271 Riverside Dr W	0	No amenities	0	0
George Avenue Park	4085 Wyandotte St. E	0		1	1
Gignac Park	705 Shepherd St. E	1		0	0
Gino and Liz Marcus Park	1200 Drouillard Rd.	1	Community centre	0	0
Girardot Park	2100 Girardot St.	0	No amenities	0	0
Goldenwood Park	4355 Goldenwood Dr.	1		0	0

Appendix B – Bike Parking Infrastructure

Goose Bay Park	4386 Riverside Dr. E	0	No amenities	0	0
Grand Marais Drain Trail Park	939 Grand Marais Rd. E	0	No amenities	0	0
Great Western Park	1388 Riverside Dr. E	1		0	0
Grove Park	2297 Grove Ave.	0	Soccer field	1	1
Hall Farms Park	3030 Conservation Dr.	1		0	0
Hawthorne Park	7645 Hawthorne Dr.	0		1	1
Herb Gray Nature Reserve Park	925 Lake Trail Dr.	0	No amenities	0	0
Hiram Walker Parkette	300 Devonshire Rd.	0	No amenities	0	0
Holburn Park	4211 Marlo Cres.	1		0	0
Homesite Park	998 Villaire Ave.	1		0	0
Howard Park	2910 Howard Ave.	0		1	1
Huron Church Greenbelt Park	1015 Huron Church Rd.	0	No amenities	0	0
Jackson Park	125 Tecumseh Rd. E	1		0	0
Jennifer Park	2935 Jennifer Dr.	1		0	0
Kenilworth Park	3466 Whiteside Dr.	1		0	0
Kennedy Square Park	1250 Howard Ave.	0	No amenities	0	0
Kid's Alliance Park	1075 University Ave. E	1		0	0
Kinsmen Chatham Street Park	736 Chatham St. E	1		0	0
Kinsmen Norman Road Park	1730 Olive Rd.	0		1	1
Kiwanis Park	7689 Riverside Dr. E	1		0	0
Kominar Park	4650 Alpenrose Ave.	1		0	0
Labadie Park	1386 Labadie Rd.	0		1	1
Lake Como Park	4500 Southwood Lakes Blvd.	1		0	0
Lake Grande Park	5014 Southwood Lakes Blvd.	0	No amenities	0	0
Lake Laguna Park	5001 Southwood Lakes Blvd.	1		0	0
Lake Trail Park	846 Lake Trail Dr.	0		1	1
Lakeview Park Marina Park	9200 Riverside Dr. E	1		0	0
Langlois Court Park	2730 Parent Ave.	0	No amenities	0	0
Lanspeary Park	1250 Langlois Ave.	0		1	1
Leaffield Park	3083 Conservation Dr.	1		0	0
Michael D. Hurst Legacy Park	620 Riverside Dr. W	1		0	0
Lens Avenue Greenbelt Park	758 Lens Ave.	0	No amenities	0	0
Little River Acres Park	8575 Little River Rd.	1		0	0
Little River Boulevard Park	9903 Little River Blvd.	0	No amenities	0	0
Little River Corridor Park	10091 Riverside Dr. E	1	Pump track	0	0
Little River Dragonfly Park	7798 Twin Oaks Dr.	0	No amenities	0	0
Magnolia Park	1703 Magnolia Ave.	0	No amenities	0	0
Malden Park	4200 Malden Rd.	3		0	0

Appendix B – Bike Parking Infrastructure

Maple Leaf Park	3974 Maple Leaf Cres.	1		0	0
Marguriet Park	2665 Marguriet St.	1		0	0
Mark Park	3125 Mark Ave.	1		0	0
Martinique Park	536 Martinique Ave.	0	No amenities	0	0
Mary E. Bibb Park	3261 Sandwich St.	0	No amenities	0	0
Matchett Park	3675 Matchett Rd.	0	No amenities	0	0
Matthew Rodzik Park	545 Rodfam Dr.	1		0	0
Maurice Belanger Park	3980 Malden Rd.	0		1	1
Mayfair Park	2539 Chandler Rd.	1		0	0
McHugh Park	9655 McHugh St.	2		0	0
McKee Park	3036 Sandwich St.	1		0	0
Meadowbrook Park	2851 Meadowbrook Lane	0		1	1
Mic Mac Park	3940 Carmichael Rd.	1		0	0
Mill Street Park	3176 Russell St.	3		0	0
Mitchell Park	399 Giles Blvd. W	2		0	0
Morningstar Park	10741 Little River Blvd.	0		1	1
North Merritt Park	953 Merritt Dr.	0		1	1
North Talbot Park	1299 High Noon Dr.	1		0	0
North Tilston Park	1235 Tilston Dr.	0	No amenities	0	0
Oak Elm Park	1250 Elm Ave.	1		0	0
Oakwood Park	2401 Pulford. St.	3		0	0
Ojibway Parkway Trail Park	4900 Ojibway Parkway	0	No amenities	0	0
Ojibway Tom Joy Woods Park	5200 Matchett Rd.	1		0	0
Optimist Memorial Park	1075 Ypres Ave.	8		0	0
Palmetto Park	11518 Palmetto Dr.	0		1	1
Parent Park	2286 Parent Ave.	1		0	0
Parkwood Woodlot Park	3017 Temple Dr.	0	No amenities	0	0
Partington Park	2725 Partington Ave.	0		1	1
Paterson Park	3063 Sandwich St.	0		1	1
Patrick Maguire Park	3782 Holburn St.	1		0	0
Peche Island Landing Park	8734 Riverside Dr. E	0	No amenities	0	0
Pleasant Place Park	254 Pillette Rd.	0	No amenities	0	0
Plymouth Park	3601 Plymouth Dr.	0	No amenities	0	0
Polonia Park	4923 Milloy St.	1		0	0
Pykes Park	5497 Lassaline Ave.	0		1	1
Radisson Bikeway Park	2985 Bruce Ave.	0	No amenities	0	0
Realtor Park	1198 Homedale Blvd.	1		0	0
Reaume Park	4714 Riverside Dr. E	2		0	0
Remington Booster Park	2710 Lillian Ave.	2		0	0
Riverdale Park	1069 Riverdale Ave.	0	No amenities	0	0

