

Strategic Rehabilitation of

Highway 401

from Warden Avenue to Brock Road

URS

Scarborough Community Council Presentation

STRATEGIC REHABILITATION OF HIGHWAY 401 FROM WARDEN AVENUE TO BROCK ROAD

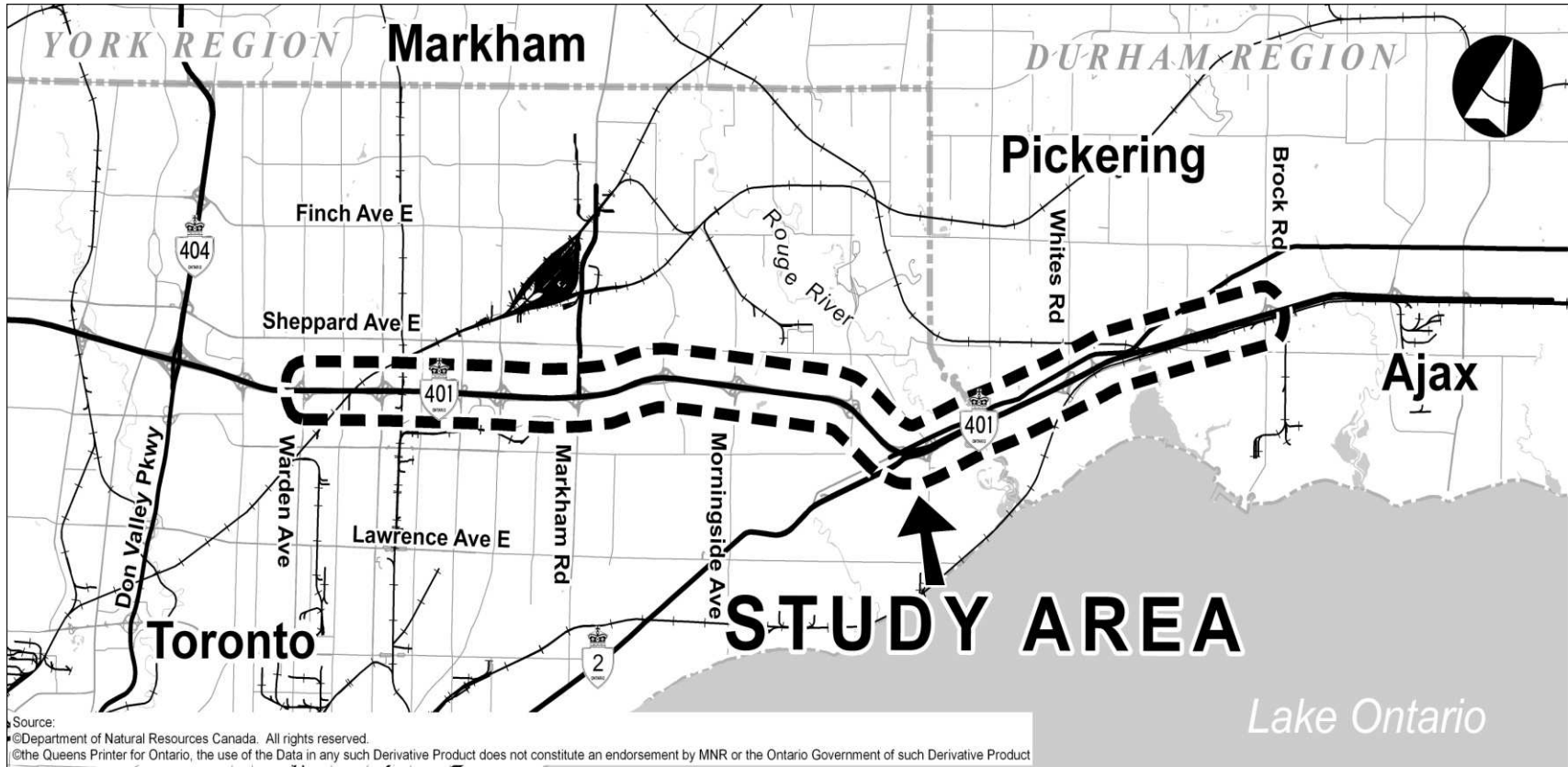
Class Environmental Assessment and Preliminary Design Study

