

SITE ALTERATION: EROSION AND SEDIMENT CONTROLS

PERMIT PROCEDURES AND GUIDELINES

Community Development Commission



EROSION AND SEDIMENT CONTROLS PERMIT PROCEDURES AND GUIDELINES

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Revised: February 2020

1 - Introduction

This guideline focuses on the development of erosion and sediment control plans and permits for construction sites.

What is Erosion and Sedimentation?

Erosion is the physical removal or detachment of soil materials/ particles by the action of wind, rainfall and surface run-off. Sedimentation is the act of transporting removed material and depositing it in a new location.

Erosion and sedimentation has a major detrimental impact on natural watercourses as the introduction of suspended soil particles in the water system are hazardous to fish, where they are suspended and fish/aquatic habitat where they are finally deposited.

Construction activities alter the land by removing the vegetation, which help anchor soils in place; bring new material to a site and conduct cutting and filling works which loosen soil and make it more susceptible to the forces of water and wind erosion and sedimentation.

Therefore, effective erosion and sediment control at construction sites is crucial in retaining material on site and maintaining good run off water quality. Good planning is the first step in preventing sediments from damaging the receiving water ecosystem. It is also equally important to ensure erosion and sediment control measures are correctly installed and activity maintained on site.

For the purposes of the Engineering Permit and all certifications and documentation; Qualified means one who, through education and professional designation, in combination with experience in the specific field for which they have been trained, as it relates to the work being assigned, is competent.



2 - Types of Erosion

Water Erosion

Water run-off from construction sites can contribute significant sediment loads to receiving waters i.e. creeks and streams. There are four main water erosion types as indicated in the following description and diagram:

1. Raindrop erosion is caused by the direct impact of rain drops falling on soil particles. This impact dislodges soil particles and splashes them into the air. The dislodged soil particles can then be easily transported by the flow of surface run-off.
2. Sheet erosion refers to the removal of a layer of exposed surface soil by the action of raindrop splash and run-off. The water moves in broad sheets over the land and is not confined in small depressions.
3. Rill and gully erosion is caused by concentrated run-off in rivulets, cutting several inches deep into the soil surface. These grooves are called rills. Gullies may develop in unrepaired rills or in other areas where a concentrated flow of water moves over the soil.
4. Stream and channel erosion is caused by increases in the volume and velocity of run-off.

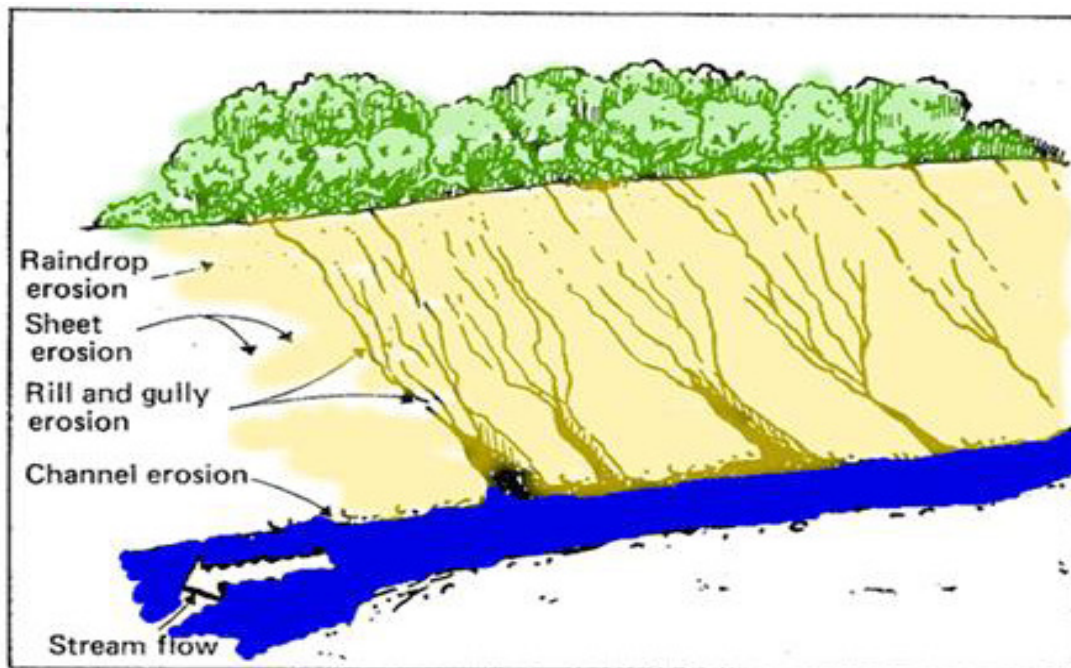


Fig. 1.3 Types of erosion. (Adapted from 1)

Figure 1: Types of Water Induced Erosion

Source: University of Ryerson, Civil Engineering Department

Wind Erosion

Wind erosion occurs when the forces exerted by the wind overcome the gravitational and cohesive forces of soil particles on the surface of the ground. The wind transports these particles in three ways, depending on their size.

1. Particles greater than 0.5 mm diameter are generally too heavy to be lifted by the wind, so they are rolled along the surface by wind drag or moved by bombardment by other moving particles. This mode of wind transport is called creep.
2. Particles in the range 0.1-0.5 mm diameter are lifted by the wind, then fall back to the ground, so they move in a hopping or bouncing fashion. These particles cause abrasion of the soil surface and as they hit other particles they break into smaller particles, a process called attrition. This bouncing mode of wind transport is called saltation and is the main process forming the suspension fraction of soil particles in the air.
3. Once small particles less than 0.1 mm in diameter have been ejected into the air by saltation they remain suspended as dust and are carried away from the erosion site by the wind. This mode of wind transport is called suspension. The majority of particles > 0.02 mm will settle back to the ground within 100 km of the erosion site but finer particles can be carried very long distances.