Appendix B – Bike Parking Infrastructure

Riverside Baseball Park	6755 Wyandotte St. E	2	Decorative	0	0
Riverside Kiwanis Park	9420 Little River Rd.	0		0	0
Robert McDonald Park	3971 Ypres Ave.	0		1	1
Robert Park	2747 Robert Rd.	1		0	0
Roseland Park	870 Morand St.	0		1	1
Roseville Gardens Park	6405 Roseville Garden Dr.	0		1	1
Sandpoint Beach Park	10300 Riverside Dr. E	2		0	0
Sandwich Parkette	3110 Sandwich St.	0	No amenities	0	0
Senator Croll Park	320 Goyeau St.	0	No amenities	0	0
Seneca Park	3515 Wildwood Dr.	1		0	0
Shanfield Shores Park	9640 Riverside Dr. E	0	No amenities	0	0
Shawnee Park	5099 Colburne Dr.	1		0	0
Shinglecreek Park	3699 Shinglecreek Ct	0	No amenities	0	0
Somme Park	4500 Somme Ave.	1		0	0
South Cameron Woodlot Park	1761 Kenora St.	0		1	1
South Merritt Park	1038 Merritt Dr.	0	No amenities	0	0
South Rendezvous Park	11997 Riverside Dr. E	1		0	0
South Tilston Park	1346 Tilston Dr.	0		1	1
Southdale Park	1644 Southdale Dr.	0		1	1
Southwood Lakes Trail Park	4300 Southwood Lakes Blvd.	0	No amenities	0	0
Spring Garden Natural Area Park	2095 Spring Garden Rd.	0	No amenities	0	0
Springhollow Park	2579 Luxury Ave.	0	Small Park with play structure	1	1
St. Paul Grove Park	1020 St. Paul Ave.	1		0	0
St. Paul Pumping Station Park	7730 Riverside Dr. E	0	No amenities	0	0
St. Rose Beach Park	6902 Riverside Dr. E	0	No amenities	0	0
Stillmeadow Park	2940 Stillmeadow Rd.	1		0	0
Stodgell Park	1650 Seneca St.	1		0	0
Stoneybrook Park	1059 North Talbot Rd.	0	No amenities	0	0
Stop 26 Park	10610 Riverside Dr. E	0	No amenities	0	0
Straith Park	1751 Riverside Dr. W	0		1	1
Superior Park	1700 Totten St.	0		1	1
Tallgrass Prairie Heritage Park	1380 Titcombe Rd.	0	No amenities	0	0
Teedie Park	2740 Lauzon Rd.	0	No amenities	0	0
The Dr. Bruce and Kathryn White Memorial Park	3860 Lauzon Rd.	0	No amenities	0	0
Thompson Park	5410 Edgar St.	0		1	1
Thurston Park	2763 Rivard Ave.	1		0	0
Tranby Park	6899 Tranby Ave.	1		0	0
Udine Park	2891 Byng Rd.	0	No amenities	0	0

Appendix B – Bike Parking Infrastructure

Unity Park	1204 Central Ave.	0	Small Park with partially fenced in basketball court	0	0
Veterans Memorial Park	1120 Cousineau Rd.	0		1	1
Virginia Park	2197 South Cameron Blvd.	0	No amenities	0	0
Vision Corridor Park	421 Riverside Dr. W.	17		0	0
Walker Homesite Biketrail Park	1723 Seymour Blvd.	0	No amenities	0	0
Walker Homesite Park	1900 Seymour Blvd.	1		0	0
Walkerville Jubilee Park	611 Kildare Rd.	0	No amenities	0	0
Wellington Park	352 Wellington Ave.	0		1	1
Westcott Park	3698 Alice St.	0	Could place rack on pavilion pad	1	0
WFCU Centre Park	8787 McHugh St.	9		0	0
Whelpton Park	2771 Whelpton St.	5		0	0
Wigle Park	397 Erie St. E.	0		1	1
Wildwood Park	3950 Wildwood Dr.	0		1	1
Willistead Park	1899 Niagara St.	2		0	0
Wilson Park	700 McEwan Ave.	1		0	0
Windsor Justice Facility Park	218 Chatham St. E.	0	No amenities	0	0
Wolfe Lake Park	4823 Southwood Lakes Blvd.	0		1	1

52 49

Libraries, Art Galleries & Museums

Bridgeview	1295 Campbell Ave.	1		0	0
Central Branch	185 Ouellette Ave.	1		0	0
Fontainebleau	3030 Rivard Ave.	1		0	0
Forest Glade Optimist	3211 Forest Glade Dr.	2		0	0
Local History (Sandwich - Brock School)	3312 Sandwich St.	1		0	0
Nikola Budimir	1310 Grand Marais Rd. W.	1		0	0
Riverside	6305 Wyandotte St. E.	2		0	0
Seminole	4285 Seminole St.	1		0	0
W.F. Chisholm	1075 Ypres Blvd.	7	Shared with Optimist Community Centre	0	0
Art Gallery of Windsor - Chimczuk	401 Riverside Dr. W.	8		0	0
Legacy Beacon	780 Riverside Dr. W.	3		0	0

0 0

Pools (Outdoors)

Central Pool	Central Park	4		0	0
Ernest Atkinson Park	2005 Riverside Dr. W.	2		0	0
Lanspeary Park	1250 Langlois Ave.	0		1	1
MicMac Pool	3940 Carmichael Rd.	2		0	0

Appendix B – Bike Parking Infrastructure

Remington Booster Park	2710 Lillian Ave.	2		0	0
Riverside Centennial Pool	6695 Wyandotte St. E.	1		0	0

1 1

City Hall and Administrative Offices

350 & 400 City Hall Square	350 & 400 City Hall Sq.	6		0	0
Fire- 65 Elliot St E.	65 Elliott St.	0		1	1
Parks & Rec Admin Dept	2450 McDougall St.	2		0	0
Public Works Administration	1266 McDougall St.	1		0	0
Windsor Justice Facility & Police HQ	200 Chatham St. E.	2		0	0
Solid Waste Transfer Station Admin	3540 North Service Rd.	1		0	0

