

# ENVIRONMENTAL STUDY REPORT

March 16, 2015

CITY OF BELLEVILLE

## Sidney Street Corridor Improvements (Bell Boulevard to Tracey Street) Municipal Class Environmental Assessment

**Submitted to:**  
City of Belleville  
169 Front Street  
Belleville, Ontario  
K8N 2Y8



**CIMA Report Number: C14-0026; 1403140**

**Distribution:**

Five (5) paper City of Belleville  
One (1) e-copy City of Belleville

**CIMA**  
Partners in excellence

**Golder  
Associates**

If requested, this report can be made available in an accessible format.

---

# SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

---

## Table of Contents

<b>1.0 IDENTIFICATION OF PROBLEM OR OPPORTUNITY .....</b>	<b>2</b>
1.1 Need and Justification .....	2
1.2 Study Area .....	2
<b>2.0 BROADER PLANNING CONTEXT .....</b>	<b>8</b>
2.1 City of Belleville Transportation Master Plan .....	8
2.2 Build Belleville Plan .....	8
<b>3.0 CLASS ENVIRONMENTAL ASSESSMENT PROCESS.....</b>	<b>10</b>
3.1 Selection of Class Environmental Assessment Schedule .....	11
<b>4.0 SUMMARY OF EXISTING CONDITIONS.....</b>	<b>12</b>
4.1 Traffic Study .....	12
4.2 Land Use Conditions .....	14
4.3 Natural Environment Conditions .....	15
4.4 Archaeological Conditions .....	20
4.5 Cultural and Built Heritage Conditions .....	20
4.6 Geotechnical Conditions.....	21
<b>5.0 ALTERNATIVE SOLUTIONS / DESIGNS AND EVALUATION PROCESS.....</b>	<b>22</b>
5.1 Identification of Alternative Solutions / Designs .....	22
5.1.1 Alternative Designs for the Sidney Street Corridor.....	22
5.1.2 Alternative Designs for the Tracey Street / Tracey Park Drive Intersection.....	23
5.2 Pre-screening of Evaluation Criteria .....	24
5.3 Evaluation of Alternative Designs .....	32
5.3.1 Sidney Street Corridor.....	32
5.3.2 Tracey Street / Tracey Park Drive Intersection .....	38
<b>6.0 PREFERRED ALTERNATIVE .....</b>	<b>42</b>
6.1 Conceptual Design of the Preferred Alternative.....	42
6.1.1 Sidney Street .....	42
6.1.2 Tracey Street / Tracey Park Drive Realignment.....	46
6.2 Property Acquisition.....	46

# SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

6.3	Estimated Construction Cost .....	46
6.4	Proposed Construction Schedule .....	47
6.5	Mitigating Measures.....	47
6.6	Permitting and Approval Requirements / Guidelines .....	48
<b>7.0</b>	<b>PUBLIC CONSULTATION SUMMARY .....</b>	<b>52</b>
7.1	Stakeholders.....	52
7.2	Notices and Advertisements .....	52
7.3	Consultation with Review Agencies .....	52
7.4	Consultation with First Nations .....	56
7.5	Consultation with Property Owners.....	56
7.6	Public Information Centres .....	56
<b>8.0</b>	<b>ENVIRONMENTAL STUDY REPORT AND NOTICE OF STUDY COMPLETION.....</b>	<b>58</b>

## TABLES

Table 1: Pre-screening of Project Evaluation Criteria.....	25
Table 2: Evaluation of Alternatives – Sidney Street from Bell Boulevard to Tracey Street / Tracey Park Drive .....	34
Table 3: Evaluation of Alternatives – Tracey Street and Tracey Park Drive Intersection .....	39
Table 4: Notices and Advertisements.....	52
Table 5: Comments Received from Review Agencies and Resulting Response.....	53

## FIGURES

Figure 1: Project Location .....	4
Figure 2: Municipal Class EA Study Area .....	6
Figure 3: Municipal Class Environmental Assessment Process.....	10
Figure 4: Existing Features and Preliminary Study Results.....	18
Figure 5: Preferred Alternative Design .....	44

## APPENDICES

### APPENDIX A

Traffic Analysis Report

### APPENDIX B

Natural Heritage Evaluation

---

# SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

---

## **APPENDIX C**

Tree Inventory and Assessment Report

## **APPENDIX D**

Stage 1 Archaeological Assessment

## **APPENDIX E**

Heritage Impact Assessment

## **APPENDIX F**

Geotechnical Investigation

## **APPENDIX G**

Detailed Evaluation Matrices for Alternatives

## **APPENDIX H**

Preliminary Design Drawing

## **APPENDIX I**

List of Stakeholders

## **APPENDIX J**

Project Notices

## **APPENDIX K**

Project Correspondence

## **APPENDIX L**

Public Information Centre #1 Panels, Sign-in Sheets, Comments and Summary

## **APPENDIX M**

Public Information Centre #2 Panels, Sign-in Sheets, Comments and Summary

---

# SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

---

---

# SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

---

## 1.0 IDENTIFICATION OF PROBLEM OR OPPORTUNITY

### 1.1 Need and Justification

Sidney Street is a major north-south arterial roadway in the City of Belleville. Traffic volumes along Sidney Street and turning movements at the intersection of Sidney Street and Bell Boulevard have increased significantly since completion of the Bell Boulevard extension west to Wallbridge Loyalist Road. The intersection of Sidney Street and Tracey Street/Tracey Park Drive is offset with no turning lanes and doesn't function well under the current configuration. Since Sidney Street carries high volumes of traffic, it has become imperative to undertake corridor and intersection improvements to accommodate transportation needs. In addition, past studies in support of transportation planning identified the need to accommodate existing and future transportation needs considering all modes of travel (i.e., vehicles, pedestrians and cyclists). Therefore, improvements are required to increase capacity and improve safety by:

- accommodating existing and projected roadway capacity;
- improving roadway geometric conditions at intersections;
- improving vehicle, pedestrian and cyclist safety; and
- addressing deteriorating pavement conditions.

Therefore, the City of Belleville conducted a Municipal Class Environmental Assessment (EA) study to investigate options for increasing capacity and improving safety along the Sidney Street corridor and intersections with Bell Boulevard and Tracey Street / Tracey Park Drive. The EA Study confirms the project need and justification, documents existing environmental conditions, examines alternatives and potential impacts, and recommends mitigating measures.

### 1.2 Study Area

The study area for the Municipal EA is located within the City of Belleville, south of Highway 401, east of the Loyalist Planning Area and west of Highway 62 (**Figure 1**). The area of focus in this EA is the Sidney Street corridor between Bell Boulevard and Tracey Street, and the intersections of Sidney Street / Bell Boulevard and Sidney Street / Tracey Street / Tracey Park Drive as shown on **Figure 2**.

Within the study area, there is a mix of residential and commercial land uses, old field and transportation infrastructure. There is also a hydro corridor in the study area which crosses the study area north of Tracey Street / Tracey Park Drive.

---

**SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT**

---



# SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

Figure 1: Project Location



---

# SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

---

---

# SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

---

Figure 2: Municipal Class EA Study Area



---

**SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT**

---

---

# SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

---

## 2.0 BROADER PLANNING CONTEXT

### 2.1 City of Belleville Transportation Master Plan

The City has prepared a Transportation Master Plan (TMP) to guide development of the transportation infrastructure over the next 20 years. The plan will guide development of the roadway network and multi-modal transportation facilities and services for a more balanced transportation system that will improve vehicular traffic flow and offer a range of travel choices to meet existing and future needs.

Transportation models were used to predict future traffic demand and to locate future congestion points within the existing road network. The results were used to make recommendations to guide the establishment of infrastructure improvement priorities.

The City's TMP identified two improvements affecting the Sidney Street study corridor that are recommended to be completed before the 2031 horizon year. These improvements consist of:

- widening of Sidney Street from two to four lanes between Bell Boulevard and Millennium Parkway (over Highway 401) to address capacity deficiencies over Highway 401; and
- widening of Bell Boulevard from two to four lanes between Sidney Street and Wallbridge Loyalist Road to address capacity deficiencies along the corridor and to provide access to adjacent properties that have been identified for future development.

The City's TMP also recommends the City develop a sidewalk strategy which documents existing sidewalk facilities and prioritizes construction of missing links. The TMP also reviews existing cycling plans and encourages development of the cycling network as part of the active transportation system.

### 2.2 Build Belleville Plan

To ensure that the City continues to grow and be an attractive place to live, work and play, the City developed the Build Belleville Plan. The Build Belleville Plan is a major capital construction initiative that will see a major investment in capital renewal and expansion in the City of Belleville. Infrastructure projects within the plan were selected strategically and are linked to economic growth. Critical and strategic investment in growth related infrastructure will result in increased capacity and private investment of industrial, residential and commercial development.

The City owns over \$3.5 billion in assets, such as water and sewage treatment plants, mains and roads, that are in need of maintenance and/or upgrades. The plan identifies a number of construction projects, which includes investing in existing assets to ensure the assets continue to be of service to the community. The Sidney Street Corridor Improvements Project (i.e., the Project), including intersection improvements at Bell Boulevard and Tracey Street / Tracey Park Drive is identified as one of the transportation network improvement projects in the Build Belleville Plan. Investment along this corridor and at the identified intersections is deemed necessary to better accommodate existing and future traffic needs, and to improve public safety.

As one of the first steps toward implementation of this Project, the City has conducted this Municipal Class EA study.

---

**SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT**

---

# SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

## 3.0 CLASS ENVIRONMENTAL ASSESSMENT PROCESS

The Municipal Class EA process was developed by the Municipal Engineers Association (MEA 2000, amended 2007, 2011 and 2014) to streamline the EA process for recurring municipal projects that are similar in nature, usually limited in scale, and with a predictable range of environmental effects that are responsive to mitigating measures. The Municipal Class EA process is outlined on **Figure 3**.

