TO:	**CHAIR AND MEMBERS CIVIC WORKS COMMITTEE MEETING ON JULY 18, 2016**
FROM:	**JOHN BRAAM, P. ENG. MANAGING DIRECTOR, ENVIRONMENTAL & ENGINEERING SERVICES AND CITY ENGINEER**
SUBJECT:	**RICHMOND STREET RECREATIONAL PATHWAY CROSSING ENVIRONMENTAL STUDY REPORT**

RECOMMENDATION

That, on the recommendation of the Managing Director, Environmental & Engineering Services and City Engineer the following actions **BE TAKEN** in respect to the Richmond Street Recreational Pathway Crossing Environmental Assessment:

(a) the Environmental Study Report for the Recreational Pathway Crossing of Richmond Street **BE ACCEPTED**;

(b) a Notice of Completion for the project **BE FILED** with the Municipal Clerk;

(c) the Environmental Study Report **BE PLACED** on public record for a 30 day review period; and,

(d) a future funding request **BE MADE** through the next 4 year budget process to accommodate the construction of this project

PREVIOUS REPORTS PERTINENT TO THIS MATTER

- Civic Works Committee – April 28, 2014 – Appointment of Consulting Engineers, Richmond Street North Pedestrian Crossing, Environmental Assessment Study

2015 – 19 STRATEGIC PLAN

The following report supports the Strategic Plan through the strategic focus areas of *Strengthening our Community* and *Building a Sustainable City*. The proposed pathway connection and crossing of Richmond Street North will promote vibrant, and connected neighbourhoods, while adding and extending existing convenient and connected mobility choices. The proposed alignment recognizes and respects the natural environment while promoting beautiful places and spaces.

BACKGROUND

Purpose

This report provides Committee and Council with an overview of and seeks approval to finalize the Richmond Street Recreational Pathway Crossing Municipal Class Environmental Assessment (EA). The completed Schedule 'C' Environmental Study Report (ESR) documents the EA process undertaken to determine the preferred course of action for a recreation crossing of Richmond Street near the north limit of the City.

Background

Both the City of London 2005 Bicycle Master Plan (BMP) and the 2016 Draft London ON Bikes Cycling Master Plan have recommended implementing a major east-west recreational pathway corridor to service growth areas along the northern boundary of the City, including a safe/functional active transportation crossing of Richmond Street north of Sunningdale Road. The park land dedication requirements associated with establishing this recreational corridor have been incorporated into approved subdivision development along the north edge of the City and several sections of pathway have been constructed both east and west of Richmond Street.

In addition to the City's BMP, expansion of the City's recreational pathway system addresses important objective identified in the Parks and Recreation Strategic Master Plan, London's Strengthening Neighbourhood Strategy, Age Friendly London Action Plan and the Smart Moves 2030 Transportation Master Plan.

This Environmental Assessment (EA) was completed to evaluate the options and determine the most appropriate means of safely linking the City's recreational pathway system from existing known terminus points east and west of Richmond Street near the north City limit in a convenient and attractive route. A photo of the area is illustrated in **Figure 1** below.

Figure 1: Site Photo – Richmond Street Looking North

The study objectives defined the need to:

- Connect existing terminus points of the recreational pathway system in north London;
- Provide a safe crossing option for all roadway users (e.g. motorists, cyclists and pedestrians); and,

- Integrate related policy framework as it relates to urban design considerations to highlight the northerly gateway to the City of London.

ENVIRONMENTAL ASSESSMENT SUMMARY

This EA has been carried out in accordance with the Schedule 'C' process of the Municipal Engineers Association (MEA), Municipal Class Environmental Assessment document (October 2000, as amended in 2007, 2011 and 2015). A copy of the Executive Summary for the ESR is contained in Appendix A.

