April 8, 2024

Re: Freedom of Information and Protection of Privacy Act

I am writing about your request of January 25, 2024 for access to information under the Freedom of Information and Protection of Privacy Act.

Regarding your first request, “Development and design plans for stages of development for McDougall Heights provided to the town from January 1, 2021 to present”, we regret to inform you that a search by the Town of Kentville has failed to retrieve any records relating to the subject of your request. The staff who were most closely involved with this work reviewed their paper and digital files for these records and did not locate any.

Regarding your second request, “The final stormwater management report written by Design Point Engineering sometime between September 1 and December 31 2023”, this report is attached.

If you feel that your request has not been answered completely or that you require further clarification, please contact Jennifer West at jwest@kentville.ca.

The Freedom of Information and Protection of Privacy Act states that you may ask the Information and Privacy Commissioner to review the assessment of a fee or any other matter concerning this response to your request. You have 60 days from the date of this notice to request a review by writing to the Information and Privacy Commissioner at 509-5670 Spring Garden Rd, Halifax, NS B3J 1H6.

If you wish to request a review, please provide the Office of the Commissioner with the following information:

- The reference number quoted at the top of this notice (202401).
- A copy of this letter.
- A copy of your original request for information that you sent to the Town of Kentville.

Sincerely,

Jennifer West

Deputy Clerk

DESIGNPOINT
engineering • surveying • solutions

December 5, 2023

Town of Kentville
354 Main Street
Kentville, NS B4N 1K6
Attention: Dave Bell, P.Eng.

RE: Condon Avenue – Storm Drainage System Review
DP Project No.: 23-625

Introduction

At the request of the Town of Kentville (Town), DesignPoint has reviewed the storm drainage system on Condon Avenue in Kentville, Nova Scotia.

On the south end of Condon Avenue, a watercourse terminates at a 900mmØ HDPE inlet storm pipe. This 900mmØ storm pipe continues along Condon Avenue to Park Street where it then continues to the east along Park Street, then north to the former railway ditch (see Drawing No. SDP1 attached).

On August 30, 2023, Kentville received 78.6mm of rainfall and from September 14 – 16, 2023, Kentville received 141.9mm of rainfall (based on Environment Canada records). During both of these extreme rainfall events the watercourse at Condon Avenue overflowed onto the street washing significant quantities of sediment onto the roadway and onto private property. There was significant property damage due to flooding and erosion and sediment deposition from these rainfall events.

The Town has requested that we review the storm drainage system and make recommendations to put measures in place to reduce the probability and/or severity of future flood/erosion events.

Site Description

Condon Avenue is a fully serviced residential street approximately 130m long. There is a 900mmØ HDPE storm pipe with a concrete headwall and grate at the upper end of the street where a watercourse flows into the pipe. The watercourse drains to a mostly wooded area up to Prospect Avenue approximately 1km away, with a total drainage area of approximately 52 acres. The watercourse is steep and is in a deep gully (10-30 ft deep) in the lower section. The soil in this area is a sandy silt and is highly susceptible to erosion.

Work Completed

DesignPoint has completed two (2) site visits and walked the entire watercourse route upstream and downstream of Condon Avenue. We have reviewed available record information, mapping, photos, and rainfall data for the area. We have also calculated the watershed boundary area and estimated peak 100-year stormwater flows. As requested, we have reviewed options to increase the capacity of the system and/or reduce the flow and erosion.

A plan of the drainage area has been prepared along with hydrologic calculations to determine peak flows and required pipe sizes. We have also completed preliminary concept level drawings of drainage improvements.

Conclusions

Based on the work completed to date, we have made the following conclusions:

1. The peak flows in the watercourse above Condon Avenue have caused significant erosion and washed large quantities of sediment downstream into the piped storm system causing the system to be "clogged". This resulted in flows overtopping the inlet and flowing onto Condon Avenue bringing large quantities of sediment.

2. There is opportunity for upstream storage near the proposed Donald Hiltz connector road. This upstream storage would help reduce the flow to the downstream sections.

3. The pipe network downstream of Condon Avenue does not have adequate capacity to handle the peak flows. The 900mmØ pipe on Condon Avenue connects to what we understand is a 450mmØ pipe on Park Street. This inadequate pipe size causes the storm system to surcharge and back up onto Park Street. The peak flow to this pipe for the 1:100-year storm is 2.25 m^3/s and the capacity of the 900mmØ inlet pipe is 1.0 m^3/s.

4. The inlet pipe at the top of Condon Avenue is inadequate to handle the peak flows.

Recommendations

Based on the work completed to date and meeting with yourself, we offer the following recommendations:

1. Improve the inlet structure at the top of Condon Avenue to increase the inlet capacity and allow for a sediment accumulation (see attached plan).

2. Install a 1200mmØ concrete storm pipe downstream of the Condon Avenue / Park Street intersection across the Town's land to the former railway ditch (see attached plan).

