

**ENGINEERING CONDITIONS
FOR
BEAR CREEK RIDGE
(CRISDAWN CONSTRUCTION INC.)
RESIDENTIAL PLAN OF SUBDIVISION**

A proposed residential development – located on the west side of Essa Road at the intersection of Salem Road.

SPECIAL CONDITIONS

These special conditions, along with the general conditions, constitute the overall conditions for this development.

1.0 General

- 1.1 These engineering conditions, as described herein, may be revised at the discretion of the City of Barrie after one (1) year from the date of approval, unless the plan is registered within this time frame.
- 1.2 The general requirements for roads, municipal services and drainage are shown on drawing numbers C001, C002, C101, C102, C201–C208, C301–C308, C401–C414, C501–C504, C601–C604, C701–C703, C901A–C904B, and C1001–C1008, as prepared by R.J. Burnside & Associates Ltd. The scope and criteria for these requirements will be as directed by the Engineering Department who will determine the extent and suitability of the facilities required to support the development of the subject lands.
- 1.3 The general requirements for electrical supply layout, street lighting and photometric design are shown on drawing numbers E1.01–E1.05, E2.01–E2.02, EL1.00–EL1.04, L1.01–05, L2.01, and L3.01–L3.05, as prepared by Runge & Associates Inc. The scope and criteria for these requirements will be as directed by the Traffic Services of the Roads, Parks & Fleet Department who will determine the extent and suitability of the works required to support the development of the subject lands.
- 1.4 The general requirements for development approvals (parks) are shown on drawing numbers L-1 to L-11 as prepared by John D. Bell Associates Ltd. The scope and criteria for these requirements will be as directed by the Development Approvals (Parks) Section of the Engineering Department who will determine the extent and suitability of the works required to support the development of the subject lands.
- 1.5 The owner will obtain approval from the Ministry of the Environment and Climate Control (MOECC), Conservation and Parks, the Nottawasaga Valley Conservation Authority, and the Ministry of Citizenship, Culture, and Recreation, as they relate to the development of the subject property.

2.0 Roadways

- 2.1 The owner will be responsible to obtain a Right-of-Way Activity Permit(s) for works such as the watermain installation, sanitary and water servicing and road construction on Essa Road and Salem Road as shown on the accepted drawings by R.J. Burnside & Associates Ltd.

3.0 Sanitary & Water Servicing

- 3.1 Downstream sanitary and water servicing infrastructure (through the adjacent Di Poce development to the west and including new municipal servicing on County Road 27 that is to connect to upgraded and existing municipal servicing) must be in place and operational prior to full building permit application / issue. The servicing through the Di Poce development is to be within a suitable easement corresponding to the future road alignment to the satisfaction of the Engineering Department. The servicing easement will need to be conveyed to the City.

4.0 Stormwater

- 4.1 Prior to any grading or construction on the site, the owner is responsible for obtaining any applicable necessary permits from the Nottawasaga Valley Conservation Authority.

- 4.2 The lands comprising the stormwater management pond, Block 280 of the approved Draft M Plan, shall be conveyed to the City at the time of subdivision assumption.
- 4.3 The stormwater management pond and environmentally protected lands associated with this subdivision will incorporate and accommodate a pedestrian pathways / trail system. All pathway / trail detailed design and construction will be to the satisfaction of the Engineering Department.
- 4.4 Any proposed stormwater infiltration devices within the municipal boulevard will be installed to the satisfaction of the Engineering Department and the Nottawasaga Valley Conservation Authority, as indicated on the accepted drawings prepared by R.J. Burnside & Associates Ltd.
- 4.5 Proposed rear lot catch basin and servicing drainage easements in favour of the City of Barrie are to be registered with the subdivision agreement and registered on title as necessary for individual lot sales agreements.

5.0 Watermain

- 5.1 The owner acknowledges and agrees to provide adequate looping for the subject lands. A safe and potable water system to service the entire development will be connected to the existing City of Barrie's Zone 3S water distribution system, to the satisfaction of the Engineering Department.
- 5.2 The following warning clause shall be included in all Offers of Purchase and Sale or Lease for Lots within this plan of subdivision:

"Purchasers are advised that an individual pressure reducing valve (PRV) may be required for each domestic water service, and the PRV's are considered private and therefore are the sole responsibility of the homeowner."

6.0 Parkland Conditions

- 6.1 Parkland dedication shall be in accordance with the Master Parkland Agreement for the Salem Secondary Planning Area.

7.0 Contributions

- 7.1 The owner will contribute to the City of Barrie an amount of \$3,190.00, deemed necessary to cover the future cost of high pressure blasting, priming, and painting, of the twenty-two proposed hydrants within the development. The City of Barrie shall undertake this work upon final acceptance of this development.