Tuesday January 10th, 2012

Agenda

- Overview of Study
- Review of Recommended Plan
 - Highway 401 Mainline
 - Highway 401 Interchanges
 - Other Improvements
 - Contract Sequencing
- Next Steps
- Question and Answer

Study Area



The project limits are located along Highway 401 between Warden Avenue and Brock Road, in the Cities of Toronto and Pickering.

Study Overview

- Study purpose:
 - To determine the long-term strategy to rehabilitate Highway 401 between Warden Avenue and Brock Road.
- Study commencement in Fall 2009
- Two PIC's held throughout study:
 - PIC #1 – October 2010
 - PIC #2 – June 2011
- Study has included the following key elements:
 - Investigation of existing conditions along corridor (pavement, structures, operations, etc.);
 - Development of Strategic Rehabilitation strategy to address the infrastructure needs;
 - Development of traffic operational improvements;
 - Consideration of transit-friendly initiatives;
 - Review of preliminary construction sequencing and staging requirements;
 - Ongoing consultation with municipalities, agencies and other stakeholders.
- Preparation of Transportation Environmental Study Report, anticipated to be filed in early 2012.

Key Elements of Recommended Plan

➤ Strategic Rehabilitation

- 61 structures – 14 to 56 years old
- 21 km of corridor improvements
 - Pavement, storm sewers, barrier walls, separators, etc.
- Advance Traffic Management Systems
 - Variable message signs, CCTV cameras, vehicle detector stations, cabinets, etc.
- High Mast Lighting
 - Light poles, luminaires, cabinets, etc.

➤ Operational Improvements

Eastbound

- Create either/or condition in Lane 3 approaching Kennedy Road
- Relocate core-collector transfer from east of Warden Avenue to east of the Kennedy Road W-N/S off-ramp

Westbound

- Create either/or condition in Lane 3 approaching Kennedy Road
- Relocate collector-core transfer from east of Warden Avenue to east of Kennedy Road
- Provide additional lane in the westbound collectors between the Neilson Road and Kennedy Road interchanges

