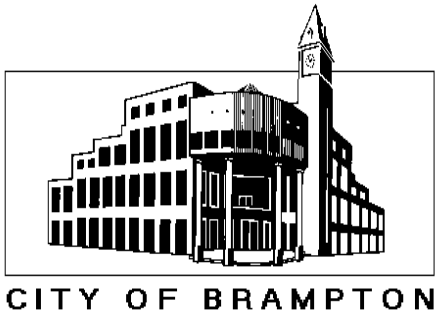
CITY OF BRAMPTON

PLANNING, DESIGN AND DEVELOPMENT DEPARTMENT



CONSTRUCTION MANUAL FOR

SUBDIVISION DEVELOPMENT

REVISED JANUARY 2004

INDEX

CITY OF BRAMPTON

DATE:_____

The following items must be added to all pre-construction site meeting minutes.

PRE-CONSTRUCTION DATA REQUIRED:

1. Telephone number of Site Trailer is:_____.

2. The Consulting Engineer's representative on site is:

   _____.

   Office Number:_____

3. The Contractor's representative on site is:

   _____.

   Office Number:_____

   Emergency Contact Telephone Number (After working hours):

   _____.

4. The Soil Consultant's Engineer representative on site is:

   _____

   Office Number:_____

5. The approved construction access is via:_____

   _____

6. Site Trailer office is located:_____

   _____

7. Bell Telephone, Hydro and Consumer's Gas have been notified of construction commencement.

8. Once construction commences, there shall be Construction meetings every two (2) weeks until Preliminary Acceptance.

9. The Developer/ Landscape Architect to arrange a pre-construction meeting prior to commencing any works on the Noise Walls and to arrange for soils Consultant to check and verify the footing.

CITY OF BRAMPTON

MAJOR CONSTRUCTION ITEMS:

1. The Developer's Consultant Engineer shall provide FULL TIME inspection.

2. The Developer's Soils Consultant Engineer shall provide FULL TIME inspection.

3. All silt control must be installed and accepted by City before construction begins.

4. Bedding and sand cover material shall be checked at the source prior to delivery on site. Once on site it shall be checked again to verify suitability. On each occasion a minimum of three tests are to be completed.

5. The Soils Consultant shall plot all compaction tests, results on a plan and profile drawing which is to remain in the site trailer at all times. Compaction results for the berms are to be left in the trailer and included in the reports forwarded to the Manager, Development Construction

6. When utilizing flexible wall storm sewer pipes (up to 600 mm Dia., a Pig test is required prior to any road building activities. A minimum of 30 days must elapse after backfilling. T.V. inspection of the storm sewer pipe system must be performed.

7. Proofrolling is required on all sub-grade prior to the placement of any road materials, i.e. granular 'B' or crusher run limestone. A representative from the City and the Soils Consultant must be present.

8. The Soils Consultant shall issue a certificate of compaction acceptability prior to any road material being placed.

9. 30 MPA concrete (355 Kgm. cement, 5 - 7% Air Content) is to be used for all base curb, full stage curb and sidewalk. Test cylinders are required.

10. 20mm crusher run limestone is to be placed around all catchbasins to undisturbed ground.

11. List of material suppliers to be forwarded to City for approval.

12. Concrete and Asphalt mix designs are required for approval by the City. Two weeks prior, or as soon as practical, concrete cylinders and asphalt samples obtained from the supplier's plant are to be tested as to conformance to City specifications. No material is to be brought onto the site without prior testing and approval.

    A.C. content for HL3 - 5.0% to 7.0%
    HL8 – 4.80% to 7.0%
    - 20% RAP for base only

    NOTE: 5.0% is minimum for HL3.
    4.8% is minimum for HL8.

13. When intersections require the installation of traffic loops in the base asphalt; it will be the responsibility of the developer to maintain said installations. The Consultant should make himself aware of these installations and prior to the placing of top course asphalt, contact the City Traffic Department, and ensure that the traffic loops are not damaged.

14. Pre-construction meeting is required before construction of noise walls commences.
15. Recovered Penetration Test is required for base asphalt (HL8).

FOR PRELIMINARY ACCEPTANCES:

1. No building permits shall be issued until the base asphalt, all street signs, barricades and regulatory signs are in place.

2. All manholes and catchbasins shall be constructed flush to base asphalt level.

3. All walkways shall be constructed and temporarily snow fenced.

4. Maximum horizontal tolerance on catchbasins shall be 75mm.

5. a) Maximum vertical adjustment of catchbasins via Moduloc shall not exceed 100mm. Any adjustment exceeding this amount shall consist of precast concrete collar.

   b) Maximum adjustment of catchbasin manholes via Moduloc shall not exceed 300mm.

6. All CB's to have approved Orifice Control plates installed.

7. Maximum vertical adjustment of manholes via Moduloc shall not exceed 300mm.

8. All silt control including siltation control ponds shall be complete. i.e. rear lot catchbasins - straw bales will not be used.

9. Half pipe bulkheads shall be installed at the downstream side of all storm manholes where flow leaves site or as directed by City Staff.

10. No inspections will be carried out by City staff until required in writing by the Consultant indicating that the Consultant has carried out an inspection and all deficiencies have been corrected.

DAILY CONSTRUCTION CHECKS

SEWER LINES

Bedding Stone

1. Adequate bedding stone under pipe (150mm) minimum or 0.15 x diameter. Use either Brampton “B” Bedding or High Performance/ Washed Chip Stone.

