Bayview Drive & Big Bay Point Road Transportation Improvements

Schedule ‘C’ Class EA – Phases 3 & 4

March 2, 2016
Welcome

This Public Information Centre will:

- Detail the study area, study purpose & objective
- Review the preferred design solution as presented in the City of Barrie Multi-Modal Active Transportation Master Plan
- Present the design alternative concepts of the preferred design solution & identify potential environmental impacts
- Seek input & comments for consideration in the selection of the final preferred design solution
- Provide opportunities for the public to ask questions

Public & Stakeholders are requested to:

- Sign-in
- Review the presentation material
- Ask questions of the City and/or Consultant
- Submit a comment sheet & indicate whether or not you want to be kept informed of the process
Study Area

Bayview Drive
- Little Avenue to Big Bay Point Road
- 1.4 km

Big Bay Point Road
- Bayview Drive to Huronia Road
- 1.3 km

source: maps.google.ca
The City of Barrie *Multi-Modal Active Transportation Master Plan (MMATMP)*

- City-wide study to identify transportation needs to support growth through 2031

**MMATMP Opportunity Statement**

- The City of Barrie needs a transportation system that will accommodate growth to 2031 and beyond. An opportunity exists to plan a transportation system which:
  - *is safe, efficient and accessible with choices in mobility*
  - *fosters the use & development of a sustainable transportation network*
  - *provides a public transit system that can offer a real alternative to private automobile use*
  - *provides a network of on-road & off-road pedestrian and cycling facilities that allow the use of active transportation modes as an alternative to the automobile*
The **MMATMP** road network recommendations:

**Bayview Drive**
- 3-lane profile
- 1 lane per direction w/two-way left turn lane
- Beyond 2031 – 5-lane profile may be required (2 lanes per direction w/two-way left turn lane)

**Big Bay Point Road**
- 7-lane profile
- 3 lanes per direction w/left turn lanes & raised median
- Beyond 2031 – no additional capacity required
The **MMATMP** active transportation recommendations:

**Bayview Drive**
- Implementation of regular bicycle lanes
- Implementation of sidewalks on both sides of street

**Big Bay Point Road**
- Implementation of buffered bicycle lanes
- Implementation of sidewalks on both sides of street
Future Highway 400 Overpass

- Preferred Highway 400 Overpass:
  - 5-Lane crossing over existing Highway 400
  - Crossing will be designed to be compatible with a potential future 7-lane interchange and a widened Highway 400
  - Buffered bicycle lanes
  - Sidewalks on both sides of road/overpass
  - Railway spur crossing Big Bay Point Road will be removed
  - Land to be protected for potential future interchange
Active Transportation – Bicycle Lanes

Regular Bicycle Lanes

Buffered Bicycle Lanes

Source: Multi-Modal Active Transportation Master Plan
Source: National Association of City Transportation Officials
Study Objectives

The **OBJECTIVES** of the study are:

- To complete the EA process initiated through the *Multi-Modal Active Transportation Master Plan*

- To improve the traffic operations and road conditions along Bayview Drive (Little Ave. Big Bay Point Rd.) and Big Bay Point Road (Bayview Dr. to Huronia Rd.) to accommodate future growth through 2031

- To consider additional infrastructure improvements (i.e. new watermain, stormwater management upgrades, etc.) in parallel with the proposed transportation works
The **PURPOSE** of the study is to:

- Develop alternative design concepts for the preferred solution identified in the *Multi-Modal Active Transportation Master Plan*
- Identify the location, extent & sensitivity of affected environments
- Assess the design alternatives given the potential environmental impacts
- Seek public input & comment
- Identify a preferred design solution
- Establish measures to mitigate adverse impacts as required
- Satisfy the requirements of the Class EA process
Multi-Modal Active Transportation Plan

- fulfilled Phases 1 & 2 of Class EA process
- Bayview Dr. & Big Bay Point Rd. Class EA
- addresses Phases 3 & 4
- provides opportunity for public input:
  - PIC (today)
  - 30-day review of final report & findings
- Following completion of Phases 3 & 4, the City may proceed to Phase 5 (subject to available budget)
Existing Conditions

Bayview Drive

Looking south from Little Avenue
Looking north from Innisdale (north access)
Looking south from Innisdale (north access)
Looking north of Innisdale (south access)
Looking south from Innisdale (south access)

