



PREPARED FOR THE CITY OF ST. THOMAS

# Highbury Avenue Widening Class EA

Online Information Package



Thursday March 23, 2023

# Purpose of the Information Package

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This information is being provided to present and obtain input on

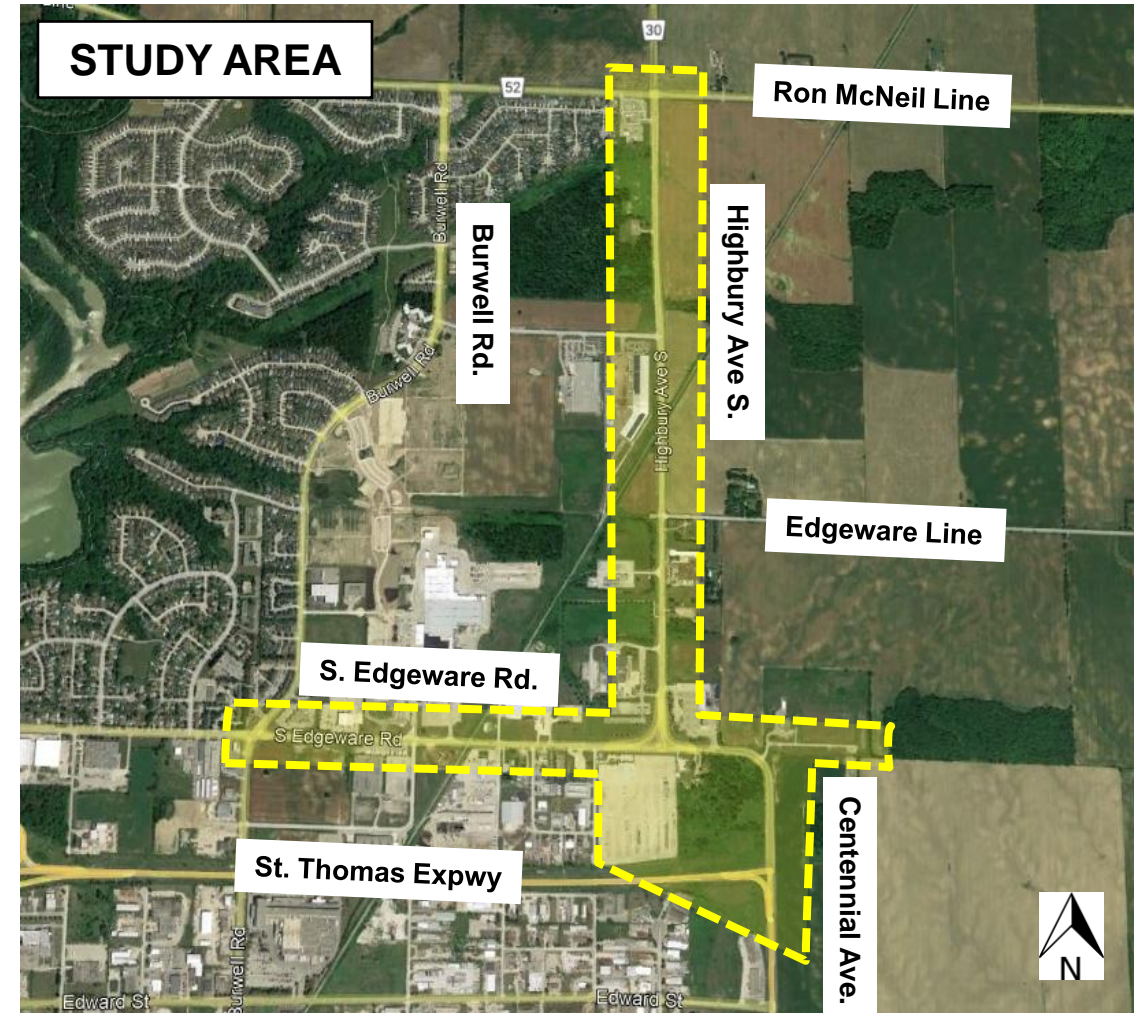
- › Study Area and Objectives
- › Municipal Class Environmental Assessment (Class EA) Process Being Undertaken
- › Existing Conditions
- › Problem / Opportunity Statement
- › Alternative Solutions and Preliminary Study Recommendations
- › Next Steps in the Project

Please review the materials and provide your input using the comment forms included in the project website or contact project staff to answer any questions.

# Study Area

The Highbury Avenue Widening Class EA study area consists of:

- › Highbury Avenue between Ron McNeil Line and South Edgeware Road
- › South Edgeware Road between Burwell Road and eastern terminus
- › Centennial Avenue between St. Thomas Expressway (ON Highway 3) and South Edgeware Road

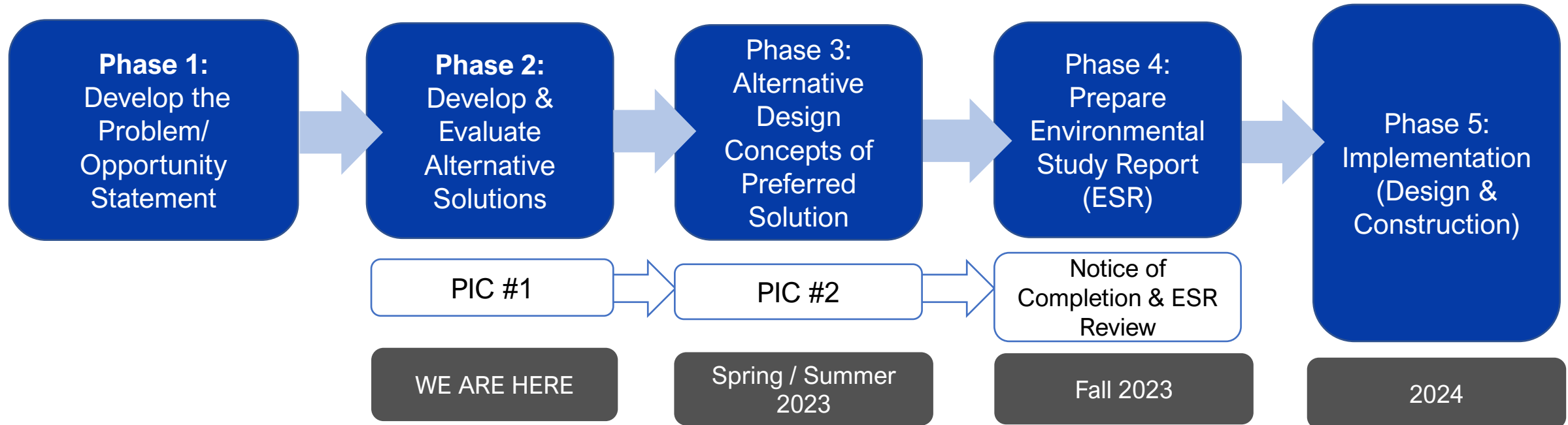


Study Area

- › The Class EA was initiated in response to ongoing and planned development on the east side of the City, and the associated increases in traffic.
- › The study will review opportunities to address:
  - Traffic operations and safety
  - Active transportation (walking, cycling) needs
  - Roadway drainage improvements and stormwater management
  - Upgrades of underground services (watermain, storm and sanitary sewer) as required

# Class EA Planning Process

- > This project is classified as a Schedule 'C' Municipal Class EA (Class EA) Project and is subject to Phases 1 through 4 of Municipal Class EA.
- > The City of St. Thomas Transportation Master Plan (TMP) Update satisfied Phases 1 and 2 of the MCEA Process for improvements to Highbury Avenue and South Edgeware Road.