Hydrants 22 @ \$145.00 = \$3,190.00

- 7.2 The owner will contribute, to the City of Barrie, a winter road maintenance fee in an amount of \$34,035 deemed necessary to cover future winter road maintenance for the first three (3) years of operation (per Fees By-law 2018 – Year one (1), \$2,821.50/ln.km – Year two (2), \$2,248.17/ln.km – Year three (3), \$1,118.49/ln.km / @ 5.5 ln.km). In addition to this contribution, the owner shall provide a cash deposit in the amount of \$6,000.00 to cover future winter road maintenance for year four (4) and up to assumption. Upon assumption, the owner shall request in writing that the Engineering Department release them from any further obligation for winter road maintenance costs, and that the balance of their cash deposit be refunded.
- 7.3 The owner will contribute, to the City of Barrie, a winter sidewalk maintenance fee in an amount of \$11,578.00 deemed necessary to cover future winter sidewalk maintenance for the first three (3) years of operation (per Fees By-law 2018 – Year one (1), \$2,090.00/km – Year two (2), \$751.95/km – Year three (3), \$374.14/km / @ 3.6 km). In addition to this contribution, the owner shall provide a cash deposit in the amount of \$1,000.00 to cover future winter road maintenance for year four (4) and up to assumption. Upon assumption, the owner shall request in writing that the Engineering Department release them from any further obligation for winter road maintenance costs, and that the balance of their cash deposit be refunded.

8.0 Fencing

- 8.1 Prior to the construction of residential units (including foundations), the owner / applicant will be responsible for constructing a 1.5 meter (5 foot) high chain link fence as per BSD-1210 along the rear of lots 1-8 and 40-73 inclusive, the side of any proposed or existing residential units abutting or adjacent to Blocks, 280, 281, 286, 278 and 279. The chain link fencing is to be inset a minimum of 150 mm from the property line on lands owned by the City of Barrie to the satisfaction of the Director of Engineering.
- 8.2 In the event that chain link fencing is not installed prior to the construction of residential units the City of Barrie reserves the right to utilize the letter of credit securities to immediately initiate and / or complete the installation of the chain link fencing and shall include a standard administration surcharge in accordance with the current Fees Bylaw. The fencing shall be shown on all applicable landscape drawings to the satisfaction of the Director of Engineering.
- 8.3 The following warning clause shall be included in all Offers of Purchase and Sale / Lease or Lease for Lot 1 which is in close proximity to a future park:
- “Purchasers are advised that given the active nature and close proximity of the proposed neighbourhood park, noise and lighting levels may affect the living environment of the residents. The City of Barrie will not be held responsible for any complaints or claims arising from the use of the park.”
- “Purchasers are advised that Lot 1 is in close proximity to a park. Purchasers are advised that a 1.52 metre (5 foot) high galvanized chain link fence (BSD-1210) will be installed on the municipality's side of the property line along the perimeter of the proposed park adjacent to residential lots. Any person altering the fence, including the installation of gates or dumping debris including yard waste into the open space / environmental protection areas is subject to prosecution. In addition to any fine that may be imposed, the owner / applicant will be required to reinstate the fence and / or clean up debris to the satisfaction of the Director of the Engineering Department.”
- 8.4 The following warning clause shall be included in all Offers of Purchase and Sale / Lease or Lease for Lots 1-8 and 40-60 inclusive which abuts the designated Environmentally Protected (EP) lands identified as Block 279:
- “Purchasers are advised that a trail system will be located on the EP lands identified as Block 279 and that noise and activity levels may affect the living environment of the residents. The City of Barrie will not be held responsible for any complaints or claims arising from the use of the trail system.”
- “Purchasers are advised that Lots 1-8 and 40-60 abut EP lands referred to as Block 279. Purchasers are advised that a 1.52 metre (5 foot) high galvanized chain link fence (BSD-1210) will be installed on the municipality's side of the property line along the perimeter of the EP adjacent to residential lots. Any person altering the fence, including the installation of gates or dumping debris including yard waste into the EP lands is subject to prosecution. In addition to any fine that may be imposed, the owner / applicant will be required to reinstate the fence and / or clean up debris to the satisfaction of the Director of the Engineering Department.”
- 8.5 The following warning clause shall be included in all Offers of Purchase and Sale / Lease or Lease for Lots 60 through 74 inclusive which abuts the designated storm water management facility identified as Block 280:
- “Purchasers are advised that a trail system will be located within the storm water management facility identified as Block 280 and that noise and activity levels may affect the living environment of the residents. The City of Barrie will not be held responsible for any complaints or claims arising from the use of the trail system.”

"Purchasers are advised that Lots 60 through 73 and the side yards of Lot 67 and 68 abut lands designated as a storm water management facility (SWMF) referred to as Block 280. Purchasers are advised that a 1.52 metre (5 foot) high galvanized chain link fence (BSD-1210) will be installed on the municipality's side of the property line along the perimeter of the SWMF adjacent to residential lots. Any person altering the fence, including the installation of gates or dumping debris including yard waste into the SWMF is subject to prosecution. In addition to any fine that may be imposed, the owner / applicant will be required to reinstate the fence and / or clean up debris to the satisfaction of the Director of the Engineering Department."