➤ Construction Sequencing and Staging

Review of Recommended Plan Mainline Highway 401 – Eastbound

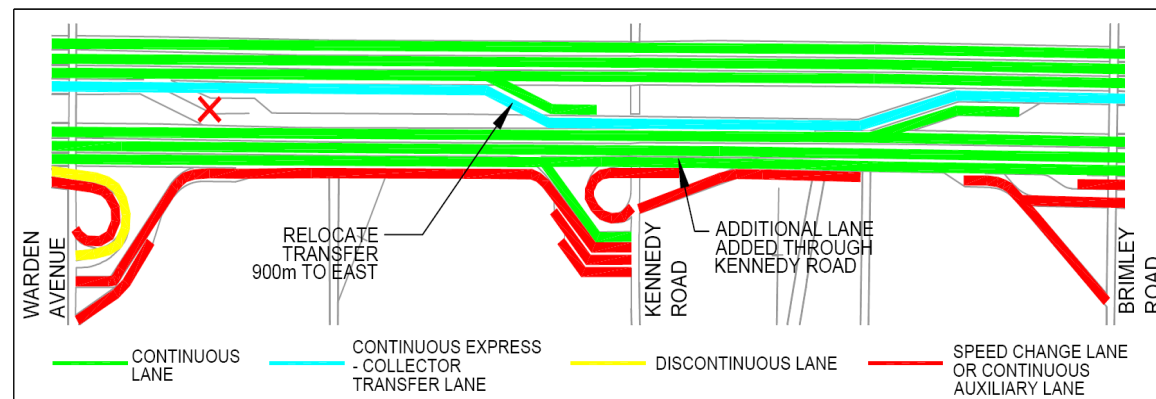
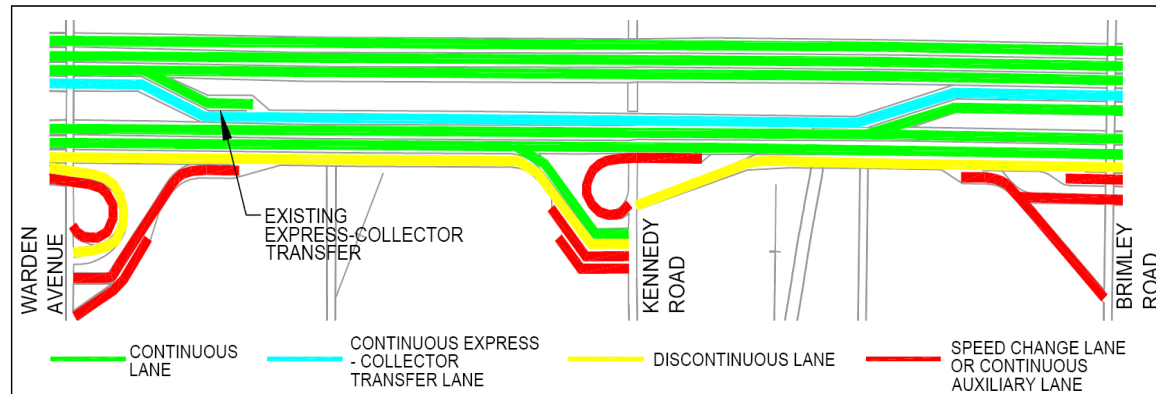
- **The recommended plan for the Highway 401 mainline (Eastbound) includes:**
 - Provision of a third through lane in eastbound collectors through the Kennedy Road interchange.
 - Relocation of core-collector transfer located east of Warden Avenue to just east of the Kennedy Road W-N/S off-ramp.