Upon completion of Phase 4, an Environmental Study Report (ESR) will be documenting the Class EA planning process will be made available for a 30-day public review period. The ESR will also satisfy the requirements of the Ministry of Transportation (MTO) Class EA for Provincial Transportation Facilities for a Group 'B' project

# Need and Justification

The need & justification for this project was developed from the policies and programs developed in previously developed planning documents.

*St. Thomas Official Plan*

- Overall framework for the City of St. Thomas that guides growth and development in the City.

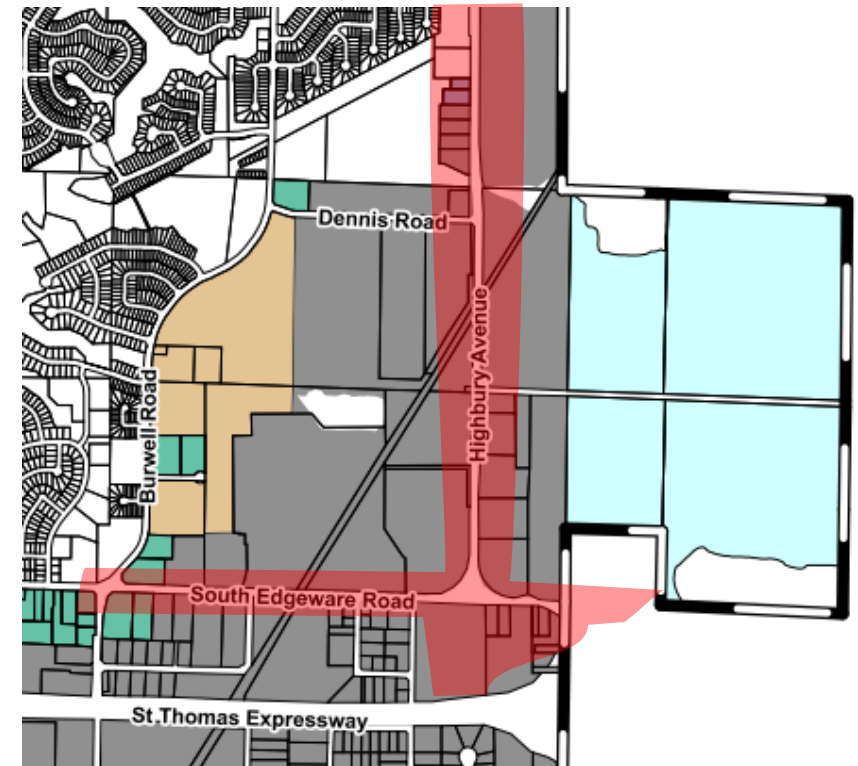
*St. Thomas Official Plan Amendment No. 90 (2018)*

- Identifies large swath of land as new Employment Lands at northeast corner of City, based on the recommendations of the *City of St. Thomas Employment Lands Review (2018)*

*St. Thomas Transportation Master Plan Update (2021)*

- Planning document that defines policies, programs and infrastructure improvements required to address transportation and growth needs from today through to 2041
- Recommends widening from Highbury Avenue from two (2) to four (4) lanes, and South Edgeware Road from two (2) to three (3) lanes.

OP Amendment Part 10 - New Employment Lands



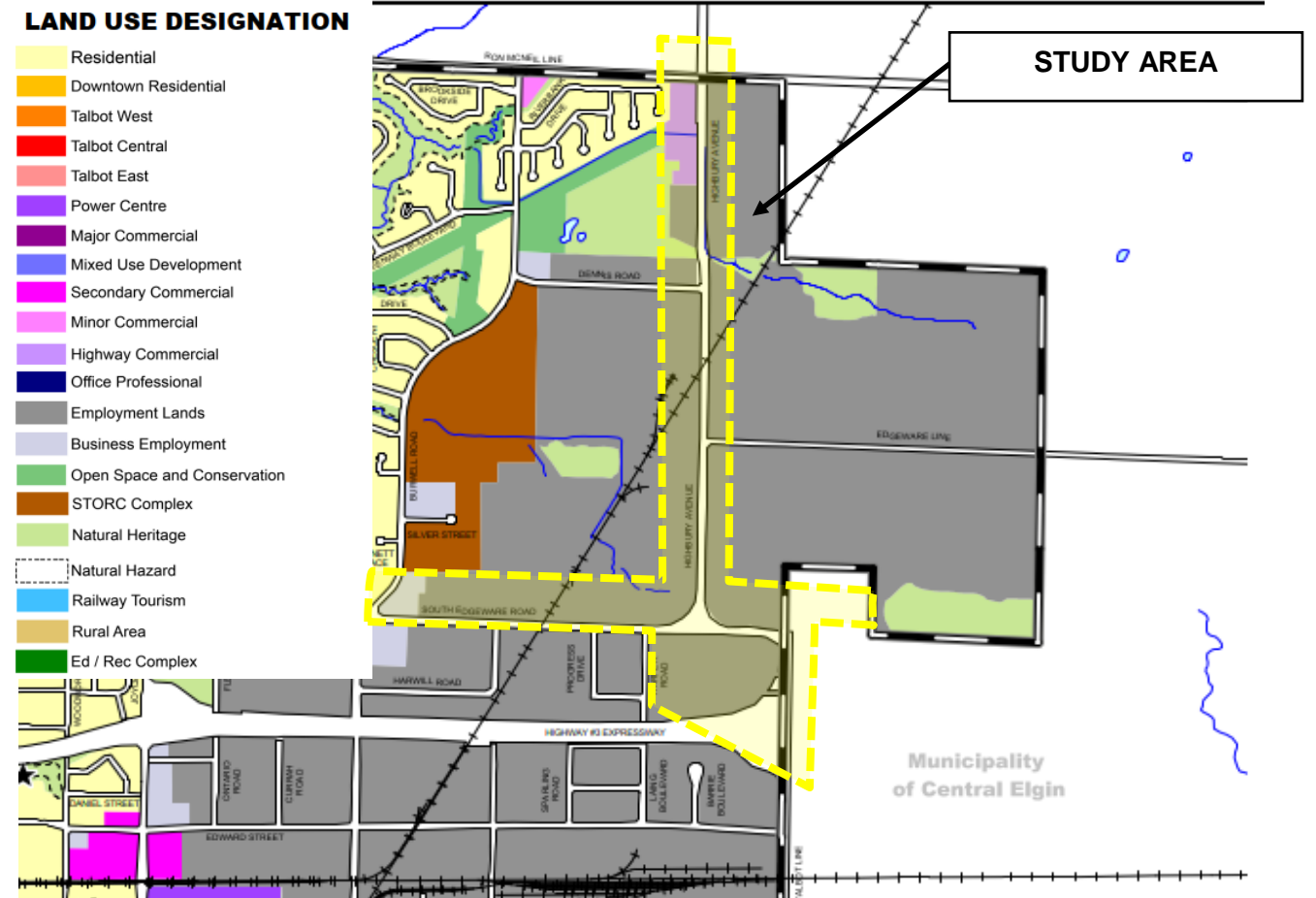
Official Plan Changes (Official Plan Amendment No. 90)

# Existing and Future Conditions – Socio-Economic Environment



- Existing land uses include agricultural and rural residential with lands zoned as Employment Lands within the *City of St. Thomas Official Plan*
- On March 2, 2023, the Province of Ontario passed *Bill 63, St. Thomas - Central Elgin Boundary Adjustment Act, 2023*
- On March 13, 2023, the Province of Ontario announced Volkswagen will build a battery manufacturing plant “mega-site” on the Employment Lands