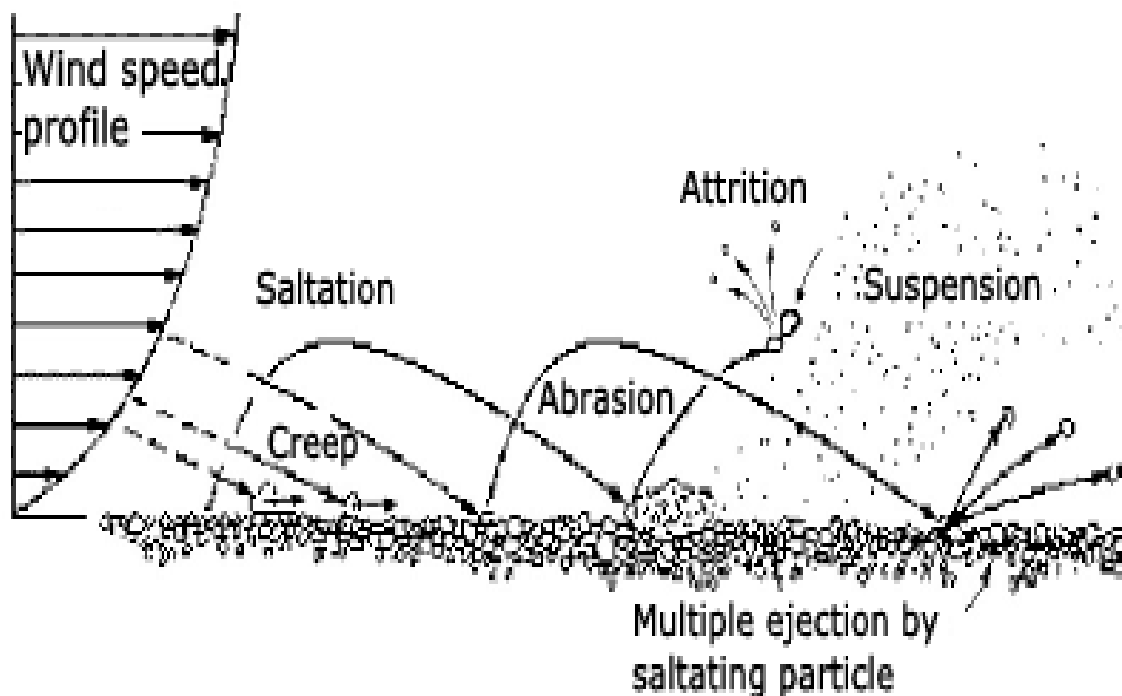


Figure 2: Diagram of the modes of transport of soil particles during wind erosion

Source: NSW Government

3 - Regulations

Town of Oakville

The Town of Oakville's Site Alteration By-Law (2003-021) as amended, regulates the placing or dumping of fill, the removal of topsoil and the alteration of the grade of land on all properties in Oakville; whether associated with formalized building, construction activity or landscaping. The by-law states that no person or corporation shall engage in earth moving activities within the Town of Oakville without first having obtained a Permit (see Appendix 'B' for sample application form) available from the Development Engineering Department.

Permits are issued by the town once all requirements of the Site Alteration By-Law have been met and the town is satisfied that appropriate precautions have been taken to protect any watercourse, embankment and/or storm sewer system from contamination. The permit process will also ensure the protection of trees, detail site restoration and hold securities for; erosion and siltation controls, damage to municipal infrastructure and general cleanup.

The town has also adopted the Erosion and Sediment Control Guidelines for Urban Construction (December 2006), prepared by the Greater Golden Horseshoe Area Conservation Authorities (GGHA CAs) and also the Erosion and Sediment Control Inspection Guide (2008), prepared by the Greater Golden Horseshoe Area Conservation Authorities (GGHA CAs). These documents should be adhered to for requirements and best management practices for erosion and sediment controls. The by-law and guidelines include a list of the detailed documentation, calculations and plans that the proponent must provide in support of the permit application and required maintenance.

The Ministry of the Environment and Climate Change (MOECC)

The MOECC encourages the reuse of excess soils in a manner promoting sustainability and protection of the environment. Soil reuse is encouraged where the analysis determines the soil is appropriate to be placed on another site.

As such, all applicants whose sites are to receive fill/ topsoil in Oakville in excess of 20 cubic meters shall follow the MOE, Management of Excess Soil Guide for best management practices, and provide the town with soil testing results as per MOE Regulations prior to shipping and placing the fill. Only fill meeting the MOE's Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act shall be accepted.

Conservation Authorities

The Town of Oakville encompasses regulated areas from 2 conservation authorities; Conservation Halton and Credit Valley Conservation.

Conservation Halton

<http://www.conservationhalton.on.ca>

Conservation Halton (CH) administers a natural hazard-based Regulation that captures watercourses, confined and unconfined valleys, flood plains, the Lake Ontario shoreline, wetlands, unstable soils, unstable bedrock and potential areas of interference with wetlands. Any proposed development, within CH's regulated area, requires permission from CH. Permission from CH can come in the form of either a 'Permit' or a 'Letter of Permission' depending on the type of development.

CH's permitting process is mandated under Section 28 of the Conservation Authorities Act. The Regulation currently administered by CH is Ontario Regulation 162/06.

Credit Valley Conservation

<http://www.creditvalleyca.ca>

Credit Valley Conservation (CVC) safeguards watershed health by preventing pollution and destruction of ecologically sensitive areas such as significant natural features and areas, wetlands, shorelines, valleylands and watercourses. Ontario Regulation 160/06 establishes Regulated Areas where development could be subject to flooding, erosion or dynamic beaches, or where interference with wetlands or alterations to watercourses might have an adverse effect.

If you are unsure which conservation authority applies to you or if you need a permit, please visit their web sites or contact them directly.

Enforcement and Compliance

All Oakville Inspectors and Municipal Law Enforcement Officers are authorized to attend any property within the town to ensure that the provisions of the by-law are adhered to and approved permit works, including the installation and maintenance of erosion and sedimentation devices are carried out.

Compliance with town and conservation authorities results in:

- Protecting our environment
- Fewer erosion and sediment problems and more time spent on construction
- A good working relationship with regulatory authorities

Non-compliance can result in:

- Regulatory or other enforcement actions (Orders to comply, Stop work orders, Charges/fines, prosecution, etc.)
- Higher costs for: repair to controls, remediation works and construction down time
- Complaints and subsequent site investigations
- Close scrutiny of current and future applications

4 - Erosion and Sediment Control (ESC) Planning

The principles of ESC are; 1) prevention of erosion and 2) control of sediments from leaving the construction site. Erosion prevention is the preferred mitigative measure for offsetting the potential for sedimentation.

The typical steps of ESC planning are identification of problem areas, selection of erosion and sediment control measures, and preparation of document and drawings.

An ESC Plan must be submitted as a written report with separate drawing(s) for sites where the alteration is equal to or larger than 2000 m² or only drawings for smaller alterations. An ESC Plan Report is required in addition to the ESC Plan drawing(s) to set out the base information, descriptions and calculation upon which the ESC Plan was formulated. Summarized in Section 5 are the requirements for preparing the reports and drawings that accompany an ESC Plan, as set out in The Erosion and Sediment Control Guideline for Urban Construction (December 2006), prepared by the GGHA CAs. This document should be referred to for more detail.

