

SITE PLAN APPROVAL
MANUAL

City of Brampton
Planning, Design and Development Department
2011

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LANDSCAPE GUIDELINES FOR THE SITE PLAN APPROVAL PROCESS

The Planning, Design and Development Department has jurisdiction over the landscape treatment of Industrial, Commercial, Institutional and Multiple Residential projects concerning the site plan approval process.

All inquiries and submissions should be directed to:

PLANNING, DESIGN & DEVELOPMENT
2 Wellington Street West
3rd Floor
Brampton, Ontario
L6Y 4R2

Attention: Mr. Allan Parsons
Manager of Development Services

Telephone: 905-874-2063

SITE PLAN APPROVAL

1. GENERAL REQUIREMENTS:

- 1.1 Site Plan approval is administered by the Planning, Design and Development Department and applications shall be submitted directly to this Department. Please note that site plan approval is only a pre-requisite to an application for a building permit. It is therefore recommended that the applicant contact the Building Department with respect to their requirements for the issuance of a building permit.

- 1.2 The following items are required in order to apply for site plan approval:
 - 1.2.1 Legal description of the subject property;

 - 1.2.2 The owners of the subject property;

 - 1.2.3 Completed application form;

 - 1.2.4 Recent property survey prepared by an Ontario Land Surveyor;

 - 1.2.5 25 FOLDED copies of the proposed site plan (see page 3 for site plan drawing requirements); and,

 - 1.2.6 Non-refundable application fee.

 - 1.2.7 One (1) digital PDF of each plan (i.e. Site Plan, Landscape Plans, Building Elevation Drawings and Site Servicing and Grading Plans) representing an exact copy of the paper Submission must be provided. This requirement is to be applied for each iteration of the plans to be submitted to the City.

- 1.3 The following City Departments will receive copies of the site plan in order to ensure it complies with their departmental requirements:
 - 1.3.1 The Planning, Design and Development Department includes the following divisions: Building; Engineering and Development Services, Community

Design, Parks Planning and Development; Business Services; and, Planning and Land Development Services

1.3.2 Other agencies if applicable:

- Region of Peel
- Ministry of Transportation
- Credit Valley Conservation Authority
- Toronto and Region Conservation Authority
- Ministry of the Environment
- Brampton Hydro; and,
- Adjacent Municipalities

1.4 Site Plan Committee meetings are usually held weekly.

1.5 The comments from the Site Plan Committee meeting are compiled by the project planner and are forwarded to the applicant.

1.6 The applicant is required to revise the site plan in accordance with the Site Plan Committee's comments.

1.7 Landscape plans shall be submitted for all projects. See **Landscape Guidelines** for the Site Plan Approval Process for further details.

1.8 When all plans are satisfactory and all relevant agency approvals have been made the following shall be submitted to the Planning, Design and Development Department.

- **Seven (7) copies of the site plan**
- **Six (6) copies of the building elevations**
- **Three (3) copies of the Floor Plans**
- **Five (5) sets of landscape plans** plus one 11 x 17 reduction;
- **Seven (7) copies of the site servicing and grading plans;** and,
- **Three (3) copies of the Storm Water Management Report**
- **One (1) digital CAD** file of the Site Plan must be submitted in MicroStation DGN (2D) or AutoCAD DWG (2D) format. No reference files are to be used. The digital drawing must reflect the **FINAL, APPROVED** Site Plan arising out of the circulation and review process.

- **One (1) digital PDF** of the plan in preferably 24” x 36” (Architectural D size).
The digital PDF must reflect the **FINAL, APPROVED** Site Plan arising out of the circulation and review process.

1.9 As stated in the standard site plan agreement, a letter of credit may be requested by the Commissioner of the Planning, Design and Development Department to secure the full value of the proposed landscape works, secure lot grading items and works on the city property.

2.0 SITE PLAN DRAWING REQUIREMENTS:

2.1 Quantity of Each Plan

Twenty-five (25) copies (and one additional copy if the property is adjacent to a provincial highway right-of-way, conservation area or other municipality)

(NOTE: ALL PLANS ARE TO BE *FOLDED* RATHER THAN ROLLED).

2.2 Required Information

2.2.1 **NOTE:** All **scales** and **measurements** shall be in **METRIC UNITS ONLY**.

Use one of the following:

Metric - 1:500 or larger

2.2.2 recent property survey prepared by an Ontario Land Surveyor.