2. Adequate space between pipe and wall of trench (300mm) minimum.

3. Bedding stone filled to springline of pipe.

4. Sand cover over pipe (minimum 300mm to 600mm).

Installing Pipes

1. Check pipes for any cracks or breaks.

2. Check that gasket is always in place.

3. Ensure pipes are pushed home - no more than 25mm space at joints.

4. Check grade and line.

5. In wet conditions and subject to the Soil Consultant’s comments, 20mm clear stone may be utilized.

Installing Manholes

1. Adequate bedding stone under manhole (minimum 150mm).

2. Ensure gasket is in place between sections.

3. Concrete under and around pipe from manhole to at least the first joint.

4. All lift holes filled and parged.

5. Sand backfill around all manholes. If not mechanically compacted, then to be jetted.

6. In wet conditions and subject to the Soil Consultant’s comments, 20mm clear stone may be utilized.

Installing Catchbasins

1. Adequate bedding stone under and around catchbasin to undisturbed ground.

2. Concrete under and around pipe from catchbasin to at least the first joint.

3. Check alignment and grade.

4. Ensure bedding stone around lead and lead is supported continuously.

Installing Catchbasins (cont.)

5. Backfill around all catchbasins with 20mm crusher run limestone or high performance/ washed chip stone.

SERVICE CONNECTIONS

1. Ensure bedding stone around lead and lead is supported continuously.

2. Check location of installed clean out and connections (minimum horizontal spacing).

3. Check that lead has adequate grade, ensure no backfall.

4. All connections to mainline must enter above springline of the mainline.

5. End must have watertight cap and marked with a 2" x 4" coloured appropriately.

Rear Lot Catchbasins

1. Ensure lead is concrete encased from back of curb to installed catchbasin.

2. Check that all catchbasins sumps are filled with concrete, no standing water.

Backfill:

1. Ensure no large rocks or shale in first 300mm of sand lift to protect pipe.

2. This first lift to be lightly compacted. (i.e. plate tamper). The backfill must be a minimum depth of 900mm over the pipe before placing heavy compaction equipment in the trench.

3. Remaining lifts to be maximum of 300mm in loose thickness compacted to 95% standard density.

4. The top 300mm of the sub-grade shall be compacted to a minimum of 98% of standard proctor density at the optimum content.

5. When material is ramped, ensure the ramped area is removed and recompacted to 95% standard density.

6. Ensure granular material placed around manholes is compacted to 100% standard density. Sand to be placed around manholes and jetted.

7. 20mm crusher run limestone must be placed around all catchbasins to undisturbed ground from bottom of catchbasin to sub-grade level and jetted.

Backfill (cont.):

8. All frost must be removed from the sub-grade before placement of granular materials. No frost chunks will be permitted in the backfill material.

9. After a rainfall, the top 75mm to 100mm of wet backfill material must be removed before resuming backfilling operations.

10. If shale is encountered, careful excavation and backfill operations are required to ensure adequate compaction and minimum settlements.

    a) Any shale or rock fragments larger than 300mm are to be removed from the trench or broken up.

    b) Special care to be taken when excavating to prevent large cavities in the trench wall. The trench width is not to be increased with a bulldozer as this dislodges larger fragments of shale .

    c) Should any cavities occur within the trench wall particularly in the bedding and initial backfill (i.e. pipe zone), these areas shall require extra care to be filled. Flooding techniques may be utilized on the recommendation of the Geotechnical Consultant and acceptance by the City.

    d) Above the sand cover, the shale and clay overburden are to be mixed and pushed into the trench with a bulldozer. This procedure blends the material more thoroughly than dumping from a front end loader or truck. A small dozer is then used to distribute the backfill in 200mm maximum lifts. Each lift is compacted to 95% standard proctor density using a self propelled vibratory sheep's foot roller.

    e) Depending on the time of the year, the length of the trench section left open will be less then 200m to reduce the drying of the excavated material.

    f) Granular backfill around manholes and catchbasin must extend at least 0.6 m from the manhole or catchbasin and must be installed in lifts before the native material is brought up.

Flood Procedure for obtaining Compaction

This method must be recommended by the Geotechnical Consultant and a specific procedure approved by the City. All other methods of compaction should be explored first before proceeding with flooding tectonics.

Sub-Drains

1. At single catchbasins, install 3m of 150mm helcor pipe on high side of catchbasin. At double catchbasins, install 3m of 150mm helcor pipe on both sides of catchbasins.

2. Adaptors can be used to connect 100mm of PVC to 150mm helcor pipe.

3. Drainage holes on sub-drain always down. Backfill with HL 6 clear stone or high performance/ washed chip stone to sub-grade.

4. Invert of sub-drain is always higher than obvert of lead to mainline.

Road Construction (Before Granulars)

1. No granular material is to be placed without certificate of proof rolling from Soils Consultant.

Proof-Rolling

1. No granulars to be placed before proof-rolling is approved by City and Soil Consultant. City staff must be present for proof-roll.

2. Use loaded tandem or grader. Walk with proof-rolling equipment, identify soft areas, excavate area and replace with dry material compacted to 98% standard density or utilize extra depth stone.

3. Ensure sand material around all manholes is completed to sub-grade.

4. Sub-grade is graded to 3% crossfall and excavated limit is 150mm beyond back of curb.

5. 3% crossfall is to be maintained for all gravel and asphalt layers.

