

University Drive Bridge Class Environmental Assessment (EA)

Public Information Centre No. 1
November 15 to November 30, 2022

Land Acknowledgement

- We/I acknowledge that Western University is located on the traditional territories of the Anishinaabek, Haudenosaunee, Lūnaapéewak and Chonnonton Nations, on lands connected with the London Township and Sombra Treaties of 1796 and the Dish with One Spoon Covenant Wampum. This land continues to be home to diverse Indigenous Peoples (First Nations, Métis and Inuit) whom we recognize as contemporary stewards of the land and vital contributors of our society.

Welcome

- Thank you for participating in the first Public Information Centre (PIC) for Western University's Class Environmental Assessment (EA) Study for the University Drive Bridge.
- The existing bridge is near the end of its service life for vehicular traffic and this EA Study will help define a plan for the Thames River crossing.
- There is an opportunity at any time during the EA process for interested persons to provide written input. Any comments received will be collected under the *Environmental Assessment Act* and, with the exception of personal information, will become part of the public record.
- PIC No. 1 comments can be submitted by emailing westernubridge@uwo.ca by November 30, 2022.



Project Team



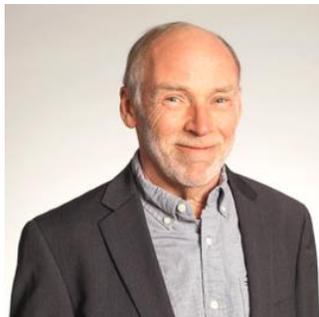
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Agenda and Exhibits

- Introduction
- Problem and Opportunity Statement
- Existing Condition
- Alternative Planning Solutions
- Next Steps
- Questions



PIC Purpose

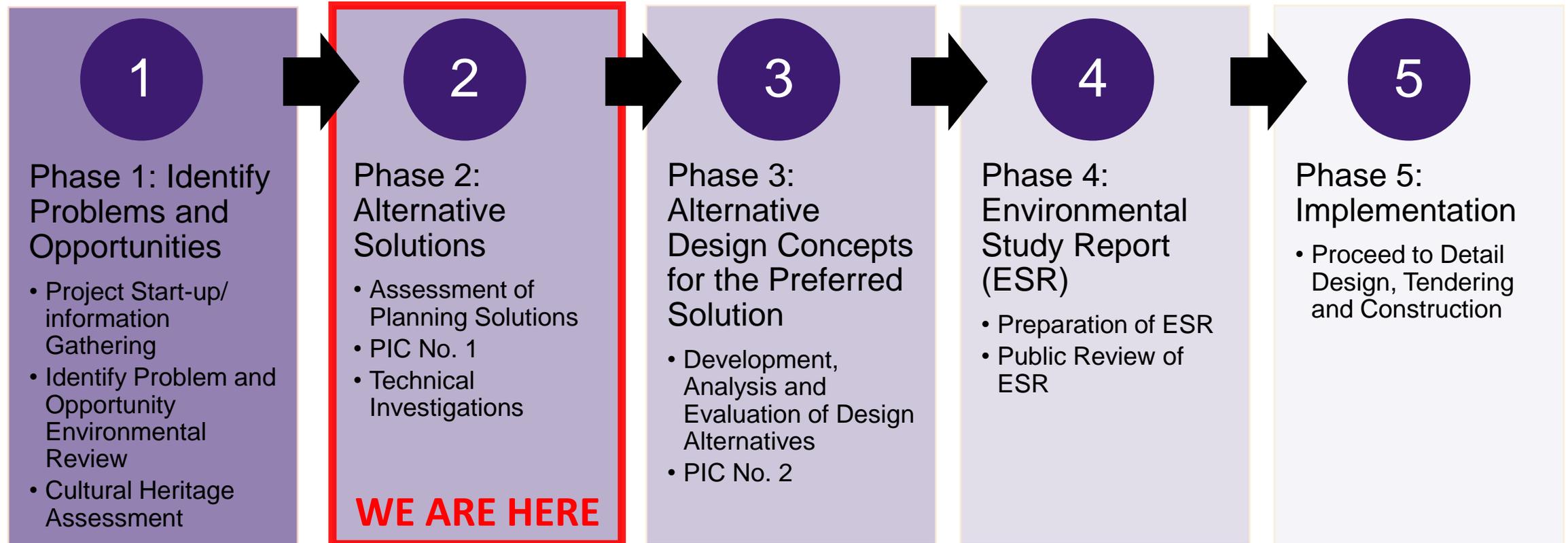
- Project Introduction.
- Provide an overview of the Municipal Class Environmental Assessment (MCEA) process.
- Provide a summary of work completed to date.
- Present the Problem and Opportunity Statement.
- Describe the existing conditions in the area.
- Present the alternative planning solutions, evaluation and preliminary recommendations.
- Receive your feedback.



Municipal Class Environmental Assessment (Class EA) Process

- The University Drive Bridge was constructed by Western and opened to traffic in the fall of 1923, on lands owned by the University. As such, the University is a private sector Proponent under the EA Act. The Municipal Class EA affords the use of the Class EA for private sector undertakings.
- This project is being undertaken in accordance with the Municipal Engineer Association's Class EA for a Schedule C project.
- The Class EA process allows an opportunity for public consultation during the planning and design process.
- The Municipal Class EA process is illustrated on the following exhibit.

