

# MILLER DEVELOPMENT LTD.

## Charleswood Development

Charleswood Drive and Cumberland Way

PID's 40699837, 40092009, 00510560

Stage 2: Conceptual Site Design Plan

July 2nd, 2013

## Introduction Letter

July 2, 2013

Andrew Bone  
Halifax Regional Municipality Planning Service  
636 Sackville Drive  
Lower Sackville NS  
B4C 3S3

Dear Mr. Bone:

RE: Miller Development Ltd. Charleswood Subdivision

Please find attached 10 copies of the application regarding Stage 2 of the Open Space subdivision application. The current density of our concept plan meets policy S-15, S-16 and RL-15.

This latest revision of the Stage II report is primarily as a result of new policy recently enabled by HRM Council. Policy RL-15, which falls under the River-lakes Secondary Planning Strategy, allows for consider of townhome development on 42 acres of land known as PID 00510560. This parcel of land is the largest of 3 parcels that make up this proposed area to be developed. This new policy allows for a density of 2 units per acre on these 42 acres, which is what we are now proposing in this Stage II revision. All information has been updated to reflect this change in concept and density.

Please feel free to contact me at any time.

Sincerely,

Chris Macaulay  
PMD Consulting  
Representative Miller Development Ltd.

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# **1. INTRODUCTION:**

Based on Halifax Regional Municipality's policies (S-15, S-16 and RL-15), this Stage 2: Conceptual Design application is for a Classic Open Space Development. Halifax Regional Municipality's (HRM) open space design (OSD) development policies aim to protect and conserve habitat while enabling rural development. The classic open space policy enables homes to be clustered to a maximum gross density of one single unit dwelling per 0.4 ha (1 acre) or up to 2 units for Townhome Development as identified within the River-lakes Secondary Planning Strategy under RL-15. The classic open space design requires 60% of the entire parcel set aside as open space. Areas of Open space are determined through mapping primary and secondary conservation areas towards the goal of protecting environmentally sensitive areas and habitat corridors. This proposed development exceeds the requirements for land area dedicated to open space and would see 94 single family dwellings and 84 Townhomes, for a total of 177 units serviced with municipal water and on-site cluster styled sewage treatment.

The proposed development of a Classic open space subdivision is based on 54.72 hectares of land in Windsor Junction , Nova Scotia. The required documents supporting this application have been completed and include:

- Proposed sewage treatment system
- Stormwater Management Plan
- Traffic Impact Statement
- Open Space Management Plan

## **1.1 Background**

In April, 2007, a Stage 1 Preliminary Site Design was submitted to HRM Planning and Development that explained the existing land use. It identified open space areas to be preserved and potential areas of development. After reviewing the Stage 1, HRM Planning and Development arranged a public meeting, which was held on June 7<sup>th</sup>, 2007. The purpose of this meeting was to gather additional information and listen to concerns/feedback from local residents regarding the subdivision proposal. Based on the comments received, additional work and refinement of the application has occurred resulting in this stage 2 report.

The area proposed to be developed has been partially logged, as shown in our initial Stage I mapping. The public road location and layout are somewhat determined due to the existing road network. However, given the flexibility of the Open Space Development, the proposed areas of development are to be primarily within these areas of previous logging, as shown in Appendix 8. There appears to be no known existing trails located on this property.

## 1.2 Proposal

This report fulfills the requirements of Stage 2: Conceptual Design Component of the Open Space Designed Development Process as detailed in the HRM guidelines (Policy S-15 and S-16). We are presently proposing 3 condominium corporations totaling 177 single bare land condominium units/lots. The single unit dwellings will sit on a condo lot between ~12,000 and 15,000 sq ft. Homes to be built on site will be of average size, with an approximate 1500 to 2300 Sq Ft footprint, and side yards at a minimum of 8 ft. Accessory structures will be permitted as to policy for the area. The height of each home will not be any higher than 35 ft. Each home-site will allow for a driveway no wider than 20 ft. The Townhome footprint will vary, but each individual townhome will be approximately 1000-1400 sq ft. with a height not to exceed 35ft and a driveway no wider than 20ft.

Each condo corporation will be managed on-site. The sewage treatment design shown on the concept plan and described in this report is considered one of the most efficient methods for sewage management available.

Most development for the five phases will take place in areas of previous logging, thus leaving the majority of existing tree stands untouched by the surrounding development. Policy S-15 and S-16 will easily be met with less than 40% of the area to be developed/disturbed, allowing for greater than 60% green space.

Access to these condo communities will be through a continuation of both Cumberland Way and Charleswood Drive. The public roads shown on the concept plan measure a total of approximately 1500 meters/2.03 hectares or 3.7% of total area. The private condominium controlled common driveways will be built to Emergency Vehicle Standards (18-20 ft wide) and will have a base capable of supporting such vehicles.

The number and type of housing units for each condominium cluster is as follows:

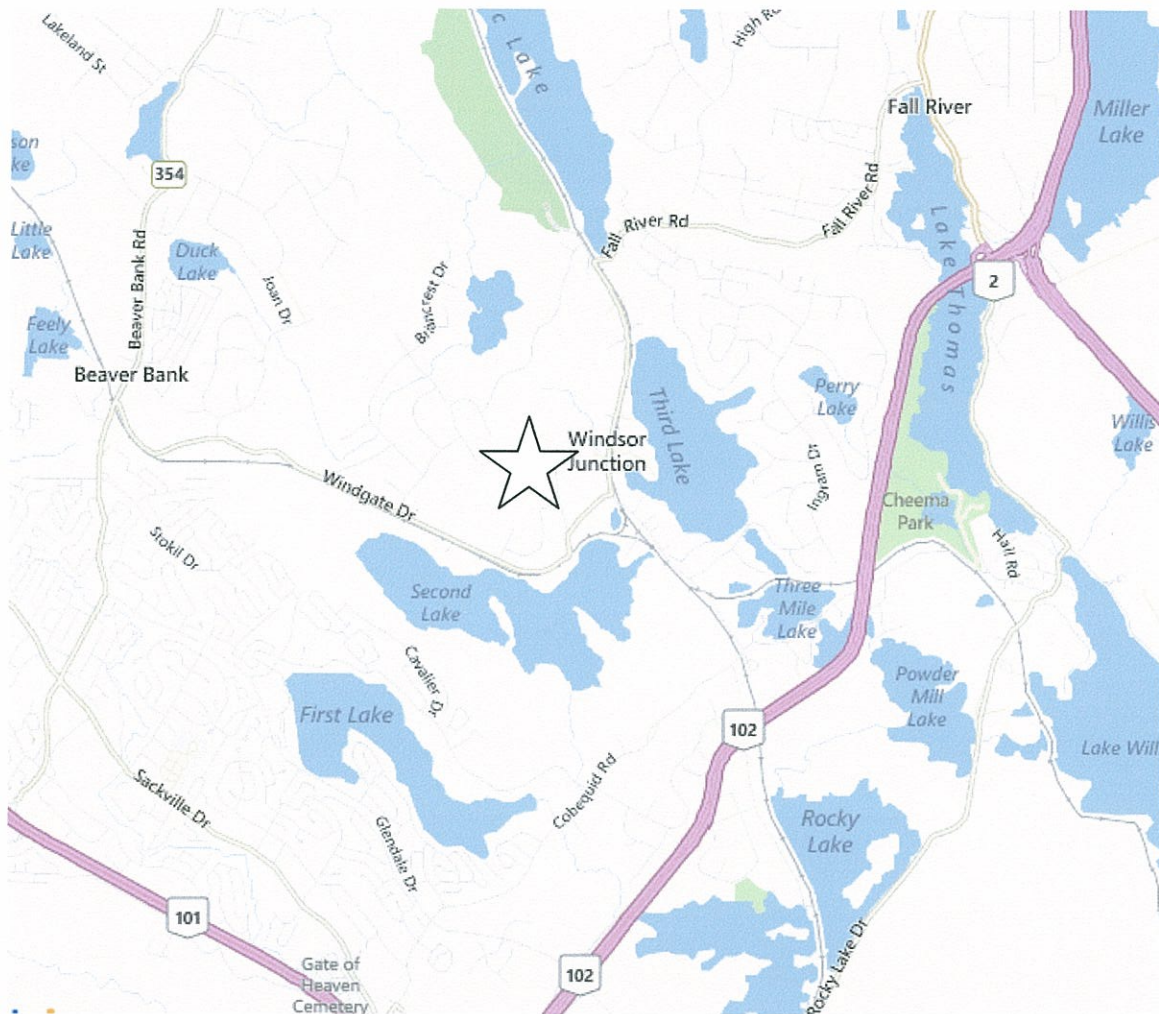
- Condo 1A - 34 Single Family Units
- Condo 1B - 25 Single Family Units
- Condo 2A - 34 Single Family Units
- Condo 2B - 47 Townhome Units
- Condo 3 - 37 Townhome Units

## 2. SITE DETAILS:

<b>Applicant</b>	<b>Miller Development Ltd</b>
<b>Project Name</b>	<b>Charleswood Subdivision</b>
<b>City and Province</b>	<b>Windsor Junction , N.S.</b>
<b>Municipality</b>	<b>Halifax Regional Municipality (HRM)</b>
<b>Municipal Contact</b>	<b>Andrew Bone</b>
<b>Site Area</b>	<b>54.72 Hectares</b>
<b>Legal Description</b>	<b>PID's 40699837, 40092009, 00510560</b>

## 2.1 Site Location

The property is located in Windsor Junction directly between Charleswood Subdivision and Capilano Estates. It is approximately 17 km north of Halifax. See Appendix 5 for Detailed Map.



Location Map

## 2.2 Site Description

The Site is located in Windsor Junction between existing residential subdivisions Charleswood and Capilano Estates. The trees found in this area are primarily Black Spruce, with a few mixed hardwoods. The South, West and East boundaries of this property are encompassed by R1-b single family dwellings. The North part of the property is adjacent to two land owners, with those lands being undeveloped.

### **3. OPEN SPACE SUBDIVISION ANALYSIS:**

#### **3.1 Open Space Management Plan**

The proposal relates to the creation of 177 units using the “Classic Design-Open Space Model”. Under this model, no more than 40% of the land mass can be disturbed for the purpose of house lots and roads, roads. Consultants John Zuck and Associates and Land Design Engineering Services were hired to determine the best location of the open space housing units. The result of the design will realize more than 60% + of the land mass to be left as common open space, which will remain under the condo corporation ownership, protected by the Development Agreement with a mostly non-disturbance designation. There will be no disturbance of these lands, unless it is determined that a Communal Facility, such as a sanitary drip bed/sand filtration system for treatment of wastewater, is to be located in this area. Policy does allow for communal facilities, that service the community, to be placed in the 60% common space. If it is determined that no communal facilities are required in the 60% open space, then this area is to be left untouched, allowing the forests and vegetation to grow in a continued natural state. The Corporation will manage and enforce the protective covenants being prepared for the development. These covenants will address many aspects of the community including protection of the open space. There are no known existing trails on the property, although it can be assumed that the residents may wish to use the 60 % green space for passive recreation. However, there are presently no plans to create any walking trails within the common space.

The common condominium property found in the center of each of the five communities will serve as a park-like area to be enjoyed by the local families. This area will be maintained by professional landscapers and managed through condominium fees.

The developable area proposed is 21.22 hectares or 38.8% of total area, which is less than the 40% requirement. The breakdown of total developable area to open space for each Condo, minus road area, is as follows:

- Condo 1A & B - 22.6 ha total – 8.46 developable/ 14.14 open space
- Condo 2A & B – 22.3 ha total – 8.27 developable / 14.03 open space
- Condo 3 – 7.8 ha total – 2.47 developable / 5.33 open space

The developable areas calculated above include all Condominium Controlled Common Driveways and Bare Land Condominium “Lots”. Open Space, which consists of woodlands and common facility, such as drip beds, make up the remaining lands shown in green and blue on the main concept plan.

#### **3.2 Traffic Impact**

The traffic impact statement (Appendix 2) from Genivar states that a development of 177 housing units would not cause any noticeable or significant impacts to traffic in the area, as the main road (Windgate Drive) is presently moderate volume and is quite capable of handling the extra flow from the subdivision. Sighting clearances on access roads can also be readily met.

### **3.3 Stormwater**

Due to the very nature of the Classic open space design, very little of the land mass will be developed, which lends itself very well to the proper management of stormwater runoff from developed areas. Information/supporting documentation on Stormwater for our proposed housing development can be found in Appendix 3. A proper formal engineered design will be drawn up upon completion of the geotechnical information.

### **3.4 Proposed Sewage Treatment Wastewater Management Plan**

Provincial mapping of the area to be developed, discussions with DOE staff with respect to known soil conditions of areas already developed, and actual random soil sampling in and around the subject lands, place the soils in the area to be consistently that of category 2- sandy/silt with underlying clay. The topography, soil conditions, drainage areas, and the large areas of green space lend itself to an efficient design to manage sewage from the proposed residential units. NSDEL guidelines will be met or surpassed with the final design. All supporting information with respect to Wastewater can be found in Appendix 4.

### **3.5 Parkland Dedication**

Under the Regional Subdivision Bylaw for Classic Model-Open Space Subdivision, when the property is subdivided into at least three lots, there is a requirement to contribute 5% of the lands or cash in lieu toward Parkland Dedication. However, there are currently 3 existing parcels of land that make up this proposal, which is the same number of condominium corporations being proposed. Considering there are no additional parcels of land being created, this proposal requires no Parkland Dedication. The 60% green space, as required by policy with this form of development, is likely to be used for passive recreation by the local residents.

## **4. Water Service**

This development will have access to municipal water. The water line will run along each public road, Cumberland Way and Charleswood Drive. This section of waterline, once approved, will be taken over and maintained by the Halifax Water Commission. However, Each Condominium will be responsible for any privately controlled infrastructure, such as waterlines that travel within or alongside Private Condominium Controlled Common Driveways. Hot Boxes will be most likely located at or near the entrance to each of the five cluster communities. Fire Hydrants will be placed along the private condo controlled common driveways according to emergency standards. See Appendix 10 for Water Service Map.

## **5. Conclusion**

The proposed development utilizes an existing cleared area while protecting a significant portion of natural habitat/green space.

A Traffic Statement explains how there will be no significant impact to the existing roads and infrastructure.

Based on experience and knowledge of Classic Open Space Design “cluster systems”, Land Design Engineering Services, is confident that the sewage treatment will meet or surpass NSDEL regulations.

Stormwater for the area has been analyzed and can be adequately handled on-site without concern from adjacent properties.

RL-15 of the River-lakes Secondary Planning Strategy allows for consideration of Townhome units calculated at 2 units per acre to a maximum of 84 units total for this proposed development.

The proposed development meets or exceeds the intentions of the Open Space Subdivision under Policy S-15/16.