Existing Lane Configuration



Recommended Lane Configuration

**Up to 4.5 Minutes of
Travel Time Savings**

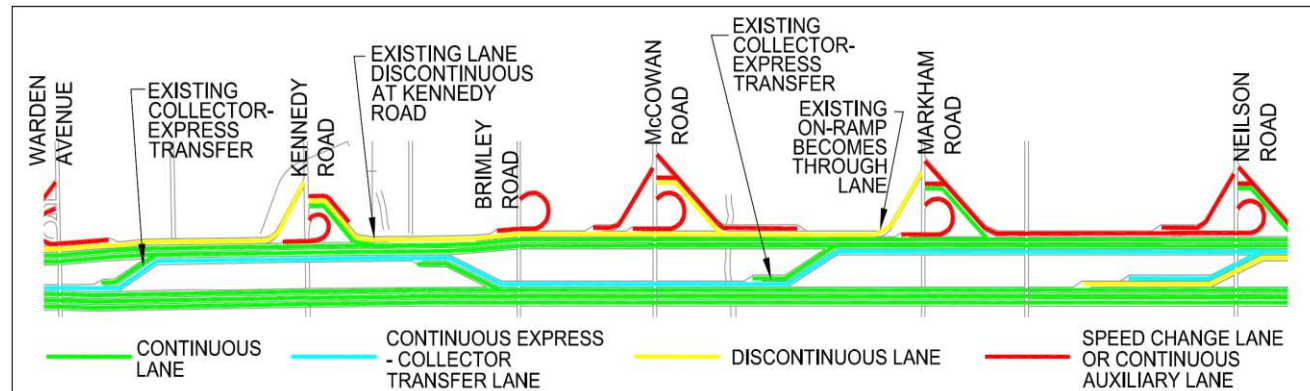


Review of Recommended Plan Mainline Highway 401 – Westbound

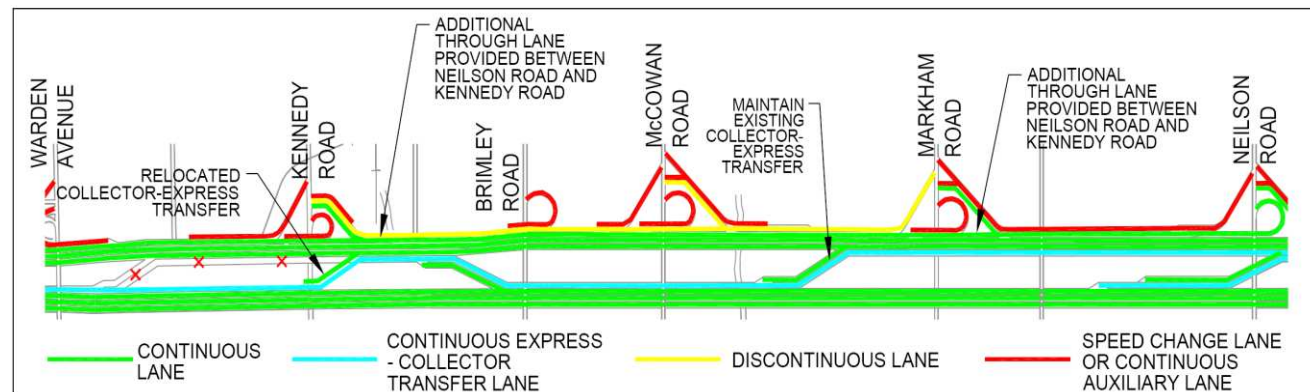
- **The recommended plan for the Highway 401 mainline (Westbound) includes:**
 - Provision of a third through lane in westbound collectors through the Kennedy Road interchange.
 - Relocation of collector-core transfer located east of Warden Avenue to east of Kennedy Road.
 - Addition of a fourth lane in the westbound collectors between the Neilson Road and Kennedy Road interchanges.