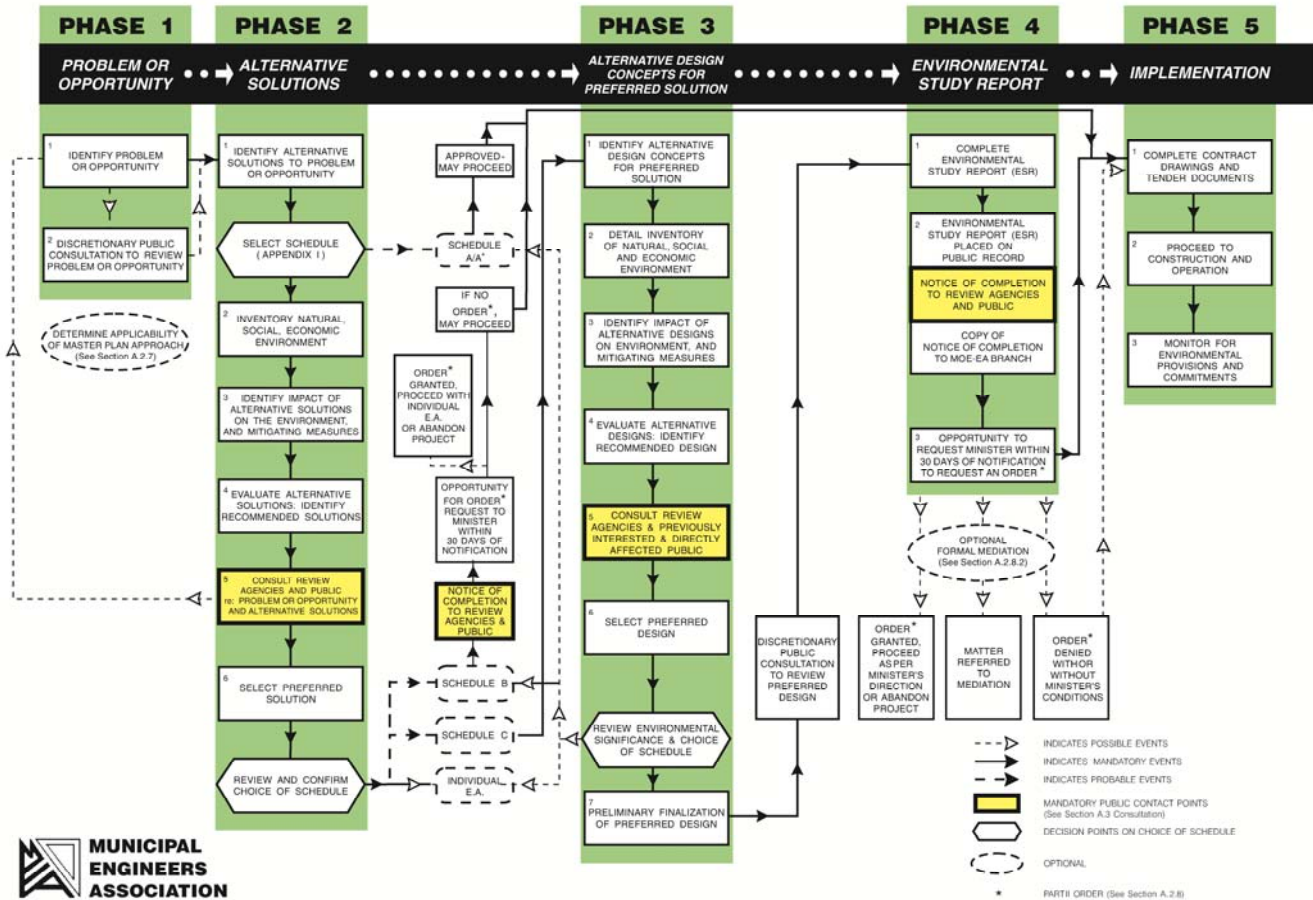


Figure 3: Municipal Class Environmental Assessment Process

In Phase 2 of the process, the proponent is required to examine the range of alternatives that are being considered, and select the appropriate 'schedule' to follow. Projects are classified according to their potential for adverse environmental effect. The classifications are:

### Schedule A

These projects are limited in scale, have minimal adverse environmental effects, and typically consist of normal maintenance and operational activities. These projects are considered pre-approved and may proceed without following the full Class EA planning process.

---

## SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

---

### *Schedule A+*

These projects are also limited in scale, have minimal adverse environmental effects, and are considered pre-approved, but there is a requirement for public notification prior to construction or implementation of the project. The purpose of the notification is to inform the public of projects occurring in their local area. Although the public is informed of the project, there is no appeal mechanism to the Ministry of the Environment and Climate Change (MOECC); concerns are addressed at municipal council.

### *Schedule B*

These projects have the potential for some adverse environmental effects, thus requiring a screening process involving mandatory contact with directly affected public and relevant review agencies. If all concerns can be adequately addressed, the project may proceed. These projects generally include improvements and minor expansions to existing facilities.

### *Schedule C*

These projects have potential for significant environmental effects and are subject to the full planning and documentation procedures specified in the Class EA document. An Environmental Study Report must be prepared and submitted for review by the public and relevant review agencies. If all public and agency comments and issues are resolved during the public review period, the project may proceed. These projects generally include construction of new facilities or major expansions to existing facilities.

## **3.1 Selection of Class Environmental Assessment Schedule**

The classification schedules for municipal road projects in Appendix 1 of the MEA document were reviewed to determine the appropriate categorization of the Project. Item 20 in Schedule 1 states that “reconstruction or widening where the reconstructed road or other liner paved facilities (e.g. HOV lanes) will not be for the same purpose, use, capacity or at the same location as the facility being reconstructed (e.g. additional lanes, continuous centre turn lane)”, is classified as either Schedule ‘B’ (subject to screening process) or Schedule ‘C’ (subject to full planning process) depending on the financial construction limit identified by the MEA. Based on the road improvements identified along Sidney Street and its intersections with Bell Boulevard and Tracey Street / Tracey Park Drive, the total construction value is anticipated to exceed \$2.3 million, which is the current threshold between a Schedule ‘B’ and Schedule ‘C’ Class EA under Item 20 of Schedule 1. Therefore, the selection of the Schedule ‘C’ process was determined to be most appropriate.

The issue of property acquisition along the Sidney Street corridor and in the vicinity of the subject intersections further supports the selection of the Schedule ‘C’ process. Property acquisition has potential to be a sensitive topic for affected property owners and residents, and their interests must be adequately addressed through a transparent process. The Schedule ‘C’ process provides the forum to allow concerns to be considered, addressed and documented.



---

# SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

---

## 4.0 SUMMARY OF EXISTING CONDITIONS

An integral part of the Class EA process is the review and inventory of the environmental features to support the evaluation of potential project effects. The following sections provide an overview of environmental conditions that were considered for this Project.

### 4.1 Traffic Study

A traffic analysis was completed to document the existing roadway geometry, traffic volumes and intersection operations, review the current connectivity of walkways and cycling facilities and develop a plan for the connectivity of active transportation modes along and crossing the corridor, and to calculate and analyze the expected future traffic volumes and operations in the study area. The results were used to support the need and justification for the Class EA.

The traffic analysis area included Sidney Street from the intersection with Bell Boulevard in the north to the intersection with Tracey Street / Tracey Park Drive in the south. Sidney Street is an undivided two-way four-lane arterial roadway running north-south through the west end of the City. Between Bell Boulevard and Tracey Street / Tracey Park Drive, Sidney Street consists of two lanes for vehicular traffic in each direction. There are numerous residential driveways with direct access to Sidney Street in the southern portion of the study area, two substantial commercial accesses on the west side near Bell Boulevard and open space along the majority of the eastern side of Sidney Street. North of the study area, there are several commercial entrances that provide direct access to Sidney Street.

The intersections of Sidney Street / Bell Boulevard, and Sidney Street / Tracey Street / Tracey Park Drive both operate under traffic signal control. A possible future signalized intersection for the commercial-zoned property on the east side of Sidney Street was considered in the analysis, located midway between Tracey Street and Bell Boulevard.

The active transportation network along Sidney Street consists of a concrete sidewalk running along the east side and a concrete sidewalk that transitions to a worn dirt path approximately 110 m north of Tracey Park Drive on the west side. There are currently no bicycle facilities on Sidney Street.

Turning Movement Counts (TMCs) for the study area intersections were collected on July 9, 2014, July 10, 2014, November 13, 2014 and November 15, 2014 (Saturday). It was noted that the Saturday PM peak hour traffic volume is higher than the weekday PM peak volume. The TMCs were used in conjunction with the traffic signal timing plans provided by the City to undertake the existing traffic operational analysis. Synchro/SimTraffic v8 was utilized in this analysis to produce results consistent with the methodologies contained in the Highway Capacity Manual (HCM 2000).

For signalized intersections, the analysis focuses on performance measures such as intersection level of service (LOS), volume-to-capacity (v/c) ratios, control delay and 95<sup>th</sup>-percentile queue. The 95<sup>th</sup>-percentile queue is defined to be the queue length (in vehicles) that has only a 5% probability of being exceeded during the analysis time period, while LOS is a qualitative measure of operational performance and is based on control delay.

A review of the existing intersection operations indicated that both intersections operate with acceptable v/c ratios and at LOS "D" or better in the AM peak hour. During the PM peak hour the Sidney / Bell intersection

---

## SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

---

operates at LOS “D” with increasing queuing, while the Sidney Street / Tracey Street / Tracey Park Drive intersection operates poorly with oversaturated v/c ratios and LOS “F”. These results indicate there may be opportunities for improvement at the intersections.

The future traffic operational analysis estimated 2031 traffic volumes for the intersections utilizing current traffic counts plus growth factors and EMME model outputs from the City’s recent TMP. Turning movement volumes for the 2031 AM peak hour were then estimated through the Fratar trip distribution method and the 2031 PM volumes were estimated by applying the same ratio between the AM and PM 2014 traffic movement counts for each individual turning movement. Future operation scenarios included the following:

- A “Do Nothing” scenario, which included two improvements identified in the City’s Transportation Master Plan -- widening of Sidney Street from two to four lanes between Bell Boulevard and Millennium Parkway (over Highway 401) and widening of Bell Boulevard from two to four lanes between Sidney Street and Wallbridge Loyalist Road.
- Future Volumes, Scenario 1 – intersection improvements utilizing traffic volumes assuming the future commercial development lands on the east side of Sidney Street are included in the City’s EMME model.
- Future Volumes, Scenario 2 – intersection improvements utilizing traffic volumes assuming the future commercial development lands on the east side of Sidney Street are additional to those in the City’s EMME model.

Findings and recommendations resulting from the traffic investigation are as follows:

- The existing sidewalk on the west side of Sidney Street is discontinuous between Tracey Park Drive and Bell Boulevard, and pedestrians have worn a dirt path on the boulevard next to the roadway. A continuous sidewalk with proper boulevard separation from the roadway should be constructed to provide pedestrians safe access along the west side of Sidney Street.
- Cycling provisions have been identified in the City’s cycling network for a future east-west cycling path along the hydro corridor and on Sidney Street from the hydro corridor northward. Provisions should be included in the Sidney Street road allowance from the hydro corridor northerly for the future cycling network.
- If improvements are not implemented to the existing intersections in the study area, the level of service will continue to decline, especially in the PM peak hour where in 2031 there will be oversaturated v/c ratios and LOS “F” operational characteristics.
- The following improvements are proposed to improve existing and future operations of Sidney Street and the intersections within the study area:
  - Realignment of Tracey Street / Tracey Park Drive, eliminating the intersection offset at Sidney Street;
  - Addition of one exclusive left turn lane in the northbound direction at the Sidney Street / Bell Boulevard intersection;
  - Addition of one exclusive right-turn lane in the southbound direction at the Sidney Street / Bell Boulevard intersection;

---

## SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

---

- Addition of one left turn lane in the eastbound direction at the Sidney Street / Bell Boulevard intersection (making a double left turn to mirror the existing condition on the opposite side of the intersection);
- Modification of the existing exclusive right turn lane in the westbound direction at the Sidney Street / Bell Boulevard intersection to a through / right lane;
- Allowance for future signalization of the potential Sidney Street access to the commercial development;
- When a formal proposal for the development of the commercial area is presented for approval, the City will request a Traffic Impact Study that conducts a more detailed review of any potential access to the development, or potential connection to the signals on Bell Boulevard east of Sidney Street, and its effect on intersection operations at Sidney Street and Bell Boulevard;
- It is also recommended that the addition of a continuous left turn lane along Sidney Street between Bell Boulevard and Tracy Street be evaluated as part of the design process. The results of this analysis indicate that, from an operations perspective, mid-block left turn movements do not impact through traffic to the point of requiring a continuous left turn lane along Sidney Street. A continuous left turn lane would be beneficial; however, from a safety perspective as the addition of this infrastructure improvement would reduce the chances of rear end collisions between through and left-turning vehicles on Sidney Street, including at the intersection with Tracey Street / Tracey Park Drive, and improve access to adjacent properties.
- As an alternative to a northbound right-turn lane or a channelized right-turn onto Bell Boulevard, the City may want to investigate the use of a dedicated northbound right-turn lane from an operational perspective. This option would eliminate the chance of vehicles in the right lane proceeding north through the intersection or blocking vehicles that intend to turn right, and it provides greater capacity than a channelized right turn lane. It also mirrors the lane configuration on the north side of the intersection, improving driver expectations and lane continuity.

