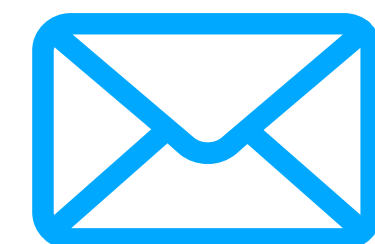


Welcome

Public Information Centre
MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT STUDY
LIVING ARTS DRIVE EXTENSION

Rathburn Road West to Centre View Drive

Thursday October 5, 2017
Mississauga Civic Centre, Great Hall
5:30 to 7:30PM

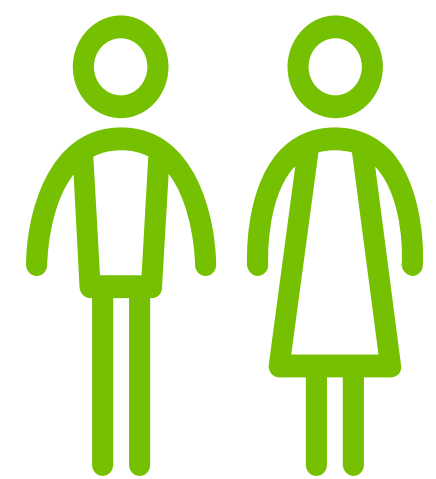


PLEASE SIGN IN
to stay updated on this study

About this PIC



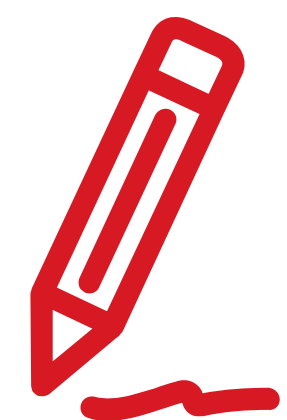
Please take your time and walk through the display material.



Project Team members are available to answer questions.



Please take and fill out a Comment Sheet.



Please ensure you have signed in so we can keep you informed as the study progresses.



Thank you for your interest in this study.

What is the Purpose of this PIC?

The purposes of this Public Information Centre (PIC) are to:



- ✓ Provide an opportunity for members of the community to meet the Project Team
- ✓ Describe the Environmental Assessment process being followed



- ✓ Present information on the study area
- ✓ Review the evaluation of alternatives and associated criteria
- ✓ Review the preliminary design concept for the recommended solution

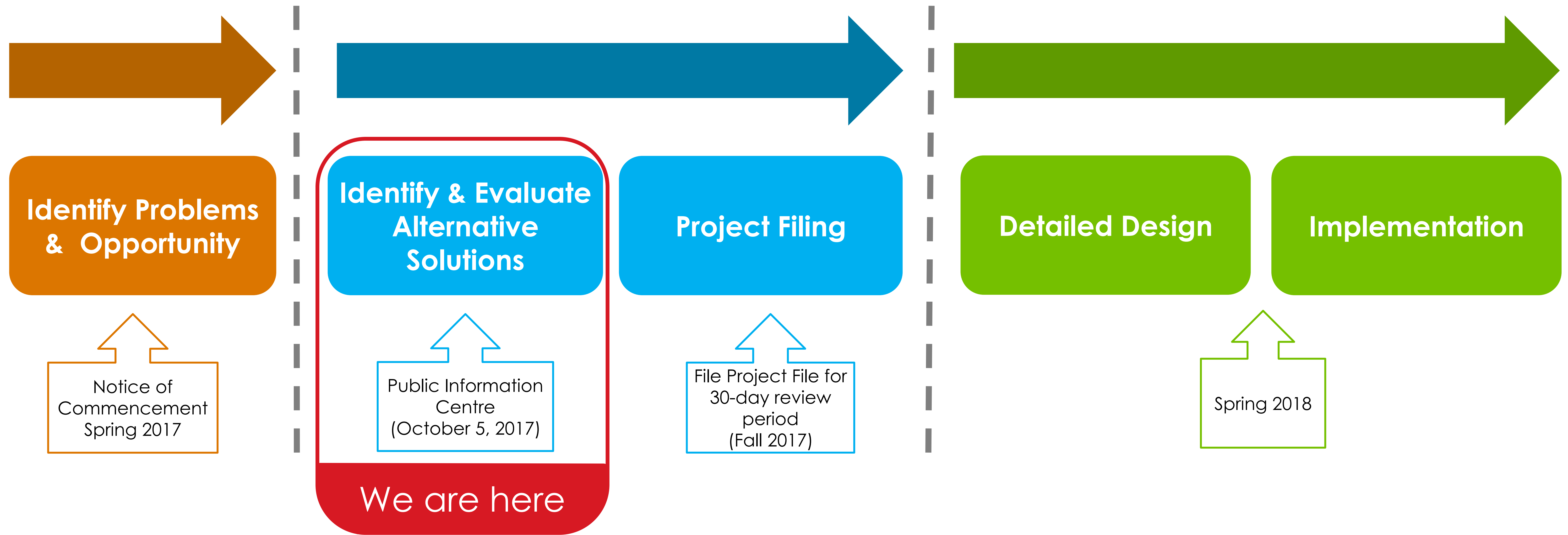


- ✓ Identify upcoming study activities
- ✓ Gather feedback from the community on the information presented this evening

What is a Municipal Class EA?

The **Municipal Class Environmental Assessment (MCEA)** process is approved under the Ontario *Environmental Assessment Act*. It provides the framework for municipalities to plan, design, and construct municipal infrastructure projects.

This project is a Schedule 'B' undertaking and is therefore required to follow **Phases 1 and 2** of the MCEA.



Study Area



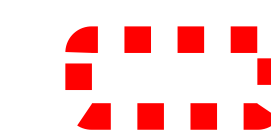
The **Living Arts Drive Extension Municipal Class Environmental Assessment (EA) Study Area** is located between Rathburn Road West and Centre View Drive.

The existing Living Arts Drive, located south of study area, is a 2-lane, north-south roadway with dedicated turning lanes. It has a posted speed limit of 50 km/h and is classified as a Minor Collector road.

Existing Conditions



Legend



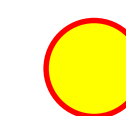
Study Area



Signalized Intersection



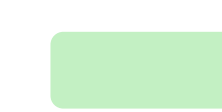
Unsignalized Intersection



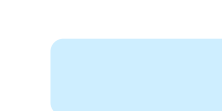
Roundabout



Existing Residential



Parks



Institutional



Commercial



Hydro Transmission Corridor



Vacant Land



Future Light Rail Transit (LRT)

