APPENDIX B

External Agency Consultation and Correspondence
Waterdown/Aldershot Transportation Master Plan: Phase 3

Agency Comments Database

January 2008 to Present
This document includes all questions and responses by the agencies received from January 2008 to DATE for the Waterdown/Aldershot Transportation master Plan – Phase 3. This list is in chronological order from the date in which the comment/question was received. This document was prepared by Lura Consulting, the neutral third-party consultation facilitator for this project.

A summary of the issues raised through the comments in this database can be found in the document Waterdown Road Class EA – Phase 3 and 4: Master Summary of Comments (January 2008 - Present).

For more information, please contact:

SALLY LEPPARD
Lura Consulting
36 Hunter Street East, Suite 601
Hamilton ON L8N 3W8
Tel: (905) 527-0754
E-mail: sleppard@lura.ca
## COMMENTS FROM THE AGENCIES

<table>
<thead>
<tr>
<th>Correspondent</th>
<th>Issue/Concern</th>
<th>To</th>
<th>Responder</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID# 39</td>
<td>Darylan Perry (CN)</td>
<td>Waterdown-Aldershot Information</td>
<td>Waterdown-Aldershot Information</td>
<td>Removed from database</td>
</tr>
<tr>
<td>ID# 60</td>
<td>Nora Jamieson (Hamilton Conservation Authority (HCA))</td>
<td>Waterdown-Aldershot Information &amp; Diana Morreale</td>
<td>Waterdown-Aldershot Information</td>
<td>Email was acknowledged Mar 10, 2008.</td>
</tr>
</tbody>
</table>

To Neutral Community Facilitator’s Office and Diana Morreale at City of Hamilton Public Works Dept.: 

Hamilton Conservation Authority (HCA) has just recently received a copy of a letter from Conservation Halton to the Neutral Community Facilitator’s Office, dated March 6, 2008 advising that they have some concerns with the Phase 3 and 4 and that there has been no discussions to date between the Secondary Plan Team and the EA Study Team which includes Conservation Halton. We wish to advise that HCA is also part of this EA Study Team and we too have not been involved with these discussions. As well, a copy of the Phase 3 and 4 report was not submitted for our review. Please be advised that we have had problems in the past with not being circulated documents for review and have not been invited to some discussion meetings. We request that a copy of the report be submitted to HCA and that we be added to the circulation list if we were inadvertently removed.

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The Project Partners are aware that Conservation Halton and Hamilton Conservation Authority are a part of the Waterdown/Aldershot Transportation Master Plan (WATMP) EA Study Team. We also look forward to working with the two conservation authorities in the upcoming Phases (3 & 4). The Project Partners have finalized the Phase 2 Report for the WATMP, a copy of the final report will be sent to all agencies that have been a part of the EA Study Team.

As Phase 2 of the Waterdown/Aldershot Transportation Master Plan is now complete, the Study will proceed to Phases 3 and 4 to examine two distinct roadway projects. They are identified as the North-South Road (Waterdown Road) Class Environmental...
### Waterdown/Aldershot Transportation Master Plan: Phase 3

#### Agency Comments Database (January 2008 to Present)

The Project Partners will continue to meet with the WATMP EA Study Team at key stages of the Phase 3 and 4 work. We look forward to HCA’s continued participation in the next phases.

Please note, the City of Hamilton staff meet once a month to discuss all studies that are going on in Waterdown. In addition to these monthly meetings staff working on the WATMP and the Waterdown South Secondary Plan meets regularly to ensure the two studies are coordinated with one another.

The project team will be contacting you in the next little while to set up agency consultation dates for Phase 3 work.

In the meantime, if you have any additional questions or comments please do not hesitate to contact us.

<table>
<thead>
<tr>
<th>ID# 136</th>
<th>Notification that she will not be attending the North-South NAC meeting</th>
<th>Waterdown-Aldershot Information</th>
<th>None required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Margaret Charles (Halton Conservation)</td>
<td>Jun 11, 2008 Phone</td>
<td>Waterdown-Aldershot Information Jun 11, 2008 Phone</td>
<td></td>
</tr>
</tbody>
</table>

<p>| ID# 148 | Ms. Charles (Halton Region) would like feedback on whether or not she should prepare the one page memo/list for the upcoming Public Information Centres from the Conservation of Halton as discussed with Liz Nield. | Sally Leppard Jun 19 &amp; 23, 2008 Email &amp; Phone | Hello Ms. Charles. Thank you for following up on Halton CAs offer to provide a memo to the NAC outlining the CAs area of interest vis a vis the Waterdown-Aldershot Transportation Master Plan and the resulting Class EA road projects. At the NAC meetings last week, we conveyed Halton Conservation’s offer to prepare this memo. From our understanding of the NAC perspectives, they have indicated that they would appreciate receiving more knowledge about the natural environment aspects to assist them with the evaluation of alternatives. I think it would be useful to describe Halton Conservation’s approach to participating/providing knowledge in... |</p>
<table>
<thead>
<tr>
<th>ID#</th>
<th>Agency/Investigator</th>
<th>Subject</th>
<th>Response</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>154</td>
<td>Darylann Perry</td>
<td>Re: Phase 3 &amp; 4 Municipal Class EA – New East-West Corridor and Waterdown Road Corridor</td>
<td>Forwarded to Waterdown-Aldershot Information from Syeda Banury</td>
<td>Already removed from Lura’s database in February 2008</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Thank you for your letter dated June 13, 2008 regarding the above noted project. As per our previous letter to Diana Morreale, dated February 28, 2008, this project does not affect any CN rail line or property and CN requests to be removed from the project mailing list. Sincerely, Darylann Perry for John MacTaggart, P.Eng. Senior Engineering Services Officer</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Waterdown-Aldershot Information</td>
<td></td>
</tr>
<tr>
<td>158</td>
<td>Transport Canada</td>
<td>Thank you for your letter regarding the above referenced environmental assessment. We have reviewed the information, and note the following: Transport Canada is responsible for the administration of the Navigable Waters Protection Act, which prohibits the construction or placement of any “works” in navigable waters without first obtaining approval. If any of the related project elements or activities may cross or affect a potentially navigable waterway, you are requested to prepare and submit an application in accordance with the requirements as outlined in the attached Application Guide. Any questions about the NWPA</td>
<td>Forwarded to Waterdown-Aldershot Information from Syeda Banuri</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>Syeda</td>
<td></td>
<td>None</td>
<td>No response required. Updated Database</td>
</tr>
</tbody>
</table>
application process should be directed to Suzanne Shea, NWP Officer at (519) 383-1866.

Please note that certain approvals under the Navigable Waters Protection Act or Railway Safety Act trigger the requirement for a federal environmental assessment under the Canadian Environmental Assessment Act. You may therefore wish to consider incorporating CEAA requirements into your provincial environmental assessment.

<<Annex A Navigable Waters Protection Act Application Addresses.doc>> <<TC Application Form.pdf>> <<TC Application Guide.pdf>>

We would also appreciate if your agency distribution list could be updated by removing the Navigable Waters Protection Program. All correspondence should be directed to the Environment and Engineering Section to review projects against all of Transport Canada's potential interests.

The contact information should be changed to:

Environmental Assessment Coordinator
Environment and Engineering
Transport Canada
4900 Yonge Street
Toronto, ON
M2N 6A5

Please contact me should you wish to discuss this further.

Regards,

Haya Finan
Environmental Officer
Environment and Engineering
Transport Canada
| ID# 189 | Jeff Bateman (GO Transit) | Jun 17, 2008 | GO Transit is interested to know if there is a way to extend Waterdown Road widening (North-South) further south to facilitate better movement of customers/travelers from Aldershot GO Station. | Forwarded to Waterdown-Aldershot Information from City of Hamilton | City of Hamilton  | Jun 17, 2008 | Phone | Response: Syeda directed Jeff to the project website and he said he will submit his comments if needed. |
| ID# 211 | Margaret Charles (Conservation Halton – Agency) | Sep 22, 2008 | Refer to hard copy – (attached) Comments on the preferred road alignment sections for the new east-west road (N1-N7) and Waterdown Road widening (W1-W7). | Forwarded to Waterdown-Aldershot Information from City of Hamilton | No response required. |
| ID# 269 | Ontario Realty Corporation | Nov 4, 2008 | Please see attached letter. Thank you. Ontario Realty Corporation Attached letter, with map, reads: November 3, 2008 To Whom It May Concern, RE: ORC Initial Comments on Notice of PIC Class EA, New east-west corridor and Waterdown Road corridor Thank you for circulating Ontario Realty Corporation (ORC) on your Public Information Centre. The ORC is the strategic manager of the government’s real property with a mandate of maintaining and optimizing value of the portfolio, while ensuring real estate decisions reflect public policy objectives of the government. Our preliminary review of your notice and supporting information indicates that ORC-managed property is directly in the study area. As a result, your proposal may have the potential to impact this property and/or the activities of tenants present on ORC-managed lands. Attached please find a map that identifies this property to assist you in identifying and avoiding potential impacts. Potential Negative Impacts to ORC Tenants and Lands General Impacts Negative environmental impacts associated with the project design | Waterdown-Aldershot Information | Dec 4, 2008 | Email | Dear Ms. Myslicki, Thank you for your letter dated November 3, 2008. We have obtained a response to your inquiry from the Project Team, and have provided it in blue below. |

**Project Team Response:** Thank you for your letter and interest in the Waterdown Road Class Environmental Assessment. In reviewing the information you provided, it would appear that Waterdown Road crosses two power transmission line corridors that are under the mandate of the Ontario Realty Corporation (ORC). We have not identified any other lands to be required from the ORC. As it is proposed that Waterdown Road be widened from two to four lanes, there could be the need for lands contained within these power transmission corridors. We are in the process of confirming property needs along the entire length of roadway. Once this has been confirmed, we will contact you to advise of the land requirement and to discuss the process to facilitate this.

Kind regards,
Patricia Halajski née Prokop on behalf of Sally Leppard,
and construction, such as the potential for dewatering, dust, noise and vibration impacts, and impacts to natural heritage features/habitat and functions, should be avoided and/or appropriately mitigated in accordance with applicable regulations best practices and MNR and MOE standards. Avoidance and mitigation options that characterize baseline conditions and quantify the potential impacts should be present as part of the EA project file. Details of appropriate mitigation, contingency plans and triggers for implementing contingency plans should also be present.

**Impacts to Land holdings**
Negative impacts to land holdings, such as the taking of developable parcels of ORC managed land or fragmentation of utility or transportation corridors, should be avoided. If the potential for such impacts is present as part of this undertaking, you should contact the undersigned to discuss these issues at the earliest possible stage of your study. If takings are suggested as part of any alternative these should be appropriately mapped and quantified within EA report documentation. In addition, details of appropriate mitigation and or next steps related to compensation for any required takings should be present. ORC requests circulation of the draft EA report prior to finalization if potential impacts to ORC managed lands are present as part of this study.

**Cultural Heritage Issues**
If proposed alternatives may impact cultural heritage features on ORC managed lands, we would request that the examination of cultural heritage features be enhanced to include issues such as cultural landscapes, archaeology and places of sacred and secular value.

**Potential Triggers Related to ORC’s Class EA**
The ORC Class Environmental Assessment (ORC Class EA) applies to a range of realty and planning activities including leasing or letting, planning approvals, selling, demolition and property maintenance/repair. For details on the ORC Class EA please visit the Environment and Heritage page of our website.
Agency Comments Database (January 2008 to Present)

found at [http://www.orc.on.ca/Page133.aspx](http://www.orc.on.ca/Page133.aspx). If the ORC Class EA is triggered, consideration should be given to explicitly referring to the ORC’s undertaking in your EA study. The purchase of ORC lands or disposal of rights and responsibilities (e.g. easement) for ORC lands triggers the ORC’s Class EA. If any of these are being proposed as part of any alternative, please contact the Sales and Marketing Group through ORC’s main line (Phone: 416-327-3937, Toll Free: 1-877-863-9672) at your earliest convenience to discuss next steps. The undertaking of physical work on ORC lands also triggers the ORC Class EA. If any work is proposed on ORC lands, please contact the undersigned at your earliest convenience to discuss next steps.

**Specific Comments**

Please note that various government lands, managed by ORC and Hydro One, are in the study area. Please contact ORC and Hydro One for policies and processes.

**Concluding Comments**

Thank you for the opportunity to provide initial comments on this undertaking. If you have any questions on the above I can be reached at the contacts below.

Sincerely,

Lisa Myslicki

Environmental Coordinator
Ontario Realty Corporation - Professional Services

<table>
<thead>
<tr>
<th>ID# 303</th>
<th>Nancy Mott-Allen (Niagara Escarpment Commission (NEC))</th>
<th>Subject: NEC comments on North/south, east/west roads</th>
</tr>
</thead>
</table>
| Nov 12, 2008 | Email | Good afternoon:
I attended both Public Information Centres regarding the proposed alignments of the East/west and North/south roads that are part of the Waterdown-Aldershot Transportation Master Plan. Our comments are as follows:

East/west
- Rock cut on north side of Dundas, west of Brant Street: |

| Waterdown-Aldershot Information & Large list | Waterdown-Aldershot Information Feb 27, 2009 Meeting | Email was acknowledged Nov 19, 2008
Meeting was held with Dillon Consulting Feb 27, 2009. |
more information required to understand extent of rock cut
required for road widening and impact on the Escarpment
- Street lighting on Dundas: lighting should be directed
downward to the roadway to minimize visual impact on the
Escarpment
- Generally support the preferred route as it minimizes
impact to environmental features in Waterdown

North/south
- Concern about any options which involve widening or
improvements to King Road due to concern about negative
impact on the Escarpment both environmental and visual
- Focus should be on widening Waterdown Road
- Request a meeting with City of Burlington, Conservation
Halton and Project Team before the Environmental Study
Report is finalized (I spoke to Paul Allen of the City of
Burlington at the meeting and he indicated that it is the
City’s intent to contact us).

If you have any questions with respect to these comments, please
contact me at the number below.
Nancy Mott-Allen, MCIP, RPP
Senior Planner
Niagara Escarpment Commission

Subject: Waterdown Road and Dundas West Class EA
Ms. Banuri,
Further to my voicemail of November 18th, there are a number of
issues of interest to GO Transit related to the subject study.
Specifically, we are interesting to find out more about:
- How the Waterdown road widening would function (if at all) with
the new highway interchange that has been proposed off the 403?
- What pedestrian and cycling facilities would exist along the new
north/south (Waterdown Road) and east/west (Dundas
West) alignments, if any.

Dear Mr. Campbell,
Thank you for your voicemail November 18, and email dated
November 24, 2008. We have received a response from the
Project Team and provide it below. For ease of reference, we
have included excerpts of your e-mail in italics, with the project
team response following.

Further to my voicemail of November 18th, there are a number of
issues of interest to GO Transit related to the subject study.

Hamish Campbell
(GO Transit)
Nov 24, 2008 Email

Syeda Banuri
Waterdown-Aldershot Information
Mar 4, 2009 Email

Syeda Banuri
Waterdown-Aldershot Information
March 4, 2009 Email
- Consideration and function of Dundas Street as a higher order inter-regional transit corridor. This portion of Dundas has been identified in Metrolinx's Draft Regional Transportation Plan as a corridor for Rapid Transit improvements (under the 15-year plan labeled as “Dundas West - Waterdown to Kipling Station). Any additional information and specifics as they relate to the subject study on the above-noted issues would be greatly appreciated. I look forward to communicating with you further at your earliest convenience.

Best Regards,

Hamish Campbell
Transportation Planner - GO Transit
Transportation Planning and Development

Specifically, we are interesting to find out more about:

-How the Waterdown road widening would function (if at all) with the new highway interchange that has been proposed off the 403?

Project Team Response: Waterdown Road interchange is a City of Burlington project.

The Waterdown Road and the Highway 403 interchange is being built to tie into a future 4 lane Waterdown Road. Waterdown Road through the new highway interchange will have four lanes plus turn lanes. The City of Burlington is planning to start construction on the Waterdown Road interchange in 2009, to facilitate future increased vehicle capacities. The technical aspects of a four-lane roadway are currently being finalized along Waterdown Road. Once the preferred four-lane concept has been finalized the project team will develop and evaluate providing a three-lane option as the first stage in implementing the four-lane concept.

- What pedestrian and cycling facilities would exist along the new north/south (Waterdown Road) and east/west (Dundas West) alignments, if any.

Project Team Response: The proposed Pedestrian and Cycling facilities for both corridors are outlined below.

North-South Corridor:

Waterdown Road - Proposing a 4m wide Multi-Use Pathway for pedestrians and cyclists (off road, behind curb and boulevard) on the west side of the road only throughout the entire alignment. A 1.5m sidewalk on the east side is proposed from Flatt Road...
northerly for approximately 600m.

**Mountain Brow Road** - Proposing a 3.5m wide Multi-Use Pathway for pedestrians and cyclists (off road) on the north side of the road only from Waterdown Road to the new Mid-Block Road (Edworthy Road). No allowance is made on the south side of the road.

**Mid-Block Road** - Proposing 1.5m on-road bicycle lanes and 2.0m sidewalks on both sides of the road throughout the entire alignment.

**East-West Corridor:**

**New E-W Road (Highway 6 to Waterdown North Development)** - No allowance made as this is a rural section, though paved shoulders are included in design.

**New E-W Road (through Waterdown North Development)** - Proposing a 4m wide Multi-Use Pathway for pedestrians and cyclists (off-road) on the south side of the road only throughout entire development.

**New E-W Road (From Centre Street to Parkside Drive)** - Potential Multi-Use Pathway on south side from Centre Road connecting to Joe Sam's Park to be further assessed. No other allowances made through this rural section, though paved shoulders are included in the design.

**Parkside Drive Widening** - Proposing on-road bicycle lanes (1.2m) and 1.5m sidewalks on both sides of the road.

**N-S Link through Upcountry Development** - Proposing a 4m wide Multi-Use Pathway for pedestrians and cyclists (off-road) on the west side of the road only throughout the entire development.
<table>
<thead>
<tr>
<th>Dundas Street (From new N-S Link to Kerns Road)</th>
<th>Proposing on-road bicycle lanes (1.5m) and 2.0m sidewalks on both sides of the road.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dundas Street (From Kerns Road to Brant Street)</td>
<td>Proposing 4.2m wide shared curb lanes (both sides of the road) for traffic and cyclists and a 1.5m sidewalk on the south side of the road only.</td>
</tr>
<tr>
<td>The final recommended preferred option will be provided in the ESR</td>
<td></td>
</tr>
<tr>
<td>- Consideration and function of Dundas Street as a higher order inter-regional transit corridor. This portion of Dundas has been identified in Metrolinx's Draft Regional Transportation Plan as a corridor for Rapid Transit improvements (under the 15-year plan labelled as &quot;Dundas West - Waterdown to Kipling Station).</td>
<td></td>
</tr>
<tr>
<td><strong>Project Team Response:</strong> Dundas Street falls under the jurisdiction of the Region of Halton. It is the City of Hamilton’s understanding that the Region of Halton, in regards to this project, is releasing a TOR early in the new year. We have forwarded your input to the Region of Halton for their consideration.</td>
<td></td>
</tr>
</tbody>
</table>

Kind regards, Patricia Halajski on behalf of Sally Leppard,
From: McInnes, Suzanne [suzanne.mcinnes@conservation-niagra.on.ca]
Sent: February 19, 2008 1:50 PM
To: Waterdown-Aldershot Information
Subject: PIC Notice February 15, 2008

Please remove my name and Paul Bond's name from your mailing list. This project is located outside on the NPCA's jurisdiction.

Suzanne McInnes, MCIP, RPP
Watershed Planning Coordinator
Niagara Peninsula Conservation Authority
250 Thorold Road West, 3rd Floor
Welland, Ontario L3C 3W2
phone: (905) 788-3135 ext. 235
fax: (905) 788-1121

The Niagara Peninsula Conservation Authority Confidentiality Notice
The information contained in this communication including any attachments may be confidential, is intended only for the use of the recipient(s) named above, and may be legally privileged. If the reader of this message is not the intended recipient, you are hereby notified that any dissemination, distribution, disclosure of this communication to the sender and permanently delete the original and any copy of it from your computer system. Thank you.
February 28, 2008

Diana Morreale, MCIP, RPP
Senior Project Manager
Environmental Planning, Public Works
77 James Street North
Hamilton, Ontario L8R 2K3

Dear Ms Morreale;

Re: Waterdown / Aldershot Transportation Master Plan
Phase 2 Report – Public Information Centers

Thank you for your letter dated February 15, 2008 regarding the above noted project. This project does not affect any CN rail line or property and CN requests to be removed from the project mailing list.

Sincerely,

Darylann Perry for
John MacTaggart, P.Eng.
Senior Engineering Services Officer
MINUTES OF MEETING

PROJECT: Waterdown Road & New East West Road

PURPOSE: Government Agency Technical Committee Meeting

DATE: May 12, 2008 9:00 AM

LOCATION: Hamilton City Centre, 400E

PRESENT: City of Hamilton: Syeda Banuri Jim Doyle
Christine Lee-Morrison Joe Spiler
Andy McLaughlin Gavin Norman
Paul McShane Tony Sergi
Hart Solomon Gary Moore
Cathy Plosz Jill Stephen
Brenda Khes Susan Jacob
Kirsten McCauley Gord Baguley
Tanya McKenna

City of Burlington: Paul Allen
Greg Simon

Region of Halton: Melissa Green-Battiston

Conservation Halton: Jennifer Lawrence
Margaret Charles

MOE: Barb Slattery

MTO: Joseph Lai Ayvu Jeganathan
Greg Roszler

NEC: Neil Hester

Lura Consulting: Liz Neild

Dillon Consulting: Paul MacLeod
Don McKinnon
Paul Acquaah
Amanda Shepley

ITEM

A. Introductions
ITEM

B. Presentation by Paul MacLeod and Don McKinnon
   - See attached

C. Agency Comments

1. Conservation Halton Aspects

- Amphibian survey complete
- Vegitation survey completed last summer
- No need for further fisheries studies
- Grindstone Creek structure at Parkside will be widened or replaced, assuming that the Option 5 alternative is not carried forward
  - The flood plain must be looked at carefully
- Concerns about the road encroaching into the ESA
- Suggestion to connect further to the East at Pamela Street rather than at Burke St.

2. City of Hamilton – Gavin Norman

- Evaluation
  - Constructability should be considered
  - Road will be built in stages
- Property Taking
  - As many as 5-6 properties may need to be acquired, primarily on Waterdown Road
  - Conversations with property owners are taking place in the near future

3. City of Hamilton – Brenda Khes

- Centre Road wetland is ESA
- Wooded area at N2 is a PSW
- Evaluation criteria comments:
  - Lifecycle cost should be considered
  - Maintainability
  - Impact on user
  - Air quality should be considered
  - Road safety audit should be completed of alternative intersection

4. MTO – Greg Roszler, Joseph Lai, and Ayvon Jecanathan

- Hwy 6
  - Concerned that Northern Option doesn’t meet the minimum signal spacing standard
  - 4th Line is not intended to be realigned with the proposed design. Perhaps in the
ITEM

future.

- MTO received a call from a concerned resident about the Parkside & Hwy 6 intersection
- MTO confirmed Dillon’s understanding of MTO’s plan for the Highway 6 corridor; there are no plans for extending the controlled access section north of Highway 6 at this time. When this does happen the Parkside intersection will be closed.

- Waterdown Road at Hwy 403
  - Anticipated increase in traffic coming from the development areas from the north to the 403 interchange
  - Dillon’s study does not include the 403 interchange as it matches in north of the new North Service Road location
    - Capacity concerns at the 403 interchange
    - South bound left turn lane needs to be addressed (as the structure over the 403 may need to be widened)
    - MTO recommended that the study area extend south of 403 (Burlington indicated that the two projects should remain separate)

5. Conservation Halton

- Conservation Halton would like to move the N-S connection to Pamela Street
  - Dillon explained that the traffic assessments from Phase 2 have identified the Burke location as the optimum connection but this will be confirmed in this Phase

6. Future Meetings

- Next meeting on the second week of June
  - Will display PIC information
- PIC #1 will include preliminary evaluation including the NAC’s input
- Draft evaluation criteria to be distributed to all Agency members
  - Comments to Syeda Banuri

DISTRIBUTION: Attendees

Please contact Amanda Shepley of Dillon Consulting with any errors or omissions.
Government Agency Technical Committee
Meeting #1

May 12, 2008

Meeting Agenda

- Welcome & Meeting Purpose
- Introductions
- Presentation
  - Overview of Phase 1 and 2 Work
  - Carry Over Phase 2 Issues & Questions
  - Proposed Phases 3 & 4 Work Program
  - Alternative Design Concepts
  - Schedule
- Discussion
  - Agency Involvement
  - Issues & Concerns
  - Study Expectations
  - Permit & Approval Requirements
- Next Meeting
- Adjourn

Introductions

Phase 2 - Issues and Questions

Carry forward into Phases 3 & 4

May 12, 2008 1

Government Agency Technical Committee

May 12, 2008 2

Government Agency Technical Committee

May 12, 2008 3

Government Agency Technical Committee

May 12, 2008 4

Government Agency Technical Committee
**Natural Environment**

- Impact on ESAs
- Impact on watersheds, watercourses, groundwater, wetlands, trees, wildlife and mitigation
- Impact of roads on Greenbelt and mitigation through design
- Increased air emissions
- Suggestion: Increased tree plantings

**Socio-Cultural Environment**

**Community**

- Impact on character of the area (rural)
- Effect on heritage properties/areas
- Pedestrian and bike trails (on or off road)
- Increased traffic noise, and noise mitigation
- Safety backing in/out of driveways
- Safety for vehicles and pedestrians
- Suggestion: Signs that indicate that residential roads are not through streets and other traffic calming measures

**Public Infrastructure**

- Street improvements and closures
- Streetscape designs
- Mitigation measures (retaining walls, vegetated buffer strips, barricades)
- Location of new sidewalks
- Location and design of traffic signals and intersections
- Driveway grading and relocation
- Room for rural mailbox delivery
- Location and safety of hydro lines

**Property Impacts**

- Process for determining fair compensation
- Encroachment policy and its effect
- Effect on septic systems
- Effect on farming operations
Transportation

• Capacity, Routing and Costs

  • Downtown Dundas Street capacity concern
  • Truck traffic road capacity
  • Effect on Certificate of Approval for Barnes
  • More detailed traffic operations analysis
  • Connection between N/S and E/W
  • Street alignment and shifting possibilities
  • Costing and payment responsibility of project
  • Timing of development
  • Transit Alternatives and carpool lot

Proposed Work Program

Two separate projects

Data Collection and Inventory

Environmental

  • Terrestrial Environment
  • Fisheries & Aquatic Resources
  • Hydrogeology/Well Survey
  • Socio-Economics/Land Use
  • Archaeological & Heritage
  • Environmental Conditions Report
Data Collection and Inventory

Engineering

- Prepare New Aerial Photo Base Plans of Corridors
- Waterdown Road Topographic Field Survey Work
- Prepare Corridor Base Plans / Digital Terrain Models
- Geotechnical
- Utilities
- Property
- Surface Drainage Inventories
- Roadside Elements & Safety Review
- Finalize Project Base Plans

May 12, 2008 Government Agency Technical Committee

Development of Design Alternatives

- Preliminary Option 5 Concept Development (East-West Corridor)
- King Road Feasibility Assessment
- Draft Design Criteria
- Assess Alignment Options
- Traffic & Network Analysis
- Assess Profile & Grading Aspects
- Assess Drainage Alternatives/Concepts
- Assess Structural & Retaining Wall Alternatives
- Utility Conflict Assessment
- Develop Streetscape Alternatives
- Develop Intersection Alternatives/Requirements
- Develop Grading, Frontage & Driveway Alternatives/Requirements
- Develop Plans of Design Alternatives

May 12, 2008 Government Agency Technical Committee

Evaluation of Design Alternatives

- Confirm Evaluation Methodology
- Preliminary Option 5 Evaluation & Documentation
- Finalize Option 5 Evaluation & Documentation
- Prepare Evaluation Materials & Support Information
- Preliminary Evaluation of Design Alternatives
- Finalize Evaluation

May 12, 2008 Government Agency Technical Committee

Development of the Preferred Alternatives

- Resolve Final Plan & Profile Elements
- Grading/Cross Section Assessments
- Structural Concepts Development
- Resolve Streetscape Elements
- Noise & Air Quality Assessments
- Identify Utility Issues & Requirements
- Identify Property / Easement Requirements
- Detailed Archaeological Resource Assessments
- Assess Effects/Finalize Mitigation Measures
- Cost Estimate
- Prepare Plans & Details of Preferred Alternative

May 12, 2008 Government Agency Technical Committee
Environmental Study Report

- Prepare Initial Draft of ESRs
- Partnering Group Review of Initial Draft ESRs
- Prepare Final ESRs Draft 1
- Public & Agency Review of Final ESRs Draft 1
- Prepare Final ESRs Draft 2,
- Partnering Group Sign-Off of Draft ESRs
- Council Presentations
- Finalize ESRs
- Issue Final ESRs, Notice of Completion & 30 Day Review Period

Assessing Alternative Design Concepts

- Analysis section identified
- Design issues identified
- Alternative alignments identified

Option 5 vs. 4 Reexamination Process

Step 1 - Confirm Option 5 Alignment
Step 2 – Data Collection/Detailed Costing
Step 3 – Confirm Feasibility of Option 5
Step 4 – Route Reevaluation

Option 5
Alternatives – New E/W Road
- Alignment at Highway 6
- Crossing of Borers Creek
- Crossing of Centre Road
- Crossing of Hydro corridor
- Option 5 versus widening Parkside
- Dundas /Brant Street

Alternatives - Waterdown
- South end
- Off-road alignment alternative
- Minimizing frontage impacts
- Waterdown Road – Mountain Brow Road intersection
- Mountain Brow Road
- North-south connector

Schedule
- Public Consultation Centres #1 in June 2008 to review preliminary evaluation and design alternative selection
- Advance design concept work during the summer 2008
- Public Consultation Centres #2 in September 2008 to review preliminary recommendations
- Finalize recommendations in Fall of 2008
- Prepare draft & final ESRs fall/winter 2008/2009
- File ESRs February/March 2009

Discussion
- Agency Involvement
- Issues and Concerns
- Study Expectations
- Permits & Approvals Process
June 4, 2009

Ms. Amanda Shepley,
Dillon Consulting
235 Yorkland Blvd. Suite 800
Toronto, ON M2J 4Y8

Re: Eagle Heights and the Waterdown Aldershot Transportation Master Plan

Dear Amanda,

I have conferred with my client regarding the amended plan for the expansion of Waterdown Road adjacent to his property north of the North Service Road in the City of Burlington.

The current plan depicts an unequal widening with no widening occurring on the east side and all of the proposed widening on the west side. This will have significant impacts on my client’s plan of subdivision. The one impact that is most troublesome is the impact the reduced depth has on the plan and the open space block. You indicated in your March 20, 2009 comments that you have “reviewed this with the City of Burlington and their initial thoughts are that the open space block will probably be required but re-configuring it could be considered going forward with possible land use changes”.

We note that the widening to the west is as much as 18 metres from the existing right of way limit. We feel that this is excessive. The only reason for the widening to this extent in our opinion is attributable to the need to re-grade the adjacent property so that the driveways enter the roadway at a reasonable slope. We prefer instead that the City of Hamilton /Burlington give an undertaking that if Paletta International Corporation gets a license/permission to carry out some of the regrading of its’ land that a lesser right of way can be taken. This offer is being made under the following understanding:
1. That the proposed lots will have full access to Waterdown Road
2. The driveway slopes will be no greater that 6 percent
3. That any widening in excess of that required by the deemed street width policy of the City of Burlington i.e.) any widening in excess of 30 metres 15metres measured from the centre line of the existing roadway be compensated at fair market value

We agree that we will together with the City of Hamilton/Burlington review the detail design and dimensions as the detail design proceeds.

We require confirmation that all of the lots, Street "D," and the block that is designated for a school will have access to Waterdown Road.

Therefore in the main our concerns can be addressed at the detailed design stage subject to the aforementioned comments.

Yours truly,

[Signature]

Karl Gonnser, P. Eng., RPP, MCIP

cc: Mr. Angelo Paletta
file# P98019
Date: June 17, 2008

Time: 11:47 am

Name of caller (and company, if applicable): Jeff Bateman (Go Transit)

Please check if follow-up required: By whom:

Preferred method of response (please circle): E-mail Phone Mail Fax

Contact information:
Tel. (416) 869-3600 ext. 5305
Email: jeff.bateman@gotransit.com

Subject / Record of Conversation:
GO Transit is interested to know if there is a way to extend Waterdown Road widening (North-South) further south to facilitate better movement of customers/travelers from Aldershot GO Station.

Response: Syeda directed Jeff to the project website and he said he will submit his comments if needed.
MINUTES OF MEETING

PROJECT: Waterdown Road & New East West Road

PURPOSE: Halton Conservation Authority Meeting

DATE: July 23, 2008

LOCATION: Conservation Halton

PRESENT: Conservation Halton: Jennifer Lawrence
Margaret Charles
City of Hamilton: Syeda Banuri
Dillon Consulting: Paul MacLeod
Ian Roul
Amanda Shepley

ITEM ACTION BY

1. Status of Class EA projects

   • Started hydraulic assessment and drainage design.
   • Current schedule is for mid to late September – go to public with our design.
   • Go to council in January/early February.

2. Issue Areas

   • Halton Conservation will look into Upcountry modified road alignment
   • Dillon proposing traffic circles on either side of Parkside Drive.
   • Grindstone Creek crossing at Parkside Drive overtops during the regional storm
   • Dillon is proposing to raise the grade on Parkside at Grindstone Creek requiring a full bridge replacement.
   • Jennifer will discuss the project with her technical team and set up a meeting ASAP.
   • Dillon will look at impacts to vegetation from raising the road at Parkside Drive. May shift the alignment to the north slightly.
   • Grade separation at the railway and Parkside Drive is not
<table>
<thead>
<tr>
<th>ITEM</th>
<th>ACTION BY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dillon will provide the conservation authority with an electronic</td>
<td>Dillon</td>
</tr>
<tr>
<td>copy of plan at Parkside &amp; Grindstone Creek.</td>
<td></td>
</tr>
<tr>
<td>Dillon’s analysis rejected Option 5 because it crosses the flood</td>
<td>Dillon</td>
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<tr>
<td>plain, requires three major crossings of the Grindstone Creek, and</td>
<td></td>
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<td>would require purchasing the Opta Minerals property</td>
<td>Dillon</td>
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<tr>
<td>Residents suggested that the conservation authority might be</td>
<td>Dillon</td>
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<td>interested in purchasing the Opta property to create park land</td>
<td></td>
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<tr>
<td>Halton Conservation indicated that they have no interest in the</td>
<td>Dillon</td>
</tr>
<tr>
<td>Opta property.</td>
<td></td>
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<tr>
<td>When Option 5 was rejected, public suggested a previous option</td>
<td>Dillon</td>
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<tr>
<td>which avoids the Opta property developed by Stantec in a earlier</td>
<td></td>
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<td>study.</td>
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<tr>
<td>Dillon also rejected this option because it encroaches into ESAs</td>
<td>Dillon</td>
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<td>and includes a sub-standard alignment.</td>
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<tr>
<td>Halton Conservation’s comments on this option were:</td>
<td>Halton C.A.</td>
</tr>
<tr>
<td>o Crosses a floodplain</td>
<td></td>
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<td>o Road would need to be raised</td>
<td></td>
</tr>
<tr>
<td>o Increases flooding to residents upstream</td>
<td></td>
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<tr>
<td>Halton Conservation will provide a formal letter explaining their</td>
<td>Halton C.A.</td>
</tr>
<tr>
<td>preference of Option 4 over Option 5</td>
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<tr>
<td>Dillon will provide the plan of Option 5 electronically.</td>
<td>Dillon</td>
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<tr>
<td>Dillon will provide Halton Conservation’s previous comments</td>
<td>Dillon</td>
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<tr>
<td>regarding Option 5.</td>
<td></td>
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<tr>
<td>Halton Conservation will look into the existing berms that have</td>
<td>Halton C.A.</td>
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<tr>
<td>apparently been built in the floodplain north of Opta.</td>
<td></td>
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<tr>
<td>The road alignment along Upcountry isolates the watercourse</td>
<td>Halton C.A.</td>
</tr>
<tr>
<td>from the floodplain on the west side.</td>
<td></td>
</tr>
<tr>
<td>Halton Conservation will look into the floodplain at Upcountry.</td>
<td>Halton C.A.</td>
</tr>
<tr>
<td>Dillon plans to lengthen the existing culvert on Dundas St.</td>
<td></td>
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<tr>
<td>o The road will be widened to six lanes</td>
<td>Dillon</td>
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<tr>
<td>Dundas currently overtops during the Regional storm at the culvert</td>
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<td>Dillon will send a plan to Transport Canada determine if the</td>
<td>Dillon</td>
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<td>watercourse is navigable.</td>
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<tr>
<td>Dillon is proposing to maintain the existing centreline of the</td>
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<td>road with some widening to the south in some areas to minimize</td>
<td></td>
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<td>property impacts.</td>
<td></td>
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<tr>
<td>Halton Conservation is concerned about impacts on vegetation at</td>
<td></td>
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<tr>
<td>the east end of Dundas</td>
<td></td>
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<tr>
<td>o Dillon is recommending a retaining wall to decrease grading</td>
<td>Dillon</td>
</tr>
<tr>
<td>impacts</td>
<td></td>
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<tr>
<td>Amphibian calling, breeding bird, ecological land classification</td>
<td></td>
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</tbody>
</table>
ITEM (ELC), and vegetative surveys have been completed

• Dillon indicated that the existing Vegetation at Sassafrass Woods (from the roadway inward) is as follows

  - 0 – 5m close to no vegetation
  - 5 – 10m typical vegetation
  - 10 – 20m natural forest
    (green ash, sugar maple, black walnut)

• The ELC was taken to the most detailed vegetative community in most areas
  - Dillon will submit data sheets for the ELC

• Dillon is matching the west edge of the pavement of Burke Street at the Mid Block Road

• Dillon’s current design is not proposing a dedicated right turn from Dundas onto the Mid Block Road
  - CA is concerned about creek encroachment

• Dillon is revising the proposed grade on the Mid Block matching back to Dundas

• Conservation Halton indicated that if the creek is shifted, the flood plain may be affected
  - CA has not agreed to the re-alignment proposed by developer.