1 1

Community Centres & Recreation Complexes

Adie Knox	1551 Wyandotte St. W.	2		0	0
Aquatic Centre/Adventure Bay (WIATC)	401 Pitt St. W.	8		0	0
Forest Glade Community Centre	3215 Forest Glade Dr.	2		0	0
Glengarry Community Centre	495 Glengarry Ave.	1		0	0
John Atkinson Memorial Centre	4270 Alice St.	1		0	0
Gino & Liz Marcus Community Centre	1168 Drouillard Rd.	1		0	0
Malden Park	4200 Malden Rd.	3	See Malden Park in Parks	0	0
Ojibway Nature Centre	5200 Matchette Rd.	1		0	0
Optimist Community Centre	1075 Ypres Blvd.	7	Shared with library	0	0
Capri Pizzeria Recreation Complex	2555 Pulford St.	3		0	0
WFCU Centre	8787 McHugh St.	8		0	0

0 0

Transit Terminals

International Transit Terminal	300 Chatham St. W.	3	post & ring	0	0
Transit Windsor (East Terminal - New)		0		1	1
Transit Windsor (West Terminal - New)		0		1	1

2 2

Total Bike Racks and Concrete Pads Required:

56 53

City Facility Long-Term Bike Parking

Appendix B – Bike Parking Infrastructure

City Facility	Address	Is Secure Bike Parking Space Available?	Type of Parking Required
Libraries, Art Galleries & Museums			
Bridgeview Library	1295 Campbell Ave.	No	bike lockers
Fontainebleau Library	3030 Rivard Ave.	No	bike lockers
Forest Glade Optimist Library	3211 Forest Glade Dr.	No	bike lockers
Nikola Budimir Library	1310 Grand Marais Rd. W.	No	bike lockers
Riverside Library	6305 Wyandotte St. E.	No	bike lockers
W.F. Chisholm Library	1075 Ypres Blvd.	No	bike lockers
Art Gallery of Windsor - Chimczuk Museum	401 Riverside Dr. W.	No	bike lockers
Pools (Outdoor)			
Central Pool	Central Park	No	bike rack
Ernest Atkinson Park	2005 Riverside Dr. W.	No	bike rack
Lanspeary Park	1250 Langlois Ave.	No	bike rack
MicMac Pool	3940 Carmichael Rd.	No	bike rack
Remington Booster Park	2710 Lillian Ave.	No	bike rack
Riverside Centennial Pool	6695 Wyandotte St. E.	No	bike rack
City Hall and Administrative Offices			
City Hall Campus	350 & 400 City Hall Sq.	350 CHS - secure bike parking behind information desk, 400 CHS - secure parking in garage Level 1, two 4-ring racks (14 bike cap)	N/A
Facility Operations (Angileri)	2437 Howard Ave.	No	bike lockers
Fire- 65 Elliot St E.	65 Elliott St.	No	bike lockers
Parks - East Yard	9578 Little River Rd.	No	bike lockers
Parks - West Yard (Malden)	4255 Matchette Rd.	No	bike lockers
Parks & Rec Admin Dept	2450 McDougall St.	No	bike lockers
Parks & Rec - Central	2461 McDougall St.	No	bike lockers
Public Works - Traffic	1269 Mercer St.	No	bike lockers
Public Works Administration	1266 McDougall St.	No	bike lockers
Solid Waste Transfer Station Admin (environmental)	3540 North Service Rd.	No	bike lockers
Windsor Justice Facility & Police HQ	200 Chatham St. E.	No	N/A
Community Centres & Recreation Complexes			
Adie Knox	1551 Wyandotte St. W.	No	bike lockers
Aquatic Centre - Adventure Bay (WIATC)	401 Pitt St. W.	No	bike lockers
Capri Pizzeria Recreation Complex (South Windsor Arena)	2555 Pulford St.	No	bike lockers
Forest Glade Community Centre	3215 Forest Glade Dr.	No	bike lockers

Appendix B – Bike Parking Infrastructure

John Atkinson Memorial Centre	4270 Alice St.	No	bike lockers
Gino & Liz Marcus Community Centre	1168 Drouillard Rd.	No	bike lockers
Ojibway Nature Centre	5200 Matchette Rd	No	N/A
Optimist Community Centre	1075 Ypres Blvd	No	bike lockers
WFCU Centre	8787 McHugh St.	No	N/A

Transit Terminals

International Transit Terminal (WITT)	300 Chatham St W	No	bike lockers
Transit Windsor (East Terminal - New)		Planned	bike lockers
Transit Windsor (West Terminal - New)		Planned	bike lockers

Parking Garages

Garage 1	Chatham St. E. & Goyeau St.	Bike lockers, capacity: 2	N/A
Garage 2 *	Park St. W. & Pelissier St.	Bike lockers, capacity: 2 Bike racks, capacity: 17	N/A

- * A bike fix-it station providing tools for repairs and air to fill tires, as well as an electrical outlet for e-bike charging may be added to the Garage 2 bike parking area at an estimated cost of \$1,500. These end-of-trip amenities would require ongoing maintenance, and associated repair and replacement costs should be factored into funding considerations. It is also important to note that similar e-charging equipment and fix-it stations installed throughout the city have experienced high rates of vandalism.

Images of Bike Parking Infrastructure

Long-term Bike Parking – Bike Lockers



Garage 1 Bike Parking, Lockers and Rack



Garage 1 elevator bike parking wayfinding



Garage 2 bike parking wayfinding at entrance

Appendix B – Bike Parking Infrastructure



Garage 2 bike lockers adjacent to entrance gate



Garage 2 bike racks



Bike fixit station

Appendix B – Bike Parking Infrastructure



Bike lockers, London, ON

Bike Corrals



Halifax, NS



Appendix B – Bike Parking Infrastructure

Hamilton, ON

Portable Event Bike Parking Facility



Subject: Proposed Alley Maintenance Standards and Policy Enhancements – City Wide

Reference:

Date to Council: September 24, 2025

Author: Rob Slater, on behalf of Ad Hoc Administrative Alley Committee

Executive Initiatives Coordinator

(519) 255-6247 Ext. 6029

rslater@citywindsor.ca

City Engineer

Report Date: 9/5/2025

Clerk's File #: SW2025

To: Mayor and Members of City Council

Recommendation:

- I. THAT Council **ENDORSE** the alley maintenance and enforcement standards, as outlined in this report; and further,
- II. THAT the Local Improvement Policy **BE AMENDED** to permit petition-led repaving of paved alleys, in the form attached as Appendix A; and further,
- III. THAT a by-law relieving the City of maintenance responsibility for inaccessible remnant parcels of closed highway **BE APPROVED**; and further,
- IV. THAT the City Solicitor **BE DIRECTED** to prepare the required by-law; and further,
- V. THAT Council **ENDORSE** community-led alley enhancements, with all costs and upkeep to be borne by proponents and subject to City approval.

