

REPORT

Special Council

Meeting Date: July 6, 2021

FROM: Transportation and Engineering Department

DATE: June 22, 2021

SUBJECT: Lakeshore Road West Class Environmental Assessment Update

LOCATION: Lakeshore Road West (Mississaga Street to Dorval Drive)

WARD: Multiple Wards: 1 and 2 Page 1

RECOMMENDATION:

1. That the Lakeshore Road West Class Environmental Assessment Update (EA), as presented in the staff report dated June 22, 2021, from the Transportation and Engineering Department be received.
2. That staff be directed to conclude the Lakeshore Road West Environmental Study.
3. That the Preferred Solution concept proposed in the EA be approved and proceed to detailed design, and that further mitigation to tree impacts be explored.
4. That staff be directed to prepare a separate EA for McCraney Bridge Improvements and file on the public record for a 30 day review period.
5. That staff be directed to consider inclusion of the recommended works in the capital forecast.

KEY FACTS:

The following are key points for consideration with respect to this report:

- The purpose of the Lakeshore Road West Class Environmental Assessment (EA) study was to identify improvements to the 6.3 km section of Lakeshore Road West between Mississaga Street and Dorval Drive.
- Extensive public consultation and stakeholder engagement was conducted since 2017.
- In February 2020, the Scenic Corridor Study was completed. The EA study re-evaluated the alternative design concepts and the Preferred Solution maintained the characteristics identified in the study.

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- The Preferred Solution included McCraney Bridge replacement, intersection and stormwater improvements, and safe infrastructure for cyclists and pedestrians on both sides of the road which provides a multitude of choices for residents to access the corridor and its destinations.
 - Due to the removal of the continuous centre left turn lane from the study, the Class Environmental Assessment process is no longer required without a road widening, with the exception for the replacement of the McCraney Creek Bridge. Therefore, staff recommends that a separate EA be prepared for McCraney Bridge Improvements and filed on the public record for a 30 day review period.
 - The intersection improvements proposed improve overall traffic safety and meet AODA requirements.
 - The stormwater improvements are consistent with the Town's Stormwater Master Plan and Coronation Park Drainage Study (EA) recommendations to increase the flood protection for the area. The improvements provide a balanced approach to improve the minor and major system stormwater network by incorporating green solutions as well as conveyance infrastructure.
 - The Active Transportation improvements propose on-road bike lanes throughout the corridor, and continuous sidewalks on both sides for Block 1 and 4; and continuous sidewalk on the north side with a multi-use trail on the south side for Blocks 2 and 3. The recommendations will allow a variety of users to safely enjoy the corridor, support the need to promote modal shift away from using cars to reach the key destinations, and provide connections to the broader active transportation network.
 - The Preferred Solution significantly mitigated the property requirements (decrease of 93%) and increase to impervious area (decrease of 77%), and tree impacts (from over 300 trees to 123 trees) compared to the 2017 study.
 - Staff completed a tree assessment study to further address the concerns related to the impact to trees with the implementation of the AT infrastructure. Based on an actual tree count, the number of trees impacted in the Preferred Solution is now 101 compared to 123 noted in the EA. Of the 101 trees, a total of 71 trees are planned for removal, 60 due to the Preferred Solution, while 11 due to poor health, and 30 trees can be saved. This is a reduction of over 71% in tree impact compared to the original 2017 design.
 - It is important to provide continuous AT infrastructure along the corridor. The provision of a MUT in Blocks 2 and 3 on the south side of Lakeshore Road W. compared to a sidewalk, is a difference of 27 trees impacted. In the detailed design stage, further mitigation is expected to minimize the removal of trees.
 - Staff recommends that the road cross section concept proposed be approved to allow staff to proceed to detailed design, and that further mitigation to tree impacts be explored through detailed design.

BACKGROUND:

The town's Livable Oakville Plan and Active Transportation Master Plan both identified the need for improvements along Lakeshore Road West between Mississaga Street and Dorval Drive to meet the town's vision and anticipated growth needs to 2031. Both plans provided direction for road improvements, modal shift, and achieving greater connectivity for all transportation modes throughout Oakville.