2.2.3 a site plan, **upon which the following information should be made available:**

2.2.3.1 a key plan showing the location of the site within the City of Brampton.

2.2.3.2 north arrow and scale.

- 2.2.3.3 concession and lot number, registered plan, block and lot reference wherever applicable.
- 2.2.3.4 reference to the nearest intersection of public roads.
- 2.2.3.5 any existing and/or proposed street widening and 0.3 metre (1 foot) reserves.
- 2.2.3.6 abutting road right-of-way width including the location and width of traffic islands, hydro poles, fire hydrants, and sidewalks where applicable.
- 2.2.3.7 all existing and proposed driveways of the subject site and existing accesses and driveways of adjacent properties including accesses and driveways of properties on the opposite side of the road to that of the subject site.
- 2.2.3.8 watercourse, swale, culvert, retaining wall, embankment, catch basin and other man-made or natural features on or adjacent to the site.
- 2.2.3.9 any easements or right-of-ways are to be shown on plan and identified as to whom the easement is in favour of and what restrictions on planting, building, etc. are in force.
- 2.2.3.10 existing and proposed contours and/or spot elevations on both the site and on adjacent properties;
- 2.2.3.11 location and dimensions of all existing and proposed buildings and accessory facilities
- 2.2.3.12 dimension of front, side and rear yards and the distance between each building on the subject site and between buildings on the subject site and abutting properties
- 2.2.3.13 layout of parking spaces, aisles and driveways showing dimensions and employee's parking, visitor's parking, one-way drive, fire route, etc., wherever applicable.
- 2.2.3.14 location, size, species and condition of existing trees and shrubs
- 2.2.3.15 layout of pedestrian access and walkways to structures

- 2.2.3.16 proposed landscape area and general treatment such as berming, planting, sodding and walkways, etc.
- 2.2.3.17 height and design of all existing and/or proposed fences and/or walls
- 2.2.3.18 location of all signs other than regulatory or traffic control signs
- 2.2.3.19 location and design of garbage disposal facilities
- 2.2.3.20 summary statistics showing the gross site area, gross building floor area, building coverage ratio, landscape area ratio, density and breakdown of different uses.
- 2.2.3.21 for fire protection purposes, the building code classification data, fire route, the location of any existing hydrants within 152m/500' of the proposed building face and the proposed location of additional hydrants whether on public or private lands, the location of fire department (siamese) connections, and identify the principle entrance to each building.
- 2.2.3.22 the size and location of existing and proposed watermains, sewers and any other services whether on or abutting the property.
- 2.2.3.23 identify abutting land uses (zoning) and occupants if applicable.
- 2.2.3.24 location of any existing or proposed Transit facilities (i.e. bus pad).

3. DESIGN CONSIDERATIONS:

3.1 Architecture

- 3.1.1 the location of buildings shall recognize physical features of the site such as topography, scenic views, orientation, etc.
- 3.1.2 each building shall have appropriate separation distance from adjacent buildings or uses.

- 3.1.3 buildings shall be massed and oriented to avoid wind tunnel effects and undesirable shadows on adjacent properties.
- 3.1.4 mechanical equipment shall be integrated into the building design or located in areas of the building that are not visually prominent.
- 3.1.5 the design of buildings shall be in appropriate proportion and massing for a comfortable sense of space.
- 3.1.6 the design of buildings shall be in harmony and conformity with surrounding buildings and streetscape.
- 3.1.7 main entrance shall be sheltered from the weather.
- 3.1.8 the garbage disposal area shall be located away from a visual prominent area.
- 3.1.9 garbage disposal facilities for a commercial development shall be enclosed or provided inside of the building.
- 3.1.10 garbage disposal facilities shall be easily accessible for garbage collection.
- 3.1.11 loading docks shall be remote from residential uses and high visibility roadside locations whenever practicable.

3.2 TRAFFIC PATTERNS AND PARKING

- 3.2.1 Access to parking areas shall be well defined.
- 3.2.2 each parking space shall be designed to allow a vehicle to move in and out easily.
- 3.2.3 parallel parking spaces shall not be provided except for employees in an industrial development.
- 3.2.4 parking on to a major on-site driveway shall be discouraged.

