

**REPORT NO. 78** of the  
**ENVIRONMENT & TRANSPORTATION STANDING COMMITTEE**  
of its meeting held August 29, 2012

**Present:**                                   **Councillor Hatfield, Chair**  
  **Councillor Halberstadt**  
  **Councillor Payne**  
  **Councillor Sleiman**  
  **Councillor Valentinis**

That the following recommendations of the Environment and Transportation Standing Committee **BE APPROVED:**

Moved by Councillor Halberstadt, seconded by Councillor Payne,

I.       That That the report of Cabana-Division Road Corridor Improvements Stormwater Management Study and Functional Design, completed by AECOM, dated June 1, 2012, **BE RECEIVED** for information and

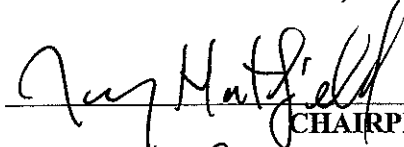
That the recommended works be **REFERRED** to the future capital budget process and used when planning road construction as approved by the Cabana - Division Road Corridor Environmental Assessment report.

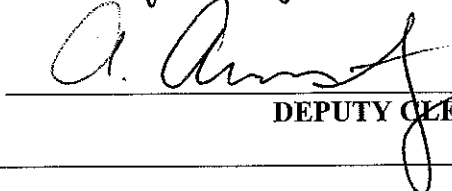
II.     That the Essex Region Conservation Authority (ERCA) **BE RETAINED** as the City's agent for the pre-requisite Lennon Drain improvement work on the St. Clair College property and east to Avon Driveway. The cost of the work will be charged to Project ID 7092004 (Lennon Drain Improvements).

Carried.

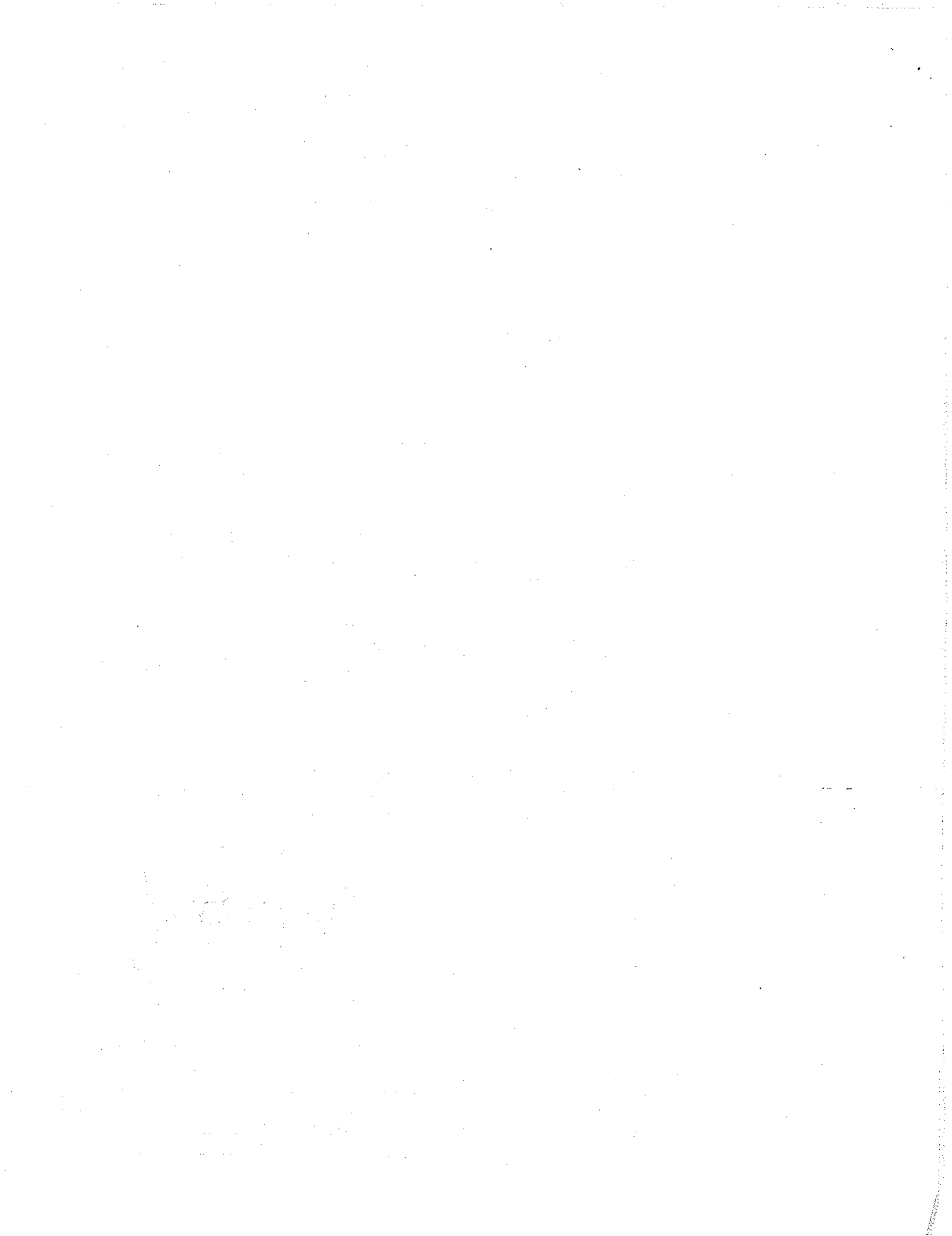
Clerk's Note: The report authored by the City Engineer dated August 29, 2012 entitled "Cabana-Division Road Corridor Improvements, Stormwater Management Study and Functional Design" is attached as background information.