In Fall 2016, the town initiated the Lakeshore West Class Environmental Assessment to assess current and future traffic needs and improve vehicle, cyclist, and pedestrian movement and safety. In May 2018, the draft Environmental Study Report (ESR) was presented and the Community Services Committee directed staff to further consult with the community. Due to concerns raised at a July 2018 Public Meeting, the town's Planning and Development (P&D) Council provided the following direction to the Study Team on August 7, 2018:

"That staff be directed to complete additional consultation on the Lakeshore Road West Improvements (Mississaga Street to Dorval Drive) Class Environmental Assessment and report back to Council in early 2019, with recommendations that include at least one option reflecting no continuous centre turn lane, no loss of trees and no expropriation of property while maintaining cycle lanes and reflecting sidewalks/multi-use paths on at least one side and minimizing impervious surfaces."

In August, 2019, at the Planning and Development (P&D) Council resolved,

- *That staff be directed to undertake a Scenic Corridor Study for Lakeshore Road West, Lakeshore Road East and Trafalgar Road (south of Cornwall Road); and*
- *That staff be directed to further amend the Lakeshore Road West Class Environmental Assessment scope and work plan to incorporate findings of the Scenic Corridor Study for Lakeshore Road West.*

The purpose of the Scenic Corridor Study is to provide information with respect to the scenic elements of the road corridor, such that it can be considered and balanced against competing priorities identified through the EA process, such as storm water management, active transportation, traffic safety, etc.

The Scenic Corridor Study was completed in February 2020. The EA study team re-evaluated the alternative design concepts developed for the Lakeshore Road study area against the themes identified in the Scenic Corridor Study. Details of how the EA preferred solution considered the themes identified in the Scenic Corridor Study are shown in Appendix A.

Purpose of This Report

The purpose of the report is to:

- Seek Council approval to conclude the Lakeshore Road West Environmental Study Report (ESR), and to detail the recommended Preferred Solution from the ESR.
- Obtain Council approval on the concept proposed in the ESR and allow staff to proceed to detailed design.
- Obtain Council approval to prepare a separate EA for McCraney Bridge Improvements and file on the public record for a 30 day review period.

COMMENT/OPTIONS:

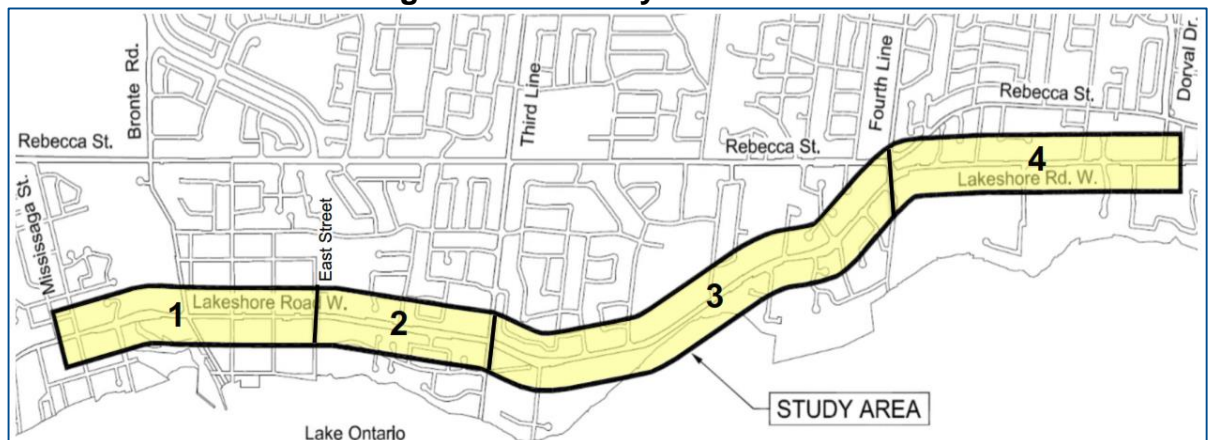
A. Study Area and Purpose of EA

The purpose of this study is to identify improvements to the 6.3 km section of Lakeshore Road West between Mississaga Street and Dorval Drive including addressing the following issues:

- Pedestrian and cyclist safety and accessibility
- Traffic safety
- Pavement conditions
- Drainage and storm water management
- Intersection safety and operations
- Roadway design to meet current standards
- Creek crossings and structures

Figure 1 shows the EA study limits and a description of the study area is included in shown in Appendix B.

