

---

**TO:** GENERAL COMMITTEE

**SUBJECT:** TRANSPORTATION IMPROVEMENTS CLASS EA - BRYNE DRIVE / HARVIE ROAD / ESSA ROAD

**WARD:** 6 AND 7

**PREPARED BY AND KEY CONTACT:** A. ALMUINA, P. ENG.  
PROJECT COORDINATOR (Ext. 4458)

**SUBMITTED BY:** R. SUTTON, P. ENG.  
DIRECTOR OF ENGINEERING

**GENERAL MANAGER APPROVAL:** R. J. FORWARD, MBA, M.Sc., P. Eng.  
GENERAL MANAGER OF INFRASTRUCTURE AND GROWTH MANAGEMENT

**CHIEF ADMINISTRATIVE OFFICER APPROVAL:** M. PROWSE  
CHIEF ADMINISTRATIVE OFFICER

---

#### **RECOMMENDED MOTION**

1. That the preferred design alternatives for Bryne Drive (Essa Road to Caplan Avenue), Harvie Road (Essa Road to future Bryne Drive) and Essa Road (Coughlin Road to Mapleview Drive) be adopted as outlined in Staff Report ENG013-17.
2. That in accordance with the requirements of the Class Environmental Assessment process, the Engineering Department publish a Notice of Completion for the Class Environmental Assessment Phases 3 and 4 Environmental Study Report.
3. That based on the successful conclusion of this Class Environmental Assessment process and available budgets being approved through the capital planning process:
  - a) The Engineering Department proceed with implementation of the preferred design alternative for transportation improvements on Bryne Drive (Essa Road to Caplan Avenue), Harvie Road (Essa Road to future Bryne Dr) and Essa Road (Coughlin Road to Mapleview Drive);
  - b) The Director of Legal Services be authorized to commence negotiations for the acquisition of all required property interests subject to the property acquisition budget being approved;
  - c) The Director of Legal Services be delegated the authority to settle any negotiated agreements up to the maximum amount budgeted for property acquisition; and
  - d) The City Clerk be authorized to execute all associated and required documents in a form approved by the Director of Legal Services.

#### **PURPOSE & BACKGROUND**

4. To support the Harvie Road / Big Bay Point Road Highway 400 crossing presently under design and planned for completion in 2020, the City has undertaken studies under the Class EA process for improvements to:
  - a) Bryne Drive (Caplan Avenue to Essa Road)
  - b) Harvie Road (Essa Road to the Future Bryne Drive)
  - c) Essa Road (Coughlin Road to Mapleview Drive)

5. Phases 1 and 2 of the Bryne Drive Class EA between Caplan Avenue and Essa Road was updated (addendum carried out in 2015-2016) and accepted by Council in the Spring of 2016. This Class EA established the proposed alignment for Bryne Drive in relation to the proposed Harvie/Big Bay Point Road Highway 400 crossing.
6. Bryne Drive is identified as a major collector that will be completed in phases based on development demands. The completion of Bryne Drive will serve as a critical north/south link connecting Mapleview Drive and Essa Road.
7. The Bryne Drive Phase 1 & 2 Class EA Update recommended Bryne Drive contain 4 lanes plus a median or two-way-left-turn-lane (TWLTL), along with buffered bike lanes and sidewalk on both sides of the roadway.
8. Harvie Road is an existing two-lane arterial with a rural cross-section with a small section of sidewalk abutting a recently completed residential development. The Multi-Modal Active Transportation Master Plan (MMATMP), completed in January 2014, recommended Harvie Road be improved to 2 lanes, plus a TWLTL, with buffered bike lanes and sidewalk on both sides, between Essa Road and Veteran's drive. It also recommended Harvie Road be improved to 4 lanes, plus a median or TWLTL, along with buffered bike lanes and sidewalk on both sides between Veteran's Drive and the future Bryne Drive.
9. Essa Road is an existing two-lane arterial with a rural cross-section and no sidewalks. The MMATMP recommended Essa Road be improved to 2 lanes plus a TWLTL with buffered bike lanes and sidewalks on both sides, between Coughlin Road to Mapleview Drive.
10. Phases 3 & 4 of the Class EA process developed alternative design concepts for the preferred alternative identified in the MMATMP and the Bryne Drive Phase 1 & 2 Class EA Update and documented the process and methodology employed throughout the study to prepare the Environmental Study Report (ESR).