Additionally, where a site is equal to or larger than 2000 m² and adjacent to a sensitive watercourse, where there are endangered species or species at risk, Silt Smart protocols and monitoring are required (www.ontariostreams.on.ca/resources-publications).

The Ontario Provincial Standard Drawings (OPSD) have a number of approved generic ESC devices that are routinely employed (see the excerpts on the following page); however, there are many other devices, up to and including sedimentation ponds that are required in specific circumstances.

5 - Application Requirements

The following is a list of the detailed documentation, calculations and plans that the proponent must provide in support of the permit application. A sediment and erosion control plan may be prepared and submitted independent of, or in combination with other supporting documents. Sediment and erosion control plans must be prepared by a qualified civil engineer with final documents stamped and signed.

A complete submission would include:

Applications to alter an area 2000 m² or larger (Large Site, i.e. Subdivision);

- a. A completed Engineering Permit Application
- b. Required fees and securities
- c. 4 copies of an Erosion and Sediment Control Report
- d. 4 copies of Erosion and Sediment Control Drawings
- e. 2 copies of a Phase 1 Environmental Report (Subdivisions)
- f. 2 copies of an Arborist Report and/ or Tree Assessment Survey
- g. 2 copies of an Archaeological Assessment Clearance Letter (Subdivisions)

Applications to alter an area less than 1999 m² (Small Site, i.e. Infill);

- a. A completed Engineering Permit Application
- b. Required fees and securities
- c. 4 copies of Erosion and Sediment Control Drawings
- d. 2 copies of an Arborist Report

Erosion and Sediment Control Report

The following items must be included in an Erosion and Sediment Control Report:

1. Project Descriptions: Brief description of the nature and purpose of the land disturbing activity. Also include the legal description of the property and a reference to adjacent properties and landmarks.
2. Condition of Existing Site: Description of the land use, site topography, vegetation, and drainage of the site under existing/current conditions.
3. Condition and Inventory of Storm Sewer Infrastructure: Description of all existing storm sewers and culverts that may be affected by the development (The applicant may be required to conduct localized remedial work to ensure functionality of the receiving storm sewer infrastructure).

4. Condition of Existing Receiving Water: Description of local receiving waters such as water courses and lakes (e.g. warm water fisheries, cold water fisheries; aquatic habitat use, confined or unconfined valley).
5. Adjacent Areas and Features: Description of neighbouring areas, such as residential and commercial areas, reserves, natural areas, parks, storm sewers, and roads that might be affected by the land disturbance.
6. Soils: A description of soils on the site, including erodibility, and grain size analysis. This description should include a summary of the soils/geotechnical report for the site.
7. Critical / Sensitive Areas: Description of areas within the development site that have potential for serious erosion or sediment problems and measures to be applied to address such areas.
8. Permanent Stabilization: Description of how the site will be stabilized after construction is completed. This may require a phasing plan (to be provided on the ESC Plan drawing) of the stripped area to be reseeded and the expected time of stabilization. *Note: Sod is required to be placed on residential lots/ properties*
9. Design Details of Erosion and Sediment Control Measures: The supporting calculations and design details of the sediment control measures. Specifically for ESC ponds – calculations and details include permanent pool and extended detention volumes, pond sizing volume, and calculations for the pond outlet and emergency overflow outlet. Provide a plan for monitoring and maintenance outlining who is responsible for this activity on the site.
10. Record Keeping Procedure: Include sample inspection and maintenance forms. Maintenance Record keeping procedure including name/designate of the personal who will keep the inspection and maintenance record.
11. Stockpile Details: Stockpile details to include the height and volume at each proposed location.
12. Details of the proposed monitoring and reporting schedule to be included and designated Environmental Monitor (EM). The EM is generally an environmental professional who provides a quality control/ assurance that site is environmentally compliant.
13. Emergency Contact: Provide a list of emergency and non-emergency contacts (e.g. owner, site supervisor, 24hr contact).
14. Stamped and Signed: ESC document/report must be stamped and signed by a qualified civil engineer.

6 - Drawing Requirements

1. General Items:
 - Site address including application number (e.g. SP, SD or T number)
 - Key map including site boundary limits
 - A legend identifying ESC measures
 - Drawing scale
 - North arrow
 - Location of any existing or proposed building(s) or structure(s) on the site
2. Existing Contours: Existing elevation of the site at 0.5-1.0 m intervals to determine drainage patterns. Spot elevations may also be required. Extend existing contours to beyond property limit by a minimum of 30 meters.
3. Existing Vegetation: Location of any trees, shrubs, grasses, and unique vegetation to be preserved or removed. Tree hoarding area(s) are to be clearly shown and labeled as Tree Protection Zones (TPZ).
4. Water Resources Location(s): Location of any water body such as wetlands, lakes, rivers, streams, or drainage course on or adjacent to the site.
5. Regional Storm Flood Plain and Regulated Areas: Regional flood line level, Regulation Limit and reference to relevant hydraulic model cross-section where applicable.
6. Critical Areas: Area within or near the proposed development with potential for serious erosion or sediment problems.
7. Proposed Contours/Elevation: Proposed changes in existing elevation contours for each stage of grading. A cut/fill plan showing existing and proposed contours. Spot elevation for proposed conditions should also be illustrated.
8. Site Boundary Limits and Limits of Clearing and Grading: Site boundary limits and the limits of all proposed land disturbing activities.
9. Existing and Proposed Drainage Systems: Location and direction of any existing/proposed storm drainage system (e.g. storm sewers, swales, ditches, etc.) and overland flow drainage patterns within and adjacent to the site.
10. Limits of Clearing and Grading: A line defining the boundary of the area to be disturbed.
11. Stockpile and Berm Data: Stockpile and/or berm locations, size and the diversion route of the run-off. Consideration will include proximity to existing homes, regulated area and open spaces.

12. Erosion and Sediment Control Measures Locations and Details: Location and details for all ESC measures proposed with notes provided to direct their timing/phasing such that there is an appropriate level of protection provided during all stages of construction (e.g. mud mats and Sediment fence should be installed prior to any land disturbing activities).
13. Stormwater Management Systems: Plan and cross section profiles of ESC ponds/SWM ponds and location(s) to be shown. Also include the storm inlet, outlet, emergency outlet, and other permanent and temporary drainage facilities (swale, waterways, and channels). Volume, depth, and inflow and outflow rates should be provided. ESC pond maintenance target volumes and drainage areas to the pond to be specified.
14. Stormwater Discharge Locations: All stormwater discharge locations are to be identified and detailed.
15. Access Road: A description of the site's access and measures (i.e. mud mats) to be taken to prevent the transfer of sediment off site via construction vehicles.
16. Internal Haul Road: The information about the internal haul road that will be used during construction and its maintenance schedule.
17. Construction Phasing and Scheduling: Details of phasing of the construction project and the scheduling of the proposed construction works.
18. Inspection and Maintenance: A schedule of regular inspections and repairs to erosion and sediment control practices that are provided in the ESC Plan. Monitoring and maintenance plan for sediment accumulation within the pond.
19. Stamped and Signed: All drawings must be stamped and signed as approved by a qualified civil engineer.

