SITE PLANS, REZONING, LAND DIVISION AND CONDOMINIUM

SECTION 7 – GENERAL REQUIREMENTS

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7.00 INTRODUCTION

Engineering Submission Requirements for Approval of Site Grading and Drainage Plans and Mechanical Drawings for lands not covered under a servicing agreement (site plan/in-fill, rezoning, and land division).

7.01 SITE GRADING AND MECHANICAL PLANS

The following is an outline of procedures and requirements for preparation and submission of site grading plans and mechanical drawings (site servicing plans) to be submitted to the Transportation and Works Departments prior to the issuance of a building permit. This procedure also applies to individual residential lots required by Schedule "C" of the servicing agreement to have grading plan or mechanical drawing approval prior to the issuance of a building permit.

7.01.01 Submission Procedures

- After receipt of site plan committee approval, a set of certified site grading plans and mechanical drawings are to be submitted, to the Transportation and Works Department, and to be accompanied by a certification letter pertaining to grading.

  The set must include:

  - A copy of the site plan stamped approved by the Site Plan Committee.

  - If the site is treed, a copy of a plan, approved by the Community Services Department, indicating trees to be retained.

  - Five (5) copies of the site grading plan stamped and approved by the Consulting Engineer responsible for the original design of the subdivision.

  - Four (4) copies of mechanical drawing showing storm servicing, particularly storm connections. These plans are to be stamped and marked approved by the Consulting Engineer responsible for the original design of the subdivision. For lands not covered by an Engineering Agreement, approval by a Professional Engineer will be required with regard to the storm connection.

- All drawings are to be folded to 210 mm by 297 mm size with the title blocks visible.

- If the site is not covered by a Servicing Agreement, the grading is to be certified by an Ontario Land Surveyor or Professional Engineer.

7.01.02 Erosion and Sediment Control Permit Application Submissions

Should the provisions of the Erosion and Sediment Control By-law No. 512-91 apply to lands not covered under a servicing agreement, than an Erosion and Sediment Control Permit must be obtained prior to any land disturbing activities being undertaken. An Erosion and Sediment Control Permit Application is to be made directly to the Infrastructure & Environmental Planning Section of the Transportation and Works Department as outlined in Section 3.02.03.

7.02 SITE GRADING CERTIFICATION, DESIGN AND DRAWING REQUIREMENTS

7.02.01 Site Grading Certification (For Lands Not Covered By A Servicing Agreement)

- Five (5) certified copies of a lot grading plan will be required showing existing elevations of the lot, and sufficient elevations of adjacent properties to indicate existing drainage patterns. All grading plans are to be shown in metric unit.

- An original stamp on the site grading plan, executed by a licensed Professional Engineer, or an Ontario Land Surveyor, shall be in the following form (see sample letter H):

  "I have reviewed the plans for the construction of a building located at _____ and have prepared this plan to indicate the compatibility of the proposal to existing adjacent properties and municipal services. It is my belief that adherence to the proposed grades as shown will produce adequate surface drainage and proper facility of the municipal services without any detrimental effect to the existing drainage patterns or adjacent properties".

  Signature and Stamp

- The owner of the property is to provide a deposit in accordance with the current Fees and Charges By-law. Securities shall be in the form of a Certified Cheque or a Letter of Credit, along with a letter which indicates that he is making the deposit to guarantee that the grading will be done in the manner indicated on the plan, and will not create any detrimental drainage effects to adjacent properties. The Owner must further acknowledge that should he not achieve the intent of the above, the funds on deposit will not be released until the grades are rectified to the satisfaction of Development Construction and /or City officials or that the funds will, instead, be used to rectify any problems which may have been created and he further consents to allow the City to enter upon the property to rectify any problems. A lot grading variance certificate and a lot grading variance fee may be considered on a site specific basis.

- Following the completion of the work including sodding, it shall be the responsibility of the Professional Engineer or Surveyor (indicated on the original plan and certificate) to carry out the site inspection and take required elevations to verify that the grading has been completed in accordance with the plans submitted, and that the finished project does not adversely affect drainage on adjacent properties. A final lot grading certification letter from the Professional Engineer or Ontario Land Surveyor shall be required prior to the release of the security deposit and shall be in the following form (see sample letter I):

  "I have determined the field elevations with respect to the final grading of the above subject lands and have viewed the finished lot grading and building thereon. I hereby certify that the building constructed with relationship to the elevations and that the grading of the lands are in general conformity with the "Certification of Proposed Building and Grading" previously submitted."