The Class EA Problem/Opportunity statement developed for this project is:

> *The City of London OP and BMP convey the City's commitment to develop a transportation system that is environmentally sound and supportive of active, healthy lifestyles. The Master Plan further identifies a major east-west recreational pathway corridor along the northern boundary of the City with a crossing of Richmond Street. The Parks & Recreation Master Plan (2009) recommended the need to address gaps within the pathway system.*
>
> *Recent and ongoing development in north London has increased demand for connected pathways for recreation/commuter bicycle and pedestrian traffic. An opportunity exists to address pathway connectivity in this area before development proceeds to a point where a crossing location and pathway alignment options may become too restricted. This opportunity can provide for a direct, accessible pathway alignment that has minimal impact on the natural environment features within the areas.*

Alternatives and Evaluation

The alternative solutions studied under this EA included:

- Alternative 1 - Do Nothing
- Alternative 2 – Underpass Crossing
- Alternative 3 – Overpass Crossing
- Alternative 4 – At Grade Crossing

The evaluation criteria used to determine the preferred alternative included the: Social and Cultural Environment (Safety, Cultural Heritage, Aesthetics, and Aboriginal Issues), Natural Environment (Terrestrial Wildlife & Vegetation, Aquatic Life & Vegetation, Groundwater, Designated Natural Heritage Area, and SAR), Technical (Design/Function, Construction, Timing, Approval Requirements & Regulatory Requirements) and Economics (initial Capital Cost, Operating & Maintenance Costs).

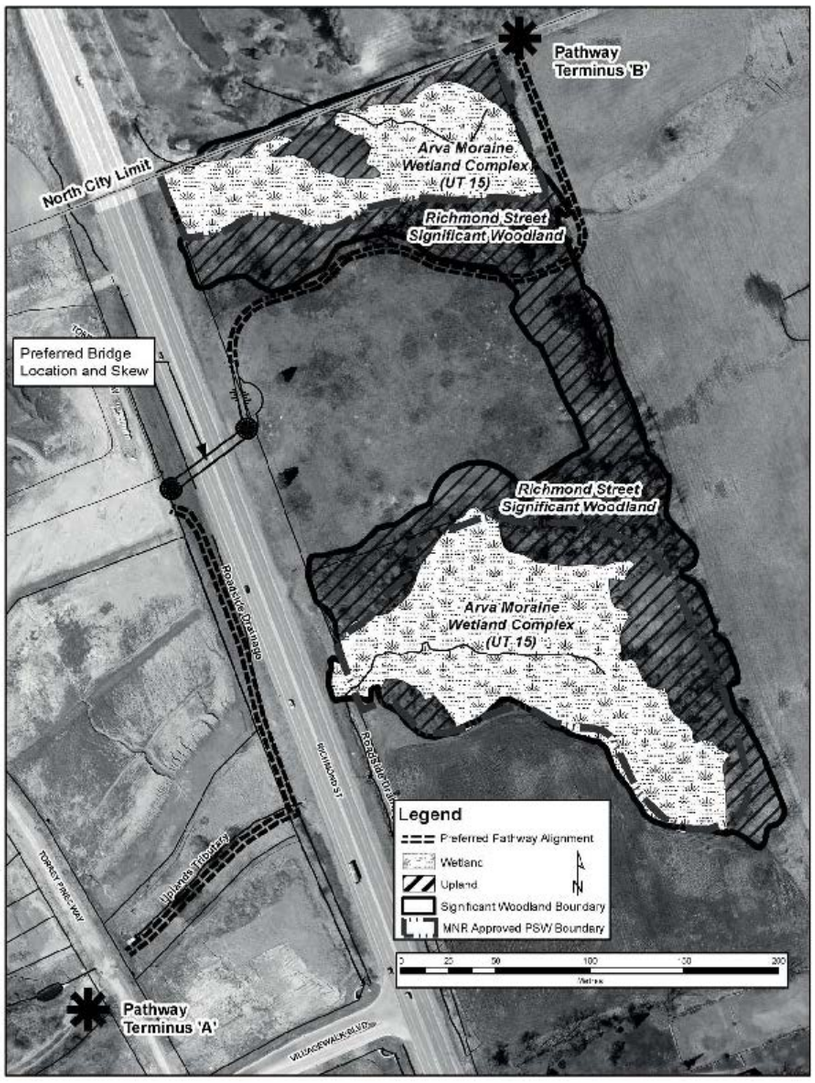
The evaluation process concluded that Alternative 3, Overpass Crossing was the preferred solution. Following from that conclusion three crossing alignments for the overpass crossing of Richmond Street (north skew, perpendicular, and south skew) where then evaluated, with potential trail alignments east and west of Richmond Street proposed for each alignment option.