**LIVELINK 16089, SWW/5884**

  
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**CHAIRPERSON**

  
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**DEPUTY CLERK**

<b>NOTIFICATION:</b>				
Name	Address	Email Address	Telephone	FAX
Paolo Eugeni		<a href="mailto:paolo.eugeni@aecom.com">paolo.eugeni@aecom.com</a>		
Jeremy Wychrechuk		<a href="mailto:jwychreschuk@erca.org">jwychreschuk@erca.org</a>		



**THE CORPORATION OF THE CITY OF WINDSOR**  
**Environment & Transportation Standing Committee - Administrative Report**

**MISSION STATEMENT:**

*"The City of Windsor, with the involvement of its citizens, will deliver effective and responsive municipal services, and will mobilize innovative community partnerships"*

<b>LiveLink REPORT #:</b> 16089 SWW/5884	<b>Report Date:</b> August 13, 2012 (3406-08/14/12:lp)
<b>Author's Name:</b> Jane He	<b>Date to Standing Committee :</b> August 29, 2012
<b>Author's Phone:</b> 519-255-6257 ext. 6358	<b>Classification #:</b>
<b>Author's E-mail:</b> <a href="mailto:jhe@city.windsor.on.ca">jhe@city.windsor.on.ca</a>	

**To:** Environment & Transportation Standing Committee

**Subject:** Cabana-Division Road Corridor Improvements  
Stormwater Management Study and Functional Design

**1. RECOMMENDATION: City Wide: Ward(s): 7, 8 and 9**

- I. That the report of Cabana-Division Road Corridor Improvements Stormwater Management Study and Functional Design, completed by AECOM, dated June 1, 2012, **BE RECEIVED** for information and

That the recommended works be **REFERRED** to the future capital budget process and used when planning road construction as approved by the Cabana - Division Road Corridor Environmental Assessment report.

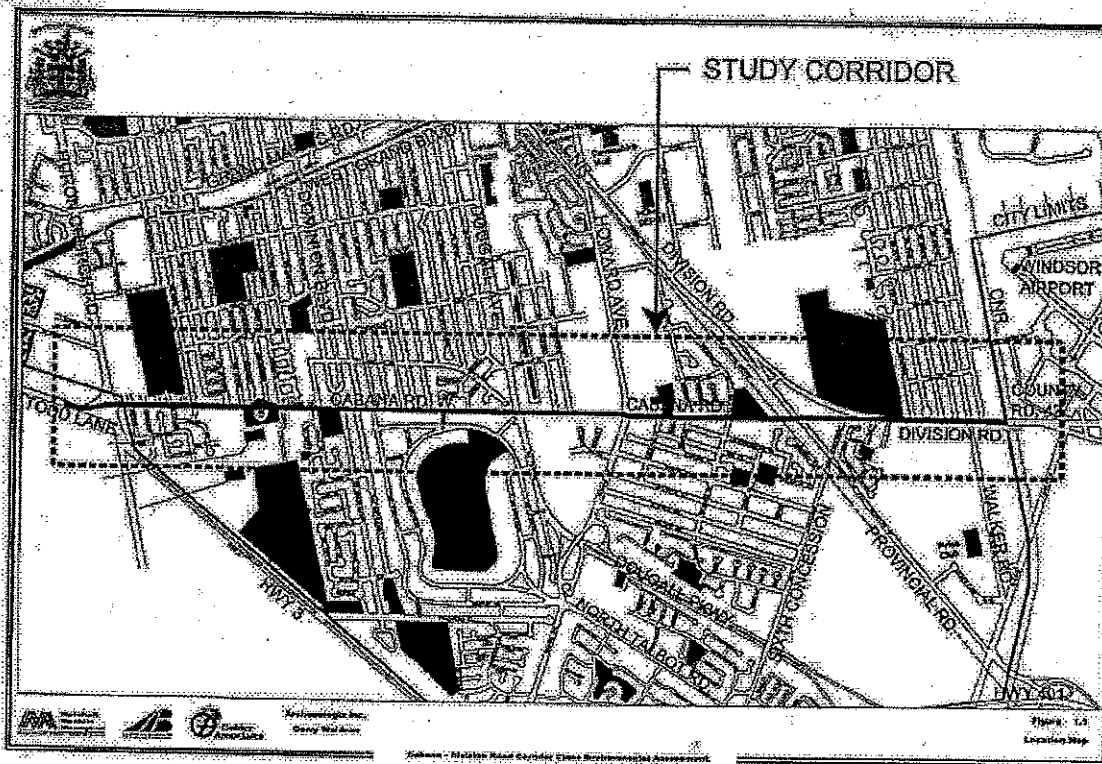
- II. That the Essex Region Conservation Authority (ERCA) **BE RETAINED** as the City's agent for the pre-requisite Lennon Drain improvement work on the St. Clair College property and east to Avon Driveway. The cost of the work will be charged to Project ID 7092004 (Lennon Drain Improvements).

