



**STAFF REPORT  
ACTION REQUIRED**

**John Street Corridor Improvements  
Environmental Assessment Study**

<b>Date:</b>	January 25, 2012
<b>To:</b>	Public Works and Infrastructure Committee
<b>From:</b>	General Manager, Transportation Services
<b>Wards:</b>	Ward 20 (Trinity-Spadina)
<b>Reference Number:</b>	P:\2012\Cluster B\TRA\TIM\pw12002tim

**SUMMARY**

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The John Street corridor, from north of Queen Street West to south of Front Street West, is recognized as a route of civic and cultural importance in the City, encompassing major facilities and institutions including the Art Gallery of Ontario, Ontario College of Art and Design, the National Film Board of Ontario, the CBC Broadcast Centre, the Princess of Wales and Royal Alexandra Theatres, the TIFF Bell Lightbox, to name just a few. City Council, in considering plans and studies of this area at various times over the last few years, has designated or identified John Street as a "Cultural Corridor", an "Avenue of the Arts", and a "Pedestrian Priority Route". Recognizing and in keeping with these designations, City Council directed the General Manager, Transportation Services, to undertake an Environmental Assessment for the John Street Cultural Corridor with the primary objective of developing a unique and high quality streetscape design that provides a vibrant environment for pedestrians.

A Class Environmental Assessment Study was undertaken in association with the Toronto Entertainment District Business Improvement Area (TEDBIA) to evaluate potential improvements to the public realm along the John Street Corridor between Stephanie Street and Front Street West. The potential improvements were developed under the guidance of the Toronto Entertainment District Master Plan. The evaluation of a reasonable range of alternative solutions, which included consultation with the public, stakeholders, and review agencies, has resulted in the following Recommended Design for John Street:

- The narrowing of the road pavement in order to provide significantly wider sidewalks and boulevard areas as follows:
  - From four to three lanes between Front Street and Wellington Street;
  - From four to two lanes between Wellington Street and Adelaide Street;

- From three lanes to two lanes between Adelaide Street and Queen Street;
- Exclusive right turning lanes northbound at Adelaide Street West and at Wellington Street West and a southbound left turn lane at Wellington Street West in order to maintain an adequate level of traffic service;
- A continuous "mountable" curb on both sides of the street to enable a seamless transition into a pedestrian-only space for events, for vehicles to mount the flexible boulevard for deliveries or drop-offs, and to accommodate additional vehicular and cycling manoeuvring on either side of the road in emergencies;
- The widening of the east side boulevard between Front Street West and Stephanie Street to provide a 2.5 metre wide flexible space (defined by bollards) to accommodate deliveries and, when not used for vehicular loading/unloading, for pedestrians; and
- The provision of urban design elements which consist of a double row of trees where feasible, removable bollards, infrastructure to support special events and distinctive paving materials and patterns.

A Notice of Study Completion must now be issued and the Environmental Study Report (ESR) filed in the public record for a 30-day review period in accordance with the requirements of the Municipal Class Environmental Assessment.

Funding for this project, which could range from \$20 million to \$39 million depending on the type and quality of materials used and enhancement features included, would be provided entirely from Section 37 funds, contributions by the BIA members, other sources such as Federal/Provincial programs or grants, etc. No funds have been included in, or are required from, the Transportation Services Capital Budget or 10-year Capital Plan.

## **RECOMMENDATIONS**

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The General Manager, Transportation Services, recommends that:

1. City Council authorize the General Manager of Transportation Services to issue a Notice of Completion and to file the Environmental Study Report for the John Street Corridor Improvements Class Environmental Assessment Study in the public record for a minimum 30 days in accordance with the requirements of the Municipal Class Environmental Assessment.

### **Financial Impact**

The recommended plan for John Street as outlined in the Environmental Study Report is premised on a mid-range approach to costing, amounting to \$33 million in total. Using lesser quality materials and modified designs, the basic recommended improvements could be reduced to \$20 M. Conversely, the use of high-end design materials and features could increase the final cost to \$39 million or higher.

Funding for the John Street Corridor Improvements is not included in the Transportation Services 2012 Capital Budget and 10-Year Capital Plan. Nor was this initiative ever

contemplated in the Transportation Services' capital program. It is anticipated that funding for the John Street Revitalization would be provided from several other sources: possible Provincial and/or Federal infrastructure or cultural programs, Section 37 funding from corridor development projects, and the Toronto Entertainment District BIA (TEDBIA) members themselves. The project could also be implemented in stages over the course of several years if necessary, corresponding to the availability of funds at any one time from these other sources. Currently, there are no arrangements with other levels of government, nor any other financing strategy in place that would provide sufficient funding to proceed with the implementation of this project at this time.