The full Traffic Report has been included in **Appendix A**.

### 4.2 Land Use Conditions

Characterization of land use in the vicinity of the Project was determined through review of available land use plans, including the City's Official Plan, aerial imagery and existing land use documented during field investigations conducted to characterize other elements of the environment (e.g., natural environment site reconnaissance).

Sidney Street runs north / south through the west end of the City on lands zoned as commercial and residential in Schedule B of the City's Official Plan. Land use near the intersection of Sidney Street and Bell Boulevard is predominantly modern commercial with direct street access to both road rights-of-way. Along the Sidney Street corridor, south of Bell Boulevard, are numerous residential driveways with direct street access. And located on the eastern side of Sidney Street just south of Bell Boulevard is a large undeveloped property with potential for commercial development. An east-west hydro corridor crosses Sidney Street and the southern portion of this undeveloped property.

---

## SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

---

Review of aerial imagery shows the Project located within an entirely urban, built-up corridor. And the corridor was documented as previously disturbed during field investigations in support of the Project.

Three residential properties and one vacant lot located mid-corridor on the west side of Sidney Street are under the same property ownership. As such, the block of properties have potential for future development.

### 4.3 Natural Environment Conditions

A desktop investigation was conducted to document natural environment conditions in the study area and to identify potential environmental constraints to the Project. Information was also obtained through consultation with Quinte Conservation and the Ministry of Natural Resources and Forestry (MNR), and from a site reconnaissance completed on August 1, 2014. The site reconnaissance was carried out to ground-truth findings of the desktop investigation, and to assess communities and look for habitat that could be used by rare species. The results of the investigation are detailed in **Appendix B** and summarized below.

Natural features in the study area are largely of anthropogenic origin. Vegetation is dominated by non-native, disturbance-tolerant plant species. Past and ongoing development has removed the natural ground cover, and hardened surfaces or buildings have fragmented the vegetation communities.

As part of the site reconnaissance, existing trees with potential to be affected by the proposed corridor and intersection improvements were documented. The Tree Inventory and Assessment Report is included in **Appendix C**. There were no rare or endangered tree species found in the study corridor; most of the trees are non-native invasive species or cultivated versions of native species. The condition of existing trees ranges from 'fair' to 'good'. The report also documents existing cultivated shrubs and gardens near the roadway.

No areas of natural significance (e.g., wetlands, woodlands, valley-lands) are located within the study area. The native plant species of vegetation communities identified in the study area (**Figure 4**) are not sensitive or rare. The habitat is of low value to wildlife due to the presence of non-native vegetation communities, anthropogenic disturbances and fragmentation. The wildlife and bird species documented during the site reconnaissance are common, tolerant of disturbance and human presence, and not considered at risk. In addition, none of the wildlife species inhabiting the habitat fragments are rare or sensitive except monarch butterfly. The monarch butterfly is listed as a species of special concern under the *Endangered Species Act* (ESA) (2007). Dense patches of milkweed observed within the cultural meadow located adjacent to the road corridor are likely used by monarch; however, special concern species and their habitat do not receive protection under the ESA. In addition, the cultural meadow is located on private lands beyond the area proposed for road widening.

The Project is located within the Potter Creek Watershed, which discharges to the Bay of Quinte located approximately 10 km from the Project. A tributary to Potter Creek that is regulated by Quinte Conservation crosses at Bell Boulevard and flows southward approximately 90 m to the west of Sidney Street. The entire length of the tributary between Bell Boulevard and Tracey Park Drive has been channelized. The tributary is designated as warmwater habitat not known to contain Species at Risk (SAR). Although it is possible for fish from Potter Creek to travel upstream into the tributary, it is not likely that they would reach this portion of the tributary due to distance, insufficient water depths and lack of flow.

---

## SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

---

The Quinte Conservation Authority noted that they have no natural environment concerns for the Project. Only the tributary to Potter Creek was noted in their correspondence, as a permit for excavation / filling / site grading and development within 30 m of the tributary is required, and stormwater management should be mitigated for quantity and quality, as applicable.

---

**SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT**

---

# SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

Figure 4: Existing Features and Preliminary Study Results



---

**SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT**

---



---

## SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

---

### 4.4 Archaeological Conditions

A Stage 1 archaeological assessment was completed to compile available information about known and potential cultural heritage resources within the study area and to provide specific direction for the protection, management and/or recovery of these resources, consistent with Ministry of Tourism, Culture and Sport (MTCS) guidelines (2011). A study area encompasses Sidney Street and the intersections with Bell Boulevard and Tracey Street / Tracey Park Drive was the focus of the investigation. The assessment is provided in **Appendix D**.

The purpose of the Stage 1 archaeological assessment was to provide information about the geography, history, previous archaeological fieldwork and current land conditions within the study area. Using this information, a detailed evaluation of archaeological potential was completed.

The Stage 1 property inspection was completed on July 9, 2014 and revealed that the study area consisted predominately of areas of previous disturbance associated with the construction and maintenance of Sidney Street and the intersections with Bell Boulevard and Tracey Street / Tracey Park Drive. Areas of disturbance include the roadways, sidewalks, boulevards and driveways. All portions of the study area were found to be previously disturbed, and thus do not retain archaeological potential.

### 4.5 Cultural and Built Heritage Conditions

A desktop investigation and field investigation were completed to compile available information about cultural and built heritage resources within the study area. The investigation considered the corridor along Sidney Street from south of Tracey Street to Highway 401. The information obtained through the investigation is detailed in the Heritage Impact Assessment completed in support of the Project (**Appendix E**). The findings are summarized below.

The field investigation was conducted on July 9, 2014 to identify structures 40 years of age or older and cultural heritage landscapes. Those resources which could be evaluated under the criteria defined in Ontario Regulation 9/06 (Criteria for Determining Cultural Heritage Value or Interest) were identified as potential cultural heritage resources.

The north end of the study area near the intersection of Sidney Street and Bell Boulevard is predominantly commercial and industrial, with modern commercial properties located along the road right-of-way. Residential properties begin just north of Sidney Street's intersection with Tracey Park Drive, and continue to border the road allowance until the terminus of the Study Area. Most of the residential properties appear to have been built during the post-war period based on analysis of their building materials and architectural style.

Four structures were identified with a pre-1974 construction date, and architectural style typical of Victory Housing. The *Ontario Heritage Act* allows individual municipalities to designate properties and districts as being of cultural heritage value or interest through the use of designating by-laws, and municipal heritage registers administered by municipal heritage planners and municipal heritage committees. The City was contacted to determine if heritage significance had been assigned to these structures, and it was confirmed that these four structures are not of cultural heritage value or interest.

### 4.6 Geotechnical Conditions

A geotechnical investigation to characterize existing geotechnical conditions along Sidney Street and the intersections with Bell Boulevard and Tracey Street / Tracey Park Drive was conducted to support the preliminary Project design. The investigation consisted of:

- review of all pertinent background information associated with the surficial geology of the area, including detailed topographic and geology maps; and
- field investigation to assess the existing pavement, sub-surface soil and shallow groundwater conditions.

The field investigation was carried out between August 12, 2014 and September 5, 2014. The geotechnical investigation consisted of drilling 10 geotechnical boreholes. The shallow groundwater conditions were noted in the open boreholes and a piezometer was installed in two boreholes to monitor groundwater levels. An additional 5 boreholes were advanced to determine the topsoil thicknesses and to identify the underlying subgrade soils.

Soil samples obtained during the investigation were examined at a laboratory for natural water content testing and soil classification. The results of the investigation and laboratory results are provided in **Appendix F**. These results were used to provide engineering information for the geotechnical design aspects of the Project. Recommendations were made for trench, soil and rock excavations, underground services, trench backfill, soil management and pavement design considerations.

## 5.0 ALTERNATIVE SOLUTIONS / DESIGNS AND EVALUATION PROCESS

### 5.1 Identification of Alternative Solutions / Designs

The Class EA process provides a mechanism through which the City can evaluate a reasonable range of options for proposed municipal infrastructure. In this case, the City identified in their Transportation Master Plan (TMP) and Build Belleville Plan a need to increase road capacity and public safety on Sidney Street and the intersections of Sidney Street with Bell Boulevard and Tracey Street / Tracey Park Drive. Solutions to the identified problem / opportunity have been evaluated as part of previous studies and are documented in City plans.

As noted in Section 2.1, the City prepared a TMP to examine deficiencies, develop recommendations and set strategic directions to guide the establishment of infrastructure improvement priorities. The TMP was prepared in accordance with the Class EA process and documents the need and justification phases of the process, which includes an analysis of existing conditions, identification of problems and opportunities, and evaluation of alternative solutions. The TMP identified improvements to Sidney Street north of the Project and Bell Boulevard west of the Project. These improvements are to be completed before the 2031 horizon year and guide the preferred alternative solution to the problem / opportunity that is the subject of this Class EA.

The City's Official Plan further supports the TMP recommendations, stating that, for any proposed development, the carrying capacity of adjacent roads should be sufficient to accommodate the anticipated traffic generated as well as anticipated background growth. Therefore improvements to Sidney Street are supported by the City's Official Plan to accommodate additional traffic resulting from the Bell Boulevard extension to Wallbridge Loyalist Road.

Therefore, feasible alternative solutions were pre-screened as part of these studies and the preferred alternative solution was pre-determined prior to initiation of this Class EA. In addition, these plans in combination with information obtained through stakeholder consultation guided the development of alternative designs.

Alternatives designs were considered in two parts:

- 1) Sidney Street corridor, including intersection improvements at Bell Boulevard; and
- 2) Intersection improvements at Tracey Street / Tracey Park Drive.

The alternative designs are described in detail in the following sections.

#### 5.1.1 Alternative Designs for the Sidney Street Corridor

A range of alternative designs were developed to address the identified problem / opportunity. The range of alternative designs considered for the Sidney Street corridor includes:

**Do Nothing** – Under this scenario, there would be no changes to the existing condition of Sidney Street.

**Alternative 1 – Widen Sidney Street symmetrically to the east and west, with traffic islands at the Tracey Street / Tracey Park Drive intersection.**

---

## SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

---

This alternative utilizes standard driving lane widths and boulevard widths recommended in the Transportation Association of Canada (TAC) manual based on road classification and traffic volume, including a continuous centre turn lane with provision for island medians for traffic signals. The pavement width and boulevards were centred symmetrically about the existing roadway centreline.

