

## **Minutes of Meeting**

**Date:** February 19, 2016 (revised March 15, 2016)

File #: TP115085-75
Meeting Date & Time: January 21, 2016

Meeting at: Region of Peel, Conference Room

Subject: Mississauga Road Class Environmental Assessment

Kick-Off Meeting – Workshop Summary

Attendees:

Antonietta Minichillo, City of Brampton
Daniel Waters, City of Brampton
Craig Sherwood, Brampton Transit
Chris Lafleur, Brampton Transit
Rebecca Stewart, CVC
Jim Washburn, Region of Peel
Liz Brock, Region of Peel
Lorenzo Mele, Region of Peel
Anthony Zois, Region of Peel
Lori-Ann Thomsen, Region of Peel

Jakub Kilis, CVC

Nathan Sinka, Region of Peel

Liam Marray, CVC

Steve Ganesh, Region of Peel
Gary Kocialek, Region of Peel

Bob Nieuwenhuysen, Region of Peel
Boguslaw Lipka, Region of Peel
Sally Rook, Region of Peel

John Kolb, Region of Peel Sargon Sifo, Region of Peel Kathryn Dewar, Region of Peel Gene Chartier, Paradigm

Natalie Lapos, Region of Peel
Arthur Lo, Region of Peel
Kim McAdam, Region of Peel
Seema Ansari, Region of Peel
David Sinke, Amec Foster Wheeler
Jason Stahl, Amec Foster Wheeler
Steve Chipps, Amec Foster Wheeler
Mary Kelly, Amec Foster Wheeler

Sarah Powell, Region of Peel Heather Dearlove, Amec Foster Wheeler Jibril Farah, Region of Peel

**MATTERS DISCUSSED** 

**ACTION BY:** 

#### Location 1:

#### Natural Environment:

- 1. Credit River Trail
  - The CVC, City of Mississauga, City of Brampton, Town of Caledon, and Town of Orangeville is undertaking this initiative
  - Initial plans are to follow the Credit River as close as possible which will require a crossing of Mississauga Road (above or below structure – prefer no crosswalks)

**PLEASE NOTE:** If there is any comment or amendment to be made to these meeting notes, they should be brought to the notice of Amec Foster Wheeler within 24 hours of issue and confirmed in writing

3215 North Service Road Burlington, Ontario L7N 3G2 Tel +1 905 335 2353 Fax +1 905 335-1414 amecfw.com

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#### **MATTERS DISCUSSED**

#### **ACTION BY:**

- Currently in the initial design stages and preliminary discussion with property owners
- 2. Maple Trees
  - Located on the east side of Mississauga Road at the top of the Credit Valley slope
  - o Identified in the 2002 Class EA and subsequent addendum
  - o Particularly important to the Huttonville Community
- 3. Huttonville Valley Environmental Sensitive Area (ESA)
  - Limited potential for development within the ESA
- 4. Provincially Significant Wetland (PSW) and ANSI located adjacent to the Lionhead Golf and Country Club
  - No development is permitted within PSW
- 5. Credit River
  - Large floodplain
  - Mississauga Road is overtopped during regional storm event (+/- 2m water depth)
  - A fluvial geomorphic investigation will be required to determine potential sensitive areas and restrictions
- 6. Shale Reserve
  - o In place until December 31, 2016
- 7. Low Impact Development (LID)
  - Currently limited to median planters and other landscaping features
  - CVC is keen on promoting initiative, however does not require LID be implemented
- 8. Groundwater
  - Issues were identified south of Embleton Road

#### Heritage/Archaeology:

- 9. Heritage Heights Planning Study
  - This study included an assessment of all heritage elements in the immediate vicinity of the Heritage Heights planning area
  - A review of the planning study document as it relates to the heritage resources should be completed by the Class EA team
- 10. River Road
  - o Identified as a Cultural Heritage Landscape
- 11. Embleton Road
  - Many properties are listed as heritage resources
- 12. McMurchy Woolen Mills and Powerhouse

Amec FW

**AmecFW** 

#### MATTERS DISCUSSED

**ACTION BY:** 

**AmecFW** 

- o Property and outbuildings are designated as a significant heritage property
- 13. Credit River
  - o All areas around the Credit River have high archaeological potential
- 14. Other Heritage properties within the study area

o Visit the City of Brampton website for more information

#### Development:

15. Draft plans of subdivision

Amec FW o A development located across from the Lionhead Golf and Country Club entrance is currently under review -

16. Lionhead Golf Course is reviewing options for residential development on property

approximately 100 single units/61 townhouse units

- 17. Block 40-3 is under review
- 18. Is there capacity in the existing and/or proposed storm ponds for water from Regional Roads?

Amec FW / Region

#### Existing Road Issues:

- 19. 1400mm x 875mm CSP Arch
  - o 675m south of Credit River
  - Should be reviewed for potential impacts

**AmecFW** 

- 20. Transit currently limited along corridor and there are no future plans to expand
- 21. Zum is being planned along Queen Street and Bovaird Drive for 2016
- 22. River Road Amec FW
  - The southbound right-turn lane on Mississauga Road appears to continue through the intersection but ends in a bus lane, which has confused road users
  - The rumble strips located on River Road is an issue for road maintenance and numerous complaints by residents about the noise of the strips
- 23. Issue with the manholes covers lifting on the hill approaching the Region Credit River crossing
- 24. Planter boxes in the median
  - o Requires lane closures to maintain
  - Limited vegetation grows in the existing planter boxes

#### MATTERS DISCUSSED ACTION BY:

- Various LID techniques have been investigated at this location but nothing has been approved
- 25. The multi-use trail system is discontinuous along the corridor

#### Study Considerations:

udy Considerations.	
26. Confirm recommendations made by the Road Characterization Stufor the study area	udy Amec FW / Paradigm
27. Consider reduced lane widths and reduced median widths	Amec FW / Paradigm
28. Avoid trees on west side	<b>3</b>
29. A large mall will be located on Mississauga Road north of Bova Drive, which could impact traffic volumes	aird Amec FW / Paradigm
30. Consider a minimum 2m setback from curb to multi-use trail/sidewa	lks Amec FW
31. Will the entrance to the 'Terrace on the Green' requireconfiguration?	uire Amec FW
<ul> <li>32. Harmonize speed limits through study corridor</li> <li>Will the speed limit remain in this section of Mississau Road? What is the appropriate speed limit for the area?</li> </ul>	Amec FW / Paradigm / Region
<ul> <li>33. Credit River Structure</li> <li>Is 6 lanes required over the structure?</li> <li>Only AM and PM peak congested?</li> <li>Can another corridor be improved to alleviate traffic Mississauga Road?</li> </ul>	Amec FW / Paradigm on
34. Mississauga Road is a truck route  Used to service the Caledon area  Are there other arterial roads that can be used to reduce true.	Amec FW /

0	Used to service the Caledon area	Amec FW /
0	Are there other arterial roads that can be used to reduce truck	Region
	traffic?	_

- o Can time restrictions be implemented to reduce truck traffic?
- 35. Need to investigate methods to increase the use of ZUM transit Region
- 36. Active Transportation Master Plan
  - o Adopted by Council for alternative and healthy living
  - Opportunity to support Active Transportation components of Master Plan
- 37. Opportunity to advance Gateways to Brampton Initiative at Queen Amec FW Street.

#### MATTERS DISCUSSED

#### **ACTION BY:**

#### 38. Utility servicing

Amec FW

- Is there an opportunity to implement a utility corridor a dedicated area in the boulevard in which utilities could be located (2-3 m strip)?
- Rogers will need to grow network to support development along corridor
- Currently using aerial through the use of hydro poles but is becoming increasingly more difficult
- The Mississauga Road corridor may become a fiber optic spine
- 39. Emphasize the importance of reducing vehicular traffic through other means

#### Region

- 40. Concerned with residential access to individual properties if road is widened
- 41. The properties on Embleton Road are on septic. Is there an opportunity to construct a sanitary sewer?

## Amec FW / Region

- 42. Embleton Road will be transferred to the City of Brampton
- 43. Region of Peel owns three properties along Mississauga Road, south of Embleton Road
- 44. Consideration for Navigable Water Act restrictions

#### 45. Active transportation facilities

## AmecFW / Paradigm

- o Separate structure for pedestrians?
- Consider something similar to the pedestrian structure in downtown Bolton over the Humber River

#### 46. Confirm SWM criteria

- Expected to achieve quality/quantity control, erosion control, 80% TSS and flood control.
- 47. Heritage Road widening may relieve some traffic congestion on Mississauga Road
- 48. B. Nieuwenhuysen requested further analysis of the operational implications of retaining the existing four-lane bridge crossing over the Credit River if the adjoining sections of Mississauga Road were widened to six lanes. Paradigm to complete a traffic microsimulation analysis from Queen Street to Embleton Road for the future scenarios.

## AmecFW / Paradigm

#### **MATTERS DISCUSSED**

#### **ACTION BY:**

#### Location 2:

#### Natural Environment:

- 1. Redside Dace have been found within the Huttonville Creek Tributary
- 2. Huttonville Creek is located on the east side, and parallels Mississauga Road for approximately 500m

#### Heritage/Archaeology:

- 3. Pioneer Cemetery located on the east side of Mississauga Road is a designated property
- 4. Heritage property located at Bovaird Drive and Williams Parkway
- 5. See full list of heritage properties on the City of Brampton website

Amec FW

#### Development:

- 6. House at 9330 Mississauga Road to be demolished
- 7. Site plan applications for Four X Development

Amec FW/Region

#### Existing Road issues:

8. Incorporate LID north of Queen Street

- Amec FW
- 9. LID pilot projects located along corridor and should be incorporated into 6-lane widening
- 10. Planter boxes in the median
  - o Requires lane closures to maintain
  - Limited vegetation grows in this location and the planter boxes are hard to maintain
- 11. High school located on Bovaird Drive may require a midblock crossing of Mississauga Road

Amec FW / Region

- 12. Extensive retaining wall on east side of Mississauga Road, south of Boyaird Drive to be maintained
- 13. There is a man-made pond south of Bovaird Drive on the west side. The pond is currently being used for irrigation of the nearby driving range. The owners have entered into an encroachment agreement for the pond as it encroaches on the Mississauga Road and Bovaird Drive right-of-way.

#### Study Considerations:

MATTERS DISCUSSED

#### Amec FW 14. Existing pond on the east side of Mississauga Road just north of Queen Street may not have sufficient capacity to accept drainage from the road 15. Consider a minimum 2m setback from curb to multi-use trail/sidewalks Amec FW 16. How do you transfer traffic numbers and widening to a cost/benefit Amec FW / analysis? How is widening determined to be the most cost effective Paradigm / method for improving traffic? Region Amec FW / 17. Is there an opportunity to create a consistent urban cross section? For Paradigm /

18. LID initiatives are being planned for east side of Mississauga Road from Williams Parkway to Bovaird Drive. Is there an opportunity to maintain and enhance feature?

the upcoming 4-lane widening, the west side will remain rural and east

- 19. Is there an opportunity for enhanced streetscaping initiatives along west side of Mississauga Road?
- 20. Encroachment agreement adjacent to Petro Canada (SW corner of Mississauga Road and Bovaird Drive) may be required.

#### Amec FW / Region

Region

Amec FW /

Region

**ACTION BY:** 

Amec FW

#### List of Top Opportunities and Constraints:

side will be an urban cross section

#### Location 1:

- Credit River Structure
  - o Cantilever design that would allow a separate pedestrian
  - Is it possible to maintain 4 lanes on bridge while maintaining functionality of the roadway?
- 2. Provincially Significant Wetland (PSW)
- 3. Maintenance issues
  - Manholes, median planter boxes
- 4. Numerous heritage designated properties along corridor
- 5. Existing utilities
- 6. Future Credit River Trail
- 7. Grading constraints (particularly near Credit River)
- 8. Gateway to the City of Brampton features
- 9. Maintenance of access to private properties

#### **MATTERS DISCUSSED**

**ACTION BY:** 

- 10. Public fatigue numerous on-going projects in the corridor and within the surrounding area
- 11. Improve connectivity to surrounding trails

#### Location 2:

- 1. Queen Street maintain current lane configuration for north leg of intersection
- 2. Stormwater Management
  - Utilize SWM pond on NE corner of Mississauga Road and Queen Street?
- 3. Pioneer Cemetery
- 4. Development along west side of Mississauga Road
- 5. Huttonville Creek
  - Redside Dace habitat and potential stormwater management constraints
- 6. Future mall north of Bovaird Drive on the west side of Mississauga Road
- 7. Existing utilities
- 8. Potential to harmonize speed limits along corridor
- 9. Maintain and enhance LID features and opportunities
- 10. Improvement to streetscaping
- 11. Heritage structures

Meeting Minutes prepared by,

Amec Foster Wheeler Environment & Infrastructure A Division of Amec Foster Wheeler Americas Limited

Per: Heather Dearlove, B.Sc.

**Environmental Planner** 

HD/kf



## **Minutes of Meeting**

Date: March 30, 2016 File #: TP115085

Meeting Date & Time: March 4, 2016

Meeting at: Region Offices, 10 Peel Centre Drive, Suite 'B', 4th Floor, Room 641

Subject: Mississauga Road Class Environmental Assessment

Meeting with MNRF and CVC

Attendees:

Rebecca Stewart, CVC

Jakub Kilis, CVC

Mark Heaton, MNRF

Neal Smith, Region of Peel

Sargon Sifo, Region of Peel

David Sinke, Amec Foster Wheeler

Daryl Rideout, Amec Foster Wheeler

Brittany Ferguson, Amec Foster Wheeler

Jason Stahl, Amec Foster Wheeler

Steve Chipps, Amec Foster Wheeler

Liz Brock, Region of Peel

#### **MATTERS DISCUSSED**

**ACTION BY:** 

#### **Background Summary**

- 1. The following two projects have been initiated:
  - a. Location 1 Schedule 'C' Class EA for Mississauga Road from Financial Drive to Queen Street West
  - b. Location 2 Addendum for the Class EA completed in 2006 for Mississauga Road from Queen Street West to Bovaird Drive
- 2. The project team had recently met with other agencies (City of Brampton, Brampton Transit, CVC, etc.) for a group kick-off meeting. The goal was to create a collective vision for the future of Mississauga Road.

