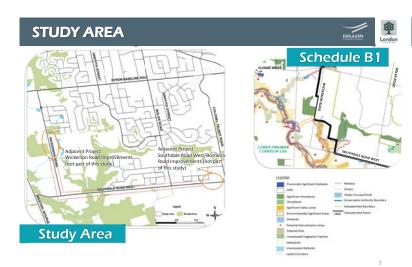
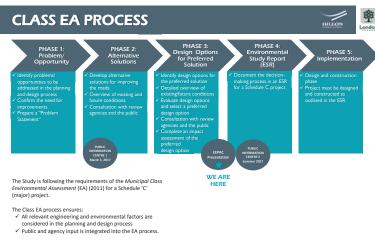




- OUTLINE alternatives considered and the technically preferred solution
- PRESENT summary of the Environmental Impact Study completed
- OUTLINE the next steps in the planning and design process
- DELIVER a copy of the EIS for EEPAC review and consideration.







ALTERNATIVE SOLUTIONS



Phase 2 of the Class EA process has been completed. The process involved the development of alternative solutions for improvements to the roads.

Two alternative solutions were developed:

- $\bullet \quad \underline{\textbf{Do Nothing}} \textbf{Southdale Road West and Wickerson Road would remain in the same condition with} \\$ no improvements
- <u>Improvements</u> to Southdale Road West and Wickerson Road to meet minimum design standards
 - Alternative 1 vertical and cross section reconstruction to meet design standards on the existing horizontal alignment
 - Alternative 2 horizontal realignment of Southdale Road West and Wickerson Road outside of the current footprint of the roadway. This alternative would also include vertical and cross section reconstruction to meet design standards.

Alternative 2 was dismissed due to the significant impacts outside of the existing road footprint.

EVALUATION OF ALTERNATIVES





PREFERRED SOLUTION





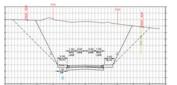
Evaluation Factors	"Do Nothing"		Alternative 1	
Road Design Standards	X	Does not meet design standards	✓	Meets design standards
Traffic Operations and Safety	X	Does not meet design standards	1	Meets design standards
Opportunities for Active Mobility	X	No opportunities	1	Opportunities available
Opportunities for new infrastructure installation (watermain, etc.)	X	No opportunities	✓	Opportunities available
Impacts on Natural Heritage	1	No impacts	X	Impacts
Impacts on Land Uses, Socio-Economic Environment and Cultural Heritage Resources	✓	No impacts	X	Impacts

Alternative 1 is recommended as the preferred solution because it:

- Meets City's minimum road design standards
- Improves safety and drainage
- · Provides opportunities for active mobility
- Accommodates other planned servicing improvements.

The Preferred Solution provides:

- · 2-Lane roadway designed to current standards
- Profile improvements to current design standards





EIS OVERVIEW

An Environmental Impact Study (EIS) was completed for the technically preferred solution. The EIS included:

- 2 years of Natural Environment Inventories (2016-2017).
- A Subject Land Status Report
- Summary of Impacts and Mitigation measures to be carried into detail design and/or construction.

Key objectives of the EIS were to:

- · Determine potential impacts on the existing natural heritage system
- Recommend areas for avoidance of impacts and/or mitigation to ensure protection of significant features and functions
- · Protect Species at Risk (SAR) and significant wildlife
- Develop a restoration plan, including opportunities for invasive species management, opportunities for wildlife connectivity and avoid net loss of wetland environments
- · Recommend changes to Schedule B1 of the City's Official Plan.



ore Oriole







Frological Land Classification

Candidate significant wildlife habitat in the Study Area may include: Bat Maternity Colony, Amphibian Breeding Habitat, Turtle Wintering Area and Special Concern Species

Two wetland features capture surface water flows but have limited ecological function. They will be treated as locally significant. The larger wetland provides breeding habitat for amphibians and will also be treated as locally significant

Breeding Birds and Raptors

Red-winged Blackbirds and Baltimore Orioles showed evidence of breeding in the Study Area. SAR birds observed during the Study included Eastern Meadowlark and Barn Swallow. There were no raptor nests observed within or adjacent to the Study Area

 $There \ are \ two \ watercourse \ features \ in \ the \ Study \ Area. \ They \ are \ both \ characterized \ as \ intermittent \ and/or \ ephemeral \ watercourses \ that \ may \ provide \ potential \ seasonal \ habitat \ for \ fish$

Species at Risk (SAR) and Species of Conservation Concern (SCC)

Three SAR (Eastern Meadowlark, Bobolink and Little Brown Myotis) and two SCC (Eastern Wood-pewee and Wood Thrush) have potential habitat or seasonal occurrence in the Study Area and may be impacted by the proposed road improvements.

KEY RECOMMENDATIONS





In addition to typical mitigation measures (erosion and sediment control, timing windows, bird nest searches, etc.) additional key recommendation from the EIS include:

- Minimizing Construction Footprint:

 Two lane roadway

 Curbs and gutters will be used to minimize grading
 Reinforced slopes will be used in areas where fill is required

- ripacts Significant tree impacts are anticipated. Many large, mature trees will be lost Detailed tree survey and tree preservation plan to be developed during detail design. Goal to minimize tree removals and impacts to mature trees
- Compensation ration for planting plan to be determined during detail design

Invasive Species Management Plan

Study area was observed to contain an abundance of invasive species. During detail design, an Invasive Species Management Plan shall be developed to target aggressive invasive flora (European Common Reed, European Buckthorn, Periwinkle, etc.)

Edge Management and Compensation Planting Plan

Creation of an Edge Management and Compensation Planting Plan is recommended to reduce impacts to existing woodlands and specifically the Environmental Sensitive Area (ESA) within the project limits

Wildlife Impact Mitigation Plan

Consideration for installation of a wildlife crossing under Southdale Road in the vicinity of the ESA to improve wildlife movement corridors. The crossing to be designed to accommodate small mammals while not negatively impacting hydraulic operations of existing culvert crossing on the projects West Tributary

The project will result in the loss of a small wetland community located on the projects East Tributary. To achieve "no net loss" of wetland habitat, compensation habitat plans shall be reviewed and identified during detail design.

SCHEDULE B1 RECOMMENDED UPDATES LEGEND LOWER DINGMAN CORRIDOR ESA

NEXT STEPS



Questions?





Public Information Centre #2:

Anticipated May 2018.

Environmental Impact Study (EIS):

- Receive input from EEPAC, UTRCA and MNRF by May 21, 2018
- Finalize EIS.

Environmental Study Report (ESR):

- Finalize EA document June 2018
- Present EIS and EA document to Council for endorsement
- \bullet 30-day public and agency review period Anticipated summer 2018.

Construction

• Following the detailed design phase, construction could begin as early as 2020.

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