Existing Lane Configuration

Recommended



Recommended Lane Configuration



**Up to 8 Minutes of
Travel Time Savings**

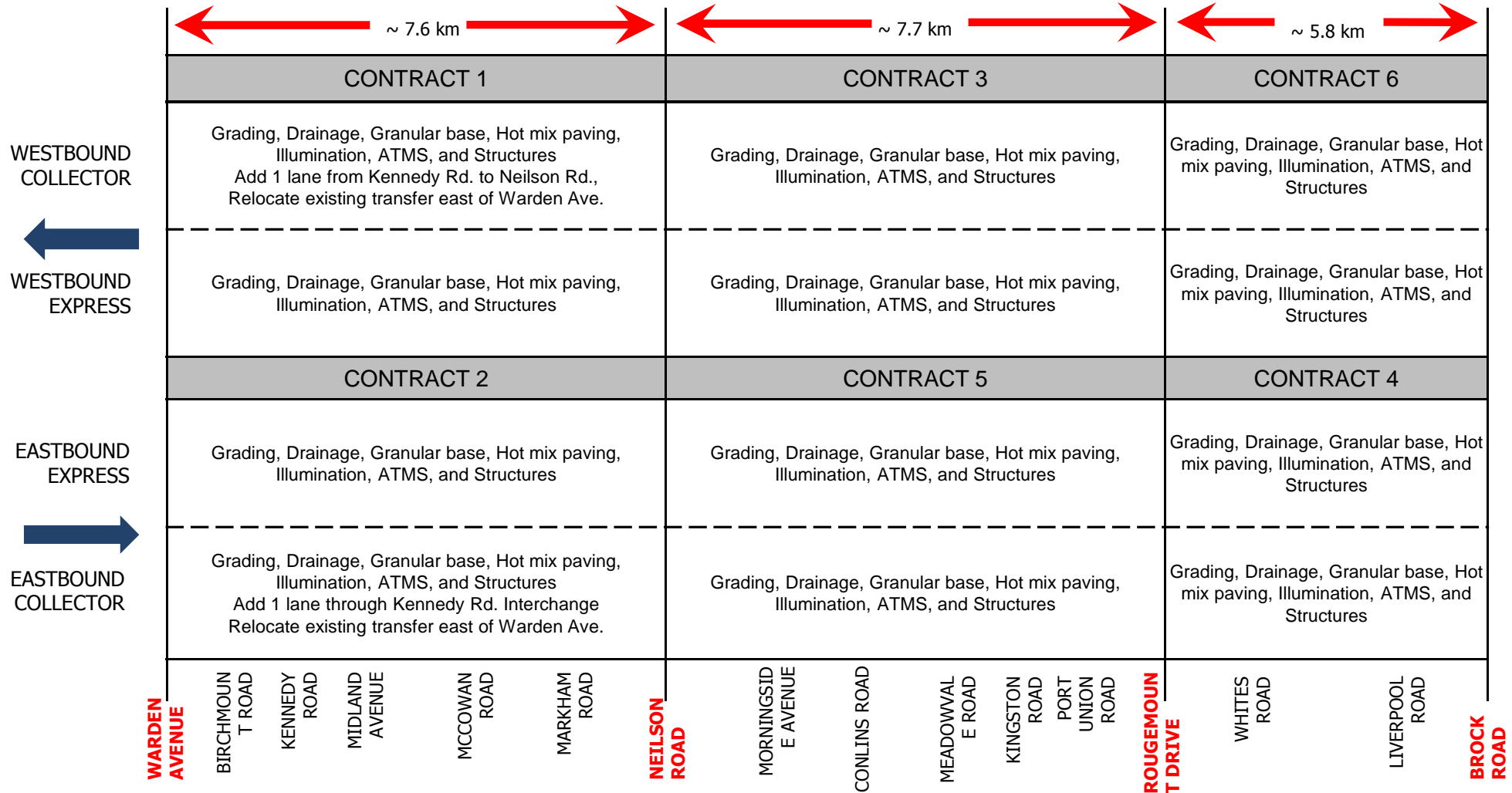
Review of Recommended Plan Highway 401 Interchanges

- Given the constrained nature of the corridor, significant modifications to interchanges were not considered given the high associated impacts
 - Minor operational improvements that did not result in significant effects on adjacent properties or features were identified
- The **recommended plan** for the Highway 401 interchanges includes:
 - Elimination of existing channelized right-turns at off-ramps (e.g. McCowan Road, Markham Road)
 - Extension of left-turn or right-turn lanes along off-ramps (e.g. McCowan Road)
 - Modification of pavement markings along exit ramps to create a more equal lane distribution (e.g. Kennedy Road, McCowan Road, Markham Road, Morningside Avenue, Liverpool Road)
 - Provision of double left turn or right turns at off-ramps to reduce queue lengths (e.g. Whites Road)
- Improvements along municipal crossing roads (e.g. Brimley Road, Whites Road, Brock Road) have not been included as part of recommended plan as they do not result in a significant benefit to Highway 401 operations

Review of Recommended Plan Other Improvements

- Other components of the recommended plan include:
 - Drainage improvements
 - Upgrades to existing stormwater management dry ponds
 - Replacement / upgrades to existing storm sewers and ditching, as required
 - ATMS improvements
 - Relocation of 3 VMS signs and other ATMS equipment impacted by recommended plan
 - Upgrading of CCTV cameras to new technology
 - Illumination improvements
 - Replacement or upgrading of high mast lighting luminaires, additional luminaires provided in some locations

Preliminary Contract Sequencing



Note: It is also possible that smaller components may be constructed in advance of the main contracts (e.g. individual structural rehabilitations)

Next Steps

- Finalize the preliminary design plans
- Prepare and file the Transportation Environmental Study Report including notices and newspaper advertisements
 - Anticipate filing in early 2012
- Seek Environmental Assessment Clearance
- Proceed to detail design and prepare the construction contracts



Consultation Throughout

(with all stakeholders – members of the public, municipalities, interest groups, agencies, business improvement areas, etc.)