#### **Need and Justification for Improvements**

- 3. The following technical studies will be completed for the study area:
  - a. Transportation and Traffic Study;
  - b. Natural Environment Assessment Report;
  - c. Drainage and Stormwater Management;
  - d. Culvert and Structural Analysis;
  - e. Fluvial Geomorphology Assessment;

**PLEASE NOTE:** If there is any comment or amendment to be made to these meeting notes, they should be brought to the notice of Amec Foster Wheeler within 24 hours of issue and confirmed in writing

Meeting Date: March 4, 2016

#### **MATTERS DISCUSSED**

**ACTION BY:** 

- f. Hydrogeological Investigations;
- g. Stage 1 Archaeology Assessment;
- h. Cultural and Built Heritage;
- i. Geotechnical Investigations;
- j. Noise Impact Studies;
- k. Air Quality Assessment, and
- I. Landscaping/Streetscaping Assessment.
- 4. Amec FW noted that the Transportation and Traffic Study is nearing completion. Preliminary results indicate that Mississauga Road is currently under capacity, and six lanes will be necessary to service the forecasted traffic volumes.

#### **Issues/Constraints and Opportunities**

- 5. MNRF identified the following regarding Location 1:
  - a. Mississauga Road crosses the Huttonville Valley ESA, a Provincially Significant Wetland (PSW), and an ANSI.
  - b. The coldwater channel crossing Mississauga Road just south of the Credit River structure is an important component of the PSW.
  - c. There is a sand deposit along the top of the valley, which provides an opportunity to use Low-Impact Development (LID) techniques.
  - d. There is an opportunity to reinstate an access to the Credit River off Mississauga Road, for use by the MNRF as a fish restocking location.
- 6. A portion of the discussion focused on the Credit River Crossing between Embelton Road and Queen Street. The following was discussed:
  - a. Widening of the existing crossing may be required to accommodate the projected traffic demands.
  - b. To maximize the space available on the existing crossing, the study team is considering removing pedestrians from the structure and directing them towards a new pedestrian crossing of the Credit River.
  - c. Widening of the existing crossing has implications on the floodplain modelling, which will need to be explored by the study team.
  - d. Traffic lanes widths will be reviewed. The corridor is identified as a goods movement route by the Region, so the outside lane should consider large truck movement.
  - e. 'Vista viewing' should be considered if the existing crossing is modified.
  - f. The pedestrian bridge (if pursued) should match the configuration of other pedestrian crossings within CVC's jurisdiction (ex. Pedestrian crossing behind CVC's office).

Meeting Date: March 4, 2016

#### **MATTERS DISCUSSED**

#### **ACTION BY:**

- g. Implementation of signage identifying fishing regulations for the Credit River.
- 7. MNRF identified the following for Location 2:
  - a. Integration with the Four X development SWM pond and the existing SWM pond on the northeast corner of Mississauga Road and Queen Street.
  - b. Potential for LID measures to reduce the need to rely on developer controlled SWM ponds.
  - c. Maintain east limit of Mississauga Road along Huttonville Creek.

#### Schedule

- 8. PIC #1 is anticipated to be completed in September 2016.
- 9. A meeting with CVC/MNRF will be completed prior to the PIC to review the outcome of the technical assessments and planning alternative assessment.

Meeting Minutes prepared by,

Amec Foster Wheeler Environment & Infrastructure A Division of Amec Foster Wheeler Americas Limited

Per: Jason Stahl, P. Eng.

**Project Engineer** 

JS/



### **Minutes**

Date: November 2<sup>nd</sup>, 2016

File #: TP115085

Meeting Date & Time: October 11th, 2016

Meeting at: Region of Peel Head Office, 4th Floor, Room 830

Subject: Mississauga Road Class EA

Progress Meeting with CVC and MNRF

Attendees:

Mark Heaton – MNRF Jason Stahl – Amec Foster Wheeler Jakub Kilis – CVC Heather Dearlove – Amec Foster Wheeler

Rebecca Stewart - CVC John Nemeth – Region of Peel

#### **MATTERS DISCUSSED**

**ACTION BY:** 

#### **Introduction**

 The purpose of the meeting was to update the CVC and MNRF on the progress of the Mississauga Road Class EA (Location 1 from Financial Drive to Queen Street) and Addendum (Location 2 from Queen Street to Bovaird Drive)

#### **Update on Technical Studies**

- 2) An update on the Technical Studies was provided by Amec FW. The following was noted:
  - a) Traffic Report The traffic projection model has forecast approx. 4000 vehicles to cross through the study area during both the AM and PM peak hour. Given the large amount of through traffic, 6 lanes is required. The possibility of maintaining 4 lanes over the Credit River crossing with the approaches widened to 6 lanes was modelled. The analysis indicated that the performance of Mississauga Road would significantly deteriorate if the current cross section over the Credit River is maintained.
  - b) Natural Environment The field work was completed recently. No additional environmental constraints were identified.
  - c) Drainage and Stormwater Management The existing conditions model has been drafted.
  - d) Fluvial Geomorphology Field work was recently completed.
  - e) Hydrogeology Deferred to completion of the geotech report.

**PLEASE NOTE:** If there is any comment or amendment to be made to these meeting notes, they should be brought to the notice of Amec Foster Wheeler within five (5) business days of issue and confirmed in writing.

Meeting Date: October 11th, 2016

#### MATTERS DISCUSSED

#### **ACTION BY:**

- f) Stage 1 Archaeological Assessment Completed. A Stage 2 is recommended for some areas.
- g) Built Heritage and Cultural Landscape Assessment Completed. A number of cultural and built heritage locations were identified.
- h) Geotechnical Investigation Deferred to completion of the preliminary design.
- i) Noise Deferred to completion of the preliminary design.
- j) Air Quality Deferred to completion of the preliminary design.
- k) Landscaping and Streetscaping Deferred to completion of the preliminary design.

#### **Review of Constraints and Opportunities**

- 3) CVC noted that floodline modelling will be an important consideration for this study particularly at the crossing of the Credit River.
- 4) MNRF reiterated that the soils in the area are more conducive to LID infrastructure. Amec FW to consider LID as part of the SWM portion of the study.

**AFW** 

- 5) The Region noted that outlet to the Four X development SWM facility is not preferred. Alternate methods to provide quantity, quality, and erosion control need to be considered.
- 6) A number of constraints and opportunities were identified for the crossing of the Credit River by all in attendance:
  - a) The majority of Mississauga Road as it passes through Huttonville is contained within a floodplain. Opportunity to raise the road out of the floodplain should be explored.
  - b) Try to focus any road widening away from the Credit River.
  - c) Avoid fill in wetland and ESA areas. Ensure limits are documented within the assessment.
  - d) Explore opportunities to improve conveyance at the crossing (existing crossing is overtopped during Regional Storm).
  - e) Consider using piers along embankment of Credit River to avoid placement of fill.
  - f) Avoid land purchase at crossing.

#### **Review of Planning Alternatives**

- 7) A preliminary list of planning alternatives was reviewed by all. The following was proposed:
  - a) Do Nothing
  - b) Improve Other Roads
  - c) Transit Infrastructure Improvements
  - d) Travel Demand Management
  - e) Widen Mississauga Road
  - f) Combination of c) d) and e)

Page 2 of 3

Continued...

Meeting Date: October 11th, 2016

#### **MATTERS DISCUSSED**

**ACTION BY:** 

8) CVC requested that the team consider a 'middle' alternative to bridge the gap between the options provided.

#### **Schedule**

- 9) The project is moving towards a TAC meeting on November 8<sup>th</sup>. PIC #1 will be scheduled for a later date in early 2017.
- 10) CVC requested that the technical studies be provided prior to the TAC **Amec FW** meeting.

Meeting Minutes prepared by:

Amec Foster Wheeler Environment & Infrastructure A division of Amec Foster Wheeler Americas Limited

Stall

Per: Jason Stahl, P. Eng. Project Engineer

JS



## **Minutes of Meeting**

Date: December 1, 2016

File #: TP115085

Meeting Date & Time: November 8, 2016

Meeting at: Region of Peel, Conference Room

Subject: Mississauga Road Class Environmental Assessment

Technical Agency Committee Meeting No.1

Attendees:

Neal Smith, Region of Peel Anthony Zois, Region of Peel Asha Saddi, Region of Peel Nathan Sinka, Region of Peel

Chris Lafleur, Brampton Transit Bob Nieuwenhuysen, Region of Peel

Kaitlyn McGlade, CVC Sally Rook, Region of Peel Rebecca Stewart, CVC Sargon Sifo, Region of Peel Jakub Kilis, CVC Gene Chartier, Paradigm

Mark Heaton, MNRF
Natalie Lapos, Region of Peel
Seema Ansari, Region of Peel
Jibril Farah, Region of Peel
Kathlyn Dewar, Region of Peel
David Sinke, Amec Foster Wheeler
Jason Stahl, Amec Foster Wheeler
Steve Chipps, Amec Foster Wheeler
Daryl Rideout, Amec Foster Wheeler
Heather Dearlove, Amec Foster Wheeler

Inderjit Hans, City of Brampton

MATTERS DISCUSSED ACTION BY:

## Note: Copy of the presentation and preliminary design for location 2 has been attached for your reference.

The following is a summary of the comments and questions asked during the presentation:

- 1. How was future traffic calculated? The future traffic numbers included the following:
  - Data was compiled from the Region's transportation model and the City of Brampton's TTMP;
  - Does not include the GTA West numbers:
  - Factored in the expansion of the BramWest Parkway, and
  - Anticipated improvements to parallel roads.
- Does Brampton have any intention on expanding ZUM transit services along the Mississauga Road corridor? Currently, ZUM Transit services

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3215 North Service Road Burlington, Ontario L7N 3G2 Tel +1 905 335 2353 Fax +1 905 335-1414 amecfw.com

Amec Foster Wheeler Environment & Infrastructure Registered office: 2020 Winston Park Drive, Suite 700, Oakville, Ontario L6H 6X7 Registered in Canada No. 773289-9; GST: 899879050 RT0008; DUNS: 25-362-6642 Meeting Date: November 8, 2016

#### MATTERS DISCUSSED

**ACTION BY:** 

extend from Bovaird Drive to Queen Street. Mississauga Road from Queen Street to Financial Drive will be a support corridor and it is not anticipated to have ZUM services.

- 3. CVC noted that in Location 2 (addendum section) offset protection is already provided adjacent to the creek that runs parallel to Mississauga Road. A slope retention structure was constructed recently and it was understood that there would be no further work on the embankment. The developer has provided offset protection and will be incorporated into the design for the widening of Location 2.
- 4. MNRF requested clarification if there would be changes to the storm sewer discharge to the Credit River that is located south of the Credit River structure. Changes may be required in order to service the potential widening of Mississauga Road. However, the exact scope of changes (if any) cannot be confirmed until the specifics of the preferred design alternative is confirmed.
- MNRF requested that there be consideration to allow for access to the Credit River north of the Credit River structure to facilitate fish restocking. Amec FW will review the potential for an access as part of subsequent phases of the Class EA process.
- 6. The MNRF requested that an access to the Credit River be considered to allow boat launching with parking similar to what is provided in Norval at Bovaird Drive/Heritage Road. Amec FW will review potential for this as part of subsequent phases of the Class EA process.
- 7. The Region noted that there may be additional archaeological assessments completed for the Four X Development lands and those findings should be incorporated into the assessment for Location 2. This area is currently being developed and under construction. Amec FW to review further and confirm if additional archaeological assessments are required adjacent to the Four X Development area.
- 8. The Region commented that additional geotechnical investigation may be required adjacent to the Credit River structure to confirm the ability of the footings / soil to support additional loading on the structure. Amec FW agreed with the need for additional boreholes and will explore the possibility as part of the geotechnical study to be completed later in the Class EA process.
- 9. The potential for a new structure at the Credit River Crossing was discussed including the option for a separate pedestrian crossing. If full replacement is pursued, the wider structure could accommodate the trail being proposed by CVC. CVC commented that the location of the trail is still conceptual and should not be factored into the assessment of

Meeting Date: November 8, 2016

#### MATTERS DISCUSSED

**ACTION BY:** 

alternatives. All options for the structure are being investigated and the assessment will take into consideration all of the identified constraints at the crossing.

- 10. Copies the planning alternative assessment table with written explanation was requested by several attendees. Amec Foster Wheeler to review and provide with the meeting minutes.
- 11. It was noted the stormwater management assessment should confirm if the stormwater management ponds is sufficient to accommodate the runoff from the proposed widening. Also, the assessment should consider implementation of LID BMP's as much as possible.

## The following is a summary of the comments from the Group Discussion:

- 12. Some operational concerns were identified at the intersection of Mississauga Road and Queen Street West, as follows:
  - Signage for the southbound curb lane needs to be reviewed. It is not clear that the curb lane transitions to a right turn lane as vehicles approach the intersection
  - The sight lines for the northbound left turn lane at the intersection of Mississauga Road with Queen Street West should be reviewed.
- 13. The MNRF identified the sand lens north of Williams Parkway, which would be ideal for implementation of LID BMP's. In addition, the section of Mississauga Road currently under construction is installing LID infrastructure along the east side of the roadway.
- 14. A number of locations for potential parking areas to service a potential canoe/kayak launching point were identified, as follows:
  - South side of River Road, west of Mississauga Road
  - Property owned by the Region on the west side of Mississauga Road, south of Embleton Road
  - Southeast corner of Mississauga Road and Queen Street (former right turn speed change lane
- 15. Permeable pavers was suggested for the multi-use trails, which would help achieve infiltration targets. The exact infiltration targets (2mm or 5mm) will be confirmed later in the study.