**The existing road and municipal services networks do not support the planned use of the surrounding area.**



Schedule “A” – Land Use Plan (City of St. Thomas Official Plan)



# Existing and Future Traffic Conditions – Highbury Avenue



## > Current Traffic Conditions

- Two-lane 60 km/h arterial corridor; no pedestrian or cyclist amenities; no transit
- Approximately 1000 two-way volumes during the weekday a.m. peak hour, 750 two-way volumes during the weekday mid-day peak hour, and 1200 two-way volumes during the weekday p.m. peak hour.
- Considerable industrial truck volumes

## > Future Traffic Operations

- By 2043, planned growth in the area is anticipated to result in significant traffic volume and industrial truck traffic growth along Highbury Ave.
- Future business and industrial land uses will have direct access off Highbury Ave. resulting in truck ingress/egress movements at future commercial/industrial driveways
- Traffic forecasted to increase to approximately 1350 two-way volumes, 1500 two-way volumes, and 1550 two-way volumes during the weekday a.m., mid-day, and p.m. peak hours respectively
- **Current 2 lane cross-section is insufficient for future anticipated volumes**



Highbury Avenue – Existing Condition

The recommendation to widen Highbury Avenue to 4-lanes, as set out the by the City's Transportation Master Plan, has been **confirmed**.



# Current and Future Traffic Conditions – South Edgeware Road



## > Current Traffic Conditions

- Two-lane 60 km/h arterial corridor; no pedestrian or cyclist amenities; no transit
- Approximately 600 two-way volumes during the weekday a.m. peak hour, 600 two-way volumes during the weekday mid-day peak hour, and 850 two-way volumes during the weekday p.m. peak hour
- Considerable industrial truck volumes

## > Future Traffic Operations

- By 2043, planned growth in the area is anticipated to result in significant traffic volume and industrial truck traffic growth along South Edgeware Rd
- Future business and industrial land uses will have direct access off South Edgeware Road resulting in truck ingress/egress movements at future commercial/industrial driveways
- Traffic forecasted to increase to approximately 800 two-way volumes, 1000 two-way volumes, and 1000 two-way volumes during the weekday a.m., mid-day, and p.m. peak hours respectively
- **Current 2 lane cross-section is sufficient to accommodate future anticipated traffic volumes; however, a 3-lane cross section is recommended for its potential reduction in through traffic delays and certain types of collisions.**



South Edgeware Road – Existing Condition

The recommendation to widen South Edgeware Road to 3-lanes, as set out the by the City's Transportation Master Plan, has been **confirmed**.

## Existing and Future Traffic Conditions – St. Thomas Expressway Connectivity

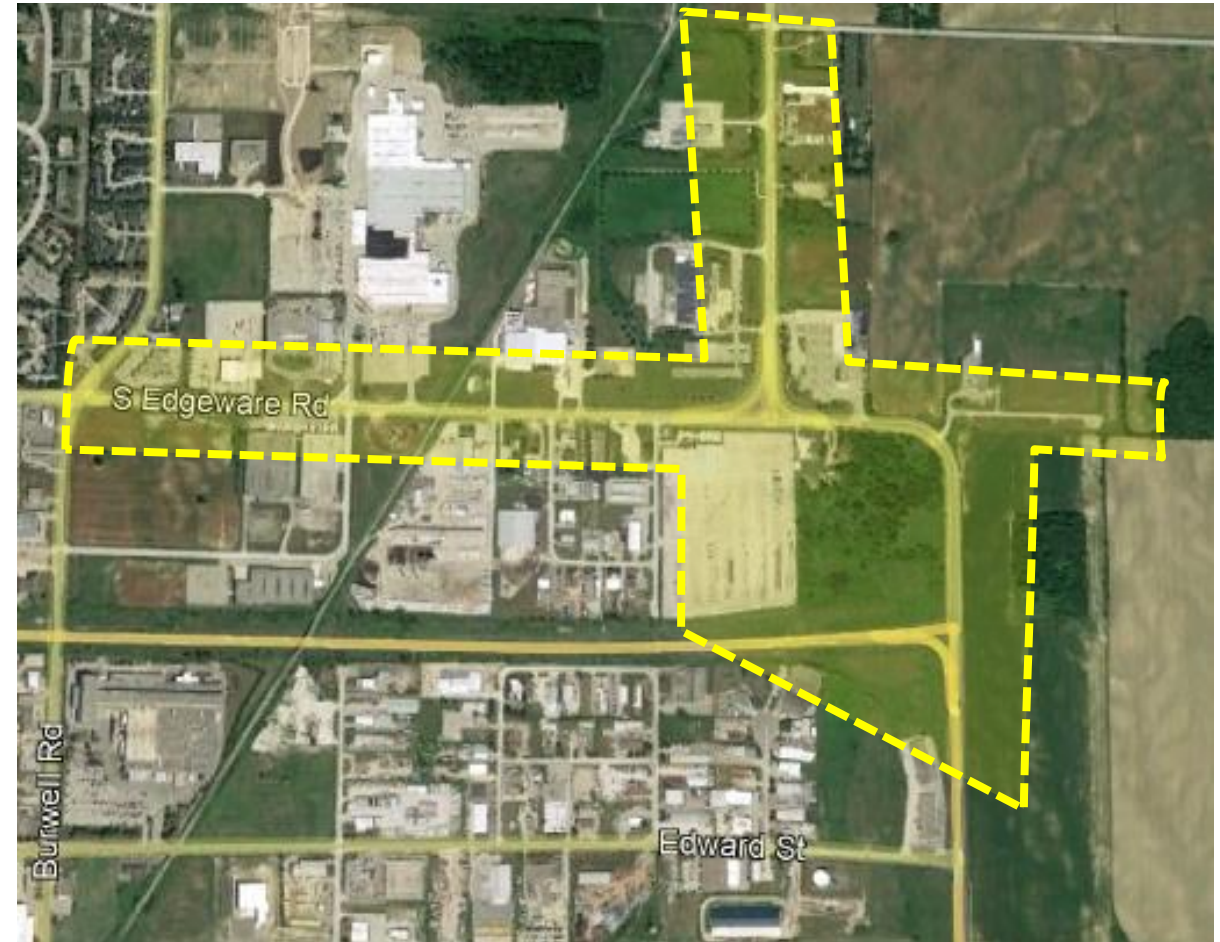


### › Current Traffic Conditions

- Existing Approximately 400 two-way volumes during the weekday a.m. peak hour, 250 two-way volumes during the weekday mid-day peak hour, and 400 two-way volumes during the weekday p.m. peak hour
- Considerable industrial truck volumes

### › Future Traffic Operations

- Traffic forecasted to increase to approximately 600 two-way volumes, 600 two-way volumes, and 700 two-way volumes during the weekday a.m., mid-day, and p.m. peak hours respectively
- Potential new roadway extending easterly beyond South Edgeware Road current terminus
- **Current roadway network and overall connectivity is insufficient for future anticipated volumes**