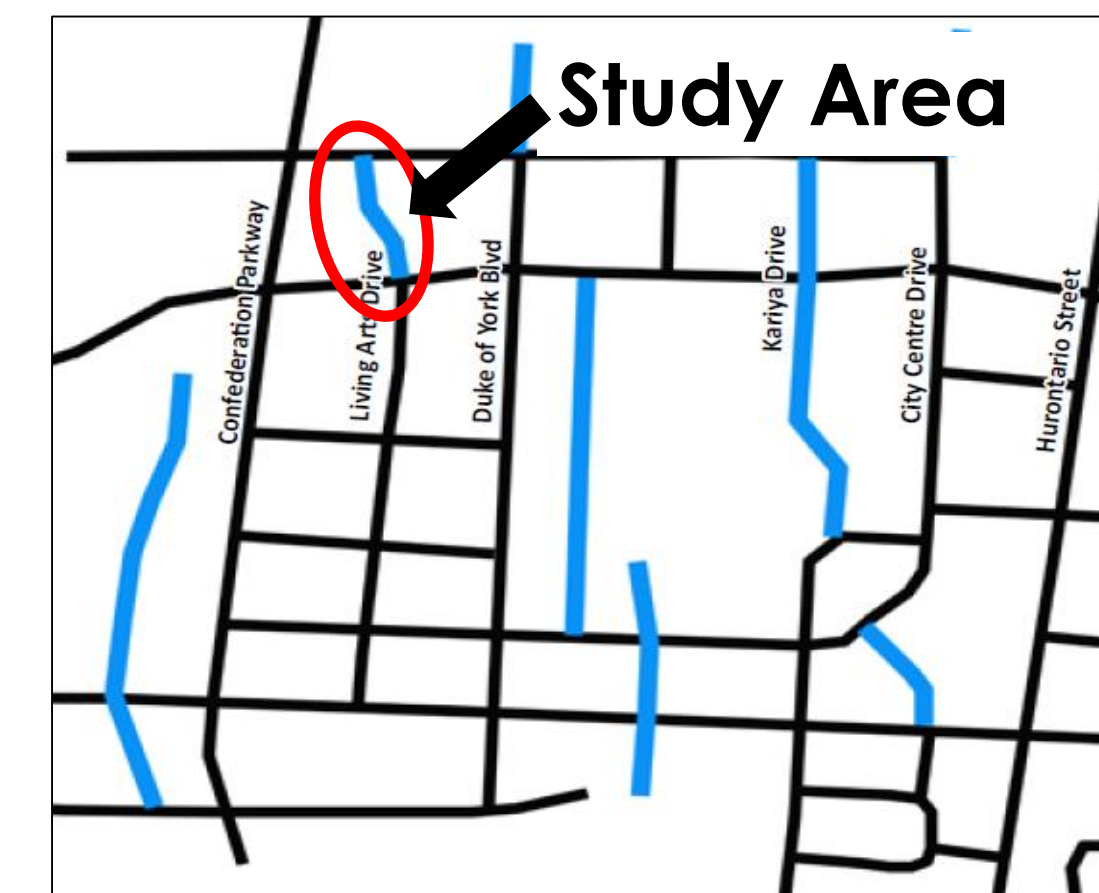
Policy Direction

Strategic Plan (2009)

- ⇒ Develop walkable, connected neighbourhoods
- ⇒ Prioritize the development of a multi-modal transportation system
- ⇒ Improve the transportation system by investing in transit, creating new links in the street network, and encouraging active transportation
- ⇒ Prioritize the development of a vibrant Downtown
- ⇒ Encourage new development in areas that are well-served by transit



Downtown21 Master Plan (2010)



- ⇒ Encourage development of a multi-modal transportation system to create a livable, compact, and accessible Downtown
- ⇒ Prioritize active transportation when designing new streets
- ⇒ Use small block sizes for new developments
- ⇒ Ensure jobs, homes, and services are within walking distance of each other
- ⇒ Extend Living Arts Drive to Centre View Drive to maximize access to/from downtown Mississauga

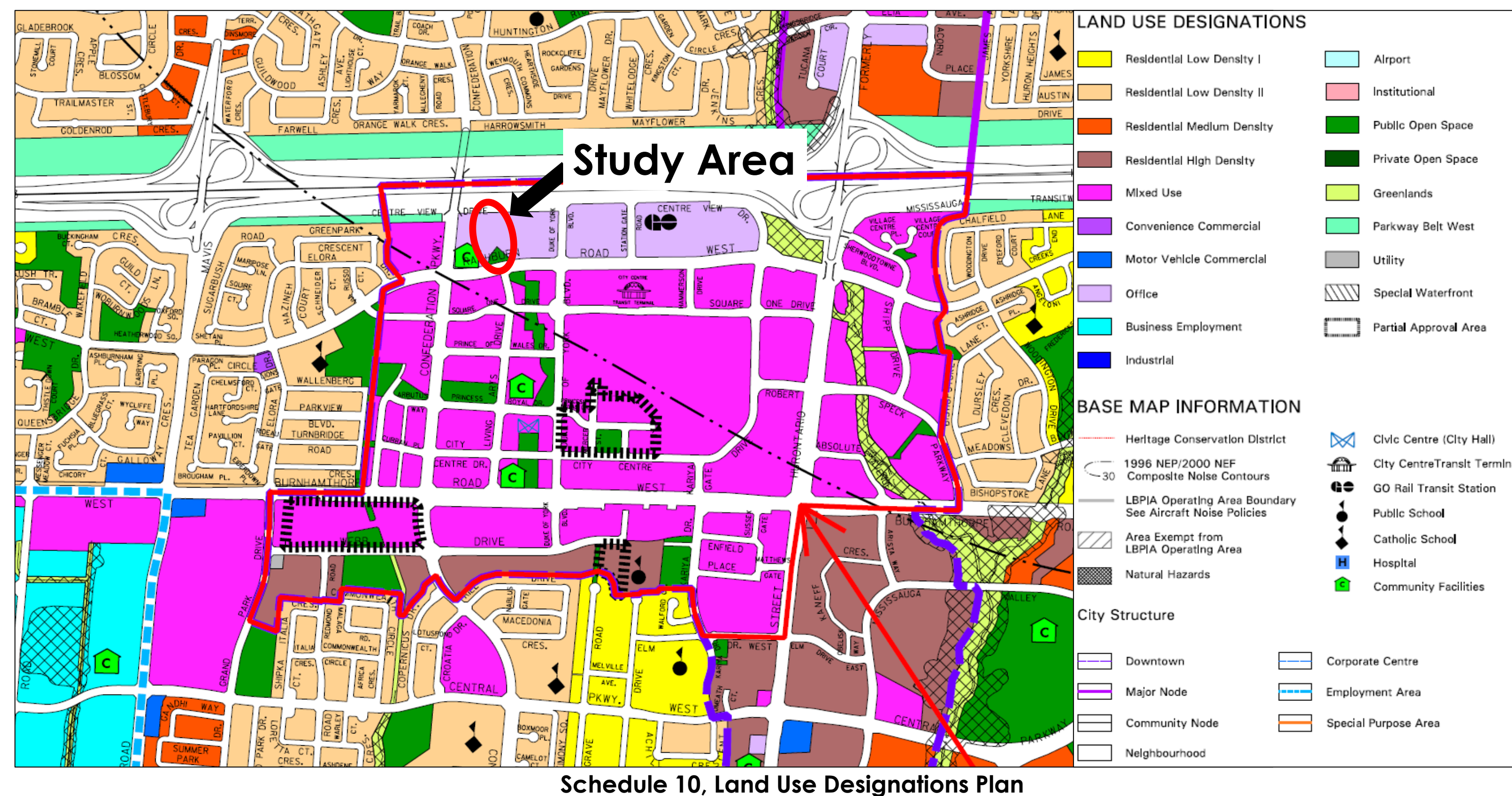
Mississauga Cycling Master Plan (2010)



- ⇒ Downtown Mississauga is a key activity centre and cycling destination
- ⇒ Create a comprehensive cycling network as part of a multi-modal transportation system

Note** - The City is updating the Cycling Master Plan under the ***Does Cycling Move You? initiative. New opportunities to improve the City's bicycle network will be reviewed as part of the update.