The Deputy City Manager and Chief Financial Officer has reviewed this report and agrees with the financial impact information.

## **ISSUE BACKGROUND**

The John Street corridor has long been recognized as a route of civic importance in the City of Toronto. The major facilities of cultural importance on or near John Street include:

- Art Gallery of Ontario (AGO)
- Ontario College of Art and Design (OCAD)
- Bell Media Broadcasting Centre (CTV)
- National Film Board of Canada (NFB)
- Royal Alexandra Theatre
- CBC Broadcasting Centre
- Metro Toronto Convention Centre (MTCC)
- Ripley's Aquarium (to be completed in 2013)
- John Street Roundhouse
- Grange Park
- Scotiabank Theatre
- TIFF Bell Lightbox
- Princess of Wales Theatre
- Roy Thomson Hall
- David Pecault Square
- CN Tower
- Rogers Centre
- Roundhouse Park.

In recent years, there has been growing recognition of John Street's potential for the City including its designation as one of four streets that are 'Cultural Corridors' (City of Toronto, 'Canada's Urban Waterfront: Waterfront Culture and Heritage Infrastructure Plan', 2001) and within an area identified as the 'Avenue of the Arts' (City of Toronto, 'Culture Plan for the Creative City', 2003).

In an effort to enhance the public realm setting around major cultural institutions, the City commissioned a study (City of Toronto, Cultural Institutions in the Public Realm, 2008) that recognized the importance of the John Street corridor and made the following recommendation:

*"John Street is a cultural corridor connecting to the waterfront. Recognize this street as a pedestrian priority route, to be maintained in a state of good repair and marked as a priority for improvements."*

The study further recommends the following action:

*“Develop a streetscape improvement plan for John Street, including an audit of existing conditions and detailed design proposal for implementation. Enhance the pedestrian realm along John Street with a unique streetscape character illustrating the route’s cultural significance. Increase sidewalk width and narrow the roadway whenever possible to create a more comfortable pedestrian promenade.”*

The Toronto Entertainment District Business Improvement Area, which encompasses the John Street corridor up to Queen Street, recently prepared a Master Plan (March, 2009) that identified the transformation of John Street as a key priority. A physical vision was articulated for the transformation of John Street, which would realize its potential as cultural corridor, including:

- A unique and high quality streetscape and design treatment
- Narrowed roadway and widened landscaped sidewalks with public art opportunities
- Outfitted to easily close to vehicular traffic for special events and festivals
- Complementary land uses and developments that will ensure a vibrant Promenade in all hours and seasons

The Plan also acknowledges the potential for the John Street corridor to serve as a unique extension to the open space system, in addition to the street network.

The John Street corridor currently lacks a distinctive and inviting public realm. The existing public realm does not meet the current or future pedestrian and civic needs of this corridor given the rich and exceptional concentration of cultural institutions and attractions. Furthermore, the John Street corridor is not a static environment. The ESR notes that, over the next five years, the TEDBIA will experience a 144% increase in residential population, a 38% increase in daytime working population, a 51% increase in daily pedestrian traffic, 79 million individual visits to key area attractions, and \$8 billion in private sector investments. Despite this extraordinary transformation, no major public sector investments in the public realm have been earmarked for the BIA in the form of either new or improved public open spaces or streetscapes.

With this as background, City Council, at its meeting of September 30 – October 1, 2009, adopted the following recommendations (TE27.13, King-Spadina East Precinct Built Form Study – Progress Report):

- *City Council make the John Street Cultural Corridor project a City priority*
- *City Council authorize the General Manager, Transportation Services to undertake an environmental assessment for the John Street Cultural Corridor project as soon as possible, with due*

*regard to current commitments, competing priorities and staffing constraints.*

The current EA study was initiated in accordance with Council direction.

## **COMMENTS**

### **Study Process**

The John Street Corridor Improvements Class Environmental Assessment Study has been undertaken in accordance with the requirements for a Schedule "C" project under the Municipal Class Environmental Assessment (the Class EA).

The Environmental Study Report (ESR) describes in detail the first three phases of the five-phase environmental planning process set out by the Class EA:

Phase 1 – identification of the problem or opportunity;

Phase 2 – identification and evaluation of alternative solutions; and

Phase 3 – identification and evaluation of alternative design concepts for the preferred solution.