### **Alternative 2 – Widen Sidney Street predominantly to the west side, with traffic islands at the Tracey Street / Tracey Park Drive intersection.**

This alternative utilizes standard driving lane widths as recommended in the TAC manual based on road classification and traffic volume, with a slightly narrower boulevard width than Alternative 1 to reduce property requirements. It also includes a continuous centre turn lane with provision for island medians for traffic signals. The pavement alignment is shifted predominantly to the west of the existing roadway centreline, reducing property required on the east side but requiring additional property on the west side.

### **Alternative 3 – Widen Sidney Street predominantly to the east side, with traffic islands at the Tracey Street / Tracey Park Drive intersection.**

This alternative utilizes standard driving lane widths as recommended in the TAC manual based on road classification and traffic volume, with a slightly narrower boulevard width than Alternative 1 to reduce property requirements. It also includes a continuous centre turn lane with provision for island medians for traffic signals. The pavement alignment is shifted predominantly to the east of the existing roadway centreline, reducing property required on the west side but requiring additional property on the east side.

### **Alternative 4 – Widen Sidney Street to the east and west, without traffic islands at the Tracey Street / Tracey Park Drive intersection, and with a slight shift to the east mid-corridor.**

This alternative utilizes standard driving lane widths as recommended in the TAC manual based on road classification and traffic volume, with a slightly narrower boulevard width than Alternative 1 to reduce property requirements. It also includes a continuous centre turn lane with provision for island medians for traffic signals at Bell Boulevard, but no island median at Tracey Street to reduce property requirements (traffic signal poles will be placed in the east and west boulevards). The pavement alignment shift is a combination of Alternatives 1 and 3, utilizing a symmetrical widening near Tracey Street and shifting to the east of the existing roadway centreline north of Tracey Street, then back to the existing centreline north of Bell Boulevard,

## **5.1.2 Alternative Designs for the Tracey Street / Tracey Park Drive Intersection**

A range of alternative designs were developed to address the identified problem / opportunity. The range of alternative designs considered for the Tracey Street / Tracey Park Drive intersection includes:

**Do Nothing** – Under this scenario, there would be no changes to the existing Tracey Street / Tracey Park Drive intersection.

### **Alternative 1 – Realign Tracey Street on the east side of Sidney Street, to improve overall geometry of the intersection.**

This alternative holds the existing roadway alignment of Tracey Park Drive and realigns Tracey Street to meet the centreline of Tracey Park Drive.

---

## SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

---

**Alternative 2 – Realign Tracey Park Drive on the west side of Sidney Street, to improve the overall geometry of the intersection.**

This alternative holds the existing roadway alignment of Tracey Street and realigns Tracey Park Drive to meet the centreline of Tracey Street.

**Alternative 3 – Change the alignment of both Tracey Street and Tracey Park Drive on both sides of Sidney Street to improve the overall geometry of the intersection.**

This alternative utilizes a combination of Alternatives 1 and 2 to realign both Tracey Street and Tracey Park Drive so their centrelines meet at the intersection with Sidney Street.

### 5.2 Pre-screening of Evaluation Criteria

To evaluate the alternative designs for improving the corridor and intersections, an evaluation matrix approach was used based on identified issues and constraints. The issues and constraints were sorted into the categories of social and economic environment, natural environment, cultural environment, and technical considerations through transportation design. Evaluation criteria for each category were developed based on the legislation, policy, and design guidelines that apply to this Project. Each of the evaluation criteria were then screened against the results of the existing conditions studies to determine whether they were relevant to the Project. The results of the screening are provided in **Table 1**.

## SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

**Table 1: Pre-screening of Project Evaluation Criteria**

Category	Regulatory / Policy / Design Requirement	General Objective	Project-specific Target	Screening of Targets based on Known Conditions	Relevant to Project?
Natural Environment	Compliance with natural heritage policies of the Provincial Policy Statement (2014)	Protection of significant wetlands	No development or site alterations in wetlands identified as Provincially Significant	No Provincially Significant wetlands identified within or adjacent to the project site	NO
		Protection of significant woodlands	No negative impact to significant woodlands from site alteration or development	No significant woodlands identified within or adjacent to the project site	NO
		Protection of significant valley lands	No negative impact to significant valley lands from site alteration or development	No significant valley lands identified within or adjacent to the project site	NO
		Protection of significant wildlife habitat	No negative impact to significant wildlife habitat from site alteration or development	No significant wildlife habitat identified within or adjacent to the project site	NO
		Protection of Areas of Natural or Scientific Interest (ANSI)	No negative impact to ANSIs from site alteration or development	No ANSIs identified within or adjacent to the project site	NO
		Protection of fish habitat	No development or site alteration in fish habitat or riparian areas (defined as areas within 15m from top of bank)	Intersection improvements at Bell Blvd. may widen the road cross-section at the tributary of Potter Creek; therefore a culvert extension may be required	YES

## SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

Category	Regulatory / Policy / Design Requirement	General Objective	Project-specific Target	Screening of Targets based on Known Conditions	Relevant to Project?
Natural Environment (con't)	Compliance with the <i>Endangered Species Act</i> (2007)	Protection of species listed as threatened or endangered in Ontario	No killing, harming or harassing of species, or impacting the habitat of species identified as endangered or threatened	No endangered or threatened species or their habitat was identified within or adjacent to the project site	NO
	Compliance with the <i>Species at Risk Act</i> (SARA)(2002)	Protection of aquatic species listed as endangered, threatened or extirpated in Canada, and migratory birds listed under the SARA	No impact to critical habitat of endangered, threatened or extirpated aquatic species or habitat of migratory birds	No habitat of species protected under the SARA was found within or adjacent to the project site	NO
	Compliance with the <i>Migratory Birds Convention Act</i> (1994)	Protection of nesting habitat of migratory birds in Canada	No clearing of trees, shrubs or meadow grasses that would result in the destruction of nests of migratory birds	Removal of meadow and/or trees may be required	YES
	Compliance with Ontario Regulation 319/09 – Quinte Conservation Authority	Protection of public safety and property from natural hazards, and prevention of pollution and destruction of sensitive environmental areas such as wetlands, shorelines and watercourses	No excavation, filling, site grading or development within 30 m of the Potter Creek tributary	Work at the Sidney Street/Bell Boulevard intersection is within 30m of the tributary of Potter Creek	YES

## SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

Category	Regulatory / Policy / Design Requirement	General Objective	Project-specific Target	Screening of Targets based on Known Conditions	Relevant to Project?
Natural Environment (con't)	Compliance with Quinte Conservation watershed protection principles	Protection of local habitat quality	No impact to rare or sensitive vegetation communities or wildlife	Vegetation species in the study area are predominantly invasive. The native plant species at the site are not sensitive or rare. Wildlife and bird species observed are common and not considered at risk.	NO
Social and Economic Environment	Compliance with the City of Belleville Official Plan (2002)	Provision of special care to lands designated as "Environmental Protection" in the City's Land Use Plan	No site alteration within natural hazard lands or site impact to natural heritage features	No "Environmental Protection" areas are present within or adjacent to the project site	NO
		Provision of a safe, convenient and functional transportation network	Provision of sufficient carrying capacity to accommodate anticipated traffic growth	Sidney Street is part of the City's transportation network, and contributes to overall carrying capacity of traffic	YES
			Incorporation of dedicated cycling corridors or lanes where feasible	The Transportation Master Plan recommends on-road cycling lanes in the study area	YES
			Provision of street lighting and sidewalks where pedestrian traffic is anticipated	Pedestrian traffic is an existing and future condition for the study area	YES



## SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

Category	Regulatory / Policy / Design Requirement	General Objective	Project-specific Target	Screening of Targets based on Known Conditions	Relevant to Project?
Social and Economic Environment (con't)	Compliance with the City of Belleville Official Plan (2002) (con't)	Identification, conservation, protection, restoration, maintenance and enhancement of significant cultural heritage / archaeological resources	Consideration of cultural heritage resources in the undertaking of municipal public works	No cultural heritage resources were identified by Heritage Belleville or City Council	NO
		Application of high standards of urban design wherever possible	Use of tree plantings using species native to this climatic region which are suited to urban streetscapes	Re-vegetation of boulevards will be required	YES
			Locate services and associated plant to eliminate or avoid visual clutter; increase the level of public safety; and reduce the risk of service interruption through accident or natural disaster	Utility plant, illumination, and traffic signals are located in the study area	YES
			Install ramps at intersections and across curbs and avoid the use, wherever possible, of steps and other impediments to access	Intersections are located in the study area	YES
			Use of audible pedestrian signals where demand warrants	Traffic signals are located in the study area	YES

## SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

Category	Regulatory / Policy / Design Requirement	General Objective	Project-specific Target	Screening of Targets based on Known Conditions	Relevant to Project?
Social and Economic Environment (con't)	Consideration of public concerns identified for the project	Ease of driveway access during high traffic conditions	Improve driveway access through design	Residential and commercial driveways are located in the study area	YES
		Pedestrian safety on the west side of Sidney Street	Improve pedestrian safety through provision of pedestrian facilities	Pedestrian facilities are present in the study area	YES
		Difficulty with left turns from Sidney Street onto Bell Boulevard in both directions due to traffic congestion and lack of advance signal	Improve intersection function through design	Intersections are located in the study area	YES
	Property Impacts	Consideration of effects on property ownership	Minimize the total amount of residential and commercial property frontage lost	Residential and commercial properties have frontage on Sidney Street in the study area	YES
			Minimize the number of properties where the house frontage would no longer meet the City standard 7.5 m setback from the property line	Residential and commercial properties have frontage on Sidney Street in the study area	YES
			Minimize the number of properties to be acquired	Residential and commercial properties have frontage on Sidney Street in the study area	YES

## SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

Category	Regulatory / Policy / Design Requirement	General Objective	Project-specific Target	Screening of Targets based on Known Conditions	Relevant to Project?
Social and Economic Environment (con't)	Property Impacts (con't)	Consideration of effects on the total usable portion of existing residential driveways	Minimize loss of driveway area on residential properties	Residential and commercial driveways are located in the study area	YES
		Consideration of effects on ability to access residential driveways	Minimize restrictions on turning movements entering/exiting driveways on residential properties	Residential and commercial driveways are located in the study area	YES
Cultural Environment	Compliance with the <i>Ontario Heritage Act</i> (1990)	Protection of built heritage structures 40 years of age or older that have cultural heritage value or interest as per Ontario Regulation 9/06	No impact to property or structures of cultural heritage value that have a municipal heritage designation as determined by Heritage Belleville or Council resolution	No cultural heritage resources were identified by Heritage Belleville or City Council	NO
		Protection of properties that are listed or designated under Part IV of the <i>Ontario Heritage Act</i>	No impact to property or structures with heritage designations under the <i>Ontario Heritage Act</i>	No properties designated under the <i>Ontario Heritage Act</i> are within or adjacent to the project site	NO
		Protection of archaeological resources and historic sites	No ground disturbance in areas of archaeological potential	Entire study area is previously disturbed. No areas requiring further archaeological investigation	NO

## SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

Category	Regulatory / Policy / Design Requirement	General Objective	Project-specific Target	Screening of Targets based on Known Conditions	Relevant to Project?
Transportation Design	Compliance with TAC Geometric Design Guide and City of Belleville Design Standards	Design of driving lanes to meet the standards for arterial roadways	Driving lane width equal to standard or no less than the existing width	Sidney Street is a designated arterial roadway	YES
		Adequate provision for traffic signals	Traffic signals to be incorporated at both intersections in the study area	Traffic signals are located in the study area	YES
		Safe separation of pedestrians from driving lanes	Provision of a boulevard buffer between any proposed sidewalks and driving lanes	Sidewalks are located within the study area	YES
		Maintenance of through-traffic during construction	Construction staging to maintain at least one lane of traffic open in either direction during construction	Construction will be required to implement the preferred solution	YES
		Protect other infrastructure in the project area	Minimize the need to interfere with or relocate existing utilities	Utilities are located within the study area	YES

---

## SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

---

### 5.3 Evaluation of Alternative Designs

An evaluation matrix approach was used to evaluate the alternative designs described in Section 5.1. The evaluation of alternative designs for Sidney Street and Tracey Street / Tracey Park Drive intersection are discussed and summarized in the following sections. The detailed evaluations are provided in **Appendix G**.