Policy Direction

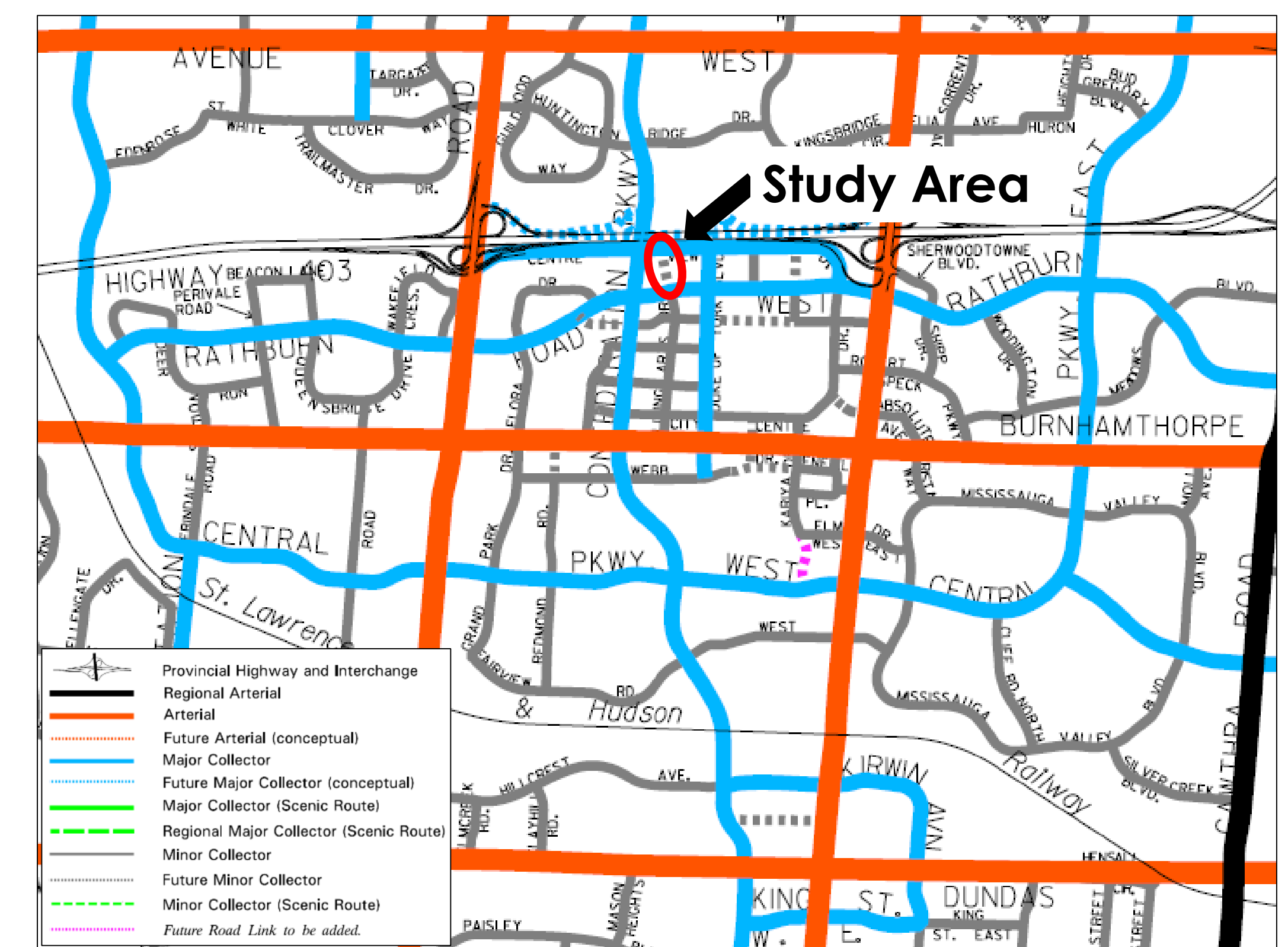


Mississauga Official Plan (2017)

- ⇒ Encourage development of healthy, vibrant communities that accommodate a range of mobility choices
- ⇒ Develop a multi-modal transportation system that connects important destinations (i.e., Downtown Mississauga) and safely accommodates all roadway users (i.e., pedestrians, cyclists, transit users, and motorists)
- ⇒ Create new roads to support compact development and increased traffic volumes associated with future growth

Downtown Core Local Area Plan/Municipal Official Plan Amendment 8 (under appeal)

- ⇒ Create a vibrant downtown for Mississauga by strengthening the transportation system, improving access, and enhancing the pedestrian experience
- ⇒ Create a fine-grained, well-connected road network that supports multiple modes of transportation
- ⇒ Develop an urban environment that includes high-quality public spaces



Natural and Cultural Environments

Natural Environment

- ⇒ Majority of the study area is asphalt-paved
- ⇒ Vegetation is generally non-native and has limited potential to support wildlife, other than urban-tolerant species
- ⇒ No species at risk, provincially rare species or candidate significant wildlife habitat features, watercourses or fish habitat
- ⇒ 80 trees were inventoried within the study area, 44 of which are greater than 10 cm diameter at breast height. Several trees were found to be in fair or poor condition

Cultural Environment

- ⇒ The study area has low or no archaeological potential due to past development in the area
- ⇒ The study area does not contain potential heritage resources
- ⇒ All buildings, roadways, and landscapes in the study area were constructed after 1980



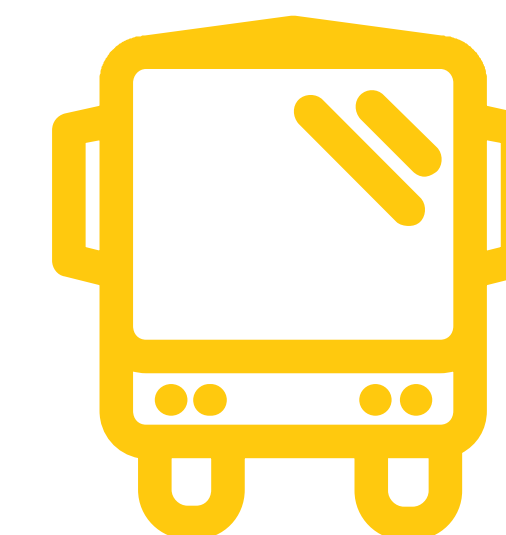
Existing Transportation Conditions

Traffic

- ⇒ Existing traffic conditions in the Study Area are generally **good**.
- ⇒ In the future, traffic patterns within and near the Study Area are **expected to change** due to:
 - ⇒ an increase in the number of people who live and/or work in downtown Mississauga;
 - ⇒ construction and operation of the Hurontario LRT; and
 - ⇒ other changes to the downtown Mississauga roadway network that are under consideration by the City.

Safety

- ⇒ Data related to collisions that occurred within, and adjacent to, the study area between January 2014 and March 2017 was analyzed
- ⇒ No safety concerns were identified for the existing public roadways within the study area – i.e. at the Living Arts Drive & Rathburn Road West intersection, or on Centre View Drive adjacent to Cineplex Cinemas Mississauga



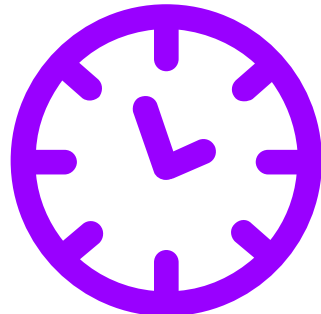

Problems and Opportunities




- ⇒ Downtown Mississauga is transitioning from a suburban, auto-oriented centre to an urban, pedestrian-oriented experience that is rich in character.
- ⇒ A key principle in the City is to build a multi-modal transportation system that supports a vibrant downtown and relies on a range of transportation modes.
- ⇒ A compact street network helps to create urban blocks and provide additional routing within the Downtown.
- ⇒ Mississauga Transitway and future Hurontario Light Rail Transit are both located within the Downtown.
- ⇒ A new north-south road connection is needed for all users to maximize access into and beyond the Downtown.

PROBLEM/OPPORTUNITY STATEMENT

Downtown Mississauga is envisaged as a high-density, dynamic urban core, with smaller block sizes, a high-quality public realm, and a broad range of transportation choices. A new north-south, multi-modal connection is required to provide alternative routing into and beyond the Downtown Core, additional access to both existing and planned transit, improved pedestrian and cycling connections, and to support the creation urban blocks and a fine-grained street network within an emerging urban context.

Alternative Solutions

Alternative Solutions	Description
Alternative 1 Do Nothing 	No change to the transportation system within the Study Area
Alternative 2 Improve Transit, Employ Transportation Demand Management Measures 	Improve access to, from, and within downtown Mississauga by: <ul style="list-style-type: none">⇒ Discouraging single-occupant vehicles and encourage carpooling⇒ Shifting travel demands to time periods outside of congestions periods⇒ Encouraging alternative modes of transportation (transit, cycling, walking)

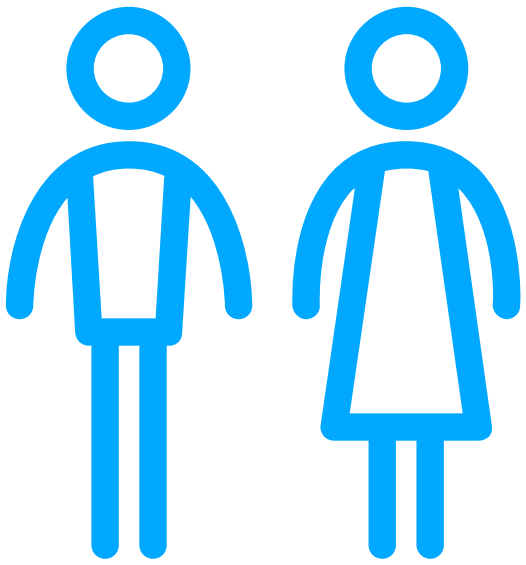
Alternative Solutions	Description
Alternative 3 Improve Alternative North-South Routes 	Upgrade parallel roadways to reduce growing travel demands in the area
Alternative 4 Improve Localized Intersection Operations 	Modify existing intersections by adding turning lanes and optimizing signal timing
Alternative 5 Extend Living Arts Drive 	Extend Living Arts Drive from Rathburn Road West to Centre View Drive