The preparation of the ESR and the filing of the document in the public record, which is the subject of this report, constitute Phase 4 of the environmental planning process. Phase 5 is the construction and operation or implementation of the project, and monitoring of impacts, in accordance with the terms of the EA approval.

As a requirement of the Schedule "C" process, if City Council endorses the recommendations of the Study, the ESR will be filed in the public record for a minimum of 30-day review period. During this period, members of the public, and any other interested individuals, interest groups, or government agencies, may request that a Part II Order be issued. If a Part II Order is not granted or if requests or objections received during the filing period are resolved, the project is approved under the Environmental Assessment Act and may proceed.

The Class EA Study was carried out with the assistance of technical consultants and supported by a Technical Advisory Committee comprised of staff from Transportation Services, City Planning, Toronto Water, and Technical Services as well as the TEDBIA.

### **Public Consultation**

Public involvement is an integral and ongoing part of the study process for the John Street Corridor Improvements EA Study. The public consultation requirements of the Class EA were met. In addition to two Public Open Houses, individual and group meetings were held with affected property owners and stakeholders. Details of the public consultation

process and the primary concerns expressed by the public and affected agencies are documented in the ESR.

### **Public Information Centre (PIC) #1**

The first round of public consultation was held on June 17, 2010 at Metro Hall (located on John Street). A Notice of Study Commencement and Public Open House was published in NOW! magazine on June 10 and 17, 2010. The PIC #1 Flyer / Ad was distributed to all civic addresses in the study area. A total of 13,629 flyers were delivered on June 11, 2010 by Canada Post. Government agencies were notified by mail.

The Public Information Centre was held in an open house format, where the display panels were on hand and participants were free to read and ask questions of the study team. For those unable to attend the evening's event, all material was subsequently posted on the City of Toronto's project website.

Approximately 45 people attended the Open House, and ten comment forms were submitted. There were 87 comments submitted by e-mail.

### **Public Information Centre (PIC) #2**

The second round of public consultation was held on June 16, 2011 also at Metro Hall. The Notice of Public Open House was published in NOW! magazine on June 9 2011 and was delivered to 9,970 municipal addresses in the EA study area by Canada Post on June 8, 2011. All those who had attended PIC #1 or who had been added to the study contact list were also advised by e-mail of the second PIC.

As with PIC #1, PIC#2 was held in an open house format. Display panels were presented and study team members were on hand to assist. All materials were again posted on the City of Toronto's project website.

Of those in attendance, 109 members of the public signed in. Fifty-two PIC #2 comment forms were handed in and 25 comments were subsequently submitted via e-mail.

## **Environmental Assessment Findings**

### **(1) Identification of the Problem or Opportunity**

The Study Area, shown in Figure 1, is bounded by Stephanie Street to the north, Front Street West to the south, Peter Street to the west and Simcoe Street to the east.

John Street is a north-south collector road between Front Street West and Queen Street West, and is classified as a local road between Queen Street and Stephanie Street. It has a four-lane cross-section (two lanes per direction) from Front Street to Adelaide Street, a three-lane cross-section (one lane per direction, plus a centre left turn lane) from Adelaide Street to Queen Street, and a two-lane cross-section from Queen Street to Stephanie Street.

There are no provisions for on-street parking south of Queen Street, but there is some permitted boulevard parking north of Queen Street.

The entire street is approximately 840 m in length and has six signalized intersections.

The objectives of the EA study for John Street were to:

- Develop a strong continuous north-south pedestrian corridor from the Art Gallery of Ontario to the Waterfront with enhanced streetscaping, a continuous public art experience and an embedded wayfinding strategy.
- Develop a coordinated and unified approach for public realm improvements associated with private sector and cultural sector needs / initiatives.
- Enable expanded areas for outdoor spill-out activities associated with existing and future adjacent uses and cultural institutions.
- Enable adequate space with sufficient flexibility to host festivals and events in a seamless and integrated manner.
- Enhance the streetscape to a quality and character that is warranted given its civic and cultural importance to the city.