- 8.6 The owner / applicant is required at their cost and as a condition of the subdivision agreement to construct an acoustic fence along the rear and side yard of Lot 74, the rear side yards of Lots 108 & 136 adjacent to Essa Road and the rear and side yard of the first unit of Block 263 adjacent to Salem Road. All acoustic fencing is to be constructed as per the BSD series 1200 through 1203 or approved equivalent to the satisfaction of the Director of Engineering.
- 8.7 The owner / applicant is required at their cost and as a condition of the subdivision agreement to construct an acoustic gate in all side lot returns in accordance with BSD-1202 or approved equivalent to the satisfaction of the Director of Engineering.
- 8.8 The owner / applicant agrees that all acoustic fencing must be in place prior to the issuance of building permits for Blocks 263 and Lots 74, 108 and 136. In the event that acoustic fencing is not in place following the issuance of building permits, the City of Barrie reserves the right to utilize the letter of credit securities to immediately initiate and / or complete the installation of the fencing and shall include an administration surcharge in accordance with the current Fees Bylaw to the satisfaction of the Director of Engineering.
- 8.9 The owner is required at their cost and as a condition of the subdivision agreement to construct board on board residential to residential fencing in accordance with BSD-1205 and BSD-1207 at the rear and side yard of any street townhouse block which abuts lands zoned residential or any street townhouse blocks which abuts lands zoned for street town housing for Blocks 261 and 262 to the satisfaction of the Director of Engineering.
- 8.10 The owner shall be required to construct board on board residential to residential fencing returns / side yard fencing in accordance with BSD-1205 and BSD 1207 at the side and rear of Blocks 261, 262 and the side yards of Blocks 264 through 267. Further, that the required side yard fencing returns between each block shall be a minimum of 1.0 m past the building foundation to the limit to the satisfaction of the Director of Engineering.
- 8.11 The owner is required at their cost and as a condition of the subdivision agreement to construct non-residential to residential fencing in accordance with BSD-1208 along the rear of Blocks 263 through 267, the south side of Block 262, the rear of Lots 268 through 276 and the rear and side yard of Lot 277 where the development abuts future commercial / industrial lands as per the approved fencing plan and to the satisfaction of the Director of Engineering.
- 8.12 The owner / applicant is responsible for constructing all walkway fences along the lot line of all lots that abut walkways, according to the City of Barrie Standard (BSD-1215) including barrier / vehicle controls as noted on the Landscape Plan(s) to the satisfaction of the Director of Engineering.

9.0 Lot Grading

- 9.1 Prior to registration, the owner is required to obtain written approval from adjacent landowners (outside of the plan) if the proposed grading affects the adjacent property.
- 9.2 The owner will be responsible for the incorporation of the following warning clause in the Purchase and Sale / Lease Agreement:

"Purchaser / Tenants of any part of the lands shall not alter, interfere with or remove the rear lot catch basins that may be located along the rear side lot line at the adjacent lot. The purchaser / tenant is responsible to maintain and to keep in a good state of repair any surface drainage path directed to the rear lot catch basin."

10.0 Conveyance In Title and Easements

- 10.1 Municipal infrastructure servicing easements (stormwater), as identified on the accepted drawings prepared by R.J. Burnside & Associates, will be registered as part of the subdivision agreement in favour of the City of Barrie and are to be incorporated / referenced in the individual lot Purchase and Sales Agreements in conjunction with the above Lot Grading warning clause.
- 10.2 The following road right of way widenings, and reserve Blocks will be conveyed at registration:
- Block 284 (Essa Road)
 - Block 283, 290 (Essa Reserves)
 - Block 285 (Salem Road)
 - Blocks 282, 289 (Salem Reserves)
 - Blocks 287, 288 (Dead end roads)
 - Block 286 (Walkway)

GENERAL CONDITIONS

11.0 General

- 11.1 The Ontario Provincial Standard Specifications and Drawings (OPSS & OPSD), in addition to the City of Barrie Standards, will form part of these "General Conditions" and will include supplemental specifications that are issued from time to time which modify or further define these standards and specifications.
- 11.2 The City of Barrie reserves the right to order field revisions at the expense of the owner.
- 11.3 Please be advised that for any undeveloped lots which have an overall grading of 15% or greater, the owner will be required to prepare a special lot grading plan which will identify areas of significant grades and excessive potential tree loss, but maintain an overall drainage scheme. In that regard, these plans should be in accordance with the current City of Barrie Lot Grading Policies and Guidelines.
- 11.4 Registration of this plan will be considered conditional upon all external easements and infrastructure, necessary to support the development of this plan, is constructed and functioning to municipal standards, and / or has received conceptual / preliminary design approval, and the detailed design / scheduling is shown to be being actively developed and secured in a timely manner by the owner.
- 11.5 The owner agrees to discharge any, and all, applicable City of Barrie Act Charges or cost sharing obligations associated with the development.
- 11.6 As a requirement of the development, the owner will be responsible for entering into a subdivision agreement with the City of Barrie.

12.0 Roadways

- 12.1 The owner will construct all roads, within the proposed development, to City of Barrie's Standards, including but not limited to, curb and gutter, hot mix asphaltic concrete, granulars, storm sewers, sub-drains where applicable, and appurtenances, sidewalks, streetlights, driveway approaches, and sodded boulevards to the satisfaction of the Engineering Department.
- 12.2 Any dead-ends, open sides, or reverse frontages on road allowances, created by this Plan of Subdivision, will be terminated in a 0.3 metre reserve, to be conveyed to the City of Barrie.
- 12.3 If temporary turning circles are required, the pavement structure will be constructed such that a minimum radius of 13 metres is provided. The property required to construct the temporary turning circle will be shown as a part or parts on a reference plan, and will be subject to a temporary turning circle agreement, in favour of the City of Barrie, until the roadway is extended.