- 3.2.5 the design of parking areas shall promote safe and efficient traffic flow.
- 3.2.6 adequate mechanisms shall be provided to protect buildings and landscaping treatment. Such mechanisms should be fastened to the ground so that it cannot be moved by vehicles.
- 3.2.7 unless specified in the by-law, each parking space shall have a minimum width of 2.7 metres with 5.4 metres length and 6.6 metres aisle width for double row of 90 degree parking.
- 3.2.8 site accesses shall be located in such a manner as to reduce traffic conflict or confusion, i.e. it should have sufficient distance from the intersection of roads, be in alignment with other accesses, and be confined to right-in and right-out if necessary.
- 3.2.9 street accesses and major internal aisles shall have a minimum width of 7.5 metres for two-way traffic. Where the traffic volume is high or the movement of a delivery truck is anticipated, the driveway width may be increased.
- 3.2.10 access radius should be 6 metres for passenger cars and 7.5 metres for truck.
- 3.2.11 access roads for fire fighting vehicles shall be provided in accordance with Ontario Building Code 3.2.5.2.
- 3.2.12 traffic circulation on the site shall be provided with a simple and functioning pattern. dead end driveways shall be avoided for commercial developments.
- 3.2.13 the layout of the site shall consider the turning radius of various vehicles.
- 3.2.14 internal one-way driveways shall be clearly indicated and signage for such clearly provided.
- 3.2.15 delivery and servicing traffic should be separated as much as possible from passenger cars.
- 3.2.16 delivery facilities shall be located away from a visually prominent area.

- 3.2.17 delivery area shall have sufficient clearance for truck manoeuvre activity without difficulty.
- 3.2.18 the site layout shall provide on-site snow storage areas.
- 3.2.19 If there is a raised median on the public road, the access driveway should either be cleared from the median or have a minimum space of 15 metres from the end of the median or the extension of same.
- 3.2.20 Access curbs should have a minimum of 1.2 metres clear setback from hydrants or utility poles.
- 3.2.21 All cars and trucks shall move in and out from the site in a forward motion and no backward manoeuvring shall be allowed on City streets.

3.3 Pedestrian Traffic

- 3.3.1. A pedestrian walkway shall be provided to all main entrances for commercial development and the walkway should be connected to public sidewalks, walkways and bus pad/shelter areas. Consideration of safety for pedestrians shall be given.
- 3.3.2 the pedestrian walkway shall be separated from vehicle traffic.
- 3.3.3 a pedestrian walkway shall have a minimum width of 1.2 metres clear from the overhang of vehicles.

3.4 **Landscaping**

NOTE: (see LANDSCAPE GUIDELINES FOR SITE PLAN APPROVAL for further details)

- 3.4.1 Separate landscape plan for the detailed treatment of landscaped open space shall be submitted for approval. For detailed requirements refer to the “Landscape Guidelines for Site Plan Approval”. All landscape plans shall be prepared by a landscape architect.
- 3.4.2 the site layout shall provide a balance of hard surfaces and soft landscape treatment.
- 3.4.3 unsightly views shall be screened from adjacent streets and abutting properties.
- 3.4.4 existing trees in good or fair condition shall be identified and incorporated into the plan for preservation wherever possible.
- 3.4.5 existing boulevard trees which are in an unhealthy condition at the outset or completion of the project shall be replaced or restored to good health to the satisfaction of the City;.
- 3.4.6 a tree survey prepared by a landscape architect or arborist, shall be submitted if required by the city.
- 3.4.7 a minimum 3 metre wide on-site landscaped strip shall be provided abutting all public roads, non-industrial or non-commercial uses, and parkland or open space.
- 3.4.8 Landscaped treatment shall be provided adjacent to entrance area of any building and access driveway of the site of a commercial development.

3.5 Adjacent Lands

- 3.5.1. Buffer space shall be provided where the site abuts a residential or institutional use.
- 3.5.2. Where deemed necessary by the City, boundary fencing or walls shall be provided in accordance with the City fencing policies. Provisions shall be made to ensure that this does not interfere with the existing drainage patterns.

3.6 Signage

- 3.6.1. Ground sign and pylon sign locations shall be shown on the site plan.
- 3.6.2. Signs shall conform to the City Sign By-law.
- 3.6.3. Signage shall be subservient rather than dominant feature of the site and any illuminated signage shall not create glare or spillage onto abutting residential/institutional development.
- 3.6.4. Directional signage may be used to facilitate vehicular and pedestrian movements.

3.7 Lighting

- 3.7.1. Lighting arrangements shall be provided for parking areas and pedestrian walkways.
- 3.7.2. Lights shall be directed away from neighbouring development.