St. Thomas Expressway Connectivity– Existing Condition

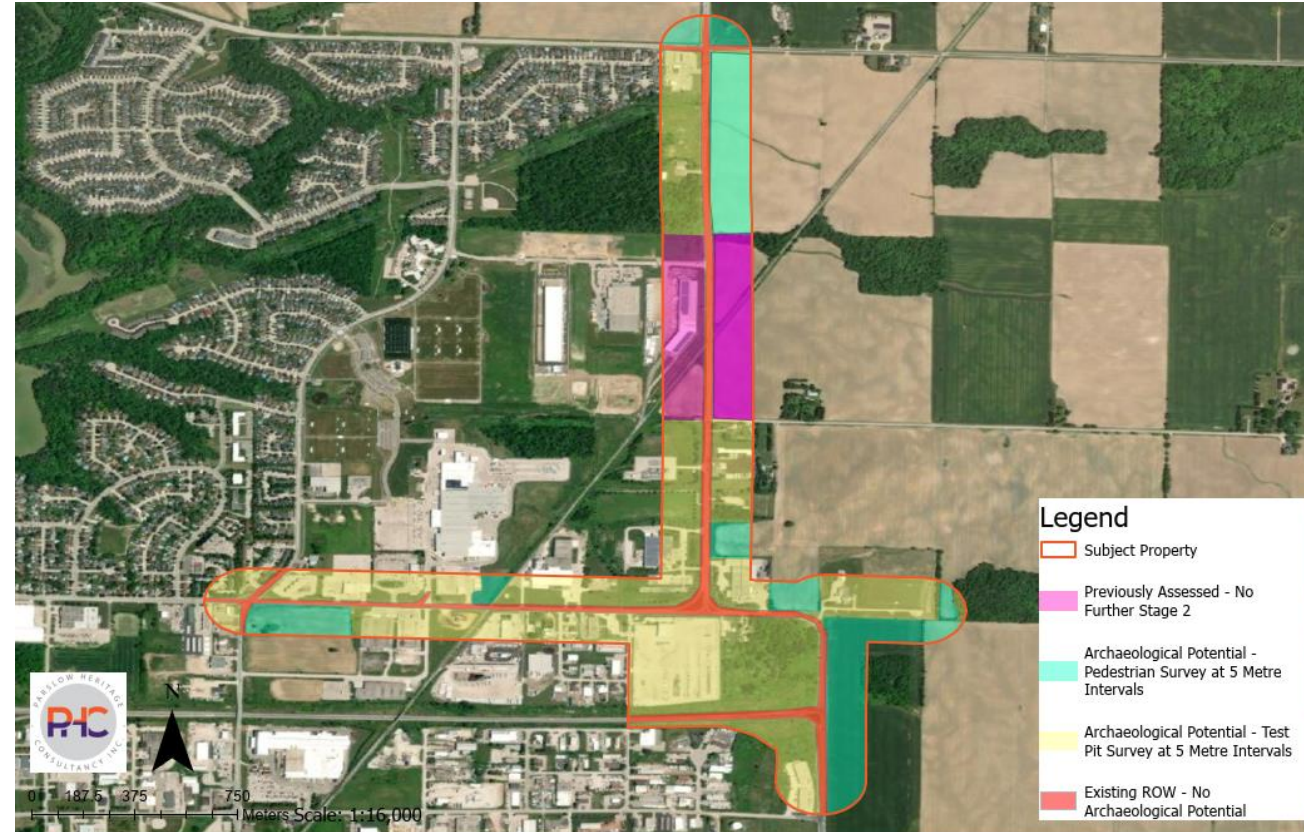
# Existing Conditions – Cultural Heritage

## Archaeological Resources

- › Stage 1 Archaeological Assessment to determine archaeological potential within the study area is underway
- › Undisturbed lands which have not been previously assessed, and exhibit archaeological potential, will require a Stage 2 Archaeological Assessment prior to construction, if impacted

## Cultural Heritage Resources

- › No properties within the study area are listed on the City's Heritage Register or designated under the *Ontario Heritage Act*
- › No further cultural heritage review is required



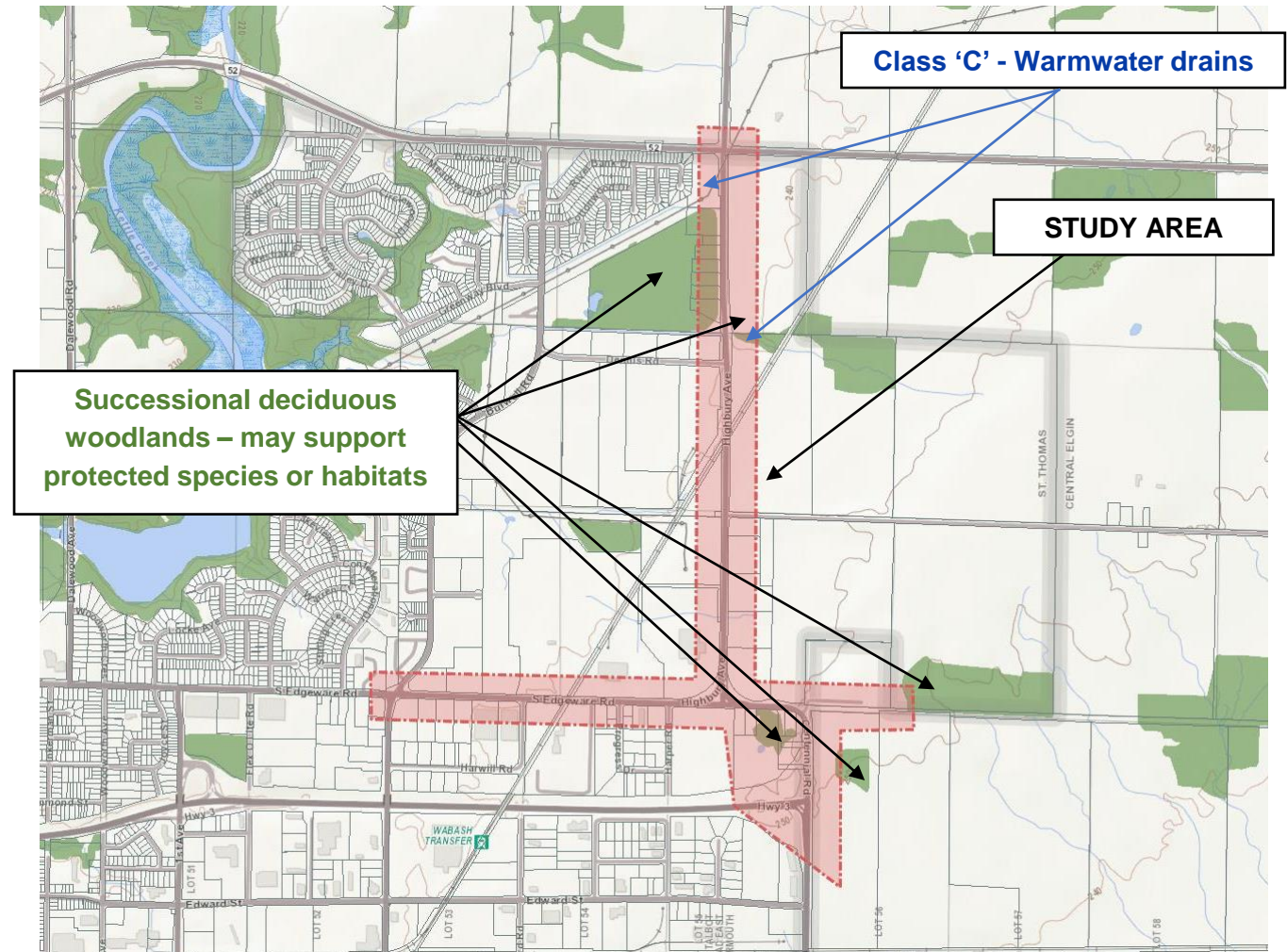
Schedule B Class Environmental Assessment (Class EA) for the widening of Highbury Avenue and South Edgeware Road