## **(2) Identification and Evaluation of Alternative Solutions**

Six alternative solutions to the problem/opportunity statement were identified and comparatively evaluated:

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|-----------------|--|
| Alternative #1: | “Do nothing”;  |
| Alternative #2: | Shared Street where vehicles, pedestrians and cyclists share the same space;               |
| Alternative #3: | Conversion to a Pedestrian Mall where vehicles are prohibited and cyclists must disembark; |
| Alternative #4: | Reduce vehicle realm / increased pedestrian realm within the existing right-of- way;       |
| Alternative #5: | Reduce vehicle realm / provide bike lanes within the existing right-of-way; and            |
| Alternative #6: | Widen the Right-of-Way to increase pedestrian realm and provide bike lanes.                |

An Alternative #7 (Improve Other Roads in the area for pedestrian use) had been developed but screened out, given that other parallel roads (i.e. Peter Street, Simcoe Street, Duncan Street, etc.) are not as central and close as John Street to the key cultural and entertainment landmarks.

Each alternative was analyzed and evaluated in detail using criteria in the following categories:

- Transportation Considerations
- Urban Design Considerations
- Socio-Cultural Environment
- Natural Environment; and
- Cost

### **(3) Develop and Evaluate Alternative Design Concepts for the Preferred Solution**

#### **Alternative #1: Do Nothing**

This alternative, by definition, does not result in an enhanced public realm in the study area and hence does not address the problem opportunity statement. However, it was used to assess the relative merits of the other five alternatives.

#### **Alternative #2: Shared Street within the Existing Right-of-Way**

The "Shared Street" concept would facilitate and encourage the unrestricted mixing of pedestrians, cyclists, and motor vehicles within the space in the public right-of-way. It would be a desirable solution from an urban design standpoint given its high levels of compatibility with the BIA Master Plan and opportunity to integrate with existing and planned adjacent uses, developments and events. However, it has safety, legislative, and liability implications that the Technical Committee did not feel could be adequately addressed to consider this alternative further.

#### **Alternative #3: Conversion to Pedestrian Mall**

Conversion of John Street to a Pedestrian Mall (i.e. closed to vehicular traffic at all times) would present great challenges in accommodating the needs of emergency services, deliveries, vehicular access to existing parking facilities, cyclists, and general vehicular movement. Furthermore, most successful pedestrian malls require a high population density and critical mass of activity, such as continuous retail uses, to ensure animation at all times and seasons. It was felt that the type of activities associated with the facilities and institutions along this corridor could not support a Pedestrian Mall concept on a full-time basis even if the vehicle demands and access issues could be adequately addressed. This does not mean, however, that all or part of John Street cannot be closed entirely to vehicular traffic for special events or under certain conditions.

#### **Alternative #4: Reduce Vehicle Realm / Increased Pedestrian Realm (within the existing right-of-way)**

This alternative was identified as the most balanced approach to accommodating, to some extent, all users and hence recommended as the technically preferred alternative solution, given that:

- it provides great opportunities to enhance urban design and streetscaping features;
- it provides a highest level of compatibility with the BIA Master Plan;
- it results in improvements to pedestrian movements without significant adverse impacts to vehicular and goods and services movements; and
- it balances the needs of existing and future businesses, tourists and Torontonians by increasing space for pedestrians and spill-out commercial activities while accommodating the cultural elements and programming envisioned.

The traffic operation assessment indicated that there is reserve vehicular capacity available along the John Street corridor during the majority of the day, although localized vehicular congestion and deteriorated levels of service are experienced at some locations during peak times. It was also recognized that John Street does not extend north to Dundas Street or south past Front Street and, therefore, its function as a carrier of major through traffic is somewhat limited, when compared to other north-south arterial streets in the area.

**Alternative #5: Reduce Vehicle Realm / Provide Bike Lanes (within the existing Right-of-Way)**

The provision of bike lanes on John Street was arguably the most challenging and controversial aspect of this exercise. Clearly, the provision of bike lanes would reduce opportunities to expand sidewalks and improve the pedestrian environment which is the overall objective of this project. Nevertheless, throughout the public consultation process, submissions were made indicating a strong desire for the provision of bike lanes as part of this reconfiguration. It was concluded, however, that with the recognition by City Council of John Street as a pedestrian priority route and the direction to enhance the pedestrian realm accordingly, the provision of bike lanes was not consistent with this direction. Furthermore, with the other transportation initiatives soon to be underway in this area, specifically the Downtown Transportation Operations Study and the Richmond/Adelaide Separated Bikeway Environmental Assessment Study, opportunities to improve cycling connections in this area on routes other than John Street will be developed.