• Conservation Halton’s preference is clear span along the Grindstone at the Mid Block location, however will consider a 2-span

• Conservation Halton would like wildlife movement through the proposed culvert as well as a 15m buffer on either side of the ESA

• Conservation Halton will comment on the design at Mid Block

• Dillon will avoid crossing the channel in Waterdown South; instead will shift the road west through that section

• 2 traffic circles are being proposed in Waterdown South

• Conservation Halton indicated that limestone in this area leads to uncommon vegetation.

• Dillon will likely propose 2 lane improvements on Mountain Brow, east of Mid Block

• Dillon is currently proposing a 4 lane urban cross section along Waterdown Road and Mountain Brow Road with a sidewalk on the north side of Mountain Brow and a sidewalk on both sides of Waterdown Road.

• Dillon is recommending straightening the Waterdown Road section through the future development with T intersections at the “old” road

• Conservation Halton would like to see contours on the plans
ITEM

• Hydro tower, substation and reservoir on the west side of Waterdown opposite Sassafras Woods
• Dillon is proposing a retaining wall to avoid major impacts to Sassafras Woods
• Conservation Halton is concerned with noise and light impacts in Sassafrass Woods
  o Has been considered in the study of the new interchange to the south
  o Concluded that the noise impact is minimal

3. Stormwater Management

• Conservation Halton will provide performance criteria for stormwater
  ACTION BY Halton C.A.

4. King Road

• Alignment adjustments are being assessed to eliminate the existing sightlines; will be cutting into the rock instead of impacting the steep slope
  o Will be reviewing with Burlington then reviewing with Conservation Halton
• Conservation Halton would prefer a “Do Nothing” option on King Road.
• Potential impacts to the Jefferson Salamander will be need to be assessed

DISTRIBUTION:
Attendees
Christine Lee-Morrison
Paul Allen
Melissa Green-Battiston

Please contact Amanda Shepley of Dillon Consulting with any errors or omissions.
Syeda Basira Banuri  
Senior Project Manager  
Environmental Planning  
Capital planning & Implementation Division  
Public Works Department, City of Hamilton  
Phone: (905) 546-2424 x 4101 Fax: (905) 546-4435

-----Original Message-----
From: Finan, Haya [mailto:FINANHA@tc.gc.ca]
Sent: Tuesday, June 24, 2008 2:23 PM
To: Banuri, Syeda
Subject: New East-West Corridor and Waterdown Road Corridor TC NEATS #13294

Syeda,
Thank you for your letter regarding the above referenced environmental assessment.

We have reviewed the information, and note the following:

Transport Canada is responsible for the administration of the Navigable Waters Protection Act, which prohibits the construction or placement of any “works” in navigable waters without first obtaining approval. If any of the related project elements or activities may cross or affect a potentially navigable waterway, you are requested to prepare and submit an application in accordance with the requirements as outlined in the attached Application Guide. Any questions about the NWPA application process should be directed to Suzanne Shea, NWP Officer at (519) 383-1866.

Please note that certain approvals under the Navigable Waters Protection Act or Railway Safety Act trigger the requirement for a federal environmental assessment under the Canadian Environmental Assessment Act. You may therefore wish to consider incorporating CEAA requirements into your provincial environmental assessment.
We would also appreciate if your agency distribution list could be updated by removing the Navigable Waters Protection Program. All correspondence should be directed to the Environment and Engineering Section to review projects against all of Transport Canada’s potential interests.

The contact information should be changed to:

Environmental Assessment Coordinator
Environment and Engineering
Transport Canada
4900 Yonge Street
Toronto, ON
M2N 6A5

Please contact me should you wish to discuss this further.

Regards,
Haya Finan
Environmental Officer
Environment and Engineering
Transport Canada - Ontario Region (PHE)
4900 Yonge Street, North York, ON M2N 6A5
p: 416-952-0475
f: 416-952-0514
e: finanha@tc.gc.ca

Please consider the environment before printing this email.
August 6, 2009

VIA EMAIL AND REGULAR MAIL
Dillon Consulting
235 Yorkland Blvd., Suite 800
Toronto ON  M2J 4Y8

Attention: Paul A. MacLeod, P.Eng.,
Transportation & Infrastructure

Dear Mr. MacLeod,

Re: Waterdown Aldershot Transportation Master Plan (WATMP)
Phase 3 & 4 Municipal Class Environmental Assessment

Thank you for your letter of May 26, 2009. We have had an opportunity to review your comments with our project team and have had a follow-up meeting with City of Hamilton staff to further discuss the issues. The following comments are provided to clarify our position on certain matters and to offer suggestions for the implementation of the study recommendations.

We are in agreement that the total right of way width for the Mid-Block Road will be 36 metres and designed as a 4-lane road throughout it’s length. Further, a continuous centre median will not be required in the proposed design as stated in your letter. With regard to Phase 1B of the Waterdown Bay development and full movement intersections with the adjoining local streets, we agree with your comments that the location of Mid-Block intersections can be evaluated in the later stages of the development review process. To implement this latter objective, we are suggesting that the final Environmental Study Report (ESR) include flexible design parameters that can be evaluated and incorporated into the subsequent phases of the Draft Plan of Subdivision for the Waterdown Bay lands.

With regard to the southerly portion of the Mid-Block Road and connection to Mountain Brow Road, there appears to be general agreement with the suggestion to close Mountain Brow Road and include a minimum radius curve to link these two road sections. The matters for further discussion include the alignment for a new east-west collector road and extent of the Mountain Brow closure and possible integration of surplus lands with planned municipal infrastructure such as SWM Pond No. 4. These issues are appropriately addressed in the context of the on-going Secondary Plan Study and we intend to follow-up with City staff in this regard.

In summary, there appears to be general agreement respecting the above noted design recommendations for the proposed Mid-Block Road. We agree that certain elements of the design will be reflected in the final ESR document while matters of detailed design are appropriately addressed in the context of the development review process. As noted above,
we intend to have follow-up discussions with City staff to review the implementation of the ESR recommendations in the context of the on-going Secondary Plan study and the proposed Draft Plan of Subdivision being prepared for subsequent phases of development.

It would be appreciated if you could provide us with a copy of the final ESR document as soon as available as well as advance notice of any upcoming public meetings.

Yours truly,

WEBB Planning Consultants Inc.

James Webb (signed original mailed)

James Webb, MCIP, RPP

cc: Amanda Shepley, Dillon Consulting
    Syeda Banuri, City of Hamilton
    Christine Lee-Morrison, City of Hamilton
    Gavin Norman, City of Hamilton
    Brenda Khes, City of Hamilton
    Michael Telawski, Waterdown Bay Inc.
    Karl Gonnsen, Metropolitan Consulting
    Dan Cherapacha, Read Voorhees & Associates
Shepley, Amanda

From: MacLeod, Paul
Sent: Friday, August 08, 2008 8:33 AM
To: Marin, Jackson; McKinnon, Don; Shepley, Amanda
Subject: FW: Waterdown Bay Minutes of Settlement
Attachments: Final conditions of approval attached to minutes of settlement.pdf; Final Minutes Signed by BE and BP.pdf; 2008 06 25 Waterdown Bay DP Ledger Attachment[1].pdf

Paul MacLeod
Dillon Consulting
Phone: 416-229-4647 #2317
E-Mail: pmaclod@dillon.ca

From: Banuri, Syeda [mailto:Syeda.Banuri@hamilton.ca]
Sent: Thursday, August 07, 2008 1:25 PM
To: MacLeod, Paul
Subject: FW: Waterdown Bay Minutes of Settlement

for your files and information.

Syeda Basira Banuri
Senior Project Manager
Environmental Planning
Capital planning & Implementation Division
Public Works Department, City of Hamilton
Phone: (905) 546-2424 x 4101 Fax: (905) 546-4435

-----Original Message-----
From: Jennifer Lawrence [mailto:jlawrence@hrca.on.ca]
Sent: Thursday, August 07, 2008 1:06 PM
To: Banuri, Syeda; mcharles@hrca.on.ca
Subject: Waterdown Bay Minutes of Settlement

Hi Syeda and Margaret,

As requested, please find attached the following:

1. Minutes of Settlement
2. Draft plan attached to settlement
3. Conditions of Approval attached to settlement.

Jennifer

Jennifer Lawrence
Manager, Environmental Planning
Conservation Halton
2596 Britannia Road West
Ph: 905-336-1158 ext. 266
Fax: 905-336-6684

5/20/2009
## Attachment #2 to Minutes of Settlement:
### Conservation Halton Conditions of Draft Plan Approval

<table>
<thead>
<tr>
<th>Condition</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A</strong></td>
<td>A lot line setback from the greater of 15 metres from the greatest hazard or the limit of the Grindstone Creek Valley ESA will be provided and that these areas be identified as a Buffer Block on the draft plan. Stormwater management facilities may encroach into the Buffer Block to the extent depicted on the constraints plan W04028-CP dated June 25, 2008 prepared by Metropolitan Consulting, and consistent with condition 1(iii);</td>
</tr>
<tr>
<td><strong>B</strong></td>
<td>That the Owner undertake no regrading of lands within 15 metres of the greatest hazard (i.e., stable top of bank, regulatory storm flood plain or meander belt) without prior written approval of Conservation Halton;</td>
</tr>
<tr>
<td><strong>C</strong></td>
<td>That the Owner erect a suitable temporary barrier to work fence prior to and during construction or regrading along the rear of lots/blocks along the 15 metre Buffer Block and adjacent to the stormwater management block to the satisfaction of Conservation Halton;</td>
</tr>
<tr>
<td><strong>D</strong></td>
<td>That the Owner submit grading plans for all lots and blocks backing onto the Buffer Block and stormwater management pond to the satisfaction of Conservation Halton and the City of Hamilton;</td>
</tr>
<tr>
<td><strong>E</strong></td>
<td>That the Owner prepare and implement a report outlining erosion and siltation control measures required prior to and during the construction of the subdivision, prior to site alteration, to the satisfaction of Conservation Halton and the City of Hamilton. Due to the karst on-site, it may be necessary to employ additional controls including, but not limited to, stabilization of large tracts of land through seeding to ensure that soils are stabilized over the winter and prior to spring;</td>
</tr>
<tr>
<td><strong>F</strong></td>
<td>That the Owner submit monthly sediment and erosion control reports during construction, to the satisfaction of Conservation Halton and the City of Hamilton;</td>
</tr>
<tr>
<td><strong>G</strong></td>
<td>That the Owner will prepare and implement a landscaping plan, to the satisfaction of Conservation Halton and the City of Hamilton, for those lands within the watercourse/open space block as well as the buffer block(s) utilizing Conservation Halton's landscaping guidelines and as per the recommendations of the Environmental Impact Study;</td>
</tr>
<tr>
<td><strong>H</strong></td>
<td>That during the development of the subdivision the watercourse/open space block and associated buffer block(s) are not to be disturbed, however, the Owner will post securities with the City of Hamilton to assure the rehabilitation of these blocks in the event disturbance does occur;</td>
</tr>
<tr>
<td><strong>I</strong></td>
<td>That if it is determined through detailed design that grade changes are required in order to accommodate development of lots/blocks adjacent to a buffer block, this grade change must be accommodated outside of the buffer block and the lot lines adjusted accordingly, to the satisfaction of Conservation Halton and the City of Hamilton (with the exception of those grade changes required because of the cut and fill depicted in figure 2-5 of the SWSS);</td>
</tr>
<tr>
<td><strong>J</strong></td>
<td>That the Owner obtain the written approval of Conservation Halton for any development/site alteration within Conservation Halton's regulated areas (pursuant to Ontario Regulation 162/06). This could include, but is not limited to: watercourse crossings, stormwater outfalls,</td>
</tr>
</tbody>
</table>
flood plain alterations, watercourse alterations, trail construction, minor grading associated with the stormwater management pond and development/site alteration within hazardous karst areas;

K

That the Owner obtain an Authorization from the Department of Fisheries and Oceans for the Harmful Alteration, Disruption of Destruction of Fish Habitat, pursuant to the Fisheries Act, where necessary. Such Authorization may include additional monitoring not already outlined in the Subwatershed Study Stage 3 Draft Report Monitoring Plans;

L

That any exposed soil within a watercourse block, either as a result of realignment, flood plain alterations or rehabilitation works, will be seeded or otherwise stabilized within 24 hours of exposure to minimize the transport of sediment downstream, to the satisfaction of Conservation Halton;

M

deleted

N

That the Owner will not stockpile fill material within 15 metres of the watercourse/open space/buffer blocks and/or the stormwater management block to the satisfaction of Conservation Halton;

O

That the Owner will design, construct and have in operation all flood control structures necessary for Phase 1A, prior to the issuance of any building permits to the satisfaction of Conservation Halton and the City of Hamilton;

P

That the Owner prepare and implement a revised Stable Top of Bank Assessment to the satisfaction of Conservation Halton and that any redline revisions be made as necessary to ensure that, where the stable top of bank is the greatest hazard, no development including lot lines, are proposed within 15 metres of stable top of bank. Further, that Block(s) ___(blocks immediately south of GS-1 and west of Street A) be shown as future development until such time as the revised Stable Top of Bank Assessment has been completed, including consideration for any impacts due to the possible realignment of GS-1 as a result of the road crossing, to the satisfaction of Conservation Halton;

Q

That no fill from the site may be dumped on or off-site in an area regulated by Conservation Halton without the prior written permission of Conservation Halton;

R

That the Owner install a chain link fence (the height of which is to be specified by the City of Hamilton) along the common boundary line, setback 0.3 metres on City property (or an alternate distance as required by the City of Hamilton), between the Buffer Block(s) and the abutting residential lots/blocks. The fence must be installed prior to the issuance of building permits on adjacent lots in order to ensure there is no encroachment by the builder or homeowner into the Buffer Block(s) and stormwater management pond;

S

That the Owner will design, construct and have in operation (including established vegetation) all stormwater management and watercourse blocks prior to the issuance of building permits to the satisfaction of Conservation Halton;

T

That the Owner convey Block ___ (watercourse/open space block) and the 15 metre buffer block(s) to the City of Hamilton; and,

U

That, immediately prior to registration of the draft plan, the Owner submit the final clearance
A fee of $2800.00, to Conservation Halton, pursuant to the City of Hamilton's Memorandum Understanding. If the Phase 1A development is further phased, each additional phase will require a separate clearance fee of $500.00.

<table>
<thead>
<tr>
<th>1</th>
<th>That the Owner prepare and implement a revised Functional Servicing Report and detailed stormwater management report, to the satisfaction of Conservation Halton and the City of Hamilton that addresses the following:</th>
</tr>
</thead>
<tbody>
<tr>
<td>i</td>
<td>Specific pond configuration and design</td>
</tr>
<tr>
<td>ii</td>
<td>Confirmation of permanent pool volume and quality control (including extended detention) requirements</td>
</tr>
<tr>
<td>iii</td>
<td>Confirmation that there will be no excavation of bedrock within Karst Constraint Area A. The side slope and embankment of the pond and accessory facilities (access road, decant area, etc.) may be constructed in or on the overburden over top of Karst Constraint Area A; however the base of the pond shall not be located over Karst Area A.</td>
</tr>
<tr>
<td>iv</td>
<td>Details with respect to the pond lining in consultation with a geotechnical engineer and karst specialist</td>
</tr>
<tr>
<td>v</td>
<td>Configure the stormwater outfall orientation to enter the watercourse at an appropriate angle</td>
</tr>
<tr>
<td>vi</td>
<td>To the extent possible, maximize the elevation of the permanent pool to reduce the length of the outlet structure to minimize impacts on Grindstone Creek Valley ESA through outlet construction</td>
</tr>
<tr>
<td>vii</td>
<td>Reverse slope pipe and perforated riser pipe outlet structures</td>
</tr>
<tr>
<td>viii</td>
<td>Thermal mitigation</td>
</tr>
<tr>
<td>ix</td>
<td>Incorporation of mitigation measures into the pond design, such as submerged forebay outlets and outlet shut-off valves, to reduce the risks of transporting contaminant spills into the receiving watercourse</td>
</tr>
<tr>
<td>x</td>
<td>Maximizing infiltration on-site through the use of lot level controls where appropriate. A site specific soil and karst investigation will be required to confirm the potential effectiveness of infiltration measures and the potential impacts on groundwater recharge and quality</td>
</tr>
<tr>
<td>xi</td>
<td>Incorporation of recommendations by a geotechnical engineer and karst specialist in the design of the installation of services and the stormwater management pond to avoid exacerbating karst dissolution processes that could contribute to localized subsidence and potentially future failure of pond function;</td>
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<tr>
<td>xii</td>
<td>The preferred means of installing servicing crossings of GS-1. The preferred approach</td>
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<td>will cause the least amount of interference to the karstic bedrock, groundwater and fish habitat of GS-1;</td>
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<td>xiii</td>
<td>Inclusion of any recommendations of the Karst Assessment, Karst and/or Groundwater Contingency Plan(s), Environmental Impact Study, revised Stable Top of Bank Assessment, as necessary.</td>
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<tr>
<td>2</td>
<td>That the Owner prepare and implement an Environmental Impact Study, to the satisfaction of Conservation Halton and the City of Hamilton that addresses the following:</td>
</tr>
<tr>
<td>i</td>
<td>Assessment of the impact of servicing needs and proposed mitigation measures;</td>
</tr>
<tr>
<td>ii</td>
<td>An assessment of the potential impacts, and proposed mitigation measures, associated with realigning a portion of GS-1 to accommodate the road crossing. This could include impacts to vegetation, fish habitat, valley wall stability;</td>
</tr>
<tr>
<td>iii</td>
<td>The provision of an enhanced edge community within the buffer block(s) utilizing native, non-invasive species. The ability to remove existing invasive species should also be investigated. Landscaping densities should be based on Conservation Halton’s Landscaping Guidelines;</td>
</tr>
<tr>
<td>iv</td>
<td>An assessment of any opportunities to retain cultural vegetation units, without causing changes to the draft plan, that have not been identified as part of the Natural Heritage System. Within Phase 1 this includes hedgerows (h18, h19, h20) as shown on Figure 10-3 of the Stage 1 SWS Report</td>
</tr>
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<td>3</td>
<td>That the Owner prepare and implement a Tree Protection Plan in conjunction with the grading plans, to the satisfaction of Conservation Halton and the City of Hamilton, prior to any site grading, to reduce the potential for construction to impact retained vegetation, in the context of the draft plan;</td>
</tr>
<tr>
<td>4</td>
<td>That the Owner prepare and distribute to the homeowners, to the satisfaction of Conservation Halton and the City of Hamilton, a brochure that describes environmental stewardship measures, such as the use and maintenance of source control measures, the use of alternative de-icing compounds, the significance of the adjacent natural heritage and natural hazard features as well as the existence of karst topography;</td>
</tr>
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<td>5</td>
<td>That, as part of the Permit application to Conservation Halton for the road crossing of GS-1, the Owner provide the following to the satisfaction of Conservation Halton:</td>
</tr>
<tr>
<td>i</td>
<td>An assessment of the potential impacts to the watercourse and valley feature, including the potential to impact (i) valley features such as bank stability/erosion potential and riparian vegetation, (ii) stream morphology, (iii) fish habitat, (iv) other aquatic habitat features, and (v) the interaction of groundwater and surface water; vi), hydraulic conveyance/flood storage</td>
</tr>
<tr>
<td>ii</td>
<td>A full span crossing structure is required unless and provided that the functional objectives related to hydraulic performance and stream forming processes, aquatic habitat and wildlife passage can be achieved to the satisfaction of the City and Conservation Halton, in which case a two span structure may be considered.</td>
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<tr>
<td>iii</td>
<td>An assessment by a qualified geotechnical engineer, in consultation with a karst specialist, of the proposed crossing design and construction methodology to minimize potential interference with in-channel surface water flow and groundwater flow in the bedrock karst conduits;</td>
</tr>
<tr>
<td>iv</td>
<td>The proposed alignment and construction methods of the servicing within the road right-of-way. In order to minimize disturbance to the natural environment and karst features, the services and the crossing should take place at the same time (if the services are proposed underground);</td>
</tr>
<tr>
<td>v</td>
<td>An assessment, in conjunction with the revised slope stability assessment, as to whether the realignment alters the location of the stable top of bank and any redline revisions to the lot lines as a result;</td>
</tr>
<tr>
<td>6</td>
<td>That, as part of the Permit application to Conservation Halton for the construction of the stormwater pond within Karst Constraint Area A, the Owner provide the following to the satisfaction of Conservation Halton:</td>
</tr>
<tr>
<td>i</td>
<td>The complete Karst Assessment and Karst Contingency Plan as outlined in subsequent conditions of approval;</td>
</tr>
<tr>
<td>ii</td>
<td>The complete Groundwater Contingency Plan as outlined in subsequent conditions of approval;</td>
</tr>
<tr>
<td>iii</td>
<td>The complete Environmental Impact Study to ensure any recommendations are incorporated into the design of the pond;</td>
</tr>
<tr>
<td>iv</td>
<td>The complete stable top of bank assessment to ensure minimum 15 metre setbacks are achieved;</td>
</tr>
<tr>
<td>v</td>
<td>A landscaping plan for the pond utilizing Conservation Halton's landscaping guidelines.</td>
</tr>
<tr>
<td>7</td>
<td>That, as part of the Permit application to Conservation Halton for the construction of the stormwater pond outfall to GS-1, the Owner provide the following to the satisfaction of Conservation Halton:</td>
</tr>
<tr>
<td>i</td>
<td>Configure the stormwater outfall orientation to enter the watercourse at an appropriate angle</td>
</tr>
<tr>
<td>ii</td>
<td>Erosion protection measures</td>
</tr>
<tr>
<td>iii</td>
<td>Fish habitat impacts</td>
</tr>
<tr>
<td>iv</td>
<td>Other items as identified by Conservation Halton as part of the detailed review of the application.</td>
</tr>
<tr>
<td>8</td>
<td>That, if it is deemed necessary to realign GS-1 in order to accommodate the road crossing, as part of the Permit application to Conservation Halton for the realignment, the Owner provide the following to the satisfaction of Conservation Halton:</td>
</tr>
</tbody>
</table>
|   | Implementation methodology for any recommendations that arise out of the Environmental Impact Study;  

| i | Revised flood plain mapping;  

| ii | Detailed fish habitat assessment and mapping  

| iii | Other items as identified by Conservation Halton as part of the detailed review of the application.  

| iv | That the Owner obtain a Permit to remove the existing farm lane crossing of GS-1, to the satisfaction of Conservation Halton. This was identified as Restoration Area 4 in Figure 8-1 of the 3rd Draft of the Stage 2 Report of the SWS. Restoration measures that should be included in the Permit application include (i) removal of existing culvert, (ii) removal of fill from the bankfull channel and adjacent riparian area and the rehabilitation of these areas to match natural conditions upstream and downstream, (iii) the restoration of GS-1 channel morphology and fish habitat;  

| 9 | That the Owner prepare an assessment of Karst Areas A, B and C, to the satisfaction of Conservation Halton and the City of Hamilton, to determine the preferred engineering and construction methods for the road/servicing infrastructure crossings of GS-1, SWM Pond 2 and foundation excavation. The assessment must include site-specific karst mitigation measures for each area, must include recommendations into the design of load bearing structures that require footings into bedrock to minimize bedrock scouring or dissolution by flowing water and the piping of the soil mantle downwards into epikarstic channels and karst conduits and must be undertaken by a karst specialist in conjunction with a geotechnical engineer  

| 10 | That the Owner prepare and implement a Karst Contingency Plan to the satisfaction of Conservation Halton and the City of Hamilton. The Plan should address not only the known areas of karst but also what to do if karst is encountered beyond Karst Constraint Areas A-C. The plan must be prepared by a geotechnical engineer and karst specialist and should define, at a minimum: (i) who will be involved in the development, (ii) who has the authority to stop construction work, (iii) agency notification protocols, (iv) what, if any, immediate testing is required to address karst conditions encountered during construction (e.g. fluorescent dye tracer test), (v) the mitigative options that are available for the specific project, (vi) the decision-making framework for the selection of a preferred mitigation strategy, (vii) who will be the project manager of any required mitigation work, (viii) who will complete the mitigation work; and, (ix) follow-up steps; (page 31, rows 7 and 8). In addition, the Karst Contingency Plan should also include a map of overburden thickness to evaluate the potential for karst (particularly epikarst) in order to enable appropriate construction decision-making;  

| 11 | That the Owner prepare plans that identify the extent of excavation required within Karst Areas B and C (for foundations and/or servicing), in conjunction with the overburden thickness map outlined in Condition 11, in order to identify those areas where a karst specialist will be needed on-site as per Condition 13.  

| 12 | That the Owner provide for a karst specialist to be on-site during any works that require excavation into bedrock or within areas identified in the overburden thickness map (see Condition 11) as requiring a karst specialist on-site. At other times during site grading or construction of services, the Owner shall provide for a karst specialist to be available for  

<p>| 13 |</p>
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<td>14</td>
<td>That the Owner conduct a detailed assessment of GS-1 within the Phase 1A area to confirm existing erosion sites and to develop and implement appropriate restoration/rehabilitation measures to the satisfaction of Conservation Halton and the City of Hamilton.</td>
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<tr>
<td></td>
<td>That the Owner conduct a detailed assessment of GS-1 within the Phase 1A area to confirm existing erosion sites and to develop and implement appropriate restoration/rehabilitation measures to the satisfaction of Conservation Halton and the City of Hamilton.</td>
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<tr>
<td>16</td>
<td>That the Owner prepare and implement a Groundwater Contingency and a Water Supply Contingency Plan to the satisfaction of Conservation Halton and the City of Hamilton, prior to any site grading, to ensure that an appropriate mitigation strategy is available to be implemented should on-site works impact downstream residents reliant on groundwater and/or baseflows to the Grindstone Creek. This plan should address the following at a minimum: (i) excavation dewatering; (ii) long-term management; (iii) buried utility conduits; (iv) monitoring program; (v) mitigation strategy, including securities, for impacted downstream residents and/or baseflows to Grindstone Creek.</td>
</tr>
<tr>
<td>17</td>
<td>That the Owner prepare and implement a Spills Management Response Plan, to the satisfaction of the City of Hamilton, prior to any site grading, to address any spills that may occur during construction.</td>
</tr>
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<td>18</td>
<td>That the Owner undertake the Surface Water Monitoring, Channel Realignment and Enhancement Works Monitoring, Stream Morphology Monitoring, Terrestrial Ecology Monitoring and Aquatic Ecology Monitoring, as outlined in Sections 4 – 9 (inclusive) within the 2nd Draft Stage 3 Report with the following additions, provided that the design, approval and construction of the stormwater management facilities, creek crossings and other services may proceed concurrently with any required baseline monitoring and analysis or other monitoring requirements:</td>
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<td>a. 10% replicates of water quality samples;</td>
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<td>b. Temperature monitoring of the discharge from the stormwater management pond should be measured using continual loggers;</td>
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<td>c. Monitoring for five years post construction;</td>
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<td>d. Preconstruction period is defined as prior to any development taking place on the South Waterdown lands;</td>
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<td>e. Forest birds to be included in terrestrial ecology monitoring plan;</td>
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<td></td>
<td>f. Fish habitat data will be collected utilizing the OSAP method. The OSAP method must not be modified. Sections 1, Modules 1-3 must be completed fully for every site with no modifications. MNR must be contacted to obtain a site ID code;</td>
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<td>g. Proof of OSAP training by at least one member of the field staff must be provided;</td>
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<td><strong>h</strong></td>
<td>The latest version of the OBBN protocol is to be utilized – January 2007 (or as may be updated);</td>
</tr>
<tr>
<td><strong>i</strong></td>
<td>In addition to OBBN, the minimum level of taxonomic resolution for benthos identification should be to the family level;</td>
</tr>
<tr>
<td><strong>j</strong></td>
<td>That the erosion monitoring component of the program include sufficient baseline monitoring and analysis, to the satisfaction of Conservation Halton, to ensure that performance of the stormwater management for the development can be differentiated from other watershed factors and natural erosion and sediment transport.</td>
</tr>
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</table>

Alternatively, the Owner could enter into a cost sharing agreement with the other South Waterdown landowners in order to prepare a comprehensive monitoring plan, rather than individual plans. The monitoring could then be undertaken by a public agency such as the City of Hamilton or Conservation Halton. If this approach is preferred, the responsible agency will need to be involved in the preparation of the cost sharing agreement to ensure appropriate funds are provided.

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<td><strong>19</strong></td>
<td>That the Owner prepare, and implement any mitigation measures as a result of, a monitoring plan for the stormwater management pond, to the satisfaction of Conservation Halton and the City of Hamilton. Reference should be made to Table 4-1, Section 4.4 (Remedial Measures), 2nd Draft, Stage 3 Report, regarding storage adjustment requirements;</td>
<td></td>
</tr>
<tr>
<td><strong>20</strong></td>
<td>That the Owner provide the results, analysis and recommendations of the monitoring reports to the City of Hamilton, Conservation Halton and the Niagara Escarpment Commission. Copies of all data sheets and digital copies of information are to be submitted;</td>
<td></td>
</tr>
<tr>
<td><strong>21</strong></td>
<td>That the Owner post securities with the City of Hamilton to ensure the monitoring requirements are fulfilled and that mitigation measures are implemented as necessary.</td>
<td></td>
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</table>
ONTARIO MUNICIPAL BOARD

Waterdown Bay Ltd. has appealed to the Ontario Municipal Board under subsection 34(11) of the Planning Act, R.S.O. 1990, c. P.13, as amended, from Council's refusal or neglect to enact a proposed amendment to Zoning By-law 90-145-Z (Flamborough) of the City of Hamilton to rezone lands respecting 392 Dundas Street East, Part of Lots 2, 3, 4 and 5, Concession 3, East Flamborough, to permit the development of a plan of subdivision.
OMB File No. Z060176

Waterdown Bay Ltd. has appealed to the Ontario Municipal Board under subsection 51(34) of the Planning Act, R.S.O. 1990, c. P.13, as amended, from the failure of the City of Hamilton to make a decision respecting a proposed plan of subdivision on lands composed of Part of Lots 2, 3, 4, Concession 4 and 5, East Flamborough, 392 Dundas Street East, in the City of Hamilton.
(Approval Authority File No. 25T 200513)
OMB File No. S070002

The Halton Region Conservation Authority has appealed to the Ontario Municipal Board under subsection 53(19) of the Planning Act, R.S.O. 1990, c. P.13, as amended, from the decision of the Committee of Adjustment of the City of Hamilton approving a consent to allow a conveyance of an irregular-shaped parcel of land for public road purposes (the "Road Consenti") on lands composed of Part of Lots 2, 3, 4, Concession 4 and 5, East Flamborough, 392 Dundas Street East, in the City of Hamilton.
(Approval Authority File No. FL/B-08.24.)
OMB Case/File No. __________

MINUTES OF SETTLEMENT

Whereas Waterdown Bay Ltd. ("Waterdown Bay") and The Halton Region Conservation Authority ("Conservation Halton") are both Parties to this Ontario Municipal Board proceeding:

And Whereas Waterdown Bay and Conservation Halton have reached an agreement regarding the resolution of the matters at issue between them in this proceeding, which agreement is set out in these Minutes of Settlement;

Now Therefore the undersigned parties hereby agree as follows:

1. Waterdown Bay agrees that it will seek draft plan approval, pursuant to section 51(34) of the Planning Act, for Phase 1A of its proposed plan of subdivision from
the Ontario Municipal Board ("OMB") in accordance with the draft plan of subdivision attached hereto as Attachment #1 to these Minutes of Settlement and subject to the proposed conditions of draft plan approval as set out in Attachment #2 to these Minutes of Settlement. The parties acknowledge that additional conditions of draft approval will be required by the City of Hamilton.

2. Conservation Halton agrees that it will not object to approval of Phase 1A by the OMB in accordance with the draft plan in Attachment #1 and subject to the conditions set out in Attachment #2. In the event that further changes are proposed to the draft plan or to the conditions, prior to or during the OMB hearing, Conservation Halton shall have the right to object to any such changes that it considers in its sole discretion to be inconsistent with this settlement and to adversely affect any of the issues of concern to Conservation Halton.

3. Waterdown Bay and Conservation Halton agree that they will jointly request the OMB to approve a zoning by-law amendment that will reflect the draft plan in Attachment #1 and the conditions in Attachment #2. The undersigned parties agree that they will use good faith efforts to agree upon the form and content of the zoning amendment, once a draft zoning by-law has been prepared by the City of Hamilton. The parties further agree that Conservation Halton may object to any provisions of the proposed zoning by-law that it considers in its sole discretion to be inconsistent with this settlement and to adversely affect any of the issues of concern to Conservation Halton.

4. Although it is the position of Conservation Halton that a Subwatershed Study and Secondary Plan should be approved prior to consideration of a draft plan of subdivision, Conservation Halton is satisfied that OMB approval of Phase 1A of the Waterdown Bay subdivision and/or the Road Consent, in accordance with these Minutes of Settlement, is acceptable in these particular circumstances. While Conservation Halton does not agree with all aspects of the subwatershed planning study that has been prepared by Ecoplans Limited, Conservation Halton is satisfied that the subwatershed study has been completed sufficiently to allow Conservation Halton to identify all issues of concern to Conservation Halton relating to development in the Phase 1A lands. Further, Conservation Halton is satisfied with the resolution of its issues relating to the Phase 1A lands in the context of this settlement, as reflected in these Minutes of Settlement. Conservation Halton continues to have concerns relating to subwatershed planning issues beyond Phase 1A of the proposed subdivision. It is agreed by the parties that these Minutes of Settlement are without prejudice to Conservation Halton's position that an approved subwatershed study and secondary plan are required before considering draft plan approval and/or consent applications of any future phase of development by Waterdown Bay or with respect to any other lands.

5. Waterdown Bay and Conservation Halton agree that they will both make good faith efforts to continue to address and resolve all of the remaining outstanding
issues that have been identified by Conservation Halton relating to the Subwatershed Study and the development of the subsequent phases of Waterdown Bay's lands. The undersigned parties further agree that their mutual objective is to reach agreement on all of Conservation Halton's remaining outstanding issues, including with respect to the Subwatershed Study, with the intent of having appropriate environmental policies reflected in the South Waterdown secondary plan as soon as possible. It is agreed that all members of the Technical Steering Committee of the Subwatershed Study would be invited to fully participate in the aforementioned process to resolve the outstanding issues with respect to the Subwatershed Study and the subsequent phases of Waterdown Bay's proposed subdivision and consent applications.

6. Waterdown Bay hereby agrees that it will not seek to commence an Ontario Municipal Board Hearing on Phase 1B or appeal any subsequent phases of its proposed subdivision or other planning applications for the South Waterdown lands, except as set out in paragraph 7 below, until such time as the South Waterdown secondary plan has been approved. Further, Waterdown Bay agrees that the City of Hamilton should have a reasonable period of time to complete the secondary planning process.

7. Notwithstanding paragraph 6 above, in the event that the Waterdown South secondary plan has not been adopted by the City of Hamilton by September 1, 2009, Waterdown Bay may request the OMB to schedule a hearing for Phase 1B of its proposed subdivision and may appeal and seek a hearing for any subsequent phases of its subdivision and may appeal and seek a hearing of any alternative secondary plan proposed by Waterdown Bay or the Waterdown South landowners. Further, in the event that the Waterdown South secondary plan is adopted by Hamilton prior to September 1, 2009 and is appealed to the OMB by Waterdown Bay or by any other party, Waterdown Bay may seek to consolidate its appeals of any further phase or phases of its proposed plan of subdivision with the appeal(s) of the secondary plan. In that event, Waterdown Bay hereby agrees that the appeals relating to the approval of the secondary plan should proceed in the first phase of any such consolidated hearing, with its site specific appeals considered in a subsequent phase.

8. Notwithstanding any of the above provisions in section 6 or 7, in the event that the City of Hamilton makes a written request to Waterdown Bay to seek OMB approval of the school and/or park sites (located in Phase 1b), in advance of secondary plan approval, Waterdown Bay may seek such a hearing of the consent appeals relating to those lands and Conservation Halton has the right to oppose such approvals and/or appeals.

9. Waterdown Bay and Conservation Halton agree to request the OMB to defer the hearing of the Road Consent appeals to be heard with the School and Park Consents in a subsequent phase, rather than having the Road Consent appeals heard at the Phase 1A hearing, as is presently contemplated. In the event that the
OMB does not grant this request and the Road Consent appeals are heard with Phase 1A of this OMB hearing. Waterdown Bay agrees that it will seek approval of the Road Consent subject to conditions that are consistent with these Minutes of Settlement. The parties acknowledge that additional conditions may be required by the City of Hamilton. Conservation Halton agrees that it will not object to the approval of the Road Consent, provided the conditions of approval proposed by Waterdown Bay are consistent with these Minutes of Settlement. In the event that Conservation Halton, in its sole discretion, considers that the proposed conditions of approval are inconsistent with this settlement and would adversely affect any issues of concern to Conservation Halton, Conservation Halton shall have the right to object to any such conditions or to seek additional conditions that would be consistent with these Minutes of Settlement.

10. These Minutes of Settlement are conditional upon Waterdown Bay also reaching a settlement agreement with the City of Hamilton that is consistent with these Minutes of Settlement.

11. These Minutes of Settlement shall be circulated to the other parties to this hearing and filed with the Ontario Municipal Board upon their execution and upon the satisfaction of paragraph 10.

12. These Minutes of Settlement shall endure to the benefit of, and shall run with the land and be binding on, the successors and assigns of the undersigned parties.

13. These Minutes of Settlement may be executed on behalf of the parties in counterparts.

Dated at _________________. Ontario this ____ day of ______. 2008.

WATERDOWN BAY LTD.

Per:

(Name and position)
I have authority to bind the corporation

Dated at _________________. Ontario this ____ day of ______. 2008.