Map 7 - Archaeological Potential in Subject Property

Stage 1 Archaeological and Cultural Heritage Review Study Area

# Existing Conditions – Natural Environment

- › A desktop review of natural environment features within the study area has been completed and identified:
  - Deciduous woodland features adjacent to existing roadway
  - Two (2) warmwater drains
- › Appropriate measures will be developed to mitigate impacts associated with the study recommendations in Phase 3 of the EA
- › Potential Species at Risk (SAR) to be confirmed prior to construction

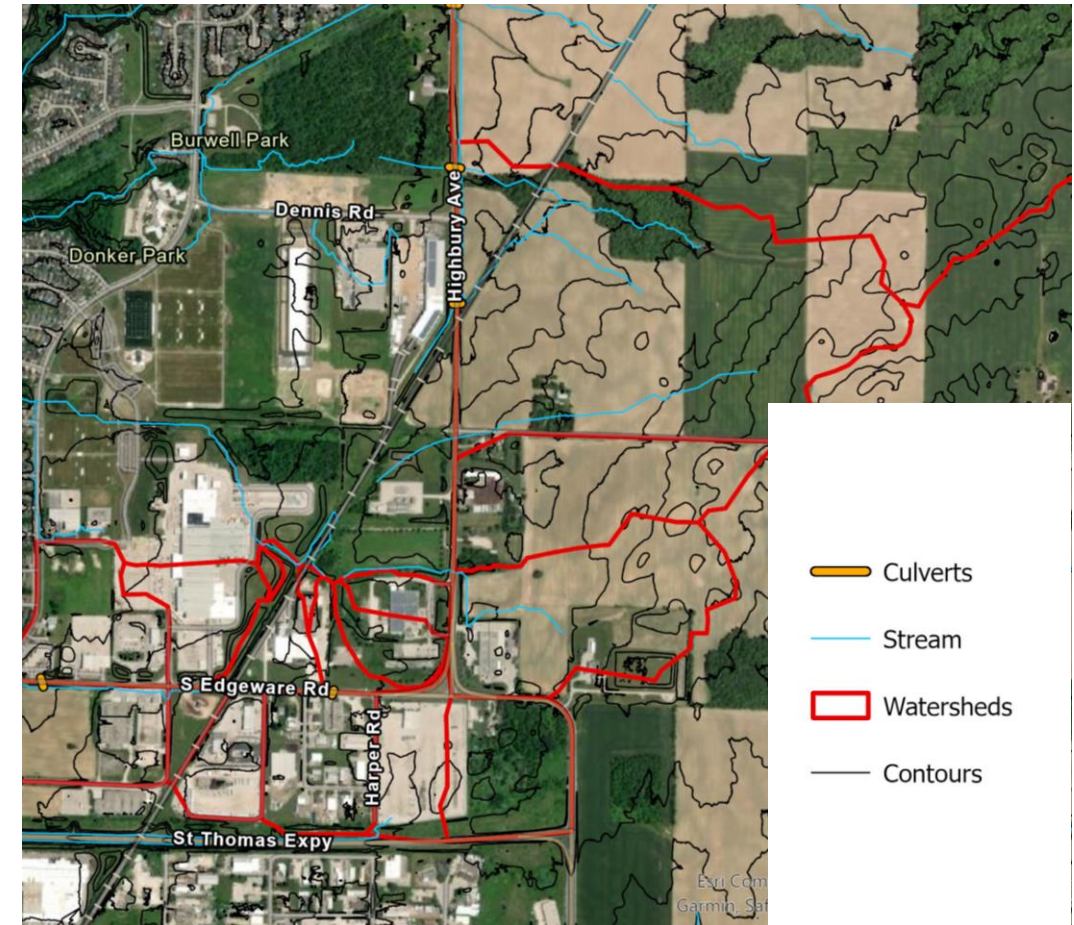


Natural Heritage Desktop Review Findings

# Existing Drainage & Stormwater – Highbury Avenue

- › The project watershed area lies between Kettle Creek (West of project limits) and Nineteen Creek (South-East of project limits)
- › 5 culverts have been identified on Highbury Avenue
  - 300mm and 600mm diameter culverts, north of Canadian Pacific Railway (CPR)
  - 1500mm diameter culvert, north of Dennis Road
  - 450mm diameter and 1500mm x 1100mm box culvert south of Ron McNeil Line
- › Water from the drainage areas east of Highbury Avenue flows west to Kettle Creek
- › There are storm sewer networks on sections of South Edgeware Road
- › 4 municipal drains (Robertson, Evely, Harries, and Jacobs) are in close proximity to the project limits. They appear to drain away from Highbury Avenue and South Edgeware Road
- › Windon main drain crosses Highbury Avenue south of Edgeware line via a ditch inlet catch basin

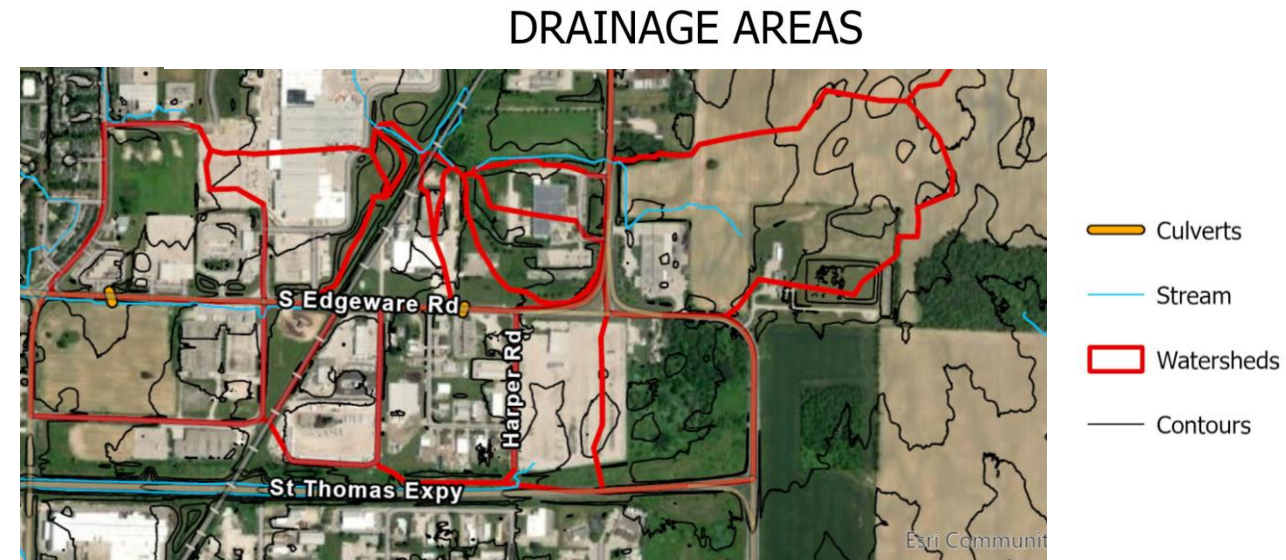
## DRAINAGE AREAS



Highbury Avenue Drainage Review Findings

# Existing Drainage & Stormwater – South Edgeware Road

- › The project watershed area lies between Kettle Creek (West of project limits) and Nineteen Creek (South-East of project limits).
- › 3 culverts have been identified on South Edgeware Road
  - 600mm diameter culvert west of Harper Road
  - 750mm diameter culvert connected to a 2400mm x 1800mm Storm Maintenance Structure to a 600mm diameter culvert west of CP Rail
  - 800mm diameter culvert east of Burwell Road
- › Drainage areas north and south of South Edgeware Road flow north-west to Kettle Creek
- › There are storm sewer networks on sections of South Edgeware Road
- › 4 municipal drains (Robertson, Evely, Harries, and Jacobs) are in close proximity to the project limits. They appear to drain away from Highbury Avenue and South Edgeware Road.