Please note:

In order to process applications promptly and accurately, they need to be complete. Should information be missing, the application will not be accepted until it is complete. The application requirements (Section 5) will assist you to ensure that you have included all of the required documents.

Should there be an open permit on a property at the time of applying for a new permit, the town may not issue the requested permit until such time as the existing open permit is:

- a. certified by the owner's agent (P.Eng., OLS, LA) or the previous permit holder, and
- b. inspected and all deficiencies resolved/rectified, and
- c. the permit is closed.

Note: Proper design, implementation and maintenance is key to ensuring that you protect existing sewers and drains from Silt laden water. Please see the following 2 examples:



Right method – The catchbasin opening is completely surrounded by a silt sock preventing silt laden waters from exiting the site and contaminating the sewer and downstream watercourse. Silt socks can be used for areas with minimal amount of exposed soil and slower water velocities.

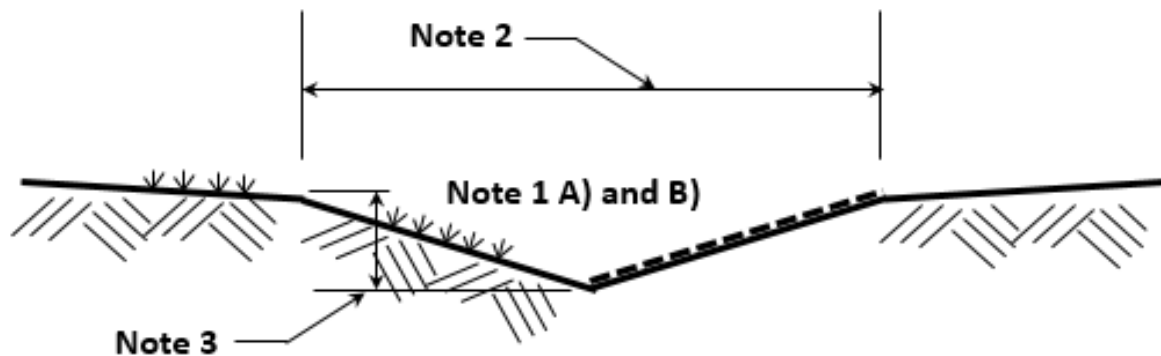


Wrong method – Silt fence is not meant to hold back large volumes of water, like a swimming pool liner. Additionally, the catchbasin is not protected from the fence failure. Silt fencing should be used in conjunction with other erosion and sediment controls, like check dams, at low points or areas of potential problems.

Swale Information - Temporary Construction

Swale Cross Section Detail

(NOT TO SCALE)



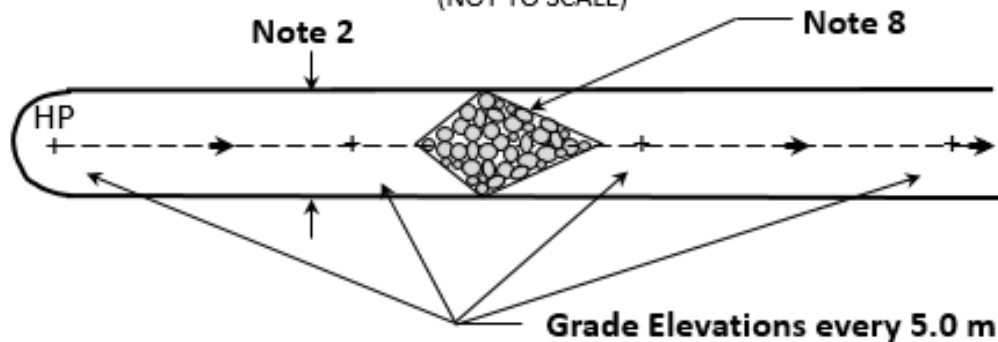
Notes

All swales are to:

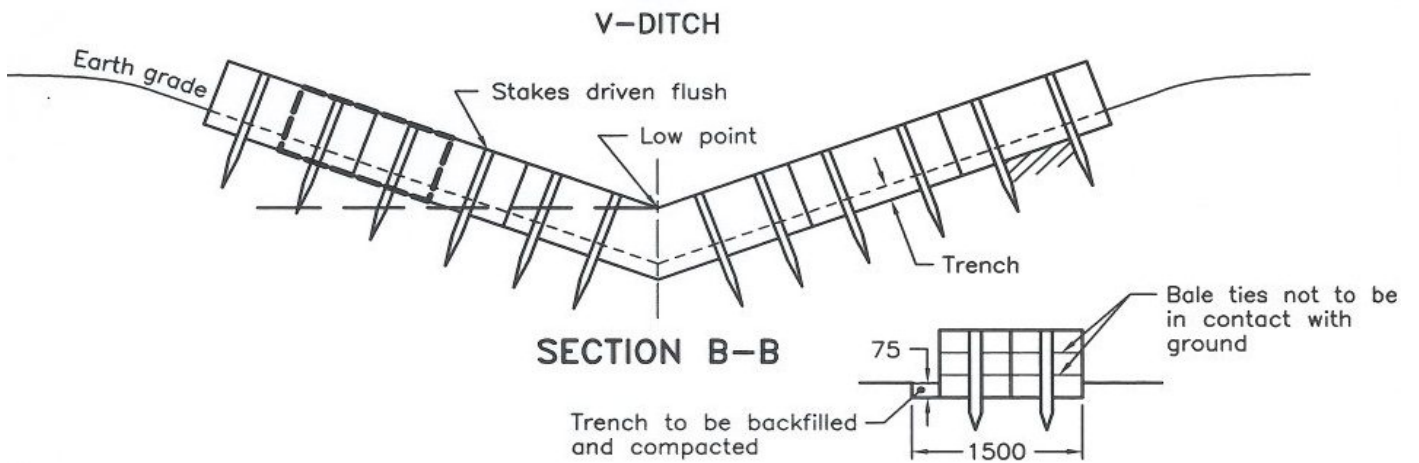
1. Be stabilized with either: A) Topsoil and sod, or B) Filter cloth or other fiber medium.
2. Have a width of 1.2 to 2.0 m
3. Have a depth of 150 to 600 mm
4. Be defined as a "V" with side slopes of no more than 3:1
5. Have a minimum linear slope of 2.0%
6. Max. length of 60 m before outfall to sewer, storm pond, creek or municipal road.
7. Have no walkways, retaining walls, gardens, trees, shrubs, etc. located within them.
8. Have rock check dams or staked hay bales installed every 10 to 20 m as per OPSD.