- 12.4 The owner will provide nursery sod on a minimum of 200 mm topsoil, meeting the municipal quality standard, on both sides of all streets within the subdivision.
- 12.5 The owner will provide streetlights for all streets within and adjacent to this subdivision as per current City standards.
- 12.6 The City of Barrie will require that the owner install and maintain erosion protection and sediment control measures during construction, within this development, such that erosion and sedimentation are controlled within the plan of subdivision.
- 12.7 The owner agrees to prepare and post signs to the satisfaction of the Engineering Department, which indicate that this subdivision is under development control, and that the streets and services are not assumed by the City of Barrie. These signs will be erected at each vehicular access to the development and maintained by the owner until the streets and services are assumed by the City of Barrie at which time the owner will have the signs removed.
- 12.8 The owner agrees to prepare and erect temporary street signs prior to the issuance of any building permits within the development, unless all permanent street signs have already been installed, all to the satisfaction of the Engineering Department. These signs will be as per the approved subdivision drawings and shall include but not be limited to: stop signs, street name signs, no parking signs, speed limit signs, etc.
- 12.9 The owner will be responsible for the provision of trees (minimum 60 mm calliper) within the boulevard area of the municipal road allowance. Accommodations for reduced planting opportunities within the streetscape may be accommodated on private property at the discretion of the municipality. The quantity, location and species of trees must be according to the planting plan(s) and specifications submitted by the owner's Landscape Architectural Consultant and approved by the Engineering Department. All planting will be according to City of Barrie Specifications, and maintained throughout the Guaranteed Maintenance Period. All vegetation is required to have a minimum two (2) year warranty period beginning from the time of inspection and acceptance by staff.
- 12.10 The owner shall be responsible for pavement markings such as centre lining, stop blocks, crosswalks, and tapers in accordance with the accepted engineering drawings. The required markings will be placed upon completion of the base course and top course asphalt layers or as directed by the City of Barrie.
- 12.11 The owner will be responsible for obtaining a Right of Way Activity Permit for construction access and all works within the assumed municipal road allowance.
- 12.12 The owner shall ensure, at their expense, that all boulevards remain in full compliance with the Boulevard Garden Policy (Motion 05-G-147, Bylaw 2005-256) until such time as the development is assumed by the City of Barrie and throughout the Guaranteed Maintenance Period to the satisfaction of the Engineering Department.
- 12.13 The owner shall ensure, at their expense, that all boulevards remain in full compliance with the Boulevard Garden Policy (Motion 05-G-147, Bylaw 2005-256) until such time as the development is assumed by the City of Barrie and throughout the Guaranteed Maintenance Period to the satisfaction of the Engineering Department.
- 12.14 The owner will be responsible for the incorporation of the following clause in the Purchase and Sale / Lease Agreement:

"Purchaser / Tenants are advised that they shall be responsible for ensuring that the municipal boulevard remains in full compliance with the City of Barrie's Boulevard Garden Policy. Any infractions or works undertaken by the purchaser / tenants which do not conform to the Boulevard Garden Policy shall be removed and / or corrected to the satisfaction of the Engineering Department, upon receipt of written notice within ten (10) business days. All costs incurred and / or required works shall be the responsibility of the purchaser / tenants."
- 12.15 A "no dealings" clause will be placed on all lots and blocks on dead-end streets which do not have an appropriate turning circle.

13.0 Stormwater

- 13.1 The owner will accommodate all existing drainage, within and external to, the subject plan, according to the City of Barrie's current Stormwater Management Policies. Where improvements and or adjustments to the existing systems are necessary to facilitate this development, it will be the owner's responsibility to provide the necessary works, including outlet improvements, as required.
- 13.2 The owner will be responsible for the preparation of a stormwater management study that will recommend the means by which the stormwater, within and external to the site, should be accommodated.
- 13.3 The owner will be responsible for carrying out the works recommended in Section 13.1 without limiting the general or specific requirements of the above referenced Stormwater Management Report. The owner will provide appropriate erosion and sediment control, within the development areas, to protect applicable watercourses from the impact of runoff from the development. The owner will maintain the erosion and sediment control facility in an acceptable fashion complete with safety devices, if required.
- 13.4 The owner will provide storm sewers, suitably designed and of sufficient depth, to provide for the proper drainage of the lands, within and external to the subdivision, and discharged to drainage outlets as directed.
- 13.5 The storm sewer system, within the development, will be located mainly within the road allowances, and in other easements and alignments, as required.
- 13.6 The owner shall provide maintenance holes at the extremities of all sewers. In addition, connections to the storm sewer are to be made preferably at maintenance holes, to the satisfaction of the Engineering Department.
- 13.7 The owner is to provide a safety grate, at the inflow and outflow of all permanent culverts, in the proposed development.
- 13.8 Before final approval and registration of the plan, the owner or his agents will submit an Erosion and Sediment Control Plan, prepared to the satisfaction of the City of Barrie and the Lake Simcoe Region Conservation Authority (LSRCA). This plan will detail the means by which erosion and sediment, and their effects, will be reduced during and after the construction period. The installation of appropriate sediment and erosion control measures must be in place before commencing any works on the site.

