

Monument Geomatics & Estimating Inc.
Mail: PO Box 1665 Belleville Stn. Main, Belleville, ON K8N 0A5
Location: 93 Bellevue Drive, Belleville, ON K8N 4Z5
info@monumentge.com

April 18, 2022

Attention: Project Stakeholders

**Re: 3852 Ganaraska Road Development, Garden Hill Estates
Revised Site Access Review**

Dear Stakeholder:

Monument Geomatics and Estimating (“Monument”) has prepared this Revised Site Access Review letter in response to comments provided by Mr. Dan Campbell – Manager of Infrastructure, on behalf of The County of Northumberland (“Northumberland County”) dated February 11, 2022. The original Site Access Review letter (January 25, 2022) was submitted as a preliminary submission to support draft plan approval. Northumberland County’s response letter is attached (01).

The site is located at 3852 Ganaraska Road in the Village of Garden Hill, situated in the Municipality of Port Hope and the County of Northumberland. As shown in the attached drawing (02), the site fronts along the Ganaraska Road (County Road 9) to the south and Mill Street to the west. Two dead ends terminate Porter Crescent (North) and Frost Avenue (South) servicing the adjacent Woodland Subdivision at the east border of the property.

Access of the site will be discussed for the southern portion of the property only. North of the hydro lines and the North watercourse will not be reviewed.

There are four (4) separate access locations available for the proposed development that are listed below, referenced as follows, and discussed in greater detail below.

- 1) Frost Avenue Access
- 2) Porter Crescent Access
- 4) Mill Street Access
- 3) Ganaraska Road (County Road 9) Access

Frost Avenue

Frost Avenue is a local roadway that terminates as a dead end with no turning basin configuration available. This access point is limited to only the southeastern portion of the site. Just north of the entrance point, a small watercourse bisects the property. A wetland boundary

was delineated within the banks of the reach and provided a 15m buffer setback. The watercourse was deemed a warm water, water system from which a 15m watercourse setback was also applied from the center of the channel. In order to service the rest of the development area a crossing would be required. This would not be feasible without adversely impacting the natural heritage features discussed above. Monument is proposing that only the small developable area south of the watercourse be serviced with this access.

Northumberland County Response:

The County is supportive of Frost Avenue connection point as it provides connectively for the southeastern portion of the site that is similar to that of the existing development without the need for additional private entrances or municipal road connections along the Site's eastern frontage to County Road 9, which the County would not support.

Porter Crescent Access

This access would involve extending Porter Crescent approximately 7m west. Porter Crescent is a local roadway with an assumed low traffic volume that terminates in a cul-de-sac. An isolated wetland pocket was delineated at this entrance point, from which the new access would traverse through the 15m setback buffer. Monument is proposing that this wetland area be removed and compensated onsite elsewhere.

Monument is proposing this be one of the two access locations for the development.

Northumberland County Response:

The County is supportive of the Porter Crescent connection point as it provides connectively to existing municipal roads that intersect the County's network at County Road 9 & 10 and is in keeping with Port Hope Official Plan Policy D2.2.3, which encourages "in-depth" development in Garden Hill utilizing the existing road network.

Mill Street Access

Mill Street is owned and maintained by the Municipality of Port Hope. Currently, it is a gravel dead end road that provides access for approximately nine residential lots. The roadway is immediately adjacent to the Garden Hill Conservation Area Reservoir which fronts the subject property for approximately 498m. Currently a secondary farm access is present along Mill Street into the subject property.

As illustrated on the attached GRCA's Flood Plain Mapping for the Ganaraska River (03 & 04), Mill St. is fully submerged under the Regional storm event. The Regional flood elevation was determined to reach an elevation of 176.40m which would cause ponding over the roadway of up to 2m in some locations.

To support the development, Mill Street would require extensive upgrades to bring the existing travelled lane to an acceptable local standard. These upgrades are discussed in detail below as requested by Northumberland County for further analysis in support a new access from County Road 9.