Municipal Class Environmental Assessment (Class EA) Process



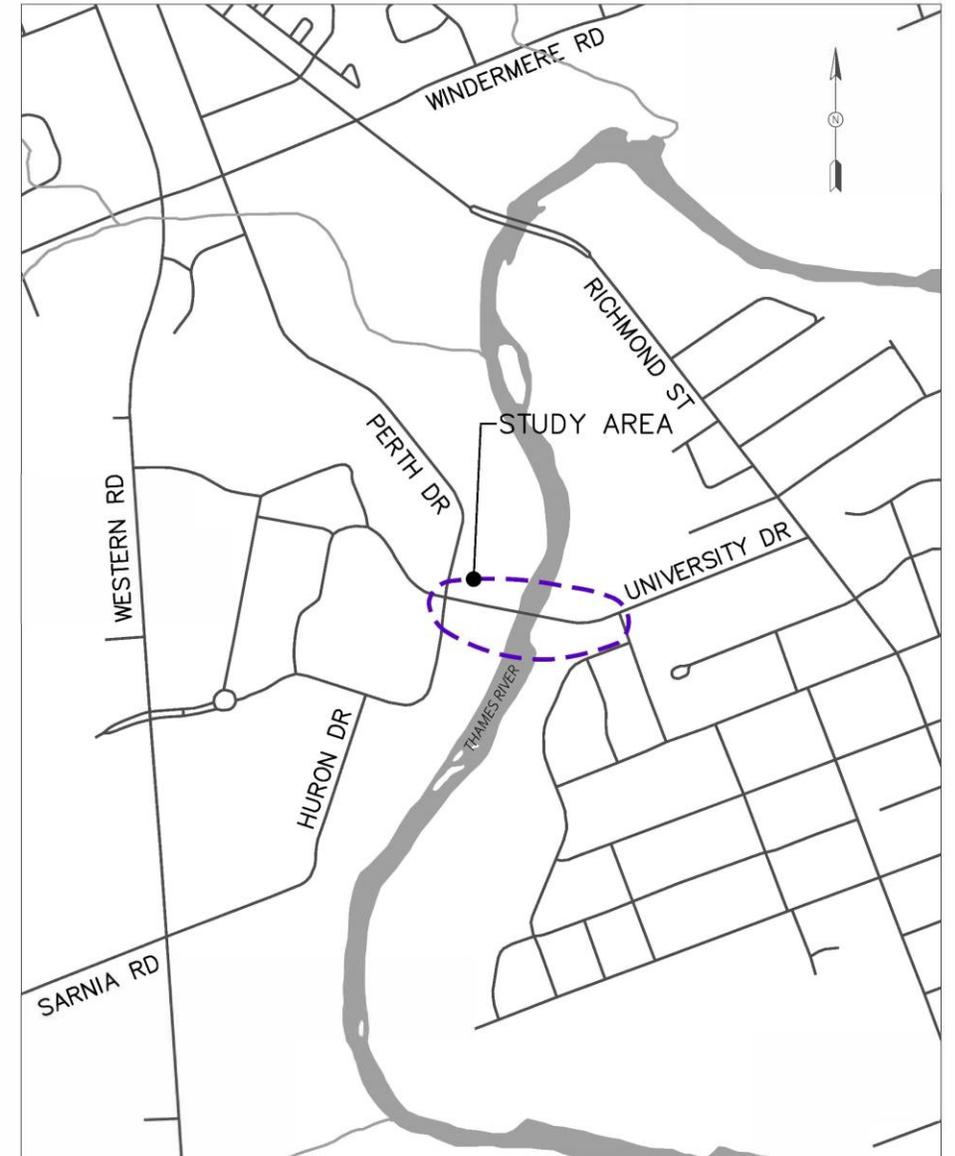
Background

- A Class Environmental Assessment (EA) Study will be completed to develop a bridge management plan for the University Drive Bridge across the North Thames River.
- This Study will consider how to provide a structure that can address the active and vehicular transportation requirements of a growing campus, while respecting the 100-year-old landmark character of the bridge framing the view to the Middlesex County Memorial Tower at University College that is synonymous with Western University.
- The project will complete all phases of the approved Municipal Class EA process (2015) by establishing the need and justification for the project, considering all alternatives and proactively involving the public in developing a Recommended Plan for improvements.



Study Area

- The Study Area is located on the Western University Campus and includes the University Drive Bridge over the North Branch of the Thames River and adjacent areas.



Study Area Features



Existing Conditions Structure

- The existing University Bridge was initially constructed in 1922.
- The structure is a steel girder bridge with the girders shaped to provide an arch profile.
- The bridge was modified and maintained over the years to suit changing needs, with the major change being the widening of the sidewalk and deck replacement in 2002.
- Additional bridge repairs have been completed based on a detailed inspection of the bridge in 2016.
- Ongoing inspections show the bridge condition is stable.
- The bridge remains open to load restricted traffic.