Road Construction (Granular Material)

1. All granular material compacted to 100% standard density.

2. Water must be added to achieve full compaction.

3. Granular material limit is 150mm beyond back of curb.

4. Confirm compaction of granular road base prior to placing base asphalt.

Road Construction (Asphalt Material)

1. Manholes and catchbasins flush to base asphalt, **no ramping.**

2. Asphalt curb completed behind all catchbasins.

3. Breakdown roller, rubber tired roller and finishing roller required to be used when installing asphalt.

Road Construction (Asphalt Material) (cont.)

4. Compaction of asphalt to be as per OPSD and confirmed by Soils Consultant.

5. Check depth to ensure proper design depth is installed.

6. Maximum length of cold joint is 180m or a minimum asphalt temperature of 85 to 100^0 C. Ensure contractor completes lanes to keep this cold joint at a minimum.

7. When completing cul-de-sacs, ensure rolling is completed parallel to straight curb not turning with radius of bulb area.

Noise Walls and Fencing

1. Spot check depth of footings; footings to be domed, and poured up to finished grade not mushroomed.

2. Check for poor quality of wood i.e. rot; splitting; warping; large loose knots and spot check dimensions.

3. Check woodmanship i.e. missing nails; missing caps; missing trim.

4. Check for gaps under the noise barriers, and stain applied to the wood.

5. Check paint finish on chain link fence components (only allow powder coated factory paint on chain link fences). Vinyl coating only permitted on the mesh and the metal ties.

The Developer is responsible for the design and to arrange for the construction of the above in accordance with the standards of the City. The drawings are submitted to the Planning, Design and Development Department for review and approval.

All fencing adjacent to Valleylands and adjacent to designated Parkland Vegetation to be installed immediately after completion of the fine grading and sodding; or at the discretion of the Engineer and the Parks, Planning and Development Division, Planning, Design and Development Department.

All fencing on abutting lots, especially noise barriers shall be installed prior to occupancy.

Noise walls shall be covered by a three (3) year maintenance warranty period. All other fences are to be guaranteed for one (1) year.

Retaining Walls

1. Retaining walls are required where a 3:1 slope exceeds 1m. in height.

2. All retaining walls are to be concrete or concrete product; the use of timber will not be accepted. The backfill is to be compacted free draining granular material.

3. Retaining walls are to be constructed entirely on the upper lot so that the tiebacks do not cross property boundaries.

4. Check for weeping tile and filter cloth envelope.

5. 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. The Lot Grading Certificate shall not be accepted until the Retaining Wall Certificate has been received

6. For retaining walls less than 0.6m in height, check for tiebacks. A georid fabric or equivalent must be utilized as the tie back medium.

7. Check for fencing where the exposed retaining wall face height exceeds 0.6m.

UNDERGROUND

INSPECTION GUIDELINE FOR RECTIFICATION REQUIREMENTS

	FAULT	RECTIFICATION	REASONS
Sewer Pipe	Dirt/debris in line	Clean and Flush Line	Preventative Maintenance
	Settled pipe.	Remove and replace settled area	Causes Ponding.
	Broken/cracked pipe	Remove and replace damaged pipe.	Possible infiltration.
	Loose gasket.	Cut gasket and grout joint.	Possible infiltration.
Manholes	Loose steps Infiltration	Tighten. Ensure manhole is watertight.	Safety hazard. Refer to Brampton Standards.
	Safety inspection step	Ensure correct installation.	Safety Device
	Dirt/debris in manhole Liftholes.	Clean. Mortar.	
Benching	Spalling honeycomb Poor Workmanship.	Remove and replace.	Causes ponding. Possible infiltration
Catchbasins	Alignment (75 mm. max. tolerance)	Realign.	Proper maintenance and structural aspects.
	Excess moduloc	Precast conc. collar (over 150mm.).	Structural integrity of moduloc.
	Sump (RLCB).	Fill sump with concrete.	Maintenance.

NOTES:

1. Manholes are to be adjusted by the use of moduloc and/or precast manholes sections.

   The maximum allowable depth of moduloc is 300mm., i.e., top of frame and cover to top of concrete manhole section, 450mm.

2. All pipe connections to manholes and catchbasins are to be cut flush with the inside face of the structure.

3. All moduloc (outside only) and around pipe connections are to be parged.

4. Consultants are responsible for inspecting and issuing written certification that all obvious deficiencies have been corrected prior to City inspections.

5. RLCB leads and all storm FDC sewers are to be inspected by camera prior to end of maintenance. Visual inspections are to be carried out for preliminary acceptance.

ABOVE GROUND

INSPECTION GUIDELINE FOR RECTIFICATION REQUIREMENTS

Rev. February 1996

	FAULT	RECTIFICATION	REASONS
SIDEWALKS	Spalled.	Replace bay.	Concrete not durable.
	Settled Longitudinally.	Settlement greater than 10mm replace. Settlement less than 10 mm neglect.	Pedestrian hazard.
	Settled Transversely.	If crossfall is negligible or is reversed or if ponding occurs - replace.	Poor drainage.
	Cracked.	All cracked sidewalk over service connection shall be replaced. Single hairline cracks in adjacent bays - replace affected bays. A single hairline crack in one 1.8m bay shall be allowed at the discretion of the City Engineer. All cracks larger than hairline, and those having breakage associated with them - replace bay.	Probability of deterioration in near future.
	Footprints, defaced, broken edges, surface imperfections, etc.	Replace bay.	Poor appearance - contractor is responsible to protect work.