Looking north from Mollard Court
Looking south from Mollard Court
Looking north from The Source (south access)
Looking south towards Big Bay Point Road
Looking north from Big Bay Point Road

Big Bay Point Road

Looking west from Bayview Drive
Looking east from Bayview Drive
Looking west from 131 Big Bay Point Road
Looking east from 131 Big Bay Point Road
Looking west from Welham Road

Looking east from Welham Road
Looking west from 120 Big Bay Point Road
Looking east from 120 Big Bay Point Road
Looking east towards Huronia Road
Looking west from Huronia Road
The BCRY is a short-line rail operation providing limited freight service to customers in the City of Barrie and Town of Innisfil.

The railway has a 15.0m right-of-way that abuts Big Bay Point Road to the north, with a spur that runs parallel to the road through the study area.

The spur crosses Bayview Drive and Welham Road, immediately north of Big Bay Point Road.

Currently no rail activity along the spur.

Grade crossing warning systems may be required should rail activity be re-introduced.
Design Alternatives - Bayview Drive

Design Alternative 1:
- 3-lane cross-section
- fits within existing ROW
- 3.5 m vehicular lanes
- 4.2 m two-way left turn lane
- 1.8 m bicycle lanes (includes 0.3m gutter)
- 2.9 m to 5.6 m boulevards
- 2.0 m sidewalk on west side of the road only
- maintain existing centreline

Design Alternative 2:
- 3-lane cross-section
- fits within existing ROW
- 3.3 m vehicular lanes
- 4.2 m two-way left turn lane
- 1.5 m bicycle lanes (includes 0.3m gutter)
- 2.4 m to 5.9 m boulevards
- 2.0 m sidewalk on both sides of the road
- centreline shift of 1.0 m to the west

The plan view and ROW requirements for each alternative are illustrated on the large plots.
Future Design Concept - Bayview Drive

- MMATMP identified Bayview Drive as potentially requiring additional capacity beyond 2031.
- Future Design Concept was developed to illustrate potential future impacts.
- Not evaluated as part of this EA.
- 5-Lane Future Design Concept considers:
  - 34.0 m right-of-way
  - 3.5 m vehicular lanes (two per direction)
  - 4.2 m two-way left turn lane
  - 1.8 m bicycle lanes (includes 0.3m gutter)
  - 0.5 m bicycle lane buffers
  - 2.0 m sidewalks on both sides of the road
  - 2.9 m boulevards

The plan view and ROW requirements are illustrated on the large plots.
Design Alternatives – Big Bay Point Road

■ Design Alternative A:
  ■ 7-lane cross-section (41.0 m ROW)
  ■ 3.5 m vehicular lanes
  ■ 4.2 m raised median/left turn lane
  ■ 1.8 m bicycle lanes (includes 0.3m gutter)
  ■ 0.5 m bicycle lane buffers
  ■ 2.9 m boulevards
  ■ 2.0 m sidewalk on both sides
  ■ maintain existing centreline
  ■ assumes removal of railway corridor

■ Design Alternative B:
  ■ reduced 7-lane cross-section (37.2 m ROW)
  ■ 3.5 m vehicular lanes
  ■ 4.2 m raised median/left turn lane
  ■ 1.5 m bicycle lanes (includes 0.3m gutter)
  ■ 0.5 m bicycle lane buffers
  ■ reduced boulevard widths
  ■ 2.0 m sidewalk on south side only
  ■ centreline shift of 5.2 m to the south
  ■ assumes railway corridor will remain

Design Alternative A: 7-Lane Cross-Section (looking east)

Design Alternative B: Reduced 7-Lane Cross-Section (looking east)

The plan view and ROW requirements for each alternative are illustrated on the large plots
Design Alternatives – Big Bay Point Road

Design Alternative C:
- 5-lane cross-section (34.0 m ROW)
- 3.5 m vehicular lanes
- 4.2 m two-way left turn lane
- 1.8 m bicycle lanes (includes 0.3m gutter)
- 0.5 m bicycle lane buffers
- 2.9 m boulevards
- 2.0 m sidewalk on both sides
- centreline shift of 3.8m to the south
- assumes railway corridor will remain