Figure 1: EA Study Limits



B. EA Process and Public Consultation Process

In the fall of 2016, the town initiated a Class Environmental Assessment (Lakeshore Road Class EA) study to assess current and future transportation needs, road conditions and drainage conditions along Lakeshore Road West (see Appendix J for Class Environmental Assessment Process). As part of the initial transportation review, a continuous centre left turn lane was recommended to improve safety for left-turning vehicles given the high driveway density along the study corridor, particularly between East Street and Dorval Drive.

However, based on input received from stakeholders, the justification of the centre turn lane was reassessed in 2018. The results indicated that the traffic volumes entering and exiting driveways along corridor did not compromise the capacity of the corridor and the continuous centre left turn lane was removed from design proposals going forward.

With the removal of the continuous centre left turn lane, a road widening was no longer required. As a result, the Class Environmental Assessment process was no longer a requirement, with the exception of meeting the process requirements for the replacement of the McCraney Creek Bridge. Nevertheless, the town continued with the Class Environmental Assessment process since it provided a forum for extensive public consultation regarding all of the improvements discussed in this report.

The extensive public consultation and stakeholder engagement conducted throughout the EA culminated in an online stakeholder meeting held on March 16, 2021, and an online Public Information Centre (PIC) between April 6 to April 20, 2021, and meetings with *Coronation Park Resident Association* (CPRA), *Oakvillegreen Conservation Association* in May 2021. Further, the study team has made efforts to respond to emails and phone calls from individual property owners and residents.

More than 190 comments were received from the public in response to the April 2021 online PIC. Appendix C provides details of the 2021 public consultation process, summary of comments, and individual comments.

Public responses were split between support for the Preferred Solution and opposition to the Preferred Solution primarily based on concerns regarding tree removal due to the proposed new active transportation infrastructure.

Details regarding the previous public, stakeholder, agency and Indigenous consultation activities can be found in Appendices A through D of the Environmental Study Report (available on the town's website at:

<https://www.oakville.ca/residents/lakeshore-road-west-improvements-class-ea.html>).

C. EA Recommendation: Preferred Solution

Based on a comprehensive assessment of the Lakeshore Road West study area, the EA recommends a Preferred Solution that includes improvements to active transportation facilities, roadway geometrics and pavement conditions, stormwater infrastructure, and the replacement of the McCraney Creek Bridge. The completed ESR Executive Summary is shown in Appendix D. A copy of the final Draft ESR is available on the town's website: <https://www.oakville.ca/residents/lakeshore-road-west-improvements-class-ea.html>

The estimated capital cost of the Preferred Solution is approximately \$43,434,000 exclusive of land and utility relocation costs. The construction of Lakeshore Road West is recommended in four phases as shown in Appendix E.

The key component of the preferred solutions are summarized below:

General Road Cross Section - The recommended cross-section includes one vehicle lane in each direction, on-road bike lanes, turning lanes at some intersections and AT infrastructures on both side of the road. The centre turn lane has been removed through Block 2, 3, and 4 as per Council direction. No concerns were raised through the public consultation process regarding the removal of the centre turn lane through Block 2, 3, and 4.

McCraney Creek Bridge - The McCraney Creek Bridge requires replacement due to poor condition and flooding potential, and this is noted as a priority implementation. The new structure will accommodate 2 lanes of traffic, on-road bike lanes, and sidewalks on both sides of the roadway. Pedestrian protection will also be provided by incorporating a pedestrian separation barrier wall or railing. Bridge replacements require the completion of a Class EA prior to proceeding to design and construction. Therefore, staff recommends that a separate EA be prepared utilizing information from this study for McCraney Bridge improvements only and filed on the public record for a 30 day review period. No concerns were raised through the public consultation process regarding the proposed bridge design.