4 ENGINEERING GRADING AND SERVICING PLANS

4.1 Drawing Requirements

Site servicing and grading plans submitted to the Engineering and Development Services Division for approval must comply with City Standard #422 and the following items must appear on all plans. (Note: All plans are to be folded rather than rolled).

- 4.1.1 Stamped approval by the subdivision Consulting Engineer if the site is located within an **unassumed** plan of subdivision. The subdivision Consulting Engineer must certify that the property line grading and stormwater management design conforms to the approved subdivision engineering plans and drainage design. All drawings and the stormwater management report must be stamped with the following wording:
- 4.1.2 “The proposed lot grading and drainage is approved as being in conformity with the overall approved grading plans for the subdivision.”
- 4.1.3 Site plan number (SP ____ - ____), Project Name, Scale, Geodetic Benchmark, Municipal Address, Lot # and date of plan.
- 4.1.4 Site plan must be in metric scale.
- 4.1.5 Include a key plan, including the nearest major intersection, north arrow and legend.
- 4.1.6 Indicate any existing above ground utilities and trees within and around the site.
- 4.1.7 Indicate any existing 0.3 metre reserves across the frontage of the site (or flankage) and all road widenings required by the City, Region or M.T.O.
- 4.1.8 Existing and proposed entrance width and curve radii to be dimensioned.
- 4.1.9 Location of all existing and proposed curb cuts and sidewalks must be identified. Existing curb cuts that are no longer required must be reinstated to O.P.S.D. or City standards, as required.
- 4.1.10 All existing driveway locations adjacent to the site or across the road must be shown.
- 4.1.11 Watercourse, swale, culvert, retaining wall, embankment, catch basin and other man-made or natural features on or adjacent to the site.
- 4.1.12 Any easements or right-of-ways are to be shown on plan and identified as to the purpose and to whom the easement is in favour of.
- 4.1.13 Finished floor elevations of buildings on adjacent properties must be indicated on the grading plans.
- 4.1.14 Existing road centre line and top of curb elevations of frontage street must be shown at 20 metre intervals.

- 4.1.15 Indicate grades with arrows and percent slope on laneways, parking/landscape surfaces and drainage swales.
- 4.1.16 A Civil Engineer licensed to practice in the Province of Ontario must stamp all drawings.

4.2. General Notes (to appear on the Grading and Servicing plans):

1. All the construction work for this project shall comply with the Standard Drawings and Specifications of the City of Brampton and the Ontario Provincial Standards and Specifications.
2. All surface drainage shall be collected and discharged at a location to be approved prior to the issuance of a building permit. Drainage of abutting properties shall not be adversely affected.
3. Proposed elevations along site property lines must match existing elevations.
4. A silt fence as per City Standard #406 must be placed around the perimeter of the site.
5. At all entrances to the site, the road curb and sidewalk will be continuous through the driveway. The driveway grade will be compatible with the existing sidewalk and a curb depression will be provided for at each entrance. Access construction as per City of Brampton Standard #237.
6. Sidewalk to be removed and replaced as per O.P.S.D. 310.010.
7. The portion of the driveway within the municipal boulevard must be paved with 40mm HL3 and 50mm HL8. Sub Base to be 150mm Granular “A” (or 130mm of 20mm crusher run limestone) and 300mm Granular “B” (or 225mm of 50mm crusher run limestone) compacted to 100% standard proctor density.
8. A utility clearance radius of 1.2 metres between the proposed driveway entrance curb return and all above ground utilities must be maintained.
9. Road occupancy /access permit must be obtained 48 hours prior to commencing any works within the municipal road allowance.
10. The service connection trench within the traveled portion of the road allowance shall be backfilled in accordance with the requirements of the road occupancy / access permit application.
11. Within the City’s right-of-way, storm sewers and storm sewer connections must be concrete, or approved equal, with type “B” bedding throughout. The strength of the concrete pipe must be as per City Standard #341 and as follows; minimum 65-D for reinforced pipe and minimum ES for non reinforced pipe.
12. The minimum catchbasin lead diameter allowed is 200mm.