Meeting Minutes prepared by,

Amec Foster Wheeler Environment & Infrastructure A Division of Amec Foster Wheeler Americas Limited

Continued...

Meeting Date: November 8, 2016

Per: Heather Dearlove, B.Sc.

Environmental Planner

HD/kf



# **Technical Agency Committee Meeting No. 1**

**Region of Peel** 

### **Class Environmental Assessment**

Mississauga Road From Financial Drive to Queen Street

## **Class Environmental Assessment Addendum**

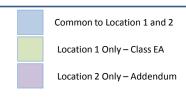
Mississauga Road From Queen Street West to Bovaird Drive







## **Agenda**





- 1. Introductions and Status Update (5 minutes Neal Smith, Region of Peel)
- 2. Presentation on Technical Investigations (45 min Amec Foster Wheeler Project Team)
  - Transportation and Traffic Study
  - Natural Environment (Aquatic and Terrestrial)
  - Fluvial Geomorphology
  - Hydrology and Hydraulics / Stormwater Management
  - Archeology
  - Built Heritage and Cultural Landscape Assessment
- 3. Initial Assessment of Planning Alternatives (15 min Amec Foster Wheeler Project Team)
- 4. Presentation of 30% Design for EA Addendum (15 min Sargon Sifo, Region of Peel)

### Break (10 min)

- 5. Group Discussion (15 min All)
- 6. Next Steps (15 min David Sinke, Amec Foster Wheeler)

# **Meeting Objective**



- Review background investigations completed for Location 1 and Location 2
- 2. Review and provide comments on the preliminary assessment of planning alternatives for Location 1 (Class Environmental Assessment (EA))
- 3. Review and provide comments on preliminary design for Location 2 (Addendum)
- 4. Provide comments







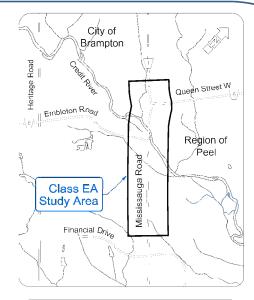


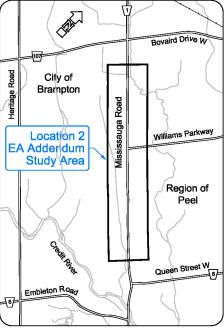
## Introduction

The Region of Peel has initiated two projects:

Location 1: Class Environmental Assessment Study Area - The study area is located within the City of Brampton and extends from just north of Financial Drive to just north of Queen Street West.

Location 2: Environmental Assessment Addendum Study Area - The study area is located within the City of Brampton and extends from Queen Street West to Boyaird Drive West.







# **Class Environmental Assessment Process**



Phase 1

- Identify Problems and Opportunities
- Issue Notice of Study Commencement

Phase 2

- Identify and Evaluate Alternative Solutions
- Identify Preferred Solution

Phase 3

- Identify and Evaluate Alternative Design for Preferred Solution
- Complete Environmental Inventory and Impact Assessment
- Identify Preferred Design

Phase 4

- Project Documentation (Environmental Study Report)
- Issue Notice of Study Completion

Phase 5

• Phase Project Implementation (Design and Construction)

Completed as part of Peel's Long Range Transportation Plan

PIC No.1 January 2017

PIC No.2 Spring 2017



## Class EA Addendum Process



- → An addendum is completed by a Municipality if it is not feasible to implement the project in the manner outlined in the original ESR.
- → If there is any significant modification to the project or change in the environmental setting for the project which occurs after the filing of the ESR an Addendum will be issued.
- → The addendum shall describe the circumstances for the change, the environmental implications of the change, and any mitigation measures for potential negative environmental impacts.

2006

 Schedule C Municipal Class Environmental Assessment for Mississauga Road from Queen Street West (Regional Road 6) to Bovaird Drive West (Regional Road 107) was filed

Oct 2015

- Issue Notice of Commencement for Addendum area
- Purpose to review the feasibility to widen Mississauga Road to six lanes

Nov 2016

- •Initial investigations and confirmation of scope of work
- Review of preliminary design with Technical Agencies

Jan 2017

- Hold Public Information Centre
- Confirmation of design

2017

- Complete Addendum document
- File Addendum report for 30 review period



# **Technical Investigations Class EA and Addendum**



As part of the Class EA and the EA Addendum study, the following investigations are being completed:

- → Transportation and Traffic Study (including Safety Performance Report)
- → Natural Environment Assessment (aquatic and terrestrial)
- → Drainage and Stormwater Management
- → Fluvial Geomorphology Analysis
- → Stage 1 Archaeological Assessment
- → Cultural and Built Heritage
- → Hydrogeological Investigation
- Culvert and Structural Analysis and Inspection
- Geotechnical Investigation, Pavement Design Report, and Contaminated Soil Assessment
- → Noise Impact Study
- → Air Quality Assessment
- → Landscaping/Streetscaping Assessment and Design

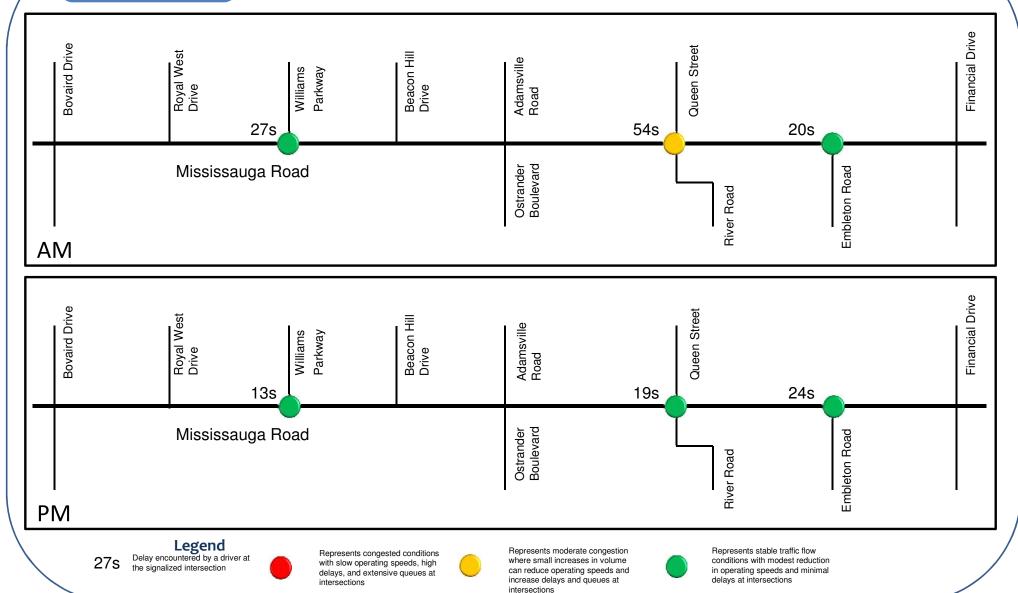


# Transportation and Traffic Study – Class EA and Addendum

- Existing Conditions (2015)
  - → Midblock traffic volumes approaching or already exceed capacity at some locations
  - Intersections operate acceptably during peak hours, with some problem movements.
    Optimizing signal timings would help.
  - → Potential safety concerns discontinuities in active transportation facilities, some pavement markings not visible under dark and wet condition, small street name signs difficult to see, gaps for unsignalized intersections
- Future Conditions (2031)
  - Findings consistent with 2012 LRTP
  - → Midblock traffic volumes forecast to exceed capacity, even with six (6) lanes
  - Several intersections expected to operate poorly, with numerous overcapacity movements
  - Retaining four (4) lane crossing over Credit River would significantly deteriorate operations, even with roundabouts
- Recommendations
  - Widen to six (6) lanes between Financial Drive and south of Bovaird Drive, consistent with 2012 LRTP
  - Second westbound left turn lane and signal timing changes at Williams Parkway and Queen Street West/River Road

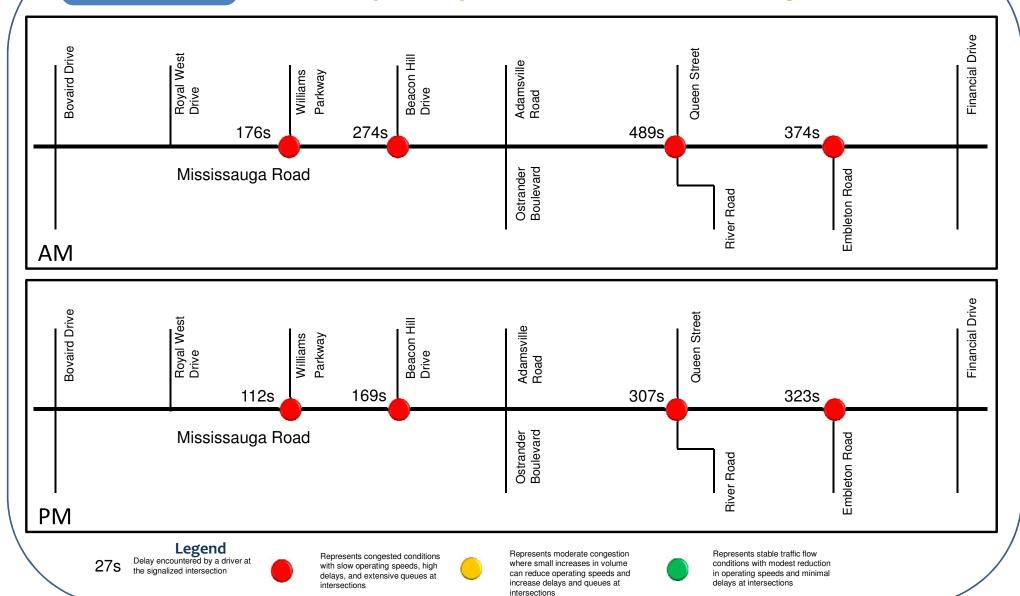


# **Existing (2015) Traffic Conditions**



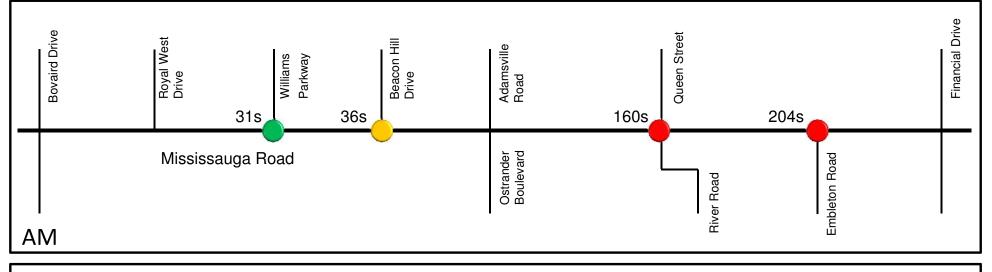


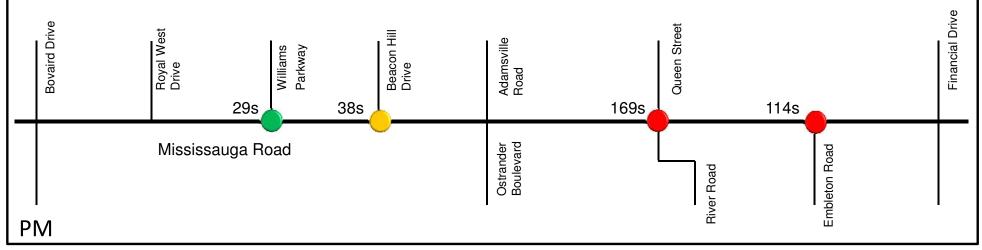
## Future (2031) Conditions – No Improvements





## Future (2031) Conditions – With Improvements





**Legend**Delay encountered by a driver at the signalized intersection



Represents congested conditions with slow operating speeds, high delays, and extensive queues at intersections



Represents moderate congestion where small increases in volume can reduce operating speeds and increase delays and queues at intersections



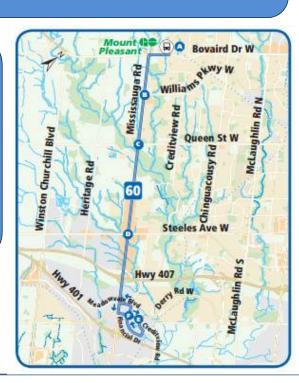
Represents stable traffic flow conditions with modest reduction in operating speeds and minimal delays at intersections



# **Existing and Future**Transit Initiatives

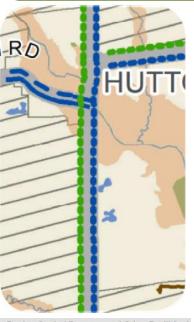
- Brampton Transit currently operates one bus route that extends through the study area - Route 60 Mississauga Road
- Planned
   expansion of
   Brampton
   Transit's Züm
   Bus Rapid
   Transit along
   corridor





# **Active Transportation Facilities**

 Active transportation infrastructure varies depending on the road cross-section



Municipal Path\*
 Planned Municipal Path\*

Pedestrian
 infrastructure is in
 the form of either a
 sidewalk or multi use trail on at least
 one side of the road





# Natural Environment - Class EA



## **Aquatic Environment**

- Two Watercourses in the study area:
  - Credit River main branch –
     Cool/warmwater watercourse
  - Unnamed Intermittent Tributary –
     Does not provide fish habitat
- Fish Species: 62 species are reported in the Credit River watershed including:
  - American Brook Lamprey
  - American Eel
  - Atlantic Salmon
  - Salmonidae family including Rainbow Trout, Brown Trout, and Coho Salmon







