Ultra-Urban Application of the Drainage Act: Southdown District, Mississauga

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Water Quality
Water Quantity
Why Hasn’t Wide Scale Adoption Occurred?

Commercial Property Owners

- Return on Investment key determinant for commercial property owner expenditures in on-site SWM

- Stormwater utility & credit programs or “feebates” do not tip the scales in favour of adoption (in Mississauga uptake is below 5%)

- Major challenge, as small- to medium-sized businesses cannot afford significant capital outlays

The area above (Square One) is 245,945.2 m² in size.

Annual stormwater charge is $93,952.20.
A ‘Made in Ontario’ Solution:
The Drainage Act as an Innovation Tool
Why the Drainage Act?

- The Act has been serving the drainage needs of the Province for 183 years
- The Act brings people together as a community and helps everyone realize financial efficiencies / economies of scale
- The Act speaks directly to many of the concerns that municipalities have about infrastructure on private property:
  - Who pays, and how much?
  - Ability to inspect & maintain
  - Power to protect
  - Infrastructure improvement and optimization
  - Movement of water across (multiple) property boundaries
  - Etc.
The Nitty Gritty: Setting the Boundaries

- **Drainage Works:** A *drain constructed by any means [*…*] and includes works necessary to regulate the [*…*] water level within or on any lands…* (S.1)
- **Improvement:** Any modification of or addition to a drainage works intended to increase the effectiveness of the system (S.1)
- **Effectiveness:** …Manages the volume and rate of flow of the water artificially caused to flow (S.3)
The Nitty Gritty: Initiating Projects Through Petition

- Almost anyone can petition for drainage. This includes individuals, municipalities and for-profit corporations (signing authority must reside with the petitioner) (Section 1)

- Rural and urban property owners can sign a petition for drainage

- Since the Act specifies an “Area Requiring Drainage” (ARD), and not a “drainage area” or “watershed”, it lends itself well to the Grid Block concept
Drainage Area vs. Area Requiring Drainage
The Nitty Gritty: Defining Projects Through Onsite Meetings

- Under the Act, the engineer must hold an onsite meeting to determine the ARD (Section 9(1))

- Onsite meeting is a good opportunity for land owners to provide project input
Urban Onsite Meetings: An Opportunity for Scoping and Discovery
The Nitty Gritty: Project Designs

• Covered drainage works can be employed (Section 14(2)).
The Nitty Gritty: Engineer’s Report

• Engineers are required by this Act (and others!) to be fair and impartial. They must perform their duties without prejudice, and must make a true report and a promulgate a design which holds above all else the their duty to the public (Section 11).
  – O.Reg. 941 77(1): “Practitioner shall act at all times with (ii) fidelity to public needs”
  – O.Reg. 941 77(2): “Practitioners shall (i) regard the practitioner’s duty to public welfare as paramount”
Preliminary Reports

• Section 10(1): When municipalities consider it expedient to do so, they can instruct the engineer to produce a preliminary report, which includes:
  – A sketch of the plan
  – A simple cost estimate
  – If an environmental appraisal is required, it must also be included

• In an urban context this may be akin to a feasibility study

• Section 10(2): Upon filing a preliminary report, council must cause the clerk to send a meeting notice to every landowner within the ARD
The Nitty Gritty: Assessments and Allowances

• Allowances (for land dedicated to the works, the disposal of spoil, loss of property access, etc.)

• Assessment schedules developed by the engineer provide a transparent means to assess all project costs to the parcels of land which benefit from the work’s existence

• Construction costs, Engineering costs, Administrative costs, etc. all captured in the assessment schedules
The Nitty Gritty: Costs Efficiencies and Apportionments

- Project costs are initially borne by the municipality before being assessed out to land owners.
- Municipalities are eligible for an HST rebate, and pay only 1.76% tax.

A note on property taxes:
- General taxes pay the municipality’s portion of the drain costs. However, drainage works are a “user pay system”, so lands within the ARD are informed what their share of construction, O&M and monitoring costs are and are assessed accordingly.
The Nitty Gritty: Provisions for Maintenance

• Future maintenance schedules are developed by the engineer

• All costs must be assessed to lands being served and accounted for in the engineers assessment schedule (e.g. Sections 23, 24 and 74)
The Nitty Gritty: Planning for the Future

• Section 78(1) states that municipalities “…may endeavour to undertake one or more projects which improve the drainage works, without the need for a petition.”
  – “Improvement” is defined under Section 1 as “any modification of or addition to a drainage works intended to increase the effectiveness of the system”
  – If the intended purpose of the works if to alleviate drainage issues – including issues noted under 23(3): “…volume and rate of flow of the water artificially caused to flow”, then improvements by extension include any enhancements to LID features
The Nitty Gritty: Giving People A Say

• Grid Blocks are tailored such that only signatories to a petition are included therein.

• Robust appeals system exists within the Drainage Act process (e.g. Sections 47, 52 and 54).
It’s Already Being Done
Southdown Flagship Study
Project Goals (Broad Strokes)

- Support to other CVC-led projects
- City of Mississauga Southdown MDPU
- Region of Peel Synergies
- History of Engagement
- Drainage Issues!
90 Acre Retrofit Initiative
Thank You!

The Project Team:

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Sustainable Technologies EVALUATION PROGRAM