Preferred Alternative

As shown in the **Figure 2** below, the preferred alternative recommended through the EA

process identifies a multi-use pathway bridge crossing of Richmond Street North, with a northerly skew and a pathway alignment between two known terminus points, promoting connectivity through the adjacent lands east and west of Richmond Street.

Figure 2: Preferred Alignment



Development on the west side of Richmond Street has progressed to the point that establishing the routing of the pathway and defining the western limits of the overpass structure was guided by past processes. The landowner and developer west of Richmond Street has provided park land dedication to the City of London in conjunction with the recently approved Richmond North Phase 2 Subdivision Development at no cost to the City in order to accommodate a bridge, if it was the preferred EA alternative.

Development on the east side of Richmond Street is still in the conceptual phase. Consultations with this property owner, along with the EA evaluation process has confirmed that incorporating a 30 degree northern skew to the pathway bridge (preferred alternative) reduces the City's land acquisition needs, minimizes impacts and constraints to future development, involves less grading and improves connectivity for the pathway, while protecting natural heritage features identified within the study area. The expectation is that as lands east of Richmond Street develops, parkland dedication will facilitate the acquisition of the needed lands at no cost to the City.

Consultation

The EA process included a public consultation process with input from relevant agencies, affected landowners, First Nations communities and members of the public. A Notice of Study Commencement was mailed out to the relevant agencies and study area property owners/residents on July 28, 2014 and an advertisement was placed in The Londoner on July 31, 2014 and August 7, 2014.

A project website: http://www.london.ca/residents/Environment/EAs/Pages/Pedestrian-Recreational-Pathway-Crossing-of-Richmond-Street.aspx was also created with all subsequent Notices and supporting information being posted online when the mail out to the area residents and stakeholders was completed. Direct correspondence and some meetings were held with Ministry of the Environment and Climate Change, Ministry of Natural Resources, Upper Thames River Conservation Authority and the First Nation communities.

In accordance with the Schedule 'C' EA process, Public Information Centre (PIC) No. 1 was held on November 12, 2014 at the Mother Teresa Catholic Secondary School, 1065 Sunningdale Road East, London. PIC No. 1 notices were sent to residents, property owners and stakeholders on October 25, 2014 and published in the Londoner on October 30, 2014 and November 6, 2014.

The first PIC was designed to present the challenges and opportunities for the recreational crossing of Richmond Street. Twelve interested parties attended the PIC including local developers, representatives from the Cycling Advisory Committee and area residents.

Taking the input received at PIC No. 1 into account, and factoring in the evaluation criteria (Social Culture, Natural Environment, Technical and Economics the preferred design alternative was established. A second PIC was held on Wednesday April 22, 2015 at Mother Teresa Catholic Secondary School to present the preferred design alternative to the public. Three urban design concepts for the crossing were considered and presented. Notification for PIC 2 were mailed out to the area residents on April 7, 2015, with publication in The Londoner on April 9, 2015 and April 16, 2015. Attendance was similar to PIC No. 1 with nineteen attendees representing a mix of residents, developers and agencies.

PICs are held to facilitate public input on project recommendations. This consultation during this EA has been productive and has resulted in modifications to the preferred alternative. As well, at PIC No. 2, the preferred alternative identified an overhead crossing of Richmond Street North with a southerly skew, and the pathway on the east side extending south and then east along the northern boundary of the southerly PSW, before heading north to tie into Terminus B. Subsequent to PIC 2, and following additional conversations with the land owner on the east side of Richmond Street the options and alignments of the crossing and trail were re-evaluated. This re-evaluation resulted in a change to a northerly skew for the overhead crossing, and a trail alignment that heads north and east from the crossing point.