Design Alternative D:
- reduced 5-lane cross-section
- fits within existing ROW
- 3.5 m vehicular lanes
- 4.2 m two-way left turn lane
- 1.8 m bicycle lanes (includes 0.3m gutter)
- 0.5 m bicycle lane buffers
- reduced boulevard widths
- 2.0 m sidewalk on south side only
- centreline shift of 2.0 m to the south
- assumes railway corridor will remain

The plan view and ROW requirements for each alternative are illustrated on the large plots.
<table>
<thead>
<tr>
<th>Number of Lanes</th>
<th>Thru Lane Width (metres)</th>
<th>Median/ TWLTL Width (metres)</th>
<th>Boulevard Width (metres)</th>
<th>Bicycle Lane Width(^{(1)}) (metres)</th>
<th>Sidewalk Width(^{(2)}) (metres)</th>
<th>Pavement Width(^{(3)}) (metres)</th>
<th>ROW Width(^{(4)}) (metres)</th>
<th>Centreline Shift (metres)</th>
<th>Median/ TWLTL(^{(5)}) BCRY Spur</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Alternative 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TWLTL</td>
</tr>
<tr>
<td>3</td>
<td>3.5</td>
<td>4.2</td>
<td>2.9 - 5.6</td>
<td>1.8</td>
<td>2.0 - 2.5(^{(6)}) (west side only)</td>
<td>14.8</td>
<td>±26.1 - 26.3</td>
<td>n/a</td>
<td>TWLTL</td>
</tr>
<tr>
<td><strong>Alternative 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TWLTL</td>
</tr>
<tr>
<td>3</td>
<td>3.3</td>
<td>4.2</td>
<td>2.4 - 2.9</td>
<td>1.5</td>
<td>2.0 - 2.5(^{(6)})</td>
<td>13.8</td>
<td>±26.1 - 26.3</td>
<td>1.0 (to the west)</td>
<td>TWLTL</td>
</tr>
<tr>
<td><strong>Future Concept</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TWLTL</td>
</tr>
<tr>
<td>5</td>
<td>3.5</td>
<td>4.2</td>
<td>2.9</td>
<td>2.3 (1.8 + 0.5 buffer)</td>
<td>2.0 - 2.5(^{(6)})</td>
<td>22.8</td>
<td>34.0</td>
<td>n/a</td>
<td>TWLTL</td>
</tr>
</tbody>
</table>

**Bayview Drive (Little Avenue to Big Bay Point Road)**

**Big Bay Point Road (Bayview Drive to Huronia Road)**

**Alternative A**
- 7
- 3.5
- 4.2
- 2.9
- 2.3 (1.8 + 0.5 buffer)
- 2.0
- 29.8
- 41.0
- n/a
- Raised\(^{(7)}\) Remove

**Alternative B**
- 7
- 3.5
- 4.2
- 1.5 - 3.6
- 2.0 (1.5 + 0.5 buffer)
- 2.0 (south side only)
- 29.2
- 37.2
- 5.2 (to the south)
- Raised\(^{(7)}\) Remain

**Alternative C**
- 5
- 3.5
- 4.2
- 2.9
- 2.3 (1.8 + 0.5 buffer)
- 2.0 - 2.5\(^{(6)}\) (south side only)
- 22.8
- 34.0 - 35.8
- 3.8 (to the south)
- TWLTL Remain

**Alternative D**
- 5
- 3.5
- 4.2
- 1.5 - 3.6
- 2.3 (1.8 + 0.5 buffer)
- 2.0 - 2.5\(^{(6)}\) (south side only)
- 22.8
- ±30.8 - 35.8
- 2.0 (to the south)
- TWLTL Remain

**Notes:**
- (1): Bicycle Lane Width includes 0.3m gutter
- (2): Sidewalks on both sides of the road unless otherwise noted
- (3): Pavement width measured from curb face to curb face
- (4): Does not include additional ROW width required at some intersections
- (5): Raised concrete median or Two-Way Left Turn Lane (TWLTL)
- (6): Wider curb face sidewalk to be implemented as deemed appropriate (particularly at intersections)
- (7): Exclusive left turn lanes will be provided at main intersections and some driveways
Natural Environment

Key Features
- Lackie’s Bush
- Whiskey Creek water crossings

Potential Impacts
- Culvert extensions may impact fish habitat
- Minor loss of wildlife habitat
- Disruption to bat maternity roosting habitat

