



Adelaide Street North Municipal Class Environmental Assessment Study

Presentation to Transportation Advisory Committee

Parsons Inc.
October 22, 2019



Agenda

- Study Area / Background
- Problem / Opportunity Statement
- Alternative Solutions
- Alternative Design Concepts
- Preferred Design Concept
- Changes to Adelaide Street / Sunningdale Road Intersection
- Preferred Design Concept - Potential Environmental Impacts and Mitigation Measures
- Project Timeline

Study Area / Background

- Study Corridor between Fanshawe Park Road and 350m north of Sunningdale Road East, including Sunningdale Road East from Blackwater Road to Stoney Creek Community Centre Entrance.
- The current (2013) Transportation Master Plan (TMP) has recommended widening of this section of Adelaide Street North from two to four lanes.
- Adelaide Street North and Sunningdale Road East are classified as Civic Boulevards in the London Plan.
- Per the City's Complete Streets Design Manual, Civic Boulevards are intended to accommodate "multi-modal travel, with a priority on pedestrian, cycling and transit movements".
- Future subdivision developments are planned north of Sunningdale Road East.
- "Schedule C" Municipal Class EA.



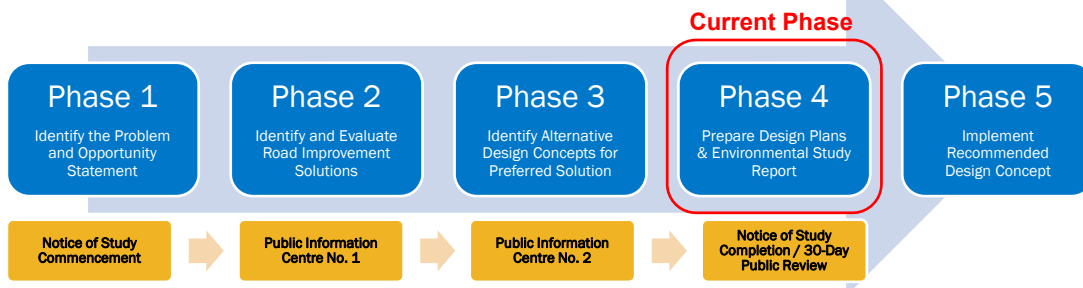
Problem / Opportunity Statement

- Based on the recommendations of the City of London's Smart Moves Transportation Master Plan, and confirmed through a corridor traffic analysis undertaken as part of the study, Adelaide Street North, from Fanshawe Park Road East to Sunningdale Road East, has been identified as requiring additional north-south traffic capacity to address future traffic operational deficiencies.
- In addition to addressing traffic capacity requirements, there is also an opportunity to improve the roadway to meet the City's Complete Streets standards which includes incorporating transit, active transportation, and safety initiatives.



Study Background

- Study commenced in June 2018.
- Two Public Information Centres held:
 - PIC#1: November 14, 2018 (55 attendees)
 - PIC#2: June 5, 2019 (28 attendees)
- Currently in Phase 4 – Preparation of Preliminary Design Plans and Environmental Study Report.