Executive Summary:

N/A

Background:

The City of Windsor has an extensive alley network, totaling approximately 146 kilometres. Of these, 79 kilometres are hard surfaced with either asphalt or concrete, while the remaining 67 kilometres consist of gravel or grass surfaces. While alleys have historically been considered a minor element of the transportation system, they continue to provide access for residents, businesses, and utilities. Alleys serve as secondary

access routes to parking areas and garages, as corridors for waste collection and utility services, and, in some cases, as service lanes for businesses in Business Improvement Areas (BIAs).

In 2012, Council requested a report on the feasibility of proactively offering certain alleys for sale as a means of reducing long-term liability. This led to the creation of the Alley Closure Subsidy Program (ACSP), first approved in 2013 as a pilot with \$100,000 allocated in both 2014 and 2015. The program enabled eligible property owners in designated residential zones to purchase adjacent surplus alleys for \$100, with the City covering the remaining closure costs. In all other cases, closed alleys next to residential properties are conveyed to abutting owners for the cost of \$1.00, plus the owners' proportionate share of the required reference plan and the deed preparation fees, as outlined in the City's Street and Alley Closing Policy.

Several refinements to the ACSP were made between 2013 and 2015, including the introduction of a queuing system, restrictions on subsidies where closures would create buildable lots, and expansion of eligibility to include previously closed but unconveyed alleys. In 2014, \$790,000 in enhanced capital funding was authorized to address high demand, and by the end of 2015 more than 130 property owners had expressed interest. The pilot program was extended in 2015 and 2017, and in 2019 Council formally adopted the ACSP as part of the regular alley closing program, establishing a \$40,000 annual allocation.

In more recent years, Council directed Administration through CR402/2024 ETPS 841 (S 69/2021) and CR236/2024 ETPS 996 (S 45/2024) to establish an Ad Hoc Administrative Alley Standards Committee ("Committee") to review maintenance practices and develop a framework for alleys. The Committee includes representation from Public Works Operations, Engineering, By-law Enforcement, Finance, Planning, Parks, and Legal, ensuring that the framework reflects a comprehensive, cross-departmental perspective.

The Committee has been undertaking a strategic approach to alley management by identifying all alley assets and classifying them based on criteria (usage and condition) to guide prioritization for alley maintenance, enforcement and closure.

As part of its mandate, the Committee additionally identified alleys essential for providing municipal services, such as waste collection, and evaluated their potential to support active transportation connections downtown. Grass alleys were also examined, with an assessment of the feasibility of initiating closures in cases where doing so would not create inaccessible remnant parcels.

The Committee considered the circumstances in which alley enhancements and revitalization might proceed, noting the impetus and financial support for such efforts would originate from Business Improvement Areas (BIAs) and the private sector, rather than the City itself.

Current Alley Infrastructure and Condition

The 2025 Alley Needs Study confirmed that the City maintains approximately 146 km of alleys (79 km paved – asphalt and/or concrete; 67 km unpaved – gravel, grass). The

Study findings indicate that much of the paved alley network is nearing or at the end of its useful service life.

Of the 79 kilometres of paved alleys, the asset condition assessed through the Alley Needs Study is broken down as follows:

- 44.5 km (56.4%) require immediate rehabilitation, classified as “NOW” deficient.
- 17.3 km (21.9%) will require work within one to five years.
- 9.9 km (12.6%) are projected to require rehabilitation in six to ten years.
- 7.3 km (9.2%) are in adequate condition.

Based on the condition ratings provided in the 2024 Corporate Asset Management Plan (AMP) the average condition of paved alleys is rated as Poor. Over half of the paved alleys are comprised of concrete surfaces (approximately 47 km), to which 33.4 km are in need of immediate repair. Asphalt and asphalt–concrete pavements account for 16.8 km and 14.0 km respectively, each with significant portions (“NOW” deficient) requiring attention.

Until recently, residential paved alleys supported waste collection. However; with the transition to curbside collection in April 2025, these alleys are no longer part of the waste collection network. While this change may help reduce further deterioration by reducing heavy truck traffic, existing pavement deterioration issues will persist without intervention.

Alley Classification

As per Report PW #3589-07/09/13, alleys have been categorized into one of four general classifications (Indispensable, Dispensable, Some Level of Usefulness, Planned Development Districts) based on their usefulness. Alleys may move from one category to another based on changes in circumstances (i.e. relocation of utilities).

Alley Best Management Practices

The City has implemented several practices related to alley management.

Crime Prevention Through Environmental Design (CPTED) principles are applied in alley management, with a focus on maintaining clear sightlines through vegetation control and addressing encroachments. These practices are supported through proactive enforcement strategies adopted by Council in Report S 23/2025, which address issues such as garbage, vandalism, encampments, and land maintenance. Measures include targeted deployment of officers based on 311 data to address hotspots, establishing thresholds to prioritize visible violations and chronic issues, and engaging Councillors and BIAs to identify problem alleys in each ward.

Enforcement authority is provided through existing by-laws. By-law 3-2006 regulates the maintenance of abutting untravelled portions of highways (Part 6), prohibits litter (Part 7), and establishes enforcement powers (Part 1), including removal of graffiti, stains, and defacement. By-law 25-2010 affords protection of highways, including

paved alleys, and regulates encroachments such as fences and landscaping (Part 2), with enforcement provisions under Part 10.

Administration applies the Council-endorsed Alley Lighting Policy (2020) to oversee installations. The policy establishes that alley lighting is normally initiated by property owners through the Local Improvement process, with benefiting owners responsible for the capital and operating costs in accordance with the City's Fees and Charges By-law 392-2002. The policy also allows City Council to waive these provisions and direct that installations be funded through other sources. In recent years, alley lighting projects have been completed through a mix of funding streams, including BIAs and Ward funds. These projects include 41 lights in the Ward 4 Erie Street BIA between 2022 and 2023 at a cost of approximately \$102,000, 6 lights in Ward 2 in 2023 at a cost of approximately \$12,000, 6 lights in Ward 3 in 2023 at a cost of approximately \$11,000, 36 lights in the Ward 4 Ottawa BIA in 2023 at a cost of approximately \$68,000.