Existing Conditions

Active Transportation

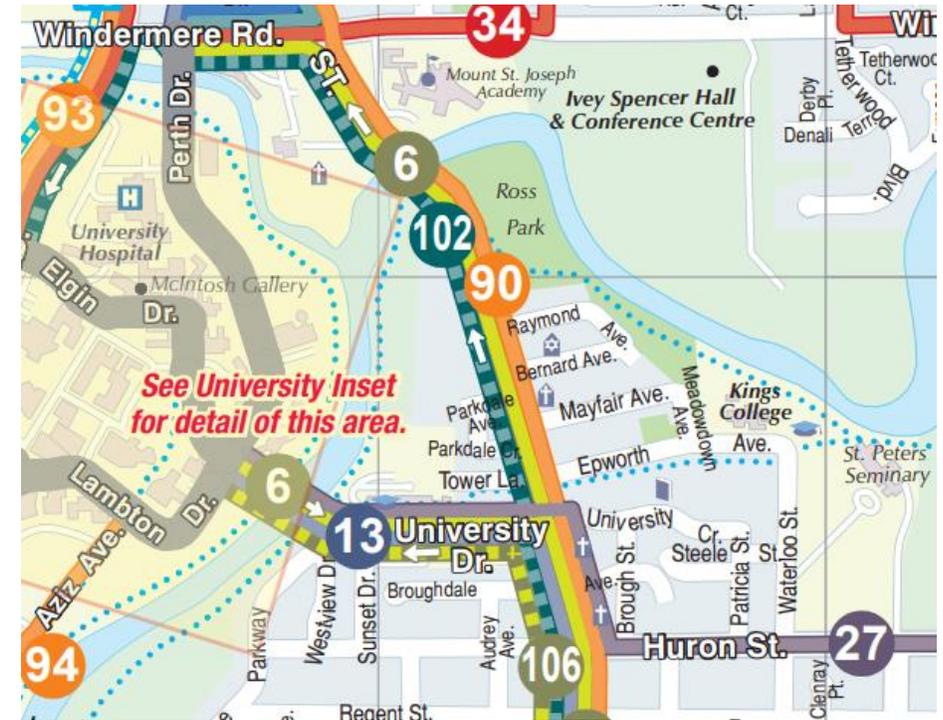
- The existing bridge experiences high volumes of pedestrian and cyclist traffic crossing the Thames River at this location.
- This existing bridge does not follow the Complete Streets approach to provide separate space for each mode.
- The Thames Valley Parkway along the River is a major spine in the City of London's active transportation network, which also serves the University community.



Existing Conditions

Transit

- Western University is a large generator of transit ridership in the City of London.
- The existing bridge accommodates four London Transit Routes (6, 13, 27 and 106).



Source: London Transit System Map

Existing Conditions

Traffic

- University Drive currently carries an average of approximately 3,000 vehicles/day.
- Traffic uses the route as a shortcut and accounts for a significant percentage of vehicular traffic on University Drive.
- University Drive also provides a means of vehicular access to the London Health Sciences Centre's University Campus.



Existing Conditions

Natural Environment

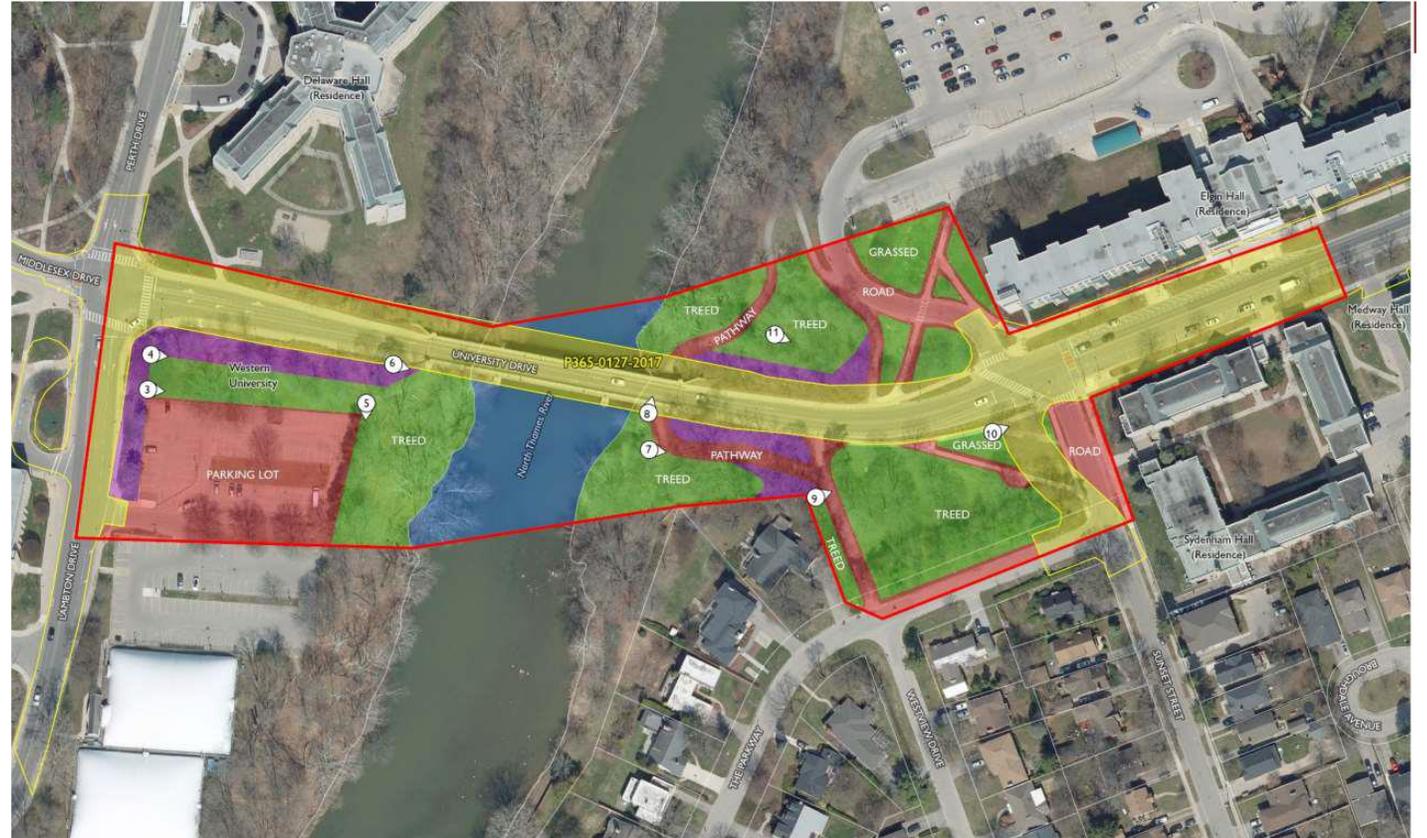
- Environmental baseline surveys are being completed.
- There is potential for aquatic and terrestrial Species at Risk in the vicinity of the Study Area.
- The Study will address potential impacts to the Natural Heritage System.
- Regulatory agencies have been contacted and will review the Study recommendations.