Mitigation
- With implementation of recommended mitigation measures during detail design and construction phases, no significant environmental impacts to the terrestrial and aquatic natural features and functions within the study area are expected
## Evaluation - Bayview Drive

<table>
<thead>
<tr>
<th>Evaluation Criteria</th>
<th>How Criteria is Being Assessed</th>
<th>Alternative 1: 3-Lane Cross-Section</th>
<th>Design Alternative 2: Reduced 3-Lane Cross-Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traffic Operations</td>
<td>Impact to intersection operations &amp; road capacity (based on results of Traffic Operations Assessment)</td>
<td>Improved lane capacity and access to adjacent properties due to implementation of continuous TWLTL</td>
<td>Improved access to adjacent properties due to implementation of continuous TWLTL Reduced lane widths slightly reduces potential capacity</td>
</tr>
<tr>
<td>Cycling Operations</td>
<td>Impact to cycling facilities along study corridor</td>
<td>Provides cycling facilities designed to desired standards as per MMATMP recommendations</td>
<td>Provides cycling facilities designed to minimum standards (narrow lanes)</td>
</tr>
<tr>
<td>Transit Operations</td>
<td>Impact to transit service</td>
<td>Transit infrastructure to remain as currently exists; left turn traffic no longer impacts buses</td>
<td>Transit infrastructure to remain as currently exists; left turn traffic no longer impacts buses</td>
</tr>
<tr>
<td>Pedestrian Operations</td>
<td>Impact to pedestrian facilities along study corridor</td>
<td>Water &amp; continuous sidewalk to be provided on west side of road</td>
<td>Wider &amp; continuous sidewalk to be provided on both sides of road</td>
</tr>
<tr>
<td>Municipal Services (Water, Stormwater &amp; Sanitary systems)</td>
<td>Upgrades</td>
<td>New watermain to be included with proposed works – same for all alternatives</td>
<td>New watermain to be included with proposed works – same for all alternatives</td>
</tr>
<tr>
<td>Utilities</td>
<td>Impact to utilities (i.e. relocation)</td>
<td>Full relocation of utilities required</td>
<td>Relocation of underground utilities required. Limited relocation of overhead utilities to accommodate intersection improvements</td>
</tr>
<tr>
<td>Driveway Grades</td>
<td>Impact to driveway grades as a result of required road widening</td>
<td>Slight to moderate impact to driveways serving properties abutting Bayview Drive to the west</td>
<td>Moderate impact to driveways serving properties abutting Bayview Drive to east and west</td>
</tr>
<tr>
<td>Driveway Operations</td>
<td>Impact to driveway operations</td>
<td>No significant difference between alternatives</td>
<td>No significant difference between alternatives</td>
</tr>
<tr>
<td>Railway Corridor</td>
<td>Impact to BCRY corridor crossings</td>
<td>No significant difference between alternatives</td>
<td>No significant difference between alternatives</td>
</tr>
<tr>
<td>Property/Development Impacts</td>
<td>Impacts to property based on widening of road platform and/or ROW</td>
<td>Least impact to adjacent properties (811 m²)</td>
<td>Additional property impacts at signalized intersections to accommodate sidewalks on both sides of road</td>
</tr>
<tr>
<td>Aesthetics</td>
<td>Visual impacts</td>
<td>Greatest opportunity to enhance aesthetics due to desired boulevard width</td>
<td>Limited opportunity to enhance aesthetics due to reduced boulevard width</td>
</tr>
<tr>
<td>Noise Impacts</td>
<td>Impacts to residents/businesses during construction phase. Future impacts to residents/businesses (as per Noise Assessment)</td>
<td>No significant difference between alternatives</td>
<td>No significant difference between alternatives</td>
</tr>
<tr>
<td>Construction Impacts</td>
<td>Impacts to adjacent properties through construction phase</td>
<td>No significant difference between alternatives</td>
<td>No significant difference between alternatives</td>
</tr>
</tbody>
</table>

Note: 5-Lane Future Design Concept has not been evaluated as part of this EA
### Evaluation Criteria