3. Review options for upstream storage at the Donald Hiltz connector road.

4. Place rock armour stone on sections of the watercourse that are severely eroded from the August and September 2023 rainstorms.

It is important to note that prior to the implementation of the above recommendations, detailed design and approvals will need to be complete.

If you have any questions or would like to discuss our review further, please feel free to contact me.

Thank you,
DesignPoint Engineering & Surveying Ltd.

Glenn Woodford

Glenn Woodford, P.Eng.
Senior Civil Engineer & Principal

GSW/alc

Enclosures:
Drawing: SDP1

FORMER RAILWAY

WEST MAIN STREET

EX. 900 mm Ø STORM

PROP. 1200 mm Ø STORM

EX. DITCH

EX. BALLFIELD

GLADYS PORTER DRIVE

EX. 600 mm Ø STORM

EX. 150 mm Ø WATER

EX. 200 mm Ø SANITARY

EX. 300 mm Ø WATER

STORM TO EX. RAILWAY DITCH (APPROX.)

EX. STORM SYSTEMS (APPROX.)

PARK STREET

EX. 900 mm Ø STORM

EX. STORM CONTROL AREA

CONDON AVENUE

EX. 450 mm Ø STORM

EX. TIMBER BOX CULVERT

REDIRECT FLOW TO NEW STORM AT MANHOLE

PROP. 1200 mm Ø INLET

PARKVIEW ROAD

EX. CATCH BASINS

EX. 375 mm Ø STORM

EX. 375 mm Ø STORM

FUTURE DONALD HILTZ CONNECTOR ROAD

EX. 375 mm Ø STORM

EX. 375 mm Ø STORM

EX. STORM (TOWN TO CONFIRM)

PROSPECT AVENUE

EX. WATER TOWER

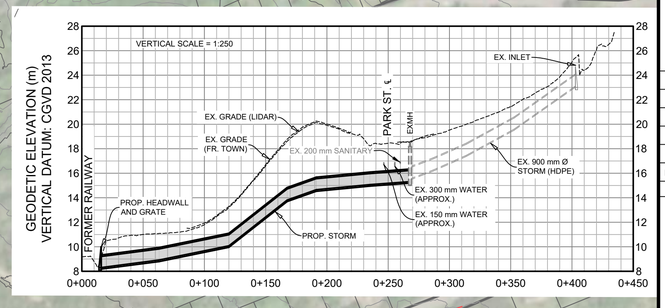
EX. 450 mm Ø STORM

EX. 525 mm Ø STORM

EX. 300 mm Ø STORM

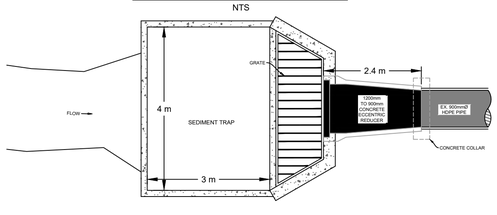
CHESTER AVENUE

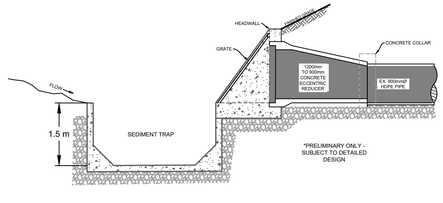
N



PROPOSED INLET DETAIL

NTS





*PRELIMINARY ONLY - SUBJECT TO DETAILED DESIGN

LEGEND

EXISTING		PROPOSED
10	MAJOR CONTOUR	10
10	MINOR CONTOUR	10
	EASEMENT	
	RIGHT OF WAY	
	LOT LINE	
ST-E	STORM PIPE	ST ST
	SUBCATCHMENT AREA	

	EXISTING	PROPOSED		EXISTING	PROPOSED
PRECAST HEADWALL			CATCHBASIN		
CATCHMENT ID	A		SUBCATCHMENT ID	A1	

NOTES:
1. CONTOURS BASED ON LIDAR INFORMATION. CONTOUR INTERVAL = 2m.
2. LOCATIONS OF EXISTING INFRASTRUCTURE IS APPROXIMATE.
3. PROPOSED STORM UPGRADES ARE PRELIMINARY ONLY AND SUBJECT TO DETAILED DESIGN AND APPROVALS.

METRES
50 0 100 150
1:2500

ISSUE	DATE	DESCRIPTION
1	OCT. DD, 2023	ISSUED FOR

CONSULTANT

DESIGNPOINT
engineering • surveying • solutions
902.832.5597 designpoint.ca

PRELIMINARY
DEC 5 2023

CLIENT

Kentville

PROJECT DESCRIPTION

CONDON AVENUE STORM SYSTEM

KENTVILLE, NS

SHEET DESCRIPTION

STORM DRAINAGE PLAN AND STORM SCHEMATIC

Drawn	Engineer	Project No.	Drawing No.
STAFF	GSW	23-625	SDP1
Scale	Filename		1 of 1
1:2500	23-625 Prelim1.dwg		