14.0 Sanitary

- 14.1 The owner will be responsible for providing all sanitary sewage facilities to accommodate sanitary sewage flows, within and external, to the subject lands.
- 14.2 The owner will provide a 200 mm minimum diameter polyvinyl-chloride pipe or acceptable alternative, with maintenance holes provided along and at the extremities, to be placed mainly along the centre lines of all road allowances of sufficient depth and suitable slope to serve every lot within the subdivision, and accommodate land tributary to the areas as determined by the Engineering Department, and designed to discharge to a sufficient outlet.
- 14.3 The owner will provide one (1) sanitary sewer service lateral of 100 mm minimum diameter to approximately the centreline of each lot or dwelling unit, to a point 2.0 metres beyond the limit of the road allowance.

15.0 Watermains

- 15.1 The owner acknowledges and agrees that the proposed development must be serviced from the municipal water distribution system.
- 15.2 The owner agrees that in order to provide proper and reliable water distribution systems within the development, reasonable looping of these systems shall be provided to the satisfaction of the Engineering Department.

- 15.3 The owner will provide 150 mm minimum diameter watermain of Class CL52 Ductile Iron or PVC Class 150 (DR18) with properly spaced hydrants and valves, to be placed mainly within the boulevards of all road allowances of sufficient depth and size to serve every lot within this subdivision. However, cul-de-sacs, unless otherwise directed, shall be serviced from a 50 mm diameter Type "K", third party (W.H.), soft copper waterline (alternative is polyethylene (P.E.)) as per BSD-55.
- 15.4 The owner acknowledges and agrees that the minimum diameter pipe size for the water distribution system, to be installed to the subject plan of subdivision, shall meet or exceed the pipe sizes recommended in the Master Servicing Plan. Also, these watermain shall be of sufficient size to provide the maximum day usage plus maintain the minimum fire flows, as stated in the City of Barrie's most recent Water Distribution Specifications.
- 15.5 The owner will provide one (1) water service lateral of 25 mm minimum diameter to the limit of the road allowance of each lot or dwelling unit, to a separation of 2.5 metres from the sanitary sewer service lateral and located as to avoid driveway entranceways. The only exception are lots with less than 8.0 metres of frontage, where separation shall be 1.2 metres providing a minimum vertical separation of 0.5 metres.
- 15.6 The owner acknowledges and agrees that connection to the municipal water systems will be permitted following registration of the City of Barrie's subdivision agreement, and/or at the discretion of the Engineering Department.
- 15.7 The owner acknowledges and agrees that written approval from the Engineering Department, for materials required, shall be obtained prior to commencing with the installation of the water distribution systems.
- 15.8 The owner agrees to relocate, support, or modify, at their expense, any existing utility service facilities as may be necessary, by reason of the work as required by the plan of subdivision.
- 15.9 A minimum residual pressure of 275 Kpa (40 psi) shall be provided in all sections of the water distribution system under conditions of peak hour demand when no fire flow allowance is made.
- 15.10 The owner will be responsible for the preparation of a water distribution analysis report that will recommend the means by which the water distribution system, within and external to the site, should be facilitated.
- 16.0 Parkland Conditions**
- 16.1 The owner shall provide to the City of Barrie, a cost estimate and work schedule for the completion of the departmental requirements with a 100% letter of credit for such works.
- 16.2 The owner will have prepared a detailed inventory of all existing trees, an individual list of dead / diseased or dying trees, an assessment of significant trees that will be preserved, and the proposed methods of tree preservation. The owner will submit status reports on a bi-monthly basis to the City of Barrie during active construction regarding the condition of vegetation and preservation fencing to the Development Approvals (Parks) Section of the Engineering Department.
- 16.3 The owner will not remove, damage, or cause harm to any trees which have been identified to be preserved without the prior written approval by the Development Approvals (Parks) Section of the Engineering Department to the satisfaction of the Director of Engineering.
- 16.4 The owner will implement a maintenance schedule for all trees identified as hazardous, diseased, dead, or dying, prior to the construction of homes within the limit of the development. The owner will prune, cut down, and remove from the lands in the plan, all hazardous, diseased, and dead trees, upon receipt of written notice from the Development Approvals (Parks) Section of the Engineering Department. The maintenance requirements for all trees within the limit of the development identified shall remain in effect until the final acceptance of works and the end of the Guaranteed Maintenance Period.
- 16.5 The owner will ensure that a minimum table land of no less than 5.0 metres be provided between the municipally approved limit of preservation and any building envelope.