#### 5.3.1 Sidney Street Corridor

As identified in the summarized evaluation matrix (**Table 2**), the option to “Do Nothing” is not a feasible alternative. Although this alternative would result in the least amount of impacts to the natural environment and will not affect residential or commercial properties, the greatest number of social / economic environment and transportation effects are expected. With no modifications to the Sidney Street corridor, congestion and public safety would continue to be of concern and therefore, the identified problem / opportunity would persist. Specifically, Sidney Street will not provide sufficient capacity to accommodate future traffic forecasts, or provide safe cycling and walking facilities for public use. In addition, public concerns for driveway access, pedestrian facilities and intersection design would remain unresolved. Therefore, this alternative is not an acceptable option.

Alternatives 1 through 4 are anticipated to result in similar impacts to the social / economic environment. All four alternatives will equally meet the general objective to provide a safe, convenient and functional transportation network. Additionally, all four alternatives permit planting of native tree species that are suited to urban streetscapes, and incorporate the application of high standards of urban design through installation of ramps and audible pedestrian signals. Improvements to the Sidney Street corridor through any one of the four alternatives under consideration will also meet the TAC Geometric Design Guide and the City’s design standards through upgrades to driving lane width and incorporation of traffic signals. All four alternatives will include ground disturbance during construction and will require a culvert extension west of the intersection of Sidney Street and Bell Boulevard in the tributary to Potter Creek. Similar impacts to the natural environment are expected with the implementation of any one of the four alternatives, with differences noted below.

Although Alternative 1, which is the alternative to widen Sidney Street symmetrically east and west with traffic islands at the Tracey Street / Tracey Park Drive intersection, would address the identified problem / opportunity, this alternative would result in loss of old field meadow and the greatest number of tree removals. This alternative has the second greatest property impacts: approximately 805 m<sup>2</sup> of residential property frontage and approximately 2,474 m<sup>2</sup> of commercial property frontage would be required, including the acquisition of one complete residential property. With implementation of Alternative 1, turning movements would be restricted at 6 driveways.

Alternative 2 considers widening Sidney Street predominately to the west. This alternative requires the least amount of old field meadow removal and has the least number of trees within the anticipated zone of impact. All alternatives under consideration will impact existing hydro and illumination poles; however, Alternative 2 is the only alternative that may permit salvage of hydro poles, although hydro pole locations under this alternative cannot be moved farther away from the road than existing pole distances. In comparison to the other alternatives, Alternative 2 would result in the least amount of property frontage loss with no properties in their entirety requiring acquisition, but would result in the greatest number of properties not meeting the City’s 7.5 m property line setback standard and one residential driveway that would become non-functional for parking. Under this alternative, restricted turning movements would occur at 5 driveways

---

## SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

---

In contrast, Alternative 3 considers widening Sidney Street predominantly to the east. The greatest impact to old field meadow is expected from this alternative since implementation requires removal of approximately 1,755 m<sup>2</sup> of old field meadow. Although this alternative addresses the problem / opportunity, impacts to property frontage loss will be greatest under Alternative 3. Alternative 3 would require approximately 890 m<sup>2</sup> of residential property frontage loss and approximately 3,300 m<sup>2</sup> of commercial property frontage loss. In addition, 7 properties will not meet the City's setback standard with implementation of Alternative 3, and 4 of these properties will be less than 50% of the setback requirement. Acquisition of one property would be required, with one residential driveway that would become non-functional for parking and 6 driveways with restricted turning movements.

Alternative 4 was developed as a combination of Alternatives 1 and 3, with a reduction in median lane width in the Tracey Street area (removal of centre island). This alternative includes a slight shift east along Sidney Street mid-corridor. With implementation of Alternative 4, approximately 1,230 m<sup>2</sup> of old field meadow would be removed and 36 trees would be affected. Although Alternative 4 requires acquisition of one property, this alternative has the least amount of residential property frontage loss and is the second best alternative to minimize commercial property loss. Under this alternative, 9 properties would not meet the City's setback standard; however, none of the properties will be less than 50% of the standard. Also, all residential properties will remain functional for parking with implementation of this alternative, with turning movements restricted at only two driveways. Alternative 4 is equally preferable to the other alternatives considered for driving lane width, traffic signals and maintenance of through traffic during construction. However, this design has a slightly reduced boulevard width along the west side of Sidney Street and does not permit salvaging of hydro poles.

The evaluation of alternative designs under consideration for the Sidney Street corridor determined that Alternative 4 is the preferred alternative design.

# SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

**Table 2: Evaluation of Alternatives – Sidney Street from Bell Boulevard to Tracey Street / Tracey Park Drive**

Regulatory / Policy/ Design Requirement	General Objective	Project-specific Target	DO NOTHING	ALTERNATIVE 1 Symmetrical widening with traffic islands at Tracey Street / Tracey Park Drive	ALTERNATIVE 2 Widening predominantly to the west side	ALTERNATIVE 3 Widening predominantly to the east side	ALTERNATIVE 4 Widening without traffic islands at Tracey Street / Tracey Park Drive and slight shift east mid-corridor
<b>Natural Environment</b>							
Provincial Policy Statement (2014)	Protection of fish habitat	No development or site alteration in fish habitat or riparian areas (defined as areas within 15m from top of bank)	●	●	●	●	●
<i>Migratory Birds Convention Act</i> (1994)	Protection of nesting habitat of migratory birds in Canada	No clearing of trees, shrubs or meadow grasses that would result in the destruction of nests of migratory birds	●	●	●	●	●
Ontario Regulation 319/09 – Quinte Conservation Authority	Protection of public safety and property from natural hazards, and protection of wetlands, shorelines and watercourses	No unapproved excavation, filling, site grading or development within 30 m of the Potter Creek tributary	●	●	●	●	●
<b>Social and Economic Environment</b>							
City of Belleville Official Plan (2002)	Provision of a safe, convenient and functional transportation network	Provision of sufficient carrying capacity on Sidney Street to accommodate anticipated traffic growth	●	●	●	●	●
		Incorporation of dedicated cycling corridors or lanes where feasible	●	●	●	●	●
		Provision of street lighting and sidewalks where pedestrian traffic is anticipated	●	●	●	●	●

**Notes:**



## SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

Regulatory / Policy/ Design Requirement	General Objective	Project-specific Target	DO NOTHING	ALTERNATIVE 1 Symmetrical widening with traffic islands at Tracey Street / Tracey Park Drive	ALTERNATIVE 2 Widening predominantly to the west side	ALTERNATIVE 3 Widening predominantly to the east side	ALTERNATIVE 4 Widening without traffic islands at Tracey Street / Tracey Park Drive and slight shift east mid-corridor
City of Belleville Official Plan (2002) (con't)	Application of high standards of urban design wherever possible	Use of tree plantings using species native to this climatic region which are suited to urban streetscapes					
		Locate services and plant to eliminate or avoid visual clutter; increase the level of public safety; and reduce the risk of service interruption through accident or natural disaster					
	Providing accessibility for Ontarians with disabilities	Install ramps at intersections and across curbs; avoid use, wherever possible, of steps or impediments to access					
		Use of audible pedestrian signals where demand warrants					
Public concerns identified for the project	Improve ease of driveway access during high traffic conditions	Improve driveway access through design					
	Improve pedestrian safety on the west side of Sidney Street	Improve pedestrian safety through provision of pedestrian facilities					
	Address difficulty with left turns from Sidney St. onto Bell Blvd. in both directions due to traffic congestion and lack of advance signal	Improve Sidney Street / Bell Boulevard intersection function through design					

**Notes:**



Most preferred



Least Preferred



## SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

Regulatory / Policy/ Design Requirement	General Objective	Project-specific Target	DO NOTHING	ALTERNATIVE 1 Symmetrical widening with traffic islands at Tracey Street / Tracey Park Drive	ALTERNATIVE 2 Widening predominantly to the west side	ALTERNATIVE 3 Widening predominantly to the east side	ALTERNATIVE 4 Widening without traffic islands at Tracey Street / Tracey Park Drive and slight shift east mid-corridor
Property Impacts	Consideration of effects on property ownership	Minimize the total amount of residential and commercial property frontage lost					
		Minimize the number of properties where the house frontage would no longer meet the City's 7.5 m standard setback from the property line					
		Minimize the number of properties requiring full buy out					
	Consideration of the usable portion of existing driveways	Minimize number of driveways that would become non-functional for parking					
		Minimize restrictions on turning movements entering/exiting driveways on residential properties					
<b>Transportation Design</b>							
TAC Geometric Design Guide and City of Belleville Design Standards	Design of driving lanes to meet the standards for arterial roadways	Driving lane width equal to standard					
	Adequate provision for traffic signals	Traffic signals to be incorporated at both intersections in the study area					

**Notes:**



Most preferred



Least Preferred



# SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

Regulatory / Policy/ Design Requirement	General Objective	Project-specific Target	DO NOTHING	ALTERNATIVE 1 Symmetrical widening with traffic islands at Tracey Street / Tracey Park Drive	ALTERNATIVE 2 Widening predominantly to the west side	ALTERNATIVE 3 Widening predominantly to the east side	ALTERNATIVE 4 Widening without traffic islands at Tracey Street / Tracey Park Drive and slight shift east mid-corridor
TAC Geometric Design Guide and City of Belleville Design Standards (con't)	Safe separation of pedestrians from driving lanes	Provision of a boulevard buffer between any proposed sidewalks and driving lanes					
	Maintenance of through-traffic during construction	Construction staging to maintain at least one lane of traffic open in either direction during construction					
	Protect other infrastructure in the project area	Minimize the need to interfere with or relocate existing utilities					

**Notes:**



---

## SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

---

### 5.3.2 Tracey Street / Tracey Park Drive Intersection

The option to “Do Nothing” was also considered by the City for the Tracey Street / Tracey Park Drive intersection alignment. Under the current configuration, Tracey Street and Tracey Park Drive are off-set approximately 13 m at the intersection with Sidney Street. This off-set creates conflicts between north and south left turning vehicles, and may be contributing to safety problems at the intersection. To mitigate the left turn conflicts, the City has implemented a separate phase in the traffic signals to allow only one north-south direction of traffic movement at a time, but this results in increased delay time and queues for traffic in the north-south direction. This alternative would have the least amount of impacts on the natural and cultural environments, but the problem / opportunity, including public concerns, would remain unresolved. Therefore, this alternative is not an acceptable option.