THE HALTON REGION CONSERVATION AUTHORITY

Per:

Brian Penman
Chairman
Per:

Robert Edmondson  
Director of Watershed Management Services

We have authority to bind The Halton Region Conservation Authority
MINUTES OF MEETING

PROJECT: Waterdown Road & New East West Road- Phase 3

PURPOSE: Halton Conservation Authority

DATE: August 12, 2008 1:30 PM

LOCATION: Halton Conservation Office

PRESENT:
City of Hamilton: Syeda Banuri
Halton Conservation: Lesley Matich
Samantha Mason
Margaret Charles
Amy Mayer
Dillon Consulting: Paul MacLeod
Grace Tesa
Ian Roul
Jackson Marin
Amanda Shepley

---

**ITEM**  
**ACTION BY**

1.  
**Introductions**

2.  
**Status of Phase 3 Work**

- Dillon is currently finalizing the horizontal and vertical alignments
- The preliminary design should be complete by the end of August
- PIC # 2 to be held in the fall
- Plan to file the ESRs in spring of 2009
  - 2 ESRs – Waterdown Road Widening and New East West Road
- Dillon has recommended sidewalks, curb and gutter, boulevard, and illumination, as well as a reduced speed on Dundas St
- Dundas is being widened from 4 to 6 lanes
  - Will impact vegetation on the north side of the road
  - Installing a retaining wall to minimize this impact (at the east end)
  - Will also be cutting 5m into the escarpment
ITEM

- Dillon narrowed the boulevard along Parkside Dr to reduce the impact to residences
  - Will still require some property
- Along Mountain Brow Road, Dillon eliminated the south side sidewalk
- Halton Conservation will confirm property ownership of the woodlot on the south side of Mountain Brow, if we are extending beyond the ROW
- 4 lanes are proposed on Mountain Brow Rd up to Mid Block; taper back to 2 lanes east of that
- The Bruce Trail crosses Mountain Brow west of MidBlock

3. Creek Crossings

Dundas Street
- The existing open box culvert west of Kerns Rd will require lengthening and channel work
- From a fisheries perspective, Conservation Halton would prefer to replace the culvert to an open footing design
- Dillon will survey the slope of the channel and bank width
- Currently the road overtops during the regional storm
- There are no impacts hydraulically, according to the model during the 100 year storm
- The Jefferson Salamander is found in the area

Parkside Drive
- Proposing to lengthen the existing 6m span to 14 m (preliminary)
  - Maintains existing flood plain
  - Structurally, more manageable with a 20m span when considering velocity
  - During the regional storm there is a 2m drop in outlet
- Currently overtops by 1 m during the regional storm
- Hamilton will look into the EMS requirements
- Conservation Halton recommended a single span and placing footings as far back as possible
- Abutment 3m into the ground
- 1.8m high is suitable for deer that pass in this area

Upcountry Development
- Conservation Halton will look into files for information from the developer on the wetland
- The proposed road is disconnecting the channel from the flood plain
- Conservation Halton requested that Dillon take inventory of the

ACTION BY

- Dillon
- Dillon
- Hamilton
- Hamilton
- Halton C.A.
- Dillon
ITEM ACTION BY

hedgerow

• Severed road drainage
  o Take water to SWM pond in the Upcountry development
  o If available, Hamilton would build the SWM pond and then receive payment from the developer afterward
• Level 1 quality control
  o Stormceptors are acceptable by the conservation authority
• Hamilton will look into the Phase 2 Upcountry files

Mid Block

• Hamilton will provide Dillon with the SNC Lavalin report
• Dillon has modified the alignment to avoid the drainage swale
• There is limited clearance where Grindstone crosses MidBlock south of Dundas
  o Requires creek re-alignment
  o Does not overtop in this section, however Dundas St overtops
• Dillon will meet with the developer in September to discuss the design of the proposed structure
• KARST exists throughout Waterdown Bay lands
• An Environmental Impact Statement has not been completed

4. Sassafras Woods

• Proposed buy-out on the west side of Waterdown road, opposite Sassafras Woods
• The design is as far west as possible, while avoiding the hydro tower and sub-station
• Dillon is proposing to eliminate the sidewalk on the east side of Waterdown Rd with the installation of a retaining wall to reduce impact to Sassafras woods
• Vegetation survey was completed in bands
  o Rare species weren’t found in the 10 m band closest to the road
  o Dillon will provide the information to Halton Conservation
• The construction of the retaining wall is a concern
  o Dillon will likely recommend RSS at this location to avoid the need to construct footings
  o Looking into whether the wall can be constructed from the road side
• Halton Conservation would like a copy of the edge management plan
• Dillon will provide MBTW with the Halton Conservation’s landscape
5. Other Business

- Dillon requested formal comments from Halton Conservation within the next 2 weeks

ACTION BY: Halton C.A.

DISTRIBUTION: Attendees

Please contact Amanda Shepley of Dillon Consulting with any errors or omissions.
Restivo, David

From: Pisapio, John (MNR) [john.pisapio@ontario.ca]
Sent: September 5, 2008 1:39 PM
To: Restivo, David
Cc: Followes, Emma (MNR)
Subject: RE: Halton Jefferson Salamander

David,

Based on your map, all of the naturally vegetated lands (including forests, field and meadow areas) south of Mountainbrow Road have been determined to be Jefferson Salamander habitat. There are several breeding ponds here and MNR has conducted terrestrial habitat use studies in this area. The forested area extending east of Mountainbrow Road where the road veers south, is also Jefferson habitat. These areas will fall under regulation in the new Endangered Species Act. The areas north of Mountainbrow Road and west of the existing subdivision are not habitat for Jefferson Salamander.

Just so the lines of communication are kept open, could you please advise me as to whom at Conservation Halton you have been dealing with. Thanks.

Regards,

John Pisapio
Bioligist
Ministry of Natural Resources
Aurora District
(905) 713 - 7387

From: Restivo, David [mailto:DRestivo@dillon.ca]
Sent: Wednesday, September 03, 2008 5:09 PM
To: Pisapio, John (MNR)
Cc: Roul, Ian
Subject: Halton Jefferson Salamander

John,

Our company has been retained by the City of Hamilton and the City of Burlington to create a Transportation Master Plan for Waterdown/Aldershot. At a meeting with the Halton Region Conservation Authority your name was brought up by the CA as a reference person for potential Jefferson salamander occurrences/data for Sassafras Woods, Grindstone Creek and the surrounding area. Please see the attached air photo of the area of interest. Your assistance in providing us with Jefferson salamander information/observations for this area would be much appreciated.

Regards,

David Restivo
Bioligist

Dillon Consulting Limited
800 - 235 Yorkland Blvd.
Toronto, ON, M2J 4Y8
Phone: 416-229-4647 ext. 2438
Fax: 416-229-4692

08/09/2008
MINUTES OF MEETING

PROJECT: Waterdown Road and New East-West Road Class EAs

PURPOSE: Technical Agency Committee Meeting #2

DATE: September 17, 2008, 1:00 PM

LOCATION: Hamilton City Centre, Room 400A

PRESENT: City of Hamilton: Syeda Banuri, Joe Spiler
Christine Lee-Morrison, Tanya McKenna
Brenda Khes, Jason Thompson
Kristen McCauley, Gavin Norman
Mark Robinson, Wayne Thompson
Hamilton EMS-Fire: Jim Doyle
City of Burlington: Paul Allen
Region of Halton: Jeffrey Reid
Conservation Halton: Margaret Charles
MTO: Frederick Szymanski, Greg Roszler
MOE: Barb Slattery
NEC: Nancy Mott-Allen
Lura Consulting: Sally Leppard
Dillon Consulting: Paul MacLeod, Ian Roul
Jackson Marin

ITEM | MINUTES | ACTION BY
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1 | Following introductions, Paul MacLeod conducted a presentation updating the technical agencies on the status of the Waterdown Road and the New East-West Arterial EAs. The presentation is attached to these minutes for reference. | 

2 | With regards to the new East-West Arterial, it was noted that: 
- In the area of the new Waterdown North development, the road alignment is to be shifted further south to accommodate the 30m buffer requirement to the existing ESA.
- In the Centre Woodlot PSW, a Butternut Tree health condition survey is being undertaken to locate and assess the condition of any existing Butternut specimens. | 

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<td>3</td>
<td>With regards to Waterdown Road, it was noted that the proposed realignment at the south end of Waterdown through the Eagle Heights development has not, as yet, been reviewed with the developer for that land.</td>
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<td><strong>AGENCY COMMENTS</strong></td>
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<td><strong>City of Hamilton</strong></td>
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<td>4</td>
<td>Gavin Norman asked what the rationale is for placing the new East-West road this far north of Parkside Drive and not lining it up with Concession Road 4 instead. He is concerned that vehicles traveling north on Highway 6 will rather use Parkside Drive rather than the new road to reach their destination.</td>
<td>Dillon</td>
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<td>Dillon noted that the primary objective of the east-west road is to provide east-west traffic capacity. The time savings involved in selecting Parkside over the new East-West road are expected to be sufficiently small that they will not influence driver route selection. In addition, there was a general preference by the public for this option, as it keeps traffic off Parkside Drive. There was also a general feeling that lining up the road with Concession 4 would make this route more attractive as a truck route, which the residents also opposed.</td>
<td>Dillon</td>
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<td>5</td>
<td>Tanya McKenna noted that the project team should have the numbers to show that placing the East-West road further north will not discourage people living in Waterdown North from using it.</td>
<td>Dillon</td>
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<td>Dillon will ensure that this is documented.</td>
<td>Dillon</td>
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<td>6</td>
<td>Gavin noted that the City Wide Master Plan calls for eventually closing Parkside Drive at Highway 6. This may not be desirable since Parkside represents the boundary for a future industrial development.</td>
<td>Hamilton</td>
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<td>The City will review this matter internally.</td>
<td>Hamilton</td>
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<td>7</td>
<td>Jim Doyle noted that the fire station on Parkside Drive (just west of Centre Road) currently has access to Highway 6. They would not want to loose this access and should be consulted regarding the potential closing</td>
<td>Hamilton</td>
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<td>8</td>
<td>It was asked if there has been any further development regarding the Waterdown South lands following the last meeting with the developer. Dillon noted that all information has been forwarded to the developer in digital format, as agreed at the meeting. No comments from them on the proposed design have yet been received.</td>
<td>Hamilton</td>
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<td>9</td>
<td>Dillon noted that at one of our previous meetings with City staff, there was some concern over the proposed phase 2 layout for the Upcountry development. The concern was whether or not there should be connectivity between the new East-West Road (the section linking Parkside to Dundas) and one of the internal subdivision roads. The City confirmed that the second phase of this plan is still in draft approval form. They will review the plans and advise Dillon of any changes in the proposed draft plan layout.</td>
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<td><strong>Ministry of Transportation</strong></td>
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<td>10</td>
<td>Frederick Szymanski noted that MTO has not done the study to confirm whether or not Parkside Drive will be closed as part of future improvements to Highway 6. He cautioned against using this assumption in our route assessments. Dillon clarified that as part of the Ministry’s plans to convert Highway 6 into a controlled access highway, (from previous discussions with Joseph Lai), it was likely that Parkside would be closed and that an interchange would be placed at the new East-West road intersection. Future connectivity between Parkside and Highway 6 was not a factor in our route selection.</td>
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<td>11</td>
<td>Frederick asked if the project team will look at re-aligning Concession 4 (west of Highway 6) to line up with the new East-West road as part of this study. Dillon noted that re-aligning Concession 4 will not be done as part of this study. The reasons for the offset in the intersections are discussed in Item 4 of these minutes.</td>
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<td>12</td>
<td>It was clarified that Joseph Lai remains the main MTO contact for this project, though he was unable to attend this meeting. MTO will review the proposed design and provide their comments to the project team.</td>
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<td>13</td>
<td><strong>Conservation Halton</strong>&lt;br&gt;Margaret Charles indicated that conservation staff is supportive of the proposed retaining wall through the Sassafras Woods to limit the footprint - but not necessarily supportive of the proposed horizontal location for the wall. They have provided their comments in a letter to the City of Hamilton. Dillan noted that there were various constraints (both geometric and physical) involved in selecting the proposed retaining wall location. Following the meeting, the project team will review all of the comments provided by Halton CA and respond, as required.</td>
<td>Dillon</td>
</tr>
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<td>14</td>
<td><strong>Niagara Escarpment Commission</strong>&lt;br&gt;Nancy Mott-Allen asked if plans would be made available for the proposed work on King Road. Dillan noted that a separate meeting will be scheduled with NEC to discuss the Waterdown Road EA, the East-West Arterial EA, and the King Road feasibility study. Plans will be made available at the meeting.</td>
<td>Dillon</td>
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<td>15</td>
<td><strong>Region of Halton</strong>&lt;br&gt;Jeffrey Reid asked if traffic information would be provided to Halton Region for the intersections of Dundas Street with Brant Street and with Kerns Road. Dillan indicated that this traffic data would be supplied shortly.</td>
<td>Dillon</td>
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<td>16</td>
<td><strong>REVIEW TIME REQUIREMENTS</strong>&lt;br&gt;For scheduling purposes, Dillan inquired about the review period needed by the agencies to comment on the draft Environmental Study Report (ESR). NEC indicated that they meet monthly to pass resolutions. She further noted that they will need a minimum of 3 weeks to review the drawings and the report. Halton CA noted that they typically require 6 weeks to review a draft ESR, however, given their current staff involvement, they may be able to provide comments in 4 weeks.</td>
<td>Dillon</td>
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DISTRIBUTION:  Attendees
               Project File

Please contact Jackson Marin of Dillon Consulting with any errors or omissions.
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<td>1</td>
<td>The proposed study area passes through several areas that are regulated by Conservation Halton due to the presence of riverine hazards (including flooding, erosion and/or meander belt width), unstable soils and bedrock (including areas of karst), and proximity to wetland features. We have attempted to identify the extent of the regulated lands with respect to the description of the alignment provided in a letter (May 9, 2008) and the stationing in the drawing set (date) provided by the consulting team. Staff note that a Conservation Halton Permit pursuant to Ontario Regulation 162/06 must be issued prior to the start of any works within the regulated areas.</td>
<td>The permit requirements of the CA are noted and will be identified in the project’s Environmental Study Report (ESR).</td>
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<td>2</td>
<td>At all existing watercourse crossings, the proposed project must demonstrate no negative impacts to the flooding and erosion hazard, and should consider opportunities to improve the flooding situation if possible. For new and upgraded watercourse crossings, we recommend that safe access and egress be provided for both pedestrian and vehicular traffic. Per MNR guidelines, safe access and egress may be defined by a depth velocity product of less than 0.4 m²/s, with a maximum flooding depth over the road of less than 0.3m, and a maximum velocity over the road of less than 1.7 m/s.</td>
<td>The stated criteria have been followed in the hydraulic analysis of road crossing structures. Our hydraulic and flooding assessments will document that no negative impacts to flooding will result with the new facilities at water course crossings.</td>
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<td>3</td>
<td>Several sections of existing and proposed roadway traverse through areas of steep slopes that are regulated by Conservation Halton. A slope stability assessment should be undertaken for all areas where the proposed road alignment encroaches within close proximity to a valley slope greater than 2m in height.</td>
<td>Comment noted. Slope stability assessments and required treatments will be finalized during detailed design.</td>
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<td>4</td>
<td>Through the South Waterdown Subwatershed Study and the City of Burlington's New Park Environmental Assessment (EA), karst have been identified in close proximity to several road sections, as noted below. Additional karst may be present within the study area. As per Section 2 of Ontario Regulation 162/06, Conservation Halton regulates these hazardous lands. As part of the Environmental Assessment report, please identify what screening methodologies the study has considered to identify karst areas and determine any risk associated with the proposed construction. Staff note that special protection measures, as identified below, must be undertaken at work areas that extend within close proximity of the bedrock. Such measures include but are not limited to:</td>
<td>Comment noted. It will be highlighted in the ESR that during detailed design, impacts to karst areas will be assessed in detail and appropriate mitigation measures developed.</td>
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<td>a) Additional sediment and erosion controls may be required where karst is present.</td>
<td>Comment noted. Additional requirements to be noted in the ESR for construction phase.</td>
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<td>b) Written approval from Conservation Halton for any development/site alteration within Conservation Halton's regulated areas (pursuant to Ontario Regulation 162/06) will be required. This could include development/site alteration within hazardous karst areas.</td>
<td>Comment noted.</td>
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<td>c) Incorporation of recommendations by a geotechnical engineer and karst specialist in the design of the installation of services to avoid exacerbating karst dissolution processes that could contribute to localized subsidence and potentially future failure.</td>
<td>Comment noted. This will be recommended in the project’s Environmental Study Report (ESR).</td>
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<td>d) That an assessment of Karst Areas be prepared to the satisfaction of Conservation Halton and the City of Hamilton, to determine the preferred engineering and construction</td>
<td>The involvement of a karst specialist and geotechnical engineer in the preparation of an assessment and development of site specific mitigation measures is committed to and this requirement will be</td>
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<td>methods for the road/servicing infrastructure crossings of GS-1. The assessment must include site-specific karst mitigation measures and recommendations into the design of load bearing structures that require footings into bedrock to minimize bedrock scouring or dissolution by flowing water and the piping of the soil mantle downwards into epikarstic channels and karst conduits and must be undertaken by a karst specialist in conjunction with a geotechnical engineer.</td>
<td>documented in the ESR.</td>
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<td>e) That a Karst Contingency Plan be prepared and implemented to the satisfaction of Conservation Halton and the associated municipalities. The Plan should address not only the known areas of karst but also what to do if karst is encountered. The plan must be prepared by a geotechnical engineer and karst specialist and should define, at a minimum: (i) who will be involved in the development, (ii) who has the authority to stop construction work, (iii) agency notification protocols, (iv) what, if any, immediate testing is required to address karst conditions encountered during construction (e.g. fluorescent dye tracer test), (v) the mitigative options that are available for the specific project, (vi) the decision-making framework for the selection of a preferred mitigation strategy, (vii) who will be the project manager of any required mitigation work, (viii) who will complete the mitigation work; and, (ix) follow-up steps.</td>
<td>The preparation of a karst contingency plan, as outlined in the comment, by a karst specialist and geotechnical engineer will be undertaken in detailed design in consultation with Conservation Halton and this requirement will be documented in the ESR.</td>
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<td>f) That a karst specialist be provided on-site during any works that require excavation into bedrock as requiring a karst specialist on-site. At other times during site grading or construction of services, the Owner shall provide for a karst specialist to be available for consultation with the on-site inspector, as required.</td>
<td>This requirement will be outlined in our ESR.</td>
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<td>Staff note that many of the above noted procedures are required of other applicants (i.e. Waterdown Bay) who are looking to develop in karst areas with the study area. It is suggested that the study team contact and work together with Waterdown Bay to ensure that these measures are achieved.</td>
<td>Comment noted. Liaison with Waterdown Bay is ongoing and will continue through design.</td>
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<td>6</td>
<td>Additionally, best management practices should be incorporated into the design to meet recommended stormwater management targets of enhanced level quality control, post to pre-development quantity control, and erosion control. Given the steep slopes and erosive nature of downstream soils, erosion control is of paramount concern. As part of the detailed design, we recommend that a fluvial geomorphology expert be consulted with respect to setting design criteria.</td>
<td>A stormwater management plan has been developed for each of the corridors to meet these criteria to the extent possible. A Drainage Study Report will be issued for your review. The detailed design will include assessment by a fluvial geomorphology expert.</td>
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<td>7</td>
<td>Although it is not a requirement, staff recommended that alternative options be investigated to look at strategies aimed at reducing the use of salt on new roads, as salt cannot be removed from stormwater via known technologies. Some possible options for reducing salt use on roads include but are not limited to:</td>
<td>These comments/suggestions have been passed on to the operations staff of the City of Hamilton, City of Burlington, and the Region of Halton for their consideration.</td>
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<td>a) The use of porous pavement and other infrastructure that enables a reduction of road salt use. Development of local design standards that limit impervious surfaces. By using pervious pavement, like porous asphalt or concrete, the amount of salt needed for winter maintenance can be reduced drastically, maybe by as much as 70 percent. Porous pavements, which use an open-graded aggregate with high porosity, drastically reduce the amount of salt needed to stay clear of snow and ice. Porous asphalt allows snowmelt and rain to drain through the surface and filter through the layers of gravel and sand, below. This type of pavement appears to need less salt and this infiltration process removes pollutants like...</td>
<td>(see above)</td>
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<td>sediment, heavy metals, and petroleum products. It also does a good job of reducing the volume of runoff. Care must be taken before using porous pavements in areas where there is potential for hazardous spills, such as near gas stations.</td>
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<td>b)</td>
<td>The creation of &quot;No Salt&quot; areas. This requires the identification of locations where no salt should be applied during winter storm events due to their proximity to natural resources.</td>
<td>(see above)</td>
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<td>8</td>
<td>In addition to the above, there are several natural heritage features within the Study Area that need to be assessed and potentially have mitigation measures developed to ensure minimal impacts to the features.</td>
<td>The study area includes the road alignment and the lands directly adjacent to the alignment. We have identified and assessed all the natural heritage features that fall within this area. Mitigation measures are being developed for all areas where the road or the nearby zone of influence intersects with natural features. This information will be provided in the ESR.</td>
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<td>9</td>
<td>We understand that Ecological Land Classification (ELC) data has been collected for 2 seasons; staff look forward to reviewing the data in the future.</td>
<td>As a point of clarification, ELC was conducted once at each individual site but this work covered two seasons as there were gaps that needed to be filled in. All ELC data is provided in the Natural Heritage Report that was provided and will be included in the ESR.</td>
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<td>10</td>
<td>In previous correspondence dating back to 2005, Conservation Halton recommended that the road expansion be completed away from the natural heritage features within the study area, staff continue to make this recommendation. We do not support any works being undertaken that will impact Sassafras-Waterdown Woods. For example, we recommend that the Mountain Brow Road expansion be shifted to the north and be incorporated into the development that is proposed in this area given the level of disturbance that will be associated with this proposal, while maintaining the Environmentally Sensitive Area (ESA)/Area of Natural and Scientific Interest (ANSI) to the south. We also recommend that the widening of Waterdown Road be shifted to the north. The alignment for Waterdown Road, in the vicinity of Sassafras Woods, is subject to a number of physical constraints, one being a large hydro tower located in close proximity to the road on the west side. At this location, a retaining wall is being proposed to minimize the road footprint and potential impacts to the adjacent natural habitat. In addition, a forest edge management plan will be developed to mitigate fringe impacts to...</td>
<td>The proposed alignments for Mountain Brow Road and Waterdown Road were based on an assessment of natural, social, and economic impacts. Mountain Brow Road has been shifted north to the extent possible (based on property impacts to residents along Flanders Drive and immediately to the west) onto future development lands. The alignment for Waterdown Road, in the vicinity of Sassafras Woods, is subject to a number of physical constraints, one being a large hydro tower located in close proximity to the road on the west side. At this location, a retaining wall is being proposed to minimize the road footprint and potential impacts to the adjacent natural habitat. In addition, a forest edge management plan will be developed to mitigate fringe impacts to...</td>
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<td>the west to limit the impact to the Sassafrass-Waterdown Woods ESA/ANSI.</td>
<td>the vegetation at this location.</td>
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<td>Staff are concerned that the discussion relating to north-south alignment within the May 9, 2008 letter to NAC members does not include impacts to Sassafras-Waterdown Woods. Further discussion of these impacts is warranted.</td>
<td>The road alignment adjacent to Sassafras Woods remains one of the key areas of attention as physical constraints are pushing the road to the east at the edge of the woods. However, the road has been kept as far west as possible through this area. We have completed detailed surveys of the numbers and types of trees in this area and are proposing an edge management plan to ensure that the new road development does not have negative impacts on the woods. This edge management plan would include tree and shrub planting to buffer the woods from the effects of the expanded road.</td>
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<td>12</td>
<td>When developing mitigation measures staff recommend ecopassages as a method of allowing for wildlife movement under roadways. Ecopassages should be installed in areas where there is local migration between two natural areas and can be as simple as sizing crossings that will allow for movement of the large mammals or installing dry culverts in areas where reptile migration occurs.</td>
<td>The major wildlife movement corridors that have been identified in the study area are through the water course valleys. The sections of the Grindstone Creek along Parkside Drive will include upgraded crossings that will provide additional benefits for wildlife.</td>
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<td>13</td>
<td>In addition, there is the potential for species at risk within the study area, which will have to be assessed as part of this phase of the EA.</td>
<td>The potential for Species at Risk was examined through the detailed field program. During that work, no Species at Risk were identified in the Waterdown Road portion of the alignment or the sections of the East-Road that are in the jurisdiction of Conservation Halton. Additional contact was made with the MNR regarding the presence of Jefferson Salamanders and this was confirmed in the natural areas south of Mountain Brow road. The mitigation measures provided for the enhanced protection of Sassafras Woods will also protect the Jefferson Salamander habitat.</td>
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<td>Phase 3 of this EA involves not only identifying alternative designs for the preferred solution but preparing a detailed inventory of the natural environment. Given that there is the potential for species at risk within the study area, staff believe that this should be further assessed as part of this phase. Staff have been in consultation with the MNR regarding species at risk within the study area. The MNR staff have advised that they have conducted extensive research in this area on Jefferson Salamander; a threatened species. All of the area directly south of Mountain Brow Road has been documented to be the habitat of Jefferson Salamander. Therefore, it is important to ensure that road construction along Mountain Brow Road does not adversely affect this habitat. This will include considerations around road location and storm water management. MNR is prepared to meet with project coordinators to identify any potential problems and ensure that they are addressed.</td>
<td>A detailed inventory has been prepared and has been provided in the Natural Heritage Report (December 2008). We are aware of the Jefferson Salamander habitat in the area identified by the MNR. Detailed follow up with the MNR will occur during the design phase.</td>
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<td>15</td>
<td><strong>Greenbelt</strong>&lt;br&gt;Portions of both proposed road alignments are within the Greenbelt Plan and has been identified as being part of the Natural Heritage System. Staff defer all requirements under the Greenbelt Plan to the City of Hamilton. However, many of our comments with respect to natural features and functions are complimentary to the Greenbelt policies.</td>
<td>Comments noted. Any special requirements relating to the Greenbelt Plan will be considered as part of developing the road design and mitigation.</td>
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**Alternatives and Issue Areas New East-West Road Corridor**

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<td>16</td>
<td><strong>Section N1</strong>&lt;br&gt;This section of the proposed alignment is not within Conservation Halton's jurisdiction, please contact the Hamilton Conservation Authority for further information.</td>
<td>The project team has ongoing contact with Hamilton Conservation on this project.</td>
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<td>17</td>
<td><strong>Section N2</strong>&lt;br&gt;This section of the proposed alignment is not within Conservation Halton's jurisdiction, please contact the Hamilton Conservation Authority for further information.</td>
<td>The project team has ongoing contact with Hamilton Conservation on this project.</td>
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<td>18</td>
<td><strong>Section N3 (Approximate Station 13+300 to 14+200 – See related drawings PP-3 and PP-4)</strong>&lt;br&gt;1. Conservation Halton's regulation limit extends between stations 13+600 and 13+810, and is associated with both proximity to a wetland, and the potential crossing of a regulated watercourse. We note that it is difficult to confirm whether a regulated watercourse crossing is proposed at station 13+620, due to the discontinuity of the stationing between the drawings PP-3 and PP-4.</td>
<td>There is not a permanent watercourse but a natural depression associated with some wetland features. This depression connects to the Grindstone mainstream downstream. The proposed road separates this wetland from the downstream creek. A 6.0 m culvert is proposed here to connect the hydraulic function.</td>
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<td>2. There appears to be a small swale, near station 13+000, in an existing forest located just upstream of Centre Road. It is requested that the new crossing for this watercourse have an open bottom design and should be designed to encompass the meander belt width of the creek. As this watercourse is currently well vegetated with trees, it is requested that the road construction be undertaken in a way that minimizes tree removal and disturbance as much as possible. It is very important that riparian (trees next to the creek) cover be maintained as much as possible. It is requested that any trees removed through the road construction process be replaced in accordance with Conservation Halton's Landscape Guidelines.</td>
<td>Comment noted. This section of road lies within the Centre Road Woodlot, which is under the jurisdiction of Hamilton Conservation Authority. Design and mitigation strategies through this woodlot are currently under discussion with Hamilton CA.</td>
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<td><strong>Section N4 (Approximate Station 14+200 to 15+000 - See related drawings PP-4 and PP-5)</strong>&lt;br&gt;1. Conservation Halton's regulation limit (associated with the existing Grindstone Creek Crossing and associated</td>
<td>This permit requirement is noted and will be identified in the ESR.</td>
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<td>steep valley slopes) begins at station 14+175 and extends to approximately 14+300. A Permit pursuant to Ontario Regulation 162/06 will be required for work within the Approximated Regulated Limit.</td>
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<td>2. The main Grindstone Creek is designated as a significant woodland by the City of Hamilton.</td>
<td>Comment is noted.</td>
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<td>22</td>
<td>3. The new road section near station 14+210 is proposed to overlap with the existing Parkside Drive and will overlap with an existing culvert under the road that conveys Grindstone Creek through it. It is requested that the new culvert under the proposed road encompass the entire meander belt width of the creek.</td>
<td>The proposed crossing of Grindstone Creek will be in the form of a new bridge, approximately 14m in span. The entire meander belt can be accommodated within this span.</td>
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| 23   | **Section N5 (Approximate Station 15+000 to 16+100 – See related drawing PP-5)**  
1. While there is no regulated watercourse crossing within N5, the proposed road alignment will separate a tributary of Grindstone Creek from the regulated floodplain between stations 15+575 and 16+850. | The loss of floodplain storage to the east of the proposed roadway will be preserved by two flow equalization culverts. The maintenance of the watercourse conveyance function is demonstrated by HEC-RAS modeling. This will be documented in our Drainage Study Report. |
<p>| 24   | The &quot;Environmental Implementation Report&quot; prepared by Paragon Engineering Ltd. and Ecologisticsimited, dated May 1996 for the proposed Up Country Estates II Subdivision recommended that the watercourse's riparian zone be enhanced, and/or that the floodplain and meander patterns be re-constructed or restored. These recommendations are supported by Conservation Halton staff, and should be considered during the finalization of the new east-west road corridor. | Please see ID #23 for response.                                                                 |
| 25   | We note that regardless of the approach selected by the design                                                                                                           | Please see ID #23 for response.                                                                 |</p>
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<td><strong>team, the proposed development must not reduce the riparian storage or floodplain conveyance under any of the design storms (from the 1:2 year design storm through to the Regional Storm Event). Supporting calculations must be provided to confirm that the flood plain storage and conveyance functions are maintained.</strong></td>
<td><strong>Comment noted.</strong></td>
</tr>
<tr>
<td>26</td>
<td><strong>A Permit pursuant to Ontario Regulation 162/06 will be required for work within the Approximated Regulated Limit.</strong></td>
<td><strong>Comment noted.</strong></td>
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<td></td>
<td><strong>Section N6 (Approximate Station 16+100 to 16+200 and 8+700 to 10+700 – See drawings PP-6 and PP-7)</strong></td>
<td><strong>HEC-RAS modeling was conducted to ensure the proposed crossing structure would not have any negative impacts on the existing flood levels. Please note that following our meeting with Conservation Halton staff on August 12, 2008; the project team has undertaken additional survey at this location to better delineate the channel banks. Further, Conservation Halton staff asked that the team consider replacing the existing culvert (with a new open bottom culvert) and potentially re-aligning the new culvert to better line up with the stream. This has been incorporated into our proposed design.</strong></td>
</tr>
<tr>
<td>27</td>
<td>1. Conservation Halton's regulation limit begins at station 9+075 and extends to station 9+300. This limit is associated with the flood plain and steep valley walls of a Grindstone Creek Tributary. We note that the existing culvert at station 9+180 is proposed to be extended. Please provide hydraulic calculations confirming that the culvert extension will not have an impact on the up or downstream floodplain. A Permit pursuant to Ontario Regulation 162/06 will be required for work within the Approximated Regulated Limit.</td>
<td><strong>Comment noted.</strong></td>
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<td></td>
<td>2. Karst features have been identified throughout the southern adjacent property (within the City of Burlington's New Park lands) between stations 10+000 and 10+725.</td>
<td><strong>Comment noted. Detailed karst studies will be undertaken during the design stage of this project.</strong></td>
</tr>
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<td>29</td>
<td>3. Stations 9+900 to 10+400 fall within Conservation Halton's Approximate Regulatory Limit due to their proximity to an</td>
<td><strong>Comment noted.</strong></td>
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<td>adjacent wetland feature.</td>
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<td>30</td>
<td>4. There is a regulated wetland on the north side of Dundas Street near Kerns Road. Works within the regulated limit of this wetland will require a permit under Ontario Regulation 162/06.</td>
<td>Comment noted.</td>
</tr>
<tr>
<td>31</td>
<td>5. Along the south side of Dundas where N5 and N6 meet, there is a significant woodland associated with the watercourse.</td>
<td>Comment noted.</td>
</tr>
<tr>
<td>32</td>
<td>6. It is requested the new/wider road crossings (at both stations 9+200 and 9+700) of Grindstone Creek span the meander belt width of the creek.</td>
<td>The crossing at station 9+200 is discussed in ID #27. A 6 m span culvert will replace the existing 3 m span structure.</td>
</tr>
<tr>
<td>33</td>
<td>7. Northern Pike have been demonstrated to migrate upstream of this crossing (station 9+200), as such, it is important that spring flows under the new road crossing are of a sufficient velocity that they do not create a barrier to fish passage during the spring freshet.</td>
<td>In this area, the crossings are being increased in size and the floodlines are being maintained. This will result in velocities that should either match existing conditions or be slower than existing conditions. As such, we do not anticipate velocity barriers to Northern Pike as a result of the road.</td>
</tr>
<tr>
<td>34</td>
<td>8. It is noted that a watercourse outlets from a pond upstream (north) of Dundas Street. This watercourse (station 9+700) has been demonstrated to contain a warm water forage fish community. A portion of this watercourse was previously been put in a pipe. As part of the road construction project, would it be feasible to daylight the 550 meter section that is currently underground?</td>
<td>Comment noted. This will be investigated further in the design stage of this project.</td>
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*Section N7 (Approximate Station 10+700 to 12+000 – See drawings PP-7 and PP-8)*
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<th>I.D.#</th>
<th>Conservation Halton Comment</th>
<th>Response</th>
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<td>35</td>
<td>1. Stations 11+400 to 11+500 fall within Conservation Halton's Approximate Regulatory Limit due to the presence of a regulated watercourse crossing and steep slopes associated with the valley feature of Upper Hagar Creek. A Permit pursuant to Ontario Regulation 162/06 will be required for work within the Approximated Regulated Limit.</td>
<td>Comment noted.</td>
</tr>
<tr>
<td>36</td>
<td>2. On the north side of Dundas St between Kerns Road and Brant Street, there are significant woodlands, the Nelson Escarpment Woods Environmentally Sensitive Area (Region of Halton ESA), a regulated wetland and the Waterdown Moraine Earth Science Area of Natural and Scientific Interest (ANSI).</td>
<td>We are aware of this feature and have minimized effects on this feature in developing the design of the roadway improvements.</td>
</tr>
<tr>
<td>37</td>
<td>3. On the south side of Dundas Street between Kerns Road and Brant Street, there are significant woodlands and the Waterdown Escarpment Woods Environmentally Significant Area (City of Hamilton ESA).</td>
<td>We are aware of this feature and have minimized effects on this feature in developing the design of the roadway improvements.</td>
</tr>
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<td>38</td>
<td>4. More details on the proposed escarpment cut are requested, please include information relating to the proposed retaining walls and the impacts to the natural heritage features.</td>
<td>Based on the available information, it is expected that between 2m to 5m of rock cut will be required on the north side of Dundas between stations 11+000 to 11+180. At its highest point (station 11+120), the new exposed rock face will be approximately 13m high. Specific details on the retaining walls (such as the type of wall, footing requirements, etc.) will not be available until the detailed design phase of the project. At this time, it is expected that the proposed wall will have an average height of 3.5m. The area of rock cut has been inventoried and this information along with mitigation measures will be provided in the ESR.</td>
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<td>Conservation Halton Comment</td>
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<td>39</td>
<td><strong>Section W1</strong> <em>(Approximate Station to 40+520 – See related drawings Waterown-1 and Waterdown-2 and road grades)</em>&lt;br&gt;1. The existing Waterdown Road is within Conservation Halton's approximate regulatory limit between stations 40+520 to 40+060 due to the presence of steep slopes. We note that a portion of the existing roadway appears to be located within an area that may be unstable under the 100 year erosion threshold. This is an area of significant concern for Conservation Halton. Additional details are required and a slope stability assessment should be undertaken.</td>
<td>The CA’s comment and concerns are noted. As part of the additional geotechnical testing to be conducted during the detailed design phase of the project, a slope stability analysis will be conducted in this area.</td>
</tr>
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<td>40</td>
<td>2. The Sassafrass Waterdown Woods is located on the east side of Waterdown Road, this is classified as a Region of Halton ESA, provincial Life Science ANSI and a Carolinian Canada site. Staff believe that encroachment into the ESA/ANSI would cause a considerable impact and would be a significant concern to Conservation Halton.</td>
<td>The project team is recommending the use of retaining walls to minimize encroachment onto the natural areas. In addition, a forest edge management plan will be developed to mitigate fringe impacts to the vegetation.</td>
</tr>
<tr>
<td>41</td>
<td>3. A Permit pursuant to Ontario Regulation 162/06 will be required for work within the Approximated Regulated Limit.</td>
<td>Comment noted.</td>
</tr>
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<td>42</td>
<td>4. Staff are in support of the function that the proposed retaining wall is meant to provide, however there is still a significant concern over the location of the structure and the long term stability of the slope in this area. Conservation Halton's Approximate Regulatory Limit extends from station 41+110 to approximately 41+200 and from stations 40+920 to 41+010 along the new road alignment. This land is regulated due to the presence of steep valley slopes associated with the adjacent regulated watercourse and the watercourse crossing.</td>
<td>Additional geotechnical testing, including a slope stability analysis will be conducted at the detailed design phase to confirm the feasibility of placing a retaining wall at this location.</td>
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<td>Conservation Halton Comment</td>
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<td>43</td>
<td>1. Downstream of 1639 Waterdown Road, the watercourse becomes regulated, so while the watercourse crossing at station 40+995 would be unregulated, the crossing at 40+955 would be regulated. Per the grading plan, it appears that no major overland flow route crossing the road for either of these crossings is contemplated. Given the above, please carefully consider blockage potential when sizing the culverts for both of these crossings. A Permit pursuant to Ontario Regulation 162/06 will be required for work within the Approximated Regulated Limit.</td>
<td>The road plans have been revised in this area. With the new preferred alignment, there will not be any potential crossings. The permit requirement will be documented in the ESR.</td>
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<td><strong>Section W3 (Approximate Station 41+200 to 42+300 – See related drawing Waterdown-3 and road grades)</strong></td>
<td><strong>Section W3 (Approximate Station 41+200 to 42+300 – See related drawing Waterdown-3 and road grades)</strong></td>
</tr>
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<td>44</td>
<td>1. Conservation Halton notes the presence of a hydrologic connection (i.e. an unregulated watercourse) at approximate station 41+620. We note that major system conveyance for this hydrologic connection does not appear to be considered.</td>
<td>The hydraulic aspects of the existing structure at this location (1100 CSP) were evaluated and a new structure is proposed to maintain the existing hydraulic condition. A 1490 x 910 pipe arch culvert is proposed.</td>
</tr>
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<td>45</td>
<td>2. Conservation Halton's current Approximate Regulatory Limit Mapping shows that Mill Street falls within our regulated area between stations 41+590 and 41+540, and stations 41+480 and 41+240, due to the presence of steep slopes. Conservation Halton's estimated top of stable slope encroaches within the existing roadway between stations 41+400 to 41+330. This is an area of significant concern for Conservation Halton. A geotechnical study and a Permit pursuant to Ontario Regulation 162/06 will be required in this location.</td>
<td>The CA’s comment and concerns are noted. The current design has been developed to minimize impacts to steep slopes. Additional details will be developed during the design stage.</td>
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<td>46</td>
<td>There are significant woodlands on both sides of the road in this</td>
<td>Comment noted.</td>
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<td>Conservation Halton Comment</td>
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<td><strong>Section W4 (Approximate Station 60+100 to 60+000 and 42+490 to 42+300 Mountain Brow-1 and Waterdown-4)</strong></td>
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<td>47</td>
<td>1. We note that Mill Street crosses Conservation Halton's regulatory limit approximately 75m north of the existing Mountain Brow Road intersection, therefore a Permit pursuant to Ontario Regulation 162/06 may be required should any upgrades be proposed beyond station 42+455.</td>
<td>There are currently no proposed improvements to Mill Street beyond station 42+420. As such it is expected that a permit will not be required at this location.</td>
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<td><strong>Section W5 (Approximate Station 60+100 to 60+700 – See related drawing Mountain Brow-1 and the road grading plan).</strong></td>
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<td>48</td>
<td>This section of road alignment is adjacent to the Sassafras-Waterdown Woods ANSI and City of Hamilton Waterdown Woods ESA. Our preference is to ensure that all road construction is kept out of these areas.</td>
<td>This comment was addressed in ID #10.</td>
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<td><strong>Section W6 (Approximate Station 70+000 to 70+160, and 60+700 to 61+070 -See related drawings Mid-Block 1, Mountain Brow-1 and Mountain Brow-2 and the road grading).</strong></td>
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<td>49</td>
<td>1. It appears that the proposed upgrade of Mountain Brow Road, to the east of Mid Block Road will result in a modification of the existing watercourse crossing at Station 60+845. We note that this is a regulated watercourse, and a Permit pursuant to Ontario Regulation 162/06 from Conservation Halton will be required to complete any proposed works between stations 60+735 and 60+875. Per the grading plans the low point in Mountain Brow Road</td>
<td>The permit requirement is noted.</td>
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<td>A watercourse re-alignment south of Mountain Brow Road is not proposed and the existing culvert location is to be maintained.</td>
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<td>will be shifted to 60+819. Please confirm whether or not a minor watercourse re-alignment is proposed south of Mountain Brow Road, or whether the existing culvert location is to be maintained.</td>
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<td>Section W7 (Approximate Station 70+160 to 70+880 – See related drawings Mid-Block 1 and the road grading).</td>
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<td>50</td>
<td>1. We note that the &quot;South Waterdown Subwatershed Study Stage 2 Report&quot; has identified krst along the proposed road alignment extending from Dundas Street (south of Burke Street) to approximately 230m south of Dundas Street. The proposed design must incorporate the mitigation measures described above under the Overall Comments Section.</td>
<td>Comments noted.</td>
</tr>
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<td>51</td>
<td>2. Mid Block 1 will cross a tributary of Grindstone Creek, identified as GS-1 at approximate station 70+810. Conservation Halton's regulatory limit associated with this feature extend from Dundas Street to station 70+780. We understand that the design of this crossing differs from the crossing identified by the landowners (Waterdown Bay) and may result in a local increase in regional storm water levels on the Waterdown Bay lands within the valley. Conservation Halton will only be able to support the potential increase in flooding upon receipt of written consent from all affected landowners.</td>
<td>The hydraulic analysis of this crossing will be finalized by the developer.</td>
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<tr>
<td>52</td>
<td>3. It appears that road grading activities will occur within the extent of Conservation Halton's approximate regulation limit from station 70+000 to 70+300. While we note that the &quot;South Waterdown Subwatershed Study&quot; recommends the elimination of the GS-3 tributary, Conservation Halton has comment noted.</td>
<td>Comments noted.</td>
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<td>Conservation Halton Comment</td>
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<td>not approved the final study. A Permit pursuant to Ontario Regulation 162/06 will be required for work within the Approximated Regulated Limit.</td>
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<td>53</td>
<td>4. Based on information submitted in the South Waterdown Subwatershed Study staff believe that the ESA located at Dundas Street will require additional study to detail and evaluate site specific vegetation and fisheries features.</td>
<td>This area has been included in the field study program. The results of this work and recommended mitigation measures will be included in the ESR.</td>
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</table>