Ganaraska Road (CTY Rd. 9) Access

County of Northumberland policy identifies that new access is to be taken from a municipal roadway whenever possible. Monument has recognized this requirement but is in the opinion that a second access from the other two municipal access points (Mill Street and Frost Avenue) are not feasible as briefly discussed above. To enhance travel efficiency within the development and minimize increased traffic volumes to Porter Crescent, we are recommending that an access be provided from Ganaraska Road (CTY Rd 9).

Northumberland Response:

Northumberland County's Entrance and Setback Policy discourages the establishment of additional entrances onto County arterial roads where an opportunity may exist to obtain access from a local or collector road. With this consideration for this policy the County is currently not in favour of this proposed access location and requires additional information and analysis to support a proposed local road entrance onto County Road 9.

Ganaraska Region Conservation Authority (GRCA) advised that it is only necessary to provide one (1) access point that is clear of the Regional floodplain which can be achieved from Porter Crescent and Frost Avenue.

Ultimately, the GRCA provided the following comments in regards to a second access point:

- *GRCA does not object to a secondary access of Mill St or Ganaraska Road provided safe vehicular access is demonstrated (via Porter Cres and Frost Ave). However, should a secondary access be determined to be necessary, it is recommended that the access is through the area of least risk due to the hazard.*
- *Should Mill St be proposed to be the secondary access, it must be determined if upgrades would be required. If so, GRCA will have additional comments.*

- *A permit from GRCA will be required for an additional access within the floodplain. GRCA will require that the access meet all applicable GRCA policies for permit issuance.*

Based on the discussion summarized above, Northumberland County requested that the evaluation of site access comparing Ganaraska Road vs. Mill Street be expanded to a more comprehensive level.

Note: Northumberland County comments provided in bold, with Monument's response provided in sequence.

1) Recognition of the GRCA's position regard access requirement related to the floodplain.

The GRCA recognizes that the only one (1) site access that is free of flooding hazard is required for the development. As mentioned above, this objective is achieved through the extension of Porter Crescent.

2) An overview of the impacts and costs associated with completing geometric and structural improvements along Mill Street to upgrade it to a local standard acceptable to the Municipality of Port Hope (MPH) without raising the road out of the regional floodplain.

Current Condition:

The image provided below was captured at the time of Monuments onsite visit on March 7, 2022. The purpose for the visit was to review the condition of Mill Street after a significant winter rain event following a warm afternoon melt. The image below also illustrates an "on the ground view" of the Mill Street right-of-way at its current state (the image was captured at the existing farm entrance from Mistral property, facing south).



Monument conducted a topographic survey of Mill Street in September 2022. The extent of the survey was carried from the Ganaraska Road intersection for a total length of 1050m north past the extent of the Mistral property. The survey revealed a gravel driving platform of roughly 5.5m with very shallow ditching (~0.3m) along the east side of the roadway. The existing alignment is illustrated in the attached drawings (06).

To the West of Mill Street, the Ganaraska Conservation Area Reservoir water elevation sits roughly 2m below centerline of road. The banks along the west side gradually slope down with a 2H:1V slope to water surface with a bank width varying from 2m – 10m from edge of travelled lane. Directly across from residence 8115, a dry fire hydrant is situated in a widened shoulder to provide emergency services to the Garden Hill Community.

Servicing on Mill Street appears to be very narrow. Hydro is provided overhead on various poles mainly on the west side of the roadway. The average width between hydro poles and the secondary service poles is roughly 10m. Past the Mistral land the hydro line eventually veers

west to service residents further north. Communication pedestals located on the east side of the right of way are assumed to provide underground servicing to each resident on Mill Street.

Mill Street also contains several culverts crossing. A total of 9 road crossings (+2 entrance culverts) varying in diameters of 300mm to 1700mm found in very poor to good condition. Majority of the culverts will require replacement and possible upgrades if Mill Street were to undergo reconstruction.

Mill Street South

The image provided below is a screen shot of Mill Street right of way south of Ganaraska Road intersection. Mill Street is a rural cross section drained with culverts and roadside ditches. The cross section has a 6.5m asphalt platform with a 1.0m gravel shoulder and 0.5m rounding. Further to the south Mill Street transitions to surface treated with a 6.0m driving platform.