# Natural Environment - Class EA



### **Natural Sciences**

- Breeding Bird Study was completed:
  - 33 species were identified
  - Barn Swallow and Chimney Swift were reported
  - Nests reported under the Credit River Bridge
    - 11 Cliff Swallow and 1 Barn Swallow
- An Ecological Land Classification (ELC) analysis was completed:
  - No Species At Risk plants were identified
- A Species At Risk (SAR) habitat suitability study was completed for the study area
- Significant Natural Areas
  - Provincially Significant Wetland (PSW) identified within study area







**Barn Swallow** 

Cliff Swallow



**Chimney Swift** 



# Natural Environment - Class EA



### **Natural Sciences**

- Ministry of Natural Resources and Forestry (MNRF) reported the following confirmed SAR in the study area: 2 plant species, and 4 birds species:
  - Butternut endangered
  - American chestnut endangered
  - Eastern Meadowlark threatened
  - Bobolink threatened
  - Chimney Swift threatened
  - Barn Swallow threatened
- MNRF also lists an additional three mammal species, two bird species and one invertebrate could potentially occur in the study area:
  - Eastern Small-footed Myotis threatened
  - Little Brown Myotis endangered
  - Northern Myotis endangered



# Natural Environment Addendum



### **Aquatic Environment**

- Two adjacent watercourses and one watercourse crossing are within the addendum area:
  - → Huttonville Creek warmwater watercourse (flows adjacent to the study area)
  - Unnamed Tributary of Huttonville Creek not fish habitat (crosses under Mississauga Road)
  - Unnamed Tributary of the Credit River warmwater watercourse (flows adjacent to the study area)
- Huttonville Creek:
  - Redside Dace endangered
  - Creek Chub
  - Blacknose Dace
  - Brook Stickleback
- Unnamed Tributary of Credit River (no fish community available – fish barrier at the mouth of the tributary)

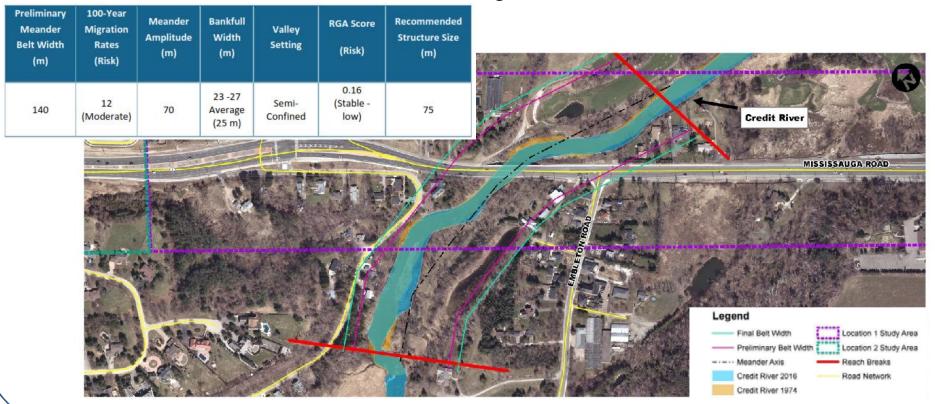




# Fluvial Geomorphology Class EA



- The Credit River crossings was evaluated following the standard methods for Meander Belt Assessment and Crossing Assessment, taking into consideration the CVC regulatory guidelines.
- The results of the evaluation for this crossing are:

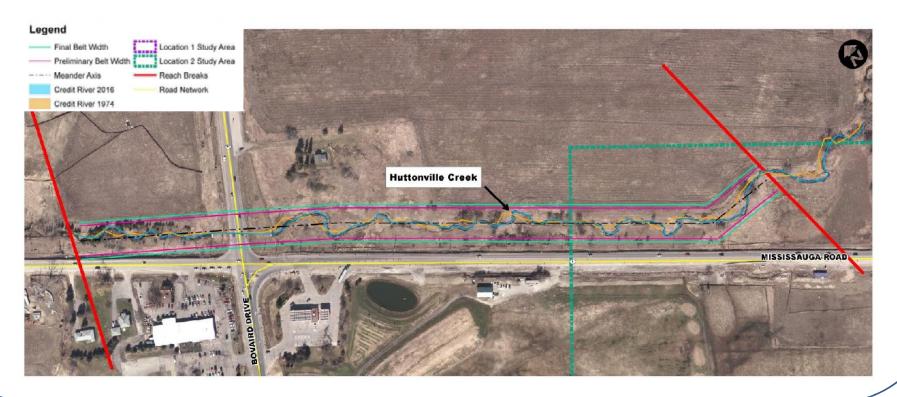




# Fluvial Geomorphology Addendum



- Two additional watercourses which parallel Mississauga Road and one crossing are contained within the addendum area, as follows:
  - → Huttonville Creek The meander belt width is estimated at 36.6m (larger than the 32.8m originally identified by Trow (2006b))
  - The new belt width does not cross or contact existing Mississauga Road





### Fluvial Geomorphology Addendum



→ Unnamed Credit River Tributary – The meander belt width is estimated at 43.2m, and contacts existing Mississauga Road.



→ Unnamed Tributary to Huttonville Creek – The original CSP crossing has recently been reconstructed to a box culvert. The culvert at this location is for an ephemeral tributary. Any improvements to this crossing will be deferred to hydraulic flow requirements only.

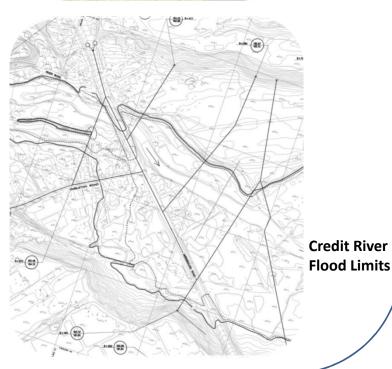


## Hydrology and Hydraulics / Stormwater Management – Class EA



- Mississauga Road drains to both the Credit River and Levi Creek
- → Road storm sewer system will be utilized to the extent possible, although upgrades may be required
- Credit River bridge floods during large storm events (e.g. Regulatory Storm -Hurricane Hazel)
- → The Credit Valley Conservation Authority requires the following stormwater management design criteria to be achieved:
  - Water quality treatment of road runoff; and
  - Infiltration of some road runoff to contribute to groundwater recharge







## Hydrology and Hydraulics / Stormwater Management – Class EA









### Hydrology and Hydraulics / Stormwater Management – Addendum

- Mississauga Road drains to Huttonville Creek and a tributary to the Credit River
- → Existing stormwater management infrastructure, including storm sewers and adjacent stormwater management ponds, will be utilized to the extent possible, although upgrades may be required.
- → The Credit Valley Conservation Authority requires the following stormwater management design criteria to be achieved:
  - → Water quality treatment of road runoff;
  - Infiltration of some stormwater runoff to contribute to groundwater recharging; and
  - Maintain peak flows for all storm events including Regulatory Storm - Hurricane
     Hazel





## Hydrology and Hydraulics / Stormwater Management – Addendum







## Stage 1 Archaeological Assessment (AA) Class EA and Addendum

A Stage 1 AA was completed for both study corridors and recommended a Stage 2 AA be completed prior to any construction activities.





## Built Heritage and Cultural Landscape Assessment - Class EA and EA Addendum

The Built Heritage and Cultural Landscape Assessment was completed along both corridors and the following was determined:

- → 10 Built Heritage properties and 1 Cultural Landscape within the Class EA corridor and
- → 2 Built Heritage properties and 2 Cultural Landscapes within the EA Addendum corridor, including the Huttonville Cemetery.
- → The reports recommend to avoid encroachment onto Built Heritage properties and Cultural Heritage Landscapes if at all possible and if it cannot be avoided and protected, a Heritage Impact Assessment should be completed





### **Additional Technical Investigations**

The following investigations will be completed for the Mississauga Road Corridor:



Region of Peel
Working for you

## **Problem and Opportunity** Statement – Refinement Class EA foster wheeler



Based on a review of existing and future conditions, as well as preliminary consultation with stakeholders, it has been determined that improvements are needed along the Mississauga Road corridor. The specific problems and opportunities to be addressed are as follows:

- existing and future traffic congestion;
- accommodation of transit;
- roadway geometrics;
- pedestrian and cyclists facilities;
- intersection operations;
- traffic, pedestrian and cyclist safety;
- drainage deficiencies and opportunities for stormwater management;
- pavement condition, and
- accommodation of future municipal services and utilities within the ultimate right-of-way.







### **Alternative Solutions – Class EA**

### Six alternative solutions were developed to address the problem statement

### 1. DO NOTHING

- No improvements
- Continue regular maintenance

### 2. IMPROVE OTHER ROADS

 Add capacity to adjacent parallel roads to accommodate

## 3. TRANSIT INFRASTRUCTURE IMPROVEMENTS

 Improve transit infrastructure to support Brampton Zum Rapid Transit Services and address capacity requirements

### 4. TRAVEL DEMAND MANAGEMENT

Encourage and support change in travel behaviour to reduce peak demand by:

- Promoting car-pooling and possible HOV
- Promoting flexible work hours,
- Increasing active transportation trips (biking/ walking)

### 5. WIDEN MISSISSAUGA ROAD

 Addition of through traffic lanes including intersection improvements, to increase traffic capacity of the corridor

### 6. COMBINATION

Combination of:

- o Improve transit services
- Travel DemandManagement
- o Widen Mississauga Road

Note: Alternative 2 was eliminated as part of Peel's Long Range Transportation Plan process and was subsequently not assessed.



### **Evaluation Criteria – Class EA**



### Natural Environment

- Wetlands and Vegetation
- Wildlife Habitat
- Species at Risk
- Groundwater
- Fisheries and Water Quality
- Flooding, Erosion and Water Quality

## Social Environment

- Land Use
- Noise
- Archaeology and Cultural Heritage Resources
- Agricultural
- AccessConsiderations
- Utilities
- ConstructionDisruptions

### Health

- Active Modes of Transportation
- Accessibility (AODA)
- Air Quality

### **Transportation**

- Safety
- Travel Delay/ Traffic Capacity
- Transit

### Cost

Capital Cost

### **Technical**

- Constructability
- Adherence to Applicable Design Standards

## Transportation Plans and Policies

 Compatibility with Regional and City Transportation Plans and Policies Region of Peel Working for you

## Alternative Solutions Assessment Class EA

	DO NOTHING	TRANSIT INFRASTRUCTURE IMPROVEMENTS	TRAVEL DEMAND MANAGEMENT	WIDEN MISSISSAUGA ROAD	COMBINATION
Natural Environment	1	3	1	4	4
Social Environment	4	2	2	3	3
Health	5	3	4	2	1
Transportation	5	4	5	2	1
Cost	1	2	1	5	5
Technical	3	4	3	3	3
Transportation Plans and Policies	5	4	4	1	1

1 – Most Preferred 2 – Preferred 3 – Neutral 4 – Not Preferred 5 – Least Preferred



### Preliminary Recommended Alternative Solution – Class EA



The preliminary recommended alternative solution is Alternative 6: A combination of Alternatives 3-5, as follows:

- 3. Transit Infrastructure Improvements
- 4. Travel Demand Management
- 5. Widen Mississauga Road including additional through lanes and intersection improvements

A combination of Alternative 3 - 5 will address the problem statement developed for the Mississauga Road corridor, while minimizing environmental impacts.



- The Region of Peel is completing an EA Addendum to the Schedule C Municipal Class Environmental Assessment for Mississauga Road from Queen Street West (Regional Road 6) to Bovaird Drive West (Regional Road 107).
- The purpose of the addendum is to review the feasibility to widen Mississauga Road to six lanes.
- The Addendum area was included in the Transportation and Traffic Study (including Safety Performance Report) investigation.
- The Transportation and Traffic Study recommends widening of Mississauga Road to six lanes to accommodate future traffic volumes.
- Based on the technical studies completed to date, there are no major environmental constraints within the addendum area.





Mississauga Road from Ostrander Boulevard to 300m north of Ostrander Boulevard





Mississauga Road from 300m north of Ostrander Boulevard to 200m north of Beacon Hill Drive





Mississauga Road from 200m north of Beacon Hill Drive to intersection with commercial development (Wal-Mart, etc.)