- 16.6 The owner is responsible for engaging the service of a qualified Landscape Architect to prepare a complete set of working drawings, details, specifications and cost estimates for all landscape and streetscape works prior to registration. The landscape drawing package shall include, but not be limited to, boulevard street tree planting, fencing, trails, SWMF planting, restoration planting, naturalization, plant lists, notes, details and cost estimates to the satisfaction of the Engineering Department.
- 16.7 The owner agrees, prior to assumption, to provide a "digital file" consisting of all constructed / installed subdivision landscape and streetscape elements. The digital data must be compatible with the City of Barrie Standards, and must be consistent with the site servicing and lot grading plans prepared by the owner's consultant(s).
- 16.8 The owner is responsible for retaining the services of a qualified Landscape Architect to manage and implement all landscape related items including, but not limited to construction supervision, reporting, fencing, naturalization planting, trail decommission, restorations, boulevard planting, root barrier installation (sidewalks and driveways), vehicle controls, pedestrian linkage, boulevard inspections, SWMF planting, trail construction, resident complaints, liaison with the City of Barrie, preservation inspections, assumption inspections, letter of credit release, inspections for acceptance and inspections for the end of the Guaranteed Maintenance Period. The Landscape Architect is required to maintain inspection logs of all field / site visits and inspections through to the end of General Maintenance.
- 16.9 All vegetation including naturalization planting and street trees shall be guaranteed for a minimum of two (2) years. Note: Depending on time of installation, the warranty period may have to extend past the end of the Guaranteed Maintenance Period at the discretion of staff.
- 16.10 The owner is responsible for the construction of walkway / trail links identified on Blocks 280 and 286 including the connection of the new trail to the existing trail network located in Block 279 as per the approved landscape plans to the satisfaction of the Director of the Engineering Department.
- 16.11 The owner agrees, prior to assumption, to provide a "digital file" consisting of all constructed / installed subdivision landscape and streetscape elements. The digital data must be compatible with the City of Barrie Standards, and must be consistent with the site servicing and lot grading plans prepared by the owner's consultant(s).
- 16.12 No topsoil stockpiling, disturbance, or dumping of construction debris is permitted within open space blocks, within defined preservation limits or EP lands. All open space blocks and EP lands are to be fenced with protective fencing to the satisfaction of the Engineering Department. The owner will install the protective fencing prior to commencing any works on the site. The owner will maintain the protective fencing in a fashion to the satisfaction of the Director of Engineering for the entire period of the development. In the event that unauthorized activity or works occur within these defined areas, all disturbed lands shall be reinstated to the satisfaction of the Engineering Department.
- 17.0 Fencing**
- 17.1 The owner is responsible for ensuring that no gates shall be constructed within any City of Barrie required fencing for the development unless previously approved in the design drawing set. In the event that gates are installed by any individual, the developer shall be required to restore the fencing to City of Barrie Standards until such time as acceptance is granted for the development by the City of Barrie to the satisfaction of the Director of the Engineering Department.
- 18.0 Notification – ("Community Information Map")**
- 18.1 The owner agrees and understands that no works will occur on the site until the owner has prepared an information map to the satisfaction of the City of Barrie. This information map is to be provided by the owner to prospective home purchasers, and shall include the requirements associated with providing specific information concerning all components of servicing and other facilities related to the proposed subdivision. The information map shall include, and not be limited to, the location and description of various road and servicing items within, and associated with the subdivision plan such as public and private services, road classification and number of lanes, lot grading, drawings, parks, walkways, institutional property, open spaces/environmental lands, fencing, and commercial property, all to the satisfaction of the Engineering Department.

19.0 Sidewalks

- 19.1 As per OPSD requirements, the owner will provide a 1.5 metre wide concrete sidewalk throughout the development according to the accepted engineering drawings.
- 19.2 As per the Integrated Accessibility Standards Regulation, sidewalks at intersections are to incorporate ramps with tactile walking service indicators as per OPSD 310.039 and other associated standards.

20.0 Driveway Locations

- 20.1 The owner will be responsible for including on all "Lot Development Plans", the locations of utility apparatus (water service box, electrical vaults, streetlights, and pedestals) to avoid conflicts with the proposed driveway entrances. In that regard, the owner is to ensure that they generally site the driveway entrances on the opposite side of all utility apparatus.

21.0 Street Lighting

- 21.1 The owner will ensure, wherever possible, that a streetlight is located at the end of all walkways abutting the municipal roadway.
- 21.2 The owner shall place with the City of Barrie Finance Department a \$6,025.00 cash deposit to cover the cost of electric power to supply all streetlights within this development, or each phase of development, from the date Innpower energizes such facilities, until sixty percent (60%) of the lots or units are occupied. Upon meeting this condition, the owner shall request in writing that the Engineering Department release them from any further obligation for electrical costs, and that the balance of their cash deposit for electric power be refunded.
- 21.3 Should the electrical costs be greater than the sum deposited, the owner shall be invoiced for the difference. Any outstanding invoices must be paid prior to acceptance of the development and subsequent letter of credit reductions.

22.0 Lot Grading

- 22.1 The owner will prepare a general lot grading plan as part of the engineering drawings, which will be reviewed by the Engineering Department.
- 22.2 The owner will prepare lot development plans as outlined in the lot grading and drainage control procedures, to the satisfaction of the Building Services Department.
- 22.3 Prior to registration, the owner is required to obtain written approval from adjacent landowners (outside of the plan) if the proposed grading affects the adjacent property.
- 22.4 The owner will be responsible for the incorporation of the following clause(s) in the Purchase and Sale / Lease Agreement:

"No purchaser of any lot shall alter or interfere with the grading and drainage levels and patterns as approved by the municipality with respect to the said lots and, without limiting the generality of the foregoing, no purchaser of any part of any lot shall alter, fill, fence, stop up or allow to become clogged or fall into a state of disrepair, any rear or side yard drainage depression or swale, catch basin or other drainage channel, facility or installation, as such alteration or other action as stated above may cause a failure of the drainage system in the area."