Appendix 1:

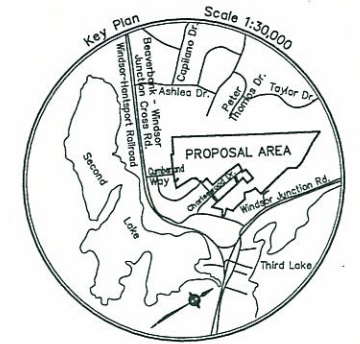
Conceptual Lot Layout

Individual Condominium Maps

Approval Stamps

Site Design Criteria		
Total Area	54.72 ha.	
40 % Development Area	21.88 ha	
60 % Open Space	32.83 ha	
Proposed Site Criteria		
Lot Area	19.19 ha	} 38.8%
Road Area	2.03 ha	
Open Space	33.50 ha	
		61.2%

Lots		Proposed Development
Condominium 1A	Lots 1-34	Single Family Dwelling
Condominium 1B	Lots 69-93	Single Family Dwelling
Condominium 2A	Lots 35-68	Single Family Dwelling
Condominium 2B	Lots 94-140	Townhouse Dwelling
Condominium 3	Lots 141-177	Townhouse Dwelling



- Legend:**
- ..... Perimeter of lands dealt with by this survey
  - ..... Single Family Dwelling
  - ..... Townhouse Dwelling
  - ..... Landscaped to Resident's Taste
  - ..... Naturally Forested
  - ..... Areas delineated as Wetlands by Maritime Testing (September 2011)
  - ..... Sanitary Drip Bed

- Notes:**
1. Contour interval is 2 metre, plotted from information provided by L.I.C.
  2. All single family units will have individual septic tanks. Gravity effluent collection in 4" Ø PVC gasketed pipe.
  3. The development density follows HRM open space design criteria, concentrating developed areas, and the impervious surfaces associated with them, in clusters surrounded by undisturbed lands. Small scale, workable stormwater management solutions such as infiltration inducement, subsurface storage and release rate control, and pervious surfaces will be incorporated into the design such that pre and post runoff at 2, 5, and 100 year design storms will be similar, and matched where feasible.
  4. The abundance of open space allows for sensitive designs, independent from traditional storm sewers, to be extremely successful in protecting downstream environment and property from uphill development. Swale and ditches can replace storm sewers when flows are smaller, and managed prior to leaving developed areas. In this way, the local groundwater regime is replenished, and local watercourses retain groundwater contributions, that assist in maintaining safe stream temperatures to protect fish habitat.
  5. Notes 3 and 4 have been attached as design concept notes from Jeffrey Pinhey, M.A. Sc., P.Eng.
  6. Locations of drip beds and sand filters are approximate only. Subject to engineering design.

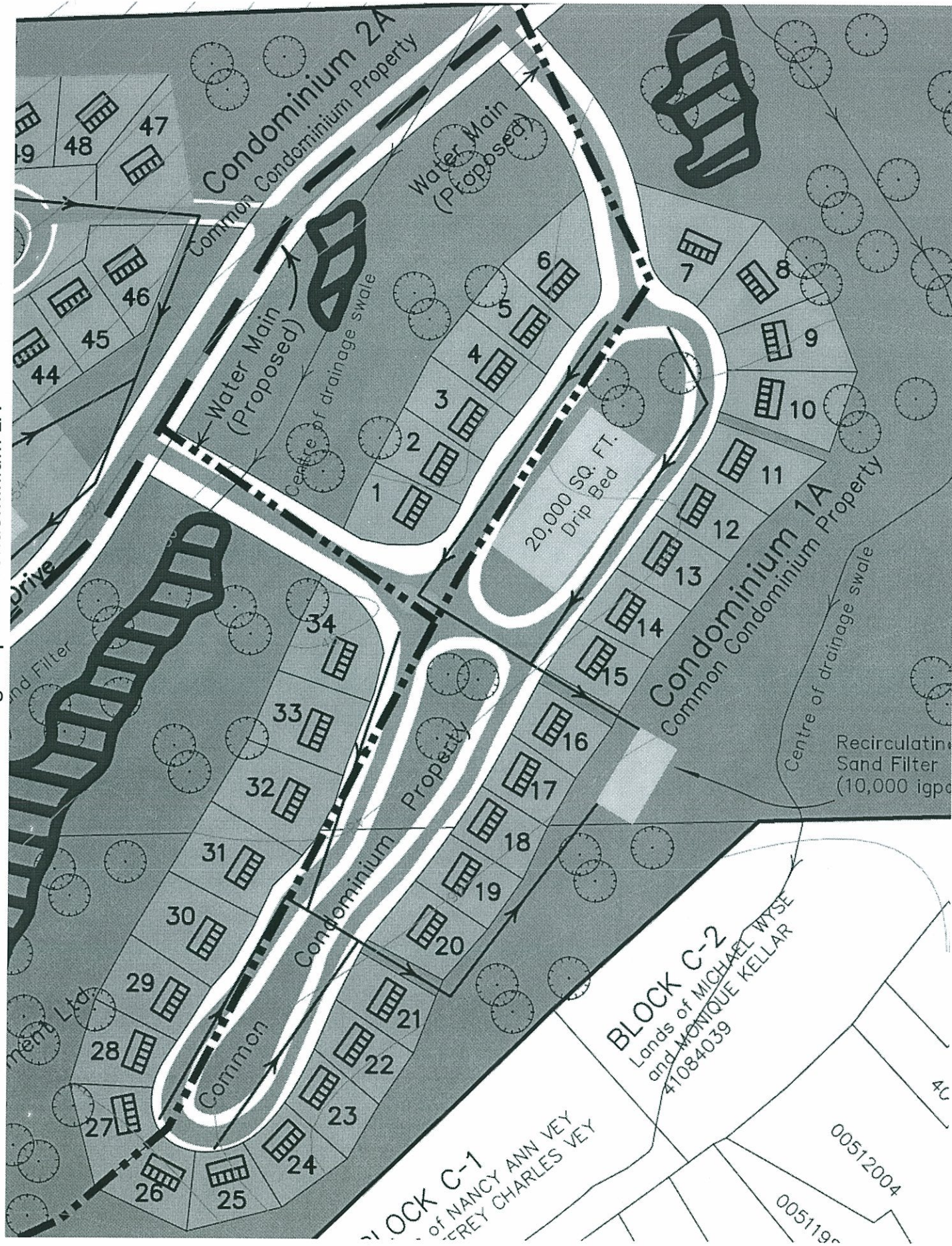
**Concept Plan of Proposed Subdivision of Lands of Miller Developments Limited**  
 Charleswood Drive and Cumberland Way  
 P.I.D. 40699837, 40092009 and 00510560  
 Windsor Junction, Halifax Regional Municipality  
 Province of Nova Scotia

Scale 1:2500 (metric)  
 File: 753 Drawing: 753Concept-3  
 Date: 20 March 2008 - Revised to 10 June 2008  
 Revised to 20 September 2010  
 Revised to 13 January 2012  
 Revised to 16 April 2012  
 Revised to 2 June 2013

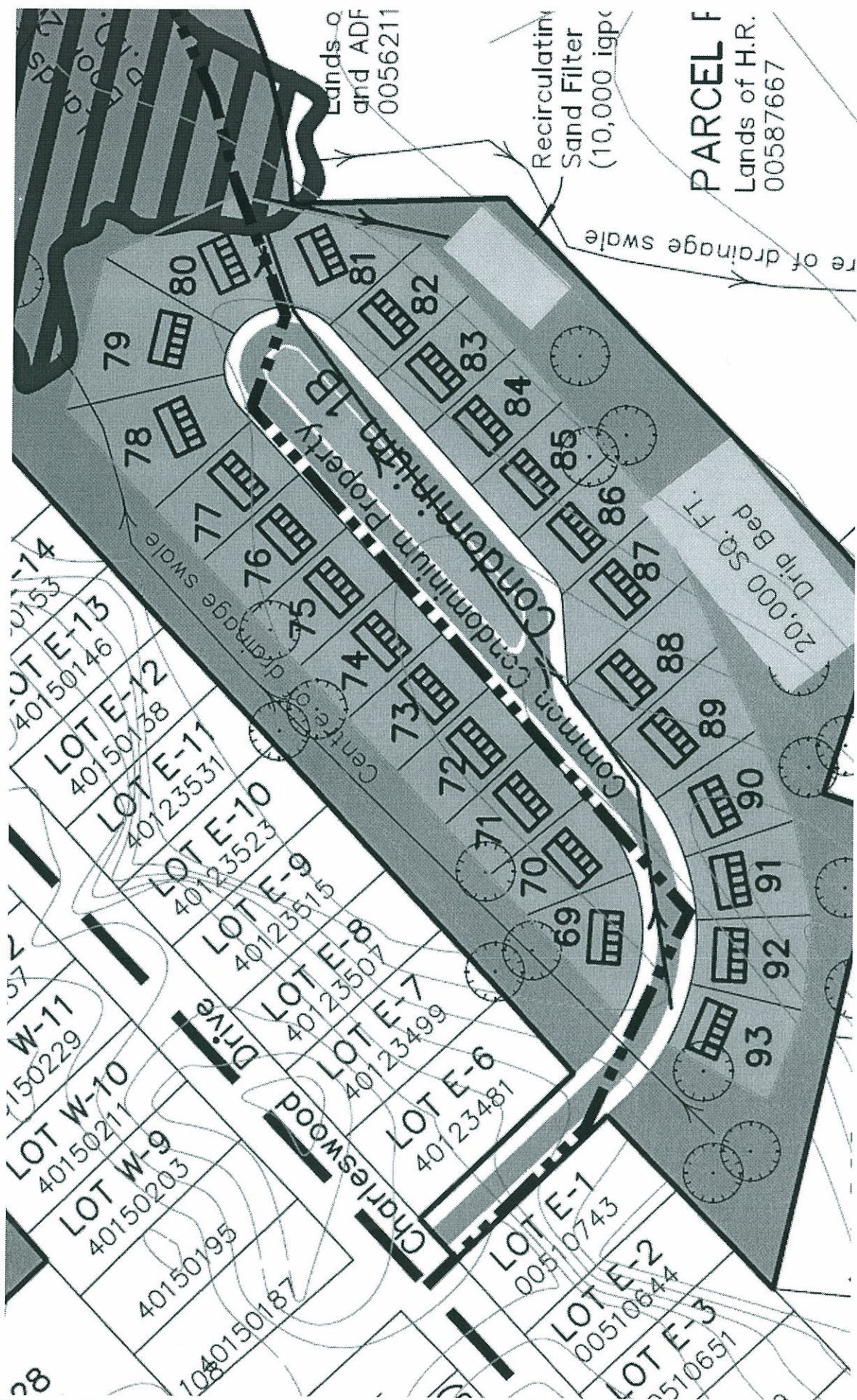
Alan Gallant  
 Nova Scotia Land Surveyor  
 Elmsdale, Nova Scotia  
 Tel 883-7554 Fax 883-7401