**Alternative #6: Right-of-Way Widening to Increase Pedestrian Realm & Provide Bike Lanes**

Given the amount, location, and design of existing and planned development along this corridor, this alternative was considered to have a significant adverse impact on businesses fronting John Street, would be too costly to realize and, in any event, could only be achieved incrementally over a long period of time. Therefore, this alternative was eliminated from further consideration.

**(4) Short-listed Alternatives**

Following the initial evaluation of alternatives and taking stakeholder comments into account, two hybrid design options were developed for final consideration:

### **Alternative A: Narrow Lanes with a flexible boulevard**

- 3.2 m wide travel lanes to maximize road narrowing and calm vehicular speeds;
- Cyclists move in tandem with vehicles;
- A continuous 'flexible boulevard' along the east side that maintains an expanded sidewalk while accommodating occasional deliveries & other programming;
- Narrow 3-lane section south of Wellington Street to accommodate turning movements; and
- Mountable curbs for flexible boulevards and to accommodate truck turns.

### **Alternative B: Conventional Lane widths**

- 4.2 m wide travel lanes to accommodate cyclists beside vehicles;
- Deliveries at curbside as currently permitted;
- Roadway width maintained and not widened north of Queen;
- Northbound right turn lane provided at Adelaide Street;
- Lay-by provided in front of Metro Hall; and
- Typical 3-lane section south of Wellington to accommodate turning movements.

The majority of public comments about Alternative A were positive. PIC #2 participants felt that Alternative A was the most flexible and would be the most beneficial to the city. There was considerable support for the "flexible boulevard" which provides the opportunity to minimize the space provided for vehicular traffic. Of the negative comments, most were about the lack of accommodation for cyclists as noted previously in the discussion of Alternative #5.

A majority of comments about Alternative B were negative. Many of the negative comments focused again on the absence of bike lanes, or the fact that the space provided for vehicular traffic was greater than for Alternative A. While some respondents felt that Alternative B was a better compromise, others felt that the pedestrian objectives could not be achieved through this compromise.

On balance, considering all the concerns/support and advantages/disadvantages of the two alternative design options, the Study Team felt that Alternative A best met the needs and opportunities within the John Street corridor.

The preferred design fulfils the Problem / Opportunity Statement and its accompanying design objectives, including consistency with the principles and policies of the City of Toronto and with the vision set out in the Toronto Entertainment District BIA Master Plan. The preferred design best enhances the public realm and its cultural objectives while at the same time accommodating other modes of transportation in a balanced and compatible manner, including cycling, auto traffic, and loading requirements.

## Recommended Design

The following describes the functional elements comprising the John Street Corridor Improvements.

Along the entire length of John Street:

- A continuous non-barrier or "mountable" curb on both sides of the street to enable a seamless transition into a pedestrian-only space for events, for vehicles to access the flexible boulevard for deliveries or drop-offs, and to accommodate additional vehicular and cycling manoeuvring on either side of the road in emergencies.
- At a minimum, the pedestrian clearways are 2.1m in width on both sides of the street.
- Curb radii at intersecting streets are proposed to comprise a 7.5 metre radius to allow passenger vehicles and small delivery trucks to negotiate corners and be confined within the proposed lane widths for John Street. Larger trucks which result in a wider swept path can utilize the mountable curbs and flexible boulevards. These zones should be kept clear of all obstructions. Curb radii can be reduced to 1.0 m in situations where turning movements do not occur.
- Distinctive pavement treatments are a key feature to creating a unique public space but also as a means to provide visual cues to motorists that different driver behaviour is warranted in this corridor.

Between Stephanie Street and Wellington Street:

- A two-lane road (one lane in each direction) with 3.2 m lane widths for a total roadway width of 6.4 m.
- A northbound right-turn lane is provided at Adelaide Street, and a southbound left-turn lane at Wellington Street.
- An asymmetrical road alignment to facilitate a 'promenade' condition on the east side of the road comprised of a flexible boulevard, double row of trees, and provision for continuous spill-out commercial activity such as sidewalk cafes.
- A 2.5 m wide flexible boulevard is provided on the east side of the road to expand the pedestrian areas (for walking, cultural programming and/or markets) while accommodating occasional delivery vehicles and drop-offs in specified locations.
- Tree planting/furnishing zones are provided within a 1.76 m width on the west side of the roadway, and 1.5 m width on the east side of the flexible boulevard, with a secondary tree planting zone of varying widths at the eastern extremities of the right-of-way.