"Notwithstanding this prohibition the purchaser of any lot agrees to indemnify and save the municipality completely harmless from all actions, causes of action, suits, claims and demands whatsoever which may arise directly or indirectly, by reason of such alteration or other action as stated above."

"No purchaser shall be entitled to connect roof leaders to the foundation drain collector or to the weeping tile or the sanitary or storm sewer. Roof leaders shall be required to discharge in accordance with the drainage facilities shown in the municipally accepted final lot grading plan for the subdivision."

"Owners are advised that approved lot grading plans may specify the location and species of trees which shall be required to be maintained on the lot."

"Purchasers are advised that no fences, trees and other landscaping features may be installed on the lot, other than those approved by the municipality, until a final lot grading certificate has been received by and approved by the municipality in accordance with the requirements of the subdivision agreement."

"Purchasers are advised that the municipality has reserved the right to amend the provisions and details of the lot grading plans filed with the agreement and that such amendments may result in alterations to features in said plans or the additions of other features, including, but not limited to, retaining walls. Owners are advised to consult with the municipality to ascertain the particulars of any amended grading for any individual lot or lots and are cautioned not to rely solely upon the provisions and details contained in the lot grading plans filed with the Agreement."

23.0 Emergency Measures

- 23.1 Whenever the construction site is unattended by a representative of the owner's consulting engineer, the name, address, and telephone number, of a representative of the owner, will be given to the Engineering Department. This representative will be available on a continuous basis, and will have the necessary authority to mobilize workers and machinery, and to take any action as directed by the Engineering Department, in case of emergency or requirement for maintenance that was caused by the owner's negligence, act of God, or any cause whatsoever.
- 23.2 Should the owner be unable to carry out the immediate remedial measures required, the City of Barrie will carry out the necessary remedial measures, the costs of which will be charged to the owner, in accordance with the provisions of the Subdivision Agreement.

24.0 Private Wells

- 24.1 The owner shall be responsible for the identification and abandonment of all existing wells on site, as per the Ontario Water Resources Act Reg. 903, s.21. Copies of the Water Well Record, detailing the procedures of the well abandonment and well location, must be submitted to the MOECC and the City of Barrie prior to any development works proceeding on the site.

25.0 Environmental

- 25.1 If a study encompassing the development lands has not already been performed, the owner will retain the services of a professional hydrogeological engineer who must be approved in writing, by the Engineering Department. The owner must complete a hydrogeological study by the said professional hydrogeological engineer, to the satisfaction of the Engineering Department. Without limiting the generality of the foregoing, the study will include a survey of all water supply systems within three hundred metres (300 metres) of the subject property, and or the zone of influence and report of the possible impact the development of the plan will have on the existing water supply systems. Should the Engineering Department determine that the existing water supply systems will be altered, or eliminated, based on the study and any other available supporting data, the owner will be responsible for providing the interim and permanent restoration of the water supply systems, to the satisfaction of the Engineering Department. This report should be conclusive with provisions and recommendations on servicing within the noted recharge area.

26.0 Erosion Control

- 26.1 Before any site alteration within the subject property, the owner or his agents will make application for a Site Alteration Permit as described within the current Site Alteration By-law. Prior to commencement of any works within the site, all requirements, obligations, and control measures as described within the By-law will be undertaken and in place to the satisfaction of the Engineering Department and to the appropriate conservation authority in those areas which are under their jurisdictions. Further, it will be the owner's responsibility, through their professional consultant, to maintain said works for the duration of this subject development.

27.0 Conveyance in Title and Easements

- 27.1 The owner shall convey all lands and grant all easements to the City of Barrie, as identified in Schedule "P" of the Subdivision Agreement.
- 27.2 The owner will, upon the request of the City of Barrie and until the formal acceptance of City of Barrie services, convey easements at the rear of any lots and any other locations where required for the installation and maintenance of services, all at the expense of the owner, including all costs of acquisition. Where any lot has been subsequently conveyed and the owner is unable to obtain such conveyance of easements, the City of Barrie will expropriate such easements as may be necessary, in its sole and unfettered discretion, and the owner will bear the cost of such expropriation, in total, and will enter into a further agreement with the City of Barrie to secure such costs.
- 27.3 The owner agrees that all external easements required for this development will be in place before the registration of the Subdivision Agreement.