**Evaluation Approach and Criteria**

| 54    | With respect to the Evaluation Criteria table and the Natural Environment components, Staff recommend using the Provincial Policy Statement (PPS) as a guide to determining criteria. For example, the PPS states that "development and site alteration shall not be permitted in significant habitat of endangered and threatened species", therefore a criterion should be "Impacts to Species At Risk". The criteria should include impacts to significant woodlands, significant wildlife habitat as defined by the PPS, as well as ANSIs. Finally connectivity/linkages should be included in the criteria as stated in the table. The order or most important criteria should be those that the PPS gives the most protection to (e.g., significant habitat of SAR) and from there, those with lesser protection. The criteria should also include impacts to regulated wetlands and ESAs. Additional evaluation criteria as recommended by staff include impacts to natural hazard features as regulated by Conservation Halton, these features include steep slopes, regional storm floodplains, meanderbelt and wetlands. | The evaluation criteria were developed with the input of a variety of stakeholders through a public process and finalized in Phase 2 of this study. We believe that these issues raised by the CA can be considered within the current criterion. The evaluation tables will be revised to take these considerations into account. |
November 3, 2008

To Whom It May Concern,

**RE: ORC Initial Comments on Notice of PIC Class EA, New east-west corridor and Waterdown Road corridor**

Thank you for circulating Ontario Realty Corporation (ORC) on your Public Information Centre. The ORC is the strategic manager of the government's real property with a mandate of maintaining and optimizing value of the portfolio, while ensuring real estate decisions reflect public policy objectives of the government.

Our preliminary review of your notice and supporting information indicates that ORC-managed property is directly in the study area. As a result, your proposal may have the potential to impact this property and/or the activities of tenants present on ORC-managed lands. Attached please find a map that identifies this property to assist you in identifying and avoiding potential impacts.

**Potential Negative Impacts to ORC Tenants and Lands**

**General Impacts**
Negative environmental impacts associated with the project design and construction, such as the potential for dewatering, dust, noise and vibration impacts, and impacts to natural heritage features/habitat and functions, should be avoided and/or appropriately mitigated in accordance with applicable regulations best practices and MNR and MOE standards. Avoidance and mitigation options that characterize baseline conditions and quantify the potential impacts should be present as part of the EA project file. Details of appropriate mitigation, contingency plans and triggers for implementing contingency plans should also be present.

**Impacts to Land holdings**
Negative impacts to land holdings, such as the taking of developable parcels of ORC managed land or fragmentation of utility or transportation corridors, should be avoided. If the potential for such impacts is present as part of this undertaking, you should contact the undersigned to discuss these issues at the earliest possible stage of your study.

If takings are suggested as part of any alternative these should be appropriately mapped and quantified within EA report documentation. In addition, details of appropriate mitigation and or next steps related to compensation for any required takings should be present. ORC requests circulation of the draft EA report prior to finalization if potential impacts to ORC managed lands are present as part of this study.
Cultural Heritage Issues
If proposed alternatives may impact cultural heritage features on ORC managed lands, we would request that the examination of cultural heritage features be enhanced to include issues such as cultural landscapes, archaeology and places of sacred and secular value.

Potential Triggers Related to ORC’s Class EA

The ORC Class Environmental Assessment (ORC Class EA) applies to a range of realty and planning activities including leasing or letting, planning approvals, selling, demolition and property maintenance/repair. For details on the ORC Class EA please visit the Environment and Heritage page of our website found at http://www.orc.on.ca/Page133.aspx. If the ORC Class EA is triggered, consideration should be given to explicitly referring to the ORC’s undertaking in your EA study.

The purchase of ORC lands or disposal of rights and responsibilities (e.g. easement) for ORC lands triggers the ORC’s Class EA. If any of these are being proposed as part of any alternative, please contact the Sales and Marketing Group through ORC’s main line (Phone: 416-327-3937, Toll Free: 1-877-863-9672) at your earliest convenience to discuss next steps.

The undertaking of physical work on ORC lands also triggers the ORC Class EA. If any work is proposed on ORC lands, please contact the undersigned at your earliest convenience to discuss next steps.

Specific Comments

Please note that various government lands, managed by ORC and Hydro One, are in the study area. Please contact ORC and Hydro One for policies and processes.

Concluding Comments

Thank you for the opportunity to provide initial comments on this undertaking. If you have any questions on the above I can be reached at the contacts below.

Sincerely,

Lisa Myslicki
Environmental Coordinator
Ontario Realty Corporation - Professional Services
1 Dundas Street West,
Suite 2000, Toronto, Ontario
M5G 2L5
(416) 212-3768
lisa.myslicki@ontariorealty.ca
Appendix 1: Location of ORC property
Dear Ms. Myslicki,

Thank you for your letter dated November 3, 2008. We have obtained a response to your inquiry from the Project Team, and have provided it in blue below.

---

**Project Team Response:**

Thank you for your letter and interest in the Waterdown Road Class Environmental Assessment. In reviewing the information you provided, it would appear that Waterdown Road crosses two power transmission line corridors that are under the mandate of the Ontario Realty Corporation (ORC). We have not identified any other lands to be required from the ORC. As it is proposed that Waterdown Road be widened from two to four lanes, there could be the need for lands contained within these power transmission corridors. We are in the process of confirming property needs along the entire length of roadway. Once this has been confirmed, we will contact you to advise of the land requirement and to discuss the process to facilitate this.

---

Kind regards,
Patricia Halajski née Prokop on behalf of Sally Leppard,
Neutral Community Facilitator’s Office
36 Hunter Street East, 6th Floor
Hamilton, ON L8N 3W8
Tel. (905) 818-8464
Fax (905) 528-4179
Email: info@waterdown-aldershot.ca
Good afternoon:

I attended both Public Information Centres regarding the proposed alignments of the East/west and North/south roads that are part of the Waterdown-Aldershot Transportation Master Plan. Our comments are as follows:

East/west
- Rock cut on north side of Dundas, west of Brant Street: more information required to understand extent of rock cut required for road widening and impact on the Escarpment
- Street lighting on Dundas: lighting should be directed downward to the roadway to minimize visual impact on the Escarpment
- Generally support the preferred route as it minimizes impact to environmental features in Waterdown

North/south
- Concern about any options which involve widening or improvements to King Road due to concern about negative impact on the Escarpment both environmental and visual
- Focus should be on widening Waterdown Road
- Request a meeting with City of Burlington, Conservation Halton and Project Team before the Environmental Study Report is finalized (I spoke to Paul Allen of the City of Burlington at the meeting and he indicated that it is the City’s intent to contact us).

If you have any questions with respect to these comments, please contact me at the number below.

Nancy Mott-Allen, MCIP, RPP
Senior Planner
Niagara Escarpment Commission

Tel: 905-877-8363
Fax: 905-873-7452
November 17, 2008

VIA EMAIL AND REGULAR MAIL
Dillon Consulting
235 Yorkland Blvd., Suite 800
Toronto ON M2J 4Y8

Attention: Paul A. MacLeod, P.Eng.,
Transportation & Infrastructure

Dear Mr. MacLeod,

Re: Waterdown Aldershot Transportation Master Plan (WATMP)
Phase 3 & 4 Municipal Class Environmental Assessment

On behalf of our client, Waterdown Bay Inc., we are writing to follow-up from our discussion at the PIC held on November 6th, 2008, concerning the above matter. As stated, our particular interest is with respect to the North-South corridor.

We are requesting an immediate meeting with the members of the WATMP project team to discuss our significant concerns with the material that was presented at the PIC. Our concerns relate to the process that was followed by the project team in arriving at the preferred option presented at the PIC, as well as, specific concerns with the preferred option itself. It is our view that the process and outcome are seriously flawed as the project team did not have regard for fundamental materials that should have been considered. This would include the Sub-watershed Study prepared by Ecoplans, the Draft Secondary Plan for Waterdown South and the approved Draft Plan of Subdivision for Phase 1A of the Waterdown Bay lands. In addition, there has been insufficient consultation with the affected property owner. It is essential that these deficiencies be rectified immediately.

It would be appreciated if you could provide an immediate response to this submission and confirm the availability of the project team to meet with Waterdown Bay and their consulting team. Following this meeting and our opportunity to review updated materials, we will be in a position to provide formal written comments.

We look forward to your response.

WEBB Planning Consultants Inc.

James Webb, MCIP, RPP

cc: Michael Telawski, Waterdown Bay Inc.
    Karl Gonnosen, Metropolitan Consulting
Ms. Banuri,

Further to my voicemail of November 18th, there are a number of issues of interest to GO Transit related to the subject study. Specifically, we are interested in finding out more about:

- How the Waterdown road widening would function (if at all) with the new highway interchange that has been proposed off the 403?
- What pedestrian and cycling facilities would exist along the new north/south (Waterdown Road) and east/west (Dundas West) alignments, if any.
- Consideration and function of Dundas Street as a higher order inter-regional transit corridor. This portion of Dundas has been identified in Metrolinx's Draft Regional Transportation Plan as a corridor for Rapid Transit improvements (under the 15-year plan labeled as "Dundas West - Waterdown to Kipling Station").

Any additional information and specifics as they relate to the subject study on the above-noted issues would be greatly appreciated. I look forward to communicating with you further at your earliest convenience.

Best Regards,

Hamish Campbell
Transportation Planner - GO Transit
Transportation Planning and Development

Suite 600 - 20 Bay Street
Toronto, ON - M5J 2W3
P > 416.869.3600 x 5520
C > 416.518.1183
F > 416.869.1563
Dear Mr. Campbell,

Thank you for your voicemail November 18, and email dated November 24, 2008. We have received a response from the Project Team and provide it below. For ease of reference, we have included excerpts of your e-mail in italics, with the project team response following.

Further to my voicemail of November 18th, there are a number of issues of interest to GO Transit related to the subject study. Specifically, we are interesting to find out more about:

- How the Waterdown road widening would function (if at all) with the new highway interchange that has been proposed off the 403?

**Project Team Response:** Waterdown Road interchange is a City of Burlington project.

The Waterdown Road and the Highway 403 interchange is being built to tie into a future 4 lane Waterdown Road. Waterdown Road through the new highway interchange will have four lanes plus turn lanes. The City of Burlington is planning to start construction on the Waterdown Road interchange in 2009, to facilitate future increased vehicle capacities. The technical aspects of a four-lane roadway are currently being finalized along Waterdown Road. Once the preferred four-lane concept has been finalized the project team will develop and evaluate providing a three-lane option as the first stage in implementing the four-lane concept.

- What pedestrian and cycling facilities would exist along the new north/south (Waterdown Road) and east/west (Dundas West) alignments, if any.

**Project Team Response:** The proposed Pedestrian and Cycling facilities for both corridors are outlined below.

**North-South Corridor:**

**Waterdown Road** - Proposing a 4m wide Multi-Use Pathway for pedestrians and cyclists (off road, behind curb and boulevard) on the west side of the road only throughout the entire alignment. A 1.5m sidewalk on the east side is proposed from Flatt Road northerly for approximately 600m.

**Mountain Brow Road** - Proposing a 3.5m wide Multi-Use Pathway for pedestrians and cyclists (off road) on the north side of the road only from Waterdown Road to the new Mid-Block Road (Edworthy Road). No allowance is made on the south side of the road.

**Mid-Block Road** - Proposing 1.5m on-road bicycle lanes and 2.0m sidewalks on both sides of the road throughout the entire alignment.
**East-West Corridor:**

**New E-W Road (Highway 6 to Waterdown North Development)** - No allowance made as this is a rural section, though paved shoulders are included in design.

**New E-W Road (through Waterdown North Development)** - Proposing a 4m wide Multi-Use Pathway for pedestrians and cyclists (off-road) on the **south side of the road only** throughout entire development.

**New E-W Road (From Centre Street to Parkside Drive)** - Potential Multi-Use Pathway on south side from Centre Road connecting to Joe Sam’s Park to be further assessed. No other allowances made through this rural section, though paved shoulders are included in the design.

**Parkside Drive Widening** - Proposing on-road bicycle lanes (1.2m) and 1.5m sidewalks on both sides of the road.

**N-S Link through Upcountry Development** - Proposing a 4m wide Multi-Use Pathway for pedestrians and cyclists (off-road) on the **west side of the road only** throughout the entire development.

**Dundas Street (From new N-S Link to Kerns Road)** - Proposing on-road bicycle lanes (1.5m) and 2.0m sidewalks on both sides of the road.

**Dundas Street (From Kerns Road to Brant Street)** - Proposing 4.2m wide shared curb lanes (both sides of the road) for traffic and cyclists and a 1.5m sidewalk on the **south side of the road only**.

The final recommended preferred option will be provided in the ESR

- **Consideration and function of Dundas Street as a higher order inter-regional transit corridor.**
  
  *This portion of Dundas has been identified in Metrolinx’s Draft Regional Transportation Plan as a corridor for Rapid Transit improvements (under the 15-year plan labelled as “Dundas West - Waterdown to Kipling Station).*

**Project Team Response:** Dundas Street falls under the jurisdiction of the Region of Halton. It is the City of Hamilton’s understanding that the Region of Halton, in regards to this project, is releasing a TOR early in the new year. We have forwarded your input to the Region of Halton for their consideration.

---

Kind regards,

Patricia Halajski on behalf of Sally Leppard,
Neutral Community Facilitator’s Office
36 Hunter Street East, 6th Floor
Hamilton, ON L8N 3W8
Tel. (905) 818-8464
Fax (905) 528-4179
Email: info@waterdown-aldershot.ca

-----Original Message-----
**From:** Hamish Campbell [mailto:Hamish.Campbell@gotransit.com]
DRAFT MINUTES OF MEETING

PROJECT: Waterdown Road & New East West Road- Phase 3

PURPOSE: Coordination Meeting with Waterdown Bay Development

DATE: December 18, 2008 9:30 AM

LOCATION: Hamilton City Centre - Room 320A

PRESENT:
City of Hamilton: Syeda Banuri
Christine Lee-Morrison
Brenda Khes
Kirsten McCauley
Gavin Norman

Webb Planning: James Webb

Waterdown Bay: Michael Telawski

Metropolitan Consulting: Karl Gonnsen

Dillon Consulting: Jackson Marin
Amanda Shepley

ITEM ACTION BY

1. History of Discussion

- The purpose of this coordination meeting was to discuss design and consultation issues related to the selection of the preferred Mid-Block Road design presented at the second Public Information Centre, and how to resolve design issues.

- In a letter to Dillon Consulting, dated November 17th, 2008, Webb Planning specified concerns regarding the consultation process. Specifically, it was felt that there had been insufficient consultation with the owner.

Dillon noted that they have been in contact with Metropolitan Consulting since early July regarding design elements for the Mid-Block Road. During a meeting between the City of Hamilton, Dillon Consulting, and Metropolitan Consulting on September 9, 2008, a plan of the Mid Block road showed 2 roundabouts and a
continuous centre median. Digital and hardcopy drawings of this design were provided to Metropolitan for comment at that time.

Waterdown Bay has also been represented at the Neighbourhood Advisory Committee (NAC) meetings held prior to the PICs.

- The Project Team feels there has been sufficient consultation; however, there is still time for further input if other factors should be considered in the evaluation of alternatives.

2. Status of OMB Decision

- It was noted that the OMB decision in late October 2008 sets out conditions for the Phase 1 development work.

- Webb Planning felt that the Project Team did not consider the OMB decision or the Sub-Watershed Study in their design.

It was noted that the Subwatershed Study has not been approved, and clearly states that the final alignment of the road will be subject to recommendations of the EA.

3. Status of Waterdown Road Class EA

- Dillon modified the Mid-Block Road alignment after meeting with Conservation Halton on July 23, 2008, where the C.A. indicated that their preference was to avoid the creek, if possible.

- Webb Planning and Metropolitan indicated that there are a number of reasons why the Creek cannot be saved. The C.A. has advised that they cannot perform any work south of Mountain Brow Road and this greatly limits their ability to engineer a workable water treatment solution. In addition, Webb Planning and Metropolitan noted that Conservation Halton has indicated to them that they have no issues with the removal of this Creek.

Hamilton suggested that either Webb or Metropolitan obtain a letter from Conservation Halton indicating that they (the C.A.) have no concerns with removing this Creek.

- Webb Planning and Metropolitan have additional engineering concerns with the preferred design option:
  i. requirement for 4 lanes instead of 2 lanes
ITEM

   ii. traffic inefficiency with a second roundabout
   iii. continuous centre median
   iv. curved alignment at the south end of Mid-Block

Dillon noted that the requirement for 4 lanes was addressed in the Phase 2 report.

With regards to the second roundabout, it was mentioned that the City’s approved roundabout policy encourages the use of roundabouts in place of traffic lights, where possible.

The centre median was introduced due to the high number of intersecting roads and out of concern for capacity and safety. Dillon will review the need for a continuous median with respect to traffic volumes, etc.

The curved alignment was introduced as a means to increase the level of service provided for through traffic.

- Webb Planning feels that the curved alignment is an inefficient use of the land and should be accounted as such in the evaluation.
- Metropolitan provided Dillon with the latest Phase 1 plans for review; these plans include borehole information. Dillon will review and provide comments by Mid-January.
- Dillon provided Metropolitan with a preliminary layout of the Grindstone Creek tributary crossing, south of Dundas.
- The Project Team plans to file the ESR in Summer 2009.
- Metropolitan stated their understanding that the Phase 1 portion of road could be built prior to EA approval; Hamilton will get back to Metropolitan and Webb Planning on this matter.
- Metropolitan will provide Dillon with their comments on the preferred design option by mid-January.

Dillon

Dillon

Dillon

Hamilton

Metropolitan

DISTRIBUTION:

   Attendees
   Paul Allen, City of Burlington
   Melissa Green-Battistion, Halton Region

Please contact Amanda Shepley of Dillon Consulting with any errors or omissions.
DRAFT MINUTES OF MEETING

PROJECT: Waterdown Road & New East West Road- Phase 3
PURPOSE: Coordination Meeting with Paletta Development
DATE: January 16, 2009 10:00 AM
LOCATION: Paletta International Office
PRESENT: City of Hamilton: Syeda Banuri
Paletta International: Angelo Paletta
Metropolitan Consulting: Karl Gonnsen
Dillon Consulting: Paul MacLeod
Amanda Shepley

ITEM

1. Review Status of Project

- The purpose of this coordination meeting was to discuss the issues related to the identification of a preliminary preferred Waterdown Road design presented at the second Public Information Centre and discuss influences the design has on the future development. It was noted that preliminary evaluation was completed without input from the developer.

- Widening the road is due to growth in the area. Cost sharing between the involved partners (Hamilton, Burlington, Halton) is still under negotiation.

- Mr. Paletta disagrees with a development charges basis to project funding. He believes that the development doesn’t require the road to be widened to 4 lanes.

2. Review of Alternatives and Impacts to Development Lands

- Mr. Paletta dislikes the Waterdown Road “straight thru” option because it creates wasted space on developable land. He requires 30 meters in order to build homes in the space between the old and new road. However, he doesn’t
ITEM

intend to build homes there. A private school and a church have shown interest in the land adjacent to Waterdown Road.

• Mr. Paletta expressed concern that if the “straight thru” alignment is approved, they will have to go back and re-design the entire development.

• Metropolitan provided Dillon with a modified version of the Draft Approved Eagle Heights subdivision plan.

3. Review of Preliminary Evaluation of Alternatives

• Dillon provided Mr. Paletta with a copy of the preliminary evaluation table that was presented at PIC 2 for their review and comment.

• Through Dillon’s evaluation, the 4 lane “straight thru” alignment was identified as the preliminary preferred option. After PIC 2, Burlington asked Dillon to develop an additional alternative more in-line with Burlington council’s preference and re-evaluate the options. The plan of this option is still under development.

• Mr. Paletta will provide comments after receiving the requested plans of the new Waterdown Road option. Paletta/Dillon

4. Schedule

• Dillon plans to have the final plan recommendations completed by the end of February. Detailed costing will be completed and then the Draft ESR will go to all councils.

5. Other Business

• Mr. Paletta owns the land related to the Waterdown South development. He dislikes the curved alignment and would like Dillon to consider relocating the southern roundabout to the intersection at Mountain Brow Road. He is also in favour of a 3 lane phasing option.

• Metropolitan requested traffic volumes on Mid Block. Dillon will provide the data.

• Dillon has developed a Draft King Road Feasibility Study

Dillon
ITEM
Report that summarizes a study of available upgrade options, impacts, and costs. It was provided to Burlington and the city will be meeting to review the report in the near future.

ACTION BY

DISTRIBUTION: Attendees
Paul Allen, City of Burlington
Melissa Green-Battiston, Halton Region

Please contact Amanda Shepley of Dillon Consulting with any errors or omissions.
DRAFT MINUTES OF MEETING

PROJECT:  King Road Technical Feasibility Study/Waterdown Road & New East West Road EAs

PURPOSE:  Project Status Review

DATE:  February 27, 2009  1:30 PM

LOCATION:  Burlington City Hall – Room 219

PRESENT:  
City of Burlington:  Paul Allen  
Kerry Davren  
Dan Ozmikovic  
Robin Van de Lande

City of Hamilton:  Syeda Banuri  
Christine Lee-Morrison

NEC:  Nancy Mott-Allen  
Linda Laflamme

Conservation Halton:  Brenda Axon  
Lesley Matich  
Jennifer Lawrence

Dillon Consulting:  Paul MacLeod  
Ian Roul  
Lijing Xu  
Amanda Shepley

ITEM                      ACTION BY

1. Introductions

2. Background

Paul Allen presented a series of slides that provided background regarding the King Road corridor, including the Burlington council resolution. He referenced the Phase 2 Report where a 2-lane capacity on King Road was specified. Paul MacLeod indicated that the Phase 2 modeling determined that if King Road was closed, Waterdown Road could still handle the north-south traffic demand.

Ninety degree curves, poor sight lines, narrow lanes, and steep slopes on King Road may lead to safety concerns if traffic increases. King Road currently exhibits relatively few motor vehicle collisions because of its low volumes.
King Road Technical Feasibility Study/Waterdown Road and New East West Road EAs
February 27, 2009 Meeting

ITEM

Burlington council would like to keep King Road open as a secondary option for traffic. Many of the trips on King Road are destined to employment lands south of Highway 403.

3. King Road Technical Feasibility Study

A Draft Technical Feasibility Study Report was distributed prior to the meeting for review. Five alternatives were developed and assessed in the Technical Feasibility Study. One of those options is to improve the road to a minimum standard (using the existing horizontal and vertical alignment) by implementing a 30 km/h design speed which includes 12% grades (same as existing), 6 meters of pavement width, a total cross section 11 meters wide, mountable curbs, and a posted speed of 20 km/h.

Jennifer Lawrence was concerned that if more vehicles use King Road after improvements are made and traffic travels faster, more accidents are likely to occur. The city may be forced to widen the road even further to address this.

NEC indicated that they are not comfortable cutting into the escarpment at all. A suggestion was made to close King Road during the winter months when accidents are more likely to occur. NEC felt that there is no clear justification for the improvements as increased capacity needs are not identified and, based on collision history, safety is also not a concern. Another option is to close King Road. This alternative would involve the closure of the road through the Escarpment only.

The work in the Technical Feasibility Study mirrors the work in a Phase 1 and 2 of an EA. At the end of the study, we will move into an EA if required. Road closures fall under Schedule A+ in the EA process.

NEC is concerned that some of the options will create visual change/impact. These impacts should be included in the evaluation.

The Species at Risk Act (SARA) has not been factored into the evaluation. Conservation Halton stated it is concerned about the Jefferson Salamander and would like mitigation to be included in the report. The wetlands and ANSIs are not displayed on the figures in the report.

Dillon will send the revised report with the suggested additions (statement of need and history of discussion) to the agencies and request comments. The report will contain a recommendation.

The City of Hamilton will provide comments on the draft report.

ACTION BY

Dillon

Hamilton
ITEM

4. Status of Waterdown Road Class EA

All of the environmental issues with the project have been addressed; Sassafras woods, Grindstone tributary, tributary south of the Mid-Block. Conservation Halton indicated that an alignment running through the south tributary north of Mountain Brow Road is acceptable. The creek can be re-channelized/intercepted.

The Waterdown Road alignment through the development lands has been moved closer to the existing road. The east ROW will be held and all of the widening will be done to the west (the east edge of proposed east side sidewalk is positioned at the existing east edge of pavement). The Paletta lands will be less impacted with this modification and the homes on the east side of the road will be further from the road. Burlington council has requested assessment of the cross section phasing from three lanes to four over time on Waterdown Road.

Two to three properties will be purchased along Waterdown Road due to their proximity to the road and driveway profile issues.

An internal ESR on Waterdown Road will be issued by the end of March/early April. Conservation Halton would like to wait until the ESR is completed before they give their comments.

Dillon

5. Status of New East West Road Class EA

Hamilton Conservation has agreed to the alignment through Centre Road woodlot and the 30 meter buffer between the ESA and the new road.

After meeting with the MTO, Dillon reassessed the alignment joining at Highway 6. An alignment lining up with 4th Concession is required, wherever the crossing location.

Dillon is recommending a larger structure crossing of the Grindstone Creek at Parkside Drive.

Flow equalization culverts are being proposed at the flood plain adjacent to the Upcountry development. Conservation Halton indicated that the east creek corridor was to be preserved and is concerned about the road and the creek running side by side. Dillon has mitigated the impact by allowing the flood plain to operate on both sides of the road.

The creek is being realigned at Dundas Street and the existing culvert will be replaced.

At the east end of the project limits, rock cut is required along a section of Dundas Street.
DISTRIBUTION: Attendees
Tom Eichenbaum
Melissa Green-Battiston

Please contact Amanda Shepley of Dillon Consulting with any errors or omissions.
From: Restivo, David
Sent: Monday, July 20, 2009 1:43 PM
To: Shepley, Amanda
Subject: FW: East-West Road Corridor and Waterdown Rd EA
Attachments: Comment and Response Table - Halton CA March 2009.doc

Jennifer,
See attached responses to CH comments on the draft Natural Environment Report for the East-West Road Corridor and Waterdown Rd EA that we submitted to you this past winter. Please review the revised report at your earliest convenience. HCA has reviewed the revised report and provided comments.

Regards,

Jennifer Lawrence
Manager, Environmental Planning
Conservation Halton

Hi David and Syeda,
Thank you for the email. Our technical staff will hold off on reviewing the document until such time as we have received the response table in order to expedite their review.

Jennifer

Jennifer Lawrence
Manager, Environmental Planning
Conservation Halton
Jennifer,

I hope to send you a response table this week. Basically, the last report that we submitted was a summary of the background and field data collected for the two EA study areas. The report we just submitted to you has the potential impacts and proposed mitigation measures for the road alignments.

I will confirm the timeline as well, but the draft ESRs are being reviewed by the City of Hamilton.

Jennifer Lawrence
Manager, Environmental Planning
Conservation Halton
Ph: 905-336-1158 ex. 266
Fax: 905-336-6684
www.conservationhalton.on.ca
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Ce message est destiné uniquement aux personnes indiquées dans l'entête et peut contenir une information privilégiée, confidentielle ou privée et ne pouvant être divulguée. Si vous n'êtes pas le destinataire de ce message ou une personne autorisée à le recevoir, veuillez communiquer avec le soussigné et ensuite détruire ce message.
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<tr>
<th>I.D.#</th>
<th>Conservation Halton Comment</th>
<th>Response</th>
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<tbody>
<tr>
<td>1</td>
<td><strong>Section 1.0 Introduction</strong></td>
<td>Karst topography and natural hazard lands will be addressed during the detailed design stage.</td>
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<td>Within this section there is no mention of karst however, karst has been found within the Study Area as part of the South Waterdown Subwatershed Study. Karst is normally considered a natural hazard and, as such, staff question whether there will be a natural hazard component to the EA? If not, then natural hazards, including karst, flood plains, steep slopes, etc., should be included in the natural environment component.</td>
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<tr>
<td>2</td>
<td><strong>Figure 1 Study Area and Preferred Route</strong></td>
<td>Our delineation of ESA in the study area is based on GIS shapefiles that were provided by the City of Hamilton. If the delineation of this feature is incorrect in the updated report, please provide us with the correct polygon for the Grindstone Creek Valley ESA.</td>
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<td>Staff note that the wooded area associated with the upper end of the Grindstone Creek Valley ESA, within the South Waterdown lands, does not appear to be identified on this figure. This requires revision.</td>
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<tr>
<td>3</td>
<td><strong>Section 2.0 Methods</strong></td>
<td>We have appended all ELC datasheets in the revised report. To avoid confusion, we have omitted the wildlife datasheets; however, the locations of species of conservation priority have been provided.</td>
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<td>Staff request that all field data sheets be included as an appendix to the Natural Environment Inventory Report and should include all Ecological Land Classification (ELC) and wildlife data sheets.</td>
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<td>4</td>
<td>We note that there is no discussion of the weather conditions during the wildlife surveys.</td>
<td>Wildlife surveys were conducted using accepted protocols, which included conducting surveying during appropriate weather conditions.</td>
</tr>
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<td>5</td>
<td>The local status of birds within Subsection 2.3 Breeding Birds was obtained from the Conservation Priorities for the Birds of Southern Ontario (1999). Given that both Conservation Halton and Hamilton Conservation Authority have completed more recent Natural Area Inventories that provide locally rarity, staff suggest that the Halton Natural Areas Inventory (NAI) (2006) and the Nature Counts Hamilton NAI (2003) be used as the most current sources of rarity.</td>
<td>For consistency, Conservation Priorities for the Birds of Southern Ontario (1999) document was used for the entire WATMP study area; however, CH and HCA locally rare species have been indicated in the revised report.</td>
</tr>
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<td>6</td>
<td>It is unclear why no further wildlife data was collected as there is no discussion of incidental mammal observations, insects or reptile surveys that were completed. Given that this project is to expand an existing road network and the number of mammals and reptiles potentially using this area for crossings, nesting and for basking, please clarify if these surveys were completed. Staff note that without this information, we consider the Natural Environment Inventory Report incomplete with respect to wildlife.</td>
<td>Incidental wildlife observations have been included in the revised report.</td>
</tr>
<tr>
<td>7</td>
<td>All reference within the EA to the South Waterdown Subwatershed Study should reflect the fact that the Study, with the exception of the Stage 1 Report, is considered draft and not</td>
<td>Noted.</td>
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<td>approved by the Technical Steering Committee.</td>
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<td>8</td>
<td><strong>Figure 2 Breeding Bird and Amphibian Point Count and Area Search Locations</strong>&lt;br&gt;Within the South Waterdown lands, was this information surveyed independently as part of the EA process or is it taken from the Subwatershed Study? If done independently, has the data been cross-referenced with the information collected as part of the Subwatershed Study?</td>
<td>All data was collected independently. The Subwatershed Study and other background documents have been reviewed and incorporated into the report as deemed necessary.</td>
</tr>
<tr>
<td>9</td>
<td>Subsection 3.1.1 ELC: Not all of the ELC communities listed on pages 9 and 10 appear to be illustrated on Figures 3 and 4. For example, FOD 2-2, FOD4-2, SWD2-1 and SWD4-2 are not listed in the legend nor do they appear on the figures. The figures include FOD4-3, OAO and SWD4-3 which are not listed in the report text. In addition, Appendix B which is to provide further information on the vegetation communities does not include discussions on MAM2-10, SWD2-1 FOD4-3, OAO and SWD4-3. Please confirm the actual vegetation communities within the study area and submit ELC field data sheets for review so that these can be further confirmed.</td>
<td>ELC section (mapping/text) has been revised to reflect field observations.</td>
</tr>
<tr>
<td>10</td>
<td>Subsection 3.1.2 Vegetation: This section states that there were no federal or provincial Species at Risk (SAR) identified during the field surveys, however butternut (<em>Juglans cinerea</em>) is listed both</td>
<td>The report section concerning SAR and butternut has been revised.</td>
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<td>11</td>
<td>federally and provincially as Endangered and was observed during the surveys. Please revise this section to reflect the SAR in the study area. It should be noted that according to the Natural Heritage Information Centre (NHIC) butternut is also listed as S3 not S4 as presented in the report.</td>
<td>No flowering dogwood was observed during the field surveys of Sassafras Woods.</td>
</tr>
<tr>
<td>12</td>
<td>Subsection 3.1.3 Sassafras Wood Edge Vegetation Survey: The Environmental Assessment (EA) completed for potentially similar areas identified the presence of flowering dogwood (<em>Cornus florida</em>) in the vicinity of interchange and road works. Flowering dogwood is currently listed as Endangered by the MNR and is proposed to be designated as Endangered by COSEWIC. Given the sensitivities associated with this species, please confirm if flowering dogwood was observed during surveys.</td>
<td>The report section on Jefferson salamander habitat/impacts/mitigation has been revised. The MNR has not confirmed the extent of Jefferson salamander habitat in Sassafrass Woods or if a permit will be required for works along the western edge of this ANSI/ESA. The road improvements have been kept as far to the north as possible in this area and will not directly affect the Waterdown Escarpment Woods ANSI. The proposed road works will have minor, impact on the ESA as vegetation removal has been minimized and is restricted to the area well west of the new Mid-Block Road..</td>
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<tr>
<td>13</td>
<td>Subsection 3.1.5 NHIC Flora Query: The report states that one significant vegetation community (<em>FOD</em> 2-2 listed as S3S4) was</td>
<td>The report has been revised to address the location/impacts/mitigation for the Fresh-Moist Black Walnut-community.</td>
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<td>observed in the study area, however the report indicates that FOD7-4 (Fresh-Moist Black Walnut Lowland Deciduous Forest), listed as S2S3 or &quot;very rare to rare to uncommon&quot; is also present in several locations within the study area. The report should be revised to include these communities and discussion regarding potential impacts and mitigation should be included. It should be noted that staff are unable to locate the FOD2-2 on either Figures 3 or 4.</td>
<td>Lowland Deciduous Forest communities.</td>
</tr>
<tr>
<td>14</td>
<td>Subsection 3.4 Amphibian Surveys: There should be a discussion regarding Jefferson salamander habitat within the study area in this section of the report. In addition, amphibian surveys appear to have been completed for frogs only based on the results presented in Table 3, although the methods section indicates that wetlands and vernal pools in potential habitat were surveyed as well as using secondary source information. Please clarify if other amphibians were observed. Also, within Table 3, the footnote numbering should be reviewed.</td>
<td>The report has been revised to indicate the location of amphibian observations and Jefferson salamander habitat.</td>
</tr>
<tr>
<td>15</td>
<td>Staff defer discussion with respect to western chorus frog at this time as consultation with COSEWIC is currently ongoing to determine the status of the population within Conservation Halton's watershed.</td>
<td>Noted.</td>
</tr>
<tr>
<td>16</td>
<td>Subsection 3.5.1 Historical Fish Species Information – staff note that the Grindstone Creek tributary (identified as GS-1 within the</td>
<td>Noted.</td>
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<td>South Waterdown Subwatershed Study) is being managed as a coldwater watercourse given the sensitive coldwater species immediately downstream. This means that buffers to the watercourse are based on the coldwater setbacks of 30 metres.</td>
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<td>17</td>
<td>Subsection 3.5.3 Field Work Results– Unknown Creek (Crossing #13) – this is the Upper Hager Creek.</td>
<td>The report was revised to reflect this information.</td>
</tr>
</tbody>
</table>
| 18    | **Figure 3 – East-West Corridor ELC and Significant Plant Species**  
Staff note that the flood plain and riparian vegetation associated with the Grindstone Creek tributary that flows immediately adjacent to the Upcountry Estates land is shown as agricultural on this figure. Please verify that this is an appropriate ELC classification for this area. | The ELC classification was changed to cultural field/thicket, forb mineral meadow marsh and deciduous riparian hedgerow. Please note that property access was restricted in the lands east of the Upcountry Estates. |
| 19    | In addition, the wetland that was identified in the South Waterdown Subwatershed Study as Wetland 4 has not been identified on this figure. Staff recommend that the Study Team refer to the SWS for additional information in this regard.                                             | The area of Wetland 4 was not surveyed; however, changes will be made to delineate this feature in the final report.                                                                                      |
| 20    | **Section 4.0 Significant Natural Areas**  
Staff recommend that the Waterdown Woods Resource Management Area (owned by Conservation Halton) be included in                                                                 | Dillon is not aware of the limits of this feature. If CH can provide a GIS shapefile and description of the Waterdown Woods Resource Management Area, then Dillon will incorporate this information into the final version of the report. |
<p>| | | |
|       |                                                                                                                                                                                                                               |                                                                                                                                                                                                        |</p>
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| the list of Significant Natural Areas. | the list of Significant Natural Areas. | The CH recommendations are noted. Completely avoiding the Sassafras-Waterdown Woods ANSI/ESA was constrained by the existence of the following features on the west side of Waterdown Road adjacent to the Sassafras Waterdown Woods ANSI/ESA:  
  - Water reservoir;  
  - Hydro tower; and  
  - Numerous residential properties. |
| 21 | Staff continue to recommend that the road expansion be completed away from the natural heritage features within the study area. According to the Halton Natural Areas Inventory, Sassafras-Waterdown Woods ANSI and ESA is one of the few remaining sizable woodlots typical of the dry broadleaf forests that once covered Halton Region below the Niagara Escarpment. It contains a high number of native plant communities, of which some are considered rare within the Niagara Escarpment Biosphere Reserve. In addition to the ANSI and ESA designation, this area is designated as a Carolinian Canada site, one of only 38 in Canada and the only designated site in Halton Region. This area also contains numerous species listed as nationally, provincially and locally rare. We recommend that the Mountain Brow Road expansion be shifted to the north and be incorporated into the urban development that is proposed in this area given the level of disturbance that will be associated with this development, while maintaining the ESA/ANSI to the south. We also recommend that the widening of Waterdown Road be shifted to the west to limit the impact to the ESA/ANSI. For these reasons, we do not support any works being undertaken that will impact Sassafras-Waterdown Woods ANSI/ESA. | Dillon has taken the following steps to reduce or eliminate impacts to the Sassafras-Waterdown Woods ANSI and ESA:  
  - Move the road as far west as possible avoiding the ANSI/ESA lands along Waterdown Road with the exception of an encroachment on the east side of the right-of-way, south of Flatt Road;  
  - Reduction of the new road footprint (e.g. narrowed traffic lanes, multi-use pathway and boulevard, no sidewalk on east side); and  
  - Retaining wall along east side instead of an engineered slope.  
  The following steps were taken to reduce or eliminate the encroachment into the Sassafras-Waterdown Woods ANSI/ESA south of Mountain Brow Road:  
  - East of Flanders Drive the proposed road works are positioned to the north of the current right-of-way;  
  - Curved road design for the new Mid-Block Road that totally avoids lands to the south;  
  - Eliminated the south boulevard and sidewalk; |
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| • Use of narrow lanes; and  
• Eliminated the north boulevard. | As a result of these measures, the proposed road works does not impact the ANSI lands along Mountain Brow Road; however, there is a minor encroachment into the ESA lands (near #376 Mountain Brow Road), which may require the removal of some edge vegetation. |