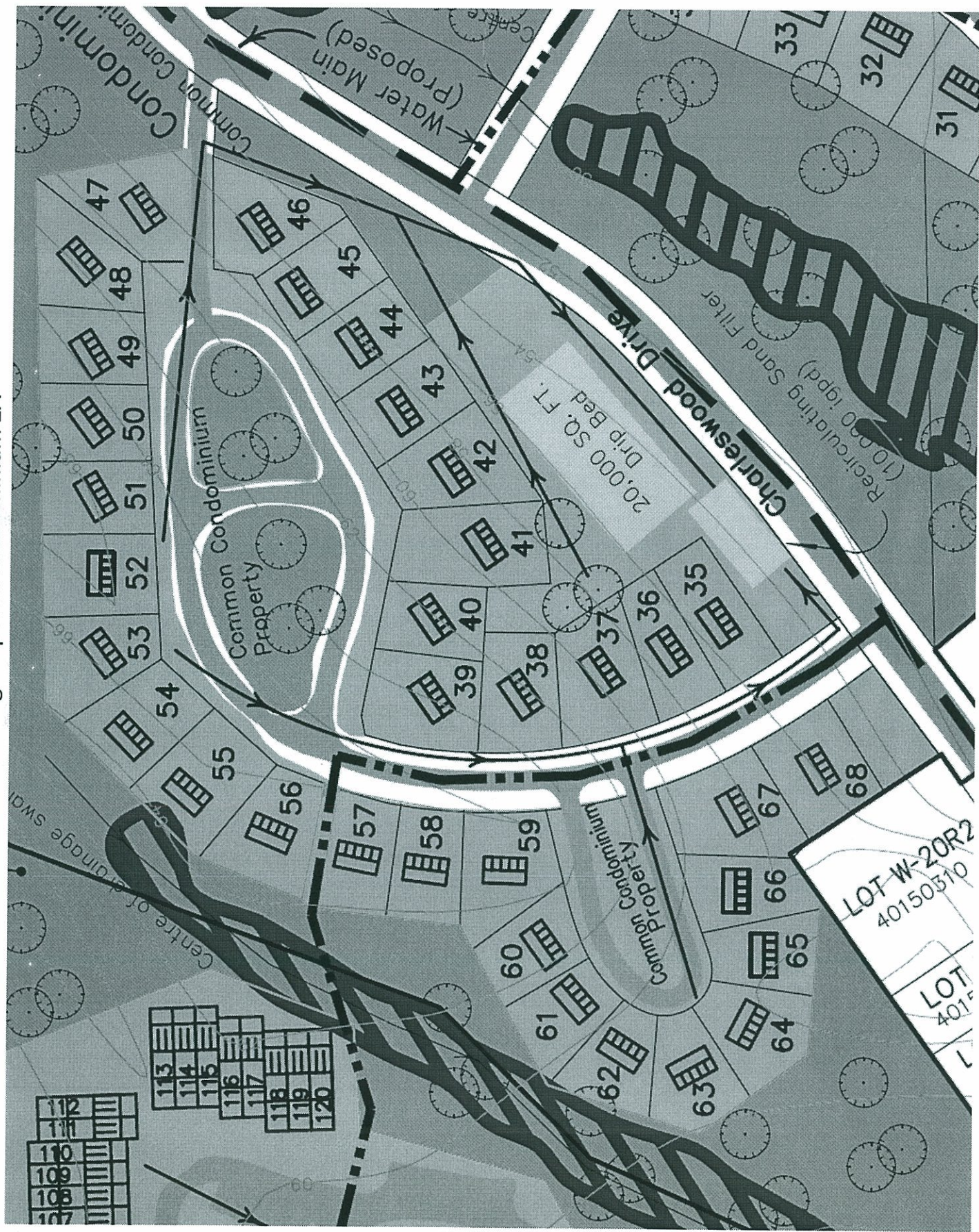
Plan Showing Proposed Condominium 1A



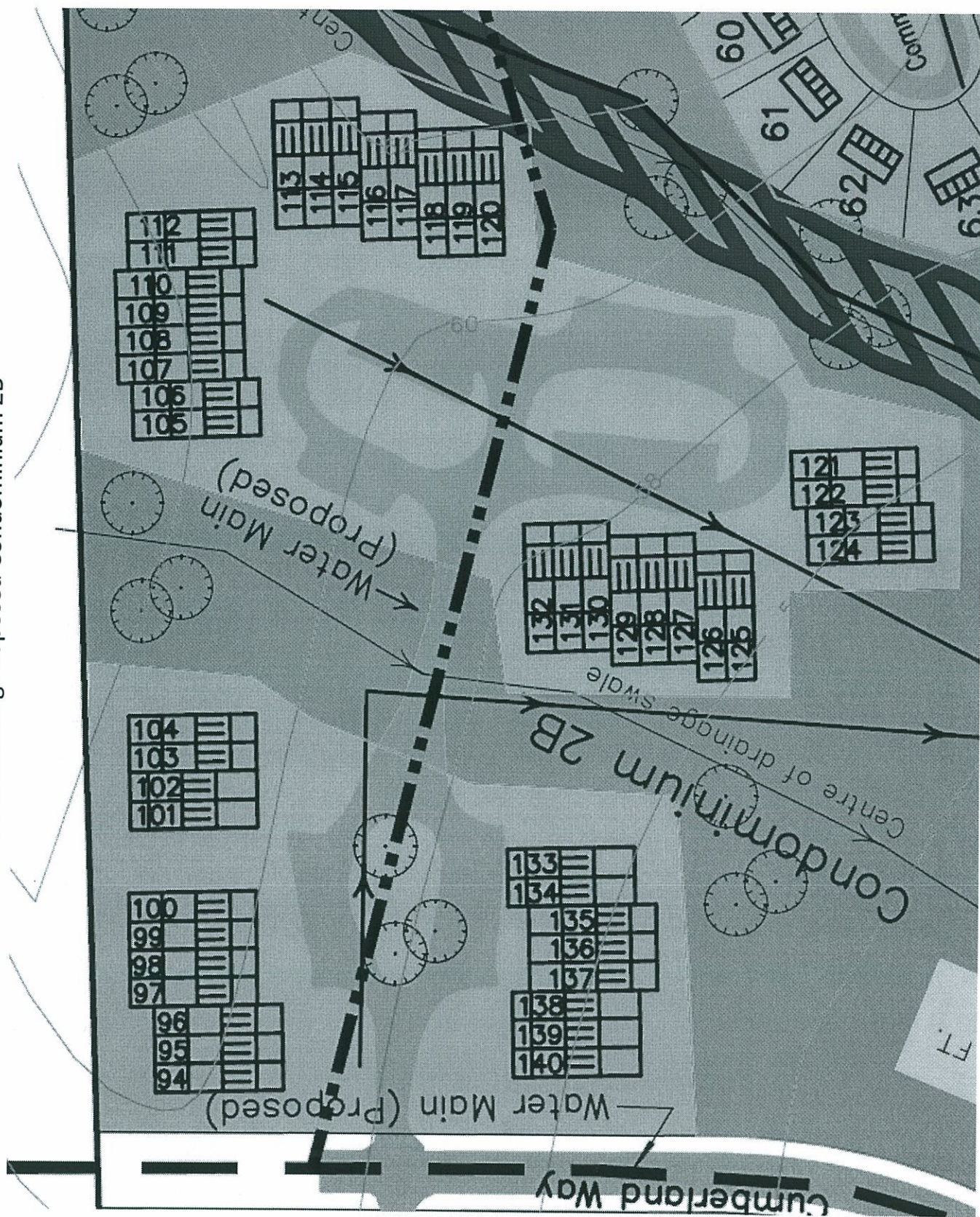
## Plan Showing Proposed Condominium 1B



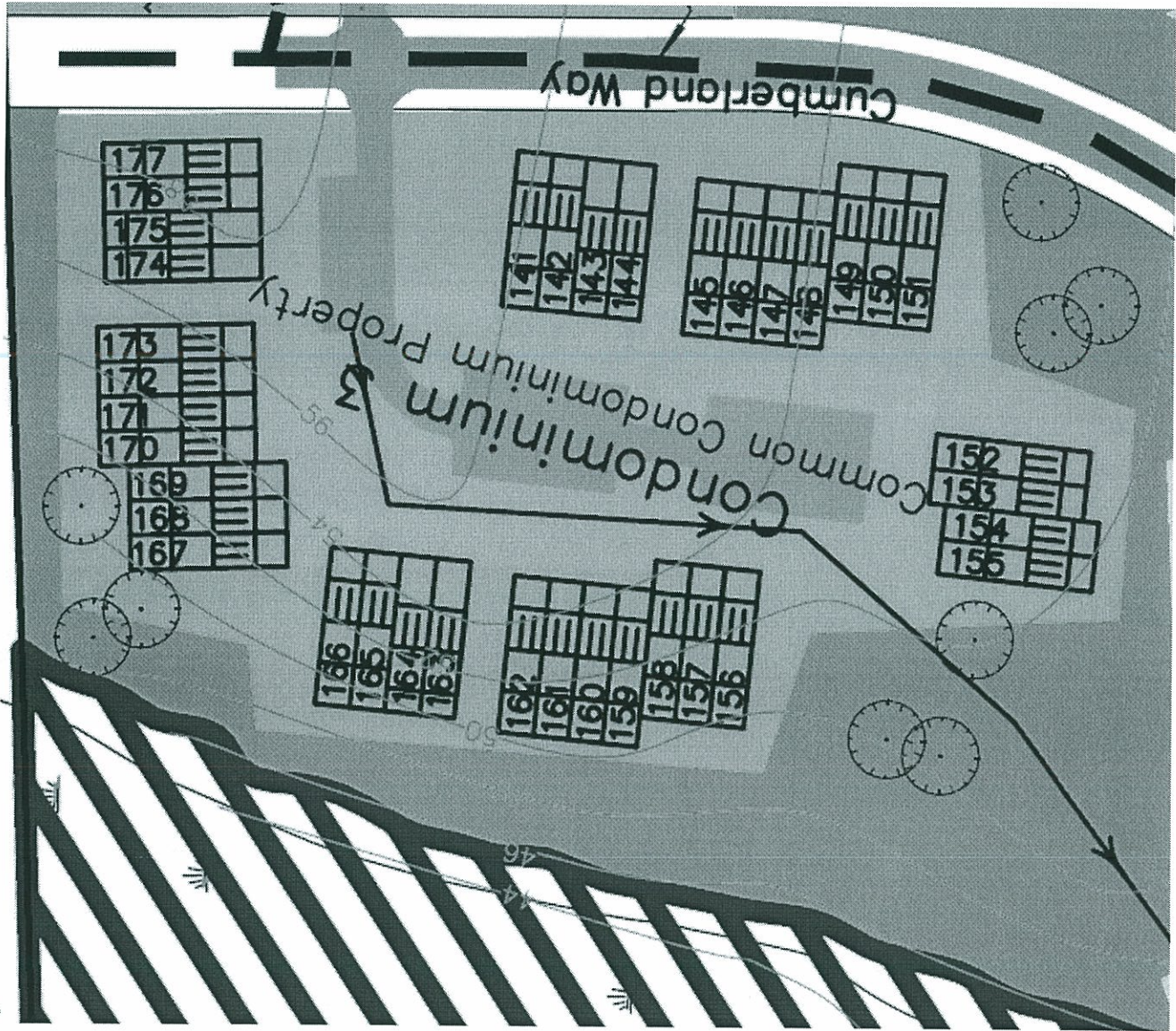
Plan Showing Proposed Condominium 2A



Plan Showing Proposed Condominium 2B



Plan Showing Proposed Condominium 3



# Appendix 2:

## Traffic Impact



Ref. No. 121-21680

June 17, 2013

Mr. Chris Macaulay  
Representative Miller Development Ltd.  
PO Box 5062  
WAVERLEY NS B2R 1S2

(Sent by Email [cmac7@bellaliant.net](mailto:cmac7@bellaliant.net))

**RE: Addendum #2 - Traffic Impact Statement, Proposed Residential Development, Windsor Junction, Halifax Regional Municipality**

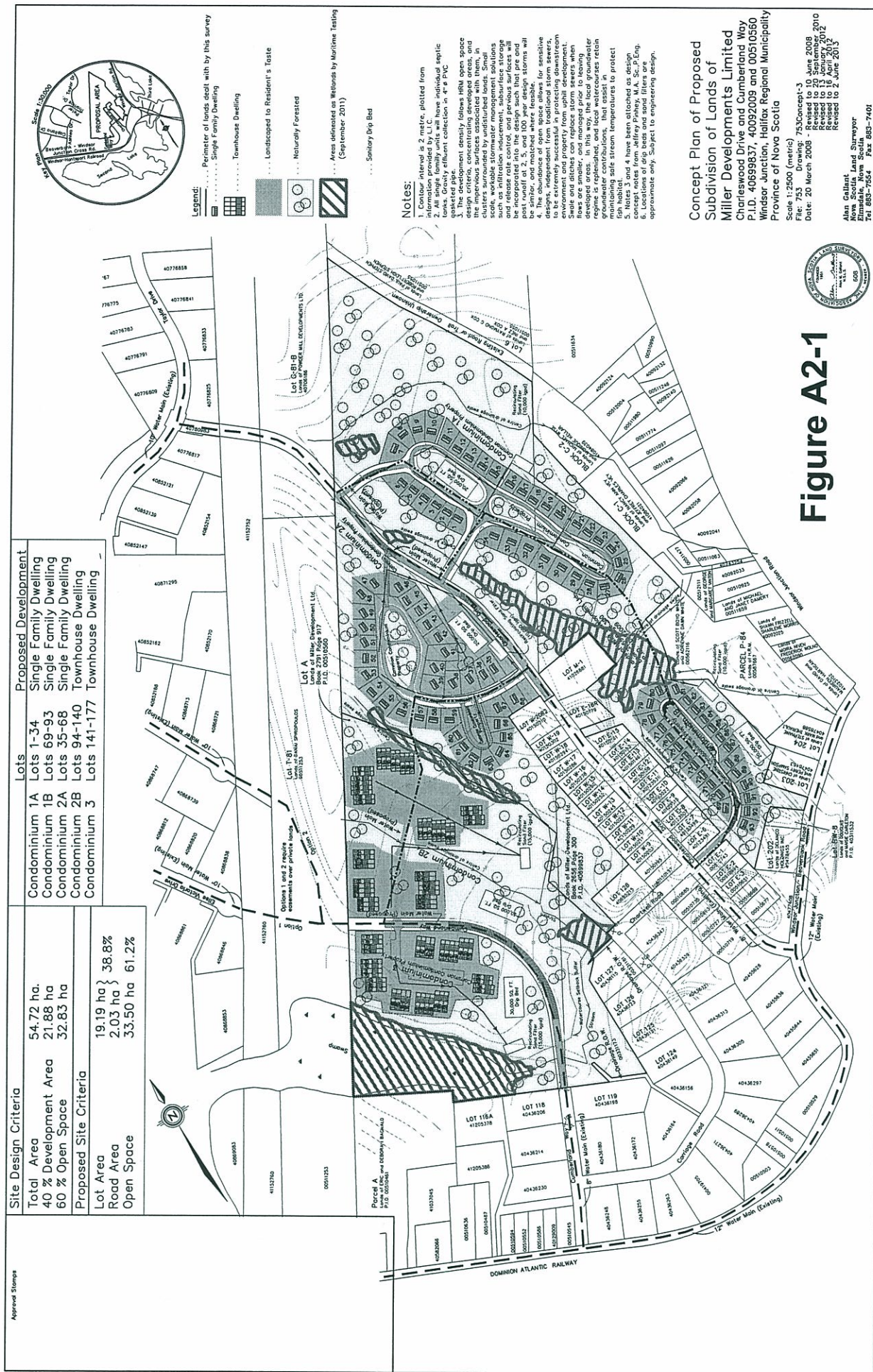
Dear Mr. Macaulay:

This is Addendum #2 to the Traffic Impact Statement that *Atlantic Road & Traffic Management (ARTM)* prepared on January 10, 2007, for the residential development that Miller Development Ltd. proposes in Windsor Junction. ARTM also completed Addendum #1 (copy attached) for this development on June 24, 2008. Addendum #2 is required to consider the following:

- Impacts of traffic changes in the area since 2008 that may affect the conclusions reached in Addendum #1; and
- Potential impacts of increasing the lot yield from 138 lots proposed in 2008 to 177 lots now proposed (Figure 1).

**Description of Proposed 2008 Development** - The development considered in 2008 included 138 lots with 66 lots accessing Windgate Drive at the Charleswood Drive intersection and 72 lots accessing Windgate Drive at the Cumberland Way intersection. AM and PM peak hour trip generation estimates for the proposed 2008 development which were included in the 2008 Addendum letter are shown in Table 1. The 66 dwellings using Charleswood Drive were estimated to generate 45 vehicle trips (9 in and 36 out) on Charleswood Drive during the AM peak hour and 48 vehicle trips (36 in and 12 out) during the PM peak hour. The 72 dwellings using Cumberland Way were estimated to generate 48 vehicle trips (9 in and 39 out) on Cumberland Way during the AM peak hour and 52 vehicle trips (39 in and 13 out) during the PM peak hour.

Table 1 - Trip Generation Estimates for 138 Residential Lots (2008 Proposed Development)								
Number of Single Residential Units	Trip Generation Rates <sup>1</sup>				Trips Generated <sup>2</sup>			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	In	Out	In	Out	In	Out	In	Out
66 <sup>3</sup>	0.13	0.54	0.54	0.18	9	36	36	12
72 <sup>4</sup>	0.13	0.54	0.54	0.18	9	39	39	13
TOTAL TRIP ESTIMATES					18	75	75	25
NOTES: 1. Trip generation rates are 'vehicles per hour per unit' for the peak hour and two-way vehicles per day per unit for the daily rate. AM and PM peak hour rates are local suburban subdivision rates for Residential Single Family Dwellings ( <i>Final Report - Traffic Impact Study - McCabe Lake Residential Development</i> , ARTM, April, 2005). 2. Vehicles per hour for peak hours. 3. Trips from 66 units access Windgate Drive at Charleswood Drive. 4. Trips from 72 units access Windgate Drive at Cumberland Way.								



**Traffic Volumes** - A machine traffic count obtained by HRM Traffic and Right of Way section during July and August 2011 indicate the following two-way average weekday traffic volumes in the Study Area:

- Windgate Drive - between Charleswood Drive and Windsor Junction Road - 3,300 vpd;
- Windsor Junction Road - south of Charleswood Drive - 3450 vpd; and
- Windsor Junction Road - north of Charleswood Drive - 3500 vpd.

Since the 2011 volumes on Windgate Drive have not changed significantly from the 3,200 vpd reported in the 2007 letter, and are also not expected to have changed during the past two years, it is estimated that the 2013 weekday volume on Windgate Drive near both Cumberland Drive and Charleswood Drive intersections is approximately 3,300 vehicles per day.

**Description of Proposed 2013 Development** - The proposed current development (Figure 1) will consist of 177 residential lots which will be developed as five condominium units. Condominium units 1A, 1B and 2A (Figure 1) will include 93 single family lots and site generated trips will access Windgate Drive at the existing Charleswood Drive intersection. Traffic generated by Condominium 2B and 3 will include 84 Seniors Townhouse lots which will access Windgate Drive at the existing Cumberland Way intersection.

AM and PM peak hour trip generation estimates for the proposed 2013 development have been prepared (Table 2). The suburban trip generation rates used in the 2007 Traffic Impact Statement and the 2008 Addendum prepared by ARTM have been used for both the single family and seniors townhouse units included in Addendum #2 to facilitate comparison of trip generation estimates for the three letters. The 93 dwellings using Charleswood Drive are estimated to generate 62 vehicle trips (12 in and 50 out) on Charleswood Drive during the AM peak hour and 67 vehicle trips (50 in and 17 out) during the PM peak hour. The 84 seniors townhouse units using Cumberland Way are estimated to generate 46 vehicle trips (11 in and 45 out) on Cumberland Way during the AM peak hour and 60 vehicle trips (45 in and 15 out) during the PM peak hour.

Table 2 - Trip Generation Estimates for 143 Residential Lots (2013 Proposed Development)								
Number of Single Residential Units	Trip Generation Rates <sup>1</sup>				Trips Generated <sup>2</sup>			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	In	Out	In	Out	In	Out	In	Out
93 <sup>3</sup>	0.13	0.54	0.54	0.18	12	50	50	17
84 <sup>4</sup>	0.13	0.54	0.54	0.18	11	45	45	15
Total Trip Estimates					23	95	95	32
NOTES: 1. Trip generation rates are 'vehicles per hour per unit' for the peak hour and two-way vehicles per day per unit for the daily rate. AM and PM peak hour rates are local suburban subdivision rates for Residential Single Family Dwellings (Final Report - Traffic Impact Study - McCabe Lake Residential Development, ARTM, April, 2005). 2. Vehicles per hour for peak hours. 3. Trips from 93 single family residential units access Windgate Drive at Charleswood Drive. 4. Trips from 84 seniors townhouse units access Windgate Drive at Cumberland Way.								