Alternatives 1 through 3 are anticipated to result in similar impacts to the social / economic environments. All three alternatives will equally meet the Project-specific target to provide a safe, convenient and functional transportation network that will be able to accommodate traffic forecasts to 2031. Additionally, all three alternatives include the same provisions for application of high standards of urban design, as well as equal consideration for accessibility (i.e., ramps and audible pedestrian signals). Improvements to the intersection through any one of the three alternatives under consideration will also meet the TAC geometric design guide and the City’s design standards through incorporation of traffic signals and provision of a boulevard buffer between proposed sidewalks and driving lanes.

Under Alternative 1, the City considered realigning only Tracey Street to improve intersection geometry. This alternative would result in the removal of 2 trees within the zone of impact and the greatest impacts to properties. Approximately 240 m<sup>2</sup> of residential property frontage will be lost, resulting in 2 properties that will be less than 50% of the City’s 7.5 m property line setback standard. This alternative is the only option that will require acquisition of a property and cause one residential driveway to become non-functional for parking.

Under Alternative 2, the City considered realigning only Tracey Park Drive to improve intersection geometry. This alternative affects 5 trees within the zone of impact. Property impacts are also expected with the implementation of this alternative; however, only approximately 70 m<sup>2</sup> of residential property frontage will be required, resulting in 1 property that will be less than 50% of the City’s setback standard. No properties in their entirety will need to be acquired and all driveways will remain functional. Although the property impacts of this Alternative are expected to be less than those resulting from the implementation of Alternative 1, Alternative 2 will require relocating the Bell pedestal near the south-west corner of Sidney Street and Tracey Park Drive. Relocation of this utility would be a significant cost.

Alternative 3 proposes that the alignment of both Tracey Street and Tracey Park Drive be changed to improve intersection geometry. As identified in the summarized evaluation matrix (**Table 3**), the option to realign both roads is expected to result in the least amount of impacts to all environments. For example, Alternative 3 will result in the removal of only 1 tree within the zone of impact. This alternative has the least amount of property impacts, with only 20 m<sup>2</sup> of residential property frontage required. As a result of the property loss, only one property will be less than the City’s setback standard, but no residential driveways are expected to become non-functional for parking. Furthermore, the Bell pedestal will not require relocation under this alternative.

The evaluation of alternative designs under consideration for the Tracey Street / Tracey Park Drive intersection determined that Alternative 3 is the preferred alternative design.

# SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

**Table 3: Evaluation of Alternatives – Tracey Street and Tracey Park Drive Intersection**

Regulatory / Policy/ Design Requirement	General Objective	Project-specific Target	DO NOTHING	ALTERNATIVE 1 Realign Tracey Street	ALTERNATIVE 2 Realign Tracey Park Drive	ALTERNATIVE 3 Realign combination of Tracey Street and Tracey Park Drive
<b>Natural Environment</b>						
<i>Migratory Birds Convention Act (1994)</i>	Protection of nesting habitat of migratory birds in Canada	No clearing of trees that would result in the destruction of nests of migratory birds				
<b>Social and Economic Environment</b>						
City of Belleville Official Plan (2002)	Provision of a safe, convenient and functional transportation network	Provision of sufficient carrying capacity at the intersection to accommodate anticipated traffic growth				
	Application of high standards of urban design wherever possible	Use of tree plantings using species native to this climatic region which are suited to urban streetscapes				
		Locate services and associated plant to eliminate or avoid visual clutter; increase the level of public safety; and reduce the risk of service interruption through accident or natural disaster				
	Providing accessibility for Ontarians with disabilities	Install ramps at intersections and across curbs and avoid the use, wherever possible, of steps and other impediments to access				

**Notes:**



# SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

Regulatory / Policy/ Design Requirement	General Objective	Project-specific Target	DO NOTHING	ALTERNATIVE 1 Realign Tracey Street	ALTERNATIVE 2 Realign Tracey Park Drive	ALTERNATIVE 3 Realign combination of Tracey Street and Tracey Park Drive
City of Belleville Official Plan (2002) (con't)	Providing accessibility for Ontarians with disabilities (con't)	Use of audible pedestrian signals where demand warrants				
Property Impacts	Consideration of effects on property ownership	Minimize the total amount of residential property frontage lost				
		Minimize the number of properties where the house frontage would no longer meet the City's 7.5 m standard setback from the property line				
		Minimize the number of properties requiring full buy out				
	Consideration of the usable portion of existing residential driveways	Minimize number of driveways that would become non-functional for parking				
<b>Transportation Design</b>						
TAC Geometric Design Guide and City of Belleville Design Standards	Adequate provision for traffic signals	Traffic signals to be incorporated at the intersection				
	Safe separation of pedestrians from driving lanes	Provision of a boulevard buffer between any proposed sidewalks and driving lanes				
	Protect other infrastructure in the project area	Minimize the need to interfere with or relocate existing utilities				

**Notes:**



---

**SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT**

---

---

# SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

---

## 6.0 PREFERRED ALTERNATIVE

### 6.1 Conceptual Design of the Preferred Alternative

#### 6.1.1 Sidney Street

Alternative 4 was selected as the preferred alternative design for Sidney Street. This alternative was developed from a combination of other alternatives, with the objective of utilizing the best technical solutions for the Project and minimizing impacts to property owners and the environment.

- In the residential area at the south end of the study area, north and south of Tracey Street, the roadway will generally be widened symmetrically about the existing centreline. A dedicated left turn lane is included on Sidney Street, but to minimize the property impacts the median traffic island has been eliminated, reducing the median lane width from 5.0 m to 3.3 m.
- North of Tracey Street, the roadway alignment of Sidney Street was angled slightly to the east, shifting the roadway to the east to utilize the land from the vacant lots on the east side of the roadway and to minimize impacts to the residential properties on the west side of the roadway.
- From Bell Boulevard northerly the roadway alignment is shifted to the west, to eventually match in to the existing roadway and future widening of Sidney Street over Highway 401.
- Sidewalks are included on both sides of Sidney Street to improve pedestrian travel, and allowances have been included for a future 3.0 m wide multi-use pathway on the east boulevard from the hydro corridor northward, in accordance with the City's cycling path development plans.
- At the Sidney Street / Bell Boulevard intersection, dedicated turning lanes have been provided on Sidney Street for both left and right turn movements, and on Bell Boulevard an eastbound double left turn lane is provided to mirror the existing double left turn lanes in the westbound direction.
- The design considers a future signalized intersection to be located approximately half way between Tracey Street and Bell Boulevard, to accommodate future land development. Due to the relatively short distance between intersections, a continuous centre turn lane is proposed, with provision for median islands for traffic signals. This continuous left turn lane will also improve access to mid-block driveways and will improve traffic flow and safety by moving left turning vehicles out of the through lane.

The proposed design will require removal and / or pruning of some existing trees, but replacement trees will be incorporated into the detailed design. Replacement trees will be selected from appropriate native species with sizes so as not to impact overhead hydro lines or other utilities when they grow to maturity.

The urban roadway design will follow recommendations in the geotechnical report and will include rehabilitation of the existing pavement structure and full-depth pavement construction in the widened areas.

Plans for the preferred alternative design are illustrated in **Figure 5** and the preliminary design drawing is provided in **Appendix H**.

---

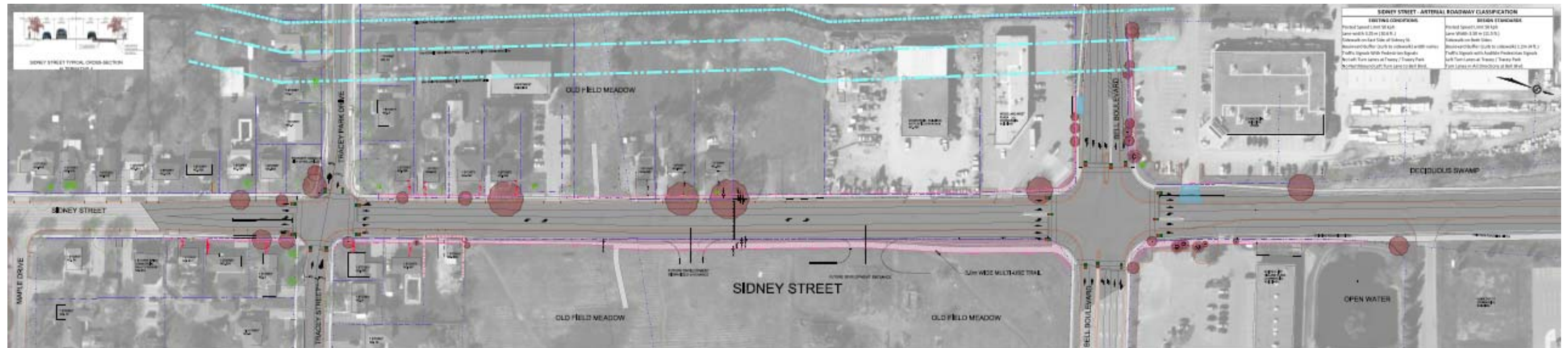
**SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT**







---



# SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

Figure 5: Preferred Alternative Design



- LEGEND**
-  Tree pruning/removal required
  -  Loss of property frontage
  -  Driveway turning movement restricted
  -  Loss of driveway functionality
  -  Property requiring full buy out
  -  Setback does not meet City Standards



---

## SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

---

### 6.1.2 Tracey Street / Tracey Park Drive Realignment

Alternative 3 was selected as the preferred design alternative for realignment of Tracey Street and Tracey Park Drive. Tracey Street and Tracey Park Drive are currently off-set at the intersection with Sidney Street, creating safety issues for opposing left turning vehicles on Sidney Street. In order to mitigate the safety issues, the City has updated the traffic signal phasing system, which improves safety but also increases the delay times for north-south traffic.

- The preferred design alternative realigns Tracey Street and Tracey Park Drive with a slightly skewed intersection with Sidney Street. This realignment will reduce safety issues for opposing left turning vehicles on Sidney Street and allow a standard traffic signal phasing, thereby reducing the delays to north-south traffic.
- Property requirements for this alternative are limited to a small area in the north-east quadrant of the intersection.
- Impacts to the existing extensive Bell junction box on Tracey Park Drive are avoided.
- Sidewalks are provided on both sides of the roadways, as per current conditions, and the lane width for Tracey Street has been increased to 5.0 m per lane in accordance with future plans to improve Tracey Street to an urban collector roadway.

Plans for the preferred alternative design are illustrated in **Figure 5**.

### 6.2 Property Acquisition

A total of 2,813 m<sup>2</sup> of additional property will be required to accommodate the proposed design. This includes 389 m<sup>2</sup> from residential properties and 2,424 m<sup>2</sup> from commercial zoned properties. The additional property requirements are shown on **Figure 5**.

Property will be required from both sides of Sidney Street and a small amount of property on the north side of Tracey Street. The property acquisition will result in the building set-back distance for some residential dwellings being less than the City's minimum required set-back distance of 7.5 m. During property negotiations for these affected properties, the City will have to consider a planning variance for the reduced dwelling set-back.

### 6.3 Estimated Construction Cost

Benchmark construction cost estimates were prepared for the preferred alternative design. The costs were divided into three sections to assist with the City's planning and budgeting process, and include allowances for construction contracts, utility relocations, property purchases, design and inspection.