22   Subsection 4.5 Provincial Life/Earth Science ANSI-Grindstone (Creek) Valley ESA this section recommends that the new crossing of the Grindstone Creek tributary will have minimal impacts on fish habitat and other natural heritage resources. Staff recommend that this is not an accurate description of the potential impacts on the ESA in this vicinity. Based on the proposed location of the road it will remove a portion of the upper limit of the Grindstone Creek Valley ESA. Given that only a few areas within Hamilton and Halton merit an ESA designation, the loss of any portion of such an environmentally sensitive area should not be considered minimal. Also, this section does not address the impacts that will occur as a result of the need to realign the tributary in order to facilitate the crossing. Additional discussion is warranted on the potential impacts, mitigation and compensation for the losses. |

Note: The crossings located in the South Waterdown lands (Waterdown Road Corridor) are to be assessed in detail by the developer of these lands; therefore, approval/review of these culverts is not required by CH for this study. These crossings include:

• Crossing #1 Grindstone Creek – Northeast Branch; and
• Crossing #2 Grindstone Creek – Southern Branch.

The developer will be applying for all appropriate approvals. |

23   Section 5.0 Natural Environment Summary |

While staff agree that restoration and enhancement of key natural features should occur, we recommend the planting of only locally Noted and similarly recommended in the revised report. |
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<td>common, native, non-invasive species.</td>
<td>Crossing #4 and #14 are drainage features, not watercourse crossings. The revised locations for watercourse and drainage crossings are provided in Figure 6 of the report.</td>
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</table>
| 24 | **Figure 5 – Aquatic Features Map**  
This figure identifies a number of watercourse crossings. Although it may be related to the scale of the mapping, it does not appear that there will be a crossing required at points #4 and #14. Please clarify. Also, point #5 is shown as a crossing however, it is our understanding that the road will likely cross the flood plain rather than the watercourse in this location. Please clarify. |  |
| 25 | **Table 5 – WATMP Existing Fish and Fish Habitats Conditions Summary Table**  
Within the portion of the chart related to the East-West Corridor from Highway 6 east to Cedar Springs Road, Row 4 (Grindstone Creek – Northwest Branch) – within the Column "Fish observed (species)" it is stated "none" however, under the Column "Rationale for Sensitivity/Recommendation" it is stated that largemouth bass are present. Please clarify. | The Summary table has been revised to indicate that under Fish Observed, “None during field investigations” reflects what was observed during field surveys of the Grindstone Creek – Northwest Branch. |
| 26 | Within the portion of the chart related to the Waterdown Road Corridor from Dundas Street south to Highway 403, Row 1 (Grindstone Creek – Northeast Branch) – staff assume this is the GS-1 tributary in the South Waterdown Subwatershed Study. The vegetation is described as emergent grass vegetation along margins with sporadic shrubs however, this tributary is within the Grindstone Creek Valley ESA and is well treed. Please clarify the Note: The crossings located in the South Waterdown lands are to be assessed by the developer of these lands; therefore, approval/review of these structures/culverts is not required by CH for this study.  
The vegetation description at this crossing, “emergent grass vegetation along the margins with sporadic shrubs” describes the vegetation on the banks. The descriptor in Table 5 further |  |
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<td>description. In addition, the recommended crossing method is listed as &quot;culvert installation&quot; however, due to the sensitivity of this area, the chart should be clear that the preferred crossing is a span bridge and/or span open bottom culvert. Finally, staff recommend that the &quot;sensitivity&quot; should be ranked as &quot;high&quot; given the presence of coldwater fish species immediately downstream, groundwater discharge within the immediate area, karst features within the crossing area and the presence of the ESA.</td>
<td>indicates that “mature riparian trees exist along both banks”. Please see the ELC/Vegetation sections for additional details on this vegetation community.</td>
</tr>
</tbody>
</table>
| 28   | **Appendix A**  
The appendix includes the breeding bird evidence codes, however these have not been included in the species tables. Currently the evidence provided is only from the Dillon survey or the Ontario Breeding Bird Atlas, and no breeding evidence is provided. Please clarify. | Appendix A was revised to contain:  
- Breeding Bird Summary Table  
- Table of Breeding Birds Observed in ESAs  
- Incidental Wildlife Observation Table  
This information has been included in the revised report.                                                                                                                                       |
|      | As previously stated, staff recommend that the Halton NAI and the Nature Counts Hamilton NAI be used for local rarity of species. The following lists the species that have been identified as rare/uncommon in the study area: |                                                                                                                                                                                                                                                             |
|      | - Great blue heron – uncommon Hamilton  
- Turkey vulture – uncommon Hamilton  
- Yellow-billed cuckoo – rare Halton, rare Hamilton  
- Eastern Screech-owl – uncommon Hamilton  
- Red-bellied woodpecker – uncommon Halton, uncommon |                                                                                                                                                                                                                                                             |
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<td>Hamilton</td>
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<tr>
<td></td>
<td>• Hairy woodpecker– uncommon Hamilton</td>
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<td></td>
<td>• Honred lark – uncommon Hamilton</td>
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<td></td>
<td>• Eastern towhee – uncommon Halton, uncommon Hamilton</td>
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<td></td>
<td>• Vesper sparrow – uncommon Halton, uncommon Hamilton</td>
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<td></td>
<td>• Bank swallow – uncommon Hamilton</td>
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<td></td>
<td>• Northern rough-winged swallow – uncommon Halton</td>
<td></td>
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<tr>
<td></td>
<td>• Brown thrasher – uncommon Hamilton</td>
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<tr>
<td></td>
<td>• Chestnut-sided warbler – uncommon Halton, uncommon Hamilton</td>
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<tr>
<td></td>
<td>• Mourning warbler – uncommon Halton, uncommon Hamilton</td>
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<td></td>
<td>• Blue-gray gnatcatcher – uncommon Halton, uncommon Hamilton</td>
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<td></td>
<td>• Eastern phoebe – uncommon Hamilton</td>
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<td></td>
<td>29 Appendix B</td>
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<td>In addition to those species identified in the appendix,</td>
<td>This information has been included in the revised report.</td>
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<td>according to the Halton and Hamilton NAIs, <em>Crataegus mollis</em></td>
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<td></td>
<td>and <em>Scirpus atrovirens</em> are rare in Hamilton while, according</td>
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<td>to the NHIC, <em>Juglans cinerea</em> should be listed as S3?</td>
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<td>30 The following comments are provided as aquatic ecology</td>
<td>No culvert extensions are proposed.</td>
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<td>input into the detailed design stage:</td>
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<td>Culvert replacements are favoured over culvert extensions,</td>
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<td>especially where the existing culvert is undersized or perched.</td>
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<td>Any crossing works that involve an extension are requested to</td>
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| 31    | It is requested that all new culverts and culvert extensions be designed and implemented as open bottom structures for the following reasons:  
  • To prevent future barriers to fish passage due to long term down cutting of the creek invert.  
  • To allow fish to have access to natural stream bottom substrate, which is likely to contain a more productive food source than substrate placed inside a closed bottom culvert.  
  • The maintenance of fish passage through crossings will facilitate dispersal of fish and other aquatic organisms in the event of large disturbances such as road construction work adjacent to the creek or the occurrence of a toxic spill in the creek.  
  • Fish need to swim through culverts to migrate to spawning areas that have higher productivity or fewer predators, such as flood plains and headwater streams. Culverts that block the upstream movement of fish will isolate fish populations above these crossings. Areas with relatively small amounts of habitat upstream of the crossing will be most vulnerable to population loss. This can lead to negative genetic effects on local fish populations.  
  • To facilitate effective sediment transport, which will prevent or reduce excessive stream bank erosion and/or stream profile flattening in the vicinity of the culvert.  
  • To facilitate groundwater recharge when/if the creek is "losing" water.  
  • To prevent any blockage or rerouting of groundwater seepage (where applicable). | Table 6 discusses the type of culvert crossings as well as providing an impact/mitigation analysis for each crossing location. Dillon acknowledges that the impacts that CH has outlined (e.g. the creation of fish migration barriers) could result if proper mitigation of culvert installations or replacements is not undertaken.  
Dillon is currently undertaking a feasibility/cost analysis of having open-bottom structures at two East-West Corridor crossings that are located in watercourses with moderate to high watercourse sensitivity ratings and that are currently proposed to be closed bottom/embedded box culverts:  
  • Crossing #1 – Borer’s Creek Main Branch/Black’s Pond; and  
  • Crossing #6 – Grindstone Creek – Northeast Branch.  
Also, Dillon has proposed to install a series of open-bottom culverts, instead of one large culvert, at the crossing of the headwater area to the tributary of Borer’s Creek located in the Centre Road Woodlot PSW unit. These culverts will maintain the existing wetland hydrology and provide eco-passages for herpetofauna and small mammals. |
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| 32    | It is requested that all creek crossings be designed to convey a minimum 2 year or bankfull channel flow. Where feasible, it is requested that creek crossing designs be designed to accommodate larger flows for the following reasons:  
  - To prevent velocity barriers to fish passage during high flow events. If a culvert is undersized, water pressure in the culvert will be too high for a fish to swim through the culvert during a high flow event.  
  - To facilitate effective sediment transport through culverts to minimize or prevent excessive erosion or aggradation (build up) of sediments in the vicinity of culverts. Larger culvert diameters also prevent plugging of culvert with debris, which can be a safety issue for road integrity if water backs up on one side of the road.  
  - To prevent scouring of the bed of the creek downstream of the culvert (over time) to the point where a barrier to fish passage is created. | The culvert crossings have been designed based on the road classification in accordance with MTO Directive B-100. The minimum conveyance for crossings is a 25-year storm event. |
| 33    | It is requested that any opportunities to plant native, non invasive trees and/or shrubs along the banks of the creek within the road right of way be investigated and pursued. Priority tree planting areas include:  
  - Bank areas located between the creek and an adjacent parallel road.  
  - Bank areas on the south or west side of a creek.  
  - Any other unvegetated sections of a watercourse that are feasible for tree planting. | Restoration and enhancement recommendations are provided in the revised report. |

Comments Regarding Specific Crossings:
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<tr>
<td><strong>Crossing #4 – Grindstone Creek NW Branch</strong>&lt;br&gt;According to our best available information, Pike have been demonstrated to be present at this location and the construction timing window must accommodate northern pike: No in water work between March 1 and June 30 of any year. Standard sediment and erosion controls, work area isolation and flow maintenance procedures will be necessary.</td>
<td>Noted.</td>
<td></td>
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<tr>
<td><strong>Crossing #5 – Grindstone Creek NE Branch</strong>&lt;br&gt;No crossing work proposed. No mitigation necessary.</td>
<td>Noted.</td>
<td></td>
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<td><strong>Crossing #6 – Grindstone Creek NE Branch</strong>&lt;br&gt;Request a full culvert replacement. Request use of open bottom structure. Standard sediment and erosion controls, work area isolation and flow maintenance procedures will be necessary. Warm water timing window is applicable.</td>
<td>Table 6 discusses the type of culvert crossing currently proposed at Crossing #6 – Grindstone Creek – Northeast Branch. Dillon is currently undertaking a feasibility/cost analysis of having open-bottom culverts at this location. The timing window is noted.</td>
<td></td>
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<tr>
<td><strong>Crossing #7 – Tributary of the Grindstone Creek</strong>&lt;br&gt;Fish passage must be established or maintained as a result of culvert extensions. Culvert replacements that result in larger diameter, open bottom culverts are preferred over culvert extensions. Warm water timing window applies.</td>
<td>The closed-bottom culvert replacement proposed at this intermittent tributary crossing of Hwy #5 is consistent with the existing structure and is recommended due to the fact that this tributary was determined to have low sensitivity and does not directly support a fishery.</td>
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<td><strong>Crossing #13 – Unknown Creek</strong>&lt;br&gt;Request collection of fish community and thermal regime data at this location.</td>
<td>Dillon has identified this crossing as intermittent drainage conveyance; with low sensitivity that does not directly support a fishery. As such, no further field collection is warranted.</td>
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<td><strong>Crossing #14 – Grindstone Creek</strong>&lt;br&gt;Request that culvert consist of an open bottom design. It is requested that the culvert be designed to convey a minimum 25 year flow. Warm water timing</td>
<td>There is no watercourse at this location. It is a topographic depression that will contain flow during heavier rainfall events. The culvert design at this location is based on the conveyance of a</td>
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<td>window applies. Standard sediment and erosion control, work area isolation, flow maintenance and fish removal guidelines apply.</td>
<td>25-year storm event. Since no fish habitat exists at this location, a closed culvert is recommended.</td>
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</table>
| Waterdown Road Corridor (from Dundas south to Highway 403) | Crossing #1 – Grindstone Creek NE Branch  
Request that culvert consist of an open bottom design. It is requested that the culvert be designed to convey a minimum 25 year flow.  
Warm water timing window applies at this time. This system is classified as having a cold water thermal regime, however no fall spawning fish species (that would trigger the cold water timing window) have been demonstrated to exist here. | Note: The crossings located in the South Waterdown lands are to be assessed by the developer of these lands; therefore, approval/review of these culverts is not required by CH for this study. |
|       | Crossing #2 – Grindstone Creek S Branch  
A site visit is required to determine if channel realignment will require an authorization by DFO. Standard sediment and erosion controls, work area isolation and flow maintenance procedures will be necessary. | Note: The crossings located in the South Waterdown lands are to be assessed by the developer of these lands; therefore, approval/review of these culverts is not required by CH for this study. |
|       | Crossing #3 – Grindstone Creek S Branch  
Standard sediment and erosion controls, work area isolation and flow maintenance procedures will be necessary. A culvert replacement would be more desirable over an extension. Is this a feasible option?  
Warm water timing window applies here. | Culvert replacement is recommended at this location. The existing culvert is an 1100 CSP and the proposed culvert is a 1490 X 910 arch. The timing window is noted. |
|       | Crossing #4 – Grindstone Creek S Branch  
One larger diameter culvert is preferable over two smaller diameter culverts to | This crossing is no longer required as the road has shifted east of the creek. |
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<td>facilitate effective sediment transport and to prevent potential down cutting of the creek on the downstream sides of the culverts. Standard sediment and erosion controls, work area isolation and flow maintenance procedures will be necessary.</td>
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May 26, 2009

Webb Planning Consultants Inc.
244 James Street South
Hamilton, ON L8P 3B3

Attention: James Webb, MCIP, RPP

Re: Waterdown Aldershot Transportation Master Plan
Phase 3 & 4 Municipal Class Environmental Assessment

Dear Mr. Webb:

Further to your correspondence dated March 25, 2009, the WATMP Project Team have had an opportunity to review the material and recommendations presented in your letter. Our responses to the issues raised in your letter are outlined below.

Request for Additional Traffic Information
Attached to this letter you will find the traffic Synchro Sim Simulation calculations for the Dundas Street/Mid-Block Road intersection for your comment and review. Also attached are the turning movement volumes for the entire road.

Specific Recommendations for Mid-Block Road
Your letter included several recommendations in bullet point format for the new Mid-Block Road and the surrounding road network. These recommendations are repeated below and discussed.

1) Mid-Block Road will have a three-lane cross section, two through lanes and a dedicated left-turn lane. The exception is the segment of road north of Street “C” to Dundas Street within the Phase 1A lands, this segment will be constructed as a 4 lane divided road in accordance with the requirement to address emergency access requirements for the initial phase of development.

We have reviewed your position that based on the AADT traffic data supplied by Dillon, construction of 4 lanes is not justified within the projected time horizon. A review of the peak hour volumes for the AM and PM periods indicates that the southern segment of the Mid-Block Road (south of the new connection with the collector road) will carry approximately 995 SB vehicles in the AM peak and 1,140 NB vehicles in the PM peak. These forecast volumes warrant 4 lanes of traffic.

The Phase 2 WATMP Report indentified the need for two additional lanes over and above the already planned 2-lane north-south roadway within the subdivision. When evaluating the Burlington proposed 3-lane Waterdown... cont’d
Road Option, Section 6.5.1 of the report (Page 89) states that this option requires:

"2 additional lanes through the secondary plan area to convert the planned collector road into an arterial road to allow a connection between Mountain Brow (4 lanes total) (same as the 4-lane Waterdown Option)."

We acknowledge that the peak hour volumes somewhat dissipate further north along the Mid-Block Road. However, the requirement to construct a 4-lane divided road north of Street “C” makes it geometrically impractical (from a lane balance perspective) to introduce a short segment of 3-lane road between 2 sections of 4-lane road.

In addition, the entire road section needs to be as attractive to traffic during peak hours as possible for the new road to operate at the highest level of service in order to provide relief to Mill Street.

For these reasons, we require that the Mid-block Road be designed as a 4-lane road throughout its length. It should be noted that the City will look to implement 1.5m dedicated bicycle lanes as part of the proposed cross section. While your letter did not specify proposed lane width configurations, we propose that the curb lanes be 3.65m wide and the centre lanes be 3.5m wide.

2) Total right-of-way width of 36 metres will be maintained to secure the future road options through the lands of Waterdown Bay.

It is inferred that the future options mentioned are in reference to a potential future widening. Since the project team is recommending that a 4-lane cross section be implemented at the onset of the road improvements, additional widening is not expected. The 4-lane section will be constructed within the 36m right-of-way.

3) No centre median is to be included in the cross section for the Mid-Block Road to permit full movement intersections with adjoining local streets.

A continuous centre median is not required in the proposed design. As previously mentioned, the peak hour volumes are not as pronounced through the mid-section of the Mid-Block Road. Hence, it is not expected that the left-turning traffic into local roads will affect the overall capacity of the roadway.

There remains some concern over the close proximity of the proposed local road immediately south of the Skinner Road roundabout. Specifically, there are concerns that the lack of spacing may cause conflicts with vehicles entering/exiting this roundabout. We note that extending the splitter island south beyond this intersection would eliminate this concern. Another option is to limit the number of Mid-Block Road intersections to one centrally spaced between the two collector roads. This can be further discussed in later stages of the development process.

...cont’d
4) **Introduction of minimum radius curve at the south end of the Mid-Block Road to facilitate continuous flow to and from Mountain Brow road west of the Mid-Block Road.**

The project team is recommending a 160m radius curve at the south end of the Mid-Block Road. This configuration is in line with what was recommended at the second Public Information Centre and provides users with a more direct and unencumbered route to Dundas Street.

5) **The section of Mountain Brow Road immediately east of the Mid-Block Road is proposed to be closed, the removal is rationalized on the basis of potential intersection conflicts within the southerly curve of the Mid-Block Road, the closure and replacement with a network of local residential streets to the east will improve the residential amenity of this area.**

The project team agrees with the proposal to close Mountain Brow Road, immediately east of the Mid-Block Road and to connect Mountain Brow Road to the new east-west collector road, as shown in the sketch that accompanied your letter. As with item 4; closing Mountain Brow Road will result in a more unencumbered (and therefore more desirable) route to Dundas Street for users.

6) **A new East-West collector road having a 26.0 metre ROW will be established within the southern portion of the subdivision to replace the proposed collector function of Mountain Brow Road.**

The project team agrees with the proposal to introduce a new collector road (26m ROW) within the southern portion of the subdivision, as presented in the sketch that accompanied your letter. We understand that the intent of this new collector road is to replace the collector function of Mountain Brow Road, immediately east of the Mid-Block Road. The project team is also in agreement with the general location for the new east-west collector road – as presented in the sketch that accompanied your letter.

With regards to the new intersection that will be created between the Mid-Block Road and the new collector road, the project team recommends that a roundabout be installed at this location. The roundabout treatment would be consistent with what is being proposed at Skinner Road (also a collector road) and would mitigate the disjointed nature of the west leg of the intersection. In addition to the above, installing a roundabout at this location would be in keeping with the City of Hamilton’s Installation of Modern Roundabouts Policy.

...cont'd
Phasing of Development

Implementation aspects of the recommended roadworks, including timing, will be addressed in the Environmental Study Report.

We trust that we have adequately responded to the issues raised in your March 25, 2009 letter. If you have any questions or would like to discuss the contents of this letter in more detail, please contact us at your convenience.

Yours sincerely,

DILLON CONSULTING LIMITED

Paul MacLeod, P. Eng.
Project Manager

cc: Diana Morreale, City of Hamilton
    Syeda Banuri, City of Hamilton
    Christine Lee-Morrison, City of Hamilton
    Gavin Norman, City of Hamilton
    Michael Telawski, Waterdown Bay Inc.
    Karl Gonnsen, Metropolitan Consulting
    Dan Cherapacha, Read Voorhees & Associates
    Jackson Marin, Dillon Consulting

JM:xx
Encl.

Our File: 08-5920
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<tr>
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<td>0.95</td>
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Fr: | 0.988 | 0.999 | 0.950 | 0.850 | 0.850 |

Satd. Flow (prot) | 1770 | 3367 | 0 | 1719 | 3341 | 0 | 1719 | 0 | 1538 | 1770 | 0 | 1583 |

Satd. Flow (perm) | 691 | 3367 | 0 | 201 | 3341 | 0 | 1719 | 0 | 1538 | 1770 | 0 | 1583 |

Right Turn on Red | Yes | Yes | Yes | Yes | Yes |

Satd. Flow (RTOR) | 15 | 2 | 174 | 65 |

Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

Link Speed (k/h) | 50 | 50 | 50 | 50 |

Link Distance (m) | 884.4 | 983.2 | 795.9 | 291.6 |

Travel Time (s) | 63.7 | 70.8 | 57.3 | 21.0 |

Volume (vph) | 20 | 1095 | 95 | 195 | 675 | 5 | 165 | 0 | 160 | 10 | 0 | 60 |

Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |

Heavy Vehicles (%) | 2% | 6% | 5% | 5% | 8% | 2% | 5% | 2% | 5% | 2% | 2% | 2% |

Adj. Flow (vph) | 22 | 1190 | 103 | 212 | 734 | 5 | 179 | 0 | 174 | 11 | 0 | 65 |

Lane Group Flow (vph) | 22 | 1293 | 0 | 212 | 739 | 0 | 179 | 0 | 174 | 11 | 0 | 65 |

Turn Type | Perm | pm+pt | custom | custom | custom |

Protected Phases | 2 | 1 | 6 |

Permitted Phases | 2 | 6 | 4 | 4 | 8 | 8 |

Detector Phases | 2 | 2 | 1 | 6 | 4 | 4 | 8 | 8 |

Minimum Initial (s) | 20.0 | 20.0 | 6.0 | 20.0 | 10.0 | 10.0 | 10.0 | 10.0 |

Minimum Split (s) | 25.0 | 25.0 | 10.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 |

Total Split (s) | 53.0 | 53.0 | 0.0 | 12.0 | 65.0 | 0.0 | 25.0 | 0.0 | 25.0 | 25.0 | 0.0 | 25.0 |

Total Split (%) | 58.9% | 58.9% | 0.0% | 13.3% | 72.2% | 0.0% | 27.8% | 0.0% | 27.8% | 27.8% | 0.0% | 27.8% |

Maximum Green (s) | 48.0 | 48.0 | 8.0 | 60.0 | 19.0 | 19.0 | 19.0 | 19.0 |

Yellow Time (s) | 3.7 | 3.7 | 3.0 | 3.7 | 3.3 | 3.3 | 3.3 | 3.3 |

All-Red Time (s) | 1.3 | 1.3 | 1.0 | 1.3 | 2.7 | 2.7 | 2.7 | 2.7 |

Lead/Lag | Lag | Lag | Lead |

Lead-Lag Optimize? | Yes | Yes | Yes |

Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |

Recall Mode | C-Max | C-Max | None | C-Max | None | None | None | None |

Walk Time (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 |

Flash Don't Walk (s) | 5.0 | 5.0 | 5.0 | 5.0 | 12.0 | 12.0 | 12.0 | 12.0 |

Pedestrian Calls (#/hr) | 0 | 0 | 0 | 0 | 5 | 5 | 5 | 5 |

Act Effct Green (s) | 52.7 | 52.7 | 64.7 | 64.7 | 15.3 | 15.3 | 15.3 | 15.3 |

Actuated g/C Ratio | 0.59 | 0.59 | 0.72 | 0.72 | 0.17 | 0.17 | 0.17 | 0.17 |

v/c Ratio | 0.05 | 0.65 | 0.81 | 0.31 | 0.61 | 0.43 | 0.14 | 0.04 |

Control Delay | 9.8 | 15.0 | 35.6 | 5.3 | 43.2 | 8.4 | 29.1 | 9.6 |

Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

Total Delay | 9.8 | 15.0 | 35.6 | 5.3 | 43.2 | 8.4 | 29.1 | 9.6 |

LOS | A | B | D | A | D | A | C | A |

Approach Delay | 14.9 | 12.1 |

Dillon Consulting Limited

Synchro 6 Report
Lanes, Volumes, Timings
10: Dundas Street East & Burke Street

Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR
---|---|---|---|---|---|---|---|---|---|---|---|---
Approach LOS | B | B
Queue Length 50th (m) | 1.6 | 75.7 | 12.0 | 21.3 | 30.5 | 0.0 | 1.7 | 0.0
Queue Length 95th (m) | 5.7 | 112.6 | #36.4 | 35.6 | 48.8 | 16.2 | 6.0 | 10.3
Internal Link Dist (m) | 860.1 | 959.2 | 771.9 | 267.6
Turn Bay Length (m) | Base Capacity (vph) | 404 | 1976 | 263 | 2401 | 382 | 477 | 393 | 402
Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0
Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0
Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0
Reduced v/c Ratio | 0.05 | 0.65 | 0.81 | 0.31 | 0.47 | 0.36 | 0.03 | 0.16

Intersection Summary
Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.81
Intersection Signal Delay: 15.3
Intersection LOS: B
Intersection Capacity Utilization 65.7%
ICU Level of Service C
Analysis Period (min) 15
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 10: Dundas Street East & Burke Street

---

Dillon Consulting Limited

Synchro 6 Report
<table>
<thead>
<tr>
<th>Movement</th>
<th>EBL</th>
<th>EBT</th>
<th>EBR</th>
<th>WBL</th>
<th>WBT</th>
<th>WBR</th>
<th>NBL</th>
<th>NBT</th>
<th>NBR</th>
<th>SBL</th>
<th>SBT</th>
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<tr>
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<td></td>
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<tr>
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<td>1900</td>
<td>1900</td>
<td>1900</td>
<td>1900</td>
<td>1900</td>
<td>1900</td>
<td>1900</td>
<td>1900</td>
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<td>212</td>
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<td>5%</td>
<td>5%</td>
<td>8%</td>
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### Turn Type

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<td>6</td>
<td>4</td>
<td>4</td>
<td>8</td>
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</table>

### Turn Phases

| Permitted Phases | 2 | 6 | 4 | 4 | 8 | 8 |

### Actuated Gates

| G (s) | 52.7 | 52.7 | 64.7 | 64.7 | 14.3 | 14.3 | 14.3 | 15.3 | 15.3 | 15.3 | 15.3 |

### Effective Gates

| G (s) | 52.7 | 52.7 | 64.7 | 64.7 | 15.3 | 15.3 | 15.3 | 15.3 | 15.3 | 15.3 | 15.3 |

### Actuated g/C Ratio

| 0.59 | 0.59 | 0.72 | 0.72 | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 |

### Clearance Time

| s | 5.0 | 5.0 | 4.0 | 5.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |

### Vehicle Extension

| s | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |

### Lane Grp Cap (vph)

| 405 | 1972 | 284 | 2401 | 292 | 261 | 301 | 269 |

### v/s Ratio

| Perm | 0.38 | c0.48 | c0.10 | c0.10 | 0.02 | 0.01 | 0.01 |

### v/c Ratio

| 0.05 | 0.65 | 0.75 | 0.31 | 0.61 | 0.11 | 0.04 | 0.04 |

### Uniform Delay, d1

| 8.0 | 12.5 | 10.4 | 4.6 | 34.6 | 31.6 | 31.2 | 31.2 |

### Progression Factor

| 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

### Incremental Delay, d2

| 0.3 | 1.7 | 10.2 | 0.3 | 3.8 | 0.2 | 0.0 | 0.1 |

### Delay (s)

| 8.2 | 14.2 | 20.6 | 4.9 | 38.4 | 31.8 | 31.2 | 31.3 |

### Level of Service

| A | B | C | A | D | C | C |

### Approach Delay (s)

| 14.1 | 8.4 | 35.1 | 31.3 |

### Approach LOS

| B | A | D | C |

### Intersection Summary

| HCM Average Control Delay | 15.3 | HCM Level of Service | B |

| HCM Volume to Capacity ratio | 0.70 |

| Actuated Cycle Length (s) | 90.0 | Sum of lost time (s) | 10.0 |

| Intersection Capacity Utilization | 65.7% | ICU Level of Service | C |

| Analysis Period (min) | 15 | c Critical Lane Group |

Dillon Consulting Limited
### Lanes, Volumes, Timings

**PM Peak Hour**

**10: Dundas Street East & Burke Street**

**Total Future Conditions**

<table>
<thead>
<tr>
<th>Lane Group</th>
<th>EBL</th>
<th>EBT</th>
<th>EBR</th>
<th>WBL</th>
<th>WBT</th>
<th>WBR</th>
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<td></td>
<td></td>
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</tr>
<tr>
<td>Ideal Flow (vphl)</td>
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<td>1900</td>
<td>1900</td>
<td>1900</td>
<td>1900</td>
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<td>1900</td>
<td>1900</td>
<td>1900</td>
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</tr>
<tr>
<td>Total Lost Time (s)</td>
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<td>5.0</td>
<td>5.0</td>
<td>5.0</td>
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<tr>
<td>Leading Detector (m)</td>
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<td>15.0</td>
<td>15.0</td>
<td>15.0</td>
<td>15.0</td>
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<tr>
<td>Turning Speed (kph)</td>
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<td>Yes</td>
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*Dillon Consulting Limited*
### Lane Group

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### Turn Bay Length (m)

- Base Capacity (vph): 251, 1828, 286, 2250, 420, 561, 433, 404
- Starvation Cap Reductn: 0, 0, 0, 0, 0, 0, 0, 0
- Spillback Cap Reductn: 0, 0, 0, 0, 0, 0, 0, 0
- Storage Cap Reductn: 0, 0, 0, 0, 0, 0, 0, 0
- Reduced v/c Ratio: 0.33, 0.62, 0.84, 0.51, 0.69, 0.47, 0.01, 0.05

### Intersection Summary

- Area Type: Other
- Cycle Length: 90
- Actuated Cycle Length: 90
- Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
- Natural Cycle: 70
- Control Type: Actuated-Coordinated
- Maximum v/c Ratio: 0.84
- Intersection Signal Delay: 17.2
- Intersection LOS: B
- Intersection Capacity Utilization 73.0%
- ICU Level of Service C
- Analysis Period (min) 15

**#** 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

### Splits and Phases

- Splits and Phases: 10: Dundas Street East & Burke Street

---

Dillon Consulting Limited
## HCM Signalized Intersection Capacity Analysis

10: Dundas Street East & Burke Street

### Lane Configurations

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<td>C</td>
<td>A</td>
<td>D</td>
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<tr>
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<td>C</td>
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### Intersection Summary

| HCM Average Control Delay | 17.4 | HCM Level of Service | B |
| HCM Volume to Capacity Ratio | 0.77 | |
| Actuated Cycle Length (s) | 90.0 | Sum of lost time (s) | 10.0 |
| Intersection Capacity Utilization | 73.0% | ICU Level of Service | C |
| Analysis Period (min) | 15 | |

Dillon Consulting Limited

Synchro 6 Report
## Waterdown Road / North-South Corridor
### Estimated Peak Hour Traffic Volumes

April 23, 2009

### AM Peak Hour

<table>
<thead>
<tr>
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### PM Peak Hour

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<td>5 285 95</td>
<td>15 560 315</td>
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### Mid-Block at South Roundabout

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<td>30 ↑ 10 ↑ 15</td>
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<tr>
<td></td>
<td>15 245 115</td>
<td>50 720 370</td>
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<td></td>
<td>45 ↑</td>
<td>30 ↑</td>
</tr>
</tbody>
</table>
FW: re: Waterdown Road Class EA - SWM

1 message

Marin, Jackson <JMarin@dillon.ca>  
To: "Toleone, Vito" <tolonev@burlington.ca>  
Cc: "MacLeod, Paul" <PMacLeod@dillon.ca>

Tue, Oct 13, 2009 at 2:34 PM

Good Afternoon Vito,

The emails below are for your reference and information. We will respond to the Conservation Authority once all comments on the draft ESR have been received. As a side note, I understand that pipework has already commenced on the adjacent project to the south.

Regards,

Jackson Marin, P.Eng  
Dillon Consulting Limited  
235 Yorkland Blvd, Suite 800  
Toronto, Ontario, M2J 4Y8  
T - 416.229.4647 ext. 2319  
M - 416.303.9669  
F - 416.229.4692  
JMarin@dillon.ca  
www.dillon.ca

Please consider the environment before printing this email

---

From: Luong, Ken  
Sent: Tuesday, September 15, 2009 12:51 PM  
To: Marin, Jackson; MacLeod, Paul  
Cc: Poon, Ivy

Subject: FW: re: Waterdown Road Class EA - SWM

Jackson/Paul,

FYI - below is HCA’s response to the proposed dry pond. They have identified a number of issues with the pond, which would require a significant effort to address. Let me know when you have some availability to discuss.

thanks
Ken

---

From: Cory Harris [mailto:charris@hrca.on.ca]  
Sent: Tuesday, September 15, 2009 12:45 PM  
To: Luong, Ken  
Cc: Poon, Ivy; Jennifer Lawrence; kbarrett@hrca.on.ca; smason@hrca.on.ca

Subject: RE: re: Waterdown Road Class EA - SWM

Ken,

Thanks for the email. Yesterday I had the chance to have the planners and ecologists together and I discussed your proposal with them. We’ve listed a number of things that need to be considered to determine the feasibility of the proposed pond site:
1. The top of bank must be delineated (physical or stable – whichever is greater). Staff typically require a 15 metre setback from the top of bank;
2. Stable top of bank must be determined by a geotechnical study in accordance with the document ‘Geotechnical Principles for Stable Slopes’ by Terraprobe and Aqua Solutions, June 1998;
3. Would the pond need to be lined to prevent seepage into the adjacent slope?
4. The limit of the woodlot must be staked; appropriate setbacks would be required;
5. Where will the facility outlet? Conservation Halton policy 3.51 ‘Public Infrastructure - Utilities, Trails and Transportation’ requires that storm sewer outfalls required to be constructed on valley walls greater than 6 metres in height will normally utilize a drop shaft and tunnel in order to protect the natural integrity of the valley wall;
6. Given that the facility would drain into a system with downstream coldwater habitat, thermal mitigation would be required;
7. Staff would request confirmation from the Region regarding their acceptance of placing the facility immediately adjacent to their reservoir. Geotechnical issues would have to be considered;
8. Permit approval would be required for the facility and outfall in accordance with Ontario Regulation 162/06.