13. Storm sewer pipes connecting to the City's storm sewer shall not be smaller than 200mm.
14. All catchbasin manholes and manholes with inlet control devices must have a minimum 0.3 metre sump and top as per municipal standards.
15. Foundation drains shall not be connected to the storm sewer on sites with stormwater management control.
16. It is the responsibility of the design engineering consulting firm to ensure that an elevation detail of existing aerial plant is submitted when overhead cabling is present. Cables shall not be less than 4.7 metres from the highest point of the finished pavement to the lowest point of the aerial cable directly above the pavement area to ensure clearances are met.
17. *Provide this note if applicable* – “The building sited on this plan has been designed utilizing controlled flow roof drains in accordance with local municipal standards.”
18. *Provide this note if applicable* – “The owner's attention is drawn to the fact that the storm sewer being proposed underneath the building is not a recommended practice of the City of Brampton – Planning, Design and Development Department. It is the sole responsibility of the owner in the event of any damages to the storm sewer or settlement of the building foundation.”

4.2.0. Lot Grading Criteria

- 4.2.1. Ensure that all drawings are consistently detailed between the servicing plan and the grading plan.
- 4.2.2. The maximum ponding depth permitted is 0.3 metres in parking areas, 1.0 metre in below grade loading docks, and 0.5 metres in approved landscaped areas. Institutional sites shall not have ponding greater than 0.3 metres under system failure.
- 4.2.3. Municipal boulevards must be graded between 2% and 6% maximum.
- 4.2.4. Within the site, the following grading criteria is to be used:
 - a) Driveway grades 2% to 8%;
 - b) Other asphalt grades 0.5% to 8%;
 - c) Sodded areas 2% to 6%;
 - d) Landscaped berms to be a maximum 3 horizontal: 1 vertical grade (3:1);
 - e) Swales: min. 2% for institutional sites
min. 1% for commercial and industrial sites
- 4.2.5. Proposed elevations along all property lines must be compatible with the existing or proposed elevations of adjacent sites. Grading shall not extend onto adjacent properties unless written approval is obtained from the landowner previous to grading approval.
- 4.2.6. Existing ground elevations for 5 and 10 metres outside of property line at 20 metre intervals must be provided and the direction of drainage on the adjacent lands must be shown to the satisfaction of the Director of Engineering and Development Services.

4.2.7. If retaining walls are required the following criteria is to be followed:

- a) All retaining walls are to be concrete or heavy block concrete products; the use of timber will not be accepted. The backfill is to be compacted free draining granular material.
- b) All retaining walls are to be designed, approved and stamped by a Consulting Engineer specializing in structural engineering. The design must be accompanied by calculations clearly demonstrating that it is structurally satisfactory for the particular location and soil type.
- c) The detailed drawing shall include the following notes:
 1. The subject walls have been designed in accordance with accepted engineering principles
 2. The wall is suitable for the geotechnical condition of the site and for the type of loading.
- d) The detail drawing shall show a weeping tile and incorporate a filter cloth envelope.
- e) The installations are to be inspected during construction and certified in writing by the Consulting Engineer as to conformity to design and suitability for the site conditions.
- f) For retaining walls 0.6m in height or less, approved lightweight slabs using tiebacks will be permitted. A geogrid fabric or equivalent must be utilized as the tie back medium.
- g) For retaining walls greater than 0.6m, the following systems may be utilized:
 1. A concrete tie-back system,
 2. A heavy block system,
- h) Protective fencing is required where the exposed retaining wall face height exceeds 0.6m. The structural stability of this wall must be able to withstand the extra force exerted by the fence as well as the earth loads.
- i) Retaining walls shall not be located less than 1.0m from noise wall footings except where absolutely necessary at the discretion of the City and as designed and certified by a structural engineer for both walls.

4.3. Storm Drainage

4.3.1. The internal storm sewer system shall be designed for the 2-year post development storm event.

4.3.2. The elevations along the property line should be carefully examined with respect to external drainage. The impact of external drainage must be addressed and provided for as required.

4.3.3. Ensure site drainage is self-contained with only the municipal portion draining onto public roads.

4.3.4. Grading must be completed such that an overland flow route is maintained assuming all mechanical systems fail. This route must be clearly identified on the drawings including the ultimate outlet of the overland flow route (i.e. watercourse or roadway). The maximum ponding depths as outlined in section 4.2.2 must not be exceeded.