Evaluation Criteria

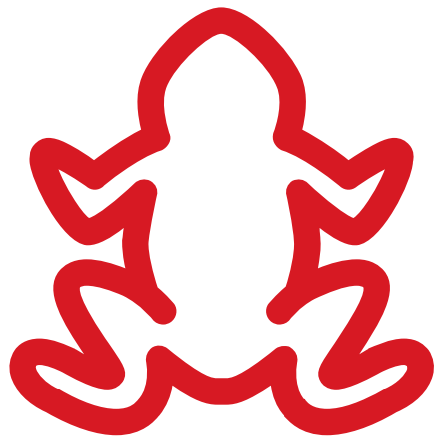
Socio-Economic Environment



- ✓ Business Operations
- ✓ Public Realm
- ✓ Property
- ✓ Accessibility
- ✓ Noise



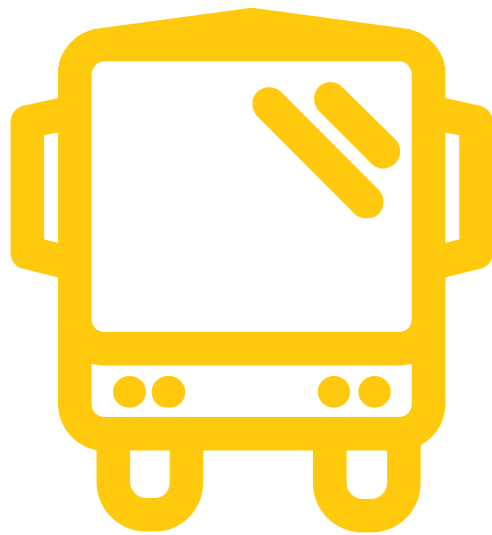
Natural Environment



- ✓ Vegetation/Trees
- ✓ Wildlife
- ✓ Air Quality
- ✓ Climate Change



Planning and Transportation



- ✓ Provincial and Municipal Planning Objectives
- ✓ Safety
- ✓ Pedestrian and Cycling Accommodation
- ✓ Transit
- ✓ Traffic Operations
- ✓ Network Connectivity
- ✓ Emergency Response

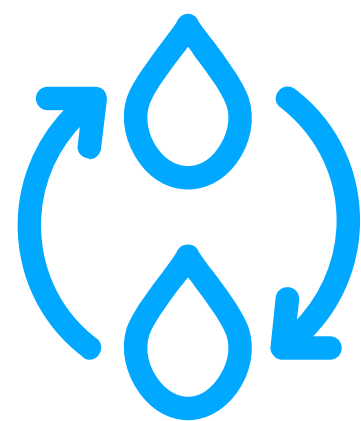


Cultural Environment



- ✓ Archaeology
- ✓ Cultural Heritage






Technical



- ✓ Construction Feasibility
- ✓ Utilities
- ✓ Stormwater Drainage
- ✓ Costs



Summary Evaluation of Alternative Solutions

Evaluation Criteria	Alternative 1: Do Nothing	Alternative 2: Improve Transit, Employ Transportation Demand Management Measures	Alternative 3: Improve Alternate North-South Routes	Alternative 4: Improve Localized Intersection Operations	Alternative 5: Extend Living Arts Drive (Rathburn Road West to Centre View Dr.)
Planning and Transportation 					
Provincial/Municipal Planning Objectives Safety Pedestrian and Cycling Accommodation Transit Traffic Operations Network Connectivity Emergency Response	○ Does not facilitate improved integration of transit service, meet the planning objectives for the study area or offer alternate multi-modal routing into/out of the Downtown	● May facilitate improved integration of transit services but does not address the planning objectives for the study area or provide alternate multi-modal routing into/out of the Downtown	● May facilitate improved integration of transit services and provide alternate multi-modal routing into/out of the Downtown but does not address the planning objectives for the study area	● May facilitate improved integration of transit service but does not address the planning objectives for the study area or offer alternate multi-modal routing into/out of the Downtown	● Facilitates improved integration of transit services, meets planning objectives for the study area, and offers best opportunity to provide alternate multi-modal routing into/out of the Downtown
Socio-Economic Environment 					
Public Realm Property Accessibility Business Operation Noise	○ Does not provide opportunity to enhance the existing public realm, create smaller, urban blocks and/or support creation of a dynamic urban core within study area	○ Supports development of a dynamic urban core but does not provide streetscape opportunities or create smaller, urban blocks within study area	● Does not provide opportunity to enhance the existing public realm, create smaller, urban blocks and/or support creation of a dynamic urban core within the study area but provides opportunity for enhancements on alternate routes	● May support the creation of a dynamic urban core to some degree but does not facilitate the creation of smaller urban blocks within the study area	● Provides opportunity to enhance the public realm, create smaller urban blocks and support a dynamic urban core within the study area
Cultural Heritage 					
Archaeology Cultural Heritage	● No impact	● No impact	○ Potential to affect areas in other corridors having archaeological potential and/or containing cultural heritage resources	● No impact	● No impact
Natural Environment 					
Climate Change Vegetation/Trees Wildlife Air Quality	● Avoids impact to urban vegetation/trees but does not provide opportunity to increase resilience to climate change within study area	● Avoids impact to urban vegetation/trees but does not provide opportunity to increase resilience to climate change within study area	● Expected to impact urban vegetation/trees but provides opportunity to increase resilience to climate change within study area	● May impact urban vegetation/trees but provides opportunity to increase resilience to climate change in the study area	● Impacts urban vegetation/trees but provides best opportunity to increase resilience to climate change in the study area
Technical 					
Construction Feasibility Utilities Stormwater Drainage Costs	● Avoids disruption of traffic operations, property access and utilities but does not provide opportunity to improve stormwater quality/reduce quantity	● Avoids disruption of traffic operations, property access and utilities but does not provide opportunity to improve stormwater quality/reduce quantity	● Temporary disruption of traffic operation, property access and utilities but provides opportunity to improve stormwater quality/reduce quantity	● Temporary disruption of traffic operation, property access and utilities but provides some opportunity to improve stormwater quality/reduce quantity	● Temporary disruption of traffic operation, property access and utilities but provides opportunity to improve stormwater quality/reduce quantity
Addresses Opportunity Statement	✗	✗	✗	✗	✓
Overall Summary	Not Carried Forward	Not Carried Forward	Not Carried Forward	Not Carried Forward	Carried Forward

Ranking Order of Preference: Most Preferred ● Partially Preferred ○ Least Preferred ○

Preliminary Preferred Solution

Alternative Solutions	Description	Fully Addresses Problem/Opportunity Statement
Alternative 1 Do Nothing	No change to the transportation system within the Study Area	✗
Alternative 2 Improve Transit, Employ Transportation Demand Management Measures	Improve access to, from, and within downtown Mississauga by: <ul style="list-style-type: none"> ⇒ Discouraging single-occupant vehicles and encourage carpooling ⇒ Shifting travel demands to time periods outside of congestions periods ⇒ Encouraging alternative modes of transportation (transit, cycling, walking) 	✗
Alternative 3 Improve Alternative North-South Routes	Upgrade parallel roadways to reduce growing travel demands in the area	✗
Alternative 4 Improve Localized Intersection Operations	Modify existing intersections by adding turning lanes and optimizing signal timing	✗
Alternative 5 Extend Living Arts Drive	Extend Living Arts Drive from Rathburn Road West to Centre View Drive	✓

Alternative 5 (Extension of Living Arts Drive) is the **Preliminary Preferred Alternative Solution**. Why?