As an alternative approach to traditional alley lighting installation, a pilot project was launched in October 2024 in Ward 3 at 1200 block of Bruce Avenue. This initiative includes the installation of 30 motion-activated lights at an approximate cost of \$2,400, funded through ward funds. The lights were installed in the alley on private properties with consent from participating homeowners who were responsible for ongoing alley light maintenance. To evaluate the initiative, the City conducted a 6-month survey and received feedback from 9 residents, all of whom expressed strong support for this initiative. A final survey is scheduled for September 2025 to determine the overall success of this pilot project and its potential for broader application.

In 2024, Administration introduced Engineering Best Practice BP2.3.2 to guide alley access requirements for abutting residential, multi-residential, and commercial/industrial properties. Access considerations are generally limited to paved alleys. Under BP2.3.2, access to a detached Accessory Dwelling Unit (ADU) from an alley is permitted only if the alley is both open and paved. Where an alley is unpaved (gravel) and no viable driveway exists from a municipal road, property owners may petition to pave the alley at their own expense, in accordance with City standards including drainage. Access from grass alleys is not permitted.

Discussion:

Administration has established an operational proposed level of service (PLOS) for the ongoing maintenance of the City's alley network using a multi-disciplinary service provision model (Public Works Operations – Maintenance; Environmental Services; Planning and Building – By-law Enforcement, Planning; Community Services – Forestry and Natural Areas).

To allocate resources effectively, alleys have been grouped into four classes (A–D) based on their usage and condition:

- **Class A:** High-priority alleys, such as paved alleys in Business Improvement Areas (BIAs), paved alleys with commercial waste collection, and gravel alleys with commercial waste collection.

- **Class B:** Moderate-priority alleys, including paved alleys outside BIAs and gravel alleys serving residential purposes (i.e. rear yard parking/garage access).
- **Class C:** Low-priority alleys, generally consisting of gravel alleys that do not serve significant residential or commercial purposes.
- **Class D:** Non-priority alleys, including grass alleys and mixed grass–gravel alleys.

This classification system is intended to ensure that the most critical alleys receive the necessary attention, while lower-use alleys are managed more cost-effectively or closed/disposed of through the alley closure program. Where alleys are accompanied by underground sewer infrastructure, sewer condition would also be considered in setting maintenance priorities.

Although residential waste collection has transitioned to curbside, a small number of alleys continue to support collection services. These residential locations may require consideration for higher priority pavement maintenance where conditions risk vehicle damage.

The corresponding proposed maintenance standards for each class are summarized in Table 1 below.

Table 1: Alley Maintenance Classification Framework

* Additional service provided upon 311 requests; No seasonal winter maintenance

** Implementation of the PLOS will be scaled to available budget, with any additional funding requests brought forward through the budget process.

By-law Enforcement (12 officers) will primarily respond to complaints, supplemented by targeted proactive deployments using 311 hotspot data consistent with Council direction in S 23/2025 (i.e. chronic issues and visible violations). Forestry and Natural Areas will continue to respond to tree-related alley service requests, which make up 5–10 percent

Class	Description	Maintenance Standard**
A *	High-use paved or gravel alleys (BIAs, commercial collection corridors)	Annual pavement pothole repair Gravel graded twice per year
B *	Other paved alleys and gravel alleys (Residential purposes, non-BIAs)	Annual pavement pothole repair Gravel graded twice per year
C	Low-use gravel alleys (Limited access, no collection)	Gravel graded twice per year
D	Non-functional grass and/or gravel alleys (Little or no functional use)	No municipal maintenance; responsibility of abutting owners

of annual service requests. Regardless of classification, abutting property owners remain responsible under City by-laws for keeping alleys to the centre line clear of weeds, litter, and other debris.

Alley Lighting

Alley lighting continues to be addressed through the Local Improvement Program (LIP). Installations are initiated on demand, and property owners benefiting from the service are responsible for capital costs in accordance with the *Municipal Act, 2001 – Ontario Regulation 586/06 and the Alley Lighting Policy*.

Alley lighting is considered an enhancement above the municipal standard, and as such, no municipal subsidy is provided. Annual operating costs for alley lighting are established in the Fees and Charges By-law 392-2002, with property owners assessed these charges through their property taxes. Charges are calculated on a system-wide basis.

Alley Closure Process

Administration continues to encourage street and alley closure applications as a means of facilitating the disposal of redundant public rights-of-way. The current closure process is initiated by abutting property owners, circulated to City departments and utilities, and advanced to Council only after internal reviews are complete. The process often takes approximately between 14 and 21 months to complete.

While the ACSP has reduced liability and resolved encroachment issues, the majority of alleys closed have been grass alleys, which the City did not maintain. As a result, operational and capital savings associated with alley asset divestment have been limited.

Administration will continue to monitor the street and alley closure process and make administrative adjustments to improve efficiency where possible.

Amending the Local Improvement Policy

The Committee recommends amending the Local Improvement Policy, in the form attached as Appendix A, to allow petition-led resurfacing of paved alleys. While *O. Reg. 586/06* allows resurfacing of previously paved alleys as a local improvement, the City's policy does not explicitly enumerate this use case. This amendment would give residents the ability to collectively petition for resurfacing, with costs recovered through special assessments. This provides a clear and fair pathway for residents to improve their alleys without diverting capital funds from higher-priority infrastructure such as arterial roads, collector roads, and the E.C. Row Expressway. As part of these amendments the entire Local Improvement Policy was reviewed and other housekeeping amendments made.

Alley Enhancement and Revitalization

In alignment with Action 2B.4 of the Active Transportation Master Plan, the City will consider proposals from neighbourhood groups, BIAs, and community associations for the revitalization of Class A and B alleys in BIAs. Such projects may include public art, tactical urbanism elements, murals, bollards, planters, seating, and wayfinding features. Proposals would be community-led, with proponents responsible for design, installation, and ongoing upkeep, subject to City review and approval. Future activation of alley spaces will assess current asset condition, which may influence decisions with respect to activation.

Additionally, as part of its review, the Committee considered the City's Active Transportation Master Plan (ATMP) and its 2024 Biennial Progress Report, which references alley revitalization projects under the "Places for People" theme. While two such projects were noted in 2019, none were advanced during the most recent reporting period. The Regional Cycling Network map included in the ATMP does not identify alleys within the City's Primary or Secondary Cycling Network.