Mississauga Road from intersection with commercial development (Wal-Mart, etc.) to Williams

Parkway





Mississauga Road from Williams Parkway to 500m north of Williams Parkway





Mississauga Road from 500m north of Williams Parkway to 300m north of Royal West Drive





Mississauga Road from 300m north of Royal West Drive to 300m south of Bovaird Drive





Mississauga Road from 300m south of Bovaird Drive to Bovaird Drive



# BREAK (15 min) Group Discussion (15 min)



### **Group Discussion**

### Remember the Meetings Objectives:

- Review background investigations completed for Location 1 and Location 2
- 2. Review and provide comments on the preliminary assessment of planning alternatives for Location 1 (Class Environmental Assessment (EA))
- 3. Review and provide comments on preliminary design for Location 2 (Addendum)
- 4. Provide comment on next steps



### **Next Steps**

### Class EA

- 1. Review and confirm preferred planning alternatives and assessment in light of comments received from the agency representatives
- 2. Hold Public Information Center No.1 in January 2017
- 3. Complete environmental inventory
- 4. Develop alternative design concepts
- 5. Complete detailed impact analysis
- 6. Public Information Center No. 2 to be held in Spring 2017
- 7. Prepare and File Environmental Study Report

### **EA Addendum**

- 1. Hold Public Information Center in January 2017
- 2. Complete environmental inventory
- Confirm design in light of comments received from the public and agencies
- 4. Prepare Environmental Assessment Addendum Report



# Thank You



### Memo

To: Gino Dela Cruz, Region of Peel

From: Heather Dearlove, Amec Foster Wheeler; Jason Stahl, Amec Foster Wheeler

Date: November 2016

**File:** TP115085

cc: David Sinke, Amec Foster Wheeler; Neal Smith, Amec Foster Wheeler

Re: Mississauga Road Class Environmental Assessment

**Assessment of Planning Alternatives** 

Table 1 provides a description of the evaluation criteria that will be used in subsequent phases of the study:

Table 1 Evaluation Criteria for Planning Alternatives					
Component	Evaluation Criteria	Description			
	Wetlands and Vegetation	Potential adverse effects on terrestrial species and habitats			
	Wildlife Habitat	Potential adverse effects on existing wildlife due to disturbance or loss of habitat			
Natural	Species at Risk	Potential effects on Species at Risk identified in the study area			
Environment	Groundwater	Potential adverse effect on groundwater and wells including groundwater discharge and recharge			
	Fisheries and Water Quality	Potential to minimize impact on aquatic features			
	Flooding, Erosion and Water Quality	Potential to minimize flood potential, flood elevations, and downstream erosion risks and water quality			
Social Environment including,	Land Use	Presence, number and characteristics of residences, community facilities, public parks, institutions or businesses within or adjacent to the study corridor			
Cultural, and Economic	Noise	Impact on noise levels at noise sensitive receivers during or after construction			

### Region of Peel November 2016

	Archaeology and Cultural Heritage Resources	Potential adverse effects on archaeological and built heritage resources	
_	Agricultural	Potential adverse effects on agricultural lands and operations	
	Access Considerations	Ability to maintain/maximize access following construction	
	Utilities	Ability to minimize effects on existing and proposed utilities	
	Construction Disruptions	Ability to minimize construction constraints and complexity	
	Active Modes of Transportation	Ability to contribute to the Active Transportation (AT) network through the corridor including the provision of continuous facilities, AT type and design, and access to destinations along the corridor	
Health	Accessibility (AODA)	Ability to maintain or enhance accessibility of the roadway for all road users including pedestrians	
	Air Quality	Ability to reduce emission associated with transportation within the study area	
	Safety	Ability to improve vehicular and active transportation safety	
Transportation	Travel Delay/ Traffic Capacity	Potential to address existing and future capacity and operational needs	
	Transit	Potential to address transit needs for future planned transit initiatives	
Costs	Capital Cost	Capital costs of the proposed improvements	
	Constructability	The degree of ability to construct the improvements in a simple and cost effective manner	
Technical	Adherence to Applicable Design Standards	Degree to which the proposed improvements meet applicable standards and codes	
Transportation Plans & Policies	Compatibility with Regional and City Transportation Plans and Policies	Compatibility with Regional and Municipal Official Plans and Policies	

The following planning alternatives have been identified for consideration in addressing the problems and opportunities discussed above:

**Alternative 1: Do Nothing:** Maintain Mississauga Road in its present configuration with no improvements other than to continue regular maintenance.

Region of Peel November 2016

**Alternative 2: Improve other Roads:** Add capacity to adjacent parallel roads to accommodate traffic volumes.

Alternative 3: Transit Infrastructure Improvements: Improve transit infrastructure to support Brampton Transit (Zum and/or standard services) and address capacity requirements.

Alternative 4: Travel Demand Management (TDM): Encourage and support change in travel behaviour to reduce peak travel demand:

- Promoting car-pooling and possible HOV lanes
- · Promoting flexible work hours, and
- Increasing active transportation trips (biking/walking)

Alternative 5: Widen Mississauga Road with Intersection Improvements: Addition of through-traffic lanes including intersection improvements, to increase traffic capacity of the corridor.

### Alternative 6: A combination of 3, 4 and 5:

- Improve transit services
- Travel Demand Management
- Widen Mississauga Road

Note: Alternative 2 was eliminated as part of Peel's Long Range Transportation Plan process and was subsequently not assessed.

Assessment of Alternative Planning Solutions						
Component	Evaluation Criteria	Alternative 1: Do Nothing: Maintain Mississauga Road in its present configuration with no improvements other than to continue regular maintenance	Alternative 3: Transit Infrastructure Improvements: Improve transit infrastructure to support Brampton Transit (Zum and/or standard services) and address capacity requirements	Alternative 4: Travel Demand Management (TDM): Encourage and support change in travel behaviour to reduce peak travel demand	Alternative 5: Widen Mississauga Road with Intersection Improvements: Addition of through-traffic lanes including intersection improvements, to increase traffic capacity of the corridor	Alternative 6: Combination of 3, 4, and 5: Improve transit services Travel Demand Management Widen Mississauga Road
	Wetlands and Vegetation	No impacts	Minor impacts dependent on the scope of the transit improvements implemented	No impacts	Potential for impacts dependent on the design of the widening but can be mitigated with established practices and guidelines	Potential for impacts dependent on the design of the widening and other improvements but can be mitigated with established practices and guidelines
Natural Environment	Wildlife Habitat	No impacts	Minor impacts dependent on the scope of the transit improvements implemented	No impacts	Potential for impacts dependent on the design of the widening but can be mitigated with established practices and guidelines	Potential for impacts dependent on the design of the widening and other improvements but can be mitigated with established practices and guidelines
	Species at Risk	No impacts	Minor impacts dependent on the scope of the transit improvements implemented	No impacts	Potential for impacts dependent on the design of the widening but can be mitigated with established practices and guidelines	Potential for impacts dependent on the design of the widening and other improvements but can be mitigated with established practices and guidelines
	Groundwater	No impacts	Minor impacts dependent on the scope of the transit improvements implemented	No impacts	Potential for minor impacts dependent on the design of the widening but can be mitigated with established practices and guidelines	Potential for minor impacts dependent on the design of the widening and other improvements but can be mitigated with established practices and guidelines
	Fisheries and Water Quality	No impacts	Minor impacts dependent on the scope of the transit improvements implemented	No impacts	Potential for minor impacts dependent on the design of the widening but can be mitigated with established practices and guidelines	Potential for minor impacts dependent on the design of the widening and other improvements but can be mitigated with established practices and guidelines
	Flooding, Erosion and Water Quality	No impacts	Minor impacts dependent on the scope of the transit improvements implemented	No impacts	Potential for minor impacts dependent on the design of the widening but can be mitigated with established practices and guidelines	Potential for minor impacts dependent on the design of the widening and other improvements but can be mitigated with established practices and guidelines
	Summary	Most Preferred	Neutral	Most Preferred	Not Preferred	Not Preferred

Legend:				
Most Preferred	Preferred	Neutral	Not Preferred	Least Preferred

Assessment of Alternative Planning Solutions						
Component	Evaluation Criteria	Alternative 1: Do Nothing: Maintain Mississauga Road in its present configuration with no improvements other than to continue regular maintenance	Alternative 3: Transit Infrastructure Improvements: Improve transit infrastructure to support Brampton Transit (Zum and/or standard services) and address capacity requirements	Alternative 4: Travel Demand Management (TDM): Encourage and support change in travel behaviour to reduce peak travel demand	Alternative 5: Widen Mississauga Road with Intersection Improvements: Addition of through-traffic lanes including intersection improvements, to increase traffic capacity of the corridor	Alternative 6: Combination of 3, 4, and 5: Improve transit services Travel Demand Management Widen Mississauga Road
	Land Use	With increase in traffic volumes and no expansion of existing facilities, congestion would create a negative impact on the existing land use	Minor impacts dependent on the scope of the transit improvements implemented	No impacts	Minor impacts to land use along corridor dependent on property acquisition required for the design of the widening	Minor impacts to land use along corridor dependent on property acquisition required for the design of the widening
Social Environment Archa including, Cultural, and Cultural	Noise	With increase in traffic volumes and no expansion of existing facilities, congestion, and in turn noise, will increase	A reduction in predicted traffic volumes would be achieved, however, background traffic would still increase, and in turn noise, will increase	A reduction in predicted traffic volumes would be achieved, however, background traffic would still increase, and in turn noise, will increase	Potential increase in noise due to increased traffic volumes. Opportunity to include additional noise mitigation if required	Potential increase in noise due to increased traffic volumes. Opportunity to include additional noise mitigation if required
	Archaeology and Cultural Heritage Resources	No impacts	Potential impacts to archaeological and built heritage resources along the corridor	No impacts	Potential impacts to archaeological and built heritage resources along the corridor	Potential impacts to archaeological and built heritage resources along the corridor
	Agricultural	No impacts	No impacts	No impacts	No impacts	No impacts
	Access Considerations	No opportunity to improve access along the corridor	No opportunity to improve access along the corridor	No opportunity to improve access along the corridor	Opportunity to improve access to the corridor and other local roadways	Opportunity to improve access to the corridor and other local roadways
	Utilities	Utility relocation would not be required	Utility relocation dependent on the scope of the transit improvements implemented	Utility relocation would not be required	Utility relocation would be required along the corridor	Utility relocation would be required along the corridor
	Construction Disruptions	No Impact	Minor impact	No impacts	Potential for disruption to traffic and residents as a result of construction	Potential for disruption to traffic and residents as a result of construction
	Summary	Not Preferred	Preferred	Preferred	Neutral	Neutral
	Active Modes of Transportation	No opportunity to improve Active Transportation facilities	Minor improvements to Active Transportation facilities	No opportunity to improve Active Transportation facilities	Opportunity to improve Active Transportation facilities as part of widening	Significant opportunity to improve Active Transportation facilities as part of widening and other improvements
Health	Accessibility (AODA)	No opportunity to improve accessibility (AODA) along corridor	No opportunity to improve accessibility (AODA) along corridor	No opportunity to improve accessibility (AODA) along corridor	Opportunity to improve accessibility (AODA) along corridor	Significant opportunity to improve accessibility (AODA) along corridor
	Air Quality	With increase in traffic volumes and no expansion of existing facilities, congestion will increase and in turn air quality will decrease	Marginal improvement to future air quality condition due to reduction in predicted traffic volume	Marginal improvement to future air quality condition due to reduction in predicted traffic volume	Improvement to future air quality condition due to reduction in congestion	Improvement to future air quality condition due to reduction in congestion
	Summary	Least Preferred	Neutral	Not Preferred	Preferred	Most Preferred

#### Legend

Most Preferred	Preferred	Neutral	Not Preferred	Least Preferred
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			Assessment of Alterna	ative Planning Solutions		
Component	Evaluation Criteria	Alternative 1: Do Nothing: Maintain Mississauga Road in its present configuration with no improvements other than to continue regular maintenance	Alternative 3: Transit Infrastructure Improvements: Improve transit infrastructure to support Brampton Transit (Zum and/or standard services) and address capacity requirements	Alternative 4: Travel Demand Management (TDM): Encourage and support change in travel behaviour to reduce peak travel demand	Alternative 5: Widen Mississauga Road with Intersection Improvements: Addition of through-traffic lanes including intersection improvements, to increase traffic capacity of the corridor	Alternative 6: Combination of 3, 4, and 5: Improve transit services Travel Demand Management Widen Mississauga Road
	Safety	Increase in traffic volumes with no expansion of the corridor will increase the potential for collisions	Increase in traffic volumes with no expansion of the corridor will increase the potential for collisions	Increase in traffic volumes and pedestrian / cyclist movement with no expansion of the corridor will increase the potential for collisions	Opportunity to improve safety due to reduction in congestion and other improvements	Opportunity to improve safety due to reduction in congestion and other improvements
Transportation Ca	Travel Delay/ Traffic Capacity	With increase in traffic volumes and no expansion of existing facilities, the road will be unable to meet future traffic demands, causing longer delays	Potential to limit increase in traffic congestion by promoting alternative modes of travel	Potential to limit increase in traffic congestion by promoting alternative modes of travel	Improves corridor capacity and reduces delay and queuing	Improves corridor capacity and reduces delay and queuing
	Transit	No potential to improve transit services along the corridor	Potential to improve transit services along the corridor	No potential to improve transit services along the corridor	Potential to improve transit services along the corridor with changes to the road cross section.	Greatly improves transit services along the corridor with changes to the road cross section with widening
	Summary	Least Preferred	Not Preferred	Least Preferred	Preferred	Most Preferred
Costs	Capital Cost	No capital costs	Moderate capital expenditure would be required	Minimal capital cost increase would be required to advance program initiatives	High capital costs associated with improvements to corridor	High capital costs associated with improvements to corridor
	Summary	Most Preferred	Preferred	Most Preferred	Least Preferred	Least Preferred
	Constructability	No constructability issues	Some constructability concerns given the restricted right-of-way	No constructability issues	Many constructability issues would need to be resolved.	Many constructability issues would need to be resolved.
Technical	Adherence to Applicable Design Standards	No ability to upgrade the corridor to adhere to applicable design standards and current practices	No ability to upgrade the corridor to adhere to applicable design standards and current practices	No ability to upgrade the corridor to adhere to applicable design standards and current practices	Ability to upgrade the corridor to adhere to applicable design standards and current practices	Ability to upgrade the corridor to adhere to applicable design standards and current practices
	Summary	Neutral	Not Preferred	Neutral	Neutral	Neutral
Transportation Plans & Policies	Compatibility with Regional and City Transportation Plans and Policies	Does not comply with the City's and Region's planning documents	Complies with some aspects of the City's and Region's planning documents by supporting alternative modes of travel	Complies with some aspects of the City's and Region's planning documents by supporting alternative modes of travel	Complies with City's and Region's planning documents	Complies with City's and Region's planning documents
	Summary	Least Preferred	Not Preferred	Not Preferred	Most Preferred	Most Preferred
Recomm	mendations	Eliminated from Further Consideration	Eliminated from Further Consideration	Eliminated from Further Consideration	Eliminated from Further Consideration	Recommended as the Preferred Planning Solution

#### Legend

Most Preferred	Preferred	Neutral	Not Preferred	Least Preferred
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### **Minutes**

Date: January 17, 2017

File #: TP115085

Meeting Date & Time: January 10, 2017 @ 3:00 p.m.