<table>
<thead>
<tr>
<th>Evaluation Criteria</th>
<th>How Criteria is Being Assessed</th>
<th>Alternative 1: 3-Lane Cross-Section</th>
<th>Design Alternative 2: Reduced 3-Lane Cross-Section</th>
</tr>
</thead>
</table>
| **Fisheries/Aquatic Impacts**       | Impact to fish habitat, if applicable, and other aquatic features within the study area       | Culvert extensions will cause minor alteration to fish habitats or aquatic features – same for all alternatives.  
All other impacts to fisheries are fully mitigable | Culvert extensions will cause minor alteration to fish habitats or aquatic features – same for all alternatives.  
All other impacts to fisheries are fully mitigable |
| **Wildlife/Terrestrial Impacts**    | Impact to wildlife species within study area                                                   | Minimal impacts to wildlife – same for all alternatives                                             | Minimal impacts to wildlife – same for all alternatives |
| **Species at Risk**                 | Impact on SARs and endangered species                                                        | No species at risk within study corridor. No negative impacts – same for all alternatives           | No species at risk within study corridor. No negative impacts – same for all alternatives |
| **Vegetation Impacts**              | Impact to vegetation communities on adjacent properties (i.e. trees, shrubs, plants, etc.)    | No federal or provincially rare species or vegetation communities were identified within the development footprint. No negative impacts – same for all alternatives | No federal or provincially rare species or vegetation communities were identified within the development footprint. No negative impacts – same for all alternatives |
| **Land use**                        | Impact of proposed works on surrounding land use (i.e. are improvements consistent with surrounding land uses) | Improvements consistent with existing land use. No negative impacts – same for all alternatives     | Improvements consistent with existing land use. No negative impacts – same for all alternatives |
|                                     |                                                                                               |                                                                                                    |                                                                                                                 |
| **Archaeological & Heritage Impacts** | Impacts to the cultural and heritage features as per the results of the Stage 1 Archaeological Assessment completed for the study corridor | Limited areas identified as retaining archaeological potential – Stage II assessment required. Impacts to the cultural and heritage environment are similar for all design alternatives | Limited areas identified as retaining archaeological potential – Stage II assessment required. Impacts to the cultural and heritage environment are similar for all design alternatives |
| **Construction Costs**              | Costs to construct individual alternatives                                                   | Similar cost to construct $2,700/m x 1,400m = $3,785,000  
Includes cost to construct sidewalk - $141,000 (sidewalk on west side only) | Similar cost to construct $2,710/m x 1,400m = $3,800,000  
Includes cost to construct sidewalk - $282,000 (sidewalk on both sides) |
| **Maintenance Costs**               | Future maintenance requirements                                                              | No significant difference between alternatives                                                     | Slightly reduced lane widths but additional sidewalk  
No significant difference between alternatives |
| **Land Acquisition Costs**          | Total land acquisition costs                                                                | Least land acquisition costs: $194,700  
640m² x $215m² = $139,000 (Industrial land)  
151m² x $270m² = $41,000 (Residential land)  
12m² x $375m² = $4,700 (Commercial land) | Greatest land acquisition costs: $190,700  
718m² x $215m² = $154,000 (Industrial land)  
118m² x $270m² = $32,000 (Residential land)  
12m² x $375m² = $4,700 (Commercial land) |

Note: 5-Lane Future Design Concept has not been evaluated as part of this EA.
# Evaluation - Big Bay Point Road