A Subject Land Status Report (SLSR) and Environmental Impact Study (EIS) were also completed. These studies identified two provincially significant wetlands, five Species at Risk (SAR) and three significant wildlife habitats (SWH) within the study area. The EIS predicts no net effect to these SAR, the SWH, or the surrounding natural heritage

features as a result of this project. The EIS was presented to the Environmental and Ecological Planning Advisory Committee (EEPAC) on March 17, 2016. Comments were received April 11, 2016 and EEPAC's review indicated that the document was thorough and easy to read. Responses to the EEPAC comments were submitted and the EIS has been finalized.

URBAN DESIGN AT THE RICHMOND STREET GATEWAY

The proposed bridge is at an important gateway location on Richmond Street. It will have a major visual impact relating to the image of the City for those entering and exiting the City from and to the north along the Richmond Street Corridor. The importance of the corridor as a gateway is expressed in several important policy documents as identified below. These documents establish that the design of the bridge should appropriately enhance the character of this well-travelled entrance into the City.

Official Plan Urban Design Principles

The Urban Design policies in Chapter 11 of the City of London's Official Plan outline the importance of gateways in the City. Gateways provide a sense of place and arrival, as well as a visual signal that both defines and distinguishes the City. Given that the bridge is located near the municipal boundary on a major street that connects neighbouring communities to London, it should be designed to respect and enhance the entrance into the City. This can be achieved through the design and architecture of the bridge itself, and associated landscape treatment.

Sunningdale North Area Plan

The Sunningdale North Area Plan identifies a pedestrian overpass across Richmond Street to connect with the Uplands North pathway system and serve as part of the gateway features for the northerly entrance to the City (3.2.5). The Urban Design Principles within the Sunningdale North Area Plan speak to the design and importance of the area as a prominent entryway into the north end of the City.

The gateway should be developed to be attractive and appeal to the surrounding communities, and specific attention needs to be given to the exterior architectural design of built elements, such as the bridge. High quality landscaping in combination with berms can supplement the built form aesthetic of the gateway, and screen less attractive elements (5.1.4).

London Plan

The London Plan speaks to Regional Mobility Connections, and enhancing key gateways into the city with signage, landscaping, planting, public art and appropriate development forms. Additionally, this location is marked as a city gateway on the City Structure Plan Composite. The London Plan also includes policies in the Creative Cities chapter that refer to enhanced design and public design at gateways.

Project Integration

The EA process was guided by the above policies as they relate to the preferred alternative and developed possible Gateway features to highlight the northerly entrance to the City of London. Three (3) concept designs were developed and presented at PIC No. 2 along with preliminary high-level costing for the possible enhancements were developed. These were completed to illustrate how the proposed bridge structure could be enhanced to serve as a gateway feature. Two of the proposed themes (Thames River Flow, and the Forks of the Thames) will be carried forward for further development and consideration in the design phase. Future considerations and recommendations relating to the design aesthetics for the project will be provided to Civic Works Committee for consideration.

PRELIMINARY COST ESTIMATE

The preliminary estimated cost of the new bridge and pathway connection is estimated to be $1.9 M. This estimate represents a bridge and pathway connections designed in accordance with relevant urban design policies. The cost estimate assumes that the required land is acquired through parkland dedication through development processes.

Consistent with the 2014 Development Charges Study, Council previously approved base funding of $1.4 M in the 2016 capital budget to implement this crossing of Richmond Street. If alternative sources of funding such as Provincial and/or Federal infrastructure programs are not secured, a future funding request will be made through the next 4 year budget process to accommodate the construction project.

CONCLUSION

A Schedule ‘C’ Municipal Class EA has been undertaken to determine the best linkage for the City’s recreational pathway system across Richmond Street near the north limits of the City. An ESR has been completed and is ready for final public review. It was prepared with public and agency participation, and includes a preliminary design which provides mitigation measures for impacts associated with the preferred alternative.

The preferred alternative is an overhead pathway bridge across Richmond Street with pathway connections at each end. The bridge will be designed with urban design features in accordance with relevant policy guidance for the gateway location. These aesthetic concepts will be developed further and illustrated at a future Civic Works Committee meeting for consideration during the design phase.

Pending Council approval, a Notice of Completion will be distributed and the Environmental Study Report will be placed on public record for a 30-day review period. Stakeholders are encouraged to provide input and comments regarding the study during this time period. Should stakeholders feel that issues have not been adequately addressed, they may provide written notification within the 30-day review period to the Minister of the Environment requesting further consideration.