Meeting at: Region of Peel Headquarters

Subject: Mississauga Road Class EA

Background Drainage and Stormwater Management Information

Discussion

Attendees:

Gino Dela Cruz, Region of Peel Mark Heaton, MNRF

John Nemeth, Region of Peel

Jibril Farah, Region of Peel

Jakub Kilis, CVC

Neal Smith, Amec Foster Wheeler

Steve Chipps, Amec Foster Wheeler

Matt Britton, Amec Foster Wheeler

Rebecca Stewart, CVC

Regrets:

David Sinke, Amec Foster Wheeler Jason Stahl, Amec Foster Wheeler

#### **MATTERS DISCUSSED**

#### **ACTION BY:**

#### 1. Introductions

Neal Smith and Steve Chipps introduced the meeting indicating its purpose to discuss the background information relevant to stormwater management (SWM), including design reports and drawings completed by various consultants, as well as existing and proposed infrastructure within the Mississauga Road right-of-way (R.O.W.).

The Memo prepared by Amec Foster Wheeler titled "Summary of Mississauga Road Background Drainage and Stormwater Management Information for Discussion Memo" dated January 6, 2017, was forwarded to attendees by the Region on January 9, 2017.

#### 2. Design Criteria

The Credit Valley Conservation Authority, Region of Peel, and Ministry of Natural Resources and Forestry staff were requested to provide input on the design criteria relevant to SWM for the Class EA and Class EA

**PLEASE NOTE:** If there is any comment or amendment to be made to these meeting notes, they should be brought to the notice of Amec Foster Wheeler within five (5) business days of issue and confirmed in writing.

3215 North Service Road Burlington, Ontario L7N 3G2 Tel +1 905 335 2353 Fax +1 905 335-1414 amecfw.com

Amec Foster Wheeler Environment & Infrastructure Registered office: 2020 Winston Park Drive, Suite 700, Oakville, Ontario L6H 6X7 Registered in Canada No. 773289-9; GST: 899879050 RT0008; DUNS: 25-362-6642 Meeting Date: January 10, 2017

#### **MATTERS DISCUSSED**

**ACTION BY:** 

Addendum sections of Mississauga Road. The following arose in discussion:

### **Credit Valley Conservation Authority (CVC)**

- Quantity Control: Rebecca Stewart advised that post-to-predevelopment control for the 2-100 year design storm events is required for lands draining to the Huttonville Creek and Unnamed Tributary, as per the Class Environmental Assessment Study completed by Trow Associates Inc. (November 2006).
- ii. Rebecca Stewart advised that all other CVC design criteria for the Huttonville Creek and Unnamed Tributary, the Credit River and Levi Creek, as listed in the Memo is acceptable.

### The Region of Peel (Region)

- i. John Nemeth advised that directing runoff from external lands to the Region storm sewer system is not permitted.
- ii. John Nemeth advised that the Region engineering design criteria does not contain quantity and quality control criteria. The quantity and quality control criteria listed under "The Region of Peel" in the Memo is not to be carried forward.
- iii. John Nemeth advised that the remaining Region design criteria listed in the Memo is acceptable.
- iv. John Nemeth advised that the SWM reports to be prepared for the Class EA and Class EA Addendum must follow the Region of Peel's Guidelines for the Preparation of Stormwater Management Reports in Support of Municipal Class Environmental Assessments (June 2014).

Amec Foster Wheeler

v. In the context of SWM design criteria, John Nemeth advised of a forthcoming Ministry of Environment and Climate Change (MOECC) document which will incorporate new requirements for stormwater management. John Nemeth to provide Amec Foster Wheeler with Draft MOECC criteria pertaining to road improvements and widening for use in preparing the Class EA and Class EA Addendum.

Region

#### The Ministry of Transportation (MTO)

i. Steve Chipps stated that the MTO criteria listed in the Memo is as per the MTO Highway Drainage Design Standards (2008).

Meeting Date: January 10, 2017

#### **MATTERS DISCUSSED**

### **ACTION BY:**

### The Ministry of Natural Resources and Forestry (MNRF)

- Mark Heaton advised that thermal mitigation reducing stormwater runoff temperatures to below 24°C is required for all stormwater draining to Redside Dace habitat.
- ii. Mark Heaton advised that the post-development water balance solution must infiltrate the first 5-15 mm of rainfall.
- iii. Mark Heaton advised that a sand plain was discovered within the R.O.W. during the watermain construction works. A Hydrogeological Report was completed by AES International for the watermain construction project and provides information relevant to the sand plain. Region to provide the AES International Hydrogeological Report to Amec Foster Wheeler for use in completing the Class EA Addendum.

Region

iv. Mark Heaton advised that a Hydrogeological Report completed by R.J. Burnside/Schaeffers Consulting for the Bluegrass subdivision outlines infiltration targets established for the sand plain area. Mark Heaton also recommended the sand plain be utilized for infiltration practices within the R.O.W. Amec Foster Wheeler to contact Joanne Thompson at R.J. Burnside to obtain the Hydrogeological Report.

Amec Foster Wheeler

### 3. Background Review Comments

The Credit Valley Conservation Authority, Region of Peel, and Ministry of Natural Resources and Forestry staff were requested to provide input on the following background reports reviewed by Amec Foster Wheeler for the Class EA and Class EA Addendum sections of Mississauga Road. The following arose in discussion:

SWM Report for Mississauga Road Improvement Project from Williams Parkway to Bovaird Drive & Bovaird Drive at Mississauga Road Intersection – TMIG (November 2015)

- i. Steve Chipps indicated that the quantity control design proposed within The Municipal Infrastructure Group report appears to provide post-to-pre-development control for the 10 year storm only. CVC reiterated that the Class EA Addendum must incorporate SWM controls as discussed.
- ii. John Nemeth advised that questions pertaining to the design elements outlined in the TMIG report should be directed to TMIG. John Nemeth advised that Amec Foster Wheeler may contact TMIG as necessary. Amec Foster Wheeler to contact TMIG to confirm if the proposed design addresses the ultimate six (6) lane R.O.W.

Amec Foster Wheeler

Meeting Date: January 10, 2017

#### MATTERS DISCUSSED

#### **ACTION BY:**

iii. Jibril Farah advised that the storm sewers designed by MMM Group Ltd. were designed for the ultimate R.O.W., which was confirmed by MMM Group Ltd. Jibril Farah to provide the MMM Group Ltd. storm drainage area plans and storm sewer design sheets to Amec Foster Wheeler for use in completing the Class EA Addendum.

Region

- iv. CVC staff advised that Culvert C4 does not convey drainage from a regulated tributary and that their only concern pertaining to the proposed upgrade was the resulting increase in flood elevations impacting the lands on the upstream side of the culvert. Further, CVC staff advised that they have no concern with the proposed upgrade.
- v. Region staff advised that the only anticipated changes to the Culvert C4 are the lengthening on the west side to facilitate the ultimate R.O.W. construction.

### Design Brief for LIDs within Mississauga Road between Williams Parkway and Bovaird Drive – Aquafor Beech (August 2015)

i. John Nemeth advised that questions pertaining to the design elements outlined in the Aquafor Beech report should be directed to Aquafor Beech. John Nemeth advised that Amec Foster Wheeler may contact Aquafor Beech as necessary. Amec Foster Wheeler to contact Aquafor Beech to confirm if the proposed design addresses the ultimate R.O.W.

Amec Foster Wheeler

- ii. The Region, CVC, and MNRF indicated that they do not anticipate updates will be required to the Aquafor Beech LID design for the east portion of the R.O.W., between Bovaird Drive and Culvert C4.
- iii. Steve Chipps indicated that the report did not cover the east half of the R.O.W., south of Culvert C4, and that the only quality control provided for this drainage area is an OGS unit located at the storm sewer system outlet. Jakub Kilis indicated that quality controls in addition to the OGS unit will be required as an OGS is not sufficient to provide the required level of quality and a treatment train approach (additional controls) should be investigated.

Further, John Nemeth advised that the east side of the R.O.W. is not to be disturbed for the ultimate six (6) lane widening, therefore requiring that all proposed quality and quantity control solutions be implemented on the west half of the R.O.W.

#### MATTERS DISCUSSED

#### **ACTION BY:**

# Stormwater Management Report – Bluegrass South – Schaeffers Consulting (September 2013)

- Matt Britton indicated that SWM Facility H3 discussed in this report provides SWM controls for a portion of the Mississauga Road R.O.W., however it is unknown if the drainage area accounted for covers the ultimate R.O.W.
- ii. John Nemeth advised that questions pertaining to the design elements outlined in the Schaeffers Consulting report should be directed to Schaeffers Consulting. John Nemeth advised that Amec Foster Wheeler may contact Schaeffers Consulting as necessary. Amec Foster Wheeler to contact Schaeffers Consulting to confirm SWM Facility H3 design details pertaining to the Mississauga Road R.O.W.

Amec Foster Wheeler

iii. John Nemeth advised that the Region's preference is to direct minimal amounts of stormwater to SWM Facility H3. John Nemeth recommended infiltration practices be implemented to reduce runoff to SWM Facility H3.

# Stormwater Management Implementation Report – Four X Development – RAND Engineering (April 2015)

 Region staff confirmed that the SWM Facilities within the Four X development do not provided SWM controls for any portion of the Mississauga Road R.O.W.

# Stormwater Management Report - Chariot Subdivision - Valdor Engineering (March 2007)

- Matt Britton outlined that a significant section of the Mississauga Road R.O.W. drains to SWM Facility W1.
- Based on a review of this report, it appears that SWM Facility W1 was sized for a drainage area with an overall imperviousness of 36%.
- iii. Matt Britton advised that that this impervious value is considered very low and there is concern that the SWM Facility may be undersized. The concern was endorsed by Jakub Kilis. Furthermore, Steve Chipps advised that an analysis will be completed to assess impacts to the SWM Facility resulting from the ultimate R.O.W. The analysis will incorporate an appropriate impervious value for the drainage areas to the facility.

The City of Brampton maybe able to provide more information regarding the original design of the pond to better understand the discrepancy between the calculations. If pond was built pre 2008, there may be historical data that would show how the pond

## MATTERS DISCUSSED

#### **ACTION BY:**

functioned during the July 8. 2013 storm. If the pond has been assumed by the City of Brampton, a clean out report and monitoring reports may be available.

- iv. John Nemeth advised that the Region's preference is to direct minimal amounts of stormwater to SWM Facility W1.
- v. John Nemeth recommended infiltration practices be implemented to reduce runoff to SWM Facility W1.

# Contract 2 SWM Report - TMIG (July 2010)

- Matt Britton outlined that this report proposes 10 year post-to-predevelopment quantity controls for the Mississauga Road/Queen Street West drainage area that discharges directly to the Credit River.
- ii. CVC staff confirmed that no quantity controls are required for areas draining directly to the Credit River.
- iii. Region staff advised Amec Foster Wheeler that although the 10 year post-to-pre-development quantity controls are not required, they should not be removed.

## 4. Additional Items

The following items were discussed throughout the meeting, which are not relevant to any particular background report. The items are listed in order of discussion:

. John Nemeth indicated that an LID retrofit system is currently being implemented within the center median planting beds at the Mississauga Road/Queen Street West intersection. The LID retrofit system was designed by Aquafor Beech. Amec Foster Wheeler to contact Aquafor Beech to obtain the LID retrofit design report.

Amec Foster Wheeler

- ii. John Nemeth and Mark Heaton advised that if the SWM infrastructure design for the ultimate R.O.W. is found to insufficiently service the R.O.W. then these items must be addressed in the report. Conversely, if the infrastructure is found to service the ultimate R.O.W., no analysis is required.
- iii. Jakub Kilis indicated that CSP Arch Culvert C9 is located within a regulated watercourse, and any works associated with the culvert will require a permit from CVC. Furthermore, Jakub Kilis indicated that the culvert may be undersized.

## MATTERS DISCUSSED

#### **ACTION BY:**

- iv. Jakub Kilis indicated that Culvert C8 is not within a regulated watercourse and that it is believed to function as an equalization culvert for the adjacent wetland.
- v. Mark Heaton advised that a Fish Compensation Plan was prepared for the wetland by SLR Consulting/R.J. Burnside and is provided within the Block 40-3 Environmental Impact Report. Amec Foster Wheeler to contact R.J. Burnside to obtain the Block 40-3 Environmental Impact Report.

Amec Foster Wheeler

- vi. Mark Heaton advised of the Embleton Sand Plain that exists south of the Credit River crossing will provide opportunity for infiltration practices.
- vii. Matt Britton indicated that the drainage area to CSP Arch Culvert C7 located near the Lionhead Golf Club entrance appears to have been reduced almost entirely. Region staff advised that if the culvert is proved to be unnecessary it should be removed.

Meeting Minutes prepared by:

Amec Foster Wheeler Environment & Infrastructure A division of Amec Foster Wheeler Americas Limited

Per: Matt Britton, EIT

Water Resources Designer

MB/cc

c.c All Present



**Date:** March 15, 2017

File #: TP115085

Meeting Date & Time: March 7, 2017@ 12:00 p.m.