<table>
<thead>
<tr>
<th>Evaluation Criteria</th>
<th>How Criteria is Being Assessed</th>
<th>Alternative A: 7-Lane Cross-Section</th>
<th>Design Alternative B: Reduced 7-Lane Cross-Section</th>
<th>Design Alternative C: 5-Lane Cross-Section</th>
<th>Design Alternative D: Reduced 5-Lane Cross-Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traffic Operations</td>
<td>Impact to intersection operations &amp; road capacity (based on results of Traffic Operations Assessment)</td>
<td>7-lanes provide ample capacity. Will accommodate traffic demands beyond 2031. Satisfies MMATMP recommendation</td>
<td>7-lanes provide ample capacity. Will accommodate traffic demands beyond 2031. Satisfies MMATMP recommendation</td>
<td>5-lanes provide adequate capacity. Will accommodate traffic demands to 2031 as per Traffic Operations Assessment</td>
<td>5-lanes provide adequate capacity. Will accommodate traffic demands to 2031 as per Traffic Operations Assessment</td>
</tr>
<tr>
<td>Cycling Operations</td>
<td>Impact to cycling facilities along study corridor</td>
<td>Provides cycling facilities designed to desired standards as per MMATMP recommendations</td>
<td>Provides cycling facilities designed to desired standards as per MMATMP recommendations</td>
<td>Provides cycling facilities designed to minimum standards (narrow lanes)</td>
<td>Provides cycling facilities designed to desired standards as per MMATMP recommendations</td>
</tr>
<tr>
<td>Transit Operations</td>
<td>Impact to transit service</td>
<td>Transit infrastructure to remain as currently exists; 7-lane profile mitigates delays by providing 2 additional lanes per direction for vehicles to navigate around stopped buses.</td>
<td>Transit infrastructure to remain as currently exists; 7-lane profile mitigates delays by providing 2 additional lanes per direction for vehicles to navigate around stopped buses.</td>
<td>Transit infrastructure to remain as currently exists; 5-lane profile mitigates delays by providing 1 additional lane per direction for vehicles to navigate around stopped buses.</td>
<td>Transit infrastructure to remain as currently exists; 5-lane profile mitigates delays by providing 1 additional lane per direction for vehicles to navigate around stopped buses.</td>
</tr>
<tr>
<td>Pedestrian Operations</td>
<td>Impact to pedestrian facilities along study corridor</td>
<td>Continuous sidewalk to be provided on both sides of the road as per MMATMP</td>
<td>Continuous sidewalk to be provided on both sides of the road as per MMATMP</td>
<td>Continuous sidewalk to be provided on both sides of the road as per MMATMP</td>
<td>Continuous sidewalk to be provided on south side only</td>
</tr>
<tr>
<td>Stormwater Management System</td>
<td>Extent of SWM upgrades</td>
<td>Greatest SWM requirements</td>
<td>Second greatest SWM requirements (reduced bike lane widths and sidewalk on one side of road)</td>
<td>Second least SWM requirements</td>
<td>Least SWM requirements (sidewalk on one side of road only slightly reduces requirements)</td>
</tr>
<tr>
<td>Municipal Services (Water &amp; Sanitary systems)</td>
<td>Upgrades</td>
<td>Watermain replacement as needed; to be included with proposed works – same for all alternatives</td>
<td>Watermain replacement as needed; to be included with proposed works – same for all alternatives</td>
<td>Watermain replacement as needed; to be included with proposed works – same for all alternatives</td>
<td>Watermain replacement as needed; to be included with proposed works – same for all alternatives</td>
</tr>
<tr>
<td>Utilities</td>
<td>Impact to utilities (i.e. relocation)</td>
<td>Full relocation of utilities required</td>
<td>Relocation of underground utilities required. Limited relocation of overhead utilities/support poles.</td>
<td>Full relocation of utilities required</td>
<td>Relocation of underground utilities required. Limited relocation of overhead utilities/support poles.</td>
</tr>
<tr>
<td>Driveway Grades</td>
<td>Impact to driveway grades as a result of required road widening</td>
<td>Greatest impact to adjacent driveways</td>
<td>Second greatest impact to adjacent driveways</td>
<td>Second least impact to adjacent driveways</td>
<td>Least impact to adjacent driveways</td>
</tr>
<tr>
<td>Driveway Operations</td>
<td>Impact to driveway operations</td>
<td>Raised median restricts turning movements at most driveways</td>
<td>Continuous TWLTL improves operations at adjacent driveways</td>
<td>Continuous TWLTL improves operations at adjacent driveways</td>
<td>Continuous TWLTL improves operations at adjacent driveways</td>
</tr>
<tr>
<td>Railway Corridor</td>
<td>Impact to BCRY corridor</td>
<td>Requires complete removal of BCRY corridor</td>
<td>No impact to BCRY corridor</td>
<td>No impact to BCRY corridor</td>
<td>No impact to BCRY corridor</td>
</tr>
</tbody>
</table>

## Physical Environment

### Traffic Operations
- 7-lanes provide ample capacity. Will accommodate traffic demands beyond 2031. Satisfies MMATMP recommendation

### Cycling Operations
- Provides cycling facilities designed to desired standards as per MMATMP recommendations

### Transit Operations
- Transit infrastructure to remain as currently exists; 7-lane profile mitigates delays by providing 2 additional lanes per direction for vehicles to navigate around stopped buses.