**EXECUTIVE SUMMARY:**

**2. BACKGROUND:**

As part of required work in the Cabana - Division Road Corridor Class Environmental Assessment Study Report, which was approved to implement in March 2, 2009 under CR65/2009, Council approved funding of \$200,000 in total for the Cabana- Division Corridor drainage study in the 2009 Capital Budget (Project #7092005, Cabana Road Improvements). Council Resolution CR260/2009 approved retaining AECOM as the Consultant in the total amount of \$113,360 plus taxes to conduct the Cabana - Division Road Corridor Improvements Stormwater Management Study and Functional Design within the Class 'C' Environmental

Assessment Study area shown in the drawing below in accordance with AECOM proposal for consulting services, dated July 3, 2009.



### 3. DISCUSSION:

The study area covers 484.5 hectare in size with 75% of zoned residential properties and 25% combination of zoned Institutional, commercial and green/development reserved properties. Existing drainage problems, future improvement requirements, environmental concerns and alternative solutions were investigated and analyzed. By using modelling methods, storm water management alternatives were compared and optimized, and preliminary functional design of the storm sewer system was completed based on the 4-lane road cross-section as proposed in the Cabana – Division Corridor Class Environment Assessment Study Report.

The recommended stormwater management solution includes the following major works:

- Pre-requisite Lennon Drain improvements that were recommended in the previous Lennon Drain Functional Design Report (LaFontaine, Cowie, Buratto & Associates, 1993):
  - o Lennon Drain stormwater management pond on St. Clair College property and east to Avon Drive;
  - o Culvert replacements at St. Clair College entrance and Avon Drive
  - o Ditch cleaning and widening in isolated locations.
  
- Storm sewer conveyance system and stormwater management for Cabana Road Improvements:
  - o Trunk sewer on Mount Carmel Drive from Cabana Road West to Lennon Drain;
  - o Storm sewer system along Cabana Road from Huron Church Road to Dougall Avenue;

- Lennon Drain widening between Avon Drive and Mount Carmel Drive;
  - Stormwater quality control facility on Lennon Drain adjacent to St. Clair College Stormwater Management pond.
- General Lennon Drain area improvements identified by modelling as opportunities to make minor storm sewer system changes at relatively low costs. These are independent of the widening of Cabana Road West; however it will allow cross-connections between existing storm sewer. Available storm sewer capacity could be better utilized leading to an overall improved drainage system.

A reasonable construction sequence has been recommended in the report as well. The following works can be completed at any time when funds are available subject to required approval from the Ministry of Environment:

- The pre-requisite drain work (on St. Clair College land, on Roseland Golf course, etc.)
- Division Road improvement from Woodward Boulevard to Walker Road can be done at any time with no stormwater work being required.
- The Lennon Drain general improvements.

Improvements on Cabana Road East between Howard Avenue and Woodward Boulevard would be linked to Provincial/Division Road Improvement work on Provincial Road south of Cabana Road East. The completion of storm sewer system work on this section of Provincial Road would provide capacity relief to the section of Cabana Road East between Howard and Woodward Boulevard.

Trunk sewer on Mount Carmel Drive and Lennon Drain improvements at the downstream of Mount Carmel Drive will have to be completed prior to any improvements to Cabana Road West between Huron Church and Howard Avenue.