	FAULT	RECTIFICATION	REASONS
SIDEWALKS CONT'D	Poor finish (workmanship).	Replace bay.	Poor appearance.
	Poor construction/ Expansion joint.	Replace bay.	Pedestrian hazard.
Curb & Gutter	Spalled.	Replace bay.	Concrete not durable.
	Settled or displaced.	Greater than 10mm, Replace, Less than 10mm neglect.	Poor appearance.
	Single crack in bay equal to or less than 5mm.	At the discretion of the City Engineer.	
	Single crack in bay greater than 5mm.	Replace bay.	
	Two cracks in single bay.	Closer than 2.5m apart, Replace bay. Greater than 2.5m apart -ignore unless cracks have opened.	Probable deterioration or settlement in near future.
	Broken edges.	If minor (less than 25mm), grout and seal.	Equipment damage.
		If major, replace bay.	Appearance.

	FAULT	RECTIFICATION	REASONS
Curb Depressions		Replace bay if out of alignment by greater than .6m.	that capping or filling of depressions is not permitted.
	Width of depressions not great enough.	Cut to proper width.	
	Cracks.		Probable deterioration.
		See above for Curb & Gutter.	
	Length of bay.		Appearance and structural capability.
		When rectifying curb deficiencies, the minimum length of bay replaced shall be 1.5m.	
Paved Driveway Aprons	Settled, badly cracked or ravelled.	Break out completely and replace and re-compact. No partial replacement allowable.	Residents are generally opposed to a joint in an asphalt driveway.
	Broken out when curb depression replaced or sidewalk replaced.	Restore to original Condition.	
Paved Roads	Settled badly.	Remove asphalt, investigate base, fill to grade with compacted limestone, prime edges, hot patch.	Need of rectification obvious. May or may not be due to failure.

FAULT	RECTIFICATION	REASONS
Slight settlement (ponding).	Remove asphalt by grinding and hot patch as above. Note: No skin patching will be allowed.	Need of rectification obvious. May or may not be due to base failure.
Alligatoring.	Remove asphalt and investigate granular road base. Replace with new materials and hot patch.	Need of rectification obvious. Base failure probable.
Transverse Cracks (top coat).	If greater than 25mm, then remove and replace for a 0.6m width. If less than 25mm then rout and seal the crack.	Requires sealing to render watertight and prevent further deterioration.
Segregation (Rock Pockets) Poor or rough surface (on H.L.3) Equipment damage/material handling.	Grind out and replace with hot mix (H.L.3).	Indicates porosity caused by poor workmanship or materials. Attempt to render watertight.
Settlements adjacent to manholes and catchbasins.	Remove asphalt as directed by City Engineer, fill and compact void with limestone, prime joints, hot patch.	General settlement has taken place, due to inadequate compaction or faulty construction in the first instance. Poor drainage must be rectified.
Loss of crown.	Re-pave as required to rectify the problem, i.e., grind, pad (if required) and resurface.	
	Inadequate compaction around fixed objects. Need of rectification obvious.	

NOTES:

1. All removals and replacements (curb and sidewalk) shall require mechanical compaction of the subgrade to 95% Proctor Density prior to placing concrete.

2. Expansion joint material (or re-sawcutting) is to be used at the junction of old and new concrete faces, i.e., at both end faces of section to be replaced.

3. When curb and/or sidewalk sections are to be replaced, sawcutting is to be carried out at concrete/asphalt faces to remove the section as cleanly as possible and eliminate the necessity of asphalt patching. A compressor is to be utilized rather than a backhoe in removing the concrete sections.

4. All top coat asphalt repairs (grind out 40mm. at centre) are to be from curb to curb unless otherwise directed by the City Engineer.

   All transverse repairs are to be made in a diamond shaped pattern and not at right angles to the direction of travel.

5. Where repairs to surface asphalt are permitted by the City Engineer around manholes or other like appurtenances, diamond shaped pattern of repair is to be followed.

6. All top asphalt repairs, overlays, etc., to be minimum 40mm. thick.

Date:_____

City of Brampton
Planning, Design and Development Department
2 Wellington Street West
Brampton, Ontario
L6Y 4R2

Attention: _____

Trench Backfill (Partial) Certificate/Subgrade Proof Roll Certificate
Subdivision,

Brampton, Ontario

We have supervised the backfilling operations for storm and sanitary sewer trenches in the following section of the above noted development:

(STREET NAMES)

_____

_____

_____

We have taken sufficient tests during the course of the works to obtain a representative report of the backfill material used in the works. The final road subgrade has been proofrolled and any deficient areas have been rectified and it is now found to be suitable for the placement of the pavement structure specified for the project.

We do hereby certify that this work has been done in accordance with the specifications and requirements of the City of Brampton.

Sincerely,

_____P. Eng.

Date:_____

_____

_____

_____

_____

Gentlemen:

RE: PRELIMINARY AND END OF MAINTENANCE INSPECTIONS
Subdivision Name:
Reg. Plans: _____
P.D. & D. File No.: _____

Please be advised that this Department will not proceed with any inspections until we are in receipt of a letter from the Consulting Engineer for the project certifying that the Consultant has carried out an independent inspection and all deficiencies of said inspection have been satisfactorily completed.

Copies of inspection guidelines are available upon request.

Yours very truly,

_____
Manager, Development Construction.

___/

Date:_____

_____
_____
_____
_____

Attention: _____

Dear Sir:

RE: UNDERGROUND AND ABOVEGROUND WORKS
Subdivision Name:
Reg. Plans: _____
P.D. & D. File No.: _____

- Please be advised that _____ is hereby issued effective _____ for the above project.

- By means of this letter, I am advising that I will not be in contact with Dave Morris/ Ed Van Ravens as there are no special features to review. The storm outfall location to the Valley Lands is marked on the attached "M" plan.