  _____
  Signature and Stamp

7.02.02 Drawing Requirements

The site grading plans are to include the following information:

- Street name and number, lot and registered plan number.
- A key plan at a scale of approximately 1:10,000 indicating the location of the site.
- All plans are to be drawn to a minimum scale 1:500.
- A north arrow is to be shown on the plans.
- The location and elevation of the City of Mississauga bench mark is to be noted on the plan. All elevations shall be tied to existing City of Mississauga bench marks and be related to geodetic datum.
- A legend indicating which elevations on the grading plan are existing and proposed is to be included.
- Contours at 500mm intervals are to be provided to indicate the existing grading within the site and a minimum of 20m externally or as required to indicate the grading and drainage patterns of adjacent lands.
- Centre line grades at 30m maximum intervals along the existing streets are to be provided.
- Existing and proposed grades are to be indicated at the corners of Lots/blocks and at 30m intervals along the street lines, and on adjacent lands sufficient to indicate the effect of the proposal on adjacent lands.
- Cross-sections are to be provided as required to clarify the proposed grading, particularly in relation to adjacent lands.
- Proposed elevations on top of pavement, top of curb, around proposed buildings, along swales, and at the tops of catch basins, etc., are to be indicated along with any other elevations necessary to determine the grading and drainage patterns.
- On all multiple residential sites the pavement structure for internal roadways shall be specified on the site grading plan and shall be equivalent to that used for local municipal roads in the immediate vicinity.
- The widths of driveways and the size of curb radii being provided at the street are to be shown.
- The abutting municipal storm sewer system to which internal storm sewer systems that are to be connected to is to be indicated.

7.02.03 Drainage and Grading Requirement Guidelines

- The proposed drainage of a site is to not adversely affect the drainage of abutting lands as well as the subject property.

- Where storm sewer systems are available, internal underground storm systems are to be provided to drain the site.

- Swales on grassed areas shall have a minimum slope of 2% where achievable and a maximum slope such that the velocity for the flow contained does not exceed 1.5m per second (unless erosion control works are specifically implemented). The maximum length of the swale shall be 100m and contained to the property or at a location approved by the City.

- Sheet drainage of grassed or otherwise landscaped areas shall have a minimum slope of 2% and a maximum slope of 4%.

- Grading of the site is to be such that the peripheral elevations are compatible with those of the adjacent lands.

- Grassed embankment areas to have a maximum slope of 3:1.

Reverse Grade Driveways

- Reverse grade driveways are permitted where the driveway runoff is collected by a drainage system and connected to the municipal storm sewer.

- Driveway runoff may also be accommodated by design, where grading permits.

- Where a sump pump is required to accommodate runoff from a reverse grade driveway, the owner is required to enter into an Agreement with the City for a Warning Clause to be Registered on Title and provide an administration fee in accordance with the current Fees and Charges By-law.

7.02.04 Mechanical Drawing Requirements (pertaining to connection data only)

- The area being drained by the storm connection is to be indicated on the mechanical plan.

- All municipal services on the roadway, where the connection is being made, re to be shown.

- With regard to the storm connection, the location, size, grade, class of pipe and inverts at the main sewer and the street line are to be indicated. The invert of the main sewer at the point of connection is also to be designated.

- The City's criteria for storm connection is that the invert at the main sewer line be at least equal to the obvert of the main sewer.

- If a connection is being made to an existing manhole, a benching details to a scale 1:50 is required showing the size of the manhole, the location of the steps, and the size of all pipes connecting to the manhole.

7.02.05 Erosion and Sediment Control Plans

The erosion and sediment control plans are to be prepared in accordance with the requirements of the Erosion and Sediment Control By-law No. 512-91 as amended. Copies of the By-law *and permit application package* can be obtained from the Infrastructure & Environmental Planning Section of the Transportation and Works Department.