**Comparison of Trip Generation Estimates** - Trip generation estimates for the 2008 and the current 2013 proposed developments are included in Table 3. The 2013 development proposal will include 39 additional residential units, with 12 more accessing Windgate Drive at Cumberland Drive and 27 more units accessing Windgate Drive at Charleswood Drive. It is estimated that the 39 residential units will generate 25 additional two-way vehicle trips during the AM peak hour and 27 additional two-way vehicle trips during the PM peak hour.

Table 3 - Comparisons of for Proposed 2008 and 2013 Developments									
Proposed Development	Number of Lots			Trip Generation Estimates					
				AM Peak Hour			PM Peak Hour		
	Cumberland Drive	Charleswood Drive	Total Lots	Enter	Exit	2-Way	Enter	Exit	2-Way
2008 <sup>1</sup>	72	66	138	18	75	93	75	25	100
2012 <sup>2</sup>	84	93	177	23	95	118	95	32	127
Change <sup>3</sup>	12	27	39	5	20	25	20	7	27

NOTES: 1. Numbers from Table 1, on Page 1 above, which were copied from Table 1, *Addendum - Traffic Impact Statement, Proposed Residential Development, Windsor Junction, Halifax Regional Municipality* (ARTM, June 2008).  
2. Numbers are from Table 2, above.  
3. These are the changes in Numbers of Residential Units and Trip Generation Estimates from 2008 to 2013.

### Summary

1. The proposed 2013 development will include 177 residential units which is 39 more residential units than were included in the 2008 development considered in the Addendum during June 2008.
2. It is estimated that the additional 39 units included in the 2013 site plan will generate 25 additional two-way vehicle trips during the AM peak hour and 27 additional two-way vehicle trips during the PM peak hour.
3. It is estimated that the 2013 weekday two-way volume on Windgate Drive near the site access intersections at Cumberland Drive and Charleswood Drive is approximately 3,300 vehicles per day. The estimated 2013 two-way weekday volumes on Windsor Junction Road is approximately 3,500 vpd.

### Conclusions

4. Since volumes on Windgate Drive are moderate at the Charleswood Drive and Cumberland Drive intersections, volumes on Windsor Junction Road are also moderate, and site generated trips are expected to be low to moderate at both intersections, site generated trips are not expected to have any significant impact to the performance levels of the Windgate Drive intersections.
5. Conclusions included in the January 10, 2007, Traffic Impact Statement, and the June 24, 2008, Addendum, are not expected to be affected by the proposed 2013 residential development or trips generated by that development.

If you have any questions or comments, please contact me by Email to [ken.obrien@genivar.com](mailto:ken.obrien@genivar.com) or telephone 443-7747.

Sincerely,

**Original Signed**

Ken O'Brien, P. Eng.  
Senior Traffic Engineer  
GENIVAR Inc.





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June 24, 2008

Mr. Chris Macaulay  
Representative Miller Development Ltd.  
PO Box 5062  
WAVERLEY NS B2R 1S2

0840

**RE: Addendum - Traffic Impact Statement, Proposed Residential Development,  
Windsor Junction, Halifax Regional Municipality**

Dear Mr. Macaulay:

This is the Addendum to the Traffic Impact Statement (copy included in Appendix A) that ARTM prepared on January 10, 2007, for the residential development that Miller Development Ltd. proposes in Windsor Junction. The Addendum is required to consider the potential impacts of increasing the lot yield from 100 lots as studied in 2007 to 138 lots now proposed.

**Development Description** - The proposed development will consist of 138 residential lots which will be developed as four condominium units. Condominium units 1 and 2A (Figure 1) will include 66 single family lots and site generated trips will access Windgate Drive (formerly Beaver Bank - Windsor Junction Cross Road) at the Charleswood Drive intersection. Traffic generated by Condominium 2B (47 townhouse lots) and Condominium 3 (25 single family lots) will access Windgate Drive at the existing Cumberland Way intersection.

The Public Roads (Figure 1) proposed for the development include the following allowances for future connections to the Capillano Estates subdivision:

- the extension of Cumberland Way has been aligned to facilitate a future connection with Elise Victoria Drive; and
- the extension of Charleswood Drive has been planned to allow a connection with an existing road reserve on Taylor Drive.

**Trip Generation and Distribution** - *Trip Generation, 7<sup>th</sup> Edition* (Institute of Transportation Engineers (ITE), Washington, 2003) provides trip generation rate estimates for weekday peak hour and daily trips for single family dwellings. However, suburban developments that are a relatively long distance from the urban core usually have lower trip generation characteristics since residents tend to link work, shopping, recreational and other trips.

AM and PM peak hour trip estimates for the proposed development are shown in Table 1. The 66 dwellings proposed for Condominium units 1 and 2A are estimated to generate 45 trips (9 in and 36 out) on Charleswood Drive during the AM peak hour and 48 trips (36 in and 12 out) during the PM peak hour. The 72 dwellings proposed for Condominium units 2B and 3 are estimated to generate 48 trips (9 in and 39 out) on Cumberland Way during the AM peak hour and 52 trips (39 in and 13 out) during the PM peak hour. Trips will be distributed both east and west on Windgate Drive.

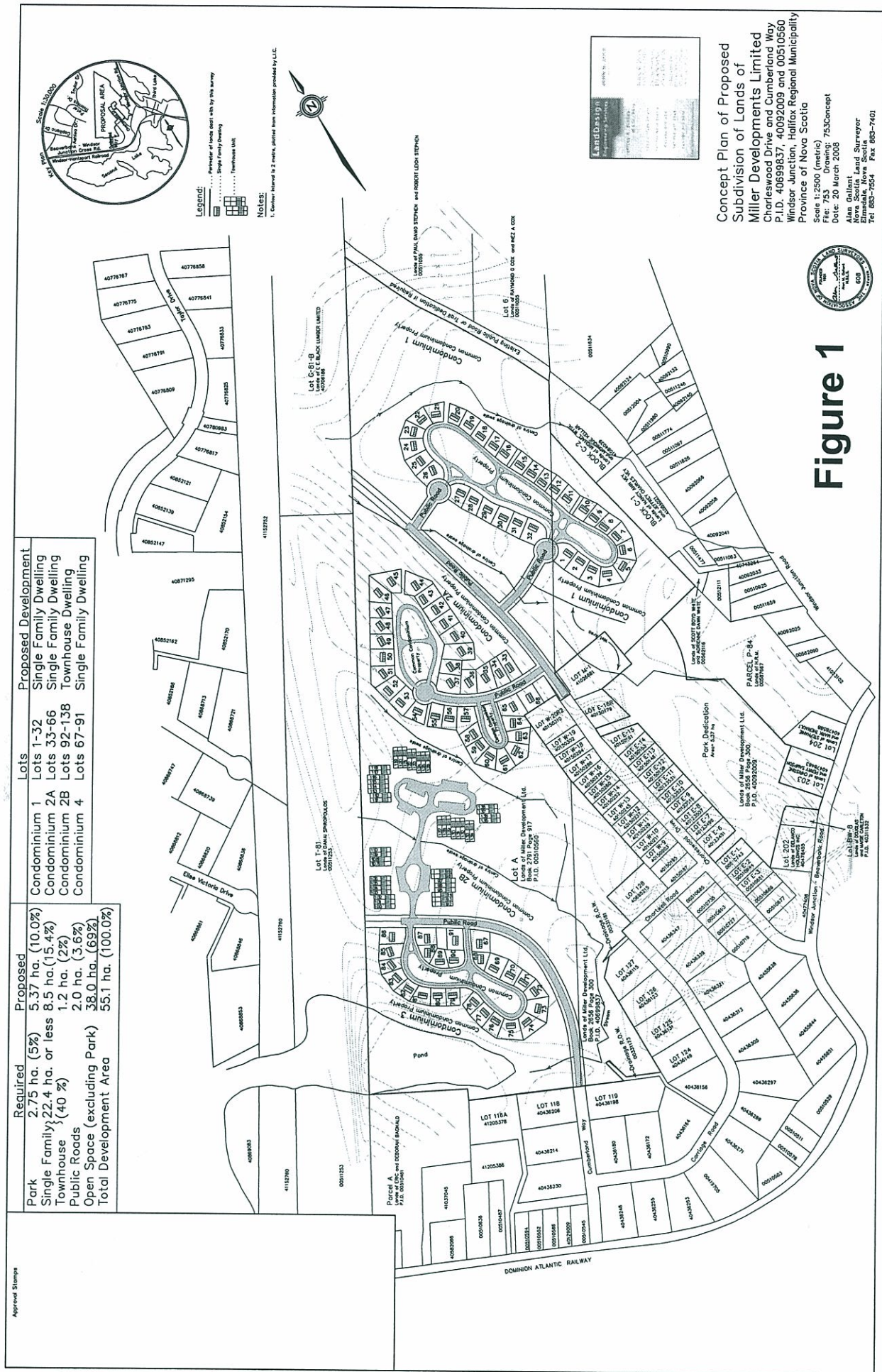


Table 1 - Trip Generation Estimates for 138 Residential Lots										
Number of Single Residential Units	Trip Generation Rates <sup>1</sup>					Trips Generated <sup>3</sup>				
	AM Peak Hour		PM Peak Hour		Day <sup>2</sup> 2- Way	AM Peak Hour		PM Peak Hour		Day 2- Way
	In	Out	In	Out		In	Out	In	Out	
66 <sup>4</sup>	0.13	0.54	0.54	0.18	8.00	9	36	36	12	528
72 <sup>5</sup>	0.13	0.54	0.54	0.18	8.00	9	39	39	13	576
TOTAL TRIP ESTIMATES						18	75	75	25	1104
NOTES: 1. Trip generation rates are 'vehicles per hour per unit' for the peak hour and two-way vehicles per day per unit for the daily rate. AM and PM peak hour rates are local suburban subdivision rates for Residential Single Family Dwellings ( <i>Final Report - Traffic Impact Study - McCabe Lake Residential Development</i> , ARTM, April, 2005). 2. Weekday two-way rate for suburban subdivisions calculated by <i>Streetwise Traffic Engineering</i> in the late 1990s 3. Vehicles per hour for peak hours; vehicles per day for 'Day 2 way'. 4. Lots 1 to 66 in Condominiums 1 and 2A, Charleswood Drive, Figure 1. 5. Lots 67 to 91 (single family) in Condominium 3 and lots 92 to 138 (townhouses) in Condominium 2B, Cumberland Way, Figure 1. A townhouse is assumed to generate the same number of trips as a single family dwelling for this Study.										

## Conclusions

1. There is adequate available sight distance on Windgate Drive on approaches to both existing Cumberland Way and Charleswood Drive intersections.
2. The additional volumes that will be generated by the proposed 66 lots served by Charleswood Drive (45 trips during the AM peak hour and 48 trips during the PM peak hour), are moderate and are not expected to cause any noticeable impacts on the level of performance at the intersection of Charleswood Drive and Windgate Drive.
3. The additional volumes that will be generated by the proposed 72 lots served by Cumberland Drive (48 trips during the AM peak hour and 52 trips during the PM peak hour), are moderate and are not expected to cause any noticeable impacts on the level of performance at the intersection of Cumberland Way and Windgate Drive.
4. Site generated trips are not expected to have any significant impact to the level of performance of Windgate Drive intersections with either Beaver Bank Road or Windsor Junction Road.
5. A traffic impact study should be completed when planning begins for development of lands between the Miller Development and Capillano Estates to evaluate the impacts of trips generated by the future development, as well as diversion of existing Capallano Estates trips to Cumberland Way and Charleswood Drive.

If you require additional information please contact me by Email or telephone 443-7747.

Sincerely,

**Original Signed**

Ken O'Brien, P. Eng.

## **Appendix A**

**Traffic Impact Statement**

**Proposed Residential Development**

**Windsor Junction, Halifax Regional Municipality**

**(Prepared by Atlantic Road & Traffic Management January 10, 2007)**



PO Box 25205  
Halifax, NS B3M 4H4

Phone (902) 443-7747  
Fax (902) 443-7747  
email [traffic@ns.sympatico.ca](mailto:traffic@ns.sympatico.ca)

January 10, 2007

Mr. Chris Macaulay  
Representative Miller Developments Ltd.  
173 Peter Thomas Drive  
Windsor Junction NS B2T 1L7

0685

**RE: Traffic Impact Statement, Proposed Residential Development,  
Windsor Junction, Halifax Regional Municipality**

Dear Mr. Macaulay:

This is the Traffic Impact Statement (TIS) that has been requested for the residential development that Miller Development Ltd. propose in Windsor Junction. The TIS is required as part of the revised HRM concept application process.

**Development Description** - The proposed development will consist of about 100 single unit residential lots to be created north and west of the existing residential development at the ends of Cumberland Way and Charleswood Drive. Traffic generated by the 100 lots will access the Beaver Bank - Windsor Junction Cross Road at the existing Cumberland Way and Charleswood Drive intersections.

**Street Description** - Beaver Bank - Windsor Junction Cross Road is a two lane paved road with a rural cross section (Photos 1 to 4, Appendix A), including gravel shoulders and open ditches. The approximately 4.5 km long road connects Beaver Bank Road (about 3.5 km west of the Cumberland Way intersection) to with Windsor Junction Road which is about 400 meters east of the Charleswood Drive intersection. Sections of the Beaver Bank - Windsor Junction Cross Road east and west of the Charleswood Drive intersection are shown in Photos 1 and 2; areas east and west of the Cumberland Way intersection are illustrated in Photos 3 and 4.

A machine traffic count obtained on the Beaver Bank - Windsor Junction Cross Road (Table A-1) between the Charleswood Drive and Windsor Junction Road intersections, during November 2006, indicated an average weekday two-way traffic volume of about 3200 vehicles per day, with AM and PM peak hourly volumes of about 300 vehicles per hour. A 24-hour graphical display of weekday hourly volumes (Figure 1) illustrates the AM and PM peak hour 'spikes' that are typical of suburban commuter routes.

**Trip Generation and Distribution** - *Trip Generation, 7<sup>th</sup> Edition* (Institute of Transportation Engineers (ITE), Washington, 2003) provides trip generation rate estimates for weekday peak hour and daily trips for single family dwellings. However, suburban developments that are a relatively long distance from the urban core usually have lower trip generation characteristics since residents tend to link work, shopping, recreational and other trips.

AM and PM peak hour trip estimates for the proposed development are shown in Table 1. The 100 dwellings are estimated to generate 67 trips (13 in and 54 out) during the AM peak hour and 72 trips (54 in and 18 out) during the PM peak hour. Trips will be assigned to the Cumberland Way and Charleswood Drive intersections, and will be distributed both east and west on the Beaver Bank - Windsor Junction Cross Road.