- In accordance with Section 8.7 of the subdivision agreement, the developer's consulting engineer shall be required to carry out regular inspection and monitoring and to assess the performance of the stormwater management pond as per the recommendations as specified in the stormwater management report. These procedures must be carried out for a period of three years after preliminary acceptance or until assumption whichever is greater. An inspection and monitoring report shall also be prepared and submitted to the City at least twice a year. Therefore, the first inspection and monitoring report shall be submitted to the City within six months of the date of this letter.

Yours truly,

J.A. Moores, P. Eng.
Manager, Development Construction.
Tel: (905) 874-2535 Fax: (905) 874-2599
jim.moores@brampton.ca

JAM/JE/LT/JM/DM/AM/em

cc: L. Totino/ J. Edwin/J. McGougan/ D. McKee/A. Mills – Planning, Design & Development
J. Brophy, P. Eng. – Director, Maintenance & Operations Section, Works & Transportation
D. Morris/ Ed VanRavens – Supervisor, Roads & Operations East/West
(End of Maintenance Underground Only)
S. Preston/ S. Wilson – Community Services (End of Maintenance Aboveground Only)
C. Wootton – Works and Transportation
G. Yip – Works and Transportation (Preliminary Acceptance Only)
Developer -

Date:_____

TO: _____

FROM: _____

RE: Park Block Catchbasins

_____

Reg. Plan

P. D. & D. File No.: _____

Be advised that we have inspected the catchbasins in the parklands on the above project; it would be in order to issue substantial completion.

_____
Manager, Development Construction

Cc: Inspector-Planning, Design and Development
Developer

FACSIMILE

Date:_____

_____
_____
_____
_____

ATTENTION:

RE: **Subdivision:**
Reg. Plan:_____
P.D. & D. File No.:

_____

A major portion of complaints received in this office are concerning the excess of dirt and dust on roads in new development areas.

The following was approved by City Council on 1988 06 27:

"That the City instruct all developers and builders in new or existing subdivision of the following:

1. That once any of the houses have been occupied the streets must be cleaned at least once a week and if this is not done, the city has the right to have it done and charge the developer, and;

2. That once any homes have been occupied that the streets must be kept clear of building materials and dirt or mounds of soil."

Effective immediately, you will be required to have all internal and external roads scraped, flushed and swept twice weekly. This work is to be completed on the Friday or Saturday and mid week of every week after completion of work by the builders.

On the following morning, an inspection will be completed and if at that time the flushing and sweeping has not been done, arrangements will be made to complete this work with charges being invoiced to you for cost plus the appropriate administration fee.

This letter will act as formal notice and no further correspondence on this matter will be made.

Please inform all builders working in your development area that they must scrape all mud from the roads on a daily basis.

Yours very truly,

J. A. Moores, P. Eng.,
Manager, Development Construction
Tel: (905) 874-2535 Fax: (905) 874-2599
jim.moores@brampton.ca

JAM/em

cc: A. Ross – Treasury
John Edwin / Luciano Totino/ John Mcgougan/ Dave McKee/ Andrew Mills
– Planning, Design and Development Department
Developer

FACSIMILE

DATE_____

_____
_____
_____
_____

Attention: _____

Dear Sir:

Re: Subdivision
Reg. Plan _____
P. D. & D. File No.: _____

An inspection of the above project indicated that _____
_____
_____
_____.

The above represents a deficiency and it has been determined that rectification is required. Be advised that you have ten (10) days from the date of this letter to complete these works, or at least significantly commence the rectification operations. Should this work not be completed or significantly commenced within ten (10) days of the date of this letter, you will be considered to be in default of the terms of the subdivision agreement. Accordingly the City will arrange to have the work completed and you will be invoiced for the cost plus the administration fee as specified in the agreement. You will be given ten (10) days to make payment of this invoice plus the administration fee, and should payment of this invoice not be forthcoming, the City will make arrangements to have the Letter of Credit drawn upon for the full amount plus the administration fee.

By copy of this letter to the Contractor working for the City who will complete this work; should you fail to do so within ten (10) days and by copy of this to our City Treasurer, we are advising them to be prepared to take action.

Yours very truly,

_____
Manager, Development -Construction.

__/

c.c. A. Ross - Treasurer
Developer_____
Inspector – Planning, Design and Development
Contractor_____

Pending _____

LOT GRADING CERTIFICATION PROCEDURE

The Consulting Engineer is required to advise this Department that he has visited the site to assure himself that the lots which he is proposing to certify have been graded and sodded in accordance with the overall grading plan. The ground elevations adjacent to the structure must be compatible with the lot grading which has been completed. The above is to be completed as soon as possible after sodding, but not later than two (2) months after placement of the sod.

The Consulting Engineer will then immediately arrange for himself and/or his representative, and a representative from the Planning, Design and Development Department to visit the site and review each lot in the plan which is to be certified, and to agree on those lots which can be certified by a visual inspection. Further, this inspection is also to reveal those lots which require more surveying or more work to determine how they can be certified. The Consulting Engineer will then certify all lots where an agreement has been reached by the parties in the field.

The Consulting Engineer will re-survey those lots which cannot be certified by a visual inspection and/or, if necessary, require the builder to do further work in order that such lots can be made certifiable. This work is to commence no later than two weeks after the initial inspection. It should be noted that if the builder will not correct the work as instructed by the Consulting Engineer, the responsibility will fall directly upon the developer.