Estimated construction costs as follows:

- |  |          |
|--|----------|
| 1) Sidney Street / Bell Boulevard Intersection:          | \$3.41 M |
| 2) Mid-block construction between Tracey and Bell Blvd.: | \$1.18 M |

---

## SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

---

3) Sidney Street / Tracey Street / Tracey Park Drive Intersection:	\$1.32 M
<b>Total of Items 1, 2 and 3:</b>	<b>\$5.91 M</b>

### 6.4 Proposed Construction Schedule

Due to the size and cost of the proposed Project, the City will phase the work over several years.

The first phase of the Project will be to implement operational improvements to the Sidney Street / Bell Boulevard intersection, including north and south left turn lanes on Sidney Street. The City has budgeted funds to complete design of some interim intersection improvements in 2015 with construction tentatively scheduled for 2016. Further improvements at the Sidney Street / Bell Boulevard intersection will be undertaken when Bell Boulevard to the west, and Sidney Street to the North, are expanded to four lanes, as identified in the City's Transportation Master Plan (TMP).

The balance of the work will be phased into the City's budget forecasts for future years, and will proceed based on funding allowances.

### 6.5 Mitigating Measures

Throughout the planning and design process, the evaluation of alternatives focused on eliminating impacts wherever possible. Where the selection of the preferred alternative cannot entirely eliminate potential environmental impacts, mitigation measures are recommended to limit the effect of the impacts. The following sections outline recommended mitigation measures to be incorporated at detailed design and implemented throughout the duration of construction

#### Construction Activities

Sidney Street is located within a developed commercial and residential area of the City, with numerous businesses and houses immediately adjacent to the proposed corridor and intersection improvements. Construction activities have the potential to temporarily disrupt adjacent property owners and land users through noise and air emissions, lane reduction and changes to existing property access / egress. Where possible, noise and vibration control measures should be applied during construction (e.g., vehicle silencers, maintain equipment in good working order) to minimize disruption to nearby properties. The Project will conform to local noise by-laws and construction equipment shall be maintained in a state of good repair, such that temporary noise and air quality impacts are minimized.

In addition, the Quinte Conservation Authority recommends stormwater management to be mitigated for both water quantity and quality during construction.

All waste generated during construction should be disposed of in a proper manner, following Ontario Regulation 153/04 and Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the *Environmental Protection Act*.

---

## SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

---

The City will notify the public, agencies and adjacent owners of construction scheduling. Traffic control plans will be developed to allow continued use of affected roadways.

### Urban Street Trees and Vegetation

Sidney Street is located within a developed commercial and residential area of the City. Along the length of the street are many street trees that are a mix of non-native invasive species and cultivated versions of native species. The primary mitigation to reduce effects on urban street trees was to preserve as many trees as possible, with the exception of trees in poor condition (e.g., dead / dying) or trees that pose a risk to the public, through Project design.

The Project will require removal or pruning of 36 existing trees and approximately 910 m<sup>2</sup> of old field meadow. Tree removals will occur outside of the window with birds are nesting (April to July). Following construction, the City will complete restorative planting of trees and disturbed land using native species to minimize the risk of introducing exotic and invasive plant species. Native tree species suited to urban streetscapes will be used during restorative planting of boulevards. The placement of trees will consider underground and overhead utilities. Disturbed areas will be seeded and revegetated as soon as practicable following construction using native seed mixes.

### Tributary to Potter Creek

Improvements at the Sidney Street and Bell Boulevard intersection may require a culvert extension at the tributary to Potter Creek west of the intersection. This tributary is regulated by the Quinte Conservation Authority, and the proposed construction activities will require a permit under Ontario Regulation 319/09. The exact length of the culvert extension will be determined during detailed design; however, all construction activities will be conducted in accordance with the conditions specified in the permit.

In proximity of the watercourse, erosion control measures, such as buffers and setbacks, will be required to minimize sedimentation, turbidity and nutrient loading to the tributary. The movement of on-site equipment could also result in contamination of soil, groundwater and aquatic habitat through runoff, spills, leaks and disinfection activities. Provision for spill control should be in place, including administrative controls (e.g., fast, accurate reporting of spills and storage precautions).

The need for mitigation of effects on fish and fish habitat, as per the requirements of the *Fisheries Act*, will be determined during detailed design through the project self-assessment process required by the Department of Fisheries and Oceans.

## 6.6 Permitting and Approval Requirements / Guidelines

Throughout the planning and design process of this Class EA, and through consultations with review and approval agencies, a number of legislative and policy guidelines were identified as being relevant to the Project. Each of the following permits and/or approvals applies to the implementation process for the Project.

---

## SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

---

### City of Belleville Official Plan

The Official Plan of the City of Belleville was adopted in 2002 to create a balance of economic, social, cultural and natural environments for community development until the planning horizon year of 2021. The Plan encourages growth through new development and redevelopment to ensure the most efficient use of investment in infrastructure. The City recognizes the importance of transportation, servicing and communications in the community and has an on-going goal to minimize the time, distance, economic and energy cost of movements for persons, goods and information while maintaining public safety. Specifically, the Plan notes that:

*The integrity of the existing Provincial and City road networks shall be maintained and upgraded, and integrated with cycling and walking routes as much as possible.*

The Plan, through its vision and policies, links economic growth with environmental sustainability in order to guide land use changes and development trends in the future. Specifically, Sections 3.0, 5.0, 6.0 and 7.0 of the Plan set out considerations for the provisions of infrastructure systems, services and facilities. Application of the Plan to infrastructure development is not limited to the listed sections, but were identified as most relevant to this Project. Proposed developments must comply with policies of the Plan and are subject to the requirements of the Class EA process and the *Planning Act*. Specific objectives pertaining to land use planning, environmental protection areas, servicing and utilities, municipal roads and road widening, cultural heritage and archaeological resources, and urban design were reviewed in the context of this Project. It was determined that the Project as proposed meets all requirements.

### Planning Act

Under the authority of Section 3 of the *Planning Act*, the Provincial Policy Statement provides policy direction on matters of Provincial interest related to land use planning and development. Specific policies pertaining to infrastructure, natural heritage, water, and cultural heritage were reviewed, and it was determined that the Project as proposed meets all requirements.

- The road infrastructure will be conducted in a coordinated, efficient and cost effective manner to accommodate projected needs.
- The proposed road reconstruction will improve use of the existing facilities, and, to the extent practicable, be designed to current design guidelines to improve the safety of emergency services delivery over the long-term.
- Where possible, impacts to natural heritage features and functions of the area will be protected, maintained, restored and/or improved.
- No significant built heritage resources were located within the area.

The Provincial Policy Statement also includes policies related to protecting public health and safety. No “Environmental Protection” areas, as defined in the City’s Land Use Plan, are present within or adjacent to the Project site. This includes both natural hazard lands and natural heritage features.

---

## SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

---

### Environmental Protection Act

The *Environmental Protection Act* requires that disposal of waste, including contaminated soils, be consistent with the policies of Ontario Regulation 153/04. If excavated soils are to be disposed of off-site, they must meet criteria under the Ministry of Environment's Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the *Environmental Protection Act*.

### Fisheries Act

The purpose of the *Fisheries Act* is to maintain healthy, sustainable and productive fisheries through the prevention of pollution, and the protection of fish and their habitat. In 2012, the *Fisheries Act* was updated to enhance the Department of Fisheries and Oceans' (DFO) ability to manage threats to Canada's commercial, recreational and Aboriginal (CRA) fisheries. These changes were also intended to enhance compliance and protection tools, and to make regulatory requirements clear and consistent through the expanded use of standards.

Projects that have potential to cause serious harm to fish require an authorization from DFO in order to comply with the provisions of the *Fisheries Act*. The proponent is responsible for determining if the project is likely to cause impacts to CRA fish, if these impacts can be avoided or mitigated, and determine if the impacts will result in serious harm to fish. Serious harm to fish is defined as fish death and/or any permanent alteration to, or destruction of, fish habitat. If it is determined that the impacts cannot be avoided or mitigated and will result in serious harm to fish, an application for authorization must be made to the DFO. The DFO has produced standard guidance tools and documents to assist the proponent in determining the potential impacts on fish or fish habitat. These include the Fisheries Protection Policy Statement and Pathway of Effects Diagrams among others.

Intersection improvements at Bell Boulevard will widen the road cross-section at the tributary of Potter Creek. As such, a culvert extension may be required. Therefore, at the time of detailed design, the DFO's Self-Assessment should be completed to determine if review by the DFO is required for the Project.

### Ministry of the Environment and Climate Change Environmental Compliance Approval

Prior to construction, the MOECC must issue Environmental Compliance Approvals for storm sewer and sanitary sewer designs.

The City has been issued a Drinking Water Works Permit by the MOECC. The watermain design will need to be verified by City staff and a "Form 1 – Record of Watermains Authorized as a Future Alteration" completed before construction commences.

### Ontario Regulation 319/09 – Regulation of Development, Interference with Wetlands and Alterations to Shorelines and Watercourses

The Project is located adjacent to a tributary of Potter Creek. The Project as proposed will widen the road cross-section of Bell Boulevard at the tributary, within the area regulated by Quinte Conservation Authority. Under Section 28 of the *Conservation Authorities Act*, each Authority has the ability to regulate alterations or interference with watercourses or wetlands in the area over which it has jurisdiction. During the detailed design

---

## SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

---

stage, a permit under Ontario Regulation 319/09 will likely be required from Quinte Conservation Authority prior to construction.



---

# SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

---

## 7.0 PUBLIC CONSULTATION SUMMARY

### 7.1 Stakeholders

A stakeholder list was compiled for the Project, representing all parties that could have an interest or regulatory authority over some portion of the Project. The stakeholder list was comprised of members of the general public, adjacent property owners, government review agencies, municipal staff, First Nations, and any other organizations or individuals that expressed an interest in the Project. The list of stakeholders is provided as **Appendix I**.

### 7.2 Notices and Advertisements

As part of the public consultation process, several formal notices and advertisements were published and distributed to the Project stakeholders. Specifically, Notices of Study Commencement, Public Information Centre (PIC) #1, PIC #2 and Study Completion were circulated to all stakeholders and published in the Belleville Intelligencer and Community Press. The date each notice and advertisement was issued in the local newspaper(s) is listed in **Table 4**. Copies of the notices and advertisements are provided in **Appendix J**.

**Table 4: Notices and Advertisements**

Notice	Local Newspaper	Issued
Notice of Study Commencement	Belleville Intelligencer	July 18, 2014 July 21, 2014
Notice of PIC #1	Belleville Intelligencer	September 26, 2014 October 3, 2014
	Community Press	October 9, 2014 October 16, 2014
Notice of PIC #2	Belleville Intelligencer	January 28, 2015 February 2, 2015
Notice of Study Completion	Belleville Intelligencer	March 18, 2015

Notices of PIC #1 and #2 were also advertised in local radio news broadcasts, and made available online (e.g., Build Belleville and City of Belleville websites) and through the City's social media webpage (e.g., City of Belleville Facebook webpage, Twitter).

### 7.3 Consultation with Review Agencies

In response to the project notices, comments were received from review and approval agencies, indicating their particular interests in the Project. All EA-related Project correspondence is provided as **Appendix K**. **Table 5** summarizes the issues that were raised by review agencies, and the approach to address each of the concerns.

## SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

**Table 5: Comments Received from Review Agencies and Resulting Response**

Comment	Response / Action
<b>Ministry of Natural Resources and Forestry</b>	
The Project is located adjacent to unevaluated wetlands and two streams. Contact with the local Conservation Authority and the DFO should be made to obtain information on approvals that may be required and mitigation recommendations.	Work at the Sidney Street / Bell Boulevard intersection is within 30 m of the tributary of Potter Creek. The tributary is regulated by Quinte Conservation; therefore, a permit under O. Reg. 319/09 will be sought at detailed design for proposed works within 30 m of the tributary. Also, the DFO's Self-Assessment will be completed during detailed design to determine if review by the DFO is required for the Project. Construction will be conducted in accordance with the conditions specified in the applicable permit(s).
Complete a Species at Risk (SAR) site assessment to identify the presence of any SAR and / or their habitat. Species listed as endangered or threatened on the Species at Risk in Ontario (SARO) list are protected under the <i>Endangered Species Act, 2007</i> (ESA). Recommendations of mitigations to protect/avoid impacts to SAR were provided.	A screening of all SAR that have potential to be found in, or have habitat within the vicinity (120 m) of the site was completed. No SAR were observed during the field investigation.
A Butternut Health Assessment should be conducted if a butternut tree(s) is to be removed, trimmed or in close proximity to the application of herbicides.	A tree inventory was conducted by a certified arborist. No butternut trees were identified during the inventory. A tree replacement plan will be explored by the City during the detailed design phase of the Project.
Natural heritage and natural resource data and information, and SAR occurrences can be obtained from online sources.	Online sources were reviewed during the desktop investigation completed to characterize the existing conditions of the natural environment in the area of the Project.
<b>Ministry of Tourism, Culture and Sport</b>	
Under the EA process, the City is required to determine the potential impact of the proposed Project on cultural heritage resources (archaeology and built heritage resources).	A Stage 1 archaeological investigation, including a property inspection, was conducted by a licenced archaeologist. No further archaeological work is required. In addition, a Heritage Impact Assessment was completed in support of the Project and no built heritage features of significance were found in the study area.

## SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

Comment	Response / Action
<b>Ministry of the Environment and Climate Change</b>	
Impacts to surface water, groundwater, noise, air quality, soil contamination, leachate plumes and waste disposal should be addressed during the EA process and Project design.	Impacts expected as a result of the Project were considered in the evaluation of alternatives. The preferred alternatives have the least effect on the social and economic, natural and cultural environment. Where Project design is unable to avoid an effect, mitigation measures to minimize / manage effects are provided in Section 6.5 of this report.
Where there is a potential for permanent noise increases from the Project, a noise study should be completed as part of the EA process.	Sidney Street and the intersections with Bell Boulevard and Tracey Street / Tracey Park Drive are existing infrastructure in a built up commercial and residential area. The Project will not create addition traffic. The work is limited to improvements to existing infrastructure in the same location and for the same purpose. There are no changes to existing land use; therefore, impact to existing noise receptors is not expected to be of significance.
Appropriate mitigation measures should be considered for potential impacts to creeks, rivers and lakes.	A tributary to Potter Creek is located approximately 90 m west of Sidney Street. Work at the Sidney Street / Bell Boulevard intersection is within 30 m of this tributary and a permit under O. Reg. 319/09 will be sought from Quinte Conservation. Construction will be conducted in accordance with the conditions specified in the applicable permit. Mitigation measures recommended to minimize / manage effects to surface water are provided in Section 6.5 of this report.
A Permit to Take Water (PTTW) from the MOECC is required if the proposed improvements involves any taking, dewatering, storage or diversion of water in excess of 50,000 L/d.	If required, a PTTW will be sought at detailed design for proposed works that involves water takings in excess of 50,000 L/d. Construction will be conducted in accordance with the conditions specified in the applicable permit.
The use of a cured-in-place process (CIPP) for culverts is not preferred as they may result in impacts to water quality and fish.	A culvert extension at the tributary to Potter Creek may be required as a result of the intersection improvements proposed at Sidney Street and Bell Boulevard. This comment will be considered at the time of detailed design.
Excess materials (i.e., wastes) generated during the course of construction must be handled in accordance with the Ministry's standards. The <i>Environmental Protection Act</i> and Regulation 347 require wastes to be classified and disposed of appropriately.	Waste generated during construction will be disposed of in a proper manner and recommendations for waste disposal are provided in Section 6.5 of this report.

## SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

Comment	Response / Action
<p>The EA process requires proponents to consult with interested persons and government agencies, including those potentially affected by the proposed project. This includes a responsibility to conduct adequate consultation with First Nation and Métis communities.</p>	<p>Project notices and advertisements were provided to First Nations and Metis communities identified for the Project area. Included in the notice of PIC #2 was a summary of the natural and cultural environments, and an overview of the evaluation of alternatives solutions / designs.</p>
<p><b>Ministry of Transportation</b></p>	
<p>The Project abuts the Highway 401 corridor and is located within the Ministry of Transportation permit control area.</p>	<p>The City followed-up with the Ministry to discuss their concerns regarding potential impacts to the Highway 401 corridor. Through discussion, the City and MTO agreed that the PIC materials and Environmental Study Report, which includes the Traffic Analysis Report, will be provided to the Ministry. Permit application(s), as required, will occur during detailed design. In addition, the City recently met with and will continue to meet with MTO's Planning and Design Section regarding the Highway 401 Expansion study, which will include the Sidney Street Overpass.</p>
<p><b>Quinte Conservation Authority</b></p>	
<p>Potter Creek and tributaries to Potter Creek are regulated under O. Reg. 319/09 but Quinte Conservation. The City will need to apply for a permit prior to any construction activity within 30 m of the Tributary to Potter Creek.</p>	<p>Work at the Sidney Street / Bell Boulevard intersection is within 30 m of the tributary of Potter Creek. A permit under O. Reg. 319/09 will be sought at detailed design for proposed works within 30 m of the tributary. Construction will be conducted in accordance with the conditions specified in the applicable permit.</p>

---

## SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

---

### 7.4 Consultation with First Nations

In an effort to identify which First Nations would have a local interest in the Project, the Ontario Ministry of Aboriginal Affairs and Northern Development Canada were included as part of the list of stakeholders to be consulted with. Previous EAs were also used to identify First Nations routinely contacted for City projects. Upon identification of the First Nations with potential interest in the Project, individual mailings of Project notices were provided. Full correspondence details are provided in **Appendix K**.

The Hiawatha First Nation responded that the Project would have little impact on their traditional territory and / or rights. Curve Lake First Nation responded that they are not aware of any issues that would cause concern in the Project area for their Traditional, Aboriginal and Treaty rights. Similarly, Alderville First Nation responded that the Project was deemed to have minimal potential to impact their Nation's rights. The Mohawks of the Bay of Quinte responded that they only be contacted should artifacts or burial remains be found.

### 7.5 Consultation with Property Owners

Before the second PIC, the City attempted to contact the owners of the properties that would be the most significantly affected by the preferred alternative design. Through telephone correspondence, City staff explained the impacts of the preferred alternative design on each subject property and offered the option for a personal meeting in advance of the PIC. Most property owners chose to simply attend the PIC. However, one owner did come for a meeting at City Hall and also attended the PIC.

### 7.6 Public Information Centres

Two PICs in open house format were held at the Build Belleville Project Centre to inform the public about the Project. After the completion of baseline studies to characterize the existing environment in the area of the Project, PIC #1 was held on October 16, 2014. The purpose of the first PIC was to communicate the planning process to date and receive feedback on the evaluation criteria proposed. Following the development and evaluation of a range of alternative solutions / designs, a second PIC was held on February 4, 2015. The purpose of the second PIC was to provide information on alternatives considered, and to receive feedback on the preferred alternatives.

PIC notices were directly mailed to all stakeholders including local residents, and were advertised in the Belleville Intelligencer and Community Press, as noted in Section 7.2. A copy of each notice is provided in **Appendix J**.

The PIC #1 displayed information summarizing the problem / opportunity statement for the Project, the Municipal Class EA process, the findings of the background studies, and the evaluation criteria to be used to assess alternative designs. The second PIC presented the alternative designs considered in the assessment. A summary of the evaluation was provided and the preferred alternatives were identified. The panels displaying this information were posted on the City's Build Belleville website for public review. Nineteen people attended PIC #1 and 14 people attended PIC #2. Comment sheets were available to all attendees. Five and two comment sheets were returned at the PIC #1 and PIC #2, respectively. A summary of each PIC, and a copy of the information panels, sign-in sheet and comments received are provided in **Appendices L and M**.

---

**SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT**

---

---

## SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

---

### 8.0 ENVIRONMENTAL STUDY REPORT AND NOTICE OF STUDY COMPLETION

At the conclusion of the Class EA process, an Environmental Study Report is prepared, and a Notice of Study Completion is filed. The Notice was mailed directly to all stakeholders, and advertised in the Belleville Intelligencer, on March 18, 2015. A copy of the notice is provided in **Appendix J**.

This Environmental Study Report is available for public review and comment for thirty (30) calendar days from March 18, 2015. Copies of the report are available for reviewing during normal business hours at the following locations:

City of Belleville  
Belleville City Hall  
169 Front Street  
Belleville, ON, K8N 2Y8

Belleville Public Library  
254 Pinnacle Street  
Belleville, ON, K8N 3B1

City of Belleville  
Build Belleville Project Centre  
116 Pinnacle Street  
Belleville, ON, K8N 3A4

If concerns regarding the Project cannot be resolved in discussion with the City of Belleville, a person or party may request that the Minister of the Environment and Climate Change make an order for the Project to comply with Part II of the *Environmental Assessment Act* (referred to as a Part II Order), which requires an Individual Environmental Assessment. Requests must be received by the Minister within the 30-day review period following issuance of the Notice of Study Completion. If no new or outstanding concerns are brought forward during the review period, the City may complete the detailed design and construction of the Project.

Anyone wishing to request a Part II Order must submit a written request, by the end of the thirty (30) calendar day review period, to the Minister of the Environment and Climate Change at the following address, with copies sent to the Director of the Environmental Approvals Branch, and the City's Project Manager.

Hon. Glen Murray  
Ministry of the Environment and  
Climate Change  
77 Wellesley Street W, Floor 11  
Toronto, ON, M7A 2T5

Director, Environmental Approvals  
Branch  
Ministry of the Environment and  
Climate Change  
2 St. Clair Ave W, Floor 12A  
Toronto, ON, M4V 1L5

Deanna O'Leary  
Senior Project Manager  
City of Belleville  
169 Front Street  
Belleville, ON, K8N 2Y8  
Tel: 613-967-3200 ext. 3527  
Fax: 613-967-3262  
Email: [doleary@city.belleville.on.ca](mailto:doleary@city.belleville.on.ca)

---

# SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

---



---

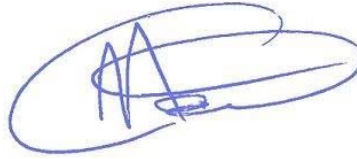
**SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT**

---

**Report Signature Page**



**Jessalyn Oke, B.Sc.**  
EA Specialist  
Golder Associates Ltd.



**Michael Cant, B.A.**  
Principal  
Golder Associates Ltd.



**Doug Timms, P.Eng.**  
Project Manager  
CIMA+

---

# SIDNEY STREET CORRIDOR IMPROVEMENTS (BELL BOULEVARD TO TRACEY STREET) MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

---