Meeting at: Terrace on the Green, Mississauga Road

Subject: Mississauga Road Class EA

Impacts to their driveway

Attendees:

Gino Dela Cruz, Region of Peel Neal Smith, Amec Foster Wheeler Jason Stahl, Amec Foster Wheeler Alex Trajkovski, Owner, Terrace on the Green

Regrets:

Peter Trajkovski, Director of Operations,

Anthony Zois, Region of Peel

Terrace on the Green

## MATTERS DISCUSSED

## **ACTION BY:**

#### 1. Introductions

Neal Smith, Jason Stahl from Amec Foster Wheeler and Gino Dela Cruz from the Region of Peel were greeted by Alex Trajkovski as Peter Trajkovski was unable to attend the meeting.

Alex Trajkovski provided some history on the restaurant and the access to the property on Mississauga Road. Alex and his son Peter are concerned that a 6-lane widening of Mississauga Road would further impact their access. They are concerned about the safety of the visitors to the restaurant, especially in poor weather conditions. Alex also expressed concern that the increase in traffic due to development in the area will exacerbate the current issues.

**PLEASE NOTE:** If there is any comment or amendment to be made to these meeting notes, they should be brought to the notice of Amec Foster Wheeler within five (5) business days of issue and confirmed in writing.

3215 North Service Road Burlington, Ontario L7N 3G2 Tel +1 905 335 2353 Fax +1 905 335-1414 amecfw.com

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## MATTERS DISCUSSED

**ACTION BY:** 

Amec Foster Wheeler provided an aerial plan drawing of the property showing the access and a copy of Riverview Heights Block Plan (Stage 2 Block Plan).

After reviewing the drawings, possible access alternatives were discussed and options included:

- Avoid impacts to the access as part of the 6-lane design.
- Realign the access road to connect to Mississauga Road south of the current access connection location.
- Access to the proposed subdivision behind the property.

Alex explained that they are considering closing the restaurant and building condominiums if they can get an access to the proposed subdivision to the west, as they feel the restaurant would struggle with no direct access off Mississauga Road.

# 2. Next Steps

Amec Foster Wheeler will continue with the design alternatives for the 6lane widening and evaluate what the impacts to the access will be.

After the EA process determines a 6-lane design, the project team will review the various options for the restaurant access.

Subsequent to the EA design, further refinements will be reviewed at the detailed design phase of the project

Meeting Minutes prepared by:

Amec Foster Wheeler Environment & Infrastructure A division of Amec Foster Wheeler Americas Limited

Per: Neal Smith, C.E.T.

Senior Technologist, Transportation

NS/ns

c.c All



Date: July 27<sup>th</sup>, 2017 File #: TP115085 Meeting Date & Time: July 11<sup>th</sup>, 2017

Meeting at: Region of Peel Head Office, Room 4-830

Subject: Mississauga Road Class EA

Progress Meeting with MNRF and CVC

Attendees:

Mark Heaton – MNRF Jakub Kilis – CVC Rebecca Stewart – CVC Kaitlyn McGlade – CVC

Gino Dela Cruz – Region of Peel Neal Smith – Amec Foster Wheeler Steve Chipps – Amec Foster Wheeler Matt Britton – Amec Foster Wheeler

Jason Stahl – Amec Foster Wheeler

# **MATTERS DISCUSSED**

**ACTION BY:** 

# **Introduction**

1) The purpose of the meeting was to review the current preliminary design for Mississauga Road to solicit feedback, and to review the current status of the SWM modelling for the addendum section.

# **Project Update**

- 2) Amec FW had recently met to review the preferred alternative with the various groups of the Region. Some minor comments were identified, however the same plan presented to the Region was provided at the meeting for MNRF and CVC review.
- 3) The following upcoming milestones were identified to CVC/MNRF:
  - a. PIC #2 Fall 2017
  - b. File ESR End of 2017

# Review of Preliminary Design (Financial Drive to Queen Street)

- 4) The preliminary design was reviewed by Amec FW. The following key aspects were identified:
  - a. Smaller overall footprint for 6-lane road when compared to the standard Regional cross section:
    - i. Through lane widths reduced from 3.65m to 3.40m

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Amec Foster Wheeler Environment & Infrastructure Registered office: 2020 Winston Park Drive, Suite 700, Oakville, Ontario L6H 6X7 Registered in Canada No. 773289-9; GST: 899879050 RT0008; DUNS: 25-362-6642 Meeting Date: July 11th, 2017

## **MATTERS DISCUSSED**

#### **ACTION BY:**

- ii. Curb lane width reduced from 3.75m to 3.50m
- iii. Boulevard width reduced from 3.50m to 1.50m
- iv. Localized reduction in multi-use trail width from 3.00m to 2.40m
- v. Median widths minimized from 5.50m to 2.0m (with some locations 0m)
- b. The Regional standard 45.0m right-of-way and 50.5m at intersections will be applied to ensure adequate property is available for construction;
- c. Transit will be facilitated by bus bays/pads at Queen Street, Embleton Road, and Lionhead Golf Course entrance;
- d. Multi-use trail will be provided on both sides of Mississauga Road, except along the west side from Embleton Road to Queen Street;
- e. Potential buy-out at #8837 Mississauga Road may facilitate space for some LID infrastructure, and
- f. New retaining wall along east side from Credit River structure to Embleton Road.
- 5) CVC indicated to further reduce the footprint in the floodplain, the Active Transportation infrastructure should be consolidated to one side only. Amec FW indicated that this contradicts the Region's Active Transportation Master Plan, along with the goals of the Public Health group to provide multi-use trails on both sides. Further discussion will be completed between Amec FW and the various Regional groups.

Amec FW / Region

- 6) CVC indicated that the retaining wall between the Credit River structure and Embleton Road would need to be analyzed in detail for the Class EA. The following technical specialists were identified to review the potential wall location: Fluvial Geomorphologist, Water Resources, and Structure Engineering.
- 7) CVC noted that the path along the Credit River does not have any official status. It is not anticipated to be needed until the approvals from the private properties are achieved.
- 8) MNRF noted that the proposed design would further impede access to the Credit River (a public waterway). It was indicated that as part of the *Public Lands Act*, access is required to allow for fish restocking and recreational uses (canoe, kayak, etc.). In addition, a parking area near the Credit River is required (similar to the crossing of the Credit River at Bovaird Drive). The design needs to meet the conditions of the Act, and approvals will be required from the relevant group at MNRF.

# **Credit River Structure**

9) A number of alternatives have been considered by Amec FW for the structure, and the current preference is to fully replace the structure due to the following:

Meeting Date: July 11th, 2017

#### MATTERS DISCUSSED

# **ACTION BY:**

- a. The existing structure was built in 1968, with a full deck replacement and minor girder repair in 2006;
- b. Assuming the widening project is completed by 2022, the bridge will be nearing the end of its design life;
- c. The existing structure only conveys the 100 year Storm Event, with the Regional Storm overtopping the structure by 1-2m;
- d. Based on a sensitivity analysis completed by the Amec FW Water Resources group, widening the existing structure will adversely affect the upstream water elevations, which would require sign-off from multiple landowners (which CVC noted they would not support), and
- e. Increasing the deck elevation by 1-2m will lower upstream water elevations.
- 10) CVC generally acknowledged the full replacement option, pending review of the various technical documentation justifying the full replacement. CVC requested that the technical documentation be provided for review to confirm their acceptance of the full replacement alternative.
- 11) MNRF reiterated that the design should protect public access requirements including a parking area, recreational use access for canoes and kayaks, and a fish restocking zone. Amec FW will review further with the Region and will advise.

Amec FW / Region

# **Review of Addendum SWM Model**

- 12) Amec FW reviewed the status of the pre-development, existing, and future conditions PCSWMM models to address the various issues discussed as part of previous calls. The following was highlighted:
  - a. Amec FW has taken a 'step-back' approach, where the modelling for the road started from a 2-lane configuration (pre-development);
  - b. The next step was to apply the 4-lane configuration (existing conditions), but apply the recently approved SWM criteria;
  - c. Then the existing/under construction LID systems at Bovaird Drive and Queen Street were added;
  - d. The PCSWMM models are preliminary and still in the development stage;
  - e. For the section of Mississauga Road from Bovaird Drive to just north of Williams Parkway (with the 4-lane config.):
    - i. Up to the 100 year storm event, existing peak flows exceed pre-development flows;
    - During less frequent storm events, peak flows are too large to be handled by the storm sewer infrastructure, and
    - iii. There is a need to upgrade the existing system for the 6-lane roadway, and to add additional LID features to accommodate the 6-lane roadway.

Meeting Date: July 11th, 2017

# **MATTERS DISCUSSED**

# **ACTION BY:**

- f. From just north of Williams Parkway to Williams Parkway
  - The minor system runoff is captured in the storm sewer, with the major system conveyed overland to the Credit River;
  - ii. Post-to-pre target is being met for the existing conditions (4-lanes)
- g. From Williams Parkway to Queen Street
  - The minor system runoff is captured in the storm sewer, with the major system conveyed overland to the Credit River:
  - ii. Post-to-pre target is not being met for the existing conditions (4-lanes, with some portions at 6-lanes), and
  - iii. Additional widening to 6-lanes will make the condition worse
- h. Pond W1
  - i. The pond was designed assuming upstream lands had a 33% impervious level;
  - ii. Amec FW has modelled the upstream lands assuming a 65% impervious level;
  - iii. The preliminary results have identified a 10-15% increase in storage requirements for the various storm events.
- 13) MNRF noted that Pond W1 has been recently scheduled for a cleanout. Amec FW to contact the City of Brampton for more information, and to discuss the identified issue with the SWM Pond.

**Amec FW** 

Meeting Minutes prepared by:

Amec Foster Wheeler Environment & Infrastructure A division of Amec Foster Wheeler Americas Limited

Per: Jason Stahl, P. Eng. Project Engineer

JS



Date: October 6<sup>th</sup>, 2017

File #: TP115085

Meeting Date & Time: September 13th @ 1:30pm

Meeting at: Region of Peel Head Office, Room 4-910

Subject: Mississauga Road Class EA

Progress Meeting with MNRF and CVC

Attendees:

Mark Heaton – MNRF

Rebecca Stewart – CVC

Asha Saddi – Region of Peel

Anthony Zois – Region of Peel

Meal Smith – Amec Foster Wheeler

Steve Chipps – Amec Foster Wheeler Matt Britton – Amec Foster Wheeler

Jason Stahl - Amec Foster Wheeler

#### MATTERS DISCUSSED

**ACTION BY:** 

# Introduction

1) The purpose of the meeting was to review the current preliminary design for Mississauga Road to solicit feedback, and to review the recommendations of the SWM modelling for the addendum section.

# **Project Update**

- 2) The report for the addendum section (Bovaird Drive to Queen Street) has been completed, and will be filed once the document is finalized.
- 3) For the Schedule 'C' section, the following was noted
  - a. TAC #2 is scheduled for October 25
  - b. PIC #2 is scheduled for November 15
  - c. The following documents are anticipated to be completed in advance of the above:
    - i. Natural Environment Terrestrial and Aquatic Proposed Conditions mapping;
    - ii. Drainage/SWM Report;
    - iii. Assessment Table for the Credit River crossing, and

**PLEASE NOTE:** If there is any comment or amendment to be made to these meeting notes, they should be brought to the notice of Amec Foster Wheeler within five (5) business days of issue and confirmed in writing.

Meeting Date: September 13<sup>th</sup>, 2017

## **MATTERS DISCUSSED**

#### **ACTION BY:**

iv. Memo outlining the various design parameters used to complete the 6-lane arterial road design.

# **Review of SWM reccomendations for Addendum**

- 4) A review of the recommendations made by the Amec FW SWM report for the Addendum section was completed. The following was noted:
  - a. The section of Mississauga Road draining to Huttonville Creek will require two (2) underground storage units to provide storm water detention storage. Orifice plates located on the control manholes adjacent to Culvert C4 must be reconfigured:
  - b. For the same section of roadway, an infiltration trench is required on the west side of Mississauga Road from Ostrander Boulevard to Bovaird Drive:
  - c. Flow splitter devices are required within the catchbasins to divert the 25mm storm event into the infiltration trench;
  - d. The section of Mississauga Road draining to SWM Facility H3 is sufficiently sized to provide quality and quantity controls for the 6-lane configuration, and
  - e. For SWM Facility W1, retrofit is required to control postdevelopment release rates, and an infiltration trench is recommended to reduce the future condition peak flows from Mississauga Road.
- 5) The comments provided by CVC via email were reviewed. Comments 1-4 are straightforward and were not discussed in detail. However, Comment 5 will require adjustments to the PCSWMM model to reflect the 2009 report. Amec FW will ask the City to confirm the 2009 report is the final report for SWM Facility W1. Comment 6 will be addressed via. the outcome of the model revision to address Comment 5.

# Review of Preliminary Design (Financial Drive to Queen Street)

- 6) Amec FW had a revised design plan available. The following was noted:
  - a. Modifications were completed to provide a refuge area for turning vehicles to/from 8947, 8949, and 8951 Mississauga Road:
  - b. Addition of a 2.0m wide flush median south of the Terrace on the Green driveway:
  - c. Limits of grading are now identified on the plan, and
  - d. Proposed property lines are now shown on the plan.
- 7) Amec FW reiterated CVC's previous comment about limiting the multiuse trail on one side only. It was noted that a large community centre is planned in close proximity to the study area (the exact location would be confirmed). As a result, significant pedestrian movement is expected on both sides of Mississauga Road. CVC acknowledged this,

Meeting Date: September 13<sup>th</sup>, 2017

## MATTERS DISCUSSED

#### **ACTION BY:**

but noted that they would reserve approval until the technical data is provided to them for review.