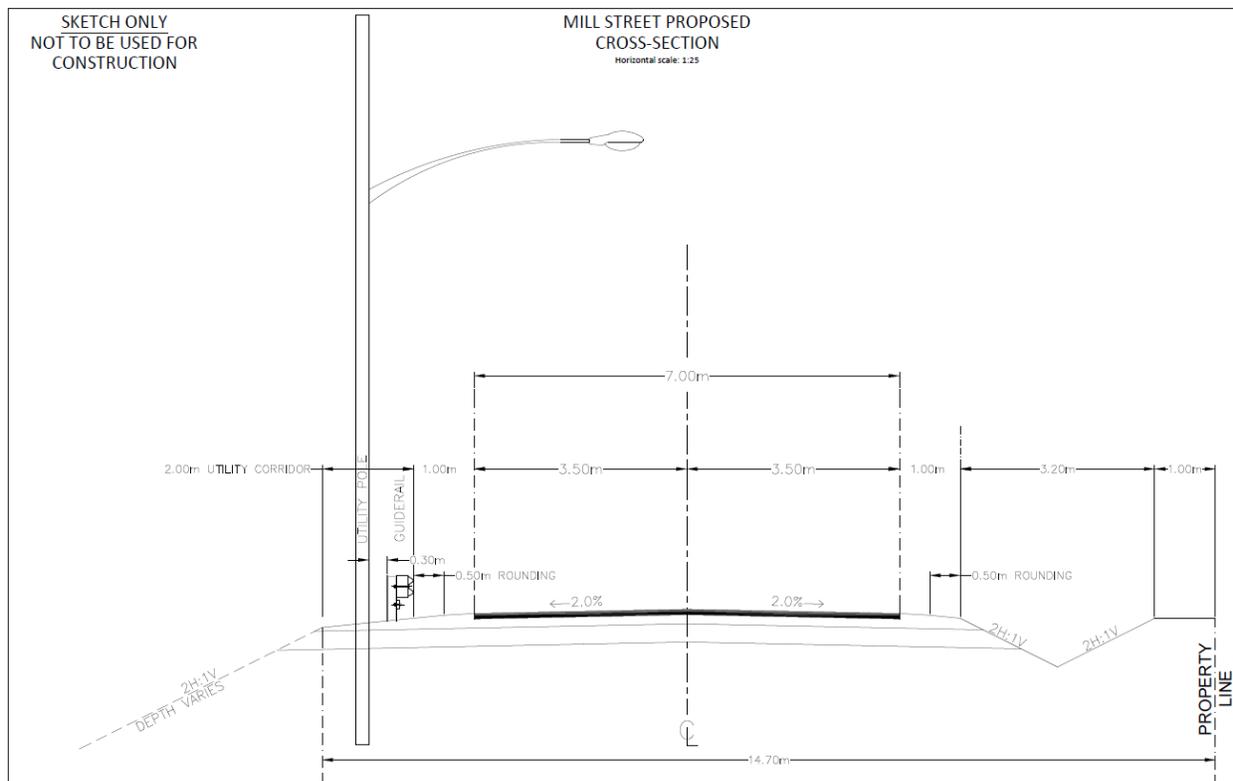
Mill Street Right-of-way (North)

Mill Street north of Ganaraska Road is situated in a forced right-of-way for the first 260m as illustrated on the legal survey plan 39R-14329 (see Attached 05). At the property boundary of the Mistral Lands, the driving lane returns into the legal registered right-of-way between concessions 16 & 17. It is unknown if the section of roadway within the forced right-of-way is owned by the Municipality.

The right-of-way along the forced section also extends past the banks of the Garden Hill Conservation Area Reservoir. This will create challenges moving forward to be able to utilize the dedicated right-of-way width.

Proposed Typical Section:

Monument prepared a conceptual road cross section for the Mill Street upgrade to provide a high-level analysis of studies and costs required to service the existing residents and the Garden Hill Development. Note: this typical is based on matching existing centerline elevations without raising the road.



This cross section shows a required “servicing width” of 14.70m from the east property line to the point in which the daylighting transition will be begin down to the Reservoir. Further details are required to determine the height, length, and slope stability of daylighting throughout entire length of construction. To maintain the east property line, significant encroachment in the Garden Hill Reservoir will be required to facilitate the widened right-of-way

For the purpose of this review, a total reconstruction length from station 0+000 (intersection of CTY rd. 9) to 0+450 was reviewed. This would extend to the length in which the Mistral Land frontage is no longer feasibly accessible from Mill Street.