Table 1 - Trip Generation Estimates for 100 Residential Lots

Number of Single Residential Units	Trip Generation Rates <sup>1</sup>					Trips Generated <sup>3</sup>				
	AM Peak Hour		PM Peak Hour		Day <sup>2</sup> 2- Way	AM Peak Hour		PM Peak Hour		Day 2- Way
	In	Out	In	Out		In	Out	In	Out	
100	0.13	0.54	0.54	0.18	8.00	13	54	54	18	800

- NOTES: 1. Trip generation rates are 'vehicles per hour per unit' for the peak hour and two-way vehicles per day per unit for the daily rate. AM and PM peak hour rates are local suburban subdivision rates for Residential Single Family Dwellings (*Final Report - Traffic Impact Study - McCabe Lake Residential Development*, ARTM, April, 2005).
2. Weekday two-way rate for suburban subdivisions calculated by *Streetwise Traffic Engineering* in the late 1990s
3. Vehicles per hour for peak hours; vehicles per day for 'Day 2 way'.

## Conclusions

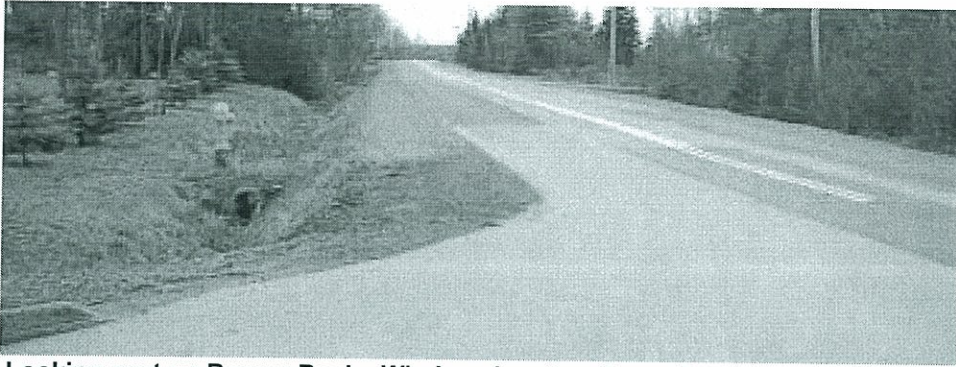
1. The additional volumes that will be generated by the proposed 100 lots, 67 trips during the AM peak hour and 72 trips during the PM peak hour, are moderate and are not expected to cause any noticeable impacts on the level of performance of existing roads and intersections.
2. There is adequate available sight distance on Beaver Bank - Windsor Junction Cross Road on approaches to both existing Cumberland Way and Charleswood Drive intersections.

If you require additional information please contact me by Email or telephone 443-7747.

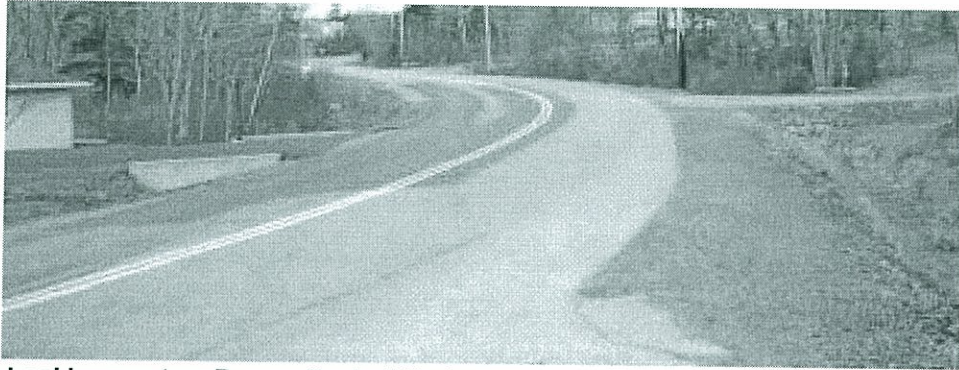
Sincerely:

**Original Signed**

Greg O'Brien, P. Eng.



**Photo 1 - Looking east on Beaver Bank - Windsor Junction Cross Road from Charleswood Drive**



**Photo 2 - Looking west on Beaver Bank - Windsor Junction Cross Road from Charleswood Drive**



**Photo 3 - Looking east on Beaver Bank - Windsor Junction Cross Road from Cumberland Way**

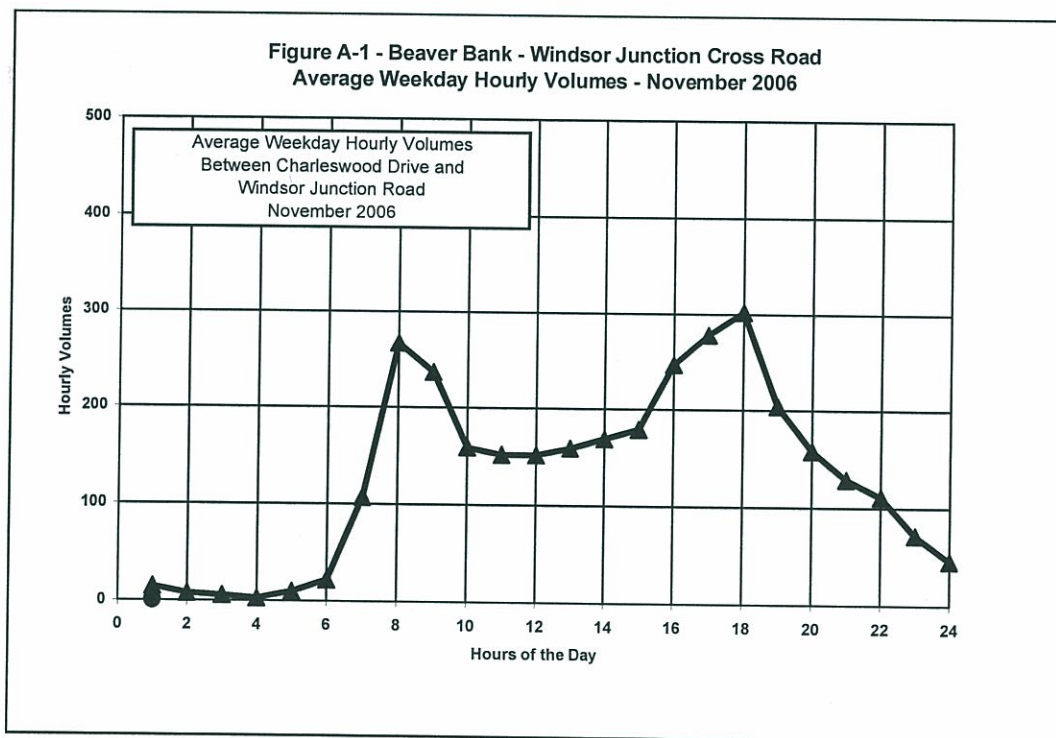


**Photo 4 - Looking west on Beaver Bank - Windsor Junction Cross Road from Cumberland Way**

**Table A-1 - Two-Way Hourly Volumes - Beaver Bank - Windsor Junction Cross Road  
(Between Charleswood Drive and Windsor Junction Road, November 17 to 22, 2006)**

Hour	Days of the Week							Average Weekday
	Mon-20	Tue-21	Wed-22	Thu-16	Fri-17	Sat-18	Sun-19	
0								
1	13	19	14			40	32	15
2	9	10	6			15	30	8
3	3	9	7			7	21	6
4	2	3	5			12	12	3
5	8	10	11			5	5	10
6	19	25	21			12	10	22
7	108	107	106			27	16	107
8	274	269	257			71	42	267
9	220	242	248			148	73	237
10	156	147	173			152	122	159
11	151	166	140			205	157	152
12	152	154	151			211	177	152
13	153	165	160			209	216	159
14	166	171				238	203	169
15	186	172				259	210	179
16	221	265			256	229	206	247
17	260	282			291	268	196	278
18	283	313			310	185	159	302
19	188	205			220	155	138	204
20	156	165			154	115	135	158
21	120	124			142	123	94	129
22	78	120			136	108	82	111
23	63	65			87	68	60	72
24	31	41			67	53	32	46
TOTALS	3020	3249				2915	2428	3192

Source: Halifax Regional Municipality (HRM), Transportation & Public Works, Traffic & Right of Way Services



# Appendix 3:

## Stormwater Management Plan

Miller Development Limited  
% Chris Macaulay  
PO Box 5062  
Waverley NS  
B2R 1S2

September 25, 2008

2325 Clifton Street  
Halifax, NS B3K 4T9  
T 902.221.2368  
F 902.425.0906  
brewnoser@ns.sympatico.ca

Re: Charleswood/Miller Developments Ltd. - Condominium Cluster  
Development, Stormwater Management Plan

Dear Chris,

I have been able to review the proposed project with respect to developing a general stormwater management plan. As we discussed, I am very pleased to be able to work on a development based on HRM's Open Space Development Guidelines, because the process lends itself very well to the proper management of stormwater runoff from developed areas. This is because the development, the houses with their roofs, driveways, and access roads and lawns, tends to be concentrated in clusters, while significant amounts of land are left alone.

In this case, there are not many significant challenges with respect to achieving good management of the runoff from a development like that proposed here, with the sole exception being that there is a ring of older development around the proposed lands where there may be locations sensitive to significant changes in peak flows from the lands above them.

At the same time, when examining pre and post development flows, it is extremely important not to discount the fact that much of the lands targeted for development in this proposal have already been clear cut (harvested).

The changes in stormwater runoff time of concentration, and percentage of water running off the land, resulting from this change to the land should have been significant. We are not aware, nor is there any visible sign of, flooding or stress at the places where stormwater leaves the land now, this despite the clear cutting that has occurred.

We had some concerns about how much water might be entering these lands from above. There is some, but the catchment boundary appears to be close to that shown on the attached graphic (watershed.pdf). Most of the runoff from the developed lands to the north and northwest runs towards the area's larger lakes in a southwesterly direction.

2325 Clifton Street  
Halifax, NS B3K 4T9  
T 902.221.2368  
F 902.425.0906  
brewnoser@ns.sympatico.ca

So the design of stormwater management systems for the proposed development, (concept titled 753concept), can focus on dealing with the runoff from the new work, and not be overly concerned with managing flood water from above. This makes sense, because where runoff moves through this property in a concentrated form, it does so in a very ephemeral manner. There is not a lot of significant channelization.

The design of the residential development, in a manner along the lines shown in the attached concept, would therefore be able to aim for a true balance of pre and post development runoff hydrographs, not just peak flows. That is not to say this can absolutely be achieved, but it will remain as a goal. The balance of peak flows should be achievable.

This goal can be approached by the use of localized stormwater Best Management Practices. In particular we believe that the application of infiltration inducement devices such as strip trenches, dry ponds, subterranean storage areas, and contour based diffusers as outfalls or storage from small, local storm collection will be able to move towards the introduction of rainfall into the ground in a manner close to the percentage that now infiltrates.

This is because there is ample open space for this to take place, and because we would not propose to allow too much to be collected in one place, where a peak flow would result that was unmanageable.

This approach carries several distinct advantages over the introduction of storm sewer collection systems (as pipes or ditches) to all the development.

Ditches will be required to protect road infrastructure, and to divert overland runoff around some residential areas, but the goal will be to diffuse their impact at their outlet on the downstream environment, without creating the maintenance headaches of stormwater management ponds.

The possibility of achieving the goal of a pre and post balanced runoff hydrograph for the entire development is aided by the fact that the land now would discharge greater peak flows and volume than a fully wooded area, and by the fact that the local soils are clayey and will not contribute greatly to infiltration in the pre development condition. It is, obviously, easier to achieve our goal when the start point is already somewhat compromised over a totally natural state. That said, where there are places we can restore, or improve upon the natural infiltrative capacity of the land, we will, where we recognize it as an efficient means of reducing the development impacts related to stormwater runoff.

2325 Clifton Street  
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brewnoser@ns.sympatico.ca

This is still a work in progress, and the conceptual design is surely a moving target at this stage in the process. This brief is intended to not only illustrate the process that we intend to follow, and the results we hope to achieve; it also illustrates the potential available to designers when an earnest attempt to follow the open space subdivision guidelines is made. Instead of shipping our problems off site, or to the edge of the project, we have some room to manage them within the confines of our development, limiting the intrusion on our neighbours.

If you have any question, please email me. Or, alternatively, contact Paul Kundzins, P.Eng. for more detail if required.

Yours Truly,

**Original Signed**

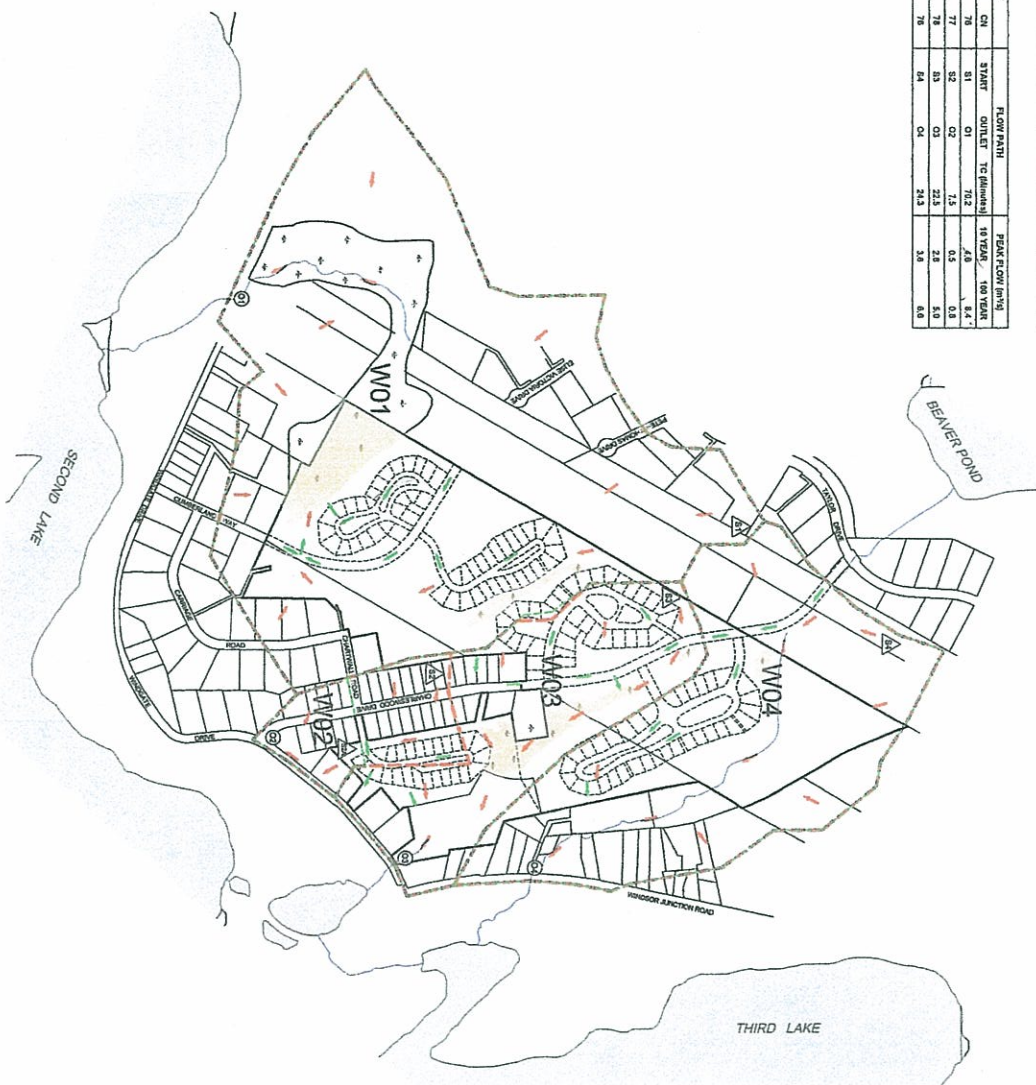
Jeffrey A. Pinhey, M.A.Sc., P.Eng.