Inaccessible Remnant Alleys

Upon the City closing an open street or alley in order to convey to abutting property owners, the City is responsible for maintenance of such land as City-owned private property until it is transferred to a new owner. Unfortunately, the City is unable to force anyone to accept a conveyance of such land. Any portion of closed highway can only be conveyed to another owner upon receipt of a signed acknowledgement and direction from the other party.

As a result, following the conveyance of closed parcels to all willing purchasers, the City is often left owning remnant parcels of closed highway that the City is unable to access in order to maintain. Such remnant portions are often landlocked and only accessible through private property which the City is not authorized to enter. The City often receives complaints from residents that such remnant parcels are not being maintained, and specifically that the grass is not being cut.

Administration recommends that a by-law be approved which would allow for the City to be relieved of maintenance responsibilities for inaccessible remnant pieces of closed highway.

Risk Analysis:

Given their age and condition, as reported under the 2025 Asset Management Plan (AMP), many paved alleys require ongoing maintenance attention; however, the consequence of deterioration is generally low compared to arterial or collector roads. Typical issues include potholes, ruts, and drainage concerns that inconvenience residents but rarely create major safety hazards or service disruptions.

Legal risks include encroachments and remnant parcels. Encroachments may interfere with utilities or create hazards, requiring removal at the owner's expense. Such liabilities are mitigated by the terms and requirements of the City's Encroachment Policy.

Remnant parcels may be inaccessible and therefore challenging for the City to maintain efficiently. A by-law is proposed to formally permit the City not to maintain these remnant inaccessible parcels, reducing liability and avoiding wasted resources.

Climate Change Risks:

Climate Change Mitigation

Aligning alley maintenance standards and policy enhancements with city plans such as the Active Transportation Master Plan can support Windsor's climate goals by integrating alleys into a broader strategy to enhance walkability and cycling infrastructure, thereby reducing vehicle emissions.

Climate Change Adaptation

Closing underutilized alleys can support Windsor's climate change adaptation efforts by creating opportunities for green infrastructure that manage stormwater and reduce flood risk. Converting alleys into permeable surfaces helps absorb runoff and ease pressure on the city's sewer systems. Alley closures may also help mitigate urban heat by enabling the development of shaded green spaces or tree-lined corridors, which lower surface temperatures and improve thermal comfort, particularly in vulnerable or densely populated areas. When guided by climate-informed land use policies, these closures can also reduce future infrastructure vulnerabilities and contribute to a more resilient urban environment.

Financial Matters:

Annual operating costs for alleys are approximately \$634,000, including \$284,000 for Public Works, \$150,000 for Environmental Services, and \$200,000 for Forestry and Natural Areas. In addition, minor alley capital maintenance is funded at \$400,000 in 2025 and \$200,000 in each of 2026 and 2027. As of the time of writing, the Minor Alley Maintenance project, 7121000, has a remaining balance of approximately \$440,000.

Annual Alley Renewal Activity

Paved alleys are reported on within the Asset Management Plans as part of the 'Roads and Paved Alleys' segment of the overall Transportation category. As reported in the 2024 & 2025 AMPs, only 0.08% of paved alley lane-kilometres are renewed annually (based on Current LOS), significantly lower than the renewal rates for other road classifications such as Arterials (1.38%), Collectors (1.11%), and Locals (0.66%).

For paved alleys specifically, annual repair, renewal and rehabilitation costs are estimated to be approximately \$3.3 to \$3.9 million, based on current Level of Service modeling. The current replacement value of paved alleys infrastructure is estimated at approximately \$150M. Further refinement will be required to quantify the specific capital funding gap related to paved alleys alone, separate from other roads infrastructure. In particular, aligning identified lifecycle costs with the 10-year capital plan will provide a clearer understanding of how current and planned budgets compare with the long-term needs of this asset type. Work on gap refinement for all assets covered under the AMP is ongoing, with the goal of providing increased information and analysis as part of future AMP updates.

Requests for funding to maintain the described alley standards will be brought forward through the annual budget process, with alley condition information included in AMP reporting cycles, and additional reports on the matters outlined in this report brought to Council as required.

Consultations:

Monika Grant, Senior Manager, Contract, Field Services and Maintenance

Roberta Harrison, Manager, Maintenance

Charles Hartford, Manager, Contracts, Field Services and Maintenance

Adam Pillon, Manager of Right-of-Way

Jim Leether, Senior Manager, Environmental Services

Craig Robertson, Manager, Licensing and Enforcement / Deputy Licence Commissioner

Neil Robertson, City Planner

Greg Atkinson, Deputy City Planner - Development

Laura Diotte, Manager - Planning (Development Applications)

Yemi Adeyeye, City Forester / Manager Forestry and Natural Areas

Kate Tracey, Senior Legal Counsel

Natasha Gabbana, Senior Manager of Asset Planning

Marie Gil, Manager Asset Planning

Mike Dennis, Manager, Strategic Capital Budget Development & Control

Prem Patel, Manager, Transportation Planning and Design

Ian Day, Senior Manager, Transportation

Adam Mourad, Engineer III, Design Standards Lead

Michelle Moxley-Peltier, CEP Project Administrator

Denise Wright, Manager of Real Estate Services

Stacey McGuire, Executive Director of Engineering and Deputy City Engineer

Conclusion:

The proposed Alley Maintenance Framework will maximize available resources and funding to support the City's alley network. By establishing a classification system, adopting service standards, strengthening enforcement, and introducing petition-led resurfacing, the framework sets out clear service levels and processes so that residents and Council have a shared understanding of what to expect. Administration also recommends amendments to the Local Improvement Policy, and a new by-law which will relieve the City of maintenance responsibilities for inaccessible remnant parcels of closed alleys.