Alternative Solutions

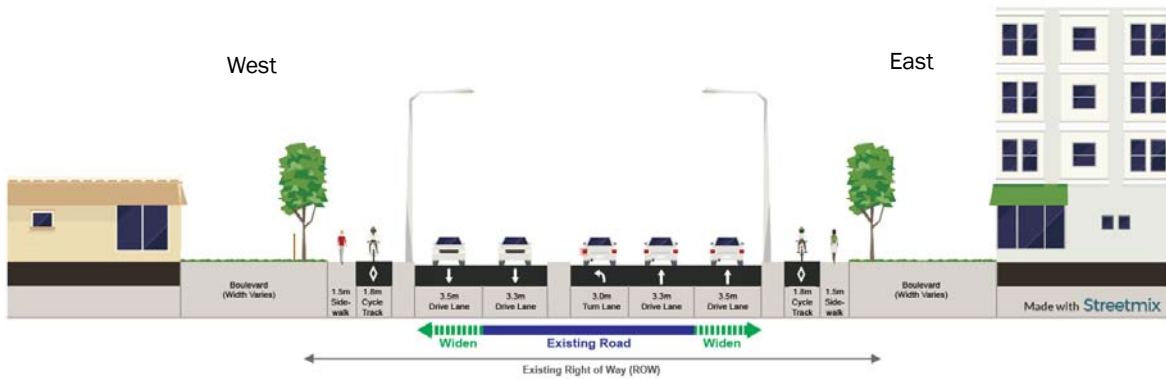
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|---|---|
| <p>✗ 1 Do Nothing
Maintain existing roadway network and provide no changes to Adelaide Street North (forms a baseline for comparison of alternative solutions).</p> <p>✗ 2 Limit Development
Restrict development in the surrounding area to projects already underway in order to limit growth.</p> <p>✓ 3 Incorporate Travel Demand Management (TDM) Measures
Introduce TDM measures to reduce or redistribute the travel demand (e.g. carpooling, workplace changes, pricing, etc.)</p> | <p>✗ 4 Improve Alternative Routes
Undertake improvements (capacity or operational) on adjacent roads where justified (e.g. Highbury Avenue, Richmond Street).</p> <p>✓ 5 Operational/Intersection Improvements
Improve existing intersection operations and undertake roadway geometric improvements (roundabouts, traffic signals, through lanes, turn lanes, etc.).</p> <p>✓ 6 Provide Additional Lanes
Widen Adelaide Street North with additional lanes to increase traffic capacity and accommodate future growth.</p> <p>✓ 7 Accommodate Other Travel Modes
Improve existing facilities to encourage active transportation (walking, cycling, etc.) and improve Adelaide Street North/Sunningdale Road East to accommodate existing transit services.</p> |
|---|---|
- A combination of alternatives 3, 5, 6 and 7 were recommended for the development of alternative design concepts.**

Alternative Design Concepts

1

Widen from the Centerline

Generally widen Adelaide Street from the centerline of the roadway (i.e. approximately even widening on both west and east sides).