#### **4. FINANCIAL MATTERS:**

The estimated costs to implement recommended storm functional design solutions outlined in the report will be approximately \$ 4,255,550, excluding any engineering fees, road construction, utilities relocation and land acquisition costs.

The estimated breakdown costs for the Cabana Road Corridor stormwater management work are follows:

Pre-Requisite Drain Work - \$ 815,200  
 Sewer Conveyance System – Huron Church to Howard - \$3,086,600  
 Stormwater Management (storage) - \$353,750

It is noted that road construction for the entire Cabana/Division Corridor as outlined in drawing in Background section is estimated at an additional cost \$27,500,000 (2011 capital budget estimate, not including utility relocation, land acquisition and engineering costs).

#### **5. RISK ANALYSIS:**

Many of the stormwater recommendations for improvement of Cabana Road between Walker Road and Todd Lane in the future need stormwater sewer or system works to proceed. This stormwater report sets the criteria for the needed works in the future.

## 6. CONSULTATIONS:

Scheduled progress meetings were held with Essex Region Conservation Authority (ERCA) and internal departments including the City's Operations and Pollution Controls departments. Planning and Legal Department were consulted for the future land development.

The Draft Report has been reviewed and commented on by ERCA, Operations, and Pollution Controls.

## 6. CONCLUSION:

Administration recommends that the report be received and used to plan for future road construction in Cabana-Division Road Corridor and ERCA being retained as City's agent for the Lennon Drain Work between the St. Clair College property and east of Avon Drive.



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Jane Z. He  
Engineer III (A)



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Mario Sonogo  
City Engineer and Corporate Leader  
Environmental Protection and Transportation

JZH/bmw

**APPENDICES: Executive Summary - Cabana/Division Corridor Improvements  
Stormwater Management Study and Functional Design**

### DEPARTMENTS/OTHERS CONSULTED:

Name:

Phone #: 519 ext.

### NOTIFICATION :

Name	Address	Email Address	Telephone	FAX
Paolo Eugeni, P. Eng.	350 Cabana Road East, Windsor ON	Paolo.Eugeni@aecom.com	519-969-8449	519-969-9420
Jeremy Wychrechuk	360 Fairview Avenue West, Suite 311, N8M 1Y3	jwychreschuk@erca.org	519-776-5209 ext. 305	519-776-8688

## Executive Summary

In November of 2005 Marshall Macklin Monaghan Limited completed an Environmental Study Report which recommended a four lane urban cross-section for the Cabana-Division Road corridor from Huron Church Road to Walker Road. That Report did not address stormwater facilities for the corridor.

AECOM was subsequently contracted to prepare this functional design report for the required stormwater utilities associated with the roadway improvements. This report includes an examination of the Lennon Drain which will serve as the main outlet for the improved Cabana Road from the DRTP Railway east of Provincial Road to Huron Church Road. The examination of the Lennon Drain was deemed necessary as it was unknown whether the Drain in its current configuration had sufficient capacity for runoff from the existing or improved Cabana Road.

Three different scenarios were considered for the Lennon Drain:

1. The Drain as it currently exists.
2. The Drain as it would/should exist had the previous 1993 report prepared by LaFontaine, Cowie, Buratto & Associates Limited titled "Lennon Drain Functional Design Report" been fully implemented and the Drain received regular maintenance.
3. The Drain as it would be after the Cabana-Division Road Corridor Improvements were carried out.

After the stormwater systems within the Cabana-Division Road Corridor were examined the following conclusions and recommendations were made:

1. The previous recommendations from the 1993 LaFontaine Report should be implemented with minor revisions and the Lennon Drain cleaned.
2. Improvements to Division Road from Woodward Boulevard to Walker Road can occur without necessitating stormwater system improvements.
3. Improvements to Cabana-Division Road from the DRTP Railway to Woodward Boulevard are covered under a separate study of the Provincial-Division Road Corridor which also addressed stormwater requirements.
4. Improvements to Cabana Road from Howard Avenue to the DRTP Railway can occur with only minor stormwater improvements being required. These improvements were provisional in nature with an estimated construction cost around \$130,000, excluding Engineering.
5. Improvements to Cabana Road from Borelli Drive to Howard Avenue require construction of new storm sewers and a stormwater management facility. These stormwater works were estimated to cost around \$2,926,000, excluding Engineering.
6. Improvements to Cabana Road from Huron Church Road to Borelli Drive require construction of new storm sewers but are not dependant on works east of Borelli Drive. These stormwater works were estimated to cost around \$81,000, excluding Engineering.
7. Three minor system alterations were also recommended to improve the overall Lennon Drain stormwater system performance.