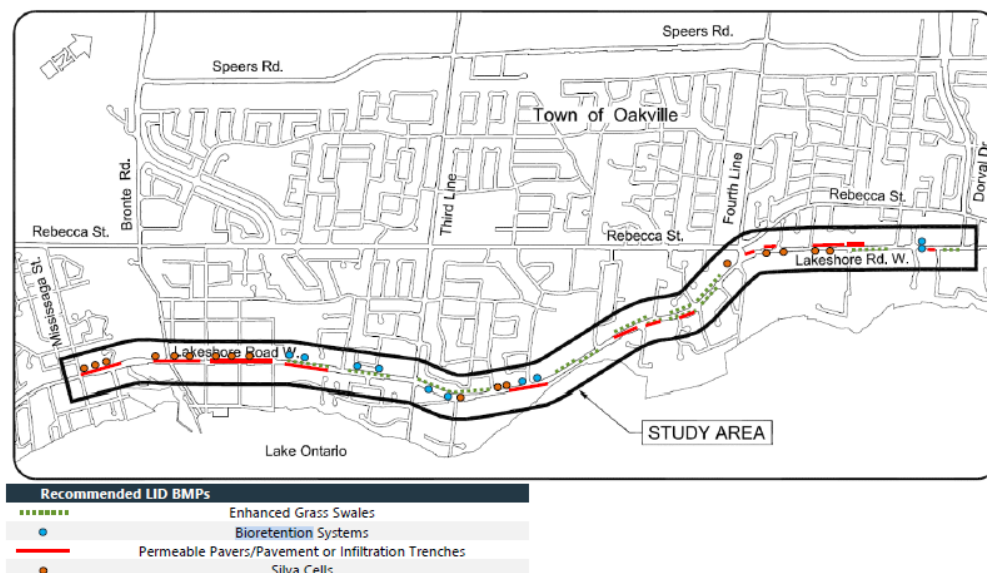
Intersection Improvements - A number of intersection improvements are recommended at Lakeshore/Bronte to improve alignment, visibility, turning movements, and implement AODA requirement. All alternatives included intersection improvements, except the do nothing alternative. The Preferred Solution recommends intersection improvements to ensure safety of the pedestrians, cyclists and vehicular traffic along the study corridor. No concerns were raised through the public consultation process regarding various aspects of the intersection improvements.

Stormwater Improvements - Currently the storm network system consists of limited roadside ditches, ditches through private property, storm pipes underneath the road and overland flow routes for larger storm events. The existing stormwater conveyance network does not consistently meet the current municipal level of service (5 year storm event) and most of the existing storm sewer system surcharges beyond the pipe capacity. The improvements to stormwater system are required to provide protection to the community for the larger storm events, improve water quality treatment and protection of creeks from increased erosion. Without making these improvements, the drainage area surrounding Lakeshore Road West will continue to be at risk of flooding during large rainfall events and the opportunity to improve water quality to Lake Ontario will be lost.

Consistent with the Town's Stormwater Master Plan and Coronation Park Drainage Study (EA) recommendations, improvements are required to ensure that major system (100 year flows) and overland flows are conveyed through the municipal system (pipe network / via roadway) to safe storm outlets. This will also increase the protection to private property and reduce the risk of basement flooding. The recommendation include enhancing the existing system that include:

- Enhanced Ditches
- Larger stormwater pipes
- LIDs (low impact development)
- Curb and gutter (urbanized road cross section)

Figure 2: Low Impact Development Best Management Practices Recommendations



The recommended stormwater improvements provide a balanced approach to improve the minor and major system stormwater network incorporating green

solutions such as enhanced swales and Low Impact Development (LID) measures as well as conveyance infrastructure such as storm pipes and curbs to direct overland flow routes. A Stormwater Management Report was prepared as part of the Class EA process. Appendix F summarizes the various stormwater improvements, the concerns raised by the public and the staff responses.

Active Transportation (AT) Infrastructure Improvements - The recommended cross-section includes on-road bike lanes and AT infrastructures on both sides of the road. The transportation analysis completed as part of the EA is based on a 20% transit mode split, with an additional 6% of trips by active transportation. To support this modal shift, a variety of types of active transportation infrastructure is required along the Lakeshore Road West corridor, with connections to the broader active transportation network.

