

1.0 Lot Grading

The objective of Lot Grading is to:

- Provide site plan control to ensure proper grading, storm drainage and maintenance in regard to surface water and erosion
- Protect natural physical features and vegetation by minimizing undue alterations or grading in areas having flood susceptibility, steep slopes and/or sensitivity to erosion
- Regulate lot grading to ensure functional, adequate and legal drainage of private property
- Protect property from flooding damage caused by stormwater runoff

2.0 General

This document will be subject to revisions from time to time. The City of Quinte West reserves the right to make revisions having due regard for applications already in the review process. Individuals or groups affected accordingly will be notified by the City of Quinte West, and revisions will become effective on the date of notification.

(Contents of this document are subject to change without further notice)

3.0 References

In addition to the standards specified in this manual, Lot Grading Plans shall follow current standards and in conformance with the following standards, specifications or publications:

Publications

- Ontario Provincial Standard Specifications
- Ministry of the Environment Stormwater Management and Design Manual 2003
- Bay of Quinte Remedial Action Plan Guidelines
- Municipal Engineers Association Design Manual
- City of Quinte West Official Plan

- Master Drainage Plan or Stormwater Management Plan for the site, as applicable.

Standards

- City of Quinte West Standard Drawings
- Series 500 – Lot Grading

Permits/Approvals

- Lower Trent Conservation Authority
- Quinte Conservation Authority
- City of Quinte West Planning Department Site Plan Approval
- City of Quinte West Bylaw 08-30 "Site Alteration Bylaw"
- City of Quinte West Site Plan Control Policies

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5.0 General

This section provides guidance for the design and submission requirements for lot grading only.

Reference shall be made to other sections, standards, permits/approvals or publications for matters such as Stormwater Management, Stormwater Conveyance, Access Control, Development Approvals, Servicing, etc. for their design and submission requirements.

Lot grading design shall conform in principle to existing grading controls such as a Master Stormwater Management Plan if applicable.

6.0 Compliance Process

A lot grading certificate, signed by a qualified Engineer or Ontario Land Surveyor, may be required condition as part of a Site Development, a Plan of Subdivision, or the issuance of a Building Permit.

A refundable deposit may also be requested, and shall be submitted prior to the issuance of a building permit.

Upon completion of the proposed works, the applicant must provide the City with a certification letter by a qualified Engineer or Ontario Land Surveyor certifying that the works were completed in accordance to the approved grading plan.

Once the City has received a certification letter and is in agreement that the proposed lot grading is complete, the City will then release any security deposits held by the City for such works. The City reserves the right to defer the release of any securities until vegetation has established.

7.0 Site Alteration

Any works done beyond an approved Site Plan or Grading plan including the removal, dumping, or alteration of grades is regulated by the City of Quinte West Bylaw 08-30 "Site Alteration Bylaw".

8.0 Submission Requirements

Existing and Proposed Site Conditions and Works should be clearly identified. Information that must be included are:

Existing and Proposed Elevations:

Finished floor elevation

Top of Foundation Elevation

Lot grades at all corners and at intermediate locations or grade changes as required to define the grading of the lot

All yard catchbasins with rim elevations, driveway location and percent grade

Rear yard percent grade, all 3 to 1 slopes and retaining walls

Engineered fill areas

Driveway grades and locations

Centerline Road Elevations

Centerline of Minor and Major Swales

Culverts – diameter, gauge, minimum length and type

Existing and Proposed Site Conditions:

- Dimensioned property limits
- Easements
- Building Envelope
- Fencing, guards, and all utilities
- Curbs
- Sidewalks
- Valves
- Street Poles
- Transformers
- Canada Post Community Mailboxes
- Envelope for Private Sewage Systems
- Envelope for Private Water Supply Systems
- Culverts – diameter, gauge, minimum length and type

9.0 Design Criteria

9.1 Requirements

Natural drainage patterns and channels must be respected. Land owners must accommodate runoff from up-gradient properties. Surface runoff water shall not be discharged onto adjacent lands in a concentrated amount nor shall it exceed the pre-development flows.