Swale Plan View

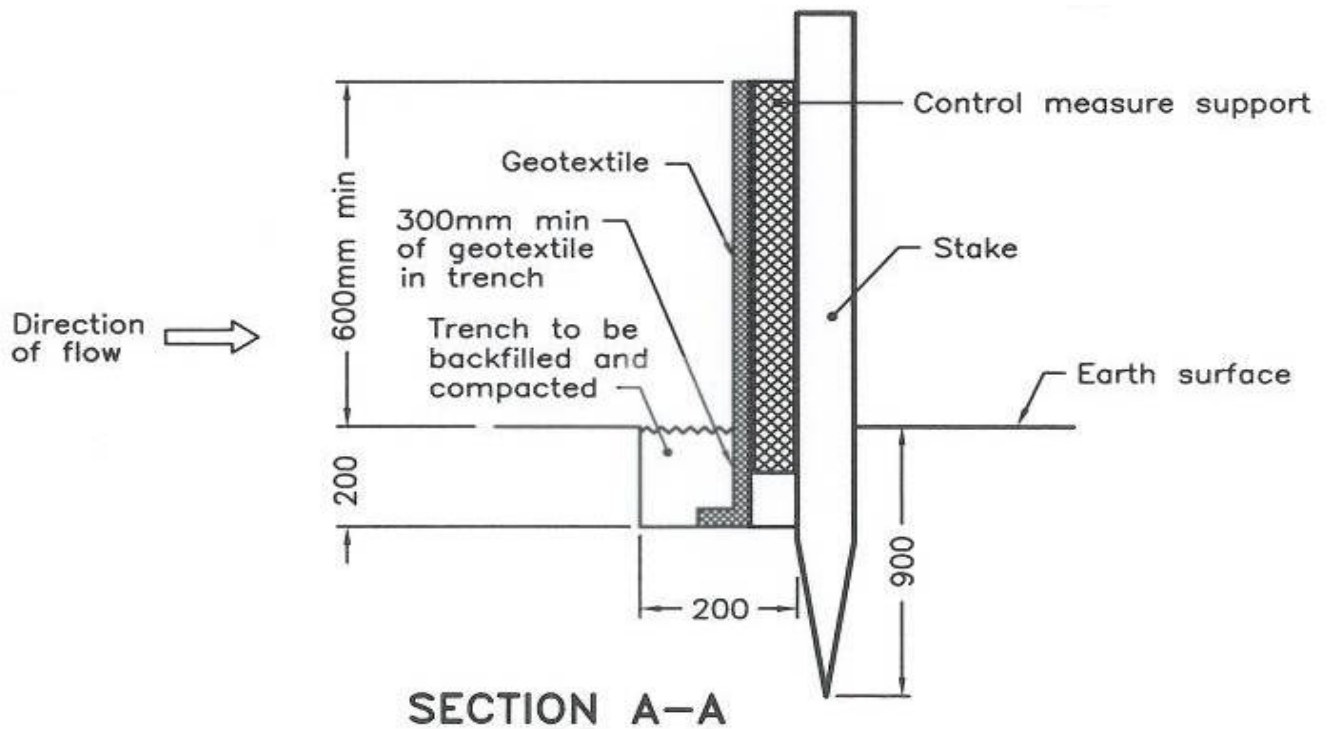
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Excerpt from OPSD 219.180



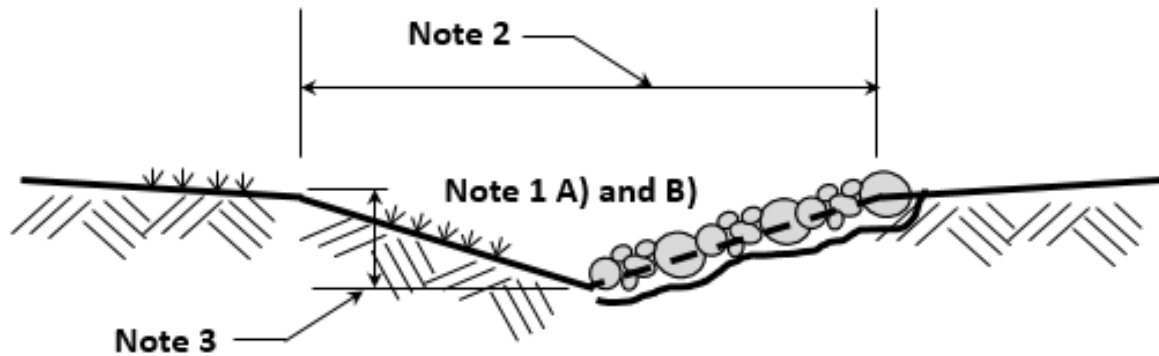
Excerpt from OPSD 219.130



Swale information - Permanent

Swale Cross Section Detail

(NOT TO SCALE)



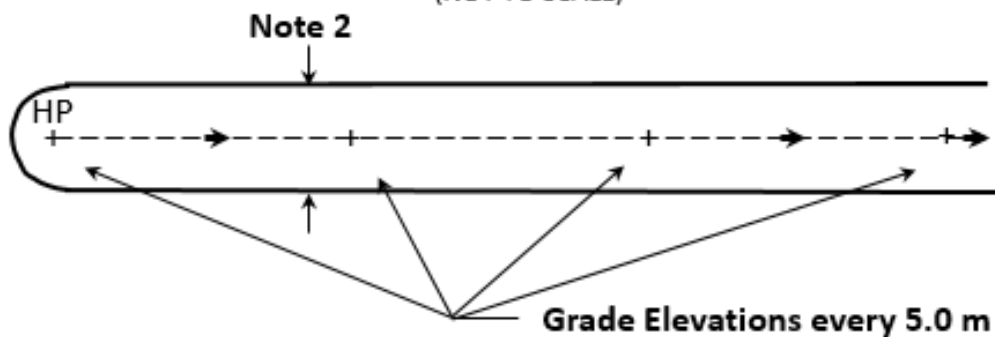
Notes

All swales are to:

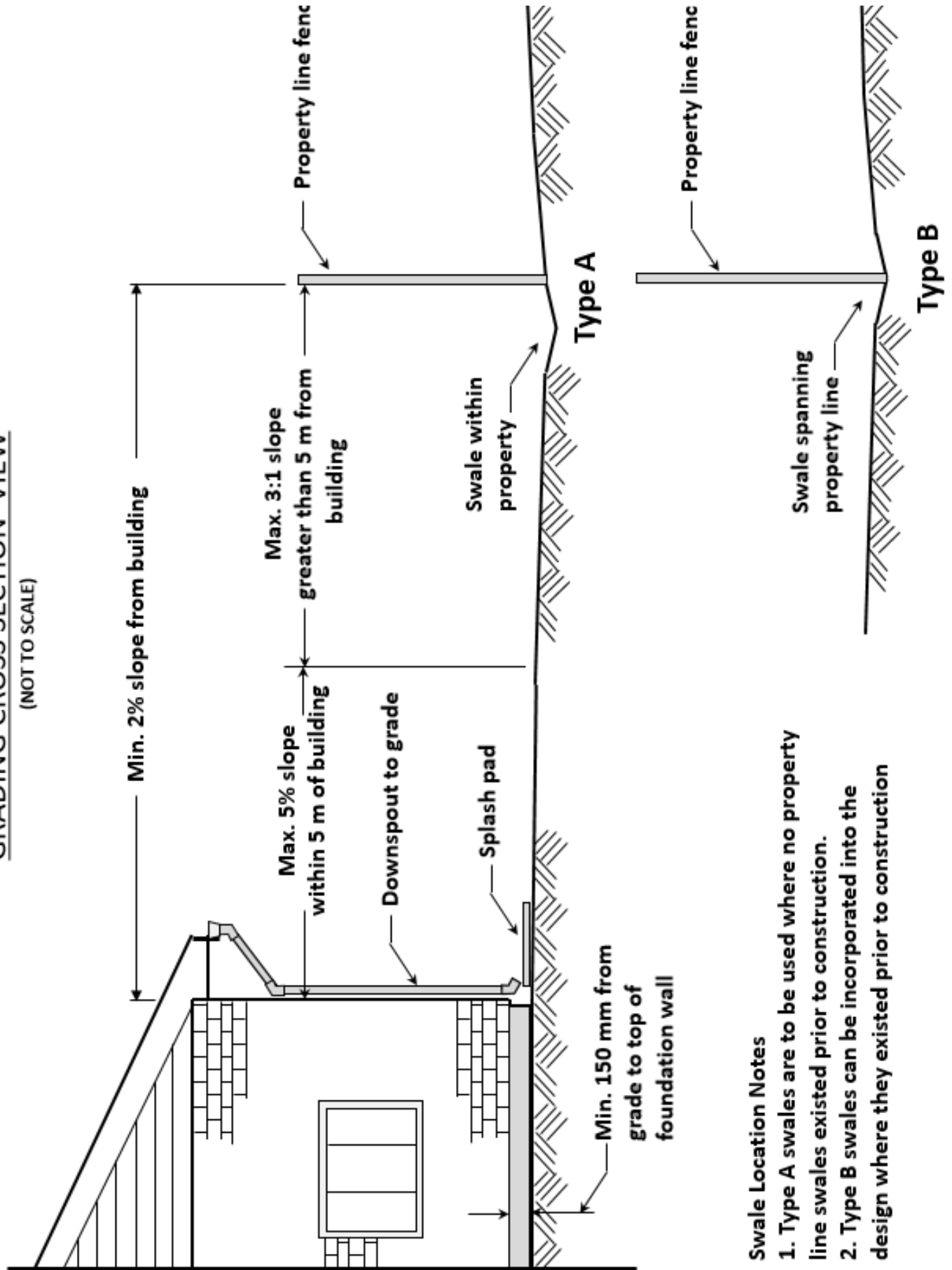
1. Be stabilized with either: A) Topsoil and sod, or B) Filter cloth and river rock (potato stone) . Materials such as, fine gravel, mulch, etc. are not acceptable
2. Have a width of 1.2 to 2.0 m (Side yard swales may be a min. 0.6 m in width)
3. Have a depth of 150 to 600 mm
4. Be defined as a "V" with side slopes of no more than 3:1
5. Have a minimum linear slope of 2.0%
6. Max. length of 60 m before outfall to sewer, creek or municipal road.
7. Have no walkways, retaining walls, gardens, trees, shrubs, etc. located within them.

Swale Plan View

(NOT TO SCALE)



GRADING CROSS SECTION VIEW
(NOT TO SCALE)



Swale Location Notes

1. Type A swales are to be used where no property line swales existed prior to construction.
2. Type B swales can be incorporated into the design where they existed prior to construction

Arborist Report / Tree Protection Agreement / Private Tree Removal Permit Applications

An Arborist report is required;

- Where there are town trees along the frontage of your property or in proximity to your project in front of adjacent properties,
- Where private trees on your property and/or on your neighbors property are in proximity and could be impacted by the proposed project
- If you are unsure if you require an Arborist Report, please contact *Service Oakville* at 905-845-6601.

A Tree Protection Agreement with fees and securities will be required where town trees may be impacted, as per the Site Alteration By-Law.

A Private Tree removal permit application may be required where private tree removals are proposed. If you are unsure if you require a Private Tree removal permit application, please contact *ServiceOakville* at 905-845-6601 or reference Tree Protection and Removal at www.oakville.ca

7 - Inspections, Certification and Release of Securities

Inspections are required by the town in order to ensure that the town's by-laws are adhered to and that safety, tree protection and siltation measures are in place and that there are no adverse impacts on adjacent properties.

Inspections

Two mandatory inspections are required for an Engineering Permit:

1. Just after the permit is obtained, to ensure that your tree protection and erosion control and siltation measures are in place and functioning.
2. For a Final Inspection to ensure that all works are 100% completed.

Please note that any variation from the approved drawings may result in a failed final inspection.

Certification

In order for the town to carry out the final inspection, as noted above, the applicant must first submit:

Small Site (infill residential)

Submit a Grading Certificate, signed stamped and dated by a qualified Professional Engineer, Ontario Land Surveyor or a Landscape Architect. (see Appendix 'D', choose the certificate that applies).

Large Site (site plan, condominium or subdivision)

Certifications are required as stipulated in the corresponding development agreements.

Release of Security

In order to obtain a refund of your Engineering Permit or tree securities once all works have been completed, you must submit a grading certificate as indicated above and contact *Service Oakville* at 905-845-6601 to request a Final Inspection. Town Inspectors will be inspecting to ensure that all requirements of your permits have been completed, there is no damage to town or adjacent properties, abutting owners are not adversely affected and trees have not been damaged or removed. Once the final inspections have been completed and there are no deficiencies, your securities will be returned.

Please note

Should the Final Inspection fail, a reinspection fee will be required prior to a repeated Final Inspection as per the Town's approved Rates and Fees By-Law.