One of the key concerns raised through the public consultation process was Active Transportation (AT) infrastructure and its impact to trees. The viable alternatives that were evaluated, all of which include on-road bike lanes, are shown below:

Alternative Design A: No Impact	Alternative Design A1: Minimal Impact Alternative	Alternative Design B: Hybrid
On Road bike lanes	On Road bike lanes	On Road bike lanes
Existing sidewalk to remain, but no additional sidewalk or multi-use path proposed.	Existing sidewalk to remain, and new sidewalk provided where gaps exists	Fill in sidewalk gaps on the north side, new multi-use trail on the south side
N - Discontinuous Sidewalk S - Continuous Sidewalk	N – Continuous Sidewalk S - Continuous Sidewalk	N – Continuous Sidewalk S - Continuous MUT

The Preferred Solution recommended the minimal impact alternative with continuous sidewalk on both sides for Block 1 and 4, while the Hybrid alternative was selected for Block 2 and 3 with continuous sidewalk on the north side and a continuous Multi-use Trail (MUT) at 3m width for the south side.

Below are the key considerations in selecting the preferred solution:

- **Provide overall mobility through Active Transportation (AT) infrastructure:**
The implementation of AT infrastructure as part of the Lakeshore West EA is pivotal in providing alternative mode choices as the Town grows and activity increases along the Lakeshore corridor. Also, Lakeshore Road is the highest used corridor for cycling and pedestrian use in all of Oakville, and the town has targets and goals to increase the amount of users who cycle and walk. Providing varying levels of safe AT infrastructure for different demographics from avid cyclists to families with kids is important to reduce the number of cars being driven to lakefront destinations.
- **Providing different users different ways to safely experience the corridor:**
The MUT in Blocks 2 and 3 was selected based on feedback received from area residents identifying the importance of providing a safe space for families,

commuter cyclists and recreational cyclists to travel by foot or by bike. On-road bike lanes with a buffer provide separation between cars and bicycles compared to the existing road conditions for cyclists. Further, the curb and gutter design separates the sidewalk/MUT from the traffic lanes in sections where sidewalks directly abuts the road, to provide critical safety to people with physical disabilities such as wheelchair users and those who require directional information due to vision impairment. The Preferred Solution provides overall safety enhancement for all users.

- **Consistent with Scenic Corridors Study:** The MUT in Blocks 2 and 3 will provide continuity of and variety in travel modes.
- **Providing ready access to destinations:** such as Lake Ontario, Coronation Park, the Seniors Centre, and other adjacent destinations and parks, as well as connectivity to the Great Lakes Waterfront Trail and its offshoots. Locating the multi-use trail on the north side of Lakeshore Road would increase the frequency of crossings for cyclists and other multi-use trail users.
- **Minimize significant impact to trees:** For Block 4, the minimal impact alternative was selected in order to minimize tree removals. The number of potentially impacted trees in Block 4 with Alternative Design B (Hybrid) is 122, including 45 trees greater than 20 cm diameter at breast height (dbh). With Alternative Design A1 (Minimal Impact), only 17 trees are impacted, a reduction of 105 impacted trees overall in that block and a reduction of impacts to 36 trees greater than 20cm dbh. Although provision of a multi-use trail within this block was also considered important by the area residents, the significant impact to the trees, and maintaining the scenic character of this segment of the corridor outweighs the benefits provided by the MUT.

In conclusion, a balanced approach was taken in the selection of the preferred solution with respect to AT infrastructure, with on-road bike lanes provided throughout the corridor while the MUT is only provided in Blocks 2 and 3 to minimize the impact to trees.

D. Mitigated Impacts per 2018 Council Direction

The following table summarizes the Preferred Solution and its impacts to property, trees and impervious area.