Staff question what the cost difference would be for enlarging the downstream pipe sizes versus constructing a new facility. If enlarging the downstream stormsewers is not feasible, staff would give consideration to the proposal provided the above items can be addressed.

In terms of SWM criteria, channel erosion is an issue in this area and I would ask that the facility incorporate extended detention volume. Also, Enhanced/Level 1 quality must be achieved.

I have attached a pdf of the area indicating the valley lands and contours from our DEM for information.

I trust that this information is of assistance. Please do not hesitate to contact me with any questions.

Sincerely,

Cory

Cory Harris, P. Eng.
Water Resources Engineer
Conservation Halton
Tel: (905) 336-1158 x232
Email: charris@hrca.on.ca
Website: www.conservationhalton.on.ca

Please consider the environment before printing this e-mail.

From: Luong, Ken [mailto:KLuong@dillon.ca]
Sent: August 28, 2009 10:55 AM
To: Cory Harris
Cc: Poon, Ivy
Subject: FW: re: Waterdown Road Class EA - SWM

Hello Cory,

I believe that you have been corresponding with Ivy Poon of our office regarding the above noted project. I understand from Ivy that you require additional information with respect to the SWM facility proposed to service a portion of the Waterdown Road improvements.
In brief, we are proposing a small dry pond facility to service the minor system flows from approximately 5 ha of roadway drainage. The pond will be sized to attenuate the 5 year post development flows to predevelopment levels.

For your reference and review, I have attached two figures:

- Figure 3: drainage map illustrating the proposed drainage area, approximate location of the pond and outlet to receiving watercourse.
- Figure showing the extent and approximate area of the proposed SWM block.

We would appreciate if you can comment on the acceptability of the proposed strategy and provide any other design considerations/criteria from the Authority. If you have any questions, please do not hesitate to contact our office.

Thank you for your attention and enjoy the rest of the day.

Regards,

Ken

Ken Luong, P.Eng.
Dillon Consulting Limited
235 Yorkland Blvd, Suite 800
Toronto, Ontario, M2J 4Y8
T: 416.229.4647 ext. 2346
F: 416.229.4692
Kluong@dillon.ca
www.dillon.ca

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This message is directed in confidence solely to the person(s) named above and may contain privileged, confidential or private information which is not to be disclosed. If you are not the addressee or an authorized representative thereof, please contact the undersigned and then destroy this message.

Ce message est destiné uniquement aux personnes indiquées dans l'entête et peut contenir une information privilégiée, confidentielle ou privée et ne pouvant être divulguée. Si vous n'êtes pas le destinataire de ce message ou une personne autorisée à le recevoir, veuillez communiquer avec le soussigné et ensuite détruire ce message.

2 attachments
- image001.gif
  1K
- Proposed SWM Pond Location.pdf
  67K
Hi Syeda,

Further to our meeting you had requested that I follow up on two issues: (1) Ecopassage locations and; (2) Planting locations.

With respect to ecopassages, please see the attached air photo. I have marked up three locations where ecopassages would be beneficial to wildlife movement. We reviewed the location that was discussed at the meeting (Plate 22) and determined that it does not appear to be connecting two natural areas so there would be limited benefit to including an ecopassage at that location. I have identified 3 locations along with the relative importance of each location. Ideally all three locations should be advanced however, locations 1 and 2 are the most important. It is important to note that the Cootes to Escarpment Management Strategy, endorsed by both the City of Burlington and City of Hamilton, identifies the importance of providing for wildlife movement and ecopassage across the Escarpment in this area. Staff do not agree with the response provided by Dillon/the City that suggests that wildlife movement in this area is in strictly a north-south direction and recommend that there is significant east-west wildlife movement within the study area. Given the importance of providing for east-west movement, while staff are supportive of deferring the precise design of these ecopassages to detailed design, it is important to understand at this stage whether it is physically possible to provide for such passage below the road.

With respect to the compensation planting location, it is our recommendation that, given the national, regional and local significance of Sassafras Woods, any tree removal should be compensated on lands adjacent to Sassafras Woods in an area suitable for the long-term survival of the trees. In this respect, staff question whether the area immediately across from Flatt Road would be a viable location both from a size perspective as well as a survivability perspective. It is my understanding that the City was going to follow up with an approximate area that would be required to plant trees at a 3:1 ratio. Given that there are no lands owned by Conservation Halton, City of Burlington or City of Hamilton within or immediately adjacent to Sassafras Woods we have reviewed the air photography and note that the former landfill site along the eastern edge of Sassafras Woods may be a potential location for planting. The potential area is shown on the attached air photo. If this location is not suitable we recommend that the City may need to approach landowners to secure lands for compensation plantings.

I will respond to your email regarding the geotechnical requirements shortly. I am just checking with engineering prior to sending.
Jennifer Lawrence
Manager, Environmental Planning
Conservation Halton
Ph: 905-336-1158 ex. 266
Fax: 905-336-6684
www.conservationhalton.ca

ecopassages and planting area.pdf
647K
O - Potential Ecopassage Locations in order of preference

O - Potential Planting Location?

Printed On: 09/06/2010
Mapped By: CHOMAINE
FileRef: HPR 3x1

This product was produced by Conservation Halton and some information depicted on this map may have been compiled from different sources. This map has been produced for illustrative purposes only and should not be used for navigational purposes.
April 15, 2010

Ms Syeda Banuri
City of Hamilton
Public Works Department
320-77 James Street North
Hamilton, ON
L8R 2K3

Dear Ms Banuri:

Re: Waterdown Road Corridor Class EA
Draft ESR – August 2009
Response to CH Letters of October 22, 2009 and December 2, 2009
CH File: MPR 341

Staff of Conservation Halton have reviewed the response table, prepared by Dillon Consulting, and offer the following comments. The numbering system is reflective of that used in Conservation Halton’s original comments as well as the Dillon response table.

Responses to CH Letter dated August 2009 (Aquatic, Terrestrial and Planning Comments)

1. No response necessary.
2. Comment noted.
3. Addressed.
4. Not addressed - Staff appreciate the response however, the City of Burlington faced a similar situation during the preparation of the EA for the Waterdown Road interchange. The ESR deferred the determination of the appropriate location for replacement plantings to detailed design and it became evident that finding public land, in the vicinity that required planting, was difficult. We recommend that the ESR should identify specifically where the compensation plantings will take place in order to ensure that such compensation is in fact feasible. Otherwise, alternative forms of mitigation will need to be proposed.
5. Addressed, subject to review of text in final ESR.
6. Addressed, subject to review of text in final ESR.
7. Addressed - recommendation regarding Prickly Ash to be listed in comprehensive ‘Commitments’ section of ESR (referenced under comment 51), and given further consideration at detailed design.
8. Addressed, subject to review of text in final ESR.
9. Not addressed - Staff acknowledge the involvement of development applicants north of Mountain Brow Road in issues related to stormwater and culvert outlets, however the number and location of culvert crossings along Mountain Brow Road is also directly relevant to the Waterdown Road EA study. The provision of two culverts in this area is
extremely important to ensure the maintenance of downstream flows to Jefferson Salamander habitat. The consultants for Mountainview Heights are making every effort to include two separate stormwater pond outlets to these two different culverts in order to ensure maintenance of downstream flows. This information needs to be incorporated into the final ESR.

10. Addressed, subject to review of text in final ESR.
11. Addressed.
13. Addressed, subject to review of text in final ESR.
15. Staff appreciate the response however continue to recommend that it would be more appropriate to break down the criterion (Amount and Quality of Aquatic Habitat altered/disturbed/removed) into more specific criteria such as water quality, fluvial geomorphology, etc.
16. Addressed
17. Not addressed - There remains a difference of opinion with respect to the impact of the proposed road widening on habitat fragmentation, and the need to mitigate this impact. We reiterate our comments that we disagree with the assessment and are of the opinion that the conversion of a two-lane road to a four-lane road will have a negative impact on habitat connectivity across the road. The Niagara Escarpment is a major wildlife corridor of provincial importance and, as such, every effort must be made to maintain or improve this function.
18. Addressed.
19. Addressed, subject to review of text in final ESR.
20. Addressed.
21. Staff appreciate the response however we recommend that the impact that a watercourse crossing footprint has on a watercourse is related to the specific functions that are taking place at that location not solely the size of the footprint. We continue to recommend that additional information should be included in the ESR.
22. Not addressed - Given that Jefferson salamander habitat is confirmed south of Mountain Brow Road, staff reiterate the following questions: what will the overall impacts on habitat be and how will these impacts be mitigated?
23. Addressed.
24. Addressed, subject to review of text in final ESR.
25. Addressed.
26. Addressed, subject to the review of text in final ESR.
27. Addressed.
28. Addressed.
29. Addressed, subject to the review of text in final ESR.
30. Addressed, subject to the review of text in final ESR.
31. Addressed, subject to detailed design.
32. Addressed.
33. Addressed provided the consultants are confident that sufficient land area exists to implement any/all of the proposed stormwater management treatments.
34. Addressed, subject to detailed design.
35. Addressed, subject to detailed design.
36. Not addressed - Staff appreciate the additional information provided, but we continue to request that alternatives for an ecopassage, preferably in this area but potentially elsewhere, be given further consideration. Is it possible to construct the ecopassage above the storm sewer? Can a smaller crossing be installed to at least accommodate small to medium-sized animals? Is an overpass possible? Are there other measures (speed bumps, signage, speed signs, other road modifications) that could be used to provide a safer crossing for wildlife?

37. Addressed - recommendation regarding utility relocation impacts to be listed in comprehensive ‘Commitments’ section of ESR (referenced under comment 51), and given further consideration at detailed design.

38. Addressed, subject to detailed design.

39. Addressed, subject to detailed design.

40. Addressed – recommendation regarding lighting to be listed in comprehensive ‘Commitments’ section of ESR (referenced under comment 51), and given further consideration at detailed design.

41. Staff appreciate that our comments regarding tree box filters and bioretention swales were noted however we question whether these techniques can be accommodated within the design of this project.

42. Addressed.

43. At detailed design staff will work with the City to determine whether there are other appropriate methods to delineate the left turn lane that will not occupy as much road space, thereby minimizing the impacts on Sassafras Woods.

44. Not addressed - Staff recommend that the excavation for utilities, storm sewers, etc., can have a direct impact on the natural heritage and natural hazard features in the vicinity. We recommend that the ESR is the more appropriate stage to address these potential impacts as they could affect the proposed design/alignment of the road at this stage.

45. Not addressed - Staff are concerned that a geotechnical assessment for slope stability was not undertaken as part of the ESR. This is an item that Conservation Halton recommended at the beginning of the process as it is essential to understand the location of stable top of bank. Public infrastructure should not be proposed beyond stable top of bank. Conservation Halton’s policies require that all new development and/or redevelopment be located, at a minimum beyond the stable top of bank. This could significantly impact the proposed road alignment/design and needs to be addressed prior to detailed design.

46. Addressed.

47. Not addressed. The draft ESR states that mitigation will involve replanting within a cultural meadow along the east side of Waterdown Road. Conservation Halton requested a plan identifying the proposed planting location however, the response provided indicates that proposed locations will be developed in the detailed design. The response further states that it is expected that the plantings will be located on public property that is available in the corridor. Staff note that there is not a lot of public property within the corridor except for a short stretch of Waterdown Woods. Please see previous comments related to the need to identify proposed planting areas prior to detailed design.

48. Not addressed. See comment #22.

49. Addressed, subject to detailed design.

50. Addressed, subject to text in final ESR.

51. Addressed, subject to text in final ESR.

52. Addressed, subject to detailed design.
53. Addressed, subject to text in final ESR.
54. Not addressed. See comment #36.
55. Addressed
56. Addressed
57. Staff note that there may be planting restrictions in this area due to the presence of Jefferson salamanders. We would require confirmation from MNR that they would support planting in this area.
58. Addressed.
59. Addressed.
60. Addressed, subject to detailed design.
61. Addressed, subject to receipt of correct Geotechnical Report.
62. See below.
63. Staff note the mapping in the natural environment report will remain uncorrected, however this will not affect the outcome of the EA.
64. Addressed - applicable only to East-West corridor. Given that the consultants for the north-south and east-west corridors are the same we trust that this issue will be addressed in the East-West Corridor ESR.
65. Not addressed - Staff continue to recommend that the additional background sources listed be consulted at detailed design. Please include a commitment to do so in the ESR.
66. Addressed.
67. Addressed.
68. Addressed.
69. Addressed - applicable only to East-West corridor.
70. Staff note that a previous commitment to delineate Wetland 4 is not being fulfilled, however it will not affect the outcome of the EA.
71. Addressed, subject to text in final ESR.
72. Addressed - recommendation regarding additional botanical inventory to be listed in comprehensive ‘Commitments’ section of ESR (referenced under comment 51), and carried out at detailed design.
73. In order to reduce confusion, staff recommend that all figures and text within the final ESR should relate only to the north-south corridor. Inclusion of mapping and text related to the east-west corridor is confusing to the reader.
74. See comment #73. Staff trust that this inconsistency will be addressed as part of the East-West Corridor ESR.
75. Addressed - recommendation regarding limiting extent of grading to be listed in comprehensive ‘Commitments’ section of ESR (referenced under comment 51), and given further consideration at detailed design.
76. Not addressed. See comments #36 and #75
77. Addressed.
78. Staff appreciated the provision of the response table. We assume the final ESR will be issued shortly and would appreciate a similar response table at that time.
79. No response required.
Responses to CH Letter dated December 2009 (Engineering Comments)

1. Addressed, subject to final text in ESR.
2. Comment noted. Please include digital copies of the input and output files for the hydrologic and hydraulic models in the final ESR.
3. Not addressed. See Comment #45 above.
4. Addressed, subject to text in final ESR.
5. Addressed, subject to text in final ESR.
6. Addressed.
7. Comment noted. Assessment of fluvial geomorphic stability of the watercourses must be carried forward into detailed design.
8. Comment noted. Staff appreciate that the report will be referenced in the ESR however, we question whether the report was reviewed as part of the preparation of the ESR?
9. Addressed, subject to text in final ESR.
10. Addressed, subject to text in final ESR.
11. Addressed, subject to text in final ESR.
12. Addressed, subject to text in final ESR. Criteria will be included in detailed design.
13. Addressed, subject to text in final ESR. Will be carried forward to detailed design.
14. Addressed, subject to text in final ESR.
15. Addressed, subject to detailed design.
16. Addressed, subject to text in final ESR. The criteria provided must be applied to the SWM facility sizing and configuration as part of detailed design.
17. Addressed, subject to text in final ESR.
18. Comment noted. The issue of maintaining and/or expanding the existing storage capacity of the north side ditch along Mountain Brow Road, east of Flanders Drive is of paramount importance due to the presence of an endangered species in the vicinity. The drainage on Mountain Brow Road and the stormwater management for the adjacent subdivision (Pond 4) must be handled with great sensitivity. Pre-consultation meetings with agency staff must be held early in the design process so that this issue can be discussed in detail as it may have significant impacts to the design of the roads in the vicinity of Waterdown Road and Mountain Brow Road. Given the presence of an endangered species, the Ministry of Natural Resources will need to be consulted pursuant to the Endangered Species Act.
20. Slope stability issues not addressed. See Comment #45 above.
21. Addressed, subject to text in final ESR.
22. Addressed.
23. Addressed, subject to text in final ESR.
24. Not addressed. See Comment #45 above.
25. Addressed, subject to text in final ESR.
26. Addressed, subject to text in final ESR. Staff recommend that the summary section of the report should provide conclusions and recommendations for the entire study, not just for natural environment commitments.
27. Addressed, subject to text in final ESR.

Based on the above, there are a few major issues that have not been resolved. Specifically, these issues relate to: (1) the lack of a slope stability analysis and, therefore, the inability to demonstrate that the proposed road is not within hazardous lands; (2) the lack of specific information with respect to the areas proposed for replanting. Given that this is a significant component of the mitigation for the impacts to the natural heritage features we recommend that this should be identified at this stage of the process rather than at detailed design; (3) the extent to which the road widening will increase fragmentation of natural areas along the escarpment and
the need/feasibility of mitigating for this impact; (4) location of culvert crossings along Mountain Brow Road and potential impacts on Jefferson salamander breeding pond; and, (5) potential impacts of tree removals south of Mountain Brow Road and potential use of this area for compensatory planting, given Jefferson salamander habitat.

We trust the above is of assistance. If you require additional information, please contact the undersigned at extension 266.

Yours truly,

Jennifer Lawrence
Manager, Environmental Planning

cc: Ms Cathy Plosz, City of Hamilton, Planning, email
    Mr. Paul MacLeod, Dillon Consulting, email
    Mr. Robin Vandelande, City of Burlington, Planning, email
    Mr. Tom Eichenbaum, City of Burlington, Engineering, email
    Ms Carolyn Deloyde, Region of Halton, Planning, email
    Mr. Haiqing Xu, Region of Halton, Planning, email
    Mr. John Pisapio, MNR, email
    Ms Melinda Thompson-Black, MNR, email

jl/devl planning/ea/hamilton/waterdown Aldershot tmp/response to CH letters 2009.doc
October 26, 2010

Mr. Vito Tolone
City of Burlington
426 Brant Street
Burlington, ON
L7R 3Z6

Dear Mr. Tolone:

Re: Waterdown Road Corridor Class EA
North-South Section
Geotechnical Information
CH File: MPR 341

Staff of Conservation Halton have reviewed the September 13, 2010 Technical Memorandum from Golder Associates. The technical memorandum was in response to the following concern that Conservation Halton reiterated in our December 2, 2009 letter:

Section 4.5 ‘Geotechnical and Geo-Environmental Site Assessments’, specifically Section 4.5.1 indicates that the deep ravine on the east side of Waterdown Road, south of Flatt Road was considered as part of the assessment however, staff note that it was not included within the scope of the Geotechnical Investigation as prepared by Peto MacCallum Ltd. in Appendix F of the EA document. The stability of the slope (i.e. stable top of slope location) on the east side of Waterdown Road, south of Flatt Road must be assessed particularly for the section between stations 4+200 and 4+500. The stability assessment must also include assessment of erosion processes at the toe of the slope (i.e. possible inclusion of toe erosion allowance in determination of stable top of slope location). This information is critical in determining a suitable location for the road alignment in addition to assessing the design implications and associated costs for any retaining wall structures along the east side of the road. Ultimately, all work within 15 metres of the stable top of bank will require a Permit from Conservation Halton and will need to conform to Policy 3.51 in Conservation Halton’s Policies, Procedures and Guidelines for the Administration of Ontario Regulation 162/06. Of note is Policy 3.51(c) wherein transportation corridors are required to locate outside of valley and stream corridors, including the regulated tableland area (adjacent 15 metres), wherever possible. Staff recognize that there is an existing road immediately adjacent to the physical top of bank in some locations, and likely beyond the stable top of bank in those locations. At a minimum, the City should be striving to relocate the road such that, at a minimum, it is outside of the hazard (i.e., outside of the long-term stable slope limit).

Based on our review of the technical memorandum we offer the following comments:

1. The analysis did not follow the methodology in ‘Geotechnical Principles for Stable Slopes’. No scoring table was completed to determine the required level of investigation.
2. The impact of a toe erosion allowance on the stable top of bank location was not discussed within the report. The need for this component of the analysis was raised in our December 2, 2009 letter.
3. Staff have concerns with the level of assumptions made within the report, particularly the application of subsurface information at Borehole 1 for both cross section locations and the assumptions that the soil layer interfaces were assumed to be at constant depth from ground surface. Borehole 1 was completed on the east side of Waterdown Road at the T-intersection with Flatt Road as part of the Peto McCallum field work of December 15, 2008 (approximately 200 metres from the cross section locations). Staff are concerned with the application of this borehole data for stable top of bank determinations at the cross section locations given the appreciable distance between the borehole and the cross sections.

4. Staff note that a stable top of bank location for Area 2 was not included in the analysis. Please find enclosed a copy of the map that was provided to the City identifying the two study areas.

5. While the submitted analysis is helpful in refining a stable top of bank location and the impacts of an expanded Waterdown Road for the areas of concern within the project area, staff find the analysis to be deficient in accurately defining the stable top of bank locations along the valley (for the purposes of Ontario Regulation 162/06). As such, at detailed design a more comprehensive slope stability assessment will be required that addresses the points raised above.

Based on the above, and our review of the draft ESR, staff recognize that the road alignment south of Flatt Road is highly constrained as a result of valley features on both sides of the road and infrastructure on the west side (hydro tower). We request that the City commit to working with Conservation Halton during detailed design to ensure that every effort is made to minimize encroachment into the valley. In addition, we request that the City commit to preparing a more detailed geotechnical assessment, to the satisfaction of Conservation Halton, at detailed design. These commitments should be included in the final ESR.

We trust the above is of assistance. If you require additional information please contact the undersigned at extension 266.

Yours truly,

[Signature]

Jennifer Lawrence, MCIP, RPP
Manager, Environmental Planning

encl.

cc: Ms Melanie Jajko, City of Hamilton, email
    Ms Cathy Plosz and Monir Moniruzzaman, City of Hamilton, email
    Mr. Paul MacLeod, Dillon Consulting, email
    Mr. Haiqing Xu, Region of Halton, Planning, email

jil/devl planning\eat\hamilton\waterdown road\geotechnical report.doc
Geotech Slope Assessment (both sides of road and of Flat Rd.)
<table>
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<td>1</td>
<td>Staff of Conservation Halton have reviewed the above noted draft document, prepared by Dillon Consulting Limited and offer the following comments. A portion of the study area is within Hamilton Conservation Authority's jurisdiction and, as such, our comments pertain only to the portion of the Study Area within the Grindstone Creek watershed. We note however that the Hamilton Conservation Authority has raised significant issues with respect to the conclusions, particularly as they relate to impacts to a Provinceably Significant Wetland. Although outside of our watershed, staff support the Hamilton Conservation Authority's comments as they relate to the importance of protecting and maintaining Provinceably Significant Wetlands. Given the historical loss of wetlands in Southern Ontario we recommend that every effort should be made to avoid the loss of any wetland features, especially wetlands that have been identified as having Provincial significance. Conservation Halton staff provided comments on a previous draft of the Natural Heritage components of the study. As a result, our comments below are divided between outstanding comments from our previous letter and comments on the draft ESR. Comments noted. Discussions are ongoing with Hamilton Conservation Authority.</td>
<td>Note that the reference should be to a CH letter of July 6, 2009</td>
<td>Thank you for the clarification.</td>
<td>N/A</td>
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<td>2</td>
<td>Section 3.0 (Results) - Ecological Land Classification - In response to a previous comment that FOD2-2 was listed but not mapped, the vegetation type has been removed from the list. However, the ELC data sheets for FOD2-2 (polygon 026) are included in Appendix B, and butternut is on the species list. Please clarify the location of this community and, specifically, the location of the butternut.</td>
<td>The ELC sheet from Polygon 026 is for an area that is outside of the study area. It has been removed from the appendix. For butternut locations, please refer to response # 4.</td>
<td>Item addressed.</td>
<td>N/A</td>
</tr>
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<td>3</td>
<td>Section 3.4 (Incidental Wildlife) - The putative bobcat vocalization is highly significant for Halton/Hamilton. Special surveys should be undertaken to determine whether this species is actually present.</td>
<td>We understand that the previous assessment that discussed the possibility of a bobcat has been re-issued indicating a mis-identification. As such, surveys for this species are not warranted. Please provide further detail on how this species was misidentified and what it is now thought to be.</td>
<td>Item addressed.</td>
<td>Please contact the assessment authors (Savanta) to discuss the how this was ultimately resolved and documented.</td>
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<td>4</td>
<td>Appendix A - ELC Plant Species Lists for Sites 006, 007b and 026 - Butternut is noted within these communities (SWD3-2, SWD2-2 and FOD2-2), but not shown on Figure 4 or discussed in relevant sections of the main document.</td>
<td>Possible butternut trees were identified in Sites 006 and 007b which form part of the Centre Road Woodlot. Subsequent field investigations with Terry Schwan of the MNR and DNA analysis confirmed two pure butternuts. The location of these is shown on the Figure 4. Community 026 refers to a community that is west of King Road and outside the study area. This ELC sheet has been removed from the ESR.</td>
<td>Item addressed.</td>
<td>N/A</td>
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<td>5</td>
<td>Previous comments with respect to Crossings #6 — 14 have not been addressed.</td>
<td>The numbering referred to in the July 6, 2009 letter refers to an older figure. A brief description of each is provided below for clarity: Crossing 6 is the same on both Figures. This crossing is a CSP culvert draining roadside drainage and is proposed to be a CSP under the expanded road. Crossings 7 to 12 were replaced with three crossings 7 to 9 after further review of the site. All three crossings drain roadside water, while crossing 9 also receives water from a pond on the north side of the road. All three are CSP culverts and are proposed to be replaced with CSP culverts. Crossing 13 is now labeled as Crossing 11 and is described in more detail below.</td>
<td>Item addressed subject to review of final ESR.</td>
<td>N/A</td>
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<td>6</td>
<td>Staff continue to recommend that natural hazards, including karst, flood plains, stable top of bank and meander belt should be discussed in the ESR as they each could have implications on a preferred alignment design. Staff note that this was raised in our letter of July 6, 2009 and has not yet been addressed.</td>
<td>Text regarding these natural hazards will be added to the ESR. The implications of any of these features on the road design will be considered.</td>
<td>Item not addressed. Staff continue to recommend that natural hazard mapping be included in the final ESR.</td>
<td>Text will be added to the final ESR that includes a commitment to the completion of natural hazard assessments during detailed design at all appropriate locations throughout the East-West corridor including all key watercourse crossings and through the Upcountry alignment. Note that a subsequent alignment adjustment is being recommended through the Upcountry development that moves the new road west and out of the floodplain and hazard lands.</td>
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<td>7</td>
<td>Please consider a consistent approach to labelling the various figure/tables and exhibits and ensure they are all listed in the Table of Contents for ease of reference.</td>
<td>This will has been done.</td>
<td>Item addressed subject to review of final ESR.</td>
<td>N/A</td>
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<tr>
<td>8</td>
<td>Page XVIII the first paragraph references a Section of the report that has not been assigned (Section XX).</td>
<td>Reference added.</td>
<td>Item addressed subject to review of final ESR.</td>
<td>N/A</td>
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<td>9</td>
<td>Table 3-2 --- Criteria should be expanded to &quot;Potential for impact on terrestrial features and functions&quot;. Potential impacts on species at risk should be included as an indicator, given that they are identified as one of the &quot;main natural environmental issues of concern&quot; on page 1-3. Potential impacts to wildlife movement should also be included as indicators,</td>
<td>The criteria and indicators in Table 3-1 were developed during Phase 2 work and used to compare broad corridor alternatives. All text in the ESR in Chapter 3 has been taken directly from the previously published Phase 2 Report and has not been altered. The criteria “Potential for impact on terrestrial features” was carried forward into Phase 3 and 4 work to evaluate design alternatives. Where appropriate, additional or modified indicators were introduced to allow the consideration of issues specific to each alternative set being considered. For example, in the</td>
<td>Item addressed.</td>
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|       | evaluation of alternatives through the Centre Road PSW, this criteria was expanded to include the following indicators:  
  - Amount, nature and significance of natural habitat removed,  
  - Number of significant trees along existing roadway removed,  
  - Potential for effects to adjacent habitat  
  - Fragmentation of natural areas,  
  - Effects on terrestrial corridor connectivity/linkages,  
  - Opportunity to enhance degraded natural areas  
  
  Within these more localized indicators your suggested expanded criteria could be addressed, as the specific alternatives under more detailed evaluation demanded. Further, once the preferred alternative was selected and additional impacts and mitigation measures were investigated or discussed, even more detailed indicators could be introduced. That is why the “potential impacts on species at risk was identified on page 1-3 as a main natural environmental issue of concern. |
| 10    | Section 3.4.1 (Hybrid Option — Dundas to Parkside Connection Options), page 3-11 — The use of the terminology “Options 1-5” for the hybrid options is somewhat confusing given that the main Options for the east-west road are labelled Options 1-4. Perhaps a different type of terminology could be used for the Dundas to Parkside Connection Options (i.e., Options A-E).  
  
  Also, within this section, it is stated that Option 2 (connection along the eastern limit of Upcountry Estates) is the most preferred option for a number of reasons. One of the impacts is listed as the removal of 0.64 ha of "other woodlot". Staff could not locate a table within the study that clearly outlines the ranking evaluation of these connection options and would prefer to review this information in advance of agreeing to the selection process. The text does not address the proximity of Option 2 to the Grindstone Creek tributary and the impacts to the flooding hazards, erosion hazards, fish habitat and the watercourse that would occur with Option 2. This requires further discussion and analysis. |
|       | As indicated above, all text in Section 3 of the draft ESR is taken directly from previously released documentation. The appendix materials contain the original documents and Section 3 contains a summary only of this information. Reflecting the labeling of the Phase 2 alternatives at this point is not considered practical or a necessity.  
  
  The tables that summarize the evaluation assessment for the Hybrid Option is contained in Appendix A of the Phase 2 Report. These have also been attached to this Comment – Response table. |
|       | Item addressed given that information has been taken directly from previous ESR. | N/A |
11 Page 4-9 - The provincial rank for butternut is identified in the first paragraph as S4, then as S3? in the subsequent paragraph. Please clarify. Please ensure that MNR is involved in any discussions related to endangered species. Staff have copied Melinda Thompson-Black, MNR-Aurora, for her information.

According to the most recent NHIC search, butternut is listed as S3?

The MNR has been contacted regarding the butternuts and have conducted analysis to determine the purity of these trees. During the detailed design stage, the MNR will continue to be involved to ensure that the Endangered Species Act is appropriately dealt with.

Item addressed subject to MNR acceptance.

12 Figure 4.2 - Staff question why ELC and vegetation surveys were not completed for the natural area along Grindstone Creek, south and north of Parkside Drive? We note that the observation of the nationally Threatened chorus frog was in this vicinity.

ELC was not completed at the crossing at Grindstone Creek as the work proposed in this area involves replacement of the existing structure with a larger structure spanning the watercourse. An aquatic habitat assessment was conducted in the vicinity of this crossing location.

City of Hamilton is working with MNR (Guelph District) about SAR in this area. MNR has provided a list of 36 species to carry out an assessment for potential habitat in this area. Threatened Chorus frog can also be added to the list. The work plan for assessment was also circulated to CH in August 2010 for information.

Please refer to discussion regarding the SAR Screening Report, on our letter dated January 7, 2011 and Western Chorus Frog. Western chorus frog was observed within the WATMP study area on April 8, 2008 during amphibian surveys. The only observed record was in the Grindstone Creek – Northwest Branch area. This area of the alignment includes an upgrade of the existing road crossing and will not impact the surrounding habitat for western chorus frogs. During detail design ELC mapping and habitat assessment work for the Western Corus Frog will be undertaken for the Grindstone Creek crossing of Parkside Drive.

13 Figure 4.2 - It was noted in the Natural Environment Report that property access was restricted in the lands east of the Upcountry Estates. As such, staff recommended that additional field surveys be undertaken at detailed design as necessary. The area northeast of Upcountry Estates labelled as “Forest” appears to be a swamp, based on an air photo review. This could result in additional mitigation requirements pertaining to maintenance of the hydrologic regime of the wetland. The ESR should provide for future commitments to undertake this work.

Additional field work will be undertaken in this area during the detailed design. A commitment to this will be added to the ESR text.

Item addressed subject to review of final ESR.

14 Figure 4.2 - Wetlands identified in the South Waterdown Subwatershed Study (particularly Wetland 5 in the vicinity of Dundas Street) should be included on this figure.

Wetland 5 will be included on the Figure in the final ESR.

Item addressed subject to review of final ESR.

15 Page 4-10 - On the basis of Figures 2 and 4 in the COSEWIC Assessment and Update Status Report on the Western Chorus Frog (Pseudacris triseriata) in Canada, staff are of the opinion that all chorus frog populations within Conservation Halton's jurisdiction belong to the Great Lakes/St. Lawrence — Canadian Shield population and as such should be considered members of a nationally Threatened species.

This note will be added to Section 4.3.4.

Item addressed subject to review of final ESR.

16 Section 4 3.6 (Aquatic Resources — Field Work Results), page 4-14 — this section references Figure 4.5 however, Figure 4.5 identifies watercourse crossings within the north-south road corridor. Staff note that Figure 6.1 appears to identify the watercourse crossings within the east-west corridor.

This has been addressed.

Item addressed subject to review of final ESR.
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<td>17</td>
<td>Section 4.3.6, page 4-15 — Crossing #4 - During a site visit to this crossing location on Oct. 14, 2009, it was noted that a defined channel was present here with an obvious channel that had been scoured clean of vegetation. It is staff’s opinion that this feature falls under the definition of a watercourse pursuant to the Conservation Authorities Act and that it provides direct fish habitat during certain parts of the year when runoff levels are sufficient. In addition, this watercourse is located within a hedgerow and is surrounded on both sides by mature trees with a fairly dense understory of woody herbaceous vegetation. This vegetation is providing a variety of useful functions that benefit the watercourse. On site, CH staff estimated that the bankfull channel on this watercourse would be up to two metres in width. Dillon's fisheries biologist who was also present during this site visit agreed to that width during the visit. As such, it is requested that any transportation crossing structure placed here span a minimum of two metres over the width of the watercourse. It is also requested that the length of the culvert/bridge be kept to the minimum possible to reduce disturbance to the watercourse and hedgerow. It is also requested that the crossing structure be designed as an open bottom structure to minimize disturbance to the interaction between the hyporheic zone and the bed of the watercourse. An open bottom structure would also allow for long term provision of natural substrate on the bed of the creek as this part of the creek contributes to the productivity of aquatic invertebrates which provide food for fish. This section of Grindstone Creek is a headwater creek and one of its main functions is to provide primary and secondary productivity to downstream reaches. The bottom of the creek in this headwater reach provides functionality with respect to the provision of allochthonous inputs to the downstream reaches of the watercourse. The construction of an open bottom structure at crossing # EW4 would be helpful in facilitating long term secondary productivity to occur at the location of the crossing structure. The use of an open bottom structure allows the functional connectivity between the hyporheic zone and the invert of the creek bottom to remain intact. Staff request that this be included as a commitment in the final ESR and that the description throughout the document be revised accordingly.</td>
<td>The CA’s recommendation regarding the design of the crossing at this location will be incorporated into the detailed design of this facility. This will be added in the commitments table.</td>
<td>Item addressed subject to review of final ESR.</td>
<td>N/A</td>
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<td>18</td>
<td>Section 4.3.6 (Grindstone Creek — Northwest Branch Crossing #5) Page 4-16 — the tributary of Grindstone referred to in the report as the ‘Northwest Branch’ is considered to be the ‘Main Branch’ of Grindstone Creek.</td>
<td>This change will be made in the Final ESR.</td>
<td>Item addressed subject to review of final ESR.</td>
<td>N/A</td>
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<td>19</td>
<td>Section 4.3.6 (Grindstone Creek — Northeast Branch Crossing #6) — Please indicate the date (including the day, month and year) when the survey was completed for this crossing location.</td>
<td>This survey was completed on July 11, 2008.</td>
<td>Item addressed.</td>
<td>N/A</td>
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<td>20</td>
<td>Section 4.3.6 (Drainage Conveyance Crossing #10) - Please provide the following data regarding the drainage feature located at EW # 10: photographs of the upstream and downstream ends of the existing water conveyance structure, details regarding the presence of groundwater seepage, thermal regime of the watercourse, bankfull channel width of the watercourse, connectivity to downstream fish habitat, stability (flashiness) of hydrological regime in this tributary, presence of aquatic invertebrates, and presence of fish.</td>
<td>The upstream and downstream photos are provided as an appendix to this Comment-Response table. No groundwater seepages were observed in the area of the new crossing. No baseflow was observed. The channel width varies; upstream of the</td>
<td>Item addressed subject to review of final ESR.</td>
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<td>21</td>
<td>Section 4.3.6 (Upper Hager Creek Crossing #11) - No indication is provided in the habitat description here regarding the following habitat parameters: presence of groundwater seepage, thermal regime of the watercourse, bankfull channel width of the watercourse, connectivity to downstream fish habitat, stability (flashiness) of hydrological regime in this tributary, presence of aquatic invertebrates, and presence of fish. Staff request that this information be provided. In addition, within this section, there is reference to Crossing 3 which staff assume should be Crossing #11. Please clarify.</td>
<td>crossing it is a road side ditch greater than 2 metres in width. Downstream of the crossing the width is less than 1 metre. The system is ultimately connected to the Upper Hager Creek through tributaries to the south. As an intermittent road side ditch, the channel would have a hydrological regime typical of urban run off. In the area of the crossing the drainage feature is an intermittent road side ditch that flows into an intermittent dry flat channel. The channel was dry during the time of survey and it is not expected that this area will provide habitat for fish or aquatic invertebrates. This will be added to the commitments table.</td>
<td>Item addressed.</td>
<td>N/A</td>
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<td>22</td>
<td>Section 4.3.9 (Hydraulic Assessment), page 4-19 — Reference is made to Figure 4.5 however, as noted above, this figure relates to the north-south corridor. Also, this section of Appendix C has been submitted to HCA (report dated May 2010) and will be To date, staff have not received Appendix C. The response indicates that the report</td>
<td>The upstream and downstream photos are provided in an appendix to this Comment-Response table. The channel width varies; upstream of the crossing it is a road side ditch less than 2 metres in width. Downstream of the crossing the width is 1.5 to 2 metres. Upstream there is very limited flow, downstream the amount of flow increases indicating a baseflow source. The downstream hydrological regime would be less flashy than a typical urban runoff system due to the baseflow source. The upstream portion of the crossing is intermittent with limited flow while the downstream crossing has more sustained flows. The areas downstream would provide suitable habitat for fish and aquatic invertebrates.</td>
<td>A revised Appendix C will be provided.</td>
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the report makes reference to detailed hydraulic and hydrologic modeling outputs that are provided in Appendix C. Staff noted that Appendix C was not included in the document. Please provide digital and hard copies of this information at the earliest opportunity. Also, reference is made to 12 crossing structures however, only 11 are shown on Figure 4.4 and described within the text.