SUBCATCHMENT		FLOW PATH		PEAK FLOW (m <sup>3</sup> /s)	
NAME	AREA (ha)	START	OUTLET	16 YEARS	100 YEARS
W01	63.3	74	01	70.2	4.2
W02	8.0	75	02	14.3	0.8
W03	21.7	71	03	23.7	1.5
W04	38.4	71	04	24.3	2.8

SUBCATCHMENT		FLOW PATH		PEAK FLOW (m <sup>3</sup> /s)	
NAME	AREA (ha)	START	OUTLET	16 YEARS	100 YEARS
W01	63.3	74	01	70.2	4.2
W02	8.0	75	02	14.3	0.8
W03	21.7	71	03	23.7	1.5
W04	38.4	71	04	24.3	2.8

POST-DEVELOPMENT								
NAME	SUBSIDIARY/AGENT	AREA (m <sup>2</sup> )	CN	FLOW PATH		PEAK FLOW (m <sup>3</sup> /s)		
				START	OUTLET TO (meters)	10 YEARS	100 YEARS	
W01		82.0	78	81	01	76.2	6.0	8.4
W02		3.4	77	82	02	7.5	0.5	0.8
W03		24.5	78	83	03	22.5	2.8	5.0
W04		28.4	76	84	04	24.3	3.6	6.6



3 W.T.M. North  
C.M. 64° 50' West

1. CONTROL MATERIALS, I.e. METALS, CONCLUDES ARE BASED ON 10,000 SAMPLES.
2. REAGENTS ARE APPROPRIATE AND ARE DERIVED FROM PROPER SOURCES.
3. TECHNIQUES EMPLOYED ARE BASED ON 10,000 SAMPLES.
4. TOLERANCES WITHIN THE HIGHER CONCENTRATION RANGES ARE AS PROVIDED BY MANUFACTURERS, I.E. AS A RESULT OF ON-LINE QUALITY ASSURANCE, BUT OTHER TOLERANCES ARE DERIVED FROM SAMPLE DATA.
5. DRAWING RESPONSES AND PATTERS ARE SUBJECT TO DRAUGHT TOLERANCE.
6. PEAK VALUES WERE ESTIMATED USING THE SEC METHOD AND THE PEAK VALUES WERE CORRELATED WITH STANDARDIZATION AND A TYPE 24-5000 SIGNAL.

CAUTION! LANE (PRE-DEVELOPING)	CAUTION! LANE (POST-DEVELOPING)
FLOW START POINT	FLOW START POINT
FLOW INLET POINT	FLOW INLET POINT
FLOW ORIENTATION	SURFACE INLET POINT
FLOW ORIENTATION	SURFACE INLET POINT
SITE BOUNDARY	
STRAIGHT ON HIGHWAY	
TRAIL OR ROAD, ROAD	
DEVELOPED WET AREA	
UNDEVELOPED WET AREA	

**NORTH STAR**

Baileya, NJ • Ph: (903) 884-1037 • Fax: (903) 885-8838 • Email [info@msurveyz.com](mailto:info@msurveyz.com)



**MILLER DEVELOPMENT LTD.**

11 MOSHER DR  
DARTMOUTH  
HALIFAX COUNT  
NOVA SCOTIA

**CHARLESWOOD SUBDIVISION**  
WINDSOR, ILLINOIS

HALIFAX COUNTY

CHARLESWOOD DRIVE & CUMBERLAND WAY

# PRELIMINARY STORM WATER MANAGEMENT

2012/05/29	G. SKELHORN	873
------------	-------------	-----

Marz.	15000	Engineer	1931 Hb.
Verl.	N/A	R.D. ASHLEY	

APPROVED  
R.B. ASHLEY  
HWA No.

1 of 1

# Appendix 4:

## Proposed Sewage Treatment



Andrew Bone, MCIP  
Halifax Regional Municipality Planning Services  
636 Sackville Drive, Lower  
Sackville NS B4C 3S3

*June 24, 2013*

Dear Mr. Bone,

ABLE Engineering  
Services Inc.  
PO Box 959  
50 Queen Street  
Chester, NS B0J 1J0  
(902) 273-3050  
(903) 273-3072

Re: Charleswood/Miller Developments Ltd. - Condominium Cluster Development

The conceptual layout for the development shows pre-designs for small sewage collection, treatment and dispersal systems for the individual condominium units.

The concept plan (copy appended to this letter) illustrates preliminary designs for three medium size clusters of single family homes, and two medium size clusters of townhouses, serviced by a very effective and environmentally responsible sewage management approach. The servicing method uses individual or shared septic tanks, to which the residential sewage is first directed. Then the effluent from those tanks is collected to a common location.

At the location where the septic tank effluent for the cluster is collected, a small scale packed bed filter type treatment system is used to treat this liquid to a very high quality effluent. The specific type of packed bed filter has not yet been selected. It may be a Waterloo Biofilter, an Advantex system, or a recirculating sand filter. Potential locations of these systems are also shown on the concept plan.

From there, the treated effluent is introduced into the soil using drip irrigation, a technique that has become popular in Nova Scotia since it has been shown to be effective all year round. The approximate area requirement for each of the four drip irrigation beds is shown on the drawing as well. Note that these can exist in public open space, sports fields, golf courses, lawns, and so on. The sizes were calculated based on estimated water use from the projected number of residents. The area of drip irrigation dispersal are shown assuming poor soil conditions.

This method or approach to sanitary servicing follows the recommendations in HRM's Small Scale Servicing Study, which was part of the background work for the Regional Plan. It is also our understanding that the current Plan Review process will include investigations as to why this type of development has not been more common, as it is a preferred environmentally sustainable pattern.

ABLE Engineering  
Services Inc.  
PO Box 959  
50 Queen Street  
Chester, NS B0J 1J0  
(902) 273-3050  
(903) 273-3072

The small scale study can be found at [www.halifax.ca/regionalplanning/publications/documents/HRM\\_Small\\_Scale\\_Report.pdf](http://www.halifax.ca/regionalplanning/publications/documents/HRM_Small_Scale_Report.pdf)

The water supply for this development would be from Halifax Water's central piped system, and therefore the ability to integrate the drip irrigation beds into the new community is relatively easy, as no wells are impacted.

If you have any questions or require more information with respect to this part of the project, please call the undersigned at (902) 221-2368.

Yours Truly,

**Original Signed**

Jeffrey A. Pinhey, M.A.Sc., P.Eng.

cc. Chris Macauley



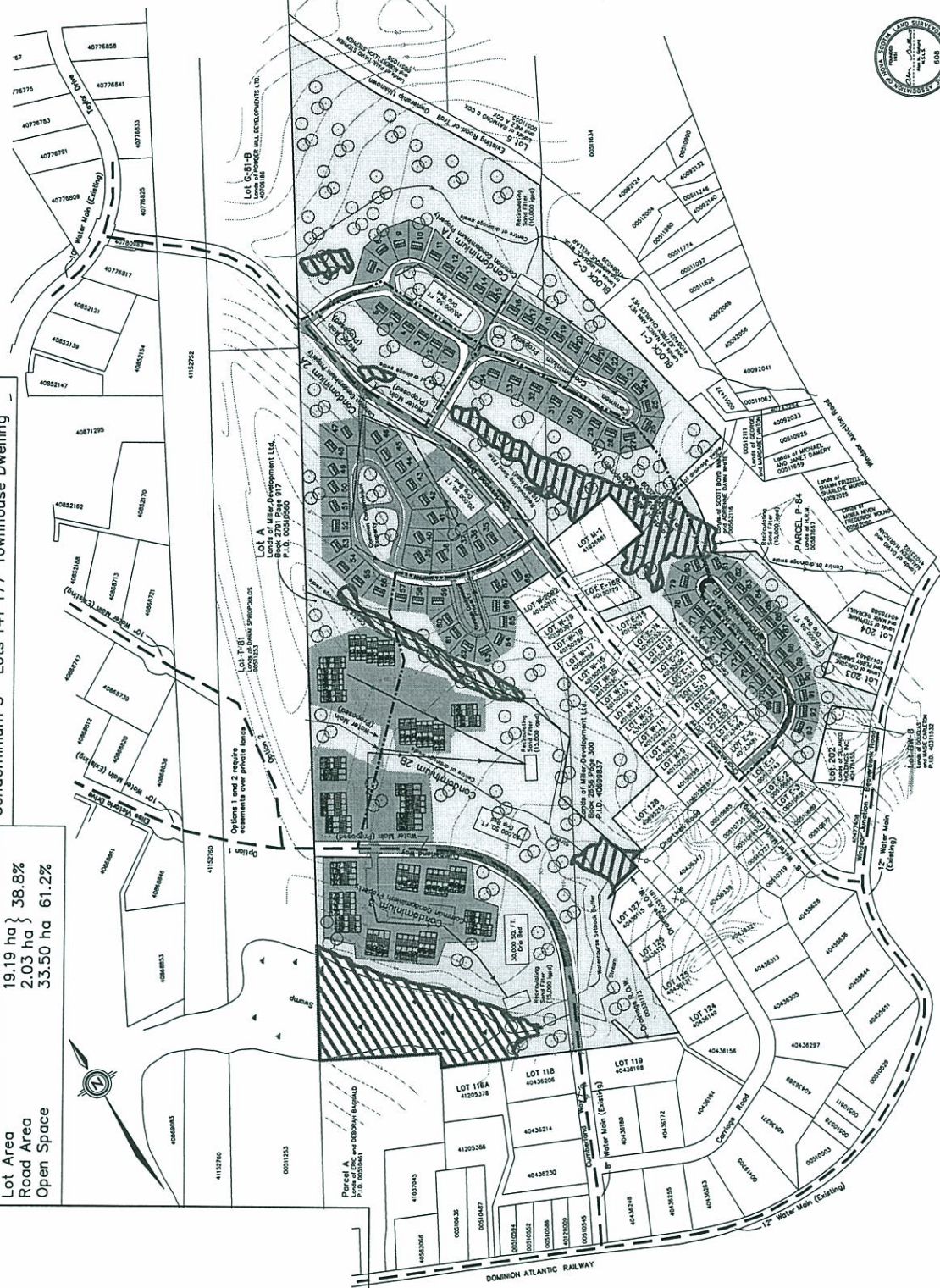
# Site Design Criteria

Total Area	54.72 ha.
40 % Development Area	21.88 ha
60 % Open Space	32.83 ha
Proposed Site Criteria	
Lot Area	19.19 ha } 38.8%
Road Area	2.03 ha }
Open Space	33.50 ha } 61.2%

Lots	Proposed Development
Condominium 1A	Single Family Dwelling
Condominium 1B	Single Family Dwelling
Condominium 2A	Single Family Dwelling
Condominium 2B	Single Family Dwelling
Condominium 3	Townhouse Dwelling



Legend:  
 ..... Printer of lands dealt with by this survey  
 ..... Single Family Dwelling  
 ..... Townhouse Dwelling  
 ..... Landscaped to Resident's Taste  
 ..... Naturally Forested  
 ..... Areas designated on Wetlands by Maritime Testing (September 2011)  
 ..... Sanitary Dip Bed



## Notes:

1. Contour interval is 2 metre, plotted from information provided by L.L.C.
2. All sanitary units will have individual septic tanks. Only efficient collection in P.P.C. gasketed pipe.
3. The development density follows RHM open space standards. The density of the development and the impervious surfaces associated with them, in clusters surrounded by undisturbed lands. Small clusters of impervious surfaces will be incorporated into the design such that pre and post stormwater management solutions will be similar, and matched where feasible.
4. The abundance of open space allows for sensitive designs, independent from traditional storm sewers, to maintain the natural environment and property from upland development. Swale and ditches can replace storm sewers when feasible. In this development, the local water regime is replenished, and local watercourses retain groundwater contributions, that assist in fish habitat, and safe stream temperatures to protect fish habitat.
5. Notes 3 and 4 have been attached as design details to the plan.
6. Locations of septic tanks, W.A. Sc. P. Eng. approximate only. Subject to engineering design.

Concept Plan of Proposed  
 Subdivision of Lands of  
 Miller Developments Limited  
 Charleswood Drive and Cumberland Way  
 P.I.D. 4069837, 4069209 and 00510560  
 Windsor Junction, Halifax Regional Municipality  
 Province of Nova Scotia

Scale 1:2500 (metric)  
 Date: 20 March 2008  
 Revised to 10 June 2008  
 Revised to 20 September 2010  
 Revised to 18 April 2012  
 Revised to 2 June 2013

Alan Galt  
 New South Land Surveyor  
 Elmfield, Nova Scotia  
 Tel: 883-7554 Fax: 883-7401



Appendix 5:

Legal Description of PID's

40699837

40092009

00510560

**This Indenture**

made this

27th

day of

April

A. D., 19 73.

**Between**

**ERIC C. MacNEARNEY**, of Windsor Junction in the County of Halifax and Province of Nova Scotia, IN TRUST

hereinafter called the "GRANTOR "

of the One Part

— and —

**MILLER DEVELOPMENT LIMITED**, a body corporate, with its head office at Windsor Junction in the County of Halifax and Province of Nova Scotia,

hereinafter called the "GRANTEE "

of the Other Part

and the said Grantor and Grantee have agreed that the said Indenture shall be binding on the value described hereby transfer.

Dated at Halifax, N. S., this 17<sup>th</sup> day of

May A. D. 19 73  
E. C. MacNeary  
 Municipal Director  
 Municipality of the County of Halifax

**Witnesseth** that in consideration of One Dollar (\$1.00).

The Grantor hereby convey s to the Grantee the lands described in the Schedule marked "A" hereto annexed.

## SCHEDULE "A"

All that certain lot, piece or parcel of land situate, lying and being at Windsor Junction, County of Halifax, shown as outlined in red on a plan of property of Mrs. Agnes Maude MacNearney dated August 14, 1963 made and signed by J. R. Fiske, P.L.S. and being more particularly bounded and described as follows:

BEGINNING on the Eastern boundary of the Beaverbank Road where the same is intersected by the Southern boundary of property now or formerly of Gertrude Stevens;

THENCE in a Southerly direction following the Eastern boundary of the Beaverbank Road to the Northwestern boundary of property now or formerly of W. E. Davidson;

THENCE North Fifty-two degrees East (N 52° E) along property of W. E. Davidson Two Hundred and Three (203') feet more or less to a stake;

THENCE North Eighty-eight degrees, Fifty-eight minutes East (N 88° 58' E) along the Eastern boundary of property of W. E. Davidson and G. Davidson for a distance of Three Hundred and Ninety-six (396') feet, more or less;

THENCE South Seventy-six degrees, Ten Minutes East (S 76° 10' E) along the Eastern boundary of property of G. Davidson for a distance of Five Hundred and Forty-four (544') feet to the Beaverbank Road;

THENCE in an Easterly direction along the Northern boundary of the Beaverbank Road to the Western boundary of property of Canadian National Railways;

THENCE in a Northerly direction along the western boundary of property of Canadian National Railways to the Southern boundary of G. Dockrill;

THENCE in a Westerly direction to the Southwest corner of said Dockrill property;

THENCE in a Northerly direction along the Western boundary of said Dockrill property to the Southern boundary of property of H. West;

THENCE in a Northwesterly direction along the Southwestern boundary of property of H. West to the Southwestern corner thereof;

THENCE in a Northerly direction following the Western boundary of property of H. West and G. Lee along a pole and wire fence to an angle in the same;

THENCE in a Northwesterly direction along said fence to another angle in the same;

THENCE continuing in a Northerly direction along said fence to the Southern boundary of property now or formerly of Gertrude Stevens;

THENCE in a Westerly direction following the Southern boundary of said Stevens property to the place of beginning.