- ⇒ **Alternative 1** is unable to address any aspect of the Problem/Opportunity Statement.
- ⇒ **Alternatives 2, 3 and 4** only partially address the Problem/Opportunity Statement and do not support the creation of urban blocks, a fine-grained street network, and/or provide alternative routing into and beyond the Downtown Core.
- ⇒ **Alternative 5** can fully address the **Problem/Opportunity Statement** by:
 - ⇒ Fully addressing the City of Mississauga objectives for the study area
 - ⇒ Maximizing access to/from/within the Downtown for all modes of transportation
 - ⇒ Creating smaller, urban blocks, and a fine-grained street network
 - ⇒ Providing redundancy in road network for all vehicles

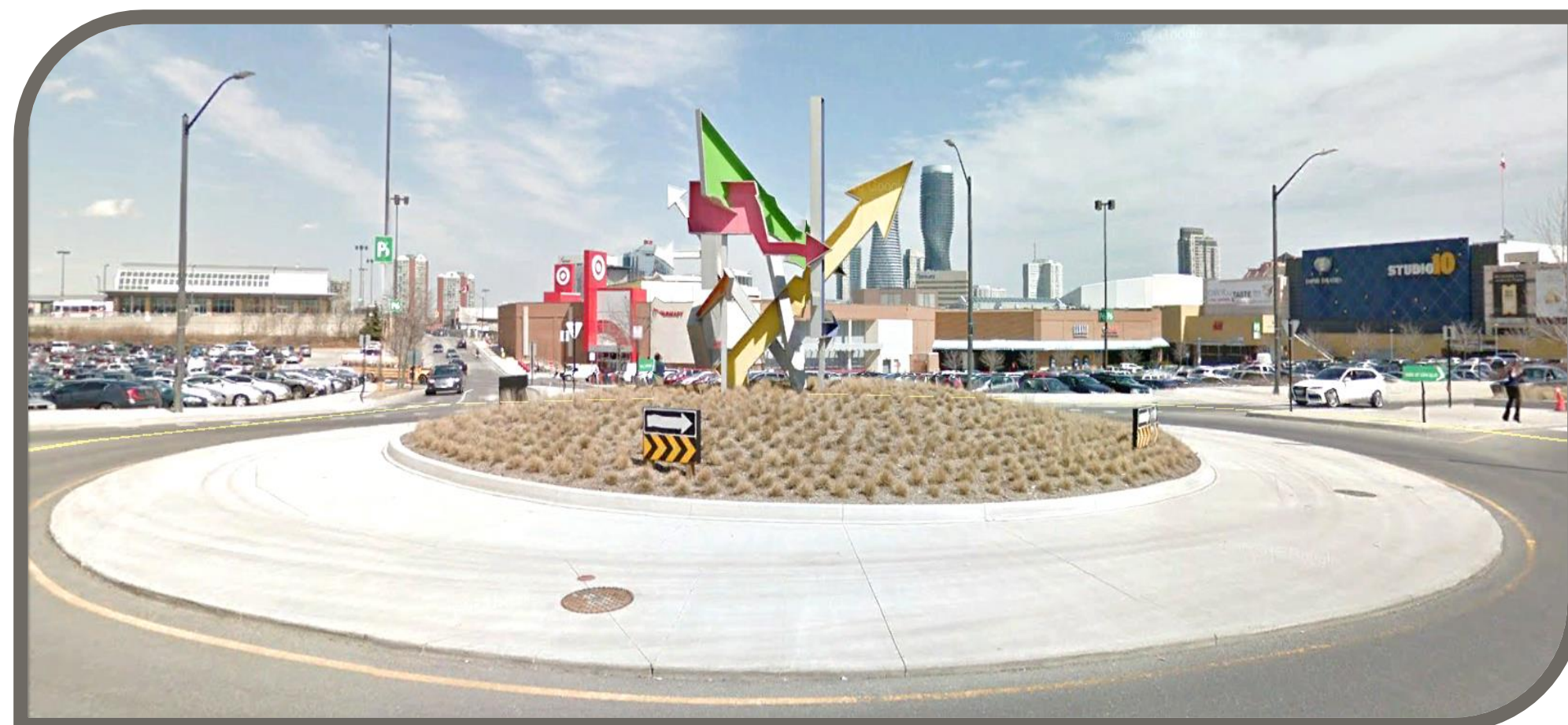
Design Considerations

Moving forward to the design development stage, the City of Mississauga will be taking into account several design considerations:

- ⇒ traffic operations at existing intersections, as well as new intersections created by the extension
- ⇒ proximity of new intersections to existing intersections
- ⇒ accommodation of pedestrians, cyclists, and users of other forms of active transportation
- ⇒ accommodation of existing and future land uses
- ⇒ existing and future utility needs

Design elements that will be reviewed as part of the design development stage include:

Intersection Design



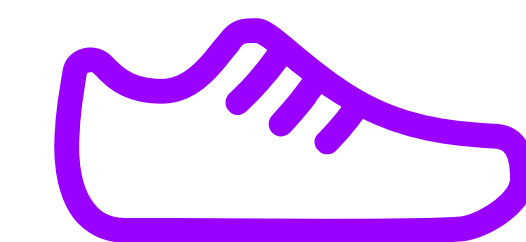
On-street Bicycle Lanes



Context Sensitive Street Design



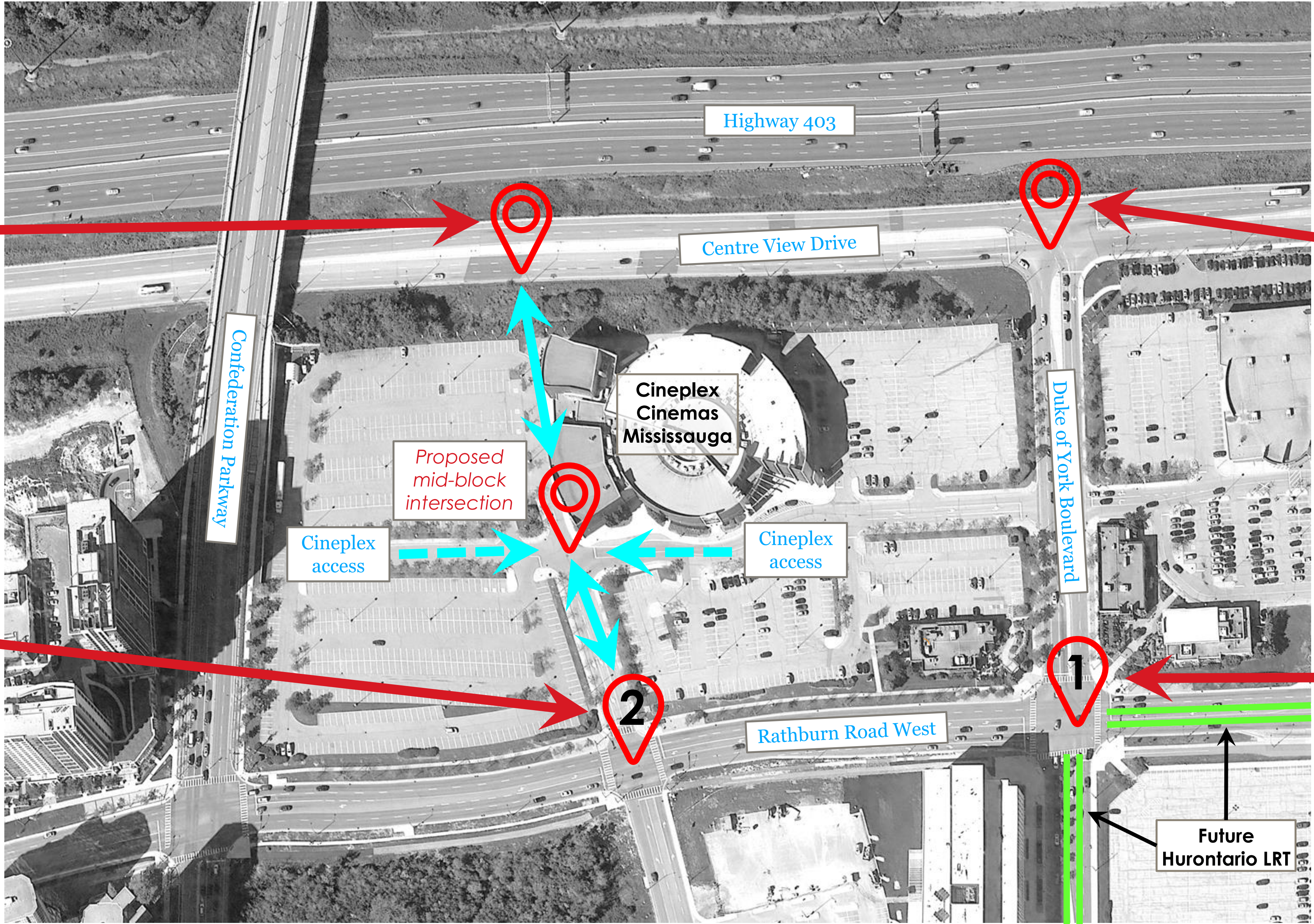
Image via City of Toronto Streetscape Manual (2010)



Future Transportation Conditions

Level of Service at Living Arts Drive & Centre View Drive (proposed signalized intersection)					
Year	Alternative 1 (Do Nothing)		Alternative 5 (Extend Living Arts Drive)		
	AM peak period	PM peak period	AM peak period	PM peak period	
2017			-	-	
projected 2021	intersection not present		B	B	
2031			B	C	
2041			C	E	