Existing Conditions

Archaeology

- A Stage 1 Archaeological Assessment has been completed and has determined areas of archaeological potential (see green shading). A Stage 2 Archaeological Assessment will be completed as part of the EA.
- A marine assessment will be required if the blue shaded area is impacted.



Existing Conditions

Cultural Heritage

- A Cultural Heritage Evaluation Report was previously completed in 2017 which concluded that the University Drive Bridge demonstrated cultural heritage value or interest
- The bridge is listed on the City of London's Heritage Register of Properties of Potential Heritage Value or Interest
- A Heritage Assessment Report will be completed to assess the cultural heritage impacts of the Design Alternatives



Existing Conditions Infrastructure

- The existing bridge carries private and public utilities including a watermain, communications and gas utilities.



Problem and Opportunity Statement

Problem: The existing bridge is nearing the end of its service life as a vehicular bridge and has insufficient width to suitably accommodate the number of vehicles, pedestrians and cyclists. The EA will consider a range of improvement alternatives to address the University's transportation requirements while considering the character of the bridge that is synonymous with Western University's campus collegiate gothic style of architecture.

Opportunity: This Study will develop an active transportation focused Recommended Plan that can be integrated with the University's Campus Master Plan, Open Space Strategy and ongoing campus development.



Background Information

Western University Campus Master Plan (2015)

The Campus Master Plan identified key initiatives, including:

- Improve Campus Connectivity
- Creation of High-Quality Public Spaces
- Strengthening and reinforcing the Campus Gateways
- Enhancing University Drive as a gateway to the campus



Background Information

Western's Open Space Strategy (2018)

This Strategy states “The bridge on University Drive was the original gateway to the campus and frames the iconic view towards University College. Although internalized into the larger campus, it will continue to serve as an important threshold in the campus.”

Key considerations from the Strategy related to the Study Area include:

- Limiting access to the University Drive Bridge. Only bicycles, pedestrians, transit vehicles, emergency services and designated university vehicles would be permitted on the bridge.
- Creating a dedicated pedestrian drop-off area immediately east of the bridge.



Design Considerations

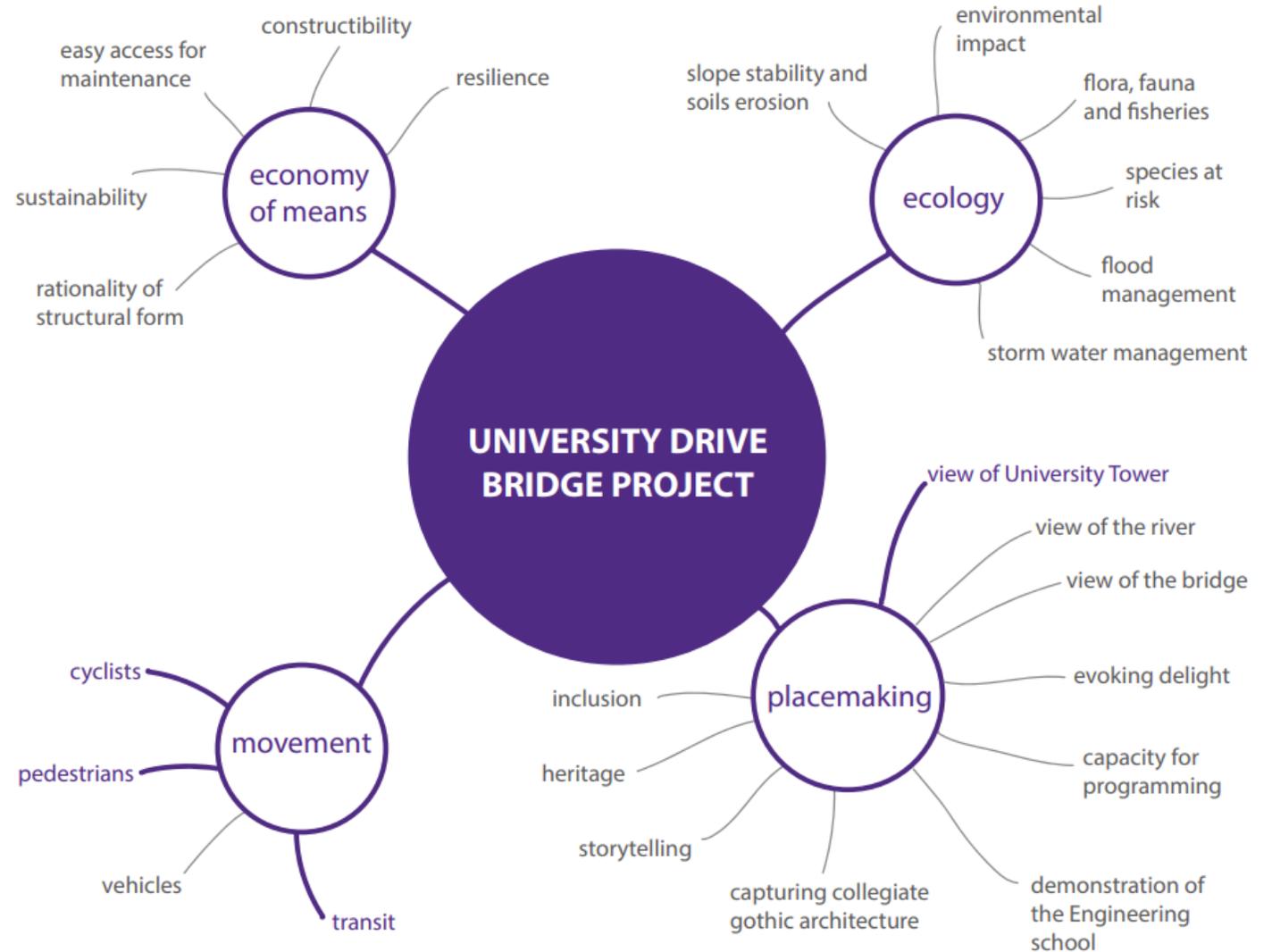
The project will consider the following objectives:

- Meet the future needs of connecting Western University across the Thames River.
- Frame the view of the Tower at University College.
- Consider the use of materials complementary to the fabric of the buildings for which Western University is known.
- Enhance the experience of life at Western University by adding to the identity and cultural life of campus by becoming a memorable place on campus and be known as a destination as much as a transition.
- According to national standards for Heritage Conservation, the Cultural Heritage design of any new structure should be “compatible with, distinguishable from and subordinate to” the existing University Drive Bridge and surrounding landscape.

Design Vision

The project is an opportunity to consider a multitude of possibilities.

Public input will assist the design team in refining this vision.



Key Study Considerations



Cultural Significance – Consideration will be given to the historical character of the existing bridge that is rooted in the natural, cultural, biophysical and urban contexts of the site.



Natural Environment – The North Thames River and Medway Creek tributary are cool/cold water systems and are identified as critical habitat for provincially and federally listed species.



Active Transportation – There is opportunity to improve access and safety for pedestrians and cyclists.



Transit – Western University is a large generator of transit ridership in the City of London.



Traffic – Consideration of the restriction of external vehicles (shortcutting through the campus) across the bridge.



University Infrastructure – The existing bridge accommodates major infrastructure servicing the campus.

Alternative Planning Solutions

The EA requires that all reasonable and feasible Planning Solutions be identified and evaluated. These Planning Solutions identify alternative approaches of addressing the need for improvements. The Alternative Planning Solutions for this Study include:

1. Do Nothing and continue to post the bridge to limit large vehicular traffic
2. Rehabilitate Existing Bridge
3. New Bridge on the Existing Alignment
 - A. New Signature Structure on the Existing Alignment
 - B. New Historic Reimagination Structure on the Existing Alignment
4. New Bridge on a New Alignment
 - A. New Bridge and Abandonment/Demolition of Existing Structure
 - B. Conserve Existing Bridge and Twin with a New Structure

All alternatives may include limiting the volume of vehicular traffic on the bridge.

Alternative Planning Solutions

Preliminary Coarse Screening

- x Alternative 1: Do Nothing** – The cross section on the existing bridge is insufficient to accommodate both vehicular traffic and active modes of transportation for modern standards. **Not carried forward.**
- x Alternative 2: Rehabilitate Existing Bridge** - The University's planning documents recommend improving campus connectivity with a focus on active transportation elements. Rehabilitation of the existing bridge will not allow for improved functionality of the bridge for active transportation modes. The cross section on the existing bridge is insufficient to accommodate active modes of transportation per modern standards.

In addition, this alternative provides reduced reliability because it defers the eventual replacement required to accommodate heavy vehicle loading. **Not carried forward.**
- x Alternative 4A: New Bridge on New Alignment and Abandon/Demolish Existing Bridge** - This alternative does not maintain the existing location for arrival on campus or the sightlines to the tower. It represents the loss of heritage material and form. **Not carried forward.**

Alternative Planning Solutions

Preliminary Alternatives

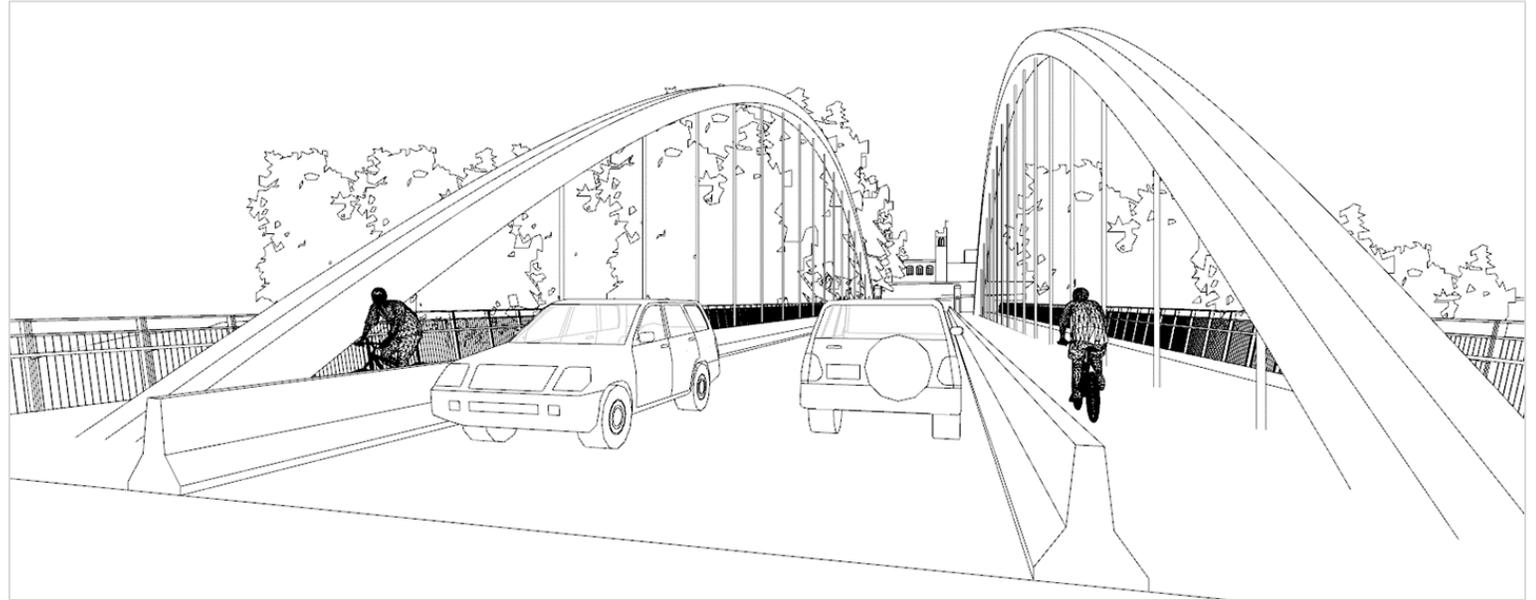
Alternative Planning Solutions carried forward for additional evaluation are:

- ✓ Alternative 3A: Signature Structure on Existing Alignment - A new bridge type acts as both a gateway to the University and an addition to the placemaking of the campus.
- ✓ Alternative 3B: Historic Reimagined Structure on Existing Alignment - Reimagination of the existing structure using the same spans, pier and abutment location.
- ✓ Alternative 4B: Conserve and Twin - This alternative would construct a new structure for vehicular traffic on an adjacent alignment and would conserve the existing structure through preservation, restoration or rehabilitation for active transportation.

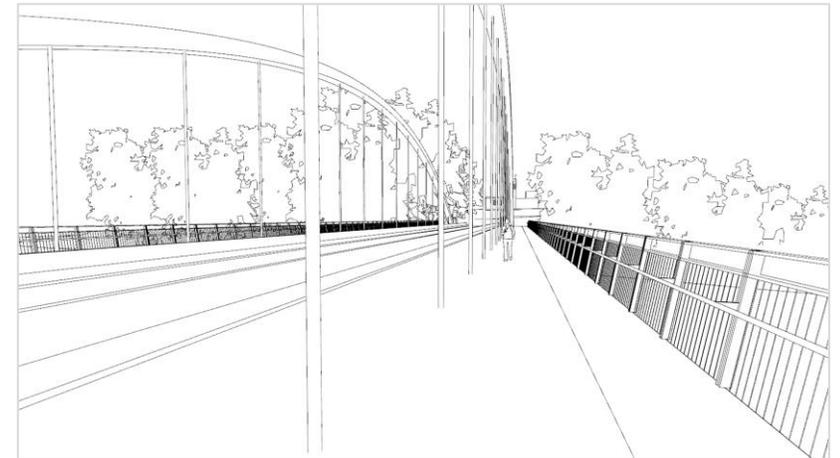
These alternatives are illustrated on the following exhibits.

Alternative Planning Solutions

Alternative 3A: Signature Structure on the Existing Alignment

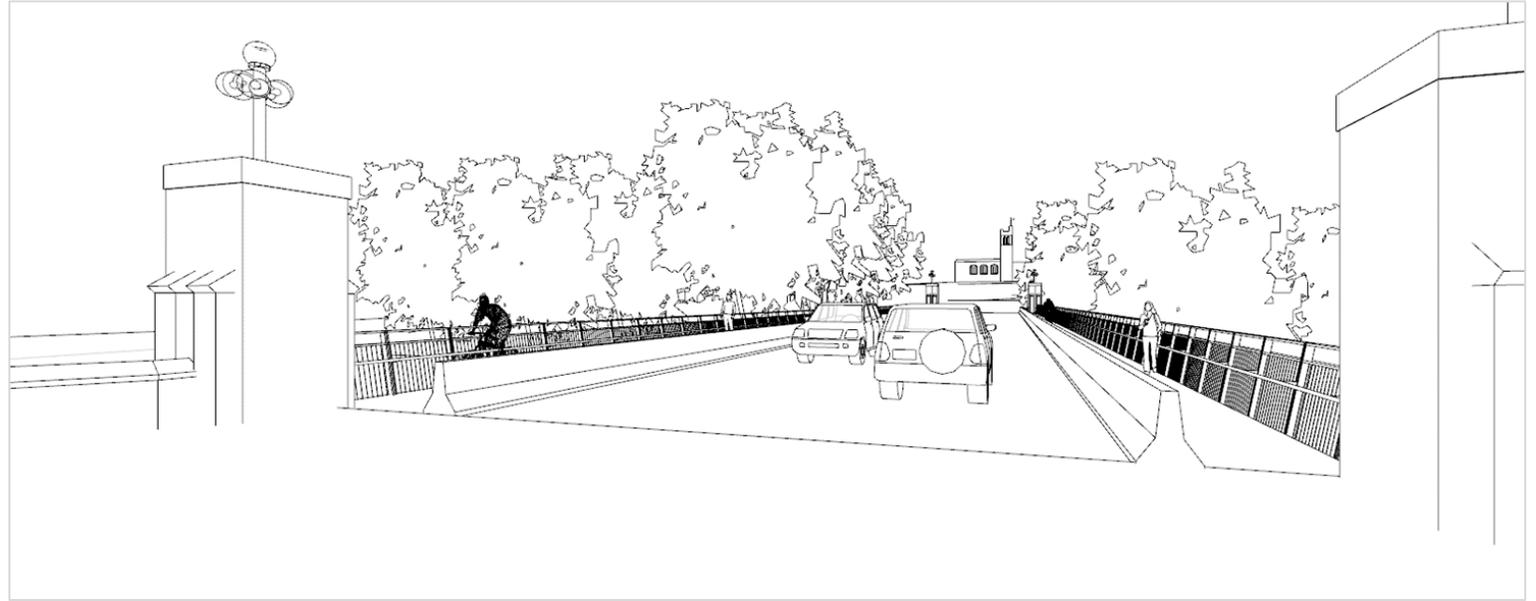


These graphics illustrate a representative approach for this alternative. The structure type will be determined during the next phase of the Study based on the preferred Planning Solution carried forward.