If no requests for a Part II Order are received, the project will be in a position to move forward to detailed design and construction in accordance with the recommendations of

the study. The timing of construction will be coordinated with the development on the east side of Richmond Street and the availability of land to create the pathway connections.

The project cost is estimated at $1.9 M. The difference between this new estimate and the existing approved capital budget of $1.4 M will require a future funding request through the next 4 year budget process to accommodate the construction project. With existing funding, the City will continue with detailed design and land negotiations with the property owner on the east side of Richmond Street to prepare the project for construction

Acknowledgements

This report was prepared with assistance from Jane Fullick, C.E.T., Technologist II, Karl Grabowski, P. Eng., Transportation Design Engineer of the Transportation Planning and Design Division and Jeff Bruin, OALA, CSLA, and Andrew Macpherson, OALA, CSLA of Planning Services.

PREPARED BY:	**REVIEWED & CONCURRED BY:**
DOUG MACRAE, P. ENG. **DIVISION MANAGER** **TRANSPORTATION PLANNING & DESIGN DIVISION**	**EDWARD SOLDO, P. ENG.** **DIRECTOR, ROADS AND TRANSPORTATION**
REVIEWED & CONCURRED BY:	**RECOMMENDED BY:**
JOHN M. FLEMING, MCIP, RPP **MANAGING DIRECTOR, PLANNING & CITY PLANNER**	**JOHN BRAAM, P. ENG.** **MANAGING DIRECTOR** **ENVIRONMENTAL & ENGINEERING SERVICES AND CITY ENGINEER**

Attach: Appendix A – Environmental Study Report Executive Summary

c: T. Fediw, AECOM Canada
Transportation Advisory Committee
Cycling Advisory Committee
Environmental and Ecological Planning Advisory Committee
Auburn Developments
Old Oak Developments

APPENDIX A

Environmental Study Report Executive Summary

Introduction

The City of London (the City), through their consultant AECOM, has completed a Municipal Class Environmental Assessment (Class EA) study to determine an appropriate means of linking recreational pathway terminus points east and west of Richmond Street north of Sunningdale Road. The study area, comprises the existing Richmond Street right-of-way (ROW) and adjacent lands extending east and west.

The long-term recreational pathway objectives for this study area corridor are identified within the City of London's Bicycle Master Plan (BMP). The BMP recommended implementing a major east-west recreational pathway corridor along the northern boundary of the City with a crossing of Richmond Street. Subdivision development in London, north of Sunningdale Road, has progressed to the point where municipal park corridors and large sections of recreational pathways are being implemented. In order to address future public use along this corridor the City needs to determine the most appropriate means of linking this recreational pathway system across Richmond Street.

Consultation

The involvement of the community – residents, agencies, stakeholders, Aboriginal communities, and those who may be potentially affected by a project – is an integral part of the Class EA process. The purpose of the Class EA study consultation process is to provide an opportunity for stakeholder groups and the public to gain an understanding of the study process; contribute to the process for development and selection of alternatives/design concepts; and provide feedback and advice at important stages in the Class EA process. Specifically, the objectives of the consultation efforts are to:

- generate awareness of the project and provide opportunities for involvement throughout the planning process; and
- facilitate constructive input from public and agency stakeholders at key points in the Class EA process, prior to decision-making.

A consultation program was incorporated into the study in order to meet the above objectives. The consultation program included:

- Posting project milestones on the City of London website;
- Conducting meetings with agencies and stakeholders at key phases during the project;
- Publishing notices in The Londoner for all project milestones;
- Notifying stakeholders, affected residents, the general public and review agencies regarding project milestones;
- Conducting two Public Information Centres to inform the public, review agencies and stakeholders and obtain input; and
- Issuing a Notice of Completion.

Identification of the Problem

The Class EA Problem / Opportunity statement provides the basis for the need and justification for this project and is presented below.