8 - Maintenance Inspections and Reporting

Inspection

As indicated previously, the town has adopted the **Erosion and Sediment Control Inspection Guide** (2008).

Depending on the size and scope of a site, the on-site supervisor or inspector may fill the role of ESC Inspector or there may be the need for a dedicated Environmental Monitor. Whoever fills the role must be generally familiar with ESC methods, devices and materials and very familiar with the specific site and the ESC plan for the site.

It is the inspector's responsibility to ensure that the ESC devices are installed and maintained for the duration of the construction. Regular inspections are required and at a minimum should include the following;

1. Weekly
2. Before and after any predicted rainfall event.
3. Following any unpredicted rainfall event.
4. Daily during extended duration rain events.
5. After significant snow melt events.

Should a site be inactive for an extended period of time, bi-weekly inspections are acceptable; however, the town may deem it necessary to stabilize exposed areas that are inactive for 30 days or longer. All damaged or silt clogged devices must be replaced/ fixed within 48 hrs. Inspection reports/ information must be made available to Town Inspectors upon demand.

Reporting (see Appendix 'C' for report format)

Where required by the town, formalized bi-monthly reports must be submitted by the owner or their consultant. Reports must include:

1. Site details (Name of development, location, owner, consultant, date, site alteration permit number).
2. Weather, temperature and precipitation
3. General site condition.
4. Itemized location and condition of all erosion and siltation control measures.
5. Failures that have occurred.
6. Remedial actions and timeframes.
7. Reports are to be signed and dated by a qualified individual.

Appendix 'A'- Fees and Securities

Please make all cheques payable to the Town of Oakville. Refundable security deposits must be in the form of certified cheque or bank drafts. Bank drafts must have information with regard to who is posting the draft, for refund purposes.

Fees

As fees change year to year, the Town of Oakville has enacted a Rates and Fees By-Law which encompasses all fees throughout the town's different departments.

For site alteration and tree protection fees please see the Rates and Fees By-Law on the town's website.

Repeat Final inspections may require an additional fee.

Securities

Small Site

\$5,000.00

Large Site

Based on the cost estimate of erosion and sediment controls required for the site and their required maintenance inspections. (see section 8 - Maintenance Inspections and Reporting)

Tree Protection

Securities are calculated on a site by site basis as tree numbers and species vary from site to site. The calculations are based on size, health, species of tree, potential impact of works on trees and the estimated value.

Appendix 'B' - Engineering Permit Application (Side 1)

Full size application form can be found on the town website or is available at the Engineering front counter.



Corporation of the Town of
Oakville
Development Engineering
1225 Trafalgar Road, Oakville ON
L6H 0H3 905-845-6601

Engineering Permit Application

I am the <input type="checkbox"/> OWNER or <input type="checkbox"/> AUTHORIZED AGENT OF THE OWNER, named in this application and confirm the information below and the plans / specifications properly describe the work for which a permit is being sought.	
Applicant _____ <small>(printed name)</small>	Signature _____
Dated _____	
Location of Works	Municipal Address: Legal Property Description:
Owner	Name: _____ Phone: _____ Mailing Address: _____ email: _____ <small>(if different from above)</small>
Contractor and Sub-contractors <small>Use 2nd page if req'd.</small> <small>(required for Pool, Driveway, Excavation activities)</small>	Name of Firm: _____ Phone: _____ Type of Work: _____ Mailing Address: _____ email: _____ Contact: _____ 24hr Contact Phone: _____
Applicant <small>(if not Owner)</small>	Name of Firm: _____ Phone: _____ Type of Work: _____ Mailing Address: _____ email: _____ Contact: _____ 24hr Contact Phone: _____

Permit Requirements

1. Four (4) copies of a plan/s certified by a Professional Engineer or other qualified persons. One (1) electronic copy.
2. Application Fee: cash, cheque, debit or credit card. (as per the current Rates and Fees By-law).
3. Cost estimate for all works. (subdivision, site plan and ROW works)
4. Two (2) copies of a Stormwater Management Report. One (1) electronic copy. (subdivision and DESP)
5. One (1) copy of an Arborist Report. One (1) electronic copy
6. Approved, Phase 1 Environmental and Archaeological Reports (subdivision and site plan).
7. Insurance Certificate in the amount of 5 million with the Town as additional insured (ROW works)
8. All other Permits and Sign-offs required (both Town and external agencies).
9. Securities: certified cheque; or for subdivisions and site plans a Letter of Credit. These may be posted prior to issuance of permit or approval.

Works on Private Property (Check all that apply) note: DESP applies to all properties Zoned RLX-0

<input type="checkbox"/> Site Alteration – Residential; additions < 50m ² , pools, landscaping, etc.	<input type="checkbox"/> Site Alteration – Commercial; subdivisions, site plans, condos	
<input type="checkbox"/> Pool Enclosure - new and retrofit <input type="checkbox"/> Check if pool is salt water	<input type="checkbox"/> Tree Protection / Removal	<input type="checkbox"/> Development Engineering Site Plan (DESP) – Residential; new, infill & additions > 50m ²
Further description of Works:		

Works on Town Property, Municipal Right of Way, ROW (Check all that apply)

<input type="checkbox"/> Excavation - utility, private servicing, bore holes, etc.	<input type="checkbox"/> Driveway – Residential; new and modifications	<input type="checkbox"/> TSO – Cranes; fixed/ mobile, tracked equ, hoarding, shoring
<input type="checkbox"/> Tree Protection / Removal	<input type="checkbox"/> Driveway – Multiple Residential & Non-residential; new and modifications	<input type="checkbox"/> TSO - Bins, rubber tire equipment, materials, vehicles
Further description of Works:		

Engineering Permit Conditions are attached to the approved permit based on the works indicated above

Please note: Section 9.1 of the Site Alteration By-Law allows Town inspectors to enter and inspect any land to determine whether the provisions of this by-law have been complied with.

Personal information on this form is collected and used for the purpose collected under the authority of the Municipal Act, as amended.

Appendix 'B' - Engineering Permit Application (Side 2)

Contractor and Sub-contractors
2nd page.