South Edgeware Road Drainage Review Findings

The Problem / Opportunity Statement outlines the need and justification for the overall project and establishes the general parameters, or scope, of the study.

The Problem / Opportunity Statement developed for the project is comprised of the following key elements:

- › The Highbury Avenue and South Edgeware Road corridors do not balance the full range of potential users within the community, including users of all ages and abilities, pedestrians, cyclists, transit vehicles and motorists.
- › The existing Highbury Avenue and South Edgeware Road corridors and subject intersections do not accommodate projected traffic volumes.
- › Connectivity between the the subject corridors and St. Thomas Expressway (ON Highway 3) requires improvements to accommodate future traffic volumes.
- › The existing watermains and sewers along the corridor are not currently positioned to provide opportunities for future connection to designated development lands.

# Alternative Solutions

The following alternative solutions (Phase 2 Class EA) to improve connectivity with Highway 3 were developed:

- › **Alternative 1: Do Nothing**
- › **Alternative 2 – Upgrade Centennial Avenue and Existing Intersections**
- › **Alternative 3 – Realign Highbury Avenue with new Traffic Signals at key intersections**
- › **Alternative 4 – Realign Highbury Avenue with new Roundabout Intersections**



St. Thomas Expressway Connectivity– Existing Condition



# Alternative 1 – Do Nothing

Road network and intersections remain as is, with no improvements. Required to be considered as part of the EA planning & design process for comparison purposes.

- ✗ Does not accommodate projected traffic volumes
- ✗ Does not improve road network connectivity
- ✗ Does not improve multi-modal safety

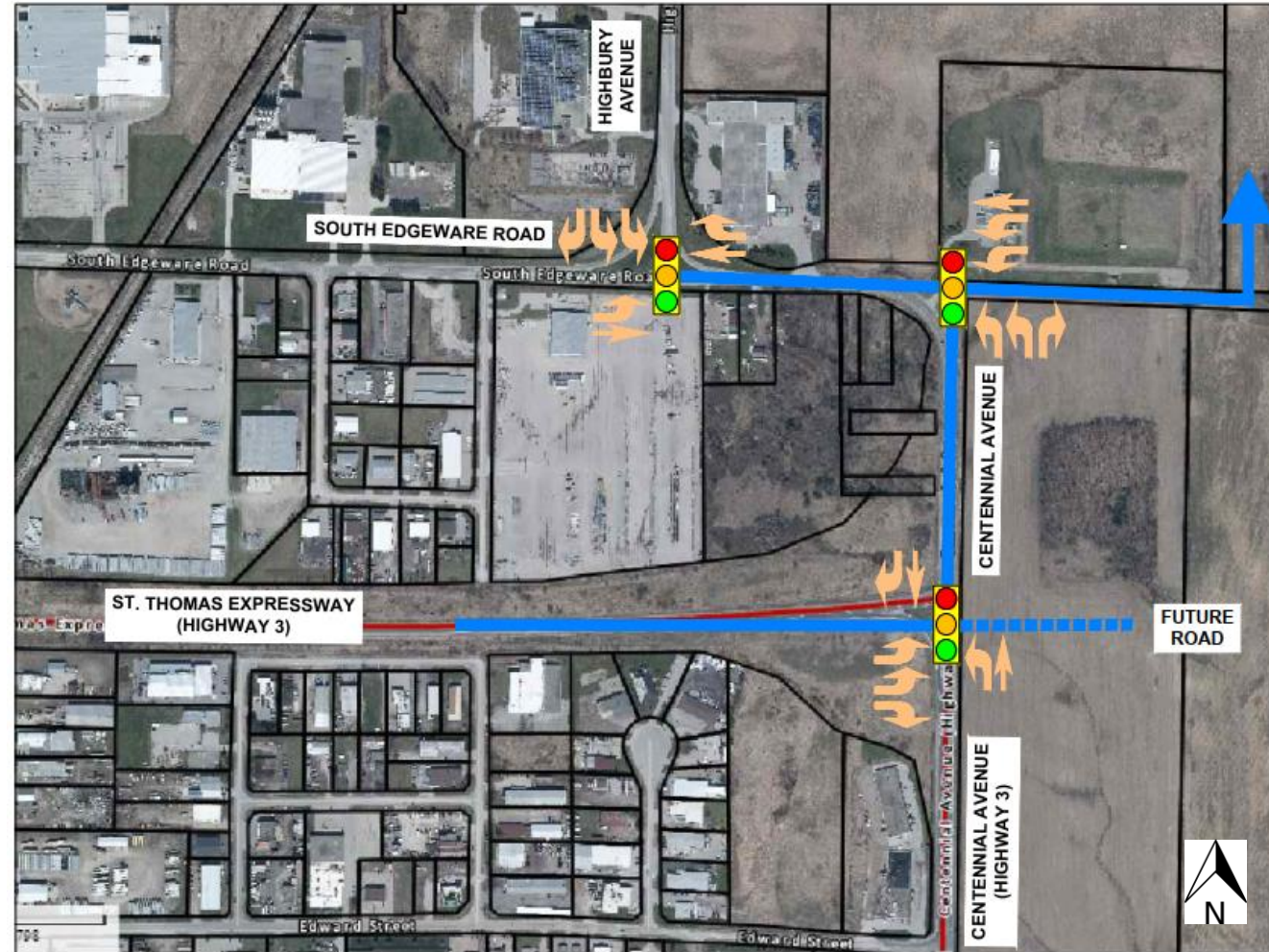


St. Thomas Expressway Connectivity– Existing Condition

## Alternative 2 – Upgrade Centennial Avenue and Existing Intersections

Upgrade Centennial Avenue and South Edgeware Road east of Highbury Avenue, maintaining the existing roadway configuration.

- ✗ Does not accommodate projected traffic volumes
- ✗ Slightly improves road network connectivity
- ✗ Slightly improves multi-modal safety