> *The City of London Official Plan and BMP convey the City's commitment to develop a transportation system that is environmentally sound and supportive of active, healthy lifestyles. The Master Plan further identifies a major east-west*

recreational pathway corridor along the northern boundary of the City with a crossing of Richmond Street. The Parks & Recreation Master Plan (2009) recommended the need to address gaps within the pathway system.

Recent and ongoing development in north London has increased demand for connected pathways for recreation/commuter bicycle and pedestrian traffic. An opportunity exists to address pathway connectivity in this area before development proceeds to a point where a crossing location and pathway alignment options may become too restricted. This opportunity can provide for a direct, accessible pathway alignment that has minimal impact on the natural environment features within the areas.

Alternative Solutions

The following planning solutions were identified for providing a crossing of Richmond Street for this project:

Alternative 1: Do Nothing
Alternative 2: Underpass Crossing
Alternative 3: Overpass Crossing
Alternative 4: At-grade Crossing

The evaluation process concluded that the preferred solution is **Alternative 3: Overpass Crossing**. Alternative 3 will address the problem/opportunity statement as it addresses the planned recreational pathway network connectivity, it reduces vehicular and pedestrian and cyclist conflict points, it complies with the OP, BMP and other planning documents, it provides a highly visible and safe crossing of Richmond Street and there is potential to create a gateway feature over Richmond Street in north London.

Alternative Design Concepts

Alternative Design Concepts were selected based on three crossing alignments:

- Alternative 1 – North Skew
- Alternative 2 - Perpendicular
- Alternative 3 – South Skew

Pathway alignments were also selected and evaluated based on grading, impacts to environmental features and directness to the existing pathway terminus points.

Preferred Alignment

This project justifies the crossing type, location, general direction for the pathway, structure type and basic preliminary design. This is all done in balance between cost, safety, environmental impacts, user experience and impact on adjacent property owners.

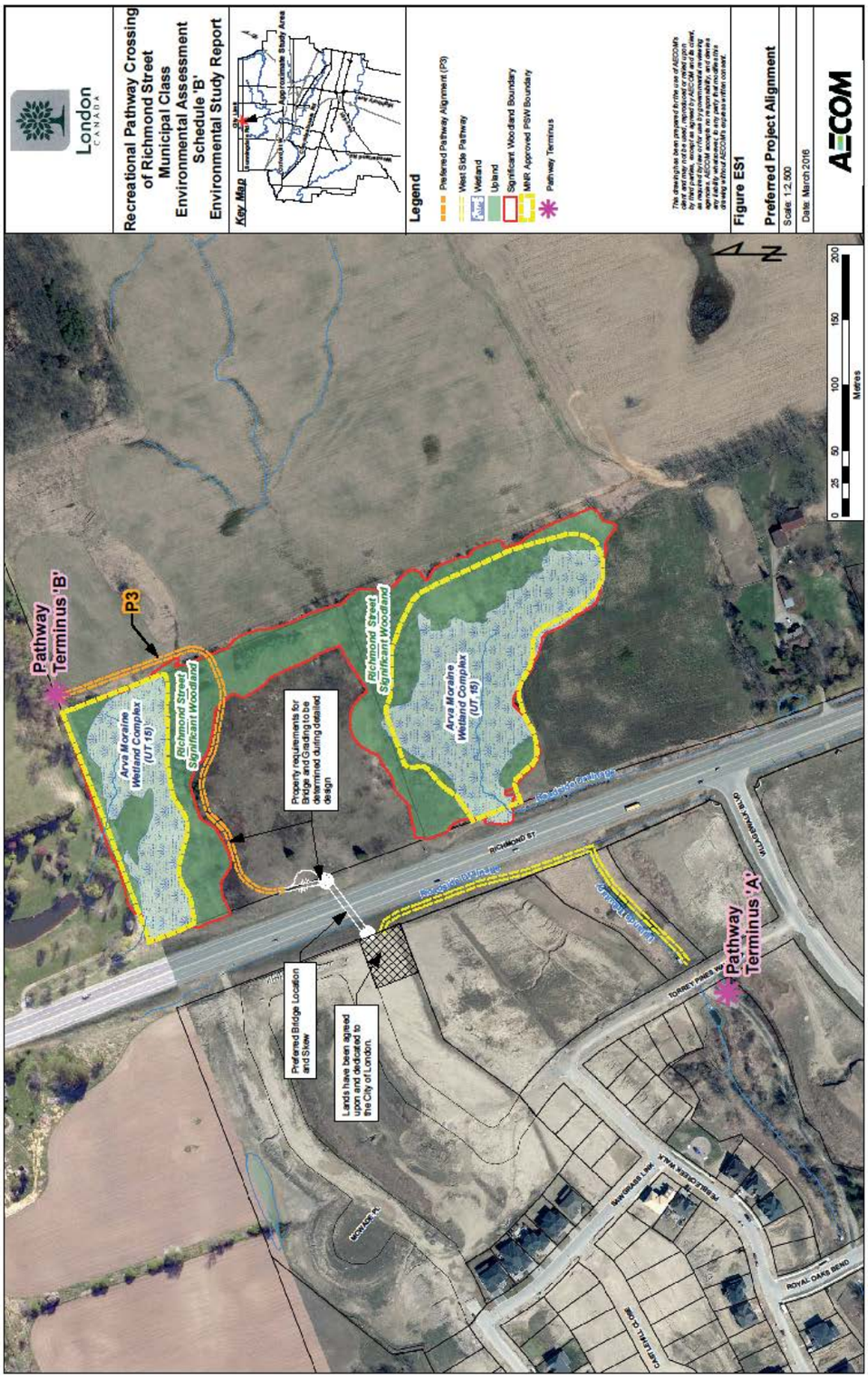
Based on the above, the north skew bridge with pathway route P3 is the preferred project alignment and does not present any significant environmental, technical or social/cultural issues.