ALSO ALL that certain lot, piece or parcel of land shown on the plan referred to above and described as follows:

BEGINNING on the Southern boundary of the Beaverbank Road where the same is intersected by the Western boundary of property of Canadian National Railways;

THENCE following the boundary of said Canadian National Railways

SCHEDULE "A" CONTINUED

... 2

property in a Southerly, Westerly and Northwesterly direction to property of G. Davidson;

THENCE in a Westerly direction along the Eastern boundary of said Davidson property to the Beaverbank Road;

THENCE FOLLOWING the Southern boundary of the Beaverbank Road in an Easterly direction to the place of beginning.

Province of Nova Scotia  
County of Halifax

I hereby certify that the within instrument  
was recorded in the Registry of Deeds Office  
at Halifax, in the County of Halifax, N.S.  
at 10:58 o'clock A. M., on  
the 17<sup>th</sup> day of May 1973  
A. D. 1973 In Book Number 2656  
at Pages 300 - 303

Registrar of Deeds for the Registration District  
of the County of Halifax

## THE GRANTOR

covenants with the Grantee that the Grantee shall have quiet enjoyment of the lands, that the said Grantor hath a good title in fee simple to the lands and the right to convey them as hereby conveyed, that they are free from encumbrances and that the said Grantor will procure such further assurances as may be reasonably required.

IN WITNESS WHEREOF the said Grantor has hereunto set his hand and affixed his seal the day and year first above written.

SIGNED, SEALED AND DELIVERED  
in the presence of

**Original Signed**

*Eric C. MacNearney In Trust.*  
ERIC C. MacNEARNEY IN TRUST

PROVINCE OF NOVA SCOTIA  
COUNTY OF HALIFAX SS

ON THIS 16th day of May, A.D., 1973,  
before me, the subscriber personally came and appeared E. C. MacNearney,  
a subscribing witness to the foregoing Indenture,  
who having been by me duly sworn, made oath and said that Eric C. MacNearney, one  
of the parties thereto, signed, sealed and delivered  
the same in his presence.

**Original Signed**

A Commissioner of the Supreme Court of  
Nova Scotia

PROVINCE OF NOVA SCOTIA  
COUNTY OF SS

I CERTIFY that on this \_\_\_\_\_ day of \_\_\_\_\_  
A.D., 19\_\_\_\_,  
of the parties mentioned in the foregoing and annexed Indenture, signed and executed the said Indenture in my presence and I have signed as a witness to such execution.

A Commissioner of the Supreme Court of  
Nova Scotia

T-1

23583

917

This Indenture made this 22<sup>nd</sup>

day of March, A. D., 19 74.

BETWEEN

GERTRUDE NANCY STEPHEN of Windsor Junction, in the County  
of Halifax, Province of Nova Scotia,

hereinafter called the "GRANTOR"

OF THE ONE PART

and

MILLER DEVELOPMENT LIMITED, a body corporate, having its  
Head Office at Halifax, in the County of Halifax,  
aforesaid,

hereinafter called the "GRANTEE"

OF THE OTHER PART

I hereby certify that the Deed Transfer Tax  
on the within described property transfer has  
been paid on this 3 day of June  
A. D. 19 74

**Original Signed**

Municipal Collector  
Municipality of the County of Halifax

WITNESSETH that in consideration of ----- One (\$1.00) ----- Dollars.

The Grantor hereby conveyS to the Grantee the lands described in the Schedule mark-  
ed "A" hereto annexed.

## SCHEDULE "A"

ALL that certain lot, piece or parcel of land situate, lying and being at Windsor Junction, in the County of Halifax, Province of Nova Scotia. Being and comprising all that Lot "A" as shown on a plan of lands owned by Nancy Gertrude Stephen, the said plan having been made and signed by L. Robert Feetham, N.S.L.S., bearing date the 15th day of December, 1973, A.D. Lot "A" being more particularly bounded and described as follows; viz:

BEGINNING at an iron bar set on the northern boundary of the Windsor Junction to Beavertown highway being the south west corner of lands owned by Bruce Stephen. Said point having coordinate values of 1219266.57E and 16275266.77 N referenced to Nova Scotia Control Monument No. 19.

THENCE proceeding north twenty-nine degrees fifty-three decimal seven minutes east (N 29°-53.7'E) along the western boundary of lands owned by Bruce Stephen, a distance of two hundred and thirteen decimal five three (213.53') feet to an iron bar;

THENCE proceeding south sixty-five degrees forty-four decimal five minutes east (S 65°-44.5'E) along the northern boundary of lands owned by Bruce Stephen, D. McLearn and C. R. Moulton, a distance of two hundred and twenty-three decimal seven seven (223.77') feet to an iron bar;

THENCE proceeding south sixty-five degrees thirty-two decimal one minutes east (S 65°-32.1'E) along the northern boundary of lands owned by G. Loughhead and G. Lantz, a distance of one hundred and sixty-five decimal six three (165.63') feet to a post and stones set on the western boundary of lands now or formerly owned by the estate of Charles A. McNearney;

THENCE proceeding north twenty-nine degrees nineteen decimal two minutes (N 29°-19.2'E) along the western boundary of lands now or formerly owned by the estate of Charles A. McNearney and further along the western boundary of lands now or formerly owned by the estate of George Lee, a distance of four thousand three hundred and seventy-seven decimal four four (4377.44') feet to an iron bar set on the southern boundary of the old Hopkins (Public) Road;

THENCE proceeding north twenty-three degrees twenty-five decimal eight minutes west (N 23°-25.8'W) along the southern boundary of the old Hopkin's Road, a distance of two hundred and eleven decimal one eight (211.18') feet to a point;

THENCE proceeding north twenty-nine degrees zero one decimal five minutes west (N 29°-01.5'W) further along the southern boundary of the old Hopkin's Road, a distance of three hundred and ninety-nine decimal four three (399.43') feet to a point;

THENCE proceeding north thirty-one degrees twenty-three decimal six minutes west (N 31°-23.6'W) further along the southern boundary of the old Hopkin's Road, a distance of two hundred and six decimal zero four (206.04') feet to a point;

THENCE proceeding north twenty-four degrees fifty-nine decimal nine minutes west (N 24°-59.9'W) further along the southern boundary of the old Hopkin's Road, a distance of one hundred and sixty decimal one two (160.12') feet to a point;

THENCE proceeding north twenty-two degrees forty-five decimal nine minutes west (N 22°-45.9'W) further along the southern boundary of the old Hopkin's Road, a distance of two hundred and seventy-four decimal eight nine (274.89') feet to a point;

## SCHEDULE "A" ..... 2

THENCE proceeding north eighteen degrees zero eight decimal five minutes west ( $N18^{\circ}-08.5'W$ ) further along the southern boundary of the Old Hopkin's Road, a distance of twenty-eight decimal five three (28.53') feet to an iron bar set on an old wire fence being the eastern boundary of lands now or formerly owned by Arthur Greenough;

THENCE proceeding south twenty-nine degrees zero decimal two minutes west ( $S29^{\circ}-0.2'W$ ) along an existing fence on the eastern boundary of lands now or formerly owned by Arthur Greenough, a distance of two hundred and ninety-one zero three (291.03') feet to a point;

THENCE proceeding south twenty-nine degrees forty-six decimal five minutes west ( $S29^{\circ}-46.5'W$ ) further along the existing fence on the eastern boundary of lands now or formerly owned by Arthur Greenough, a distance of one hundred and ninety-two decimal two seven (192.27') feet to a point;

THENCE proceeding south thirty-one degrees thirty-two decimal nine minutes west ( $S31^{\circ}-32.9'W$ ) further along the existing fence on the eastern boundary of lands now or formerly owned by Arthur Greenough, a distance of one hundred and sixty-three decimal six three (163.63') feet to a point;

THENCE proceeding south thirty degrees thirty-one decimal nine minutes west ( $S39^{\circ}-31.9'W$ ) further along the existing fence on the eastern boundary of lands now or formerly owned by Arthur Greenough, a distance of one hundred and ninety-five decimal one two (195.12) feet to a point;

THENCE proceeding south thirty degrees forty-one decimal eight minutes west ( $S30^{\circ}-41.8'W$ ) further along the existing wire fence on the eastern boundary of lands now or formerly owned by Arthur Greenough, a distance of two hundred and twenty-two decimal nine eight (222.98') feet to a point;

THENCE proceeding south thirty degrees zero decimal zero minutes west ( $S30^{\circ}-0.0'W$ ) further along the existing wire fence on the eastern boundary of lands now or formerly owned by Arthur Greenough, a distance of one hundred and seventy decimal four six (170.46') feet to a point;

THENCE proceeding south thirty degrees forty-nine decimal eight minutes west ( $S30^{\circ}-49.8'W$ ) further along the existing fence on the eastern boundary of lands now or formerly owned by Arthur Greenough, a distance of one hundred and sixty-five decimal six two (165.62') feet to a point;

THENCE proceeding south twenty-eight degrees twenty-nine decimal eight minutes west ( $S28^{\circ}-29.8'W$ ) further along the existing wire fence on the eastern boundary of lands now or formerly owned by Arthur Greenough, a distance of four hundred and twenty-three decimal two two (423.22') feet to a point;

THENCE proceeding south thirty-three degrees fifty-one decimal four minutes west ( $S33^{\circ}-51.4'W$ ) further along the existing wire fence on the eastern boundary of lands now or formerly owned by Arthur Greenough, a distance of one hundred and ninety-nine decimal seven eight (199.78') feet to a point;

THENCE proceeding south thirty degrees fifty-four decimal six minutes west ( $S30^{\circ}-54.6'W$ ) further along the existing wire fence

on the eastern boundary of lands now or formerly owned by Arthur Greenough, a distance of one hundred and thirty-four decimal three eight (134.38') feet to a point at the end of the aforementioned wire fence;

THENCE proceeding south twenty-nine degrees fifty-one decimal six minutes west (S29°-51.6'W) along the eastern boundary of lands now or formerly owned by Arthur Greenough, a distance of two thousand two hundred eighty-six decimal four five (2286.45') feet to an iron bar set by a blazed juniper tree with wire, being the north west corner of lands owned by E. H. Bagnald;

THENCE proceeding south sixty-nine degrees thirty-eight decimal two minutes east (S69°-38.2'E) a distance of five hundred and sixteen decimal four nine (516.49') feet to an iron pipe set in a large swamp being the north east corner of lands owned by E. H. Bagnald;

THENCE proceeding south twenty-nine degrees forty-five decimal five minutes west (S29°-45.5'W) along a portion of the eastern boundary of lands owned by E. H. Bagnald, a distance of six hundred decimal zero (600.0') feet to an iron bar set on the north west corner of lands owned by B. W. Zwicker;

THENCE proceeding south sixty-five degrees twenty-six decimal six minutes east (S65°-26.6'E) along the northern boundary of lands owned by B. W. Zwicker and further along the northern boundary of lands owned by Gordon Burchell, a distance of one hundred and sixty-nine decimal two one (169.21') feet to an iron bar;

THENCE proceeding south twenty-nine degrees thirty-five decimal zero minutes west (S29°-35.0'W) along the eastern boundary of lands owned by Gordon Burchell, a distance of four hundred decimal four six (400.46') feet to an iron bar set on the aforementioned northern boundary of the Windsor Junction to Beavertank Highway;

THENCE proceeding south sixty-six degrees thirty decimal nine minutes east (S66°-30.9'E) along the highway boundary, a distance of fifty decimal zero two (50.02') feet to the point of beginning.

Containing 110.36+ acres. All bearings grid north.

BEING A PART of the lands as conveyed to Malinda Stephen from Alexander N. Stephen by Deed dated the 18th day of August, A.D. 1922, and recorded at the Registry of Deeds Office, Halifax, Nova Scotia, the 23rd day of August, A.D. 1922, in Book 561, Pages 329-332.

## THE GRANTOR

covenant s with the Grantee that the Grantee shall have quiet enjoyment of the lands, that the said Grantor has a good title in fee simple to the lands and the right to convey them as hereby conveyed, that they are free from encumbrances and that the said Grantor will procure such further assurances as may be reasonably required.

IN WITNESS WHEREOF the said Grantor has hereunto affixed her hand and seal the day and year as first above written.

SIGNED, SEALED AND DELIVERED  
in the presence of

**Original Signed**

**Original Signed**

GERTRUDE NANCY STEPHEN

Province of Nova Scotia  
County of Halifax

I hereby certify that the within instrument was recorded in the Registry of Deeds Office at Halifax, in the County of Halifax, N.S. at 2:40 clock P.M., on the 3<sup>rd</sup> day of June A.D. 1974 In Book Number 2791 at Pages 917 - 921  
*Robert A. Pickley*  
Registrar of Deeds for the Registration District of the County of Halifax

PROVINCE OF NOVA SCOTIA  
COUNTY OF HALIFAX SS

ON THIS 22<sup>nd</sup> day of March, A.D., 1974  
before me, the subscriber personally came and appeared  
*Judith M. Leedham*, a subscribing witness to the foregoing Indenture,  
who having been by me duly sworn, made oath and said that Gertrude Nancy Stephen one  
of the parties thereto, signed, sealed, and delivered  
the same in her presence.

**Original Signed**

A Commissioner of the Supreme Court of  
Nova Scotia

JOHN M. DILLON  
A Barrister of the Supreme Court  
of Nova Scotia

PROVINCE OF NOVA SCOTIA  
COUNTY OF SS

I CERTIFY that on this  
A.D., 19  
of th parties mentioned in the foregoing and annexed Indenture, signed and executed the said Indenture in my presence and I have signed as a witness to such execution.

A Commissioner of the Supreme Court of  
Nova Scotia

This WARRANTY DEED made this 26th day of July 1984

BETWEEN:

MILLER DEVELOPMENT LIMITED, a body corporate

being the Owner of the lands described in Schedule "A" herein  
(hereinafter called the "GRANTOR")

— and —

MUNICIPALITY OF THE COUNTY OF HALIFAX, a  
body corporate

(hereinafter called the "GRANTEE")

— and —

being the spouse of the Grantor  
(hereinafter called the "RELEASOR")

**Original Signed**

WITNESSETH THAT in consideration of One Dollar and other good and  
valuable consideration;

THE GRANTOR hereby conveys to the GRANTEE  
the lands described in Schedule "A" to this  
Warranty Deed and hereby consents to this disposition, pursuant to the Matrimonial Property  
Act of Nova Scotia.