## **ANALYSIS**

11. Due to the length of these corridors, roll plans with the alternative alignments for Bryne Drive, Harvie Road and Essa Road have been provided at the Councillor's lounge for Council's review.
12. The Bryne Drive alternative alignments north of Harvie Road represent the extreme alignments possible – western, central and eastern alignments. Due to environmental and social impacts, there was only one feasible alignment for Bryne Drive between Harvie Road and Caplan Avenue.
13. The Harvie Road alternative alignments represent widening to the north, about the centreline and to the south of the existing roadway.
14. The Essa Road alternative alignments represent widening to the west, about the centreline and to the east of the existing roadway.
15. A Public Information Centre (PIC) was held on Thursday, June 22, 2017, at the Holly Community Centre from 4:00 p.m. to 7:00 p.m. to allow the public to review and provide comments/concerns on the proposed alternative design concepts and to present the study team's evaluation of the alternatives and recommended preferred alternatives for each corridor. Twenty (20) people attended the PIC.
16. There were Display Boards that contained information about the project and the Class EA process. The display boards were set up on easels in a semi-circle layout around the room. There were also two boards from the Harvie-Big Bay Point Crossing Over Highway 400 project showing the Study Area and the key components of the future structure. Roll Plans showing the alternative alignments being considered for each of the Study Area corridors were presented on two walls to encourage discussion.
17. Comments received throughout the Class EA process, along with the Engineering Department's responses to the comments, are summarized in the ESR which is available in the Councillors' Lounge for

review and on the City of Barrie website at [www.barrie.ca/eastudies](http://www.barrie.ca/eastudies). Attendees were most interested in the following:

- Timing of construction
- Timing of property acquisition
- Concern about heavy truck traffic during construction (nuisances).

18. Below is a summary of the comments received both during and two weeks following the PIC:

- Concerned about truck traffic and safety of families dropping off and picking up children from day care at the southeast quadrant of the intersection of Harvie Road and Thrushwood Drive. Harvie Road is in terrible condition – many potholes; concerned about heavy truck traffic during construction
- For Essa Road – a multi-use path does not seem to be the best approach for commuting – it works fine for recreation, however commuting requires predictable travel times and multi-use trails result in delays, including when connecting to downtown which is frustrating. Buffered bike lanes are much preferable – there is a good bike lane on Veterans Drive, but cyclists are left hanging at Essa Road
- Questions as to why the Harvie Road overpass has taken so long and support to have access ramps to Hwy 400 in the near future. Prefer middle alignment for Bryne Drive. Access road on west side of Hwy 400 going south from Essa could travel behind commercial buildings and become a service road parallel to Hwy 400 and/or a southbound ramp to Hwy 400 from Essa Rd
- Essa Road should be at least 5 lanes to Maplevue (Coughlin southerly)

19. Through evaluation of impacts to the physical, natural, social, economic and cultural environments as well as comments and responses received from the PIC, the following alternatives were selected as the preferred design alternative:

- a) Harvie Road from Essa Road to Veteran's Drive (generally widening about the centreline)
  - 2 lanes + Two-Way-Left-Turn (TWLTL) in a 27m Right-Of-Way (ROW) with Buffered bike lanes and Sidewalks on both sides plus intersection improvements
- b) Harvie Road from Veteran's Drive to Bryne Drive (generally widening about the centreline)
  - 4 lanes + TWLTL in a 34m ROW with Buffered bike lanes and sidewalks on both sides plus intersection improvements
- c) Bryne Drive from Essa Road to Caplan Avenue (Central alignment)
  - 4 lanes + TWLTL in a 34m ROW with Buffered bike lanes and Sidewalks on both sides plus intersection improvements
- d) Essa Road from Coughlin Road to Maplevue Drive West (generally widening about the centreline)
  - 4 lanes + TWLTL in a 34m ROW with a Multi-use trail on the west side and a sidewalk on the east side plus intersection improvements