Engineering Permit Application

<p>I am the <input type="checkbox"/> OWNER or <input type="checkbox"/> AUTHORIZED AGENT OF THE OWNER, named in this application and confirm the information below and the plans / specifications properly describe the work for which a permit is being sought.</p> <p>Applicant _____ Signature _____ <small>(printed name)</small> Dated _____</p>	
Location of Works	Municipal Address: Legal Property Description:
Contractor and Sub-contractors	Name of Firm: _____ Phone: _____ Type of Work: _____ Mailing Address: _____ email: _____ Contact: _____ 24hr Contact Phone: _____
Contractor and Sub-contractors	Name of Firm: _____ Phone: _____ Type of Work: _____ Mailing Address: _____ email: _____ Contact: _____ 24hr Contact Phone: _____
Contractor and Sub-contractors	Name of Firm: _____ Phone: _____ Type of Work: _____ Mailing Address: _____ email: _____ Contact: _____ 24hr Contact Phone: _____
Contractor and Sub-contractors	Name of Firm: _____ Phone: _____ Type of Work: _____ Mailing Address: _____ email: _____ Contact: _____ 24hr Contact Phone: _____
Contractor and Sub-contractors	Name of Firm: _____ Phone: _____ Type of Work: _____ Mailing Address: _____ email: _____ Contact: _____ 24hr Contact Phone: _____
Contractor and Sub-contractors	Name of Firm: _____ Phone: _____ Type of Work: _____ Mailing Address: _____ email: _____ Contact: _____ 24hr Contact Phone: _____

Appendix 'C' - Erosion and Sediment Controls (Page 1)

(Company letterhead)

Erosion and Sediment Controls Report

Project Name: _____
Project #: _____
Date: _____
Weather Conditions: _____
Inspector: _____

Type of Inspection

<input type="checkbox"/> Weekly Inspection	Rainfall to be based on OAKVILLE TWN, Environment Canada Daily data
<input type="checkbox"/> Pre Scheduled Rainfall Event	Forecasted Rainfall mm
<input type="checkbox"/> Post Scheduled Rainfall Event	Actual Rainfall mm
<input type="checkbox"/> Post Unpredicted Rainfall Event	Actual Rainfall mm
<input type="checkbox"/> Daily – Sustained Rainfall Event	Actual Rainfall mm
<input type="checkbox"/> Post Significant Snow Melt Event	Approximate Melt mm

General Site Conditions and Remarks

Detailed Controls Assessment

Photos (to match Detailed Controls Assessment above)

(Report to be signed and dated)

Appendix 'D' - Grading Certification

Grading Certifications FAQ

2019

As a result of discussions with several Ontario Land Surveyors, we have changed some of the wording on the original 2018 Grading Certification and have developed 2 additional new certificates for stormwater device certification.

Please see the following for the use of the reworded and new certificates:

Certificate 1. Lot Grading Certification

Used by any of the following: OLS, P.Eng. or LA

If the new infill build has stormwater devices as part of the approved works, the Stormwater Device Certification would also have to be completed by an engineer.

Certificate 2. Lot Grading and Stormwater Device Certification

If an engineer is certifying the whole project (grading and storm devices) then this certification is used.

Certificate 3. Stormwater Device Certification

If certification 1 is completed by an OLS or LA and there are stormwater devices, this certification is used by an engineer in conjunction with certification 1.

Sample: Certification 1, Lot Grading Certification
P.Eng, OLS, LA

June 2019

(COMPANY LETTERHEAD)
(Date)

Town of Oakville
Development Engineering
1225 Trafalgar Road
Oakville, Ontario
L6H 0H3

Attention: Manager, Permits & Inspections

Dear Sir:

Re: **Grading Certification**
(name of client)
(client address)
(permit number)

With regard to the above property and permit, a visual inspection was completed on _____, in conjunction with the review of the approved stamped plans, dated _____.

I certify that lot grading and drainage elements forming part of the approved plans have been completed and conform to the proposed grades as shown on the approved plans, to support all drainage coming off or passing through the lot. The lot has been fully stabilized with sod or other suitable ground cover.

This certification does not infer that the adjoining lands are appropriately graded.

(where a new or renovated home is constructed, the following must be included)

Additionally, all roof leader/downspouts are placed and outlet in accordance with the approved plan; and where the sump pump outlets to grade, the outlet point is located in accordance with the approved plan.

Yours truly,

(P.Eng, OLS, LA; Stamp, signed and dated)

(Signature and Position at Company)

Sample: Certification 2, Lot Grading and Stormwater Device Certification

P.Eng

June 2019

(COMPANY LETTERHEAD)
(Date)

Town of Oakville
Development Engineering
1225 Trafalgar Road
Oakville, Ontario
L6H 0H3

Attention: Manager, Permits & Inspections

Dear Sir:

Re: Grading and Stormwater Device Certification
(name of client)
(client address)
(permit number)

With regard to the above property and permit, a visual inspection was completed on _____, in conjunction with the review of the approved stamped plans, dated _____.

I certify that lot grading and drainage elements forming part of the approved plans have been completed and conform to the proposed grades as shown on the approved plans, to support all drainage coming off or passing through the lot. The lot has been fully stabilized with sod or other suitable ground cover.

This certification does not infer that the adjoining lands are appropriately graded.

(where a new or renovated home is constructed, the following must be included)

Additionally, all roof leader/downspouts are placed and outlet in accordance with the approved plan; and where the sump pump outlets to grade, the outlet point is located in accordance with the approved plan.

(where other required stormwater devices are installed, the following must be included)

All stormwater devices; dry-wells, catchbasins, piping and connections required have been installed in accordance with the approved plan/s.

Yours truly,

(P.Eng; Stamp, signed and dated)

(Signature and Position at Company)

**Sample: Certification 3, Stormwater Device Certification
P.Eng**

June 2019

(COMPANY LETTERHEAD)

(Date)

Town of Oakville
Development Engineering
1225 Trafalgar Road
Oakville, Ontario
L6H 0H3

Attention: Manager, Permits & Inspections

Dear Sir:

Re: **Stormwater Device Certification**
(name of client)
(client address)
(permit number)

With regard to the above property and permit, a visual inspection was completed on _____, in conjunction with the review of the approved stamped plans, dated _____.

I certify that all stormwater devices; dry-wells, catchbasins, piping and connections required, have been installed in accordance with the approved plan/s.

Yours truly,

(P.Eng; Stamp, signed and dated)

(Signature and Position at Company)

Appendix 'E' - Neighbouring Access Consent Agreement

First Party

I _____ (printed name),

reside and own _____ and wish to have _____

_____ (i.e. pool, landscaping, accessory building, gazebo, etc.) carried out in my rear yard at the above address. In order to do so, I require a construction access to move material from the front of the property to the rear between the houses, across both, my own property and the adjacent property located at:

_____. I require the access for the approximate duration _____.

Signed: _____

Dated: _____

Second Party

I _____ (printed name),

reside and own _____ (the adjacent property to the construction). I agree to allow access over my property for the above works, under the follow conditions:

Signed: _____

Dated: _____

By signing this agreement, both parties agree to adhere to the conditions set out above; and all applicable Town of Oakville by-laws.