Appendix D

Storm Water Management Impact Assessment Report
Region of Waterloo

Rapid Transit Project
Transit Project Assessment Process
Storm Water Management Impact Assessment

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Project Number:
60141856

Date:
December 2011
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December 22, 2011

Darshpreet Bhatti  
Manager, Rapid Transit Engineering  
Regional Municipality of Waterloo  
150 Frederick Street  
Kitchener, ON  
N2G 4Y3

Dear Mr. Bhatti:

**Project No:** 60141856  
**Regarding:** Rapid Transit Project  
Transit Project Assessment Process  
Storm Water Management Impact Assessment

Please find enclosed a revised report detailing findings for the storm water management (SWM) impact assessment for the proposed Region of Waterloo rapid transit initiative, to be included as part of the Transit Project Assessment Process. The original report has been revised to address review comments from yourself and Greg Proctor.

Please do not hesitate to contact me to discuss in further detail.

Sincerely,

AECOM Canada Ltd.

Jonathan Bastien  
Project Manager  
Jonathan.Bastien@aecom.com

JNB:MAG  
Encl. Figure 1 to 5
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<td>JNB</td>
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<td>Include Maintenance and Storage Facility Site assessment and address additional Region of Waterloo review comments</td>
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<td>Include updated route alignment and stations</td>
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AECOM Signatures

Report Prepared By:  
Jonathan Bastien – Project Manager

Report Reviewed By:  
Michael Gregory – Senior Project Manager
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1. **Background**

The Regional Municipality of Waterloo (Region) is proposing a rapid transit initiative that is being carried out in accordance with Ontario Regulation 231/08 for Transit Projects and Greater Toronto Transportation Authority Undertakings (Transit Project Regulations). The Transit Project Assessment Process (TPAP) provides a framework for an expedited approval process for completing the assessment of potential environmental impacts of a transit project.

For the Region’s rapid transit study, TPAP approval is being sought based on the functional planning level design. The proposed alignment and functional design details have been provided under separate cover. The proposed alignment includes Light Rail Transit (LRT) and adapted Bus Rapid Transit (aBRT).

This storm water management (SWM) impact assessment identifies potential storm water impacts that could result from the construction of the rapid transit system. Potential storm water impacts may include increased water levels, flow rates, volumes and velocities, as well as water quality and geomorphology indicators. Required mitigation works to alleviate potential water quantity and quality impacts have been identified for the subsequent preliminary design phase.

Preliminary design is planned to start after the TPAP approval process. During the preliminary design stage, a detailed assessment of the impacts of the proposed design on existing flooding, erosion and water quality conditions will be undertaken. Mitigation works will be designed to alleviate potential impacts. Any required SWM servicing components, including flooding / erosion control and water quality treatment, will be designed according to criteria agreed to by the relevant agencies. The preliminary design phase will also provide supporting information required to obtain final approvals and permits from various agencies with regards to SWM and disturbance of existing watercourses.