References have been revised.

Item addressed subject to review of final ESR.

23 Section 4.5.2 (Hydrogeology — Geological Setting), page 4-25 — reference is made in the first paragraph to Cross Section A-A in Figure 4-6 however, Cross Section A-A is found on Figure 3. Please revise.

This section also states that Cross Section A-A was constructed using MOE well records. Staff question whether the individual borehole results were also used to further refine this figure?

With respect to Figure 3 (Cross Section A-A) — Based on this figure it would appear that the water table is at the level of the invert of two watercourses within the study area, although the watercourses have not been labeled on the figure. Please identify the names of the watercourses as well as the month and year when the water table elevations were measured.

Will the borehole information be included in the final ESR? This information would be helpful in assessing the analysis within the document.

References have been revised.

Site visits and discussions with well owners were used to refine this figure.

Agreed. This will be added to the text.

Appendix materials will contain all borehole information generated as part of this study. Additional borehole work and geotechnical assessments will be completed during the design phase.

Item addressed subject to review of final ESR.

24 Section 4.5.2 (Hydrogeology — Potential Impacts of Road Construction), page 4-30 - Staff note that the road construction includes dewatering activities associated with the installation of various services and bridge and culvert footings. More detailed assessment of hydrogeologic conditions within the project limits, and the potential impacts of dewatering activities, must be completed in conjunction with the detailed design of the road.

We agree that more detailed hydrogeology is appropriate at the detailed design stage. This work includes dewatering planning.

Dewatering planning will be completed as part of the detailed design. This includes potential impacts to private wells.

Item addressed.

25 Section 4.5.2 (Hydrogeology — Potential Impacts on Groundwater Quality), page 4-31 — it is stated that the construction of the proposed corridor will not have any foreseeable impacts on groundwater quantity because the construction activities will not involve any groundwater extraction. It has been our experience that the construction of watercourse crossings sometimes requires dewatering in the event that the installation of the crossing foundations intercepts groundwater. This should be taken into consideration when evaluating potential impacts to private wells in the vicinity of watercourse crossings.

Dewatering planning will be completed as part of the detailed design. This includes potential impacts to private wells.

Item addressed.

26 Section 5 — please ensure that all figures, maps and Tables are labeled for ease of reference. There are at least two figures with alignment options/design drawings that are not labeled within this section.

Agreed – this has been addressed.

Item addressed subject to review of final ESR.

27 Page 5-2, Section N4 - As identified in the Grindstone Creek Watershed Study, the valley provides an ecological linkage and linkage restoration opportunity for natural areas north and south of Parkside Drive. As such, proposed works in this area should seek to improve wildlife passage and habitat connectivity.

The new crossing of the Grindstone Creek will be wider than the existing crossing and facilitate increased wildlife use.

This will be further discussed with CH during the detailed design stage.

While staff agree that discussions should occur at the detailed design stage to determine how wildlife passage and connectivity can be improved, we recommend that this be a commitment in the EA and budgeted accordingly so that this recommendation can be implemented at detailed design.

A commitment has been added to the commitments section to ‘seek to improve wildlife passage and connectivity as part of the design of the expanded Grindstone Crossing’.

N/A
As noted in our previous comments, it is unfortunate that the Study Team only engaged the citizens in developing the criteria importance as it is possible that the exclusion of the agencies in this process has led to the issues that are arising at this time in the study.

Item addressed.

Comment noted. Note that a subsequent alignment adjustment is being recommended through the Upcountry development that moves the new road west and out of the floodplain and hazard lands. Revised HEC-RAS model have been provided to Conservation Halton for the recommended alignment.

As indicated in the text, both the East-West Corridor Neighbourhood Advisory Committee and the Project partners developed criteria importance. Other groups, such as Conservation Halton or business groups, were not involved in this.

As noted in our previous comments, it is unfortunate that the Study Team only engaged the citizens in developing the criteria importance as it is possible that the exclusion of the agencies in this process has led to the issues that are arising at this time in the study.

As indicated in the text, both the East-West Corridor Neighbourhood Advisory Committee and the Project partners developed criteria importance. Other groups, such as Conservation Halton or business groups, were not involved in this.

Please see the response to I.D. #9 for a further discussion on the evaluations indicators. The broad criteria were used for the evaluation of the design alternatives and, in most cases, more specific indicators were developed for each corridor section under evaluation. The specific indicators used in each evaluation were dependent on the environment potentially affected (i.e. there would be no point in including an indicator for a specific type of feature that was not present in the area. All potential impact differences were considered.

Further consideration and description of impacts and mitigation of the selected undertaking is presented in Section 6 of the ESR. In addition to this, more detailed studies have been recommended for completion in the detailed design phase in some areas to address additional issues, such as those raised by Conservation Halton in this comment.

Table 5-1 - "Potential for impact on terrestrial features" is listed as "High-medium" importance to Project Partners. Please note Conservation Halton staff consider this to be a criterion of high importance. Similarly, "Potential for Impact on aquatic features" is given an importance of Medium from the Project Partners. Given the existence of direct fish habitat, Conservation Halton would have likely assigned a High importance ranking to this criterion. Although it would appear that the Study Team solicited advice from the Neighbourhood Advisory Council, Conservation Halton staff cannot recall being requested to provide criteria importance to the Study Team. Please provide clarification as to how the relative importance was determined by the Project Partners. Additional analysis may be required upon further review of the criteria rankings.

The Indicators under "Natural Environment" are slightly different from the Indicators used when assessing the connection between Dundas Street and Parkside Drive. Please explain why different indicators were chosen for the overall corridor versus the Dundas — Parkside connection.

In the "Natural Environment" Criteria Group, there is only one criteria relating to impacts on aquatic features. In this table, all potential impacts need to be considered to evaluate the potential risks and impacts associated with the project on all affected aquatic features. Some examples of indicators that should be listed include: (1) Impacts on basewell of all affected creeks; (2) Impacts on flow velocities and fish passage in all affected creeks; (3) Impacts on surface and groundwater quality in all affected creeks; (4) Potential for removal or creation of any existing or non existing barriers to fish passage; (5) Potential to cause excessive erosion or aggradation of sediments upstream and downstream of all proposed crossing alterations; (6) Will any channel realignments take place? What will the effects and risks of proposed channel realignments be?; (7) What in-stream aquatic habitat changes (e.g. loss of pools, flattening of riffles, widening of wetted width of existing channels, reductions in low flow water depths) are expected as a result of the proposed crossing replacements?; and, (8) How much natural riparian vegetation will be lost from around the affected flow features and what effect will this have on aquatic habitat in these features? Will efforts be made to reduce losses of riparian (waterside) vegetation during the construction phase of the project? Will all removed riparian vegetation be replaced with appropriate regionally native riparian species?

Also, Table 5.1 does not include the requirement to mitigate the impacts to the flood plain through the North-South (N5) portion of the road adjacent to the Upcountry lands. Additionally, the meander belt of the existing watercourse must be determined such that the road can be set back an appropriate distance from the erosion hazard. These issues are critical as they will likely impact the road alignment and the property impacts for the Upcountry lands to the west.
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<td>29</td>
<td>Table 5-4 (Hydro Line Alignments) — It would be helpful if this section of the road corridor had a detailed air photo and alignment options shown. Based on our previous comments with respect to Crossing #4, please revise the portion of the Table that identifies the potential for impact on aquatic features accordingly.</td>
<td>A figure will be provided showing the alternatives. The evaluation table will be modified to include reference to Crossing 4.</td>
<td>Item discussed subject to review of final ESR.</td>
<td>N/A</td>
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<td>30</td>
<td>Table 1 (New Waterdown East-West Road — Option 4 vs. 5 Review), after page 5-30 — under &quot;Potential for impact on Aquatic Features&quot; please complete the number of metres of flood plain that will be crossed in this Option. Currently the text reads, &quot;xxx m of flood plain&quot;.</td>
<td>This will be detailed in the Final ESR.</td>
<td>Item addressed subject to review of final ESR.</td>
<td>N/A</td>
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<td>31</td>
<td>Section 5.6 (Sawtooth Option), page 5-35 — this section references Figure 5.8 however staff could not locate this figure in the report.</td>
<td>References to figures have been modified</td>
<td>Item addressed subject to review of final ESR.</td>
<td>N/A</td>
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<td>32</td>
<td>Section 5.8 (N5 — Upcountry Development), page 5-38 -- this section states that a reserve for this road was determined by the developer and adopted as the most appropriate alignment. Staff are concerned with this statement given that we have requested that the EA review the most appropriate alignment given the constraints associated with the tributary of Grindstone Creek that parallels the eastern lot line of Upcountry Estates and the associated flood plain that occurs on the Upcountry lands. It is our understanding that this phase of development on the Upcountry lands has not been draft plan approved and, as such, the location of the road should not be limited to that which has been reserved by the developer to date. The impacts of the proposed road alignment on the storage and conveyance functions of the flood plain must be addressed prior to the road alignment being determined as acceptable. Additional analysis of this issue, and determination of the meander belt/erosion hazard, must be completed prior to the road alignment being finalized.</td>
<td>We do recognize that the floodplain and erosion hazards must be addressed prior to finalizing the road alignment, which will take place during detailed design. Opportunities to adjust the road alignment will be considered during detailed design and in consultation with Conservation Halton and the developer. This issue will need further discussions between the Conservation Halton and City staff.</td>
<td>Item not addressed. The hazards need to be assessed and confirmed as the EA stage in order to determine the feasibility of the road alignment.</td>
<td>Note that a subsequent alignment adjustment is being recommended through the Upcountry development that moves the new road west and out of the floodplain and hazard lands.</td>
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<td>proposed road locations/roundabouts however, there is no labelling on the figure so it is difficult to determine which one is the preferred alignment. Based on the text on page 5-38, it would appear that the study team is recommending the most easterly alignment of the road. This alignment would impact the woodlot/wetland at the northeastern property boundary of Upcountry Estates. Staff require further justification for the shift to the east as being the preferred alignment. Staff recommend that the &quot;triangle&quot; of land that would be left as a result of the westerly alignment could be used for tree planting to compensate for the loss of trees along the road alignment and to provide additional buffering to the existing woodlot/wetland. with considerations as noted in the report. HCA has established the meander belt/erosion hazard as part of the delineation of areas included in Ontario Regulation 162/06. Dillon reviewed the meander belt limits related to this section of the road and recommends detailed studies to refine this limit (i.e., fluvial geomorphology, geotechnical analysis) are to be completed during detailed design as the road alignment is being finalized. While the road alignment appears to be in the current meander belt limit, there is flexibility to move the alignment based on the detailed assessment of the meander belt width. In the event that the road alignment can not be located outside the meander belt width, opportunities to restore the original meander belt pattern (prior to creek realignment which occurred in the 1970’s) can be met through the design of the culverts and stream rehabilitation works following current channel design methods. Reference to figures has be reviewed and adjusted where required. Additional text will be added to the ESR. This area can be assessed for tree planting compensation potential. Text will be added to the ESR in this regard. Further discussion regarding the Upcountry alignment will be held between Conservation Halton and City of Hamilton staff. Item addressed (related to figure references) subject to review of final ESR. Item addressed subject to review of final ESR.</td>
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<td>33</td>
<td>Section 6.3.1 - Exhibit 6-3 (East Parkside Drive Roundabout) — this exhibit appears to be identifying the preferred location of the roundabout at Parkside Drive however, this differs from the text in Section 5.8 which seems to indicate that a more easterly alignment is the preferred location. Staff prefer the alignment as shown in Exhibit 6-3 for the reasons outlined earlier in this letter. Please confirm which alignment is the ultimate preferred alignment for the roundabout at the north end of Upcountry.</td>
<td>The easterly alignment is recommended. See response to comment #32.</td>
<td>Item not addressed. If the easterly alignment is the preferred alternative then the information provided to date has not assessed the impacts on the wetland and woodland as a result of this alignment.</td>
<td>Note that a subsequent alignment adjustment is being recommended through the Upcountry development that moves the new road west and out of the floodplain and hazard lands.</td>
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<td>34</td>
<td>Section 6.3.1 - Page 6-13 (Upcountry Link) — this section of the report indicates that the proposed alignment is generally situated at the eastern limit of the subdivision with the exception of the midway point where the proposed centre line turns west in order to avoid impacts to a tributary of Grindstone Creek. It is important to note that the road alignment must not only address impacts to the creek, but must also mitigate impacts to the Regional Storm flood plain, erosion hazards and fish habitat associated with the creek. This is an important issue as both technical and policy requirements must be satisfied in order for Conservation Halton to be in a position to issue a permit under Ontario 162/06 for the proposed road. Additional comments are provided below under &quot;Preferred Design Concept&quot;.</td>
<td>We believe that these issues can be appropriately addressed at detailed design when a permit submission will be made. Further discussion regarding the Upcountry alignment will be held between Conservation Halton and City of Hamilton staff. Item not addressed. Discussions are ongoing.</td>
<td>Note that a subsequent alignment adjustment is being recommended through the Upcountry development that moves the new road west and out of the floodplain and hazard lands.</td>
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<td>35</td>
<td>Section 6.3.4 (Stormwater Management &amp; Hydraulics), page 6-18 — staff recommend that reference be made to the South Waterdown Subwatershed Study as it relates to stormwater quality and quantity controls as well as hydraulics for that portion of the study area that is immediately adjacent to this area (i.e., along Dundas Street). In addition, as noted previously, reference is made to Appendix C however the appendix was not provided with the draft ESR. Section 6.3.4, page 6-19 — it is stated that the new corridor crosses two watersheds (Borer's and Grindstone) however, the most easterly portion of the corridor also crosses the Hager Creek watershed within Conservation Halton's jurisdiction. Please add this to this section. As previously noted, this section makes reference to 12 crossings whereas the figures and text only evaluate 11 crossings. Please clarify.</td>
<td>Appendix C has been submitted (report dated May 2010) and will be included in the final ESR package. Reference t the Hager Creek watershed will be made in the ESR. Figures and text are correct in indicating 11 crossings.</td>
<td>Item addressed subject to review of final ESR.</td>
<td>Item addressed subject to review of final ESR.</td>
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<td>36</td>
<td>Section 6.3.4, Crossing EW4, page 6-25 - The second sentence of the second paragraph states &quot;It is not a permanent watercourse but a natural depression area associated with wetland features&quot;. We recommend that this statement be revised as it is not entirely inaccurate. It is our opinion that this feature is a watercourse with a defined bed and banks. The bed of this channel was devoid of vegetation, indicating that a substantial enough volume of flow traverses this stretch of the watercourse to prevent vegetation from growing in the bed of the watercourse. When water is flowing in this channel, it is assumed that this channel provides direct fish habitat. Please modify this section and other portions of the document (i.e. Table X) to reflect this change. In addition, within this section, a box culvert is proposed for Crossing EW4. As previously noted, staff request that the crossing be an open bottom culvert that is embedded. Please carry this forward in the Commitment section of the final ESR.</td>
<td>The watercourse is not permanent. Field observations have indicated that this crossing is dry most of the year and is considered to be an intermittent watercourse. An open bottom culvert will be carried forward in the commitments section of the report. The bed of this channel was devoid of vegetation, indicating that a substantial enough volume of flow traverses this stretch of the watercourse to prevent vegetation from growing in the bed of the watercourse. When water is flowing in this channel, it is assumed that this channel provides direct fish habitat. Please modify this section and other portions of the document (i.e. Table X) to reflect this change. In addition, within this section, a box culvert is proposed for Crossing EW4. As previously noted, staff request that the crossing be an open bottom culvert that is embedded. Please carry this forward in the Commitment section of the final ESR.</td>
<td>Item not addressed. See response to Item 22. Appendix C has not been submitted. Item addressed subject to review of final ESR. Item addressed subject to review of final ESR.</td>
<td>To clarify, staff were not suggesting that the watercourse was permanent but rather that the feature meets the definition of a “watercourse” pursuant to the Conservation Authorities Act given that it has a defined bed and banks. We are requesting that the report be revised to indicate that this is a watercourse regulated by Conservation Halton and that, at certain times of the year, would likely represent direct fish habitat. We acknowledge that this is a ‘watercourse’ and is regulated by Conservation Halton and may at certain times of the year represent direct fish habitat. The ESR will be revised accordingly.</td>
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<td>37</td>
<td>Table 6-10, page 6-25 — staff note that the water surface elevations for both the 5 year and 10 year storm events are the same. Please confirm whether or not this is an error.</td>
<td>The 5 year WL is 241.27 m, however the analysis focused on the 25 year event (design event) and the Regional event.</td>
<td>Item addressed.</td>
<td>N/A</td>
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<td>38</td>
<td>Crossing EW5, page 6-26 — staff are supportive of the proposed improvements to the hydraulic performance of the bridge structure in order to reduce the backwater impacts upstream of the structure and improve the safety of the road under flood conditions. The proposed bridge alignment, and the preferred direction of any widening, will be determined at the detail design stage. The design must take into account fluvial geomorphology, fisheries, terrestrial features, valley and floodplain grades on both the upstream and downstream sides of the bridge, etc</td>
<td>These will all be considered in the detailed design.</td>
<td>Item addressed.</td>
<td>N/A</td>
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<td>39</td>
<td>Page 6-27 — staff note that this section did not include a hydraulic analysis for the floodplain within the N5 portion of the proposed road. Please include this analysis as part of the final report.</td>
<td>See Item 32</td>
<td>Item not addressed. See response to Item 32.</td>
<td>Note that a subsequent alignment adjustment is being recommended through the Upcountry development that moves the new road west and out of the floodplain and hazard lands.</td>
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<td>40</td>
<td>Page 6-28, Stormwater Management and Hydraulics: Hydraulic Evaluation of Road Crossing Structures — Crossing EW6 — staff are supportive of the proposed improvements to the hydraulic performance of Culvert Crossing EW6 in order to reduce the backwater impacts upstream of Dundas Street and improve the safety of the road under flood conditions. Any realignment of the culvert must be based on a fluvial geomorphic assessment of the creek in conjunction with any fisheries requirements. The following information is provided for detailed design:</td>
<td>Comments noted.</td>
<td>Item addressed. We request that the information be carried forward to detailed design.</td>
<td>Comment noted.</td>
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<td>Please ensure that any rock protection material used to protect the new structure be round and appropriately sized for the channel. It is requested that oversized rock material not be added to the channel, because if the oversized rock does fall or get pushed into the channel due to the force of the water (or some other mechanism) the water may flow on either side of the oversized rock and could create new bank erosion or it may exacerbate existing erosion if the large rock is still located anywhere near the edge of the creek.</td>
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<td>Staff note that for the majority of the document the future crossing at EW6 is referred to as an open bottom culvert however, there are a couple of locations in the text and on figures within the document that it is shown or referred to as a closed bottom culvert. Please revise as necessary for consistency</td>
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<td>41</td>
<td>Section 6.3.4, Crossing EW 11, page 6-30 — It appears from the photograph on page 4-17 that the existing CSP culvert is narrower than the wetted width of the watercourse at the time the photo was taken. Given the surrounding vegetation in the photograph staff have assumed that the photo was likely taken during the late spring or summer months. It could then be assumed that the flow in the creek at the time the photo was taken is less than would be expected during the annual spring freshet. As such, it is requested that the existing culvert be replaced with a larger crossing that will more effectively:</td>
<td>This will be added to the commitments section.</td>
<td>Item addressed subject to review of final ESR.</td>
<td>N/A</td>
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<td>• allow fish passage during higher flow events</td>
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<td>• convey sediment to downstream reaches of the creek</td>
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<td>• allow infiltration of groundwater (if present)</td>
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<td>42</td>
<td>prevent the formation of a perched culvert which would prevent fish passage. Based on the above, it is requested that the existing culvert be replaced with an open bottom creek crossing that will convey a minimum 2-year frequency flow event. Staff request that this be added to the Commitment section of the final ESR.</td>
<td>Based on the Paragon EIR (May 1996) the realigned channel is effective at conveying flows with a frequency of less than 100 years and that during large events such as the Regional the flows exceed the capacity of the realigned creek, resulting in the floodplain following the original creek alignment. For this reason, and because the road alignment does not encroach on the existing channel our analysis only considered the Regional event (i.e., storage for other events would not be effected by the road works). As noted in Item 32, the level of analysis completed confirms impacts from the road to floodplain connection and conveyance can be addressed. The proposed alignment poses no constraint in achieving floodplain storage for the Regional event. The capacity of the culverts is based on a conservative analysis. The required capacity for the Regional event can be readily met with the proposed two 1000 mm structures. There are opportunities to refine the analysis during detailed design, which may involve upsizing the culverts to provide sufficient capacity and flow equalization. Therefore, this is not considered a design constraint for the road which must be addressed prior to filing the EA. We acknowledge the recommendations to address flood storage, however as noted above, the use of culvert is still considered a viable option to mitigate impacts associated with the road alignment. Removing floodplain from</td>
<td>Item not addressed as staff are not in agreement with the response. Further discussion with the City and Dillon is required.</td>
<td>Note that a subsequent alignment adjustment is being recommended through the Upcountry development that moves the new road west and out of the floodplain and hazard lands.</td>
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In addition to the above, the second paragraph of Section 6.3.4 suggests that the hydraulic analysis results have taken into consideration the proposed stream rehabilitation plan as outlined in the Upcountry Estates Environmental Implementation Report, dated May 1996. Please note that this report is no longer considered current and the proposed stream rehabilitation measures likely do not meet current standards for watercourse works. The ESR should be evaluating the most appropriate treatment for this tributary as part of the road alignment alternatives.
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<td>43</td>
<td>Section 6.3.4, Roadway Stormwater Management Alternatives, page 6-32 - please include the Hager Creek Watershed when outlining criteria for stormwater quality and quantity controls.</td>
<td>Comments noted and will be addressed.</td>
<td>Item addressed subject to review of final ESR.</td>
<td>N/A</td>
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<td>44</td>
<td>Figure 6.2 (Road Drainage Areas and Outlet) - staff note that the legend colours and text do not align.</td>
<td>Comments noted and will be addressed.</td>
<td>Item addressed subject to review of final ESR.</td>
<td>N/A</td>
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<td>45</td>
<td>Page 6-41 'Outlet EW5' - this section of the report indicates 'East of the outlet a new roadway is proposed while west of the outlet, the existing 4 lane road (Parkside Drive) is proposed to be widened to a 6 lane road'. Is this correct? Staff understood that Parkside Drive was going to be widened to a 4 lane road. Please confirm. This section also recommends the use of Oil Grit Separators for quality treatment. Staff are supportive of this and require that they be sized to provide Level 1/Enhanced treatment. Mitigating the thermal impacts of stormwater must also be discussed within this section of the document and carried forward to detailed design.</td>
<td>This has been corrected in the ESR. Parkside Drive will be a 4 lane road.</td>
<td>Items addressed subject to review of final ESR.</td>
<td>N/A</td>
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<td>46</td>
<td>Section 6.3.5, Outlet EW6, page 6-12 - two possible stormwater treatment systems are proposed: (1) an OGS; or, (2) directing the stormwater to the Upcountry Estates stormwater management facilities. Staff would prefer that the stormwater be directed to the Upcountry Estates facility as this is likely the most effective method of treatment. Can any of the stormwater be directed to the existing stormwater facility in the Gatesbury subdivision? We request that this be identified as the most preferred management method. Please consider revising this on page 6-47 also (Stormwater Management Summary).</td>
<td>Comments noted and will be considered during detailed design.</td>
<td>Item partially addressed. Please include as a commitment in the final ESR and identify that the most preferred management method would be to direct stormwater to existing/proposed stormwater management facilities.</td>
<td>Item added as a commitment.</td>
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<td>47</td>
<td>Page 6-43 -- first paragraph — staff recommend that this section require the direction of a portion of stormwater flows from the road into the Upcountry stormsewer system such that treatment can be provided for by the existing stormwater management pond</td>
<td>Comments noted and will be considered during detailed design</td>
<td>See above.</td>
<td>Item added as a commitment.</td>
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<td>48</td>
<td>Section 6.3.5, Outlet EW7, page 6-44 — staff question why directing stormwater to proposed facilities in the future South Waterdown lands is not identified as a possible option for stormwater treatment? Please consider revising this on page 6-47 also (Stormwater Management Summary).</td>
<td>This was not recommended as a possible option based on the location of proposed ponds within the South Waterdown lands as shown on Figure 9 (Drainage and Hydrology Report) relative to the existing drainage outlet for the catchment tributary to EW7.</td>
<td>Item addressed, however, should the pond locations in South Waterdown change as part of the subdivision detailed design, we trust that the City will consider whether it would be feasible to direct drainage to the facilities as part of the detailed design.</td>
<td>N/A</td>
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<td>49</td>
<td>Section 6.3.5. Structures. page 6-49 — it would be helpful if the crossing structures in this section were labelled as per the numbers used in Figure 6.1 for cross reference purposes. It is noted that flow velocities will be greater than 3.8 m/s during the design and regional storm events. Staff recommend that, at detailed design, a shear stress/tractive force analysis be undertaken. Further, we recommend that bioengineering be considered for bank treatments.</td>
<td>Comments noted.</td>
<td>Item addressed subject to review of final ESR.</td>
<td>N/A</td>
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<td>50</td>
<td>Section 6.3.5 (Grindstone Creek Tributary Branch Crossing), page 6-49 and Plate 8 — the text in Section 6.3.5 states that this crossing will be replaced with an open bottom concrete culvert however, the diagram on Plate 8 shows a closed bottom box culvert. Please revise Plate 8 accordingly.</td>
<td>Plate 8 will be revised.</td>
<td>Item addressed subject to review of final ESR.</td>
<td>N/A</td>
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<td>51</td>
<td>Section 6.3.6 - For a number of utilities (e.g. Union Gas, Bell Canada, Imperial Oil and Sun-Canadian Pipelines) test pits are proposed at detailed design to confirm potential conflicts, relocation strategies and grading requirements. What is the magnitude of additional impacts on natural areas that could reasonably be anticipated? Will any disturbance to the creek be required as a result of the relocation of the underground gas main or other utilities? Should some or all of this work be undertaken prior to detailed design to ensure that the selection of the preferred alternative takes all grading/disturbance requirements into account? Also within this section, given that groundwater elevations have been observed to be approximately 1 metre below ground surface, it is advisable that a hydrogeological study be undertaken to examine the effects that the construction of utilities such as the new storm sewers will have on the base flows of the creek. This study should also look at impacts to the creeks within the study area from dewatering that will be necessary to construct/install utilities such as the storm sewers. Please include such a study in the Commitment section of the final ESR.</td>
<td>All test pits will take place within the road alignment right-of-way and no additional disturbance to natural areas will occur as a result of their excavation. Comments noted. The need for dewatering and a dewatering plan will be completed as part of the detailed design.</td>
<td>Comment partially addressed. Staff had requested information with respect to whether any utilities will need to be relocated and, if so, whether these relocations would have an impact on natural features and watercourses. This evaluation would normally be a part of the evaluation matrix in terms of anticipated impacts. Item addressed (regarding dewatering) subject to review of final ESR.</td>
<td>The specifics with respect to utility relocations will be resolved during the detail design stage. The ESR will contain a commitment to undertaking additional hydrogeological work in support of the potential for groundwater impacts/dewatering related to underground utility relocations. To date the identified utility relocations within the Waterdown Road Corridor have been relatively routine e.g. (hydro pole relocations) and as such minor impacts only are anticipated.</td>
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<td>52</td>
<td>Page 6-58 ‘Watermains’ — This section of the report should be clarified to indicate that Upcountry installed a watermain along Parkside Drive underneath the Main Branch of Grindstone Creek. Locates will be required as part of detailed design.</td>
<td>Locates for all utilities will be completed as the basis for the detailed design.</td>
<td>Item addressed.</td>
<td>N/A</td>
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<td>53</td>
<td>Page 6-61 - Staff support the consideration of solar powered lighting, both as a means of minimizing impacts to natural areas through reduction of associated electrical infrastructure, and reducing the overall carbon footprint of the project. We note that all lighting, but especially that adjacent to natural areas, should be designed so as to minimize spill onto adjacent areas or above the horizon,</td>
<td>Lighting will be designed to minimize the spill into the adjacent natural areas during the detailed design.</td>
<td>Item addressed. Staff recommend that this be included as a commitment in the final ESR.</td>
<td>This has been added as a commitment.</td>
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<td>54</td>
<td>Section 6.3.7 Landscaping/Streetscaping this section should be expanded to include the use of Low impact Development (LID) stormwater management measures (i.e. tree pits, bioretention areas, etc.) within the streetscaping for the road.</td>
<td>Low impact development measures can be incorporated into the landscaped areas of the road right-of-way during the detailed design stage.</td>
<td>Item addressed. Staff recommend that this be included as a commitment in the final ESR.</td>
<td>This has been added as a commitment.</td>
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<td>55</td>
<td>Section 6 3.8. Geotechnical, page 6-91 - please provide a map of all borehole locations to provide greater clarity with respect to the proximity of each borehole to natural features such as watercourses, woodlands and wetlands. Specifically, additional detail with respect to the location of Borehole #13 and its proximity to nearby watercourses is required. Also, more discussion with respect to the type of foundation to be used at this crossing location is required. At this point, the H-pile driven into bedrock may be a preferred treatment.</td>
<td>Refer to Appendix F, Geotechnical. This contains a summary of the borehole work. Comments noted. We believe that this should be part of detailed design stage</td>
<td>Item addressed.</td>
<td>N/A</td>
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| 56    | Table 6.41 and Section 6.4.1 - Under "Description of Effect" for "Amount, nature and significance of natural habitat removed", several areas of natural habitat loss are not addressed. These include:  
  - Grindstone Creek crossing at Parkside Drive  
  - North side of Dundas Street, at approximately Station 10+450  
  - Southwest intersection of Dundas Street and Evans Road  
  - Grindstone Creek crossing at Dundas Street, between new East-West Road and Evans Road  
  - East of roundabout at Parkside Drive and New East-West Road  
  Please prescribe restoration/mitigation measures for these areas. | Mitigation for all natural areas that have trees removed includes a minimum compensatory tree replacement plan based on the area of the natural community removed is to be implemented at a rate of 3:1.  
  - Tree compensation plans will be developed during the detailed design stage. A statement regarding this will be added to the commitments table. | Item addressed subject to review of final ESR. | N/A |
| 57    | Table 6.41 and pages 6-115 to 6-116 - Staff support the proposed mitigation measures for Lake Medad Valley Swamp PSW and Nelson Escarpment Woods ESA under the "Potential for effects to adjacent habitat" section. The development and implementation of the EMP should be added to the first phase of the project, as outlined on page 6-99, to ensure that buffer vegetation is well established prior to the commencement of any site alteration associated with the project. | We agree that the development and implementation of the Environmental Management Plan should be completed early in the implementation process. This will be added to this commitments table. | Item addressed subject to review of final ESR. | N/A |
| 58    | Table 6.41 - Under "Effect on terrestrial corridor connectivity/linkages", the Grindstone Creek crossing at Parkside Drive should be addressed. | The crossing of Grindstone Creek at Parkside Drive includes a wider structure than is currently found there. This will provide improved passage compared to the existing condition.  
  - Please see our response to Item 27. We also note that this is the location where the Western Chorus Frog was observed and this should be taken into consideration when developing mitigation measures.  
  - The presence of western chorus frogs will be taken into consideration in the design of this crossing. | N/A | |
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<td>61</td>
<td>of the plan of subdivision. Staff note that Crossing 6 is outside of the Upcountry Estates draft plan. Is it anticipated that all of the work for Crossing 6 will be undertaken by the owners of the South Waterdown lands on the south side of Dundas Street? If not, the mitigation plan should be included in the ESR. Finally, this portion of the table only addresses Crossing 6. Additional information should be included for all watercourse crossings.</td>
<td>Mitigation for all crossings that are within the City owned property will be completed by the City. Mitigation includes the installation of open bottom structures where the crossings include permanent fish habitat, re-planting in riparian habitat if vegetation is removed and using effective stormwater techniques to mitigate the degradation of water quality.</td>
<td>Item addressed subject to review of final ESR.</td>
<td></td>
</tr>
<tr>
<td>62</td>
<td>This will be addressed in the final ESR.</td>
<td>Acknowledged.</td>
<td>Item addressed.</td>
<td>N/A</td>
</tr>
<tr>
<td>63</td>
<td>This has been addressed.</td>
<td>This has been addressed.</td>
<td>Item addressed subject to review of final EA document.</td>
<td>N/A</td>
</tr>
<tr>
<td>64</td>
<td>This has been addressed.</td>
<td>This has been addressed.</td>
<td>Item addressed subject to review of final ESR.</td>
<td>N/A</td>
</tr>
<tr>
<td>65</td>
<td>This has been addressed.</td>
<td>This has been addressed.</td>
<td>Item addressed subject to review of final ESR.</td>
<td>N/A</td>
</tr>
<tr>
<td>66</td>
<td>The habitat designation used is based on the following scale:</td>
<td>The habitat designation used is based on the following scale:</td>
<td>Item addressed subject to review of final ESR.</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>1. Type 1 habitat: Critical Habitat – Includes coldwater streams with little to no degradation 2. Type 2 habitat: Important Habitat – Includes somewhat degraded warmwater streams and intermittent streams 3. Type 3 habitat: Marginal habitat – Includes ephemeral drains and degraded intermittent streams 4. Roadside drains: Drainage conveyance that does not meet the requirements of the above.</td>
<td></td>
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<td>67</td>
<td>Section 6.4.1, Aquatic Habitat Impacts and Mitigation — Stormwater Management, page 6-119 — reference is made to the provision of Level 2 (Normal) water quality treatment. The remainder of the document commits to providing Level 1 (Enhanced) water quality treatment. We assume this is a typographical error and that it is the intention that this section refer to Level 1 (Enhanced). As Enhanced is the most appropriate level of treatment please revise accordingly. In addition, Conservation Halton policy does not support the creation of on-line ponds so the reference to on-line ponds should be removed.</td>
<td>Level 1 treatment will be provided.</td>
<td>Item addressed subject to review of final ESR and removal of reference to on-line ponds.</td>
<td>N/A</td>
</tr>
<tr>
<td>68</td>
<td>Page 6-120, Preferred Design Concepts — Please make revisions to the fisheries section related to Crossing EW4 as outlined previously in this letter. Notwithstanding the above, the &quot;Potential Impacts&quot; column appears to be insufficient. No reference has been made to impacts associated with groundwater, dewatering, increased levels of chlorides, cumulative impacts of transportation crossings on streams (with attention paid to the longitudinal connectivity of fish habitat), impacts to fish habitat associated with the typical impacts to channel form associated with transportation crossings (widening of channels, reductions in water depths in channels, changes to substrates, etc.). Staff request that this information be added to the Table.</td>
<td>The assessment of the impacts on fish habitat took into account the variables mentioned where they were applicable. As the majority of the crossings are culverts connecting roadside drainage and do not have baseflow, aquatic invertebrate habitat or fish communities, these variables do not apply to the majority of the crossings. The majority of the crossings are not new and the water entering the lower reaches is already primarily roadside drainage. Water quality will be treated to the Level 1 standard through the stormwater management plan.</td>
<td>Item addressed subject to review of final ESR.</td>
<td>N/A</td>
</tr>
<tr>
<td>69</td>
<td>Page 6-122, General Aquatic Design-Related Mitigation Measures - In the second sentence in the second paragraph on this page, &quot;proper construction sighting&quot; is referred to as a mitigation strategy. Was &quot;proper construction staging&quot; intended? Also, the last bullet of this section incorrectly references a stormwater management water quality treatment standard of Level 2. This must be revised to indicate Level 1. Enhanced.</td>
<td>Acknowledged. The wording has been clarified/modified. Agreed. Reference to these comments will be added in the commitments table.</td>
<td>Item addressed subject to review of final ESR.</td>
<td>N/A</td>
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</table>

At detailed design, it is requested that all substrate or rock additions below the normal high water mark (2 year bankfull channel flow) mimic the type of substrate present in the channel. For, example, if the channel exhibits a lot of shale oriented substrate, it is requested that any rock added to the channel to reinforce abutments be of a similar (flat) shape. If the substrates are not shale oriented, then it is requested that any substrates added to the channel be round rather than angular in shape. It is also requested that oversized rock material not be added to these channels, because if the oversized rock does fall or get pushed into the channel due to the force of the water (or some other mechanism) the water flow may flow on either side of the oversized rock and could create new bank erosion or it could exacerbate existing erosion if it is still located anywhere near the edge of the creek. Staff request that this be included in the mitigation measures.