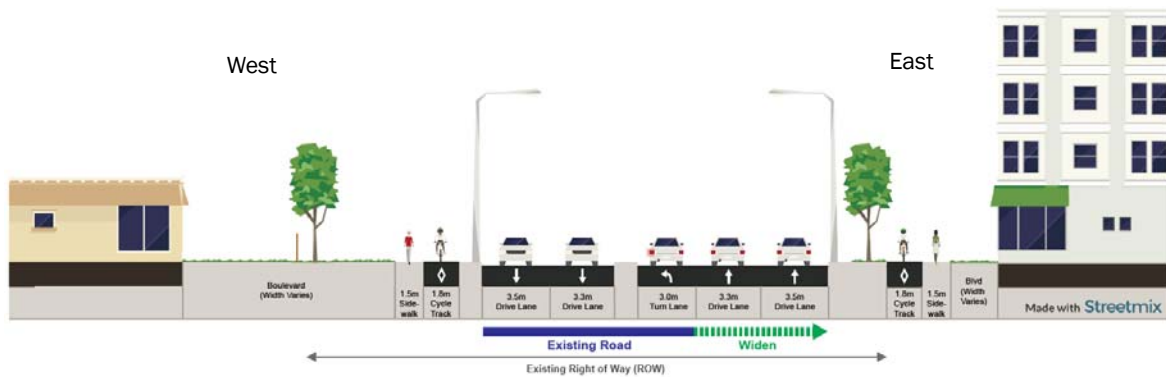


Alternative Design Concepts

2

Widen to the East

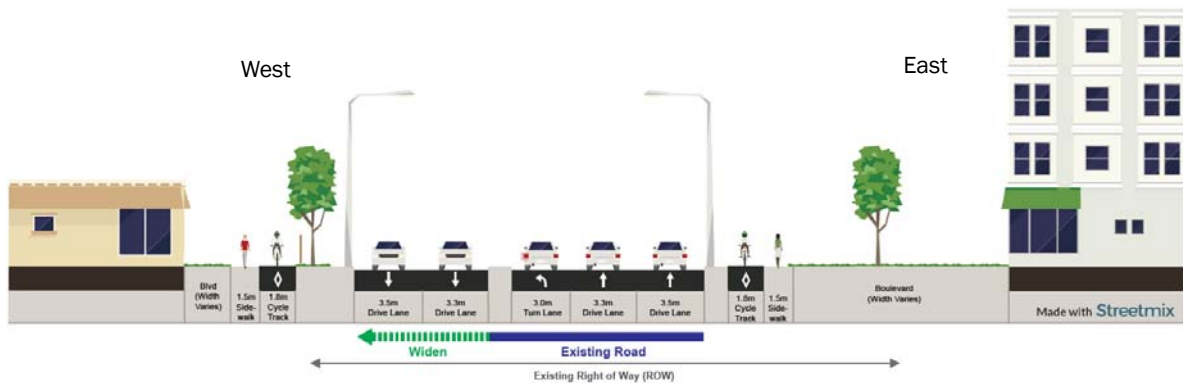
Generally widen Adelaide Street to the eastside, while mostly maintaining the westside.



Alternative Design Concepts

3 Widen to the West

Generally widen Adelaide Street to the westside, while mostly maintaining the eastside.



Evaluation of Alternative Design Concepts - Summary

Widen to the East

Not Recommended. There would be significant property and environmental impacts to the east (Drainage/Impacts to Powell Drain Culvert, Wildlife Habitat, Property, Noise)

Widen to the West

Not Recommended. There would be significant property and environmental impacts to the west (Wildlife Habitat, Property, Noise)

Widen from the Centerline

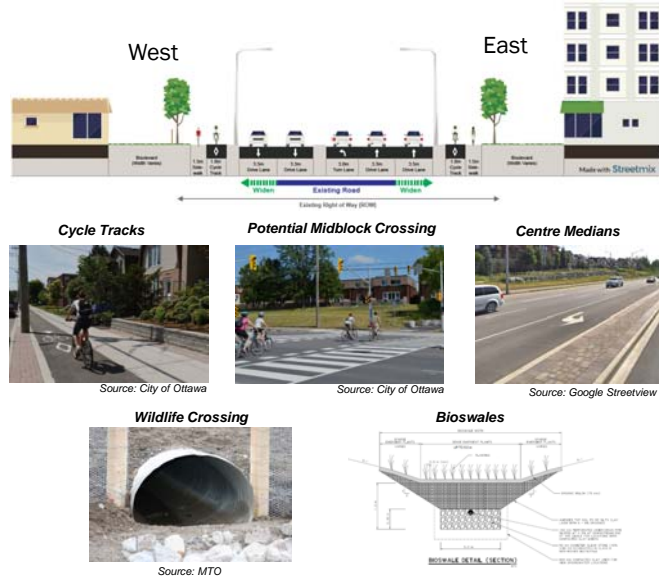
Recommended. There will be the least impacts overall

Preferred Alternative – Highlights

1 **Widen from the Centerline**
Widen Adelaide Street from the centerline of the roadway (i.e. approximately even widening on both west and east sides).

Includes:

- ✓ 3.3 m – 3.5m Travel Lanes.
- ✓ 1.8 m Off Road Cycle Tracks, 1.5m – 2.0m Sidewalks.
- ✓ Centre Medians.
- ✓ Potential Midblock Pedestrian and Cyclist Crossing at Powell Drain.
- ✓ Implementation of left turn lanes at all intersections.
- ✓ Implementation of right turn lanes where warranted, including at Fanshawe Park Road East.
- ✓ Recommendation for a Wildlife Crossing Culvert near the Powell Drain.
- ✓ Improvements to Powell Drain Culvert to improve flow across Adelaide Street North.
- ✓ Bioswales to accommodate run-off (where feasible).



Preferred Alternative - Proposed Intersection Controls

Existing



Proposed



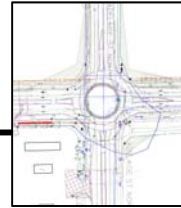
- **New traffic signals** are warranted along Blackwater Road at Sunningdale Road East and Adelaide Street North.
- **Future east-west collector roads** as part of development north of Sunningdale Road would be stop-controlled when entering onto Adelaide Street north (2-way stop).