Lots which cannot be certified due to poor grading or due to changes in the type of house built on the lot, will be brought to the attention of the Commissioner of Planning, Design and Development. The Consulting Engineer, on behalf of the Developer, will prepare a new grading plan(s) for these lots and will submit to the City, builder, and homeowner, if necessary, for approval.

Once the lots have been inspected and have been certified in the field, we will accept the Consulting Engineers lot grading certificate. This in no way relieves the developer of his responsibility to rectify any grading deficiency problems that may arise prior to assumption of this subdivision.

Please find attached lot grading certification letters which must be utilized.

Immediately prior to assumption, a final grading certificate must be submitted indicating that all properties in the development have been developed in conformity with the approved overall grading plan.

PRINT NAME OF SIGNER & TITLE **DATE:**

I, _____ a Consulting Engineer

in the Province of Ontario, do hereby certify that Lot No._____

in the Registered Plan No. _____ have been completed in

a satisfactory manner in accordance with the approved lot grading

plans and in accordance with the required separation between the ground

and the brick line/siding.

CONSULTING ENGINEER: _____
(Signature)

(Engineer's Stamp)

_____
(Title)

CITY OF BRAMPTON APPROVAL:

_____
Director of Engineering and Development Services

NOTE: This form is to be submitted from time to time on an interim basis as lots are completed.

Date: _____

City of Brampton
Planning, Design and Development Department
2 Wellington Street West
Brampton, Ontario
L6Y 4R2

Attention: _____
R. J. Bino, P. Eng., Director of
Engineering and Development Services

Dear Sir:

Re: Name of Subdivision
Registered Plan Number
Lot # (s)

We hereby state that the lot grading in the above subdivision adheres in principal to the grading as proposed on the original approved Engineering Plans and in accordance with the required separation between the ground and the brick line/siding.

Trusting the above meets with your approval.

Yours very truly,

NOTE: This form is to be submitted when all lots are completed and certified, and prior to final acceptance.

Date:_____

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

Attention: _____
Manager, Development Construction

Dear Sir:

Re: _____
(Subdivision)

_____
(Registered Plan Number)

Certification of Retaining Wall

We hereby certify that the retaining wall at the above location has been constructed in accordance with the design drawings prepared by _____.

We also confirm that the wall is suitable for the type of loading and for the geotechnical condition of the said location.

Yours very truly,

(Engineer's Stamp)

_____

Date:_____

City of Brampton,
Planning, Design and Development Department
2 Wellington Street West,
Brampton, Ontario.
L6Y 4R2

Attention: _____
Director of Engineering and Development Services

Dear Sir:

Re: Name of Subdivision
Registered Plan Number
Certification of Noise Attenuation Walls

We hereby state that the noise walls in the above subdivision have been constructed in accordance with the approved design drawings prepared by _____.

Trusting the above meets with your approval.

Yours very truly,

Date:_____

City of Brampton,
Planning, Design and Development Department
2 Wellington Street West,
Brampton, Ontario.
L6Y 4R2

Attention: _____
Director of Engineering and Development Services

Dear Sir:

Re: Name of Subdivision
Registered Plan Number

We hereby state that the grades for the berms for the noise walls are within 150mm of the design grade as proposed on the original approved Engineering Plans for the above subdivision.

Trusting the above meets with your approval.

Yours very truly,

NOTE: This form is to be submitted prior to commencement of construction of the noise walls.

SUBDIVISION ASSUMPTION CHECK LIST
PLANNING, DESIGN AND DEVELOPMENT DEPARTMENT

SUBDIVISION NAME: _____

DEVELOPER/OWNERS: _____

FILE NO.: _____

REGISTERED PLAN NUMBER(S): _____

CONSULTANT: _____

_____ LOT GRADING CERTIFICATION (SIGNED) (UNSIGNED)

_____ END OF MAINTENANCE UNDERGROUND

_____ END OF MAINTENANCE ABOVEGROUND

_____ HYDRO POLE(S)-PLUMB/TRANSFORMERS-PROPERLY ALIGNED

_____ TRAFFIC APPROVAL
Memo to Traffic Department
Inspection
Re-inspection

_____ BENCH MARKS CERTIFICATION

_____ ONTARIO LAND SURVEYOR CERTIFICATE (SIB)

_____ HORIZONTAL CONTROL

_____ AS CONSTRUCTED (MYLARS) DRAWINGS AND
DIGITAL FILES
(Effective September 28, 1994)

_____ MARKED PLAN INDICATING ALL MUNICIPAL EASEMENTS

_____ UPDATED STORMWATER MANAGEMENT REPORT INCLUDING
UPDATED STORM DESIGN SHEETS

_____ FINAL INSPECTION AND MONITORING REPORT FOR
STORMWATER MANAGEMENT POND

_____ GEOTECHNICAL & GRADING CERTIFICATION OF } 2 stage
THE BERMS FOR THE PROPOSED NOISE WALLS. }certification
C.C. TO BE SENT TO THE PLANNING DEPT.

_____ CLEANING OF STORMWATER MANAGEMENT POND

_____ RECLIMITE TREATMENT (THREE (3) YEARS FROM MARCH 2001)

REMARKS: _____

Date: _____

City of Brampton,
Planning, Design and Development
2 Wellington Street West,
Brampton, Ontario.
L6Y 4R2

Attention: Manager, Development Construction

RE: **DRIVEWAY PAVING WAIVER**

I,_____, being the owner of _____
(NAME) (LOT)
_____, do not wish to have the City
(HOUSE NUMBER) (STREET)

owned portion of my driveway paved by the Developer for the

following reason:

_____ A, I will install paving stones prior to _____
*
(DATE)

_____ B, I will concrete my driveway prior to _____
*
(DATE)

_____ C, Other (specify) _____

_____

to the City of Brampton Standards prior to _____
*
(DATE)

SIGNED _____ DATE_____20____.

c.c. Developer
Consulting Engineer.