Between Wellington Street and Front Street:

- A three-lane cross section with 3.2 m lanes is provided for a total road width of 9.6m.
- At Wellington Street, northbound John Street will have one through lane and a northbound right turn lane.

- At Front Street, a southbound left turn and a southbound through/right turn lane will be provided, as well as a northbound through lane.
- A northbound left turn into the 300 Front Street condominium development would be included just to the north of the Front Street intersection.
- Just north of the access point for 300 Front Street, deliveries and drop-offs for the CBC will continue to be permitted in the curbside northbound lane.
- Tree planting/furnishing zones with a 1.5m width are provided on both sides of the street.

### **Public/Agency Concerns with the Recommended Design**

Throughout the public consultation process, many comments were received from the general public, adjacent property owners and review agencies which assisted in the development and evaluation of the alternatives. The primary concerns identified through the consultation process, which could apply to the recommended design, and responses are summarized below.

#### **Cycling**

John Street is currently a popular route by some cyclists, in part, because it is signalized at Queen Street, operates two-way, has lower traffic volumes than adjacent streets, and connects with the Beverley – St. George bike lanes to the north. As such, there was a strong sentiment in the cycling community in favour of dedicated bicycle lanes on John Street as part of the Corridor Improvements plan. However, there is not enough space in the right-of-way to enhance the pedestrian environment while simultaneously adding bike lanes.

Although bike lanes are not included in the recommended design, with the narrowing of the pavement and the resulting calming of traffic, conditions for cyclists could arguably be better than the current situation. In any event, as indicated previously, the Downtown Transportation Operations Study and the Richmond/Adelaide EA Study will examine opportunities to improve cycling conditions and implement cycling facilities in this area.

With the pedestrian environment as the primary focus of the project, the continued accommodation of cycling on John Street, and the availability of alternate routes for cycling in the area, staff believe that the recommended plan, while not providing dedicated bicycle lanes on John Street, will continue to accommodate use of the corridor by cyclists and all modes of travel.

#### **Pedestrians**

There were concerns expressed by the disabled / visually impaired community about the concept of a "seamless" surface treatment that did not distinguish clearly between pedestrian space and vehicular space. The recommended plan addresses this concern by retaining a rolled curb and bollards to clearly delineate the two zones.

## **Deliveries**

Numerous buildings on or near John Street rely on curbside deliveries for supplies, deliveries, garbage removal, etc. With an incomplete rear lane network and few other realistic alternatives, it is important that John Street continue to support and accommodate curbside uses. The flexible boulevard on the east side of the street specifically allows and accommodates such uses while maximizing the pedestrian space when these boulevards are not required for loading purposes.

## **Traffic Operations**

Given its short length, discontinuity and position in the road network hierarchy John Street does not serve primarily as a through route. Instead, its predominant function is to distribute locally-generated traffic to the east-west road grid.

Traffic conditions on John Street vary throughout the day, the week, and seasonally, as the base demands by pedestrians, cyclists, and vehicles may be supplemented by special event traffic (theatre, concert, sport, and nightclub). While "base case" traffic operations are reasonably good within the downtown context, crowding and congestion may occur due to special events.

The significant increase in sidewalk capacity on John Street will accommodate peak pedestrian demands, while the reconfiguration of road space will have little effect on the vehicular Level of Service in the corridor. Left turn lanes are recommended in high-demand locations, and the flexible boulevard minimizes the risk of traffic on John Street being blocked by a stopped or parked vehicle. Following implementation of the recommended plan, City staff will continue to monitor John Street operations to see if any problems are occurring and to apply any necessary improvements or changes (e.g. turn restrictions).

## **Drainage / Stormwater Management**

The use of trench (linear) drains along John Street rather than the conventional catch basin/storm sewer method to accommodate runoff was proposed, as a more attractive and functional method compatible with a seamless road surface. Concerns about conveyance capacity, surface water storage capacity, maintenance requirements, cost, and lack of City precedence were not fully resolved in the course of the EA study. The ESR therefore recommends a conventional drainage approach to John Street, but the application of trench drains remains an option should the outstanding questions be resolved at or before the detail design stage and the construction funding is sufficient for that design choice.

In any case, positive stormwater drainage will be maintained and replanting of trees will avoid encroachment over existing sewers and watermains. The additional vegetation and planting space will reduce the amount of hard surface in the corridor, yielding benefits to runoff water quantity and quality.