20. The MMATMP recommended a 3-lane cross-section for Essa Road between Coughlin Road and Maplevue Drive West by 2031 with the potential for a 5-lane cross-section past 2031. The analysis undertaken in this study, considering new development information revealed the need to widen Essa Road to 4 lanes at this time to provide an appropriate level of service.

21. Appendix A presents the cross-section of the maximum recommended roadway improvements.

## **ENVIRONMENTAL MATTERS**

22. This project has followed the guidelines for a Municipal Class EA, and physical, natural, social, cultural /heritage and economic environmental matters have been considered in the development of the recommendations. The ESR discusses how environmental matters have been considered in the development of the recommended preferred design alternative. The evaluation process considered criteria for natural, social, cultural/heritage and economic environmental matters and physical environment criteria such as traffic, pedestrians, cyclists, transit, property, noise, utilities, municipal services and driveway grades/operations.

## **ALTERNATIVES**

23. The following alternative is available for consideration by General Committee:

**Alternative #1** General Committee could alter the proposed recommendation by selecting another design alternative for one or all of the corridors.

This alternative is not recommended because the preferred design alternative provides for transportation improvements which minimize the effects to the physical, natural, social, cultural /heritage and economic (financial) environments.

## **FINANCIAL**

24. The 2017-2026 Capital Plan has allocated funding for these projects.

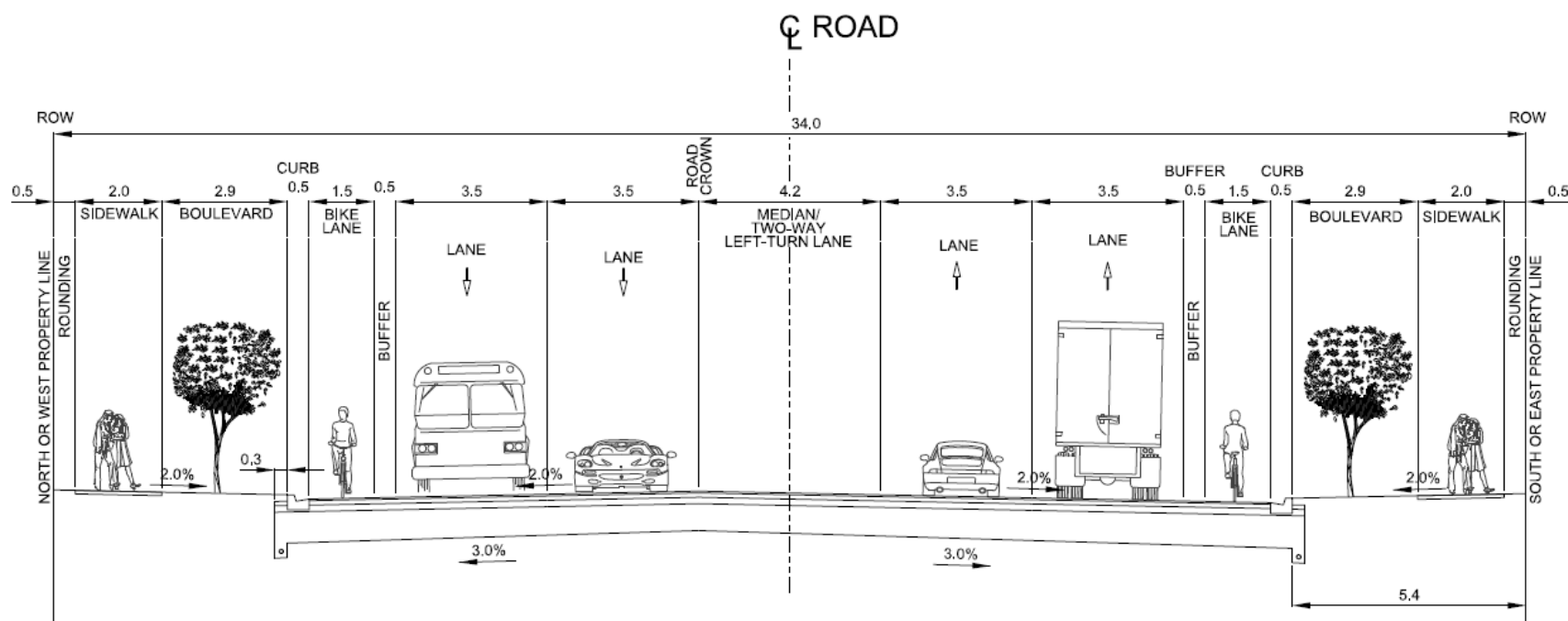
## **LINKAGE TO 2014 – 2018 COUNCIL STRATEGIC PLAN**