* **DATE MUST BE PRIOR TO END OF MAINTENANCE AND MUST BE COMPLETED BY THE CONSULTING ENGINEER.**

ATTACHMENT #1

_____(Address)

_____(Subdivision)

Dear Sir/Madam:

The development in which you reside is now proceeding through the final stages of acceptance by the City of Brampton.

As part of the acceptance, the City portion of your driveway apron was inspected and determined not to meet City of Brampton Standards.

Within the near future a contractor, at the developer's expense, will remove and replace the asphalt apron from either the curb to the property line or from the curb to the sidewalk, if existing. If at this time you desire to have your entire driveway re-done, please contact the below captioned contractor to determine the price to complete the same.

You will be contacted 48 hours before any work will commence and any questions you may have can be directed to:

_____ (Consulting Firm)

Attention:_____ (Contact Name)

at_____ (Telephone Number)

_____ (Asphalt Contractor Name)

_____ (Address)

_____ (Telephone Number)

_____ (Contact Person)

Yours very truly,

_____
(Consultant Signature)

__/

c.c.: _____ Director of Engineering and Development Services
(Developer)
(Councillor)

ATTACHMENT #2

_____(Address)

_____(Subdivision)

Dear Sir/Madam:

The development in which you reside is now proceeding through the final stages of acceptance by the City of Brampton.

As part of the acceptance, the City portion of your driveway apron was inspected and determined not to meet City of Brampton Standards.

The deficiency, has been deemed marginal by the Commissioner of Planning, Design and Development and should you wish, no repair will be carried out. Please indicate your desire below and sign in the appropriate location.

Please check one

_____ I wish to have my driveway apron repaired.

_____ I am satisfied with my driveway apron and do not wish it repaired.

_____
(Signature(s) of Owner)

__:

_____ (Consultant)

_____ (Contact Person)

_____ (Telephone Number)

cc:- Director of Engineering and Development Services
- (Councillor)
- (Developer)

TO: R.J. Bino

FROM: J.A. Moores

RE: SUBDIVISION ASSUMPTION
_____
Reg. Plan _____
P. D. & D. File No.: _____

The conditions of the subdivision agreement in respect to the above noted project have been satisfied insofar as the Planning, Design and Development Department is concerned.

It would now be in order to recommend it to the Planning, Design and Development Committee for assumption.

Barb Mallon has been advised by way of a plan of all easements required.

J.A. Moores, P. Eng.,
Manager, Development Construction

JAM
Attach.

cc. Inspector

Date:_____

_____
_____
_____
_____

Attention:

Dear Sir:

Re: _____ Subdivision

Reg. Plan 43M-_____

P. D. & D. File No.: _____

Our records and field inspections indicate that there are lots within the captioned subdivision which were occupied after June 30th, 200__. Your subdivision agreement requires all such lots are to be sodded by June 30th of the following year. Please ensure that this work is completed by June 30th, 200__. Should the work remain outstanding, the City will arrange to complete it at the developer's expense, which will include our stipulated administration fees.

I trust that we will receive your full co-operation in this regard and I suggest that you call _____ (Inspector's Name) at (905) 874- _____ with a schedule of the anticipated completion date. Further, be advised that no other notices will be given.

Yours very truly,

_____
Manager, Development Construction

___/___

cc: Developer
A. Ross
Inspector

Pending _____

FACSIMILE

Date:_____

_____
_____
_____
_____

Attention:

Dear Sir:

RE: UNASSUMED SUBDIVISION
Winter Maintenance/Snow Ploughing
P. D. & D. File No.:

With the end of summer now upon us, and the quickly approaching winter season, it is very important that you make arrangements to inspect all roads within any plans of subdivision not yet assumed by the City, and especially those that have not yet received end of maintenance for the above ground services. Please take steps to ensure that all settlements are repaired in order to provide a safe driving surface; the ramping of manholes and catchbasins is not acceptable.

We would expect that any work required would be completed prior to _(date)_____. After this date any repairs will be completed by the City's Development Contractor and your clients will be invoiced accordingly.

Yours very truly,

_____
Manager, Development Construction

____/____

c.c. Inspector
Developer

Date: _____

TO: Barb Mallon

FROM:

RE: Assumption of Subdivisions - Easements

Reg. Plan 43M-_____

P.D. & D. File No.: _____

Enclosed please find a marked up copy of a plan indicating easements for the above development.

_____
Manager, Development Construction.

JAM/
Encl.

INTERNAL USE

Date:_____

_____
_____
_____
_____

Attention:

Dear Sir:

RE: Subdivision Standards
Street Name Signs
P. D. & D. File No.:

The Subdivision Agreement permits the developer to erect temporary street name signs in order to allow for the issuance of building permits. The signs are to be replaced with permanent street name signs upon occupancy of the dwelling units. Most, if not all developments within Brampton, do incorporate these temporary street name signs, however, they have the street name on one side only. This presents problems to the Fire Dept. and other emergency type services and we request that all signs be double sided from this date forward.

Would you please make arrangements to effect this in all of your contracts immediately.