- 4.3.5. For storm sewers, the length, slope, size of pipe, pipe material, class of pipe and inverts at all connections must be shown.
- 4.3.6. Frost protection is required where cover is less than 1.2 metres from the pipe obvert to grade. Delineate extent of insulation on plan and provide a dimensioned detail.
- 4.3.7. Where utilities cross, a minimum clearance of 150mm must be provided between the top elevation of the lower pipe and the bottom elevation of the upper pipe.
- 4.3.8. As a general guide, one catchbasin is required per 1,000 square metres of parking lot area depending upon the layout of the site.
- 4.3.9. The storm connection to the sewer in the street must have an invert above the spring line of the main sewer. A manhole is required if the storm connection lead is greater than one half the diameter of the street storm sewer.
- 4.3.10. Drop pipes must be provided where difference in obverts between incoming and outgoing pipes exceed 500mm as per City Standard #314
- 4.3.11. The length of the sewer between the building and the first manhole to which the building sewer connects shall not exceed 30m.
- 4.3.12. The storm sewer spacing between manholes shall be 90 metres.
- 4.3.13. The minimum flow angle allowed is 90 degrees.
- 4.3.14. Storm sewers proposed underneath buildings is not recommended. If proposed, a clause will be included in the site plan agreement in which the owner accepts sole responsibility in the event of any damages to the storm sewer or settlement of the building foundation.
- 4.3.15. Each property must have a separate connection to the municipal storm system as per the Ontario Building Code.
- 4.3.16. The control manhole or oil and grit separator should be located a minimum of 1.0 metre into the property.
- 4.3.17. Fee-in-lieu for quality control is available at the City's discretion.

4.3.18. The following runoff coefficients shall be used:

<u>Land Use</u>	<u>Co-Efficient</u>
Parks	0.25
Single and Semi-Detached	0.50
Multiple, Institutional	0.75
Commercial, Industrial, Road Right Of Way	0.90
Driveways / Parking lots (asphalt and gravel)	0.90

4.4. Stormwater Management

- 4.4.1. Stormwater Management (SWM) Reports must be submitted with the grading and servicing plans if required. The design criteria will be determined by the Engineering and Development Services Division and varies depending on the geographic location of the site within the City. The design criteria must be clearly stated in the report.
- 4.4.2. Stormwater management design must incorporate the City of Brampton IDF curves Std. #343.
- 4.4.3. Sites will use an inlet time of 10 minutes. Rural sites may have higher inlet times, which must be demonstrated with appropriate calculations.
- 4.4.4. SWM reports utilizing computer modeling must be done with an accepted model by the City of Brampton with a 2 to 4 hour duration storm and a maximum 10-minute time step.
- 4.4.5. The SWM Report must clearly state which method is being used to determine peak flow and storage required (i.e. rational method, OTTHYMO, etc.). Provide calculations indicating what the allowable discharge from the site is, what volume of storage is required and what volume of storage is provided.
- 4.4.6. The SWM report must define an orifice size. This orifice design must be correctly identified and detailed on the drawings. An orifice tube will also be required. The following criteria shall be used for the design of the restrictor pipe downstream of the orifice plate as a permanent stormwater quantity control for on-site storage to satisfy the Conservation Authority.

For sites with Oil/Grit Separator

- An orifice plate, sized in accordance with the recommendation of the SWM report, shall be installed in the Control Manhole upstream of the Oil/Grit Separator.
- A restrictor pipe, with manufacturer's standard pipe size equal to or one size larger than the orifice plate design, shall be installed between the Control Manhole and the Oil/Grit Separator located 1.0 metre from the Streetline within the property.
- The maximum length of the restrictor pipe shall be 5.0m. A manhole shall be installed at any change in pipe size within the site.
- Downstream of the Oil/Grit Separator, continue with the required design storm sewer sizing or a minimum 200mm diameter storm sewer, whichever is greater.

For sites without Oil/Grit Separator

- An orifice plate, sized in accordance with the recommendation of the SWM report, shall be installed in the Control Manhole.
- A restrictor pipe, maximum 5.0 metres in length with manufacturer's standard pipe size equal to or one size larger than the orifice plate design, shall be installed downstream of the Control Manhole. If the restrictor pipe is less than 200mm in diameter, the restrictor pipe shall extend 1.0 metre into the City right-of-way and increase to a minimum 200mm diameter pipe size with an eccentric increaser.

Note: If the design of the orifice plate diameter is the same size of a manufacture standard pipe, an orifice plate will not be required upstream of the restrictor pipe.

4.4.7. The orifice control device must be installed on the outlet pipe from the control manhole and conform to City of Brampton Standards. The control manhole must have a minimum 0.3m sump.

4.4.8. If permitted, roof top storage details including control device type/ model (vandal-proof), maximum depth, maximum flow, volume and number of notches per drain must be included in the SWM Report and shown on the Servicing Plan.