Planning Act Matters:

N/A

Approvals:

Name	Title
Mark Spizzirri	Manager, Performance Measurement and Business Case Development
Brian Lima	Executive Director, Operations / Deputy City Engineer
Jamie Scott	Executive Director, Parks and Facilities (A)
David Simpson	Commissioner, Infrastructure Services and City Engineer
Jelena Payne	Deputy CAO/Commissioner, Economic Development
Michael Chantler	Commissioner, Community Services
Andrew Daher	Commissioner, Corporate Services
Janice Guthrie	Commissioner, Finance and City Treasurer
Ray Mensour	Chief Administrative Officer

Notifications:

Name	Address	Email

Appendices:

Appendix A – Amended Local Improvement Policy

THE CORPORATION OF THE CITY OF WINDSOR POLICY

Service Area:	Office of the Commissioner of Infrastructure Services	Policy No.:	
Department:	Engineering	Approval Date:	
Division:	Design and Development	Approved By:	
		Effective Date:	IMMEDIATE
Subject:	Local Improvement Policy	Procedure Ref.:	
Review Date:		Pages:	Replaces: CR1215/85, CR292/2003, CR179/2005, CR8/2012, M214-2010, CR1607/89, M39/2014
Prepared By:	Adam Mourad		Date: June 8, 2020

1. **PURPOSE**

- 1.1 To present a cost-sharing policy setting forth special assessments for municipal infrastructure such as storm and sanitary sewers, street lighting, sidewalks, pavements, curbs and gutters and private drain connections constructed under the provisions of the Local Improvement Regulation, O. Reg. 586/06.
- 1.2 To address the situation where there are no sanitary or storm sewers in an existing neighbourhood of the City. Some areas of the City are still serviced by septic tanks with no sanitary sewers. Elimination of the remaining septic tanks within the City is considered a high priority to reduce environmental issues and improve water quality in the municipal drainage system and receiving water bodies.
- 1.3 To address streets that may have a sanitary sewer and roadside ditches, but no storm sewer. In order to close the roadside ditches, the ditches would need to be replaced with a storm sewer.
- 1.4 To encourage the construction of municipal infrastructure where current municipal infrastructure is deficient.
- 1.5 To provide a mechanism to allow property owners to petition for improvements that are a sole benefit and to distribute the cost over the benefitting properties.

2. **SCOPE**

This Policy applies to all roads and highways within the municipal boundaries of the City of Windsor. This policy does not apply to lands without any municipal infrastructure such as greenfield developments.

3. **DEFINITIONS**

- 3.1 Approved Rate** – for the purpose of this policy, refers to the rate set out in the Fees and Charges By-law 392-2002 for a 250mm diameter sanitary sewer and a 300mm diameter storm sewer.
- 3.2 Oversizing** – for the purpose of this policy, refers to any sewer larger than a 250mm diameter sanitary sewer and a 300mm diameter storm sewer
- 3.3 Frontage** – the property line along or abutting the municipal roadway. On a corner lot, the frontage shall be considered to be the shorter of the property lines regardless of the direction the building on the property faces.
- 3.4 Flankage** – for the purpose of this policy, refers to the longest dimension of the corner lot that abuts the local improvement.
- 3.5 Private Drain Connection** – for the purpose of this policy, refers to the private drain connection pipe length from the centre line of the right-of-way to the private property line.
- 3.6 Boulevard Restoration** – for the purpose of this policy, means the installation of sod (or seed if approved) and topsoil up to a maximum of 2 metres from the back of curb or edge of pavement. Property owners will be assessed for the full frontage of the lot. Any additional restoration is to be paid by the City.

3.7 GENERAL ASSESSMENTS

- 3.7.1** All local improvements are subject to applicable fees for engineering, project administration, interest charges, and applicable taxes.
- 3.7.2** All existing approved local improvements will be governed by the policy in place at the time of their approval.

- 3.7.3** The costs for abutting property owners will be based on the assessable property frontage which excludes intersections and City owned properties.
- 3.7.4** Unless a lot's Flankage abuts the work, all costs are assessed according to the property Frontage adjacent to the works.
- 3.7.5** In the case of irregular shaped lots, adjustments to the assessment are made on a case-by-case basis to mitigate over/under assessing an irregular lot.

4. POLICY

In accordance with the described purpose and scope, this policy specifies cost-sharing arrangements for the construction of storm and sanitary sewers, pavements, curbs and gutters, sidewalks, private drain connections and street lighting as local improvements, implemented under the provisions of Ontario Regulation 586/06, made under the Municipal Act, 2001.

4.1 SEWERS

Where:

- A storm and/or sanitary sewer does not exist; and
- Abutting property owners have requested in writing a storm and/or sanitary sewer be installed as a local improvement; or
- The City initiates the installation of a storm and/or sanitary sewer as a local improvement

The abutting property owners will be assessed for:

- The cost at the approved rate, per metre of frontage, of a new storm and/or sanitary sewer;
- The full cost for the construction of a private drain connection and cleanout extending from the centre line of the right-of-way to the property line of the benefiting property;
- 100% of the cost for boulevard restoration.

In addition, where flankage properties exist, those property owners will be assessed for:

- 25% of the approved rate, per metre of flankage, for the construction of a storm sewer and boulevard restoration for the first 45 metres of lot flankage;
- 100% of the cost for any remaining works over and above the first 45 metres of lot flankage, at the approved rate.

The City will pay:

- The remainder of the total cost of the work, as outlined in section 4.6.

4.2 PAVEMENTS

Where, either of:

- Unpaved alleys, residential roads or local industrial roads, exist within the City right-of-way; and
- Abutting property owners have requested in writing any such unpaved alleys and/or roads be paved as a local improvement; or
- The City initiates the installation of alley or road pavement as a local improvement,

Or,

- Paved alleys exist, and the existing pavement is damaged and requires repairs, as determined by the City Engineer in its sole discretion; and
- Abutting property owners have requested in writing any such paved portion of alley be re-paved as a local improvement; or
- The City initiates re-paving as a local improvement,

The abutting property owners will be assessed for:

- 100% of the cost, per metre of frontage, for the construction of or repairs to the road or alley base and asphalt and/or concrete pavement up to 8.6 metres in width;
- 100% of the cost for the construction of curb and gutter, if applicable;
- 100% of the cost for boulevard restoration.

In addition, where flankage properties exist, those property owners will be assessed for:

- 25% of the cost, per metre of flankage, for construction of or repairs to the road base and pavement for the first 45 metres of lot flankage;
- 25% of the cost for boulevard restoration for the first 45 metres of lot flankage;
- 100% of the cost for any remaining works over and above the first 45 metres of lot flankage.

The City will pay:

- The remainder of the total cost of the work, as outlined in section 4.6.

Pavements, including the paving and re-paving as set forth above, will be designed to such structural and geometric standards as the City Engineer determines to be appropriate, having regard for subsoil conditions, vehicular loads, and other relevant matters.

Residential pavements will be constructed to a minimum width of 8.6 metres measured face to face of curbs.

Where, at the City's option, a pavement is constructed or repaired to a greater width or structural strength than is required, the City shall assume the cost of the additional work. In the case of residential roads, "a greater width" will mean in excess of 8.6 metres.