Table 1 – Preferred Solution Impacts

Block	Property Required	Trees Impacted	Impervious Area Increase
1 (Mississauga St. to East St.)	2,657 m ²	27	1,776 m ²
2 (East St. to Third Line)	166 m ²	37	2,246 m ²
3 (Third Line to Fourth Line)	163 m ²	42	1,697 m ²
4 (Fourth Line to Dorval)	20 m ²	17	1,681 m ²

Property impact has been mitigated by 93% in Blocks 2, 3, 4 from 5,175m² to 349m² when compared to the 2017 design by reduction of the centre turn lane. The need for some property acquisition has been identified. The proposed property takings are primarily narrow frontage strips between Mississauga Street and East Street, to provide dedicated turning lanes at intersections, sidewalks and bike lanes as well as lay-by parking in Bronte Village BIA.

The increase in impervious area has been reduced by 77% in Blocks 2, 3, and 4 from 25,000 m² to 5,600 m² when compared to the 2017 design due to the removal of the centre turn lane. The 7,400 m² of new impervious area in the Preferred Solution (Blocks 1 to 4) is primarily attributed to the new multi-use path and new sections of sidewalk.

Appendix G shows the evaluation of the AT alternatives and the tree impacts for each block. The Preferred Solution results in approximately removal of 123 trees per the ESR, this is a decrease from over 300 trees impacts when compared to the 2017 design.

E. Additional Tree Impact Evaluated

The study team retained Kuntz Forestry Consulting Inc. in May 2021 to conduct a field assessment and prepare a Tree Inventory and Preservation Plan for the trees identified in the Preferred Solution (See Appendix H). A more detailed Arborist Report will be completed during the detailed design stage.

Based on the actual field counts, the total number of trees impacted is revised to 101¹ as shown in the Table 2 below, not 123 (27+37+42+17) per the EA.

¹ The trees are numbered 1 to 104, skipping three trees not found on ground (52, 74 and 93)

Table 2 – May 2021 Arborist Tree Assessment Summary

Block	Require Removal due to Poor Health	Require Removal due to Design	Fair Condition (can be protected)	Total
1	0	7	18	25
2	9	13	5	27
3	1	29	7	37
4	1	11	0	12
Total	11	60	30	101

Of the total of 101 trees (63>20 dbh, and 38<20 dbh), 71 trees (48>20 dbh, and 23<20 dbh) are recommended for removal, including eleven (11) trees in need of removal notwithstanding the Lakeshore Road improvements, due to poor health. 30 trees (15>20 dbh, and 15<20 dbh) can be saved, provided appropriate tree protection measures are installed prior to the commencement of work.

In summary, a total of 71 trees is planned for removal, 60 due to the Preferred Solution, while 11 due to poor health. This is a reduction of over 71% in tree impact compared to the original 2017 design.

During the detailed design stage, a further reduction of the 60 trees that are planned for removal due to the proposed concept is expected. The EA Preferred Solution will be reviewed and refined to minimize tree removals by adjusting the alignment of the sidewalk and multi-use trails to avoid trees and further reduce property requirements, where possible. The study team will develop a tree replacement plan to account for the loss of trees in poor health and those strategic removals required to support the AT infrastructure, using native species.

F. Evaluation of AT Infrastructure and Tree Impact

Recognizing that one of the key concerns from residents is related to the implementation of Active Transportation (AT) infrastructure and the associated tree impacts, Appendix I includes a comparison of options related to meeting the goals of the EA from an AT perspective.

Table 3 provides three options for AT infrastructure:

Table 3 – Active Transportation Infrastructure Options

	Do nothing (AT only)	Minimal Impact Alternative	Preferred Solution
Block 1	Sidewalk on both sides	Sidewalk on both sides	Sidewalk on both sides
Block 2	N - Discontinuous Sidewalk S - Continuous Sidewalk	N – Continuous Sidewalk S - Continuous Sidewalk	N – Continuous Sidewalk S - Continuous MUT
Block 3	N - Discontinuous Sidewalk S - Continuous Sidewalk	N – Continuous Sidewalk S - Continuous Sidewalk	N – Continuous Sidewalk S - Continuous MUT
Block 4	N - Discontinuous Sidewalk S - Continuous Sidewalk	Sidewalk on both sides	Sidewalk on both sides
Block 1-4	No on road bike lane	On road bike lanes	On road bike lanes

The “Do Nothing” for AT infrastructure option, although it has the least tree impact, does not provide a continuous facility (where gaps in the sidewalk currently exists) nor does it provide a safe facility for cyclists. This option also limits the opportunity for residents to enjoy the scenic corridor using the alternative modes.