28.0 Horizontal Control

- 28.1 All property surveys required through plans of subdivisions must be tied into the Ontario Horizontal Control Survey Network (Cosine) in accordance with Ontario Specifications and Guidelines, and Regulations under The Surveys Act (OS 79). In that regard, the owner agrees that an Ontario Land Surveyor will provide, to the City of Barrie, the Registered Plan of Subdivision, and all other associated plans in digital form referred to Horizontal Control Survey UTM (Zone 17) NAD83. Prior to final acceptance of the registered plan, the owner's surveyor shall submit to the Engineering Department a report containing a summary of the field traverse, adjustment method, closure report, and a summary of the rationale used to derive the boundary coordinates. The owner's surveyor shall provide to the City of Barrie a signed certificate that this submission to the City of Barrie complies with the specification set out. The required report will be digitally filed on a CD/DVD and shall also be included within the report, and must meet the current City of Barrie Integrated Control Survey Specifications.
- 28.2 Prior to the assumption of the subdivision, the owner's surveyor shall establish a network of second order horizontal control monuments, as set out in "Ontario Specifications for Horizontal Control Surveys (OS 79)", as well as a network of vertical control benchmarks, as set out in "Ontario Specifications for Vertical Control Surveys (OS 79)".
- 28.3 The same monument may be used as both a horizontal and vertical control monument / benchmark.
- 28.4 The horizontal control monuments, and the vertical control benchmarks, shall be established at approved locations to the satisfaction of the Engineering Department, using the following criteria:
- a) Two (2) horizontal control monuments and two (2) vertical control benchmarks for the first ten hectares (10 ha) (or less) subdivided by the plan, and one (1) additional horizontal control monument and vertical control benchmark for every additional ten hectares (10 ha) (or less) subdivided by the plan;
 - b) In addition, every existing horizontal control monument and vertical control benchmark destroyed during subdivision or site plan construction must be replaced;
 - c) The new horizontal control monuments and vertical control benchmarks (including replacements) shall be installed by one of the following methods;
 - d) Make a cash contribution to City of Barrie's Finance Department at a rate of \$1,704.95 per horizontal control monument or vertical control benchmark, a rate of \$3,409.90 per combined horizontal / vertical control monument and the City of Barrie will install the monuments and ensure acceptance by the Ministry of Natural Resources into their Cosine Database.

OR

- e) A certificate by an Ontario Land Surveyor be provided stating that the horizontal control monuments and vertical control benchmarks were installed as set out by the Ontario Specifications for Horizontal Control Surveys (OS 79) and the Ontario Specifications for Vertical Control Surveys (OS 79) respectively, and confirmation from the Ministry of Natural Resources that the horizontal control monuments and vertical control benchmarks have been accepted into their Cosine Database.

- f) The horizontal control monument shall be a round iron bar (0.025 m x 1.22 m) with brass cap or any monument approved by the Ontario Specifications for Horizontal Control Surveys (OS 79).
- 28.5 The owner agrees to provide a digital file of the subdivision services, to the satisfaction of the Engineering Department, consisting of all as-constructed works, including pavement widths and grades, curb types, sidewalks, location of all municipal services, utilities, etc. The digital data must be compatible with the City of Barrie's standards, and must be tied to the horizontal and vertical control network (Cosine).

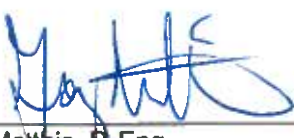
29.0 Professional Consultant Certification

- 29.1 The owner is required to confirm in writing to the Engineering Department, that a professional consultant has been retained to carry out full-time resident inspection of the works. The owner will require the professional consultant to certify that the works were installed in accordance with the accepted drawings and specifications, and the City of Barrie's Standards applicable to the works, and in compliance with the Subdivision Agreement and these engineering conditions.


30.0 Final Assumption

- 30.1 Prior to final assumption, the owner will be required to provide the following:
 - a) Letter of Application for final assumption;
 - b) A pre-assumption inspection with the Development Services Field Coordinator and Approvals Branch of Engineering Department must be completed identifying any and all deficiencies (Letter of Application must reference inspection date and attendance);
 - c) Acceptance letter from Innpower;
 - d) Acceptance letter / e-mail from the Development Services Field Coordinator;
 - e) Acceptance letter / e-mail from the Approvals Branch of the Engineering Department (Landscape Architectural Planner);
 - f) Acceptance letter / e-mail from the Building Services Department with respect to lot grading certification;
 - g) Acceptance letter / e-mail from the Water Operations (water system and continuity testing);
 - h) List of outstanding work and associated cost estimates;
 - i) Documents that support compliance with the Construction Lien Act which would include publication certificates from the Daily Commercial News, clearance certificates from the Workplace Safety Insurance Board and statutory declarations from the owner and general contractor advising that all amounts owing to the contractor/subcontractor have been paid;
 - j) Letter of Credit reduction request letter and supporting spreadsheet;
 - k) Engineers' certification that all works have been completed and are in compliance with the accepted plans;
 - l) As-Constructed engineering drawings (See City of Barrie Standards for Engineering Records Submission Form and required documents);
 - m) An assumption plan (letter size) of the development including internal and surrounding street names, lot numbers and block numbers;
 - n) Certification Letter from an Ontario Land Surveyor (complete with drawing) confirming that all standard iron bars have been replaced, reset, found and or verified; and,
 - o) Final inspection video of both the storm and sanitary sewer.

Prepared by:


G. Matthe, P. Eng.
Senior Development Services Technologist

Reviewed by:


F.E. Palka, C.E.T.
Manager of Approvals

Approved by:


K. Oakley, P. Eng.
Director of Engineering

GM/st