This policy applies only to pavements constructed on rights-of-way assumed by the City.

4.2.1 RURAL PAVED ROADS

For the rehabilitation of badly deteriorated rural paved roads where the majority of the abutting properties are side lot properties, the City may undertake the following:

- That where the percentage of side lot properties are greater than or equal to 50% of the total frontage for the street segment, reconstruct the roadway with or without the addition of curbs and gutters at no cost to the abutting residents (local improvements will not apply).
- That where this applies, proceed without the provisions of Ontario Regulation 586/06 for Local Improvements.

4.3 CURBS AND GUTTERS

Where:

- A paved road is currently without curbs and gutters; and,
- Pavement rehabilitation/reconstruction is to be undertaken by the City; and
- Abutting property owners have requested in writing curbs and gutters be installed; or
- The City initiates the installation of curbs and gutters as a local improvement in conjunction with a pavement rehabilitation project

The abutting property owners will be assessed for:

- 100% of the cost, per metre of frontage, for the construction of concrete curbs and gutters;
- 100% of the cost for boulevard restoration.

In addition, where flankage properties exist, those property owners will be assessed for:

- 25% of the cost, per metre of flankage, for the construction of concrete curbs and gutters and boulevard restoration for the first 45 metres of lot flankage;

- 100% of the cost for any remaining works over and above the first 45 metres of lot flankage.

The City will pay:

- The remainder of the total cost of the work, as outlined in section 4.6.

The curbs and gutters, and rehabilitated/reconstructed pavements will be of geometric design, as the City Engineer determines to be appropriate.

4.4 SIDEWALKS: RESIDENTIAL AND PEDESTRIAN GENERATOR POLICY

Where:

- A paved road is currently without sidewalks; and,
- Abutting property owners have requested in writing sidewalks be installed; or
- The City initiates the installation of sidewalks as a local improvement The

abutting property owners will be assessed for:

- 100% of the cost, per metre of frontage, for the construction of concrete sidewalks;
- 100% of the cost for boulevard restoration.

In addition, where flankage properties exist, those property owners will be assessed for:

- 25% of the cost, per metre of flankage, for the construction of sidewalks and boulevard restoration for the first 45 metres of lot flankage;
- 100% of the cost for any remaining works over and above the first 45 metres of lot flankage.

The City will pay:

- The remainder of the total cost of the work, as outlined in section 4.6.

New sidewalks will be constructed to meet the Accessibility for Ontarians with Disabilities Act (AODA) requirements, except where the safety of pedestrians warrants a greater width, or the City Engineer determines a greater width is necessary and/or desirable.

Where a residential sidewalk is constructed wider than the AODA standard, the abutting property owners will only be assessed for a standard AODA width sidewalk. The City will pay the balance of the cost in addition to the amounts set out above.

Where a sidewalk meets the conditions of the Pedestrian Generator Policy, the total cost of the sidewalk and boulevard restoration will be paid by the City.

Where a sidewalk is constructed on a transit route, the total cost of the sidewalk and boulevard restoration will be paid by the City.

4.5 STREET LIGHTING

Where:

- A municipal right-of-way is currently without street lighting; and,
- Abutting property owners have requested in writing street lighting be installed; or
- The City initiates the installation of street lights as a local improvement The

abutting property owners will be assessed for:

- 50% of the cost for standard street lighting;
- 50% of the cost for boulevard restoration.

In addition, where flankage properties exist, those property owners will be assessed for:

- 25% of the cost for street lighting and boulevard restoration along the first 45 metres of lot flankage;
- 100% of the cost of any remaining works over and above the first 45 metres of lot flankage.

The City will pay:

- The remainder of the total cost of the work, as outlined in section 4.6.

If ornamental street lighting is requested by the property owners, then the owners will be responsible for 100% of the cost difference between standard street lighting and ornamental street lighting.

Where the street lighting is being requested or installed in an alley, the provisions of the Alley Lighting Policy will govern.

4.6 CITY'S SHARE FOR LOCAL IMPROVEMENT WORK

For all local improvement work implemented under this policy, the City's share of the cost will consist of the following:

- The cost for the work at intersections;
- The cost for the work in front of city owned property and alleys;
- The cost related to road drainage;
- The cost of additional road width greater than 8.6 metres;
- The cost of oversizing sewers larger than the diameter set out in the Approved Rate;

- The remainder of the total cost that is not defined in the assessable local improvement work under this policy.

5. RESPONSIBILITY

- 5.1** The responsibilities of the City, City Council, the Committee of Revision, the City Engineer, the City Treasurer, the City Clerk, and the abutting property owners, are set out in the Municipal Act, 2001 - Ontario Regulation 586/06.
- 5.2** The responsibilities are as follows:
- 5.2.1** City Council may authorize the work be done as a local improvement by passing a Local Improvement Charges By-law for such work.
 - 5.2.2** Once the local improvement work is completed, Council shall pass a Special Charges By-law to impose charges on abutting property owners.
 - 5.2.3** The Committee of Revision shall hear objections to the local improvement roll and make decisions to finalize the Local Improvement Roll.
 - 5.2.4** The City Engineer shall implement the work as a local improvement and follow the provisions of the O. Reg. 586/06.
 - 5.2.5** The City Treasurer shall certify the Local Improvement Roll.
 - 5.2.6** The City Clerk shall receive petitions for or against local improvement work, appeals to the assessment notice; and shall certify the sufficiency of such petitions.
 - 5.2.7** The abutting property owners may petition for or against a local improvement work. After the Special Charges by-law is passed, the owners are obligated to pay their share of the local improvement charges by lump sum or through their property taxes over a period of typically 10 years, but not to exceed 20 years.
 - 5.2.8** The Local Improvement Roll, or Record of Assessment, shall be maintained by the City Clerk office and City Treasurer.

6. GOVERNING RULES AND REGULATIONS

The Municipal Act, 2001 - Ontario Regulation 586/06 is the governing legislation.

7. RECORDS, FORMS AND ATTACHMENTS

- 7.1** The Local Improvement Roll, or Record of Assessment, shall be maintained by the City Clerk and City Treasurer. Local improvement booklets, which outline the local improvements generated in any given year and the statement of the work costs, are maintained by the Clerk's office and City Engineer's office.
- 7.2** The related forms include: The
petition form;
Notice of Local Improvement Charges By-law;

Notice of Local Improvement Special Charges By-law.