- 8) MNRF's concern regarding public access to fulfill the requirements under the Public Lands Act was discussed. The following was noted:
  - a. Prior to widening from 2 lanes to 4 lanes, Mississauga Road was an access point (particularly on the south side) to the Credit River:
  - b. With the 4 lane widening, a fence was erected which restricted access to the Credit River;
  - c. The work completed for the 4-lane widening was not approved by the Public Lands Act process;
  - d. The Act requires that access is provided to public lands. It is not specific to the requirements of the access (ie. AODA compliance, max slopes, parking requirements, etc.);
  - e. Generally all road works within the Region are preventing/eliminating access to the Credit River. Steeles Avenue was given as an example, and
  - f. Some concerns regarding liability was expressed by the Region. MNRF noted that liability would fall to the individuals accessing the river (an example outside of the study area was given).

**Post Meeting Note:** MNRF provided the following link to help clarify the requirements of providing access to public lands:

https://www.ontario.ca/page/crown-land-management-policies

# **Credit River Structure**

- 9) The preliminary general arrangement drawing for the replacement of the Credit River structure was presented at the meeting. The following was noted:
  - a. The middle span of the new 3-span structure will increase in span from 22.86m to 46.0m;
  - b. The longer middle span will allow the new piers to be placed outside of the low flow channel/water:
  - c. The new piers and abutments would be drilled caissons, and would be completed outside of the main channel limits;
  - d. The two end spans would increase from 22.86m to 29.0m
  - e. Total span increase of 34.4m (from 68.58m to 103m), and
  - f. The wider structure will improve conveyance, provide more space for meandering, and would address fluvial geomorphic concerns due to the current bridge config which is restricting flow (causing channel widening downstream and bed scour).
- 10) Both CVC and MNRF were generally in agreement with the proposed structure configuration. However, CVC noted that they would reserve approval until the technical data is provided to them for review.

Continued...

Meeting Date: September 13th, 2017

Meeting Minutes prepared by:

Amec Foster Wheeler Environment & Infrastructure A division of Amec Foster Wheeler Americas Limited

Per: Jason Stahl, P. Eng.

Project Engineer

JS



Date: November 11, 2017

File #: TP115085

Meeting Date & Time: October 25, 2017 @ 2:00 pm

Meeting at: Peel Conference Centre

Subject: Mississauga Road Class EA – Financial Drive to Queen Street West

Technical Agency Committee #2

Attendees:

Sally Rook, Region of Peel

Bob Niewenhuysen, Region of Peel

Nathan Sinka, Region of Peel

John Nemeth, Region of Peel

Asha Saddi, Region of Peel

Arthur Lo, Region of Peel

Sanya Khan, Region of Peel

Daniel Waters, City of Brampton

Chris Lafleur, City of Brampton Ghazanfar Mohammad, City of Brampton
Pascal Doucet, City of Brampton Jakub Kilis, Credit Valley Conservation

Kaitlyn McGlade, Credit Valley Conservation Rebecca Stewart, Credit Valley Conservation

Jason Stahl, Amec Foster Wheeler

Matt Britton, Amec Foster Wheeler

Steve Chipps, Amec Foster Wheeler

Daryl Rideout, Amec Foster Wheeler

#### **MATTERS DISCUSSED**

**ACTION BY:** 

Note: A copy of the presentation and preliminary design provided at the meeting are attached for reference.

# **Introduction**

 The Region Project Manager completed an introduction to welcome all in attendance. It was indicated that the purpose of the meeting was to review the material presented at TAC #1, to provide an update on the project status and to present the preliminary design.

# Summary of Material Presented at TAC #1

- 2. Amec Foster Wheeler completed a review of the material that supports the current design. The following was presented:
  - a) Review of the study area (key plan);

**PLEASE NOTE:** If there is any comment or amendment to be made to these meeting notes, they should be brought to the notice of Amec Foster Wheeler within five (5) business days of issue and confirmed in writing.

3450 Harvester Road Burlington, Ontario L7N 3W5 Tel +1 905 335 2353 Fax +1 905 335-1414 amecfw.com

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## MATTERS DISCUSSED

# **ACTION BY:**

- Review of the traffic study, which recommended the road be widened to six-lanes to accommodate the projected traffic volumes (2031);
- c) The existing transit network was reviewed, and it was noted that Route 60 crossed the study area;
- d) The Region's Active Transportation Plan identifies Mississauga Road as an important thoroughfare for pedestrians and cyclists, and recommended multi-use trail and/or sidewalk through the study area;
- e) A Stage 1 Archaeological Assessment was completed, and portions of the study area were identified for a Stage 2 assessment:
- f) A Built Heritage & Cultural Heritage Assessment was completed, which identified many heritage resources – most importantly the McMurchy Woolen Mill;
- g) The hydrogeology assessment determined that no drinking wells were in use within the study area, and several residences were on private septic systems;
- h) The Fluvial Geomorphic study determined that improvements were required to the Credit River structure to address unnatural scour and channel widening, and
- i) The existing stormwater system is to be utilized as much as possible.
- 3. The City of Brampton noted that the long term vision was to add ZUM service along Mississauga Road to connect to Steeles Avenue. However, the City indicated that no formal plan exists to confirm this requirement.
- 4. The City's Heritage planner noted that there was some difficulty in understanding the proposed improvements to the area, and requested that a Heritage Impact Assessment (HIA) be completed. Amec FW will review further with their heritage resource team.
- 5. Amec FW reviewed the planning alternative assessment completed prior to PIC #1. Considering several criteria, Alternative 7 – A combination of improvement to transit service, improvement to active transportation, Travel Demand Management, and widening of Mississauga Road was selected as the preferred planning design.

# **Progress of Study**

- 6. Amec FW noted that since completion of PIC #1 in February 2017, the study has advanced through Phase 3 of the MEA Class EA process. Phase 3 consists of the following:
  - Identify and evaluate alternative design for preferred solution;
  - Complete the environmental inventory and impact assessment, and
  - Identify the preferred design.

Amec FW

# MATTERS DISCUSSED

# **ACTION BY:**

# **Review of Preferred Design**

- 7. A preferred design has been completed and was available to all in attendance to review. The following key points were identified:
  - a. A number of horizontal alignments were considered. With the need to balance widening of the road with minimizing impacts to the high constraint environmental areas, a hybrid approach was selected. Based on this approach, the alignment was broken up into three segments:
    - Widen to the west from Lionshead Golf Course Road to Terrace on the Green Driveway;
    - ii. Widen around the centreline from the driveway to Embleton Road, and
    - iii. Widen to the east from Embleton Road to Queen Street.
  - b. Key design considerations were presented, with the typical cross section applied to the design shown. Of note was the effort to reduce various elements of the Region standard 6lane arterial road cross section.
  - c. The proposed transit network was discussed, with bus bays at all locations except at Queen Street northbound and Embleton Road northbound.
  - d. Pedestrian and cyclist movement was presented. A 2.5m multi-use trail is proposed at all location within the study area except along the west side of Mississauga Road from Embleton Road to Queen Street West. Amec FW also noted that the City is planning a large community centre on the corner of Missisauga Road and Lionshead Golf Course Road, scheduled to be constructed in 2021 (approx.)
  - e. A summary of the Stormwater Management recommendation was completed. It was highlighted that infiltration trenches are recommended at the various outlet locations. In addition, with the replacement of the Credit River structure, the bridge would not be overtopped during the Regional Storm, and the water depth at the nearby low point would be reduced to 0.6m (which meets MNRF criteria for emergency vehicle passage).
  - f. The Natural Environment group provided an update based on the impact area mapping completed. It was noted that impacts on the woodlots due to widening may impact bat habitat, and MNRF may require compensation and/or permit approval.
  - g. The results of the noise study were also discussed. Based on the model completed, noise walls are recommended at several locations.
  - The air quality assessment was also completed. No negative impact on local air quality is expected along Mississauga Road.
  - A review of the landscaping and streetscaping assessment was also completed. It was noted that some mature street trees and edge removals of the woodlots will be required to

## MATTERS DISCUSSED

# **ACTION BY:**

facilitate the widening. However, the row of Silver Maples known as the 'Huttonville Maples' were identified as a high constraint and will be protected.

- j. For the Credit River structure, an alternative assessment was completed, which recommends full replacement of the structure to facilitate the widening of the roadway. Key aspects identified to the group include:
  - i. The middle span of the new 3-span structure would increase from 22.86m to 46.0m;
  - ii. The two end spans will increase from 22.86m to 29.0m, and
  - iii. The total span will increase by 34.4m (from 68.58m to 103m)
- 8. The Region noted that the posted speed of 60 km/h could potentially be reduced to 50 km/h. This would allow the operation of the road to better fit the surrounding land use. In addition, the Region has received negative feedback from local residents regarding the recent increase in posted speed to 60 km/h. For the purposes of the upcoming PIC, it was agreed to by all that the presentation material identify the proposed reduction to 50 km/h.
- 9. The City noted their preference to switch the bus bays at Lionshead Golf Course Road to nearside stops. Amec FW will review further and make the appropriate changes to the preliminary design. The City also noted their preference to protect for ZUM shelter pads and bus bays at all identified stop locations.

**Amec FW** 

- 10. For the pedestrian and cyclist portion of the discussion, the City noted that their standard was to apply 3.0m wide multi-use trails along all roadways in Brampton. It was uncertain whether the 2.5m multi-use trail proposed along Mississauga Road would be supported by the City. The City's comment on width of the multi-use trails will be documented in the Environmental Study Report (ESR).
- 11. The Region noted that the infiltration trenches would need to treat the entire pavement area draining to them. Traditionally, only the additional pavement would need to be treated.
- 12. Reducing the flood depth at the sag point was discussed. Although a significant reduction in flood depth is achieved with the new Credit River structure, CVC typically requires a 'flood-free' condition. The Region noted that discussion with emergency services may be required to document their perspective on the improved condition.
- 13. It was noted that Amec FW will follow-up with MNRF regarding approval requirements for impacts to the identified bat habitat, and to obtain approval in principle for the proposed widenings.

Amec FW

Amec FW

## **MATTERS DISCUSSED**

**ACTION BY:** 

Amec FW

- 14. The noise barriers were discussed in detail. It was noted that several wall configurations could be considered, including a 'living wall' option. In addition, any walls adjacent to heritage resources should not negatively impact the resource. Finally, the wall height may be reduced or may not be required given the proposed posted speed reduction to 50 km/h. Amec FW to review further.
- 15. CVC noted that their approved planting species list should be used for landscape plans in addition to the Region's and City's documents.

# **Open Discussion**

- 16. An open discussion was held with all in attendance. The following was noted on the plans and in discussion:
  - a. Assess need for the channelized right northbound at Mississauga Road and Queen Street West;
  - b. Need to consider crossing for pedestrians, cyclists, and transit leading to the north (at Queen Street West);
  - c. Consider crossrides at Queen Street West and Embleton Road:
  - d. Consider active heating under the curb lane where grade is in excess of 8%;
  - e. Complete a heritage impact assessment if noise walls are required along River Road and the McMurchy Woolen Mill;
  - f. Verify any environmental impacts along the banks of the Credit River resulting from the proposed widening;
  - g. Verify how Credit River will adjust when the structure is rebuilt (ie. will any channel work be required upstream and downstream of the structure?), and
  - h. Provide 3D renderings at key locations, in particular where noise walls are planned to visualize the proposed works.

# **Next Steps**

- 17. PIC #2 is scheduled for November 15th, 2017.
- 18. All comments received will be documented in the Environmental Study Report (ESR). The draft ESR will be circulated to all key groups once complete.

Meeting Minutes prepared by:

Amec Foster Wheeler Environment & Infrastructure A division of Amec Foster Wheeler Americas Limited

Per: Jason Stahl, P. Eng. Project Engineer

1. Stall



Date: January 31<sup>th</sup>, 2018

File #: TP115085

Meeting Date & Time: January 22<sup>nd</sup>, 2018 @ 10:00am

Meeting at: Conference Call

Subject: Mississauga Road Class EA

Cultural Built Heritage

Attendees:

Neal Smith – Amec Foster Wheeler Asha Saddi – Region of Peel

Jason Stahl – Amec Foster Wheeler Pascal Doucet – City of Brampton

## MATTERS DISCUSSED

**ACTION BY:** 

# Introduction

- Cultural Heritage Report was completed in May of 2016 and provided to the Region and the City of Brampton.
- 2) A subsequent Noise Study completed in September 2017 identified locations where noise barriers are warranted based on the analysis.
- City of Brampton asked about the need to complete a Heritage Impact Assessment for those locations where the noise barriers are recommended adjacent to Heritage resources (particularly McMurchy Mill and River Road).
- 4) Was explained that the Class EA only includes a preliminary design, which is not detailed enough to support completing a Heritage Impact Assessment.
- 5) Was noted that a speed reduction (posted 60km/hr to 50km/hr) is being recommended as part of the Class EA and could change the results of the analysis and the need of noise barriers.
- 6) Any recommendations for a noise barrier would have visual impacts on Heritage resources, especially the Old Mill property.
- If noise barriers are needed adjacent to Heritage resources, approval from the Brampton Heritage Board and in turn City Council would be required.

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Meeting Date: January 22<sup>nd</sup>, 2018

## MATTERS DISCUSSED

**ACTION BY:** 

- 8) AMEC to note in the ESR that City of Brampton's Heritage group needs to be involved at the detailed design stage to ensure any noise walls do not adversely affect any heritage resources.
- 9) List of properties identified for needing a noise barrier based on the current speed are:
  - 1957 Queen Street West
  - 8854, 8846 and 8951 Mississauga Road
  - 14, 16,18, 20,22 and 21 River Road
  - 2014 and 2015 Embleton Road
  - 2100 Embleton Road (McMurchy Woolen Mill)

Meeting Minutes prepared by:

Amec Foster Wheeler Environment & Infrastructure A division of Amec Foster Wheeler Americas Limited

Per:

Neal Smith, C.E.T. Senior Technologist

NS/js