The “Minimal Alternative” option provides on-road bike lane for experienced cyclists, while providing continuous sidewalks on both sides. This option would impacts 62 trees with estimated 44 removal and 18 can be saved. The tree removal decreases by 27 compared to the “Preferred Solution” (from 71 to 44), however the existing sidewalk at 2m does not meet the standard width of a MUT at 3m.

The Preferred Solution in the EA reflects a concept for the Lakeshore Road West corridor which can be further reviewed during detail design. The difference between the “Minimal Alternative” option (2 sided continuous sidewalk) and the Preferred Solution (1 side continuous sidewalk and 1 side continuous MUT) is an impact of 27 trees.

G. Summary and Next Steps

The Lakeshore Road West Class EA provides a balanced approach in its recommended alternative solution which:

- Increases stormwater protection for the area via both green and traditional conveyance infrastructure solutions.
- Provides safe infrastructure for cyclists and pedestrians with continuous on-road bike lanes, sidewalks, and AT infrastructure.
- Provides a multitude of choices for residents to access the corridor and its destinations.
- Significantly mitigates the property requirements, increase to impervious area, and tree impacts compared to the 2017 study.
- Enhances mobility and safety along the corridor with intersection improvements and separation of active transportation modes from car traffic.
- Details improvement requirements from an asset management perspective to ensure town asset are rehabilitated/replaced in an efficient manner.

- Maintains the characteristics identified in the Scenic Corridor Study.

In conclusion, staff recommends that:

- The concept proposed in the Lakeshore Road West ESR be approved and proceeds to detail design;
- a separate EA be prepared for McCraney Bridge Improvements and filed on the public record for a 30 day review period;
- the recommended projects be considered for inclusion in the 10 year capital forecast,
- and additional review of opportunities to reduce the tree impacts associated with the enhanced AT infrastructure be undertaken through the completion of detail design.

CONSIDERATIONS:

(A) PUBLIC

Public consultation is a key feature of a Class Environmental (EA) process and therefore was a principal component of the Lakeshore Road West EA study. Refer to Appendix C for details of the public consultation process.

(B) FINANCIAL

Subject to approval of this report and resolution of any Part II Order Requests, the recommendations of the Lakeshore Road West Class Environmental Assessment will be programmed in the annual capital budget and 10 year capital forecast.

(C) IMPACT ON OTHER DEPARTMENTS & USERS

The study team included staff from Transportation and Engineering, Planning, Roads and Works, Parks and Open Space, Economic Development and Corporate Strategy, Fire, Strategic Business Services, Strategic Initiatives and Communications, and Realty Services.

(D) CORPORATE STRATEGIC GOALS

This report addresses the corporate strategic goals to:

- Improve the town's multi-modal transportation network to support effective movement of people and goods, including promote safe travel on town roads, and supporting opportunities for multi-modal transportation including walking, cycling and transit
- Foster an environment that engages residents of all ages, abilities and background

(E) CLIMATE CHANGE/ACTION

The recommendations of the Lakeshore Road West Class Environmental Assessment provide additional active transportation infrastructure to support

shifts to more sustainable modes of transportation and reduce greenhouse gas emissions. Low Impact Development techniques for infiltration of Stormwater are proposed along the corridor. The recommended cross-section requires tree removal, as outlined in this report, and trees will be replaced in accordance with the town's by-laws, policies and procedures.

APPENDICES:

- A.** Comparison of how Scenic Corridor Study Principles are achieved by the EA Preferred Solution
- B.** Study Area Summary
- C.** Public Consultation – 2021
- D.** Executive Summary – Lakeshore Road EA Environmental Study Report
- E.** Preferred Solution Implementation Phasing
- F.** Preferred Solution – Stormwater Improvements
- G.** Preferred Solution – Cross Section
- H.** Preliminary Arborist Report – May 2021
- I.** Comparison of AT Infrastructure to Tree Impacts
- J.** Class EA Process

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