Level of Service at Living Arts Drive & Rathburn Road West (existing signalized intersection)					
Year	Alternative 1 (Do Nothing)		Alternative 5 (Extend Living Arts Drive)		
	AM peak period	PM peak period	AM peak period	PM peak period	
2017	B	B	-	-	
projected 2021	B	C	C	C	
2031	B	B	C	D	
2041	D	C	D	F	



Level of Service at Centre View Drive & Duke of York Boulevard (existing signalized intersection)					
Year	Alternative 1 (Do Nothing)		Alternative 5 (Extend Living Arts Drive)		
	AM peak period	PM peak period	AM peak period	PM peak period	
2017	B	B	-	-	
projected 2021	B	B	B	B	
2031	B	B	B	B	
2041	intersection will potentially be replaced by Highway 403 flyover				

Level of Service at Rathburn Road West & Duke of York Boulevard (existing signalized intersection)					
Year	Alternative 1 (Do Nothing)		Alternative 5 (Extend Living Arts Drive)		
	AM peak period	PM peak period	AM peak period	PM peak period	
2017	C	D	-	-	
projected 2021	C	F	C	D	
2031	D	F	C	D	
2041	F	F	D	F	

Level of Service (LOS) represents the average length of time a vehicle is delayed while driving through an intersection.

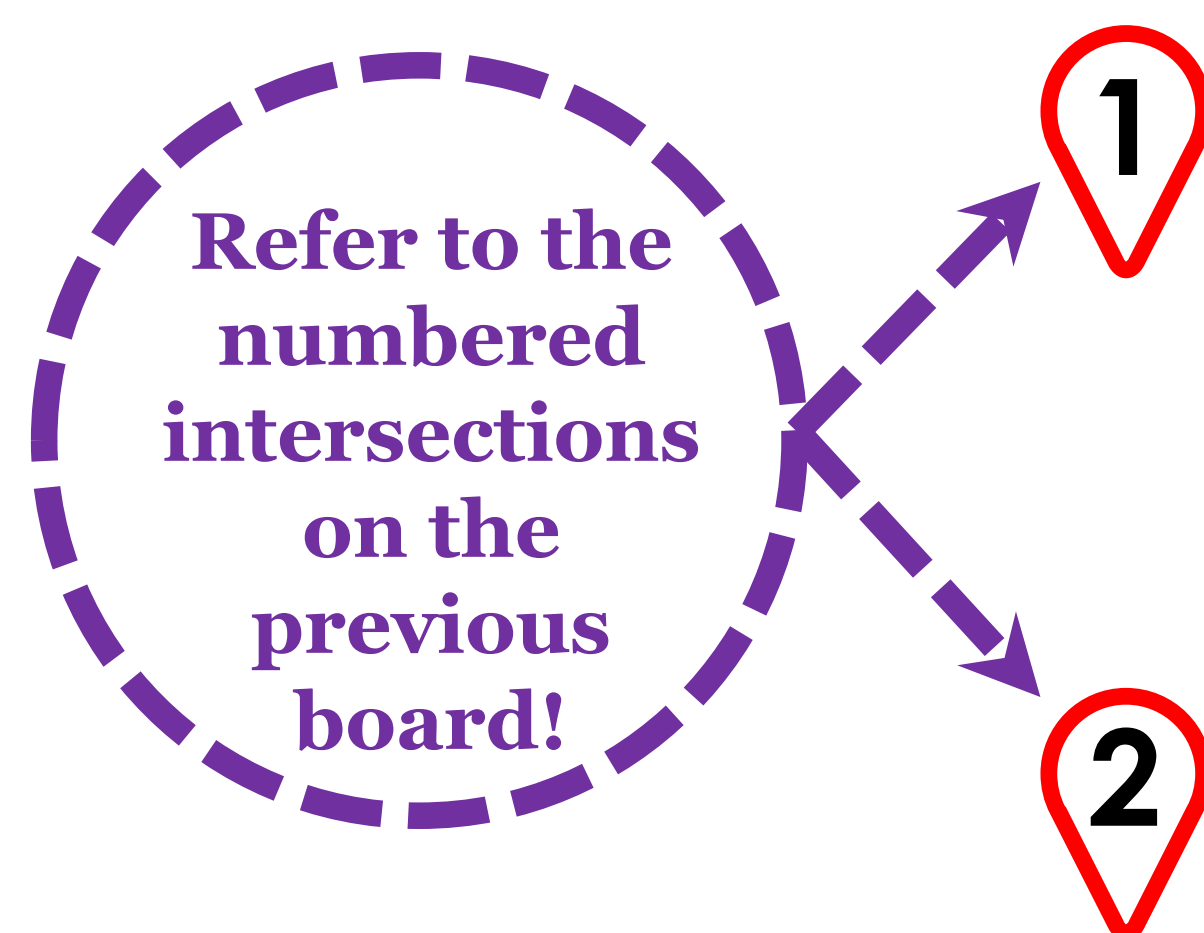
- LOS **A** = less than 10 seconds
- LOS **B** = 10-20 seconds
- LOS **C** = 20-35 seconds
- LOS **D** = 35 – 55 seconds
- LOS **E** = 55-80 seconds
- LOS **F** = greater than 80 seconds

Future Transportation Conditions

⇒ The Living Arts Drive extension is intended to:

- ⇒ provide **new routing options** for local trips;
- ⇒ add **redundancy** to the roadway network (i.e. an additional north-south route); and
- ⇒ **improve access** to, from, and within downtown Mississauga.

⇒ In many cases, projections indicate that future traffic conditions would **remain unchanged** or **improve** with construction of the Living Arts Drive extension.



1 Rathburn Road West & Duke of York Boulevard: This intersection will be impacted by the Hurontario LRT. Projections indicate a slight improvement in traffic conditions, as the extension would provide an alternate north-south route in downtown Mississauga.

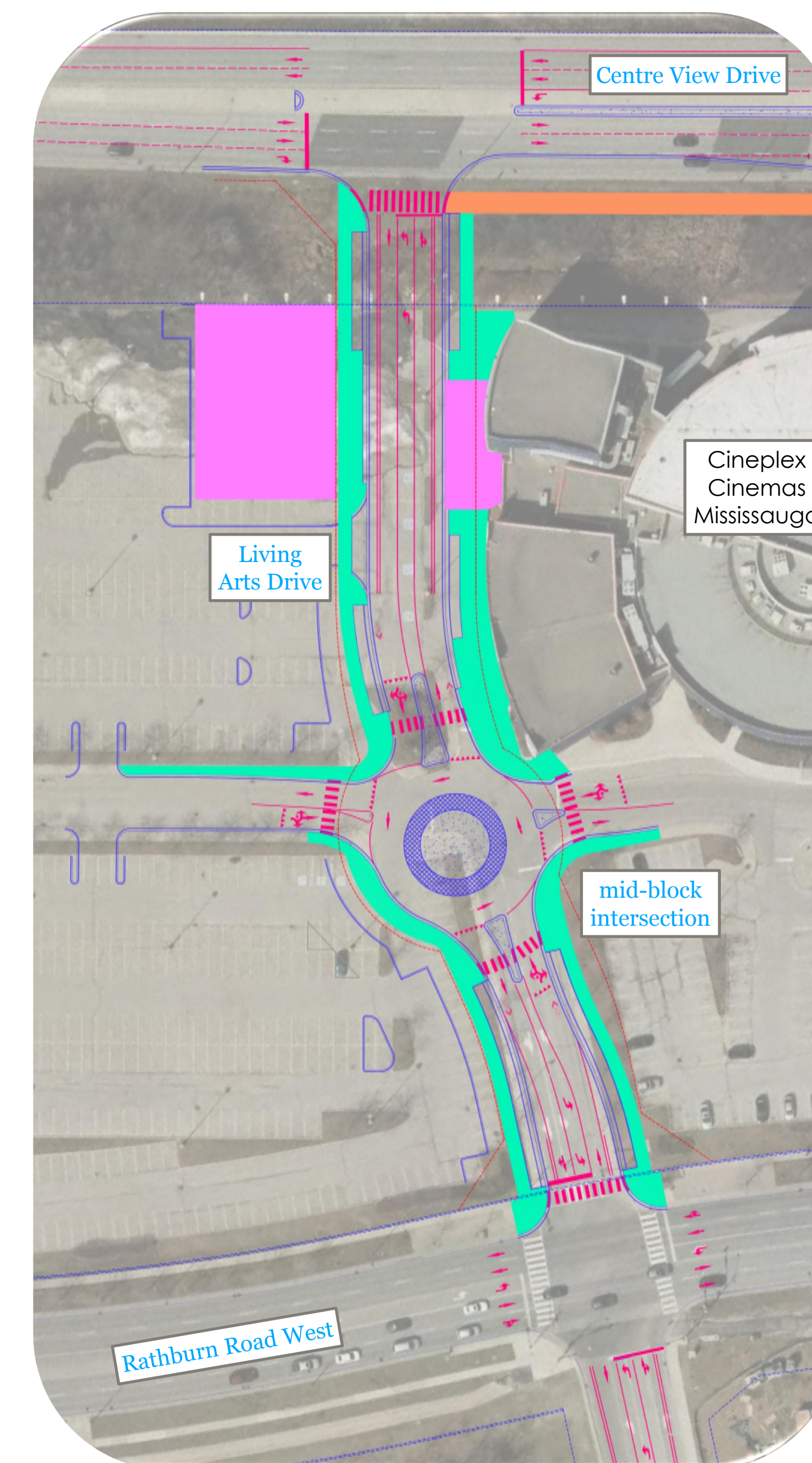
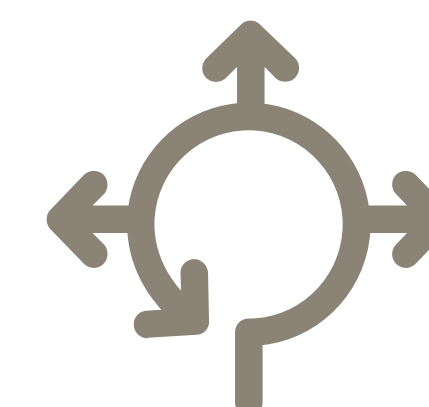
2 Living Arts Drive & Rathburn Road West: This intersection is projected to experience some additional congestion due to the extension of Living Arts Drive to the north, and the diversion of traffic from Duke of York Boulevard.