Staff are supportive of the list of mitigation measures with the exception of the use of Level 2 versus Level 1 TSS removal and the use of closed bottom versus open bottom crossings. The reasons for this have already been included in this letter. Agreed – ESR text will be modified
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<td>70</td>
<td>Page 6-123 'Future Aquatic Works Required’ — this section should be expanded to include the requirement for a fluvial geomorphic assessment. Additionally, an MOE Permit to Take Water may be required if dewatering volumes for the project exceed 50 000 Litres/day.</td>
<td>Both a fluvial geomorphologic assessment and a dewatering assessment will take place during the detailed design.</td>
<td>Item addressed assuming that these will be added as commitments in the final ESR.</td>
<td>This information has been added as a commitment in the ESR.</td>
</tr>
<tr>
<td>71</td>
<td>Table 6-42 - Staff question whether costs associated with compensatory tree planting and restoration have been included in the project budget?</td>
<td>Restoration costs have been included in the project budget.</td>
<td>Item addressed.</td>
<td>N/A</td>
</tr>
<tr>
<td>72</td>
<td>Pedestrian Underpass at Joe Sam's Park- The ESR should explore options that could allow the pedestrian underpass to also function as a wildlife crossing structure.</td>
<td>Agreed. The need/value for a wildlife passage structure in this general area will be assessed during the detailed design stage.</td>
<td>Staff do not agree that the “need/value” for a wildlife structure should be evaluated at detailed design as there may be several options that need to be assessed as part of the EA. While we do acknowledge that the specific design can be left to detailed design, we continue to recommend that a potential wildlife crossing structure should be considered as part of the EA.</td>
<td>As there will be a pedestrian underpass at Joe Sams Park, there is no questioning that there will be the ability to have connectivity. The question that remains is what form that connectivity will take and what specific design measures will allow it provide for wildlife passage as well as human passage. In addition, a location just west of the new Joe Sams Park crossing has been identified with the potential for the introduction of a wildlife culvert (i.e. there is sufficient clearance under the new road). The ESR will recommend that a crossing be provided at this location with the details to be resolved during the design phase.</td>
</tr>
<tr>
<td>73</td>
<td>Due to the presence of significant natural areas throughout the study area, the use of invasive species for landscaping should be strictly prohibited. In general, native species should be used where possible, and in areas directly abutting significant natural areas, species should reflect those actually present in the natural communities, preferably from a local seed source.</td>
<td>Comments noted. We agree with these principles for landscaping. They will form the basis of edge management planning and landscaping near natural features along the new roadway.</td>
<td>Item addressed.</td>
<td>N/A</td>
</tr>
<tr>
<td>74</td>
<td>All engineering alternatives that would reduce the footprint of disturbance through natural areas should be employed.</td>
<td>We agree. The current footprint has been minimized in all natural areas to the extent possible. This will be assessed farther in the detailed design.</td>
<td>Item addressed.</td>
<td>N/A</td>
</tr>
<tr>
<td>75</td>
<td>Preliminary Preferred Design, Grindstone Creek Crossing 1, General Arrangement — staff request that the station or crossing location numbering be consistent with the crossing location numbering on Figure 4.4 for ease of reference</td>
<td>Cross references will be added to the text.</td>
<td>Item addressed subject to review of final ESR.</td>
<td>N/A</td>
</tr>
<tr>
<td>76</td>
<td>Preferred Design Concept Drawings — Upcountry Plate 2 — The limit of the right-of-way, associated grading and pavement are all extremely close to the edge of the tributary of Grindstone Creek. Please advise as to whether the road is within the meander belt of this watercourse. Conservation Halton policy requires that all new development, including infrastructure, be setback a minimum of 15 metres from the meander belt. Please advise as to how this affects the location of the road alignment. Upcountry Plates 1 and 2 will need to be revised once the meander belt assessment and the hydraulic analysis has been completed for the Regional Storm floodplain associated with the Grindstone Tributary and the storage and conveyance impacts of the road have been addressed. This cannot be left until detailed design as satisfying this requirement may have</td>
<td>Additional studies are recommended in this area in consultation with Conservation Halton and the developer as part of the EIS for the development. Meander belt analysis was not undertaken as part of this study. City and CH staff will discuss this further.</td>
<td>Item not addressed. Discussion is ongoing.</td>
<td>Note that a subsequent alignment adjustment is being recommended through the Upcountry development that moves the new road west and out of the floodplain and hazard lands.</td>
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<td>77</td>
<td>Dundas Plate 5 and 6 — staff could not locate the existing Hager Creek culvert on these drawings. Please clarify.</td>
<td>Additional detail has been added on the plate.</td>
<td>Item addressed subject to review of final ESR.</td>
<td>N/A</td>
</tr>
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<td>78</td>
<td>It would be helpful if the Preferred Design Concept Drawings could include creek names and crossing location nomenclature consistent with Figure 6.1.</td>
<td>Additional detail has been added on the plate.</td>
<td>Item addressed subject to review of final ESR.</td>
<td>N/A</td>
</tr>
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<td>79</td>
<td>Page 7-18 'Parkside Drive Routing (Options 4, Options 5-Opta, and Option 5-Sawtooth') — the second paragraph of this section references a Section of the report that has not been assigned (Section XX).</td>
<td>This has been addressed.</td>
<td>Item addressed subject to review of final ESR.</td>
<td>N/A</td>
</tr>
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<td>80</td>
<td>Staff note that the Appendices were not included in the document. Please provide for staff review.</td>
<td>These have been provided.</td>
<td>Staff note that not all appendices have been received. Specifically Appendix C has not been submitted. The CD that was provided to staff in July 2010 included only a portion of the modeling (some culvert master files, HEC-RAS file for EW4, etc.). A revised Appendix C will be provided.</td>
<td>N/A</td>
</tr>
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<td>81</td>
<td>It would be extremely helpful if a response chart was provided with the final ESR to enable a more efficient review of the final document.</td>
<td>Agreed, this will be provided.</td>
<td>Item addressed subject to the submission of the final ESR.</td>
<td>N/A</td>
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First Nation Correspondence
Please note that as part of the required stakeholder and agency consultation, proponents are advised to contact the following agencies – to determine potentially affected Aboriginal communities in the project area:

1. **The Ontario Secretariat for Aboriginal Affairs**  
   (Contact: Ms. Pam Wheaton, Director, Policy and Relationships Branch, Ontario Secretariat of Aboriginal Affairs, 720 Bay St., 4th Floor, Toronto ON M5G 2K1; fax: 416-326-4017; pam.wheaton@ontario.ca)

2. **Indian and Northern Affairs of Canada – Specific Claims Branch**  
   (Contact: Mr. Don Boswell, Senior Claims Analyst, Specific Claims Branch, Department of Indian and Northern Affairs, 10 Wellington St., Room 1310, Gatineau QC K1A 0H4; fax: 819-956-2258; boswelld@inac.gc.ca);

3. **Indian and Northern Affairs of Canada - Litigation Management and Resolution Branch**  
   (Contact: Mr. Franklin Roy, Director, Litigation Management and Resolution Branch, Department of Indian and Northern Affairs, 10 Wellington Street, Gatineau QC K1A 0H4; fax: 819-997-1679; royf@inac.gc.ca);

4. **Indian and Northern Affairs of Canada - Comprehensive Claims Branch**  
   (Contact: Ms. Louise Trepanier, Director, Claims East of Manitoba, Comprehensive Claims Branch, Department of Indian and Northern Affairs, 10 Wellington St., Room 1310, Gatineau QC K1A 0H4; 819-953-3109; trepanierl@inac.gc.ca)

5. **Ministry of the Attorney General – Aboriginal Legal Issues Office**  
   (Contact: Mr. Grant Wedge, Council, Crown Law Office-Civil, Ministry of the Attorney General, 720 Bay Street, 8th Floor, Toronto ON M5G 2K1; fax: 416-326-4181; grant.wedge@ontario.ca)

Once identified, you are advised to provide notification directly to the Aboriginal communities who may be affected by the project and provide them with an opportunity to participate in any planned public consultation sessions and comment on the project.
March 21, 2008

Ms. Diana Morreale  
Senior Project Manager  
Environmental Planning  
Public Works Department  
City of Hamilton  
77 James Street North, Ste 320  
HAMILTON, ON  L8R 2K3

RE: Waterdown/Aldershot Transportation Master Plan – Public Information Centres

Dear Ms. Morreale,

I am responding to your notification sent to the Comprehensive Claims Branch, by mail, on February 15, 2008.

We can confirm that there are no comprehensive claims in the City of Burlington, Ontario. We cannot make any comments regarding potential or future claims, or claims filed under other departmental policies. This includes claims under Canada’s Specific Claims Policy or legal action by the First Nation against the Crown. For more information, I suggest you contact the Director General of Specific Claims Branch at (819) 994-2323 and the Director General of Litigation Management and Resolution Branch at (819) 997-3582.

INAC- Comprehensive Claims Branch does not have any specific interest in the project and would request to be taken out of the mailing list.

Yours truly,

Kevin Clement, Acting Director  
for  
Lynn Bernard, Director General  
Comprehensive Claims Branch

DISCLAIMER: In this Disclaimer, “Canada” means Her Majesty the Queen in right of Canada and the Minister of Indian Affairs and Northern Development and their servants and agents. Canada does not warrant or assume
any legal liability or responsibility for the accuracy, completeness, or usefulness of the data or information disclosed with this correspondence, or for any actions in reliance upon such data or information or on any statement contained in this correspondence. Data and information is based on information in departmental records and is disclosed for convenience of reference only. In accordance with the provisions of the Access to Information Act and the Privacy Act, confidential information has not been disclosed. Canada does not act as a representative for any Aboriginal group for the purpose of any claim. Information from other government sources and private sources (including Aboriginal groups) should be sought, to ensure that the information you have is accurate and complete.

Canada
Morreale, Diana

From: Patricia Prokop [pprokop@lura.ca]
Sent: Wednesday, March 12, 2008 10:38 AM
To: Morreale, Diana
Cc: Sally Leppard; Liz Nield; Marina Saldana
Subject: FW: Waterdown/Aldershot Transportation Master Plan
Importance: High

Please find attached a letter from the Comprehensive Claims Branch.

Regards,
Patricia Prokop
Lura Consulting

---

From: Lauren Pierce [mailto:piercel@ainc-inac.gc.ca]
Sent: Wed 12/03/2008 10:32 AM
To: Waterdown-Aldershot Information
Subject: Waterdown/Aldershot Transportation Master Plan

Hello,

Please find the attached response to your request.

Thank you

Kevin Clement, Acting Director for
Lynn Bernard, Director General
Comprehensive Claims Branch

3/20/2008
April 11, 2008

To Whom It May Concern:

RE: Environmental Assessment and Federal Coordination Standards
Indian and Northern Affairs Canada – Ontario Region

The Ontario Region of Indian and Northern Affairs Canada (INAC) has a 30 calendar day standard for responding to environmental assessment notifications, including federal coordination requests (FCRs) under the Canadian Environmental Assessment Act, as well as other environmental assessment correspondence relating to provincial and municipal undertakings. However, correspondence being directed to people who are no longer with the Department or who occupy a different position within the Department as well as misdirected mail can cause significant delays in this response time.

To resolve this issue, INAC has established a new procedure that we request your organization adopt when sending environmental assessment correspondence. All unsolicited correspondence concerning environmental assessment requests and notifications that are taking place within the Province of Ontario should be directed to:

Environment Unit
Re: Environmental Assessment Coordination
Indian and Northern Affairs Canada
25 St. Clair Avenue East, 8th Floor
Toronto, Ontario, M4T 1M2

INAC has also created a centralized email address where we accept FCRs and other environmental assessment notifications. This address is EACoordination_ON@inac-ainc.gc.ca.

Letters should be dated and project bulletins should have a covering page that includes the date and the intended recipient. Please keep in mind that just one letter should be sent to the Department regardless of geographical location of the project and that this letter should be addressed to the appropriate recipient mentioned above.

Also, please ensure that notifications are sent within a practicable time frame, particularly when
involving invitation to public consultation events.

Questions or comments can be directed to Daniel Johnson at 416-973-5899 or via email at johnsonnda@inac.gc.ca.

Thank you for your cooperation.

Sincerely,

[Signature]

Daniel Johnson
Environmental Officer
Environment Unit
INAC - Ontario Region
25 St. Clair Avenue E. 8th Floor
Toronto, Ontario M4T 1M2

Canada
May 29th, 2008

LETTER ADDRESSED TO ALL PARTIES CONCERNED WITH HURON-WENDAT RIGHTS, INTERESTS AND PROPERTIES IN ONTARIO

Subject: Development projects in Ontario affecting the Huron-Wendat Nation’s rights, interests and properties

Dear Madame and Sir,

Please be advised that all actions, professional commitments or proceedings undertaken or envisioned with government, municipal or private contacts relating to Huron-Wendat rights, property titles and interests in Ontario are to be temporarily suspended and deferred to an undetermined future date until further notice. The Huron-Wendat Council no longer authorizes any activity pertaining to the above-mentioned file. The Council being the only official representative of the Huron Wendat Nation, no other individual has the right to represent the Huron Wendat Nation.

These measures must be taken because of the lack of material, financial and professional resources necessary to follow up and to participate effectively in the various relevant consultations in order to assert our Nation’s rights and interests. Despite the fact that your voluntary collaboration on certain files is greatly appreciated, the Council can no longer afford to bear the costs for supporting these interventions.

The Council considers that historical and pre-historical rights, titles and interests in Ontario are highly important and that the preservation and safeguarding of our heritage is of utmost concern. Under the jurisprudence of Canadian courts, the Ontario government has a legal responsibility to ensure our Nation’s participation as well as ensure financing for representations and for work on various environmental and social assessments of development projects which are under way or planned.

Our Council believes that the Ontario government, as a representative of the Crown, has a legal obligation to consult, accommodate and possibly compensate the Huron Wendat Nation on any proposed legislation or any development project that could impair or affect in any way our Nation’s rights and interests. This obligation includes negotiation of agreements on the various forms of consultations envisioned, the timeframe, along with access to relevant information plus financial support for our participation.

The Council requests that governmental and municipal contacts, along with involved developers, hand over all pertinent information concerning development projects already under way or planned, along with the environmental assessments which may have an impact on our rights and interests.

The Council has already amassed 50 000$ worth of expenditures pertaining to the Ontario file. We have yet to be reimbursed. It is impossible for us to continue adding to these expenses without being fully compensated and without guarantees of compensation for any future expenses.

255, Place Chef Michel Laveau, Village des Hurons-Wendake, Canada G0A 4V0
Tél: (418) 843-3767  Fax: (418) 842-1108
This is why the Council has filed an application for block funding with the Ontario government that will allow us to actively participate in identifying our nation’s rights, titles and interests in connection with various governmental consultations and development projects in Ontario.

The Council would like to resume work as soon as possible with a strategic planning framework in order to prioritize the most urgent and most important issues and to ensure respect for property rights and interests of the Nation-Huron Wendat. All parties will be advised of any developments as they occur.

We appreciate your understanding and your collaboration in this matter.

Tiwenk,

Max “One-Onti” Gros-Louis
Grand Chief

CC: Luc Lainé
       Heather Bastien
Date: June 24th 2008

905 546 4435

Re: Public Information Centres #1 - Phase 3 & 4 Municipal Class Environmental Assessment - New East-West Corridor and Waterdown Road Corridor

We are in receipt of documentation produced under the Ontario Environmental Assessment Act for our review and comment. Please accept this letter as a response to your invitation and not an act of consultation. We cannot and do not consider this response letter to be consultation as we are not mandated to consult on behalf of our member nations. Our involvement as a representative for the First Nations occurs when invited by one of our member First Nations to do so. Consultation should always occur with the First Nation(s) specifically impacted.

As an association, we understand that your role in the environmental assessment process is primarily technical and that our concerns, which are Aboriginal rights, socio-economic and indigenous knowledge-based, are to fit within established scientific, technological and policy frameworks established by the Province of Ontario. We are of the view that this framework is invalid as it has been developed without input or consultation with First Nations.

Our organization receives no federal or provincial funding in helping to facilitate a mutual understanding of environmental concerns between proponents and our member First Nations. Based on this lack of understanding, funding and resources, we are only able to state that we do have member First Nations whose traditional hunting and gathering areas may be affected by this project.

Our organization and Member Nations are usually open to participating in sustainable planning processes. However, the current federal and provincial practices in this policy area are left to the goodwill of proponents, in terms of collaborating with First Nations, and in identifying potential First Nation issues and incorporating these into the overall planning processes.

Aboriginal people are listed as "stakeholders" in environmental assessment processes, however this is only partially correct. First Nations people have collective constitutional rights, including land rights, hunting, gathering and fishing rights. The practice and recognition of these rights in southern and central Ontario is an outstanding issue between the provincial and federal governments and our member Nations. Therefore, in proposed land use situations, First Nations can seek legal remedies before the courts, including legal injunctions and other judicial intervention.
Our comments on documents produced under the current Environmental Assessment Act are as follows:

- It is our experience that when First Nations are approached respectfully and referenced in an appropriate way, that this overall approach tends to lead to more positive dialogue.

- We currently do not have the capacity to address the methodology developed for the site selection criteria and technological alternatives, at this particular time. The Proponent should use discretion in considering the selection of a site and technology that may interfere with the exercise of First Nations rights, including treaty and rights to access to wild game, water, plants, fish and ceremonial areas etc. Consideration should be put towards treaty boundary lines, real and potential land claims, and First Nations communities in the surrounding area.

- While the provincial EA legislation and EA practice may put the onus on the Proponent to consult First Nations, federal and provincial Crowns do have a constitutional obligation to uphold the rights of First Nations, and a duty to consult. The provincial and federal governments may not be forthoming regarding this duty, as this duty currently exists in common law and is not reflected in Ontario EA legislation; which needs to be updated.

- As a safeguard, we suggest that First Nations be directly involved in the development and application of the Terms of Reference to accommodate for any potential First Nation intervention or interests. This approach would be ideal for addressing any First Nation issues that may arise. For example, where there may be archaeological discoveries at a site, First Nations customs vary and the Proponent should be ready to address that situation with the appropriate First Nations, in an innovative or other culturally appropriate manner.

- Based on archeological finds, it may be necessary to consult with other First Nations that have not been presently identified by the Ministry of the Environment or the Ontario Aboriginal Affairs Secretariat. First Nations that currently reside in the Province of Quebec may also have an interest in projects located in Ontario.

We thank you for taking the time to contact our organization and regret that we are not able to provide you with more assistance. If you have further questions or concerns please contact our office at (519) 434-2761.

Sincerely,

Adriana Poulette B.A., M.A.
Senior Policy Analyst and Government Relations Advisor
The Association of Iroquois and Allied Indians
Diana Morreale  
Senior Project Manager – Environmental Planning Section  
City of Hamilton  
77 James Street North, Suite 320  
HAMILTON, ONTARIO L8R 2K3

Dear Ms. Morreale:

Re: Waterdown/Aldershot Transportation Master Plan Completion of Phase 2 Report and “Path Forward”

I am writing in response to your letter of February 14, 2008, addressed to Franklin Roy inquiring about any claims that may affect the subject property. I regret that we were unable to respond earlier.

We can advise that our inventory does not include active litigation in the vicinity of this property. Please note that we are unable to make any representations regarding potential or future claims.

We cannot make any comments regarding claims filed under other departmental policies. For information on any claims you should also contact Fred Hosking of the Specific Claims Branch at (819) 953-1940 to inquire about any Specific Claims, and Guy Morin of the Comprehensive Claims Branch at (819) 956-0325 to inquire about any current Comprehensive Claims.
If you have any further questions please do not hesitate to contact me at (819) 994-1947.

Sincerely,

[Signature]

Marc-André Millaire
Litigation Team Leader
Litigation Portfolio Operations East
Litigation Management and Resolution Branch

DISCLAIMER: In this Disclaimer, "Canada" means Her Majesty the Queen in right of Canada and the Minister of Indian Affairs and Northern Development and their servants and agents. Canada does not warrant or assume any legal liability or responsibility for the accuracy, completeness, or usefulness of any data or information disclosed with this correspondence or for any actions in reliance upon such data or information or on any statement contained in this correspondence. Data and information is based on information in departmental records and is disclosed for convenience of reference only. Canada does not act as a representative for any Aboriginal group for the purpose of any claim. Information from other government sources and private sources (including Aboriginal groups) should be sought, to ensure that the information you have is accurate and complete.
Assembly of First Nations
473 Albert Street, Suite 810
Ottawa, Ontario K1R 5B4
Phone: 613-241-6789
Fax: 613-241-5808

TO: Syeda Basira Banuri, M.Eng
Fax: 1-905-546-4435

FR: Eli Moore
Date: July 17, 2008
Pages: 4

Re: Phase 3 & 4 Municipal Class Environmental Assessment – New East-West Corridor and Waterdown Road Corridor

Urgent for Review Please Comment Please Reply

Original in the mail...

Eli Moore
Administrative Assistant
Environmental Stewardship
emoore@afn.ca
Tel: 613-241-6789 x359
Fax: 613-241-5808
July 17, 2008

Syeda Basira Banuri, M.Eng
Senior Project Manager
Capital Planning & Implementation
Public Works, City of Hamilton

Dear Syeda:

The Assembly of First Nations (AFN) is in receipt of your letter dated June 5th, 2008 regarding the Environmental Assessment for the new East-West Corridor and Waterdown Road Corridor. The AFN is a national representative organization of over 630 First Nation's communities in Canada. The AFN is designed to present the views of the various First Nations through their leaders in areas such as: Aboriginal and Treaty Rights, Economic Development, Education, Languages and Literacy, Health, Housing, Social Development, Justice, Taxation, Land Claims, Environment, and a whole array of issues that are of common concern which arise from time to time. The First Nation leaders meet quarterly to set national policy and direction through resolution.

Please be advised that the AFN functions only as a representative organization. As such the organization cannot be construed as a government, agent, principle, administrator and/or contractor for any of the First Nation communities who are members of the AFN. As AFN does not have any entitlement to the lands in question and cannot speak on behalf of the First Nation communities in your area, we are not in a position to provide any comments on the environmental assessment.

I would recommend that you provide the information you have given the AFN to the First Nation communities in the vicinity of the City of Hamilton, City of Burlington and the Region of Halton. You should also personally contact the First Nation communities in the area to provide them with more detailed information. It is these First Nation communities who may be impacted by the land developments, may have outstanding land claims in the area and/or may use this area for traditional harvesting activities. I have provided a list of the First Nation communities in the area for your reference as an attachment to this letter.
Please be advised that the Supreme Court of Canada has recently issued a number of judgments that provides clarity on the duty to consult and accommodate. In *Haida Nation v. British Columbia (Minister of Forests) and Weyerhaeuser* the Supreme Court held that there is a duty to consult and accommodate where there is knowledge of the potential existence of an Aboriginal right or title and conduct that may adversely affect it. Furthermore, the Supreme Court held in *Taku River Tlingit First Nation v. British Columbia* that where the potential for negative derivative impact on aboriginal claims is high, First Nations are entitled to something significantly deeper than minimal consultation and to a level of responsiveness that can be characterized as accommodation.

It is in the nature of respect for the first peoples that consultation and accommodation should be pursued. I commend your association for being proactive in attempting to inform us of your plans. I would strongly recommend that you please offer this courtesy to the First Nation Communities in your area.

Sincerely,

[Signature]

Richard Jock
Chief Executive Officer
**First Nation Communities in the Vicinity of the City of Hamilton**

Mississaugas of the New Credit  
RR#6  
Hagersville, Ontario, N0A 1H0  
Phone: (905) 768-1133

Six Nations of Grand River  
PO Box 5000  
Ohsweken, Ontario, N0A 1M0  
Phone: (519) 445-2201
September 29, 2008

Syeda Banuri
Senior Project Manager
City of Hamilton
77 James Street North, Suite 320
Hamilton, ON L8R 2K3

Dear Ms. Syeda

Re: Waterdown/Aldershot Master Plan

Six Nations of the Grand River (Six Nations) received notice of the Waterdown/Aldershot Master Plan.

Six Nations’ cultural, sustenance and other rights are recognized by the Province of Ontario by way of the 1701 Treaty of Ft. Albany. Six Nations’ rights and interests in relation to lands six miles either side of the Grand River (the Grand River Tract) was also confirmed by way of treaty, through the Haldimand Proclamation of October 25, 1784. This study area is within the 1701 Treaty Territory.

At this time we have no further comments with regards to this project. Please forward the archaeological assessment to Six Nations Lands and Resources, 2498 Chiefswood Road, P.O. Box 5000, Ohsweken, ON N0A 1M0. For further information, please do not hesitate to contact Lonny Bomberry at (519) 753-0665 ext. 12. We thank the City of Hamilton for providing us notification of this project.

Respectfully,

Lonny C. Bomberry, Director
Six Nations Lands and Resources

CC: Mr. Leroy Hill, Secretary: Confederacy Council of the Grand River
    Minister Brad Duguid, Ontario Ministry of Aboriginal Affairs
    Minister Chuck Strahl, Indian and Northern Affairs Canada

This letter is without prejudice to the positions that Six Nations has and may take in respect to its claims and litigation in relation to the Six Nations Tract/ Haldimand Proclamation Lands.
Six Nations Lands and Resources Department,
2498 Chiefswood Road,
PO Box 5000, Ohsweken, ON,
N0A 1M0

Dear Chief Dave General,

Re: Phase 3 & 4 Municipal Class Environmental Assessment - New East-West Corridor and Waterdown Road Corridor

The Waterdown-Aldershot Transportation Master Plan (WATMP) was jointly conducted by the City of Hamilton, the City of Burlington and Halton Region (project partners) to identify a future transportation network that will service future urban development in the community of Waterdown in accordance with the Municipal Engineer’s Association’s Municipal Class Environmental Assessment Process and has completed Phase 1 & 2. The Waterdown-Aldershot Transportation Master Plan – Phase 2 Report recommended a variety of methods to increase transportation capacity including public transit, bicycle routes, transportation demand management and road improvements. The study is now considering the design options for the preferred corridors (see Figure 1 attached).

This includes:
- New East-West Corridor
- North-South Corridor (expansion of Waterdown Road)

Consideration was given to natural environment, archaeology, property impacts, transportation and traffic operations, social effects (air, noise, etc.) and cost for recommending the preferred corridors in Phase 2.

The Project Partners have now commenced Phase 3 of the Municipal Engineers Association’s Municipal Class Environmental Assessment process. This involves identifying alternative designs for the preferred solution, preparing a detailed inventory of the natural, social and economic environments, identification of the potential impact of the alternative designs and the evaluation of the alternative designs.

Currently, The Project Partners are engaged in agency consultation as a key part of the process. Shortly, a series of Public Information Centres will be held, and
we would like to take this opportunity to make you aware of the following dates, times and locations:

<table>
<thead>
<tr>
<th>Public Information Centre #1 (Open House)</th>
<th>Public Information Centre #2 (Open House)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>East- West Focus</strong></td>
<td><strong>North – South Focus</strong></td>
</tr>
<tr>
<td><strong>DATE</strong>: Wednesday Nov 5th, 2008</td>
<td><strong>DATE</strong>: Thursday Nov 6th, 2008</td>
</tr>
<tr>
<td><strong>LOCATION</strong>: St. Thomas Apostle Parish Hall, 715 Centre Road Waterdown, ON</td>
<td><strong>LOCATION</strong>: Crossroads Church,1295 North Service Road, Burlington</td>
</tr>
<tr>
<td><strong>TIME</strong>: 6:00 pm to 8:30 pm</td>
<td><strong>TIME</strong>: 6:00 pm to 8:30 pm</td>
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</tbody>
</table>

Further notices for future consultation events will be published as the process moves forward. Your input and feedback is important to this process and you are also requested to submit, to this Department, any comments, concerns or proposed requirements that you may have respecting this matter. Please, submit written comments by **Friday December 5th, 2008**.

If you require any further technical information in advance of these meetings, please visit our website at: [www.hamilton.ca/WaterdownTMP](http://www.hamilton.ca/WaterdownTMP). Should you have any questions regarding this matter, please contact the undersigned.

If you have an interest in this project, we would appreciate your participation at these meetings or if you would prefer we could mail you further documentation or information that is available with regards to the project and hold a separate meeting at your earliest convenience to discuss the project in further detail.

Information will be collected in accordance with the **Freedom of Information and Protection of Privacy Act**. With the exception of personal information, all comments will become part of the public record.

On behalf of the Project Partners, we look forward to your involvement in the planning process for the Waterdown/Aldershot Transportation Master Plan Project.

Very truly yours,

**Syeda Basira Banuri, M. Eng**
Senior Project Manager
Capital Planning & Implementation
Public Works, City of Hamilton
Tel: 905-545-2424 ext 4101
Fax: 905-546-4435
Email: sbanuri@hamilton.ca

Cc: Paul MacLeod, Dillon Consulting
    Sally Leppard, Consultant, Lura Consulting
Figure 1: Map of Preferred Corridors
November 14, 2008

Syeda Basira
Senior Project Manager
Capital Planning & Implementation
Public Works, City of Hamilton
320-77 James Street North
Hamilton, Ontario L8R 2K3

Dear Syeda Basira:

RE: Phase 3 & 4 Municipal Class Environmental Assessment – New East – West Corridor and Waterdown Road Corridor

Thank you for your correspondence of October 8, 2008 regarding the above mentioned projects. Indian and Northern Affairs Canada will not be providing a review of the proposed project; however, it is important to contact all potentially interested First Nation communities directly to invite them to participate in this review.

To assist with identifying First Nations and other Aboriginal groups within the vicinity of a specific proposed project, INAC Ontario Region - Environment can provide the following information sources:

- The Chiefs of Ontario website (http://www.chiefs-of-ontario.org) provides a directory of contact information for all First Nations and Chiefs, as well as a map of the locations of all Ontario First Nations.

- Natural Resources Canada produced provincial maps, showing all First Nation reserve lands, are available for purchase at:
  http://cccm.nrcan.gc.ca/english/canada_lands_index_e.asp

- Natural Resources Canada’s online Historical Indian Treaties map, showing historical First Nation treaties across Canada, is available at:
  http://atlas.nrcan.gc.ca/site/english/maps/historical/indian treaties/historical treaties

- A search by place name at the Canadian Geographical Names database (http://geonames.nrcan.gc.ca/search/search_e.php) will generate a map which shows any nearby Indian reserve lands in grey.
• The Métis Nation of Ontario (http://www.metisnation.org/) may be able to provide information regarding Métis interests with respect to a particular project.

• The Ontario Federation of Indian Friendship Centres website provides a list of all friendship centres in Ontario, at: http://www.ofifc.org/Centres/OfficeList.asp?Region='ON'

For any enquiries regarding land claims in within the project area, please contact the Director General of the Comprehensive Claims Branch at (819) 994-7521, the Director General of Specific Claims Branch at (819) 994-2323 and the Director General of Litigation Management and Resolution Branch at (819) 997-3582.

Also, please review the Environmental Assessment and Federal Coordination Standards document included with this letter for the revised policy and standards associated with both provincial and federal environmental assessments.

Sincerely,

[Signature]

Daniel Johnson
Environmental Officer
Environment Unit
INAC - Ontario Region
25 St. Clair Avenue E, 8th Floor
Toronto, Ontario M4T 1M2

cc: Urmas Madosso, Indian and Northern Affairs Canada

Canada
Meeting called by: Environmental Planning Team, Capital Planning and Implementation, Public Works Department, City of Hamilton
Time: 10:30 am
Date: January 23, 2009
Location: 77 James St. N., Suite 320, Room 320A, Hamilton, ON L8R 2K2
Attendees: Syeda Banuri City Of Hamilton, Chief M. Bryan LaForme Mississaugas of the New Credit First Nations, Paul MacLeod Dillon Const., Margaret Mississaugas of the New Credit First Nations, Danny Stone City Of Hamilton, Mohamed Zakzouk City Of Hamilton.

Introduction:
The purpose of the meeting is to present background information on the projects; review the status of the work; listen to First Nations recommendations; and discuss ideas of upcoming works/issues and timelines.

Projects:
Regarding the Waterdown Road corridor expansion:
- The public is concerned about the impacts on existing residential areas; three crossings of the Bruce Trail; road safety and traffic; and drainage/storm water concerns.
- Grindstone creek crossing is another concern due to high velocity of water flow and other environmental sensitivities. Development is dependent on the road being in place.
- The City of Burlington is concerned that development in Hamilton will increase the use of King St. in Burlington – a curvy, steep, 15 ft wide street with no shoulders and bad drainage. Increased traffic would present major safety concerns. According to City of Hamilton studies, plans and assessments, growth in Hamilton is not likely to affect traffic on King St. However, this has not resolved inter-municipal politics on the matter. The road currently has a low capacity and could easily be closed.
- The project stays out of the Sassafras Woods.

Regarding the New East-West Road Corridor:
- Wetland at Centre Road is significant. Crossing without disturbing the ecosystem is an important concern.
- Area contains unique trees (especially butternuts)
- Area is not well-drained. City’s Storm Water Management group is addressing flood issues.
Community prefers northern option (at Highway 6), which would go through the middle of the woodlot. Consequently, construction along the bottom quarter of the woodlot is favourable to reduce environmental impacts.

- No new power corridors are being planned. The hydro line is an existing line, not an expansion to accommodate new homes.
- All creeks drain in Lake Ontario, except for Bore’s Creek which drains in the Hamilton Harbour.
- Project has kept to the edge of an environmentally sensitive area to the west of Bore’s Creek. However, caves, limestone and tunnels are still at risk in the area. Flooding issues are also a concern. A very wide span structure is proposed to avoid/reduce flooding.

**General Discussion:**

*Are any of the project sites archeologically important?*

No archeological evidence of First Nations has been found in any traditional areas or around the watershed. A literature review confirms this finding, leading to the conclusion that there is no significant probability of archeological heritage. The report is available for review upon request.

*CBL: How will the project affect habitats and vegetation in the escarpment sedimentary rocks?*

The City is concerned with the environmental and visual impacts of the project as well as the preservation of world heritage site and natural habitats. No habitat has been identified in this area; however, some vegetation will be affected. The City is careful not to disturb the rock itself; a geological of importance over billions of years of compacted rocks.

*CBL: What is being done about the inevitable environmental effects of creek realignments?*

- There are two planned realignments. Based on a five-year study, a point of least impact has been identified.
- The conservation authority wants the section paralleling the road removed.
- The angle of crossing presents a real problem.
- Chief LaForme is still concerned that the realignments are bound to have unexpected environmental effects.

*CBL: Is this development reasonable given the current economic situation? How could the City expect such a large number of newcomers to live and work in Hamilton?*

Master Plans are based on municipal studies of population growth by 2030, which are consistent with *Places to Grow* estimates presented by the Province. These projections and consequential development requirements have been part of *Places to Grow* legislation all along. Developing growth areas is a gradual process.

*CBL: How does the City of Hamilton plan on getting the property it needs?*

- It is hoped that the City of Burlington would be able to acquire the property.
- Expropriation is very costly.
- Developers are still being asked about the impact of the route on development.
The situation is complicated because developers are not willing to negotiate selling the land.

**Conclusion:**

*The Mississaugas:*

- Chief LaForm and Margaret are mostly concerned about the species at risk, and the preservation of archeological sites and environmental corridors. They are supportive of all projects provided their needs are being addressed.
- They want to ensure proper testing, surveillance, environmental conservation and preservation of archeological heritage.
- They would take issue with projects intruding on existing or future land claims. Future land claims would only be a problem when they are launched. The City could stay up-to-date through maintained contact with the First Nations.

*The City of Hamilton:*

- Public consultation and First Nations concerns are always taken seriously and documented appropriately.
- More detailed studies are planned to examine issues regarding species at risk, the preservation of archeological sites and environmental corridors.
- MOE also ensures that First Nations concerns are properly addressed.

*Sustaining due diligence with the First Nations:*

- The City should use judgment about whom else to contact regarding the discussed projects.
- Six Nations and Haudenosaunee Confederacy Council are important contacts to keep in mind. Danny Stone confirms that the City is in contact with Six Nations.
- Chief LaForme confirms that satisfying the demands of the Conservation Authority implies that the City is acting in due diligence.

Chief LaForme is grateful the City has taken the time to host this information-sharing session. The City of Hamilton is open to more comments in the future.

**Adjourned**

No action items
Meeting Agenda

- Meeting Purpose
- Presentation
  - Background of the Projects
  - Current Status
  - Review of Current Proposed Design Concept – Waterdown Road Corridor
  - Review of Current Proposed Design Concept – East-West Road Corridor
  - King Road Technical Feasibility Study
  - Review of Outstanding Work & Issues
- Schedule
- Discussion
- Adjourn

Project Background

Waterdown / Aldershot Transportation Master Plan (TMP) Report Recommendations

- TMP initiated to assess transportation requirements of proposed developments
- Completed in February 2008
- Recommendations from TMP Report (Phase 2):
  - Improve walking and cycling facilities and policies to promote these modes;
  - Implement intersection improvements to maximize the use of existing facilities; and
  - Road capacity improvements including: Waterdown Rd. & a new East-West roadway.
- Burlington’s request to consider improvements to King Road to address road safety issues (King Road Technical Feasibility Study)
- Burlington’s request to consider phasing of a 3-Lane option for Waterdown Road

Recommended Road Improvements
October 16, 2008 The Mississaugas of the New Credit First Nations Meeting

**Data Collection in study area**
- Status: largely complete including natural science inventory

**Identify alternatives**
- Status: alternatives identified/developed

**Evaluation of alternatives**
- Status: Largely complete– preliminary recommendations identified

**Development of preliminary design**
- Status: Nearing completion

**Consultation (Neighbourhood Advisory Committees, Public and Agency)**
- Status: Ongoing

**Report Preparation (separate reports for each project)**
- Status: Ongoing

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October 16, 2008 The Mississaugas of the New Credit First Nations Meeting

**Waterdown Road Corridor**
- Four lanes on Waterdown Road and Mountain Brow Road
- New “mid-block” roadway through future subdivision
- Reduced posted speed (50 km/hr)
- New alignment section at south end (to be confirmed)
- Retaining wall at south end (east side) adjacent to Sassafras Woods
- Roundabouts on mid-block connector road
- New crossing of Grindstone Creek tributary on mid-block connector road
- Restricted movements at Dundas Road intersection
- Improved drainage
- Enhanced landscaping/streetscaping plan

**Main Public Feedback/Concerns**
- Proximity of new road to residences/property impacts
- Bruce Trail crossings
- Road safety/traffic speeds/slight lines
- Backing out onto road from driveways
- Storm water concerns

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October 16, 2008 The Mississaugas of the New Credit First Nations Meeting

**New East-West Road Corridor**
- Basic 2-lane road (4 lanes on Parkside Drive section)
- Widening of Dundas Street to 6-lanes
- New intersection at Highway 6
- Use of roundabouts where ever possible
- Crossings of Borer’s Creek and Grindstone Creek
- Environmental concerns at Centre Road Provincialy
- Significant Woodlot
- Reduced posted speed (50 km/hr)
- Enhanced landscaping/streetscaping plan

**Main Public Feedback/Concerns**
- Preferred northern option at Highway 6
- Traffic noise
- Northlawn resident’s issues with proximity of new road/suggestions for a more northern routing
- Traffic safety/reduce travel speeds/traffic calming
- Social/property impacts along Parkside Drive
- Alexander Place impacts
- Preference for northern options
- Railway crossing
- Linking the East-West corridor with the new north-south corridor
Alternatives currently being developed and assessed:
- Do Nothing
- Two-lane reconstruction (20 km/h posted speed)
- Convert to one-way road through escarpment
- Convert to alternating one-way road through escarpment (south bound in a.m., north bound in p.m.) using traffic control signals
- Close road
- Additional natural environmental data collection work
- Detailed plans of new construction alternative developed
- Evaluation of alternatives to be completed in near future
- Reviews of evaluation with external agencies
- Preliminary conclusions to be available at next round of public meetings

Alignment through North Waterdown and Center Road PSW
Alignment through south end of Waterdown corridor
Structure treatments at creek crossings
Stormwater management assessment & recommendations
Creek realignment concepts
Utilities
Streetscaping proposals
Property requirements
Costing
Implementation and phasing
Advancing permitting

Schedule
- Neighbourhood Advisory Committee Meetings at end of October
- Final round of Public Information Centres in early November
- Report(s) filing in Spring 2009 (30 day public review period)
- Design, property purchase and construction not currently scheduled – dependent on approvals and rate of development