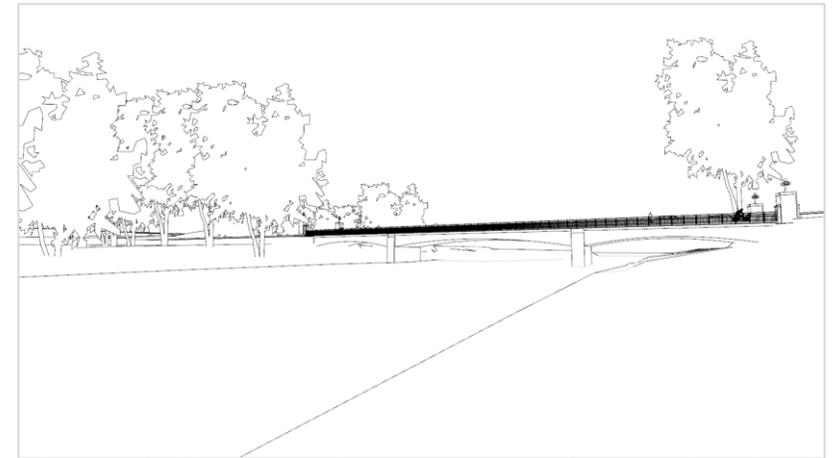


Alternative Planning Solutions

Alternative 3B: Historic Reimagined Structure on the Existing Alignment

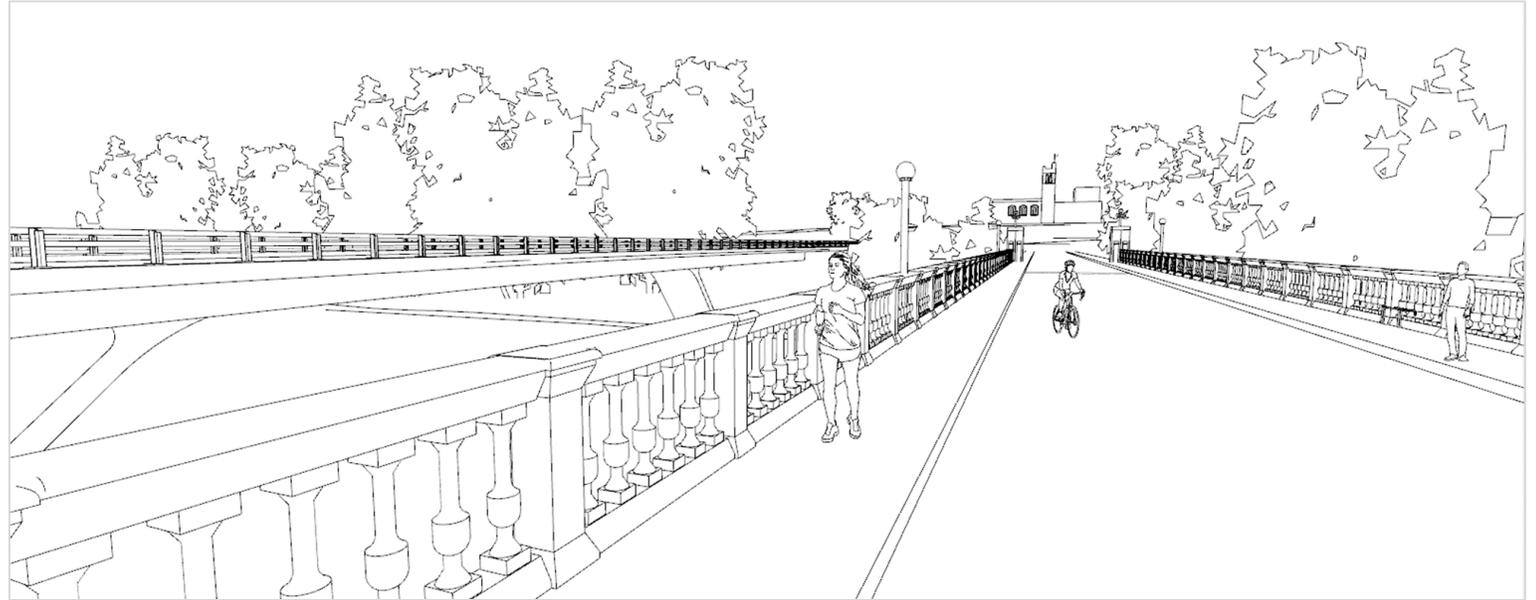


These graphics illustrate a representative approach for this alternative. The structure type will be determined during the next phase of the Study based on the preferred Planning Solution carried forward.

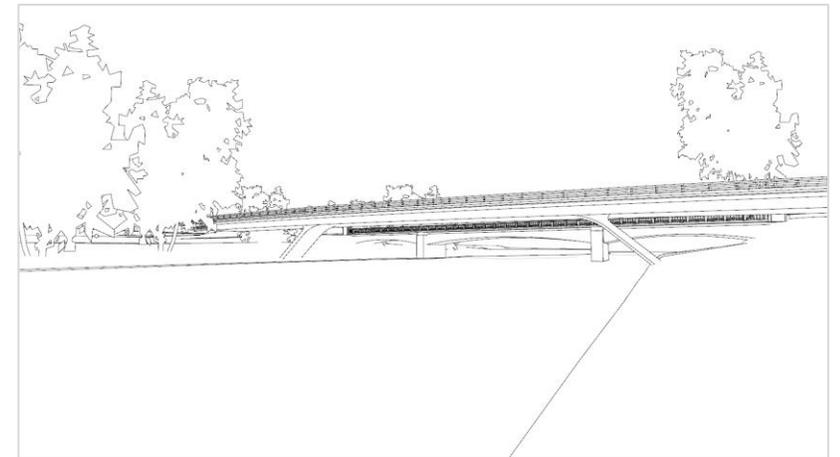


Alternative Planning Solutions

Alternative 4B: Conserve and Twin



These graphics illustrate a representative approach for this alternative. The structure type will be determined during the next phase of the Study based on the preferred Planning Solution carried forward.