### Pedestrian Operations
- Continuous sidewalk to be provided on both sides of the road as per MMATMP

### Stormwater Management System
- Greatest SWM requirements

### Municipal Services (Water & Sanitary systems)
- Watermain replacement as needed; to be included with proposed works – same for all alternatives

### Utilities
- Full relocation of utilities required

### Driveway Grades
- Greatest impact to adjacent driveways

### Driveway Operations
- Raised median restricts turning movements at most driveways

### Railway Corridor
- Requires complete removal of BCRY corridor

### Negative Impact
- Greatest
- Least

### Neutral Impact
- Least

### Positive Impact
- Greatest
### Evaluation - Big Bay Point Road

<table>
<thead>
<tr>
<th>Evaluation Criteria</th>
<th>How Criteria is Being Assessed</th>
<th>Alternative A: 7-Lane Cross-Section</th>
<th>Design Alternative B: Reduced 7-Lane Cross-Section</th>
<th>Design Alternative C: 5-Lane Cross-Section</th>
<th>Design Alternative D: Reduced 5-Lane Cross-Section</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Social Environment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Property Development Impacts</td>
<td>Impacts to property based on widening of road platform and/or ROW does not include railway corridor requirements (City-owned)</td>
<td>Second greatest impact to adjacent properties (5,192 m²)</td>
<td>Greatest impact to adjacent properties (6,192 m²)</td>
<td>Second least impact to adjacent properties (3,694 m²)</td>
<td>Least impact to adjacent properties (284 m²)</td>
</tr>
<tr>
<td>Aesthetics</td>
<td>Visual impacts</td>
<td>Optimal opportunity to enhance aesthetics due to maximum boulevard width</td>
<td>Limited opportunity to enhance aesthetics due to reduced boulevard width</td>
<td>Optimal opportunity to enhance aesthetics due to maximum boulevard width</td>
<td>Limited opportunity to enhance aesthetics due to reduced boulevard width</td>
</tr>
<tr>
<td>Noise Impacts</td>
<td>Impacts to residents during construction phase. Future impacts to residents (as per Noise Assessment)</td>
<td>No significant difference between alternatives</td>
<td>No significant difference between alternatives</td>
<td>No significant difference between alternatives</td>
<td>No significant difference between alternatives</td>
</tr>
<tr>
<td>Construction Impacts</td>
<td>Impacts to adjacent properties through construction phase</td>
<td>No significant difference between alternatives</td>
<td>No significant difference between alternatives</td>
<td>No significant difference between alternatives</td>
<td>No significant difference between alternatives</td>
</tr>
<tr>
<td><strong>Natural Environment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fish Habitat/Aquatic Impacts</td>
<td>Impact to fish habitat, if applicable, and other aquatic features within the study area</td>
<td>No impacts to fish habitats or aquatic features</td>
<td>No impacts to fish habitats or aquatic features</td>
<td>No impacts to fish habitats or aquatic features</td>
<td>No impacts to fish habitats or aquatic features</td>
</tr>
<tr>
<td>Wildlife/Terrestrial Impacts</td>
<td>Impact to wildlife species within study area</td>
<td>No impacts to wildlife</td>
<td>No impacts to wildlife</td>
<td>No impacts to wildlife</td>
<td>No impacts to wildlife</td>
</tr>
<tr>
<td>Species at Risk</td>
<td>Impact on SARP’s and endangered species</td>
<td>No species at risk within study corridor. No negative impacts</td>
<td>No species at risk within study corridor. No negative impacts</td>
<td>No species at risk within study corridor. No negative impacts</td>
<td>No species at risk within study corridor. No negative impacts</td>
</tr>
<tr>
<td>Vegetation Impacts</td>
<td>Impacts to vegetation communities on adjacent properties (i.e. trees, shrubs, plants, etc.)</td>
<td>No federal or provincially rare species or vegetation communities were identified within the development footprint</td>
<td>No federal or provincially rare species or vegetation communities were identified within the development footprint</td>
<td>No federal or provincially rare species or vegetation communities were identified within the development footprint</td>
<td>No federal or provincially rare species or vegetation communities were identified within the development footprint</td>
</tr>
<tr>
<td>Land Use</td>
<td>Impact of proposed works on surrounding land use (i.e. are improvements consistent with surrounding land-use)</td>
<td>Improvements consistent with existing land use. No negative impacts</td>
<td>Improvements consistent with existing land use. No negative impacts</td>
<td>Improvements consistent with existing land use. No negative impacts</td>
<td>Improvements consistent with existing land use. No negative impacts</td>
</tr>
<tr>
<td><strong>Cultural Heritage</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Archaeological &amp; Heritage Impacts</td>
<td>Limited areas identified as retaining archaeological potential – Stage II assessment required. Second least impact to areas identified as retaining archaeological potential</td>
<td>Limited areas identified as retaining archaeological potential – Stage II assessment required. Greatest impact to areas identified as retaining archaeological potential</td>
<td>Limited areas identified as retaining archaeological potential – Stage II assessment required. Second greatest impact to areas identified as retaining archaeological potential</td>
<td>Limited areas identified as retaining archaeological potential – Stage II assessment required. Least impact to areas identified as retaining archaeological potential</td>
<td></td>
</tr>
<tr>
<td><strong>Economic Environment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction Costs</td>
<td>Costs to construct individual alternatives</td>
<td>Greatest cost to construct. $4,156/m x 1,240m = $5,192,000 (sidewalk on both sides)</td>
<td>Second greatest cost to construct. $3,974/m x 1,240m = $4,928,000 (Industrial land)</td>
<td>Least cost to construct – similar to Alternative D $3,467/m x 1,240m = $4,301,431 (Industrial land)</td>
<td>Least cost to construct – similar to Alternative C $3,467/m x 1,240m = $4,301,431 (Industrial land)</td>
</tr>
<tr>
<td>Maintenance Costs</td>
<td>Future maintenance requirements</td>
<td>Greatest cost to maintain</td>
<td>Second greatest cost to maintain</td>
<td>Second least cost to maintain</td>
<td>Least cost to maintain</td>
</tr>
<tr>
<td>Land Acquisition Costs</td>
<td>Total land acquisition costs (Does not include City-owned railway corridor requirements)</td>
<td>Second greatest land acquisition costs 5,192 m² x $215/m² = $1,116,000 (Industrial land)</td>
<td>Greatest land acquisition costs 6,163 m² x $215/m² = $1,325,000 (Industrial land)</td>
<td>Second least land acquisition costs 3,694 m² x $215/m² = $792,000 (Industrial land)</td>
<td>Least land acquisition costs 284 m² x $215/m² = $61,000 (Industrial land)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Impact Type</th>
<th>Greatest</th>
<th>Negative</th>
<th>Least</th>
<th>Neutral</th>
<th>Least</th>
<th>Positive</th>
<th>Greatest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aesthetics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Noise Impacts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction Impacts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fish Habitat/Aquatic Impacts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wildlife/Terrestrial Impacts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Species at Risk</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vegetation Impacts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Land Use</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Archaeological &amp; Heritage Impacts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction Costs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maintenance Costs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Land Acquisition Costs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Next Steps to Complete the Study