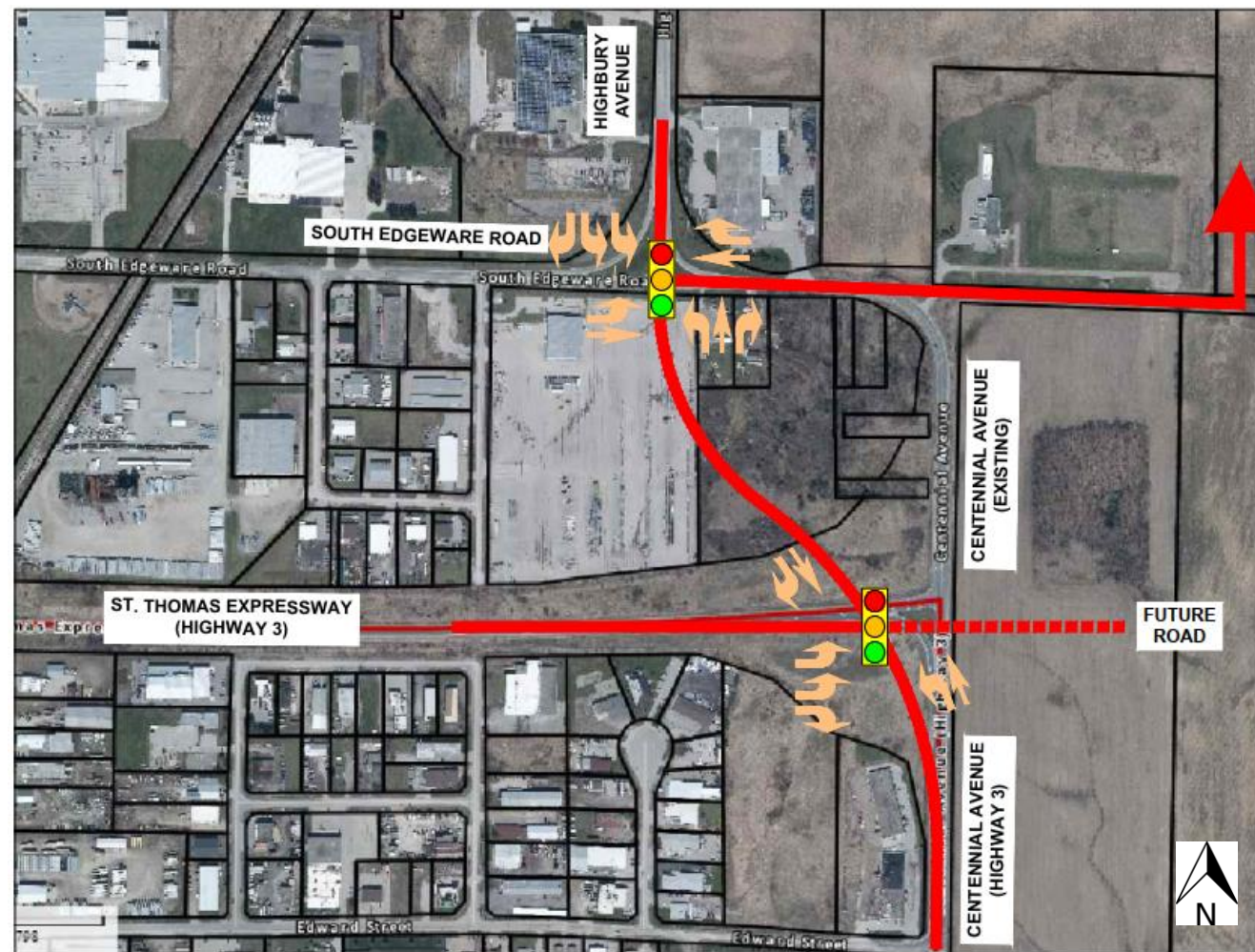


Upgrade Centennial Avenue and Existing Intersections

## Alternative 3 – Realign Highbury Avenue with new Traffic Signals

Extend Highbury Avenue directly south to intersect with Highway 3 and install new traffic signals at key intersections.

- ✓ Accommodates projected traffic demands
- ✓ Provides improved connectivity to area road network over Alternative 2
- ✓ Improved multi-modal traffic operations over Alternative 3

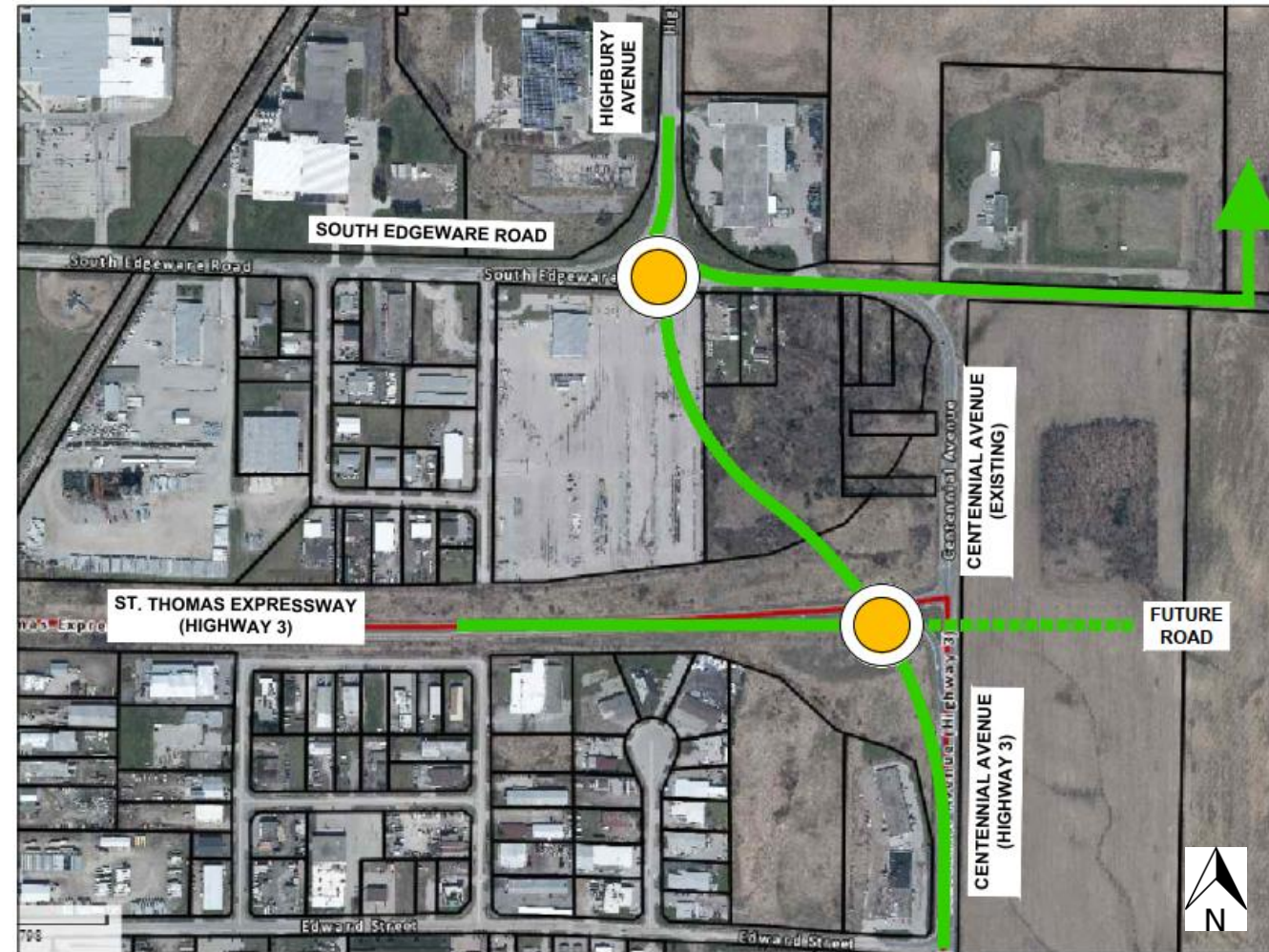


Realign Highbury Avenue with new Traffic Signals

## Alternative 4 – Realign Highbury Avenue with new Roundabout Intersections

Extend Highbury Avenue directly south to intersect with Highway 3 and install new roundabouts at key intersections.

- ✓ Accommodates projected traffic demands
- ✓ Provides improved connectivity to area road network over Alternative 2
- ✓ Improved multi-modal traffic operations over Alternative 2
- ✓ Improved traffic safety and overall traffic flow over Alternatives 2 and 3



Realign Highbury Avenue with new Roundabout Intersections

# Evaluation of Alternative Solutions – Methodology

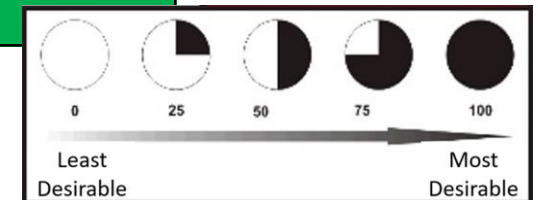
- › Evaluation criteria representing the broad definition of the environment, as described in the EA Act were developed to comparatively evaluate the alternative solutions.