Alternative Planning Solutions

Preliminary Evaluation

Screening Criteria	Alternative 3: New Bridge, Existing Alignment		Alternative 4: New Bridge, New Alignment
	3A: Signature Structure	3B: Historic Reimagination	4B: Conserve and Twin
Transportation	✓	✓	✓
University Master Planning Objectives	-	-	✓
Cultural Environment	✗	✗	✓
Natural Environment	-	✗	-
Affordability	✗	✗	✓
Constructability	✗	✗	✓
Preliminary Recommendation	✗	✗	✓
	<p>These alternatives do not allow for conservation of the existing heritage structure and are not compatible with the University's planning approach to enhance the traditional historic architectural character of the campus.</p> <p>Additionally, significant temporary works would be required during construction of the new bridge on the existing alignment, resulting in increased costs and constructability issues/risks.</p>		<p>Recommended as the preferred Alternative Planning Solution.</p>

Preliminary Recommended Planning Solution

Alternative 4B: Conserve and Twin with new structure is recommended as the preferred Alternative Planning Solution. Conservation of the existing structure and construction of a new bridge on an adjacent alignment will:

- Safely accommodate active transportation following the Complete Streets approach with separated space for each mode of travel, leading to Western's future Welcome Plaza.
- Create an opportunity for gathering and engaging with the river.
- Maintain a gateway into campus and compliment the view to the University College Tower.
- Follow conservation best practices for the heritage structure.

Preliminary Recommended Planning Solution

This approach utilizes the value of the existing structure for:

- Cultural heritage.
- Maintaining major infrastructure and utilities.
- Reducing the overall width of the new structure.

The new structure can reserve the space available on the existing bridge for active transportation-focused uses.



Preliminary Design Alternatives

Preliminary design alternatives for the recommended Planning Solution for a new bridge (on a new alignment) and to conserve the existing structure include:

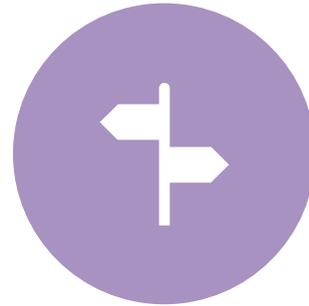
- 1) Bridge Alternatives
 - a) Span arrangement
 - b) Structure type
- 2) Hydraulic Alternatives
- 3) Alignment Alternatives
- 4) Vehicular Access Alternatives
 - a) Restricted vehicular access
 - b) Partially restricted vehicular access (time of day, day of week, school year, etc.)
 - c) Full vehicular access
- 5) Cross Section Alternatives:
 - a) 2-lane
 - b) Single-lane signalized (contra-flow)
 - c) Active transportation spine (conserved structure)
 - d) Sidewalk and lookout (new twinned structure)
- 6) Heritage Alternatives
 - a) Railings
 - b) Plinth and Lighting
 - c) Materials
- 7) Sunset Street Intersection

Next Steps



Winter 2022

Collect and Summarize
Input from PIC No. 1



Winter / Spring 2023

Develop and Evaluate
Design Alternatives for
the Recommended
Planning Solution



Spring 2023

Public Information
Centre No. 2



Summer 2023

Prepare Environmental
Study Report and
proceed to 30-day
Public Review

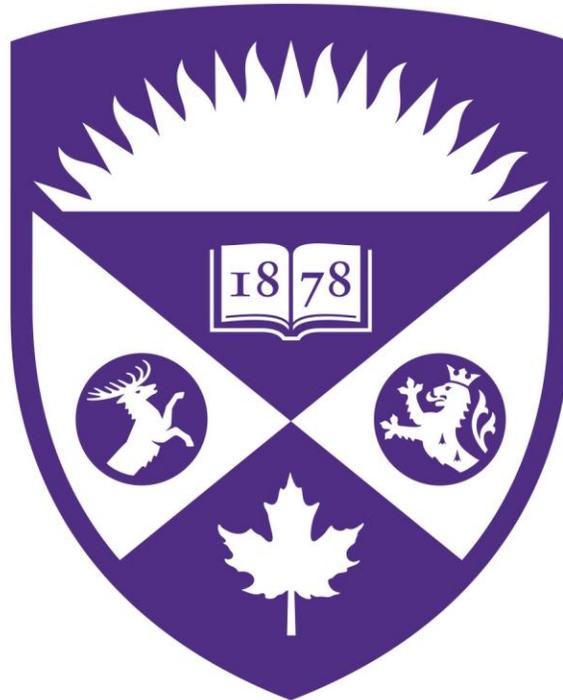
Stay Connected

- **We want to hear from you!** Please provide comments to westernubridge@uwo.ca or by contacting the University's representative or the consultant below:

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- Please provide your comments on or before November 30, 2022.
- Thank you for your participation in the Study. To receive updates on the project, request that your name/e-mail be added to the contact list.
- Your input into this Study is valuable and appreciated. All information is collected in accordance with the *Freedom of Information and Privacy Act*.



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