Changes to Adelaide Street / Sunningdale Road Intersection

A roundabout was recommended in Sunningdale Rd ESR but is not carried forward in this EA Study at the intersection of Adelaide Street North and Sunningdale Road East. Due to significant increase in volumes, a roundabout at this location would require more than two entry and circulatory lanes, operate worse than a signalized intersection, require significant property acquisition and create challenges for pedestrian and cyclist movements.



Roundabout



Traffic Signal



Required Number of Entry Lanes	✘✘ More than two entry and circulatory lanes would be required.	✓ Adequate amount of entry lanes can be accommodated.
Traffic Operations	✘✘ Does not operate well without additional entry lanes.	✓ Operates well with proposed number of entry lanes.
Land/Property Requirements	✘✘ Requires significant property to meet geometric requirements.	✓ Does not require significant property to meet geometric requirements.
Pedestrian & Cyclist Movements	✘ Results in out of the way travel for pedestrians and cyclists	✓ Minimizes travel distance for pedestrians and cyclists
Vehicle Speeds and Potential Conflict Points	✓ Reduces vehicle entry speeds and number of potential conflict points.	✘ Greater vehicle entry speeds and number of potential conflict points.
Vehicle Emissions (Idling)	✓ Reduced delays (free flow movements) resulting in reduced fuel consumption.	✘ Idling during a stop cycle or waiting to turn increases fuel consumption.
Recommendation	Not recommended.	Recommended.

Preferred Design Concept - Potential Environmental Impacts and Mitigation Measures

- A summary of the preliminary project impacts and mitigation measures are provided below:

CATEGORY	IMPACTS	MITIGATION MEASURES
Natural Environment	<ul style="list-style-type: none"> Vegetation and wildlife removal. Tree removals. Disturbance and potential spread of invasive species (Phragmites). 	<ul style="list-style-type: none"> Construction fencing and other design measures to delineate work areas, protect trees and minimize areas of disturbance. Implementation and maintenance of erosion and sediment controls. Disturbed areas will be vegetated and/or covered as soon as possible. Best Management Practices related to materials storage/stockpiling, equipment fueling and maintenance. Management of invasive species prior to the commencement of construction to minimize disturbance and spread. Disturbance, clearing or disruption of vegetation within appropriate timing windows to avoid impacts to birds and bats. In-water work to be completed using construction best management practices (e.g. coffer dams) and fall within the MNRF permitted timing window, to avoid impacts to fish during sensitive life stages.

Potential Environmental Impacts and Mitigation Measures

CATEGORY	IMPACTS	MITIGATION MEASURES
Drainage & Stormwater Management	<ul style="list-style-type: none"> Existing flooding issues at Powell Drain. Increased stormwater runoff. Disturbance to groundwater. 	<ul style="list-style-type: none"> Better culvert maintenance or relocation of existing orifice control at inlet to improve flow across Adelaide Street North. Exploration of Low-Impact Development (LID) measures in detailed design to help improve stormwater quality and quantity. Limiting amount of water to be displaced where possible.
Air Quality	<ul style="list-style-type: none"> Short term increase in pollutants resulting from construction. 	<ul style="list-style-type: none"> Best management practices during construction and additional tree planting along the corridor.
Noise	<ul style="list-style-type: none"> Short term impacts due to construction. No significant long-term noise increases 	<ul style="list-style-type: none"> Time of day restrictions during construction and other best management practices to reduce noise levels.
Traffic & Transportation	<ul style="list-style-type: none"> Impacts to traffic resulting from construction activities. 	<ul style="list-style-type: none"> Development of a Traffic Management Plan prior to construction.
Property	<ul style="list-style-type: none"> Limited property acquisition required. Some changes to a "right-in, right-out" only access. 	<ul style="list-style-type: none"> N/A
Cultural Heritage	<ul style="list-style-type: none"> No impacts to Cultural Heritage resources. 	<ul style="list-style-type: none"> N/A
Archaeology	<ul style="list-style-type: none"> No impacts to archaeological resources (no archaeological potential). 	<ul style="list-style-type: none"> N/A

Project Timeline - Next Steps

- Confirmation of Recommended Alternative Design Concept;
- Finalization of Environmental Study Report (ESR);
- Council Approval and Notice of Study Completion (January 2020); and
- Construction tentatively planned for 2029** following further stages of design work.