Yours very truly,

_____
Manager, Development Construction.

cc: Developer _____
Inspector – Planning, Design and Development

Pending: _____

Date:

_____

_____

_____

Attention:

Dear Sir/ Madame:

Re: ROAD CLOSURE
Developer:
Location:

Please be advised of the impending road closure on _____, in the City of Brampton, due to (sanitary or storm sewer) to new residential lots on the _____ _____(Name of Street)_____.

Work is scheduled for_____.

Road to be re-open on_____.

Should you have any questions, please do not hesitate to contact the undersigned.

Yours truly,

Jim Moores, P. Eng.,
Manager, Development Construction
Tel: (905) 874-2535 Fax: (905) 874-2599
jim.moores@brampton.ca

JM/em

Cc: JE/LT/JM/DM/AM - Development Inspector
R. J. Bino - Director of Engineering and Development Services
J. Brophy - Director of Maintenance and Operations
D. Roeterink - Senior Operations Technician
M. Parks - Manager, Traffic Services
Developer
Contractor

ROAD CLOSURE

List of recipients

1. Peel Regional Police
   148 Queen Street East
   Brampton, Ontario
   L6V 3W6

   Attention: Sergeant Ken Tumber
   Traffic Services

2. Mississauga Central
   Ambulance Communication Centre
   Fax: 905-890-8975

   Attention: To Whom It May Concern

3. Dufferin / Peel Separate School Board and
   Peel Public School Board
   5685 Keaton Crescent
   Mississauga, Ontario
   L5B 3H5

   Attention: To Whom It May Concern

4. Brampton Transit
   185 Clark Boulevard
   Brampton, Ontario
   L6T 4G6

   Attention: Sue Bass
   Director

5. Brampton Fire Department
   8 Rutherford Road South
   Brampton, Ontario
   L6W 3J1

   Attention: Marilyn Rundle

Date:

Consultant's Name &
Address:
_____
_____
_____
_____

Attention:

Dear Sir/Madame:

RE: NOISE WALL & FENCING WORKS
Subdivision Name:
Registered Plan:
P.D. & D. File No.:

Please be advised that _____is hereby issued effective _____ for the above project in regard to the following sections of fencing or noise walls:

- Noise Walls – Lots_____
- Acoustic Fence – Lots_____
- Chain Link Fence – Lots_____

Yours very truly,

J. A. Moores, P. Eng.,
Manager, Development Construction.
Tel: (905) 874-2535 Fax: (905) 874-2599
jim.moores@brampton.ca

JAM/em

cc: JE/LT/JM/DM/AM – Development Inspector
S. Chevalier – Streetscape Approval
Developer

Date:

Consultants Name &
Address:
_____
_____
_____
_____

Attention:

Dear Sir/ Madame:

RE: TOPSOIL PILES

It has come to our attention that occasionally the builders/contractors leave a vertical face on topsoil piles when excavating them. This poses a danger to children who might be playing around the piles after working hours. Could you please instruct all builders/contractors to always slope back the cut at the end of every working day.

Thank you for your co-operation in this matter.

Yours truly,

Jim Moores, P. Eng.,
Manager, Development Construction
Tel: (905) 874-2535 Fax: (905) 874-2599
jim.moores@brampton.ca

JM/em

cc: JE/LT/JM/DM/AM - Development Inspector
R. Bino - Director, Engineering & Development Services
C. Sherman - Manager, By-law Enforcement
Developer

Date:

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

Attention: Jim Moores, P. Eng.,
Manager, Development Construction

Dear Sir:

RE: SWM FACILITY APPROVAL
Subdivision Name:
Registered Plan:
P.D. & D. File No.:

This is to confirm that the Storm Water Management Facility for the above noted project is functional and meets the design requirements for volume capacity.

Yours truly,

SIGNATURE

ENGINEER'S STAMP

Drafting Requirements for "As Constructed" Drawings

General Requirements

1. The note "as Constructed", including date, should be placed on all drawings.

2. One complete set of inked as constructed originals or cromaflex reproductions to be retained by the City of Brampton Works Department.

3. All plan and profiles should have at least one benchmark as a reference for elevations.

4. Provide one set of general plan (or registered plan) marked in red indicating all easements, including purpose within the plan of subdivision.

5. All "as-constructed" drawings must be submitted in digital format and must comply with the latest City standards for digital files.

Plan View

1. All construction notes may remain on drawings.

2. All street names should be indicated as per registered plans.

3. Manhole identifications are to be left on.

4. Items to be changed if different than proposed:

   i) Sewer Locations

   ii) Curb widths

   iii) Sidewalk locations

   iv) Manhole and Catchbasin locations

   v) Curb radii

5. All building service connections or house connections are to be shown (including industrial building sites).

Drafting Requirements for "As Constructed" Drawings (cont.)

Profile

1. All as constructed sewer invert elevations are to be shown. If difference is greater than 300mm between the as built and the proposed sewer than the sewer should be re-drawn.

2. Any manhole location which differs by more than 5m from proposed is to be re-drawn.

3. Items to be changed if different than proposed:

   i) Types of manholes

   ii) Pipe Sizes

   iii) Road grade

   iv) Sewer grade

   v) Sewer material

   vi) Class of pipe

   vii) Type of bedding

4. Remove all flags.

5. Manhole identifications are to be left on.

6. Sanitary sewer and watermain information should have Regional approval prior to City acceptance.

7. Remove existing road profile.

8. Lot grading elevations are to be as built and proposed elevations are to be removed.

9. Sewer connections (greater than 8" dia.) to industrial building sites are to be shown.

10. All graphics to be inked and no pencil work.