25. The recommendation(s) included in this Staff Report support the following goals identified in the 2014-2018 Strategic Plan:
- ☒ Responsible Spending
  - ☒ Well Planned Transportation
26. The recommendations support the Harvie Road / Big Bay Point Road Highway 400 crossing study by providing a more complete area road way network.
27. The preferred design alternatives will improve traffic flow in south Barrie and provide an alternative to Mapleview Drive for motorists, cyclists and improve pedestrian safety.

## APPENDIX "A"

### Recommended Roadway Cross-sections

#### Bryne Drive

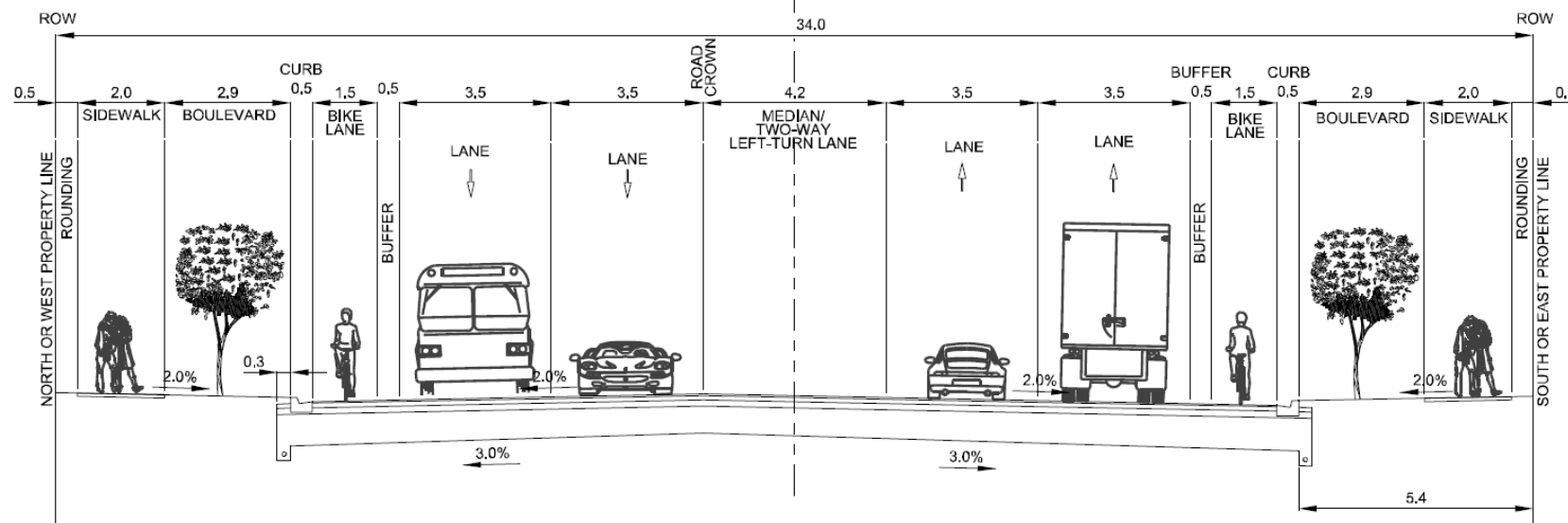


5 LANES WITH BUFFERED BIKE LANES  
22.2m ASPHALT  
34.0m ROAD ALLOWANCE

## Harvie Road

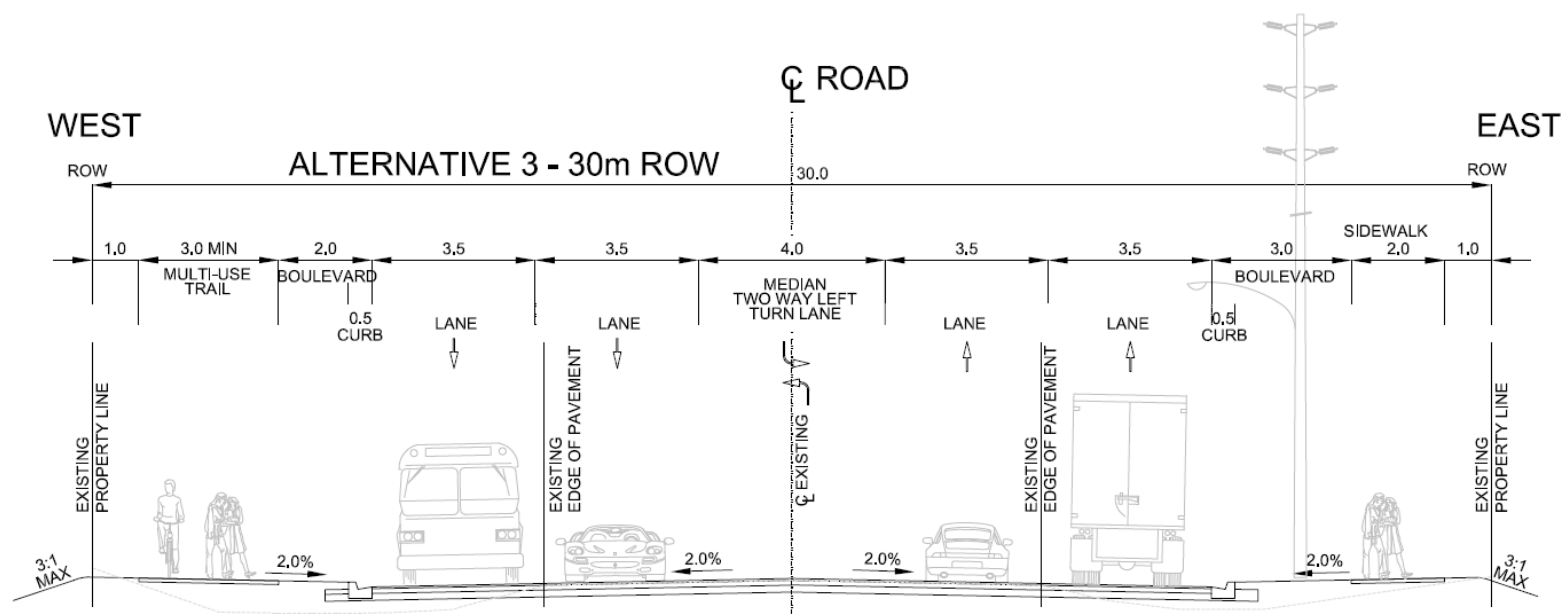
### HARVIE ROAD - TYPICAL ROAD SECTION

CL ROAD



5 LANES WITH BUFFERED BIKE LANES  
22.2m ASPHALT  
34.0m ROAD ALLOWANCE

## Essa Road



TYPICAL CROSS SECTION  
5 LANES WITH TWO WAY LEFT TURN LANE MEDIAN  
(ALTERNATIVE 3 - WIDEN ALONG THE CENTRE)