4.4.9. Ensure that the required ponding areas are shown on the plan, and indicate ponding volume and elevation.

4.4.10. Ponding (if permitted) is allowed in the following areas:

- a) Rooftops (150mm max.)
- b) Paved areas and parking lots (300mm max.)
- c) Landscaped Industrial areas (500mm max.)(only if the Parks Planning Division has approved the location. It is the Applicant's responsibility to obtain this approval in writing.)
- d) Below grade loading dock (1000mm max.)

4.4.11. The ponding depths on the site must be reviewed under the following two conditions:

- a) A properly functioning stormwater management system.
- b) A failed stormwater management system, where the system has become surcharged or blocked.

The resultant site ponding shall not exceed City of Brampton's specifications (as outlined in section 4.2.2.).

4.4.12. Quality control for all site plans shall be designed to the M.O.E.'s enhanced level of protection (Level 1).

4.4.13. Ensure oil/ grit separator is shown and properly detailed on the downstream side of control MHs (where required). Specify name of manufacturer and model number. Fee-in-lieu for quality control is available at the City's discretion. See attached Policy.

4.4.14. The finished first floor elevation at each building must be compatible to the road and the adjacent buildings. (i.e. the F.F.E. should be a minimum 0.15 metres higher than

the maximum ponding depth). One hundred-year basement protection must be achieved.

4.4.15. No foundation drains are to be connected to the storm sewer on sites with stormwater management control.

4.5 Condominium Townhouses

4.5.1. Condominium townhouse projects must be designed and built to the City of Brampton's Subdivision Design Standards and Specifications.

4.5.2. If the site is a plan of condominium or co-operative housing project, the owner will have the option of posting the full security value for the project or may post the securities as follows:

- a) Prior to execution of the site plan agreement, the developer, in addition to the normal security for work on public lands and landscaping and fencing, would post an initial engineering security of \$10,000 and sign a pre-servicing agreement.
- b) The developer could then proceed to construct the common element works in accordance with approved engineering plans without posting additional security up to the time the road is constructed to base course asphalt.
- c) Once the road has been constructed to base course asphalt, before any building permits are issued, the developer's Consulting Engineer shall certify to the City that the completed works have been constructed in accordance with approved engineering plans.
- d) The developer would then be required to post full engineering securities for the value of the remaining common element works to be completed plus 10% maintenance for works completed. This could take the form of applying existing engineering securities that might otherwise be available for reduction to the remaining common element works.

4.5.3. The developer's consulting engineer shall be required to provide certification that the top of foundation wall has been constructed as per the approved site plan. This certification shall include the as constructed elevation of the foundation wall and shall be sent to the City of Brampton immediately after construction of the foundation wall.

4.6. Engineering and Development Approval Process

4.6.1. If submissions are deemed incomplete in terms of the applicant's failure to provide all the necessary documents, then the department will return the submission.

4.6.2. If the site is within an unassumed subdivision, the Engineering and Development Services Division will **not** review the grading plans unless the submission and report have been certified by the developer's consulting engineers (see section 4.1.1.).

4.6.3. Two copies of the drawings and reports shall be submitted with the initial submission for review.

- 4.6.4. The drawings will be returned with redline comments, if required, to the applicant who submits the plans to the Engineering and Development Services Division.
- 4.6.5. No redlined revisions will be accepted. All drawings shall be fully completed by the applicant and all notes and approvals shall be included on the drawings prior to the approval by the Engineering and Development Services Division.
- 4.6.6. At the time of approval, the Engineering and Development Services Division requires seven copies of all site servicing and grading plans and two copies of the SWM report and related calculations.
- 4.6.7. All plans, reports, and calculations shall be stamped, signed and dated by a Civil Engineer licensed to practice in Ontario prior to Engineering and Development Services Division approval.
- 4.6.8. The following security amounts are being used by the Engineering and Development Services Division:
- \$25 per linear metre of site frontage
 - \$15,000 lot grading deposit for sites less than or equal to two (2) hectares in size.
 - \$20,000 lot grading deposit for sites greater than two (2) hectares in size.
 - \$300 per square metre of retaining wall or toe wall face.

FEE-IN-LIEU POLICY

Cost Function

Two cost functions were developed for this policy with the primary difference in their application being related to the final land use proposed. They include components for the land required as well as the design and construction of a facility. The input parameters are such that only the final land use, percent imperviousness, and site area are required to identify the contribution amount.