<b>CRITERIA</b>	<b>DESCRIPTION</b>
<b>Traffic Operations and Safety</b>	How will the alternative serve the existing and future vehicular, pedestrian and cycling traffic needs? (Safety, Volumes, Active Transportation, Sightlines)
<b>Socio-Economic Environment</b>	What impacts will the alternative have on the local community (e.g., compatibility with area land use, impacts on local businesses, property requirements, access restrictions, etc.)
<b>Natural Environment and Climate Change</b>	How does the alternative affect existing vegetation, water quality, fisheries/wildlife and habitat? Does the alternative address climate change?
<b>Cultural Heritage Resources</b>	Will the alternative affect archaeological, cultural heritage resources or Indigenous communities?
<b>Costs</b>	What is the capital cost of the alternative? What is the cost for utility relocations, property acquisitions, maintenance and operation costs?

# Evaluation of Alternative Solutions

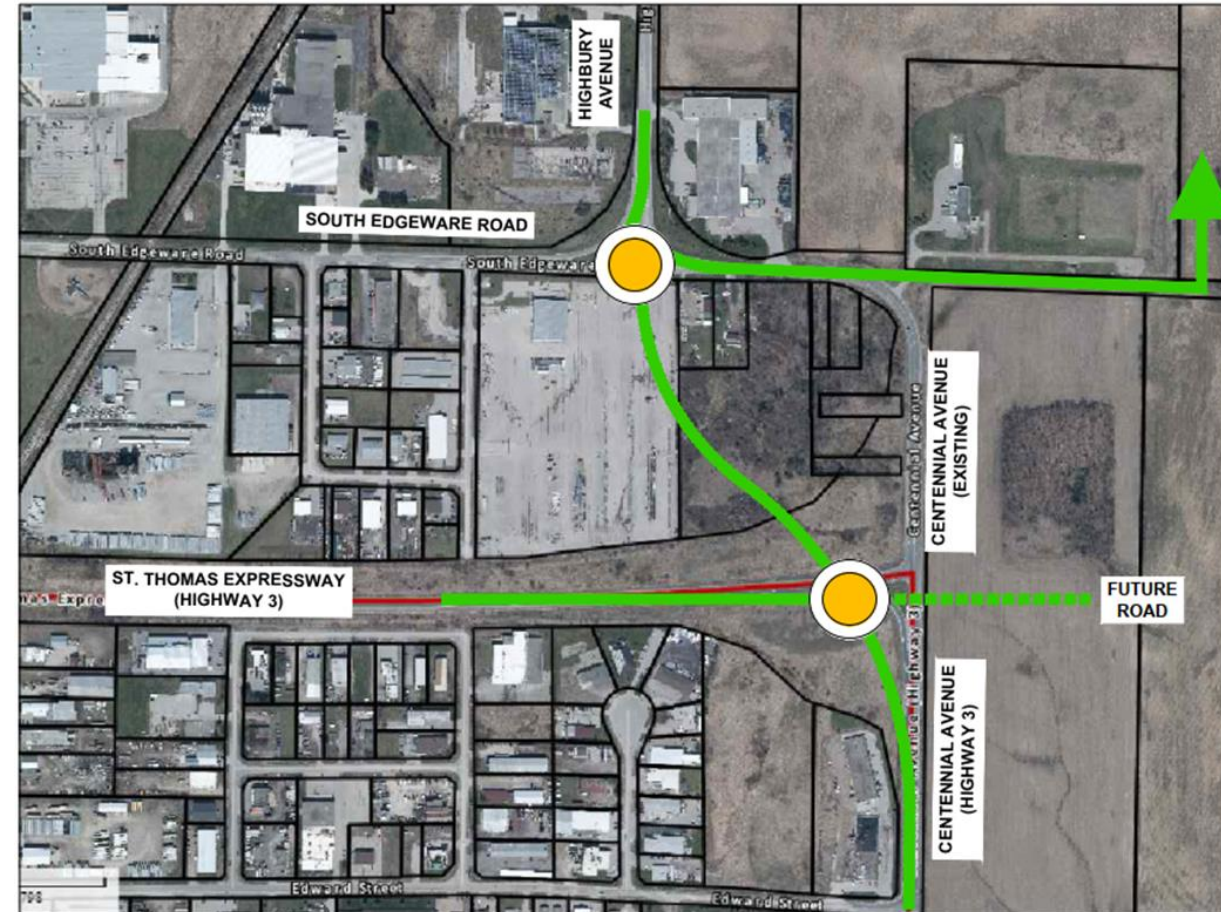
Alternative Solutions	Traffic Operations & Safety	Social Environment	Natural Environment	Cultural Heritage Resources	Cost	Evaluation Summary
Alternative 1 - Do Nothing						Not Recommended
2. Upgrade Centennial Avenue and Existing Intersections						Not Recommended
3. Realign Highbury Avenue to the south with new Traffic Signals						Not Recommended
4. Realign Highbury Avenue to the south with new Roundabout Intersections						Recommended to be Carried Forward

> Alternative 4 - Realign Highbury Avenue with new Roundabout Intersections is recommended to be carried forward.



# Summary of Recommendations

- › Widen Highbury Avenue to 4-lanes (cross-section and intersection control to be confirmed in Phase 3)
- › Widen South Edgware Road to 3-lanes (cross-section and intersection control to be confirmed in Phase 3)
- › Realign Highbury Avenue with new Roundabout Intersections
  - Extend Highbury Avenue south to provide improved connectivity with St. Thomas Expressway (ON Hwy 3)
  - Upgrade South Edgware Road at Highbury Avenue intersection to a multi-lane roundabout
  - Upgrade St. Thomas Expressway at Centennial Ave with the new Highbury Avenue extension to a multi-lane roundabout
- › Upgrade underground services (watermain, storm and sanitary sewer) as required



Realign Highbury Avenue with new Roundabout Intersections

# Next Steps

- › Confirm preferred solution in consideration of feedback received from public and technical agencies.
- › Develop & evaluate alternative design concepts to implement the preferred solution (e.g. roadway cross sections, intersection designs).
- › Present preferred design concepts at 2nd PIC (Spring 2023).
- › Prepare and submit Environmental Study Report for 30 Day public review (Fall 2023).
- › Proceed to detailed design and construction (2024 pending Council approval and budget).



Highbury Avenue – Existing Condition



# Your Input is Important

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- › Thank you for reviewing the information. Please provide your comments completing a **Comment Form** on the project website by **April 6, 2023**, at <http://www.stthomas.ca/HighburyWideningEA>
- › Alternatively, you can email your comments to the project team contacts listed below by **April 6, 2023**

**Nathan Bokma, P.Eng., Manager of Development and Compliance**  
City of St. Thomas  
Phone: 519-631-1680 ext. 4151  
Email: [nbokma@stthomas.ca](mailto:nbokma@stthomas.ca)

**Henry Huotari, P. Eng.**  
Associate, Senior Project Manager, R.V.  
Anderson Associates Limited  
Phone: 519-681-9916 ext. 5027  
Email: [hhuotari@rvanderson.com](mailto:hhuotari@rvanderson.com)



- › This presentation can be made available in alternative formats upon request.