## **Implementation**

Once approved, the John Street Corridor Improvements plan can be implemented in stages over time, in accordance with the availability of capital funds. There are no specific deadlines in place for project completion although the BIA has indicated a preference to have these improvements implemented in advance of the Pan Am Games in July/August 2015.

## **Property Impacts**

There are no requirements to acquire private property for this project.

## **Next Steps**

Pending approval of this report by City Council, the ESR will be filed in the public record for a minimum 30-day period. Once EA approval is received, design and construction of the Recommended Design may proceed when the funding is in place.

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## **SIGNATURE**

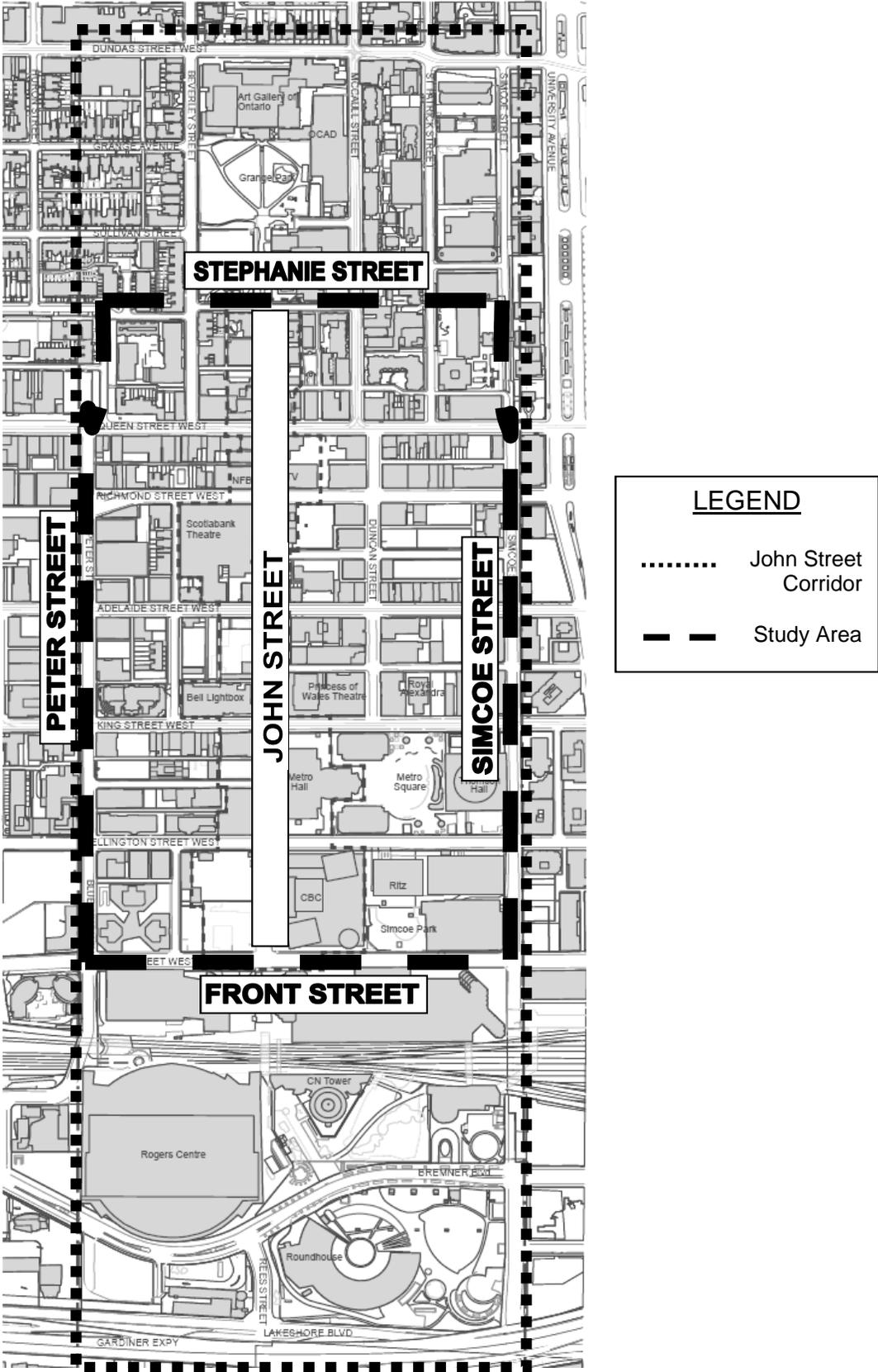
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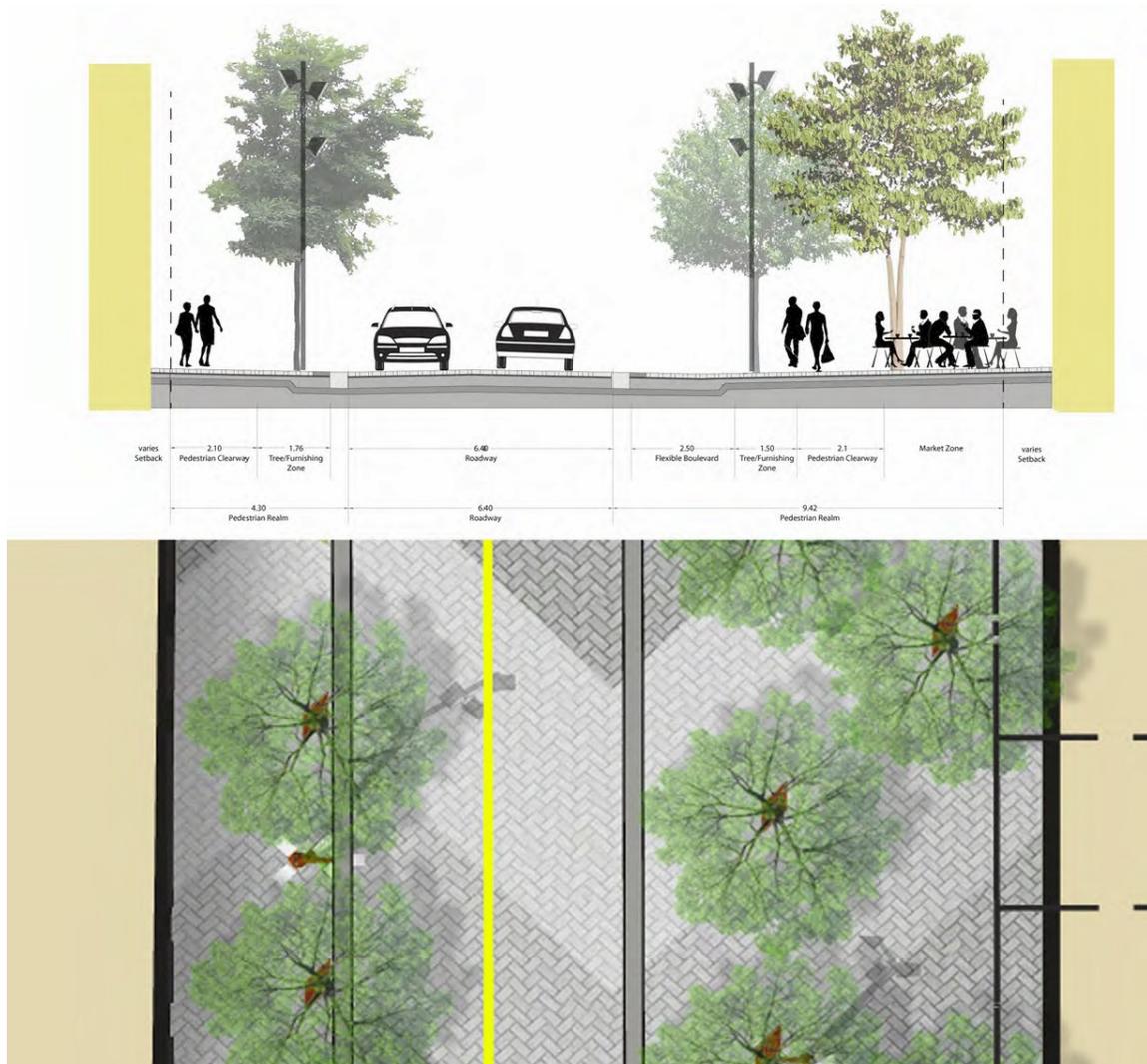
## **ATTACHMENTS**

Figure 1: John Street Corridor and Study Area  
Figure 2: Typical Recommended John Street Cross Section  
Figure 3: Image of Typical Recommended John Street Configuration

**Figure 1: John Street Corridor and Study Area**



**Figure 2:  
 Typical Recommended John Street Cross Section  
 Between Adelaide Street and Richmond Street (looking north)**



**Figure 3:**  
**Image of Typical Recommended John Street Configuration (looking south)**