The cost functions are provided below:

Residential:

$$\text{Cost} = \text{Total Site Area or Expanded Site Area \{ha\}} \times ((\$32,400 \times \% \text{ imperviousness}) + \$15,400)$$

Commercial / Industrial:

$$\text{Cost} = \text{Total Site Area or Expanded Site Area \{ha\}} \times ((\$24,400 \times \% \text{ imperviousness}) + \$10,200)$$

As per direction from the City of Brampton Law Department, the type of application will dictate whether the use of a fee-in-lieu contribution will be offered as an option to developers in lieu of installing onsite controls, or imposed as a condition. The City of Brampton will at all times maintain control over whether this option is offered, and it should not be assumed that developers can impose the use of the Fee-in-Lieu mechanism on an application without the agreement of City Planning Design and Development Staff.

Date: _____

The Corporation of the City of Brampton
Planning, Design & Development Department
2 Wellington Street West
Brampton, Ontario
L6Y 4R2

Attention: Mr. Rick Bino, P.Eng.
Director of Engineering and Development Services

Dear Sir;

Re: Top of Wall Certification
Project Title: _____
Owner: _____
Project Address: _____
Site Plan Number: SP - _____

I hereby notify the Corporation of the City of Brampton that the top of wall elevations for the above noted site plan are in accordance with the approved grading plan(s).



Engineer's Stamp

Signature of Engineer

Date

Company Name

5. SECURITY REDUCTIONS AND RELEASE

5.1. Construction Supervision and Inspection

The Owner is required to retain qualified consultants to supervise all aspects of the construction work. The City may, at its discretion, inspect the work from time to time and report any deficiencies to the consultant. Upon completion of the lot grading and landscaping, it is the applicant's responsibility to request a reduction/release of securities. All requests shall be made through the Planning, Design and Development Department who will contact the Engineering and Development Services Division and any other departments to inspect for reduction. A statutory declaration executed by the applicant shall be provided for all security reductions and releases.

5.2. Completion of Landscaping

5.2.1. An Acceptance Certificate from the landscape consultant shall be submitted to the Planning, Design and Development Department.

5.2.2. The Planning, Design and Development Department will then inspect to ensure the landscaping has been installed as per the approved plan.

5.3. Completion of Site Grading and Drainage

5.3.1. Prior to the release of any securities, a Civil Engineer licensed to practice in Ontario must provide Certification to confirm that the site plan has been constructed in conformance with the approved grading and servicing plans and all associated stormwater management and oil/sedimentation facilities have been constructed and are in operational condition. (See attached certification forms)

5.3.2 Upon receipt of the certification from the applicant, the City will also perform an inspection and will note any deficiencies. All deficiencies must be rectified prior to security release.

5.4 Performance Acceptance, Guarantee Period, Final Acceptance and Securities

5.4.1 General

If in the opinion of the City, the performance of the “works” is acceptable, a certificate of Performance Acceptable shall be issued to the Owner and the maintenance guarantee period shall commence. The owner through the Planning, Design and Development Department shall then request a suitable reduction in securities held by the City.

5.4.2 At the expiry of the maintenance guarantee period the owner shall contact the City of a final acceptance inspection. If the works are acceptable to the City, the owner may then request full release of securities held by the City.

5.4.3 In the event that any portion of the work is not completed within the time designated in the agreement with the City, the City may exercise its right to draw on any applicable letter of credit and apply the proceeds toward the completion of the work.

5.4.4 The owner is required to request all inspections for final approval.

6.0 FENCING REQUIREMENTS

The following fencing requirements shall be applied to all site plan applications.

- 6.1 Between commercial and residential: 2 metre high brick or architectural block wall
- 6.2 Between small commercial (Main Street North only) and residential: 1.8 metre high privacy wood fence.
- 6.3 Between office and residential: 1.8 metre high precast concrete or brick wall
- 6.4 Between highway commercial (service station and gas bar) and residential: 1.8 metre precast concrete or brick wall.
- 6.5 Between industrial or commercial and parkland:

1.2 metre high black vinyl chain link fence with a minimum buffer planting of 3 metres wide on commercial or industrial site, or 1.8 metre high brick or architectural block wall
- 6.6 Between two commercial or industrial developments: none except along the property limits between uses permitted with and without outside storage, then wood, metal or masonry walls shall be required depending upon the intensity of uses.