9.2 Major / Minor Overland Flow Routes

Major system drainage design shall be in accordance with *City of Quinte West Engineering Design Standards, Stormwater Management*.

9.3 Easements

Minimum easement widths shall be 5.0 meters.

9.4 Grades

Criteria	Size / Condition	Minimum	Maximum
Lot Grades	All grassed surfaces	2%	33% (3:1)
Entrance / Driveway Slope	See Section 4.0 Transportation		
Minor Swales	Up to 4 lots	2% (1% with under drainage)	
Major Swales	More than 4 lots	1.5%	
All other site areas		1%	33% (3:1)

9.5 Catchbasins

Rear yard catch basin leads shall be located in public easements more or less straddling the common lot line and spacing between catchbasins shall not exceed 90 meters.

Leads to rear yard catchbasins shall not be less than 250 mm and shall be spaced to coincide with maintenance holes or roadside catchbasins such that access is obtainable from either end.

9.6 Access

The City of Quinte West prohibits the private installation of entrances including culverts and curb depressions. See Transportation Section for entrance requirements.

10.0 Subdivision Development Lot Grading Plans

10.1 General

All lots and blocks within the subdivision must be shown and correspond in the same manner as the Registered Plan.

10.2 Existing Site Conditions

Existing site and neighboring property drainage patterns must be identified on the drawing.

Contours must be shown at a maximum 0.5 meter intervals on the drawing both within the subdivision limits and a minimum 25 meters beyond the subdivision limits. Additional site information for neighboring lands may be required.

The grading along the limit of the subdivision shall be carefully controlled to avoid disturbance to the adjoining areas. A 0.6 m strip shall be left undisturbed along the boundary of the subdivision next to adjacent properties. Such strip must be indicated on the approved Lot Grading Plan.

10.3 Cut / Fills

Where it is proposed to carry out grading operations by cutting off the hills and higher land and filling the ravines and depressions, the land shall be cut down to a finished elevation of 0.5 (one-half) meter higher than the elevation of the finished crown of the pavement opposite the said lot. Where a low area is to be filled, the earth is to be dumped and compacted to an elevation of at least 0.31 meters higher than the crown of the pavement opposite the centre of the said lot for the whole of the lot area from the street line to a line at least three (3) meters beyond the rear line of the building.

10.4 Major and Minor Collective Drainage Swales

All major swales and major system outlets are to be constructed and sodded by the Developer in conjunction with site servicing. While lot grading in general is the responsibility

of the building permit applicant, common drainage facilities, as noted in the Subdivider's Agreement, are also the responsibility of the Developer.

11.0 Construction Requirements

The developer is required to pre-grade all lands affected by the public works in order to achieve the approved lines and grades. In addition, they may also be required to pre-grade as the design may dictate, any other designated lands within the plan to limit flood risk-having regard for the pre development overland flow patterns. The term "flood risk" is to be interpreted as a risk of personal liability and/or property damage as a result of flooding brought about by the alteration of pre-development flows and/or flow patterns.

In the event that the Owner, or any subsequent owner:

- obstructs, impedes, or interferes with the storm drainage flow through any part of the storm easement/swale; or
- interferes with the acceptance of water from any connecting easement/swale; or
- removes or permits to be removed any soil from the said swale,

the Municipality shall have the right, if it so elects, to enter upon the subject lands to rectify such problems so that the swales can serve their original purpose.

11.1 Siltation Control

Adequate control measures shall be employed where necessary to control erosion. The City may require a siltation control plan to be submitted with a lot grading plan.

Such erosion control measures may, without limiting the generality of the foregoing, include:

- temporary sodding or seeding;
- temporary grading measures;
- use of barriers, fencing and embankments;
- permanent planting, seeding, or sodding;
- use of rip-rap or other similar methods;
- construction of culverts, drains and spillways; and/or
- sedimentation ponds, retention ponds, detention ponds or siltation ponds.