Preliminary Preferred Design Concept

Key Features

- ⇒ 26 m right-of-way
- ⇒ 5.9 m boulevard
- ⇒ 2.5 m sidewalks on either side
- ⇒ On-street bike lanes in each direction
- ⇒ New signalized intersection with Centre View Drive
- ⇒ New mid-block intersection*
- ⇒ Central island of roundabout can accommodate landscaping and/or public art feature

***Note** - new mid-block intersection design will be confirmed during detailed design



Preliminary Design for the Preliminary Preferred Solution

reconfigure existing signalized intersection at **Living Arts Drive & Rathburn Road West**

construct **new mid-block intersection**
(intersection configuration to be confirmed during detailed design)

sidewalks, with streetscaping and landscaping

loading area adjacent to Cineplex Cinemas Mississauga

on-street bike lanes on both sides of Living Arts Drive

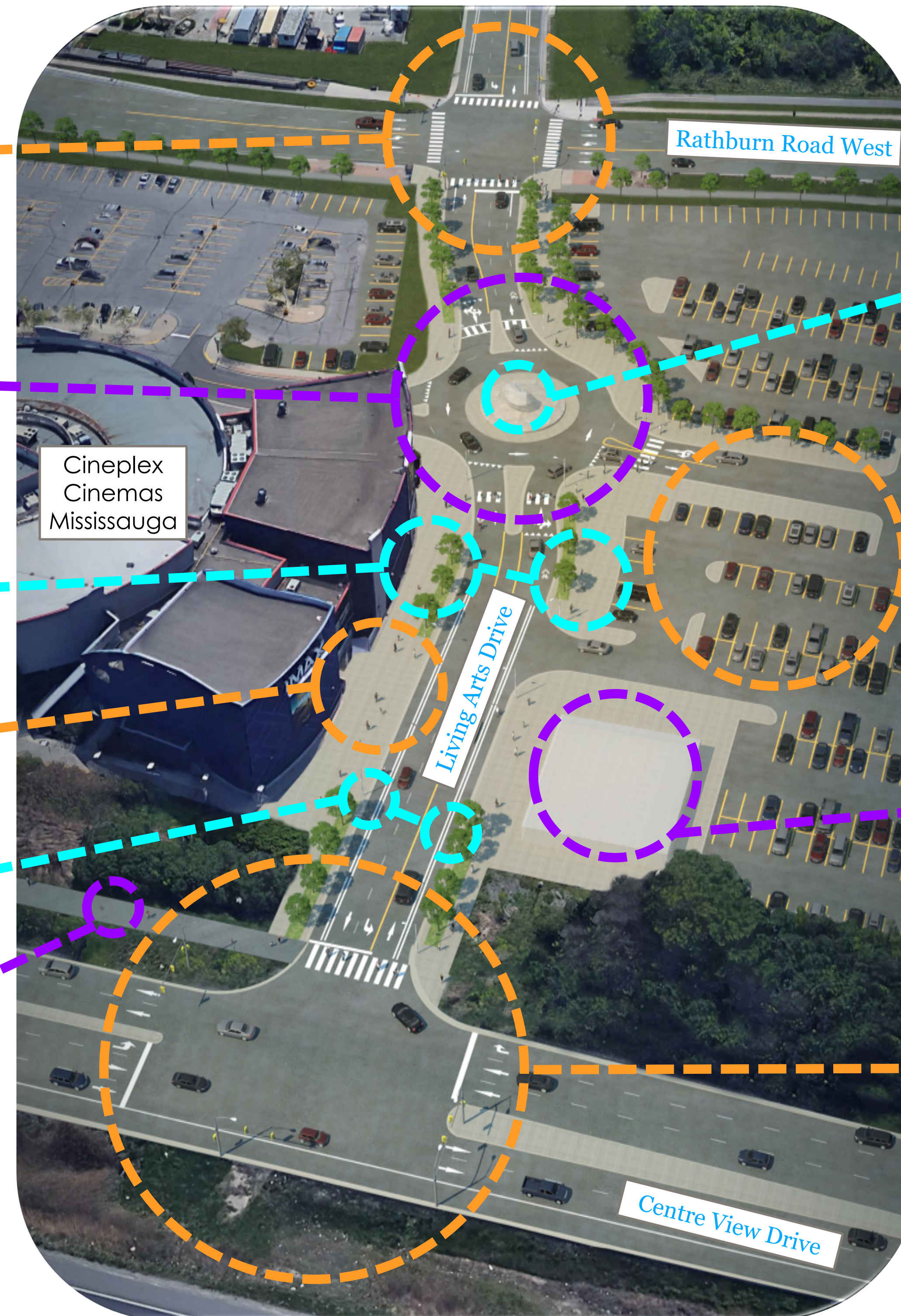
potential **multi-use trail** south of Centre View Drive

potential **public art feature** at mid-block intersection
(public art shown here is a concept only)

reconfigure existing parking lot adjacent to Cineplex Cinemas Mississauga

proposed **Alectra Utilities substation**

construct new signalized intersection at **Living Arts Drive & Centre View Drive**, add auxiliary turning lanes on **Centre View Drive**



Preliminary Design for the Preliminary Preferred Solution



looking south – from above Highway 403



- extension of Living Arts Drive
- new signalized intersection at Living Arts Drive & Centre View Drive
- new mid-block intersection (*configuration to be confirmed during detailed design*)

Preliminary Design for the Preliminary Preferred Solution



mid-block intersection

Cineplex
Cinemas
Mississauga

Living Arts Drive

looking north – from north of Rathburn Road West

potential **public art feature** at mid-block intersection
(public art shown here is a concept only)



"Possibilities"