## SCHEDULE "A"

Legal Description of Parcel P84

All that certain piece and parcel of land comprising a portion of Parcel MDL-2 of lands of Miller Developments Limited, Windsor Junction, Halifax County, N.S., as shown on a plan by Norval S. Higgins, N.S.L.S., dated July 10, 1984 and filed as Alderney Consultants Limited Plan No. 3432-6, said Parcel P84 being more particularly described as follows:

Beginning at a point at the southwestern corner of Parcel GBD-1, such point being located South  $44^{\circ}27'09''$  West (forty-four degrees twenty-seven minutes zero nine seconds) a distance of 67.909 m (sixty-seven decimal nine zero nine metres) from Nova Scotia Coordinate Monument No. 51, such point also being a point on the northwestern boundary of the Beaverbank to Windsor Junction Road,

Thence through a left-hand curve having a radius of 460.058 m (four hundred sixty decimal zero five eight metres) a distance of 23.000 m (twenty-three decimal zero zero metres) in a southwesterly direction along a portion of the northwestern boundary of the Beaverbank to Windsor Junction Road to a point at the eastern corner of remaining lands of Miller Development Limited in a portion of Parcel MDL-2,

Thence North  $37^{\circ}20'38''$  West (thirty-seven degrees twenty minutes thirty-eight seconds) a distance of 60.964 m (sixty decimal nine six four metres) along a northeastern boundary of the said remaining lands to a point,

Thence South  $79^{\circ}09'36''$  West (seventy-nine degrees zero nine minutes thirty-six seconds) a distance of 67.908 m (sixty-seven decimal nine zero eight metres) along a northern boundary of the said remaining lands to a point,

Thence North  $10^{\circ}50'14''$  West (ten degrees fifty minutes fourteen seconds) a distance of 138.437 m (one hundred thirty-eight decimal four three seven metres) along an eastern boundary of the said remaining lands to a point,

Thence North  $59^{\circ}36'22''$  West (fifty-nine degrees thirty-six minutes twenty-two seconds) a distance of 60.418 m (sixty decimal four one eight metres) along the northeastern boundary of the said remaining lands to a point,

Thence through a left-hand curve having a radius of 148.742 m (one hundred forty-eight decimal seven four two metres) a distance of 108.201 m (one hundred eight decimal two zero one metres) in a northerly direction along an eastern boundary of the said remaining lands to a point,

/....2

Thence North  $78^{\circ}42'53''$  East (seventy-eight degrees forty-two minutes fifty-three seconds) a distance of 46.493 m (forty-six decimal four nine three metres) along the southern boundary of the said remaining lands to a point at the southeastern corner of the said remaining lands also being a point on the western boundary of lands of Catherine White,

Thence South  $11^{\circ}25'47''$  East (eleven degrees twenty-five minutes forty-seven seconds) a distance of 14.015 m (fourteen decimal zero one five metres) along a portion of the western boundary of the said Catherine White lands to a point at the southwestern corner of the said Catherine White lands also being a point at a northwestern corner of lands of George and Margaret Vincon,

Thence South  $11^{\circ}57'02''$  West (eleven degrees fifty-seven minutes zero two seconds) a distance of 67.053 m (sixty-seven decimal zero five three metres) along the western boundary of the said Vinton lands and the western boundary of a right-of-way to a point at the southwestern corner of the said right-of-way also being a point at the southwestern corner of lands of Mrs. F. May,

Thence South  $70^{\circ}21'50''$  East (seventy degrees twenty-one minutes fifty seconds) a distance of 51.658 m (Fifty-one decimal six five eight metres) along the southern boundary of the lands of Syd May to a point at the northwestern corner of lands of Alden and Barbara Wyatt,

Thence South  $06^{\circ}47'13''$  East (zero six degrees forty-seven minutes thirteen seconds) a distance of 97.637 m (ninety-seven decimal six three seven metres) along the western boundaries of the said Wyatt lands and lands of Scott and Sharon MacLean to a point at the southwestern corner of the said MacLean lands,

Thence South  $76^{\circ}05'17''$  East (seventy-six degrees zero five minutes seventeen seconds) a distance of 12.381 m (twelve decimal three eight one metres) along a portion of the southern boundary of the said MacLean lands to a point at the northwestern corner of lands of Graham Bennett Dockerill,

Thence South  $09^{\circ}40'16''$  East (zero nine degrees forty minutes sixteen seconds) a distance of 113.056 m (one hundred thirteen decimal zero five six metres) along the western boundary of the said Dockerill lands and along the western boundary of Parcel GBD-1 to the place of beginning and containing an area of 32,684.67 square metres.

All bearings are based on  $3^{\circ}$  M.T.M. Grid North Central Meridian  $64^{\circ}30'$  West.

## Original Signed

TOM SWANSON, N.S.L.S.

PROVINCE OF NOVA SCOTIA  
COUNTY OF HALIFAX

Affidavit as to Rights Attaching  
to Ownership of Shares in a Corporation

I, Lois Allyne Fiske of Halifax,  
the Vice President of Miller Developments Limited, a body corporate  
make oath and say:

When I executed the attached instrument  
the ownership of a share or an interest in a share of the corporation  
did not entitle the owner thereof to the occupation of a dwelling  
owned by the corporation.

SWORN TO at Halifax, in the  
County of Halifax, Province  
of Nova Scotia, this 11 day  
of May, A.D., 1984,  
before me

**Original Signed**

**Original Signed**

Lois Allyne Fiske

A BARRISTER OF THE SUPREME COURT  
OF NOVA SCOTIA

K.E. ANTHONY ROBINSON

Province of Nova Scotia  
County of Halifax

I hereby certify that the within instrument  
was recorded in the Registry of Deeds Office  
at Halifax, in the County of Halifax, N. S.  
at 10:10 o'clock A. M., on  
the 8 day of May.

A. D. 1985 in Book Number 3963  
at Pages 264 - 268

*acting*  
Registrar of Deeds for the Registration District  
of the County of Halifax

IN WITNESS WHEREOF, the said parties to these presents have hereunto their hands and seals set and affixed, the day and year first above written.

MILLER DEVELOPMENT LIMITED  
Original Signed

## Original Signed

LOIS ALLYNE FISKE

# Original Signed

ERIC COREY MACNEARNEY

ON THIS \_\_\_\_\_ day of \_\_\_\_\_, A. D. \_\_\_\_\_, before  
me, the subscriber personally came and appeared \_\_\_\_\_

Indenture, who having been by me duly sworn, made oath and said that

parties thereto, signed, sealed and delivered the same in h      presence.

A Barrister of the Supreme Court  
of Nova Scotia.

PROVINCE OF NOVA SCOTIA  
COUNTY OF HALIFAX

I CERTIFY that on this 26th day of July

A. D. 1984 , MILLER DEVELOPMENT LIMITED one

of the parties mentioned in the foregoing and annexed Indenture, signed and executed the said Indenture in my presence and I have signed as a witness to such execution.

**Original Signed**

A Barrister of the Supreme Court  
of Nova Scotia.

**K.H. ANTHONY ROBINSON**

Appendix 6:

Stage 1 Addendum  
Primary Conservation Areas



Plan Showing Non Development  
Areas in Support of a  
Concept Plan of Proposed  
Subdivision of Lands of  
Miller Developments Limited  
Charleswood Drive and Cumberland Way  
P.L.D. 40699837, 40092009 and 00510560  
Windsor Junction, Halifax Regional Municipality  
Province of Nova Scotia

Scale 1: 2500 (metric)  
File: 753 Drawing: 753Concept-2  
Date: 20 March 2008 - Revised to 10 June 2008  
Revised to 20 September 2010  
Revised to 13 January 2012  
Revised to 16 April 2012  
Revised to 19 June 2013

Alan Gallant  
Nova Scotia Land Surveyor  
Elmsdale, Nova Scotia  
Tel 883-7554 Fax 883-7401

Appendix 7:

Stage 1 Addendum  
Secondary Conservation Areas



**Plan Showing Wetlands  
and Forested Areas Only  
in Support of a  
Concept Plan of Proposed  
Subdivision of Lands of  
Miller Developments Limited**  
Charlestown Drive and Cumberland Way  
P.I.D. 406989837, 40092009 and 00510560  
Windsor Junction, Halifax Regional Municipality  
Province of Nova Scotia

Scale 1: 2500 (metric)  
File: 753 Drawing: 753Concept-2  
Date: 20 March 2008 - Revised to 10 June 2008  
Revised to 20 September 2010  
Revised to 12 January 2012  
Revised to 16 April 2012  
Revised to 19 June 2013  
Alan Gallant

Alan Gallant  
Nova Scotia Land Surveyor  
Elmsdale, Nova Scotia  
Tel 883-7554 Fax 883-7401

Appendix 8:

Stage 1 Addendum  
Potential Home Site, Road,  
and  
Private Driveway Locations





Plan Showing Proposed Development, Primary and Secondary Conservation Features in Support of a Concept Plan of Proposed Subdivision of Lands of Miller Developments Limited, 400920209 and 00510560 (P.I.D. 40698387, 400920209 and 00510560 Windsor Junction, Halifax Regional Municipality Province of Nova Scotia

Scale 1:2500 (metric)  
File: 753 Drawing: 753Concept-2  
Date: 20 March 2008 - Revised to 10 June 2008  
Revised to 20 September 2010  
Revised to 13 January 2012  
Revised to 16 April 2012  
Revised to 19 June 2013

Alan Gallant  
Nova Scotia Land Surveyor  
Elmsdale, Nova Scotia  
Tel 883-7554 Fax 883-7401

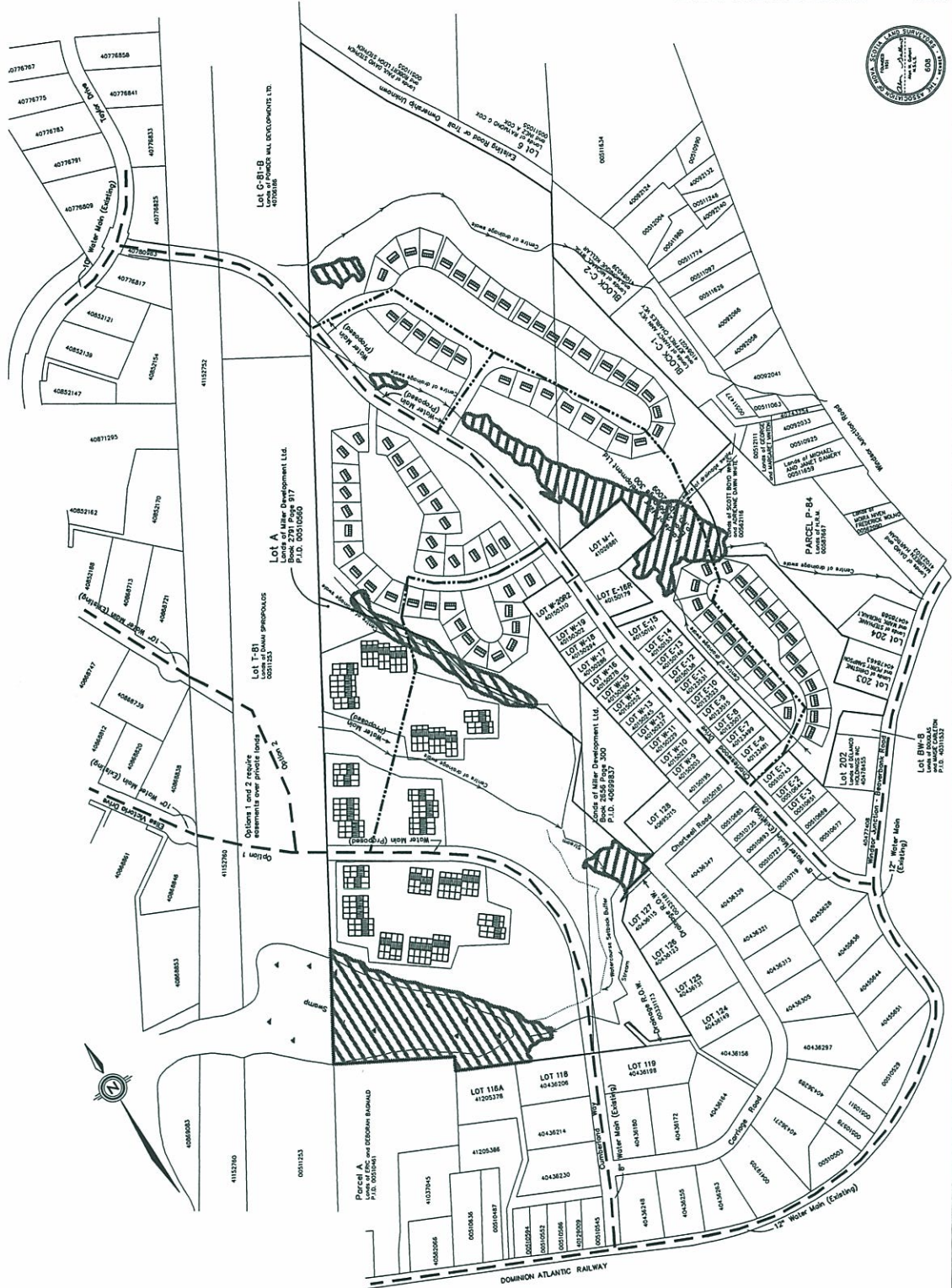
# Appendix 9:

## Water Service



# Legend:

- Perimeter of lots shown with 1/4" survey
- Single Entry Sewing
- Proposed Water Service (Public)
- Proposed Water Service (Private)
- Areas indicated as Wetlands by Maritime Testing (September 2013)



Plan Showing Water Service  
in Support of a  
Concept Plan of Proposed  
Subdivision of Lands of  
Miller Developments Limited  
Charleswood Drive and Cumberland Way  
P.L.D. 4069837, 4069209 and 00510560  
Windsor Junction, Halifax Regional Municipality  
Province of Nova Scotia

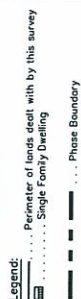
Scale 1:2500 (metric)  
File: 753 Drawing: 753-Concept-2  
Date: 20 March 2008  
Revised to 20 September 2010  
Revised to 20 January 2012  
Revised to 19 June 2013

Alan Galt  
Notary Public  
New Scotia Land Surveyor  
Elmfield, Nova Scotia  
Tel 855-7654 Fax 855-7401



# Appendix 10:

## Phasing Map



**Plan Showing Development Phases  
in Support of a  
Concept Plan of Proposed  
Subdivision of Lands of  
Miller Developments Limited  
Charleswood Drive and Cumberland Way  
P.O. Box 1000, Windsor, Ontario N9A 6P4  
P.I.D. 40699837, 40092009 and 00510560  
Windsor Junction, Halifax Regional Municipality  
Province of Nova Scotia**

Scale 1:2500 (metric)  
File: 753 Drawing: 753Concept-2  
Date: 20 March 2008 - Revised to 10 June 2008  
Revised to 20 September 2010  
Revised to 13 January 2012  
Revised to 16 April 2012  
Revised to 19 June 2013

Alan Gallant  
Nova Scotia Land Surveyor  
Elmsdale, Nova Scotia  
Tel 883-7554 Fax 883-7401

Appendix 11:

Verification Land Mass  
Letter from Surveyor

Alan M. Gallant Nova Scotia Land Surveyor  
5 Pine Grove Drive, Elmsdale, N.S. B2S 1J3  
Tel 883-7554 Fax 883-7401

19 June 2013  
My File: 753

**Mr. Andrew Bone, MCIP**  
**Halifax Regional Municipality Planning Services**  
**636 Sackville Drive, Sackville, N.S. B4C 2S1**

**Re: Charleswood Subdivision Concept Design**

Dear Sir;

In response to your request I am verifying that the total area of the land to be developed is 54.72 hectares. This area has been calculated from property mapping and is subject to a final survey. It is acknowledged that this area will be calculated accurately from survey data at a later date and that the number of lots may fluctuate up or down as required to meet the required density.

Sincerely,

**Original Signed**

ALAN M. GALLANT, N.S.L.S., B.C.L.S.

