



<b>Building Services – Policy</b>			
<b>Subject:</b>	Grading and Drainage	<b>Policy No.:</b>	BS24-001
<b>Effective Date:</b>	05 July 2024	<b>Replaces:</b>	BS19-006
<b>Approved by:</b>	Preston Stronach, <i>Chief Building Official</i>	<b>Type of Policy:</b>	Internal/External

### **Scope**

This document outlines the required steps needed to provide reasonable assurances that new home construction on properties within approved subdivisions are graded and drained adequately so as not to negatively affect neighbouring properties, and that the property is graded and drained in accordance with the intent of the approved subdivision grading and drainage plans.

### **Application**

The requirements in this policy apply to all new residential construction on lands for which an approved subdivision agreement is in effect. This policy does not apply to renovations and accessory buildings but may, at the discretion of the Chief Building Official, apply to additions that have a fixed foundation and increase the existing building area by more than 30%.

### **Conflict**

In the event of a conflict between the provisions of this policy and any other development agreement, bylaw, or approved subdivision agreement, the provisions provided for in the approved subdivision agreement shall prevail.

### **Submission Requirements**

Building permit applications shall be accompanied by a proposed lot grading and drainage plan designed by a qualified person. Where as-built drawings exist for grading and drainage within an approved subdivision, these may, at the discretion of the Chief Building Official, be accepted in-lieu of new proposed grading and drainage plans.



### **Qualified Person**

Means a Professional Engineer, Land Surveyor, Certified Engineering Technician, Environmental Technologist, Landscape Architect, or a company providing such services provided they can demonstrate experience in lot grading and drainage design. The qualified person must possess a current accreditation to practice in their profession in the province of Ontario, and hold valid professional liability insurance (i.e. errors and omissions).

### **Building Permit Applications**

The *Building Code Act* and its regulations (The Building Code), do not provide for the refusal to accept a building permit application on the grounds that it is not accompanied by a proposed lot grading and drainage plan. The authority to enforce lot grading and drainage falls to property standards bylaws passed under the *Municipal Act* and subdivision agreements in-effect under the *Planning Act*. It is the intent of this policy to provide guidance for ensuring compliance with property standards bylaws and approved subdivision agreements.

### **Proposed Lot Grading and Drainage Plan**

The proposed grading and drainage plan submitted for review shall incorporate the following, where applicable:

- a) the legal description of the property including dimensions and civic number;
- b) benchmarks related to geodetic datum;
- c) existing contours based on field elevations for the area drained. These contours should include sufficient points from the adjacent land to fully delineate the drainage area;
- d) surface condition of the lot (clay, topsoil, sod, landscaped, etc.);
- e) existing and proposed drainage works;
- f) existing and proposed locations and elevations of:
  - lot corners
  - existing buildings
  - proposed buildings
  - road centerline at intersections and changes in gradient
  - first floor
  - swales
  - septic system components (tank, drain field, seepage pit, pump tank)
  - drilled or dug wells
  - proposed or existing municipal services arrows indicating the proposed



flow direction of surface water location of the proposed and/or existing public and private access and the dimensions;

- g) building footprint and lot coverage.

### **Grading and Drainage Design Parameters**

Grading and drainage plans shall incorporate, where applicable:

- a) drainage to be directed away from all structures
- b) a minimum surface slope of 2% from all structures.
- c) If swales are being proposed to control surface water flows, they must be constructed as follows:
  - Minimum gradient of 1.5% on grassed swales
  - Shared drainage swales should generally allow for a 10% slope
  - Preferred maximum side slopes of 3:1 (H:V)
  - Minimum depth of 150 mm
  - Maximum depth of 500 mm
  - Minimum width of 1 000 mm
  - The position of the swale, including side slopes, must be at a minimum 500 mm inside the lot unless it is a shared swale, wherein it must be located on the common lot line.

### **As-Builts**

Drawings of the final lot grading and drainage are required to be submitted and reviewed for approval by the Chief Building Official. The as-built shall be accompanied by a certification note.

### **Certification Note**

Means a declaration signed (and sealed where applicable) by a qualified person that indicates the as-built grading and drainage conditions of the lot meet the intent of the proposed lot grading and drainage plan.

### **Deviation**

Where a lot is unable to meet the intent of the approved subdivision lot grading and drainage plan(s) or is unable to integrate into the as-built condition, the applicant shall provide a proposed lot grading and drainage plan with reasons for requiring deviation from the approved subdivision agreement or as-built condition. This will then be submitted for review by Township staff where, within a reasonable time, a decision to accept the deviation or request modifications will be made.