To COMPLETE the study, the team will:

- Review & address public, agency & stakeholder comments
- Identify a preferred design solution considering the initial assessment & any comments received (the preferred design solution may be a combination of the design alternatives proposed)
- Prepare a final Class EA report for City Council review & endorsement
- Place the final Class EA report on Public Record for 30-day review period (Notice of Study Completion to be posted)
- Proceed to design & implementation

Important

- If concerns are raised which cannot be resolved in discussions with the City through the public consultation process, the Ministry of the Environment & Climate Change (MOECC) may be requested (subsequent to the filing of the Notice of Completion) to make an order for the project to comply with Part II of the Environmental Assessment Act (referred to as a Part II Order), which addresses individual environmental assessments
Your Input is Important to Us

**BEFORE** you leave:

- Have all your questions been answered?
- Have you signed the project registry to be informed?
- Have you completed a comment sheet?
- Do you wish to stay informed? Please indicate so on the project sign-in sheet and/or check the appropriate box on your comment sheet.

**Who to CONTACT for further information:**

Lloyd Spooner, C.E.T.
Senior Water Technologist
City of Barrie
70 Collier Street, Box 400
Barrie, ON  L4M 4T5
(705) 739-4220 x4991
Lloyd.Spooner@barrie.ca

**Public Comments**

- Comments regarding this project are being collected to assist the project team in meeting the Class EA requirements.
- Comments will be maintained for reference during the study and, with the exception of personal information, may be used in the Class EA report which will become public information.

**Access to Information**

- The City continues to enhance accessibility that is inclusive of all ages & abilities.
- Please let us know if you have any special needs.