The required elevation of the north east bridge abutment is approximately 281.00, the existing property on the east side of Richmond Street has a small knoll that is approximately 280.00 leading to the requirement of a 1000-1500mm abutment face. Alternatively, a southern skew would require a 5000mm abutment face. The capital cost savings of the northern skew is approximately $30,000 and result in lower operational costs. Additionally, potential, future development for the site could be significantly impacted by the originally recommended crossing and pathway alignments.

P3 is more direct and provides a shorter route to the existing terminus point B. Additionally, less land will be required for the pathway and associated grading if the pathway is routed along the southern edge of the northern wetland complex. The reduction in path length and grading associated with the north skewed bridge would provide better connectivity with the pathway alignment and less travel time for pathway users.

See **Figure E1: Preferred Project Alignment**

Figure E1: Preferred Project Alignment



Urban Design

As per City policy direction from the Official Plan and Sunningdale North Area Plan, three aesthetic design concepts for the crossing were considered and presented at PIC #2. Each concept considered a unique theme specific to the City of London, including the Forest City, Thames River Flow and the Forks of the Thames. The preferred crossing alternative design concept will be further developed during detailed design.

Additional aesthetic details will be addressed that include:

- Additional deck width for the bridge to allow for look outs, sculpture, under lighting, banner attachments
- Curved or haunched girders, thinner deck materials
- Introduction of themed geometry, or graphical imagery
- Sitting Areas
- Plantings and landscaped architectural elements along Richmond Street
- Interpretive look outs providing better views of the Woodland and Wetland areas
- CPTED enhancements
- Way-finding signs.

Cost Estimate
The estimated project cost breakdown for the project is provided below.

Description of Item	Cost ($)
Temporary Shoring	$4,000
Excavation for Foundations	$8,000
Steel Piles	$40,000
Concrete in Footings	$28,000
Concrete in Piers	$53,000
Concrete in Abutments& Wingwalls	$68,000
RSS Retaining Walls	$26,000
Supply, Fabricate & Erect Steel	$280,000
Concrete Deck	$143,000
Vertical Bar Handrail	$69,000
Backfill Abutments	$10,000
Design Features	$195,000
Subtotal - Bridge	**$924,000**
Approach Works/Grading –Trail	$330,000
Traffic Management	$6,000
Ecological Enhancements	$15,000
Landscaping and Feature Lighting	$150,000
Engineering Costs	$250,000
Land Acquisition	
Utility Relocations	$25,000
Contingency	$200,000
Total	**$1,900,000**