Michel de Broin, 2012

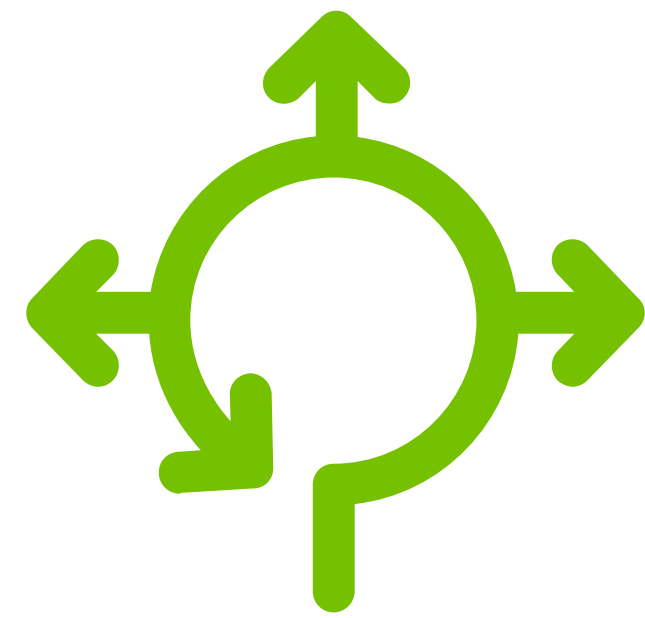
(example currently located in the central island of the roundabout at Square One Drive & Duke of York Boulevard)



- new mid-block intersection (*configuration to be confirmed during detailed design*)
- on-street bike lanes on both sides of Living Arts Drive

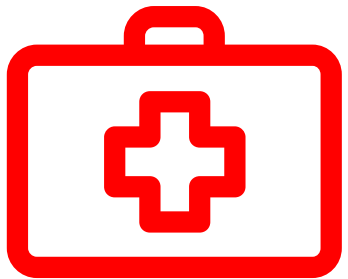
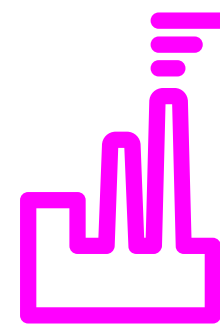



Why a Roundabout?

When Living Arts Drive is extended, a **single-lane roundabout** may be constructed mid-block.



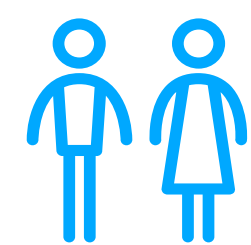
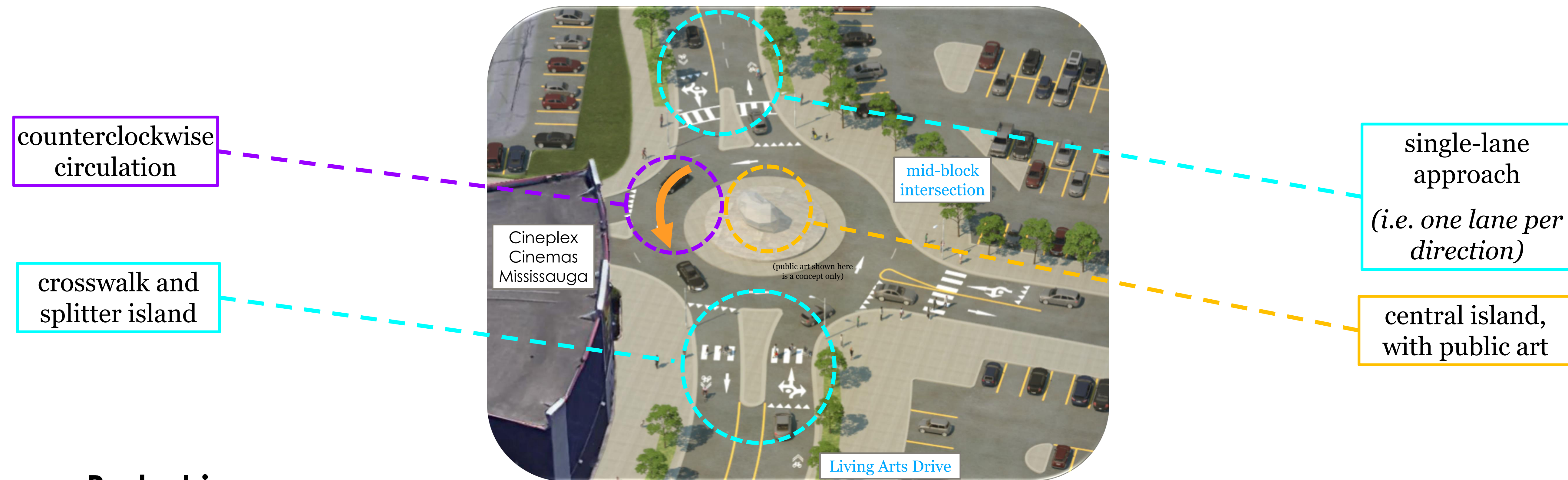
Roundabouts can offer a number of improvements over **signalized intersections**.



Improved Safety 	Roundabouts reduce the severity of potential collisions by: <ul style="list-style-type: none">⇒ forcing vehicles to travel more slowly⇒ reducing conflict points⇒ reducing conflict angles	Reduced Environmental Impact 	Fewer delays mean that vehicles travelling through a roundabout: <ul style="list-style-type: none">⇒ operate more efficiently (using less fuel)⇒ idle less (reducing unnecessary emissions)
Lower Speeds 	Vehicles must slow down to navigate a roundabout.	Less Maintenance 	Roundabouts eliminate the costs for maintenance and electricity that are required for traffic signals.
Fewer Delays 	Vehicles yield, rather than stop, when entering a roundabout – this reduces delay when compared to waiting for either a green light at a traffic signal or a gap in traffic at a stop sign	Improved Aesthetics	The central island of a roundabout can accommodate public art and landscaping .

text via <http://www.mto.gov.on.ca/english/ontario-511/roundabouts.shtml>

How to navigate a roundabout



Pedestrians...

⇒ cross at a marked crosswalk, using splitter islands to cross one direction of traffic at a time



Cyclists...

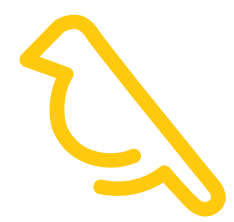
- ⇒ dismount before the roundabout and cross (like a pedestrian)
- ⇒ or, ride through the roundabout (like a vehicle)



Vehicles...

- ⇒ change lanes before the roundabout to make a right-turn, left-turn, or travel straight through
- ⇒ enter by yielding to traffic that's already in the roundabout
- ⇒ circulate in a counterclockwise direction (i.e. to the right of the central island)
- ⇒ exit by signaling right
- ⇒ stop for pedestrians using the crosswalk

Potential Impacts and Proposed Mitigation Measures



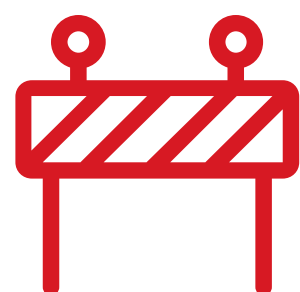
Birds

Measures will be in place to protect nesting and/or migratory birds.



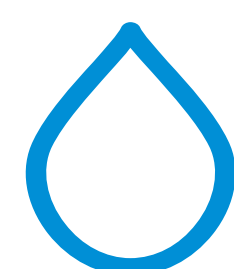
Property

The majority of the new roadway traverses private property. The City will negotiate the property requirements with private owners.



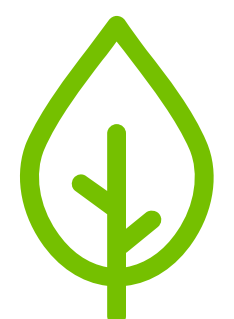
Construction Disturbances

Temporary disturbance to traffic/property access during construction. A construction management plan will be developed.



Stormwater (SWM)

Negligible increase in paved surface area. Project provides opportunity to decrease SWM flows to municipal storm sewer system. A SWM Plan will be developed for the project. Low Impact Development strategies will be used, where possible.



Vegetation/ Trees

Approximately 46 trees will be removed as part of the project, 9 of which are dead or in poor condition. A tree protection plan will be prepared to clearly define work areas and prevent damage to trees and natural vegetation that are to be retained.

What's Next?

- ✓ Review and consider comments and respond to questions received from members of the community and review agencies
- ✓ Confirm the Preferred Solution
- ✓ Complete the Project File and provide for 30-day public review period
- ✓ The City of Mississauga is planning to start construction in the spring 2018. The timing of implementation is subject to approval by City Council.

Let us know your thoughts!

- ✓ Please provide us with comments by completing a comment sheet this evening, or on the study website: www.mississauga.ca/portal/residents/livingartsea
- ✓ Please provide your comments by **October 26, 2017**

If you have any comments or questions, please contact the study email address (LivingArtsEA@stantec.com) or one of the following study team members:

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