Required Studies:

To construct the propose typical cross section the road reconstruction design would require the following engineering studies:

- Full detailed design drawings and CA/inspection
- Geotechnical investigation and slope stability design
- Environmental Impact Study
- Traffic Impact Study (analysis of Mill St and CR 9 intersection)
- Floodplain Analysis

Costs Analysis:

The cost analysis below was prepared to estimate a cost for full reconstruction for the major construction items. This price included a conservative cost for engineering studies and contract administration. Note: these costs are mere estimates and not to be used as quotation. A 25% contingency has also been applied.

A total cost for the entire 450m of road re-construction is estimated just under \$1,250,000.00.

Required Engineering Studies				
Item	Unit	Quantity	Price	Cost
Full Detailed Design and Drawings & Contract Admin	LS	1	\$150,000.00	\$ 150,000.00
Geotechnical investigation and Slope stability Design	LS	1	\$50,000.00	\$ 50,000.00
Environmental Impact Study	LS	1	\$15,000.00	\$ 15,000.00
Traffic impact Study	LS	1	\$15,000.00	\$ 15,000.00
Floodplain Analysis	LS	1	\$10,000.00	\$ 10,000.00
*Note: All prices above are conservatism estimates			Sub-Total:	\$ 240,000.00

Construction Items Station 0+000 to 0+450				
Mobilization/ Demobilization	LS	1	\$20,000.00	\$ 20,000.00
Erosion & Sediment Control Measures (Reservoir Protection)	LS	1	\$100,000.00	\$ 100,000.00
Road Excavating/Grading	LS	1	\$20,000.00	\$ 20,000.00
Imported Fill (Select sub-grade)	LS	1	\$50,000.00	\$ 50,000.00
Earth Ditching	m	460	\$25.00	\$ 11,500.00
Clearing and Grubbing	m ²	1800	\$26.00	\$ 46,800.00
Tree Removal	LS	1	\$20,000.00	\$ 20,000.00
Road Structure - Granular B	t	951	\$30.00	\$ 28,516.20
Road Structure - Granular A	t	475	\$35.00	\$ 16,634.87
Hot Mix Asphalt (HL3 40mm)	MT	298	\$49.00	\$ 14,614.25
Hot Mix Asphalt (HL8 50mm)	MT	373	\$53.00	\$ 19,760.52
Culvert removal & Replacement	m	64	\$12.00	\$ 768.00
Culvert Replacement (Roadway)	m	48	\$467.00	\$ 22,416.00
CSP Culvert Replacement (Driveway)	m	16	\$180.00	\$ 2,880.00
Traffic Signage Replacement	LS	1	\$600.00	\$ 600.00
Utility Relocation (per pole)	each	10	\$15,000.00	\$ 150,000.00
Light Standards at Intersection	each	2	\$14,325.00	\$ 28,650.00
Fire Hydrant Relocation	each	1	\$20,000.00	\$ 20,000.00
Mailbox Relocation	each	7	\$150.00	\$ 1,050.00
Guiderail installation (West side only)	m	340	\$120.00	\$ 40,800.00
Slope Stability/Bank erosion measures	LS	1	\$50,000.00	\$ 50,000.00
*Note: All prices are estimates only based on 2016 construction pricing			Sub-Total:	\$ 664,989.84

Sum Sub-Total:	\$ 904,989.84
+13% HST:	\$ 117,648.68
25% Contingency:	\$ 226,247.46
Total Cost:	\$ 1,248,885.98

The analysis was conducted to understand the impacts and costs associated with upgrading Mill Street to a local standard to support the development. Additionally, should permission to extend into the road cross section into the Garden Hill Reservoir not accepted, this would result in land acquisition costs along the frontage of existing lots. This cost has not been assessed in the above analysis.

As discussed above, Mill Street would require extensive upgrades. This would not only bear a large financial burden on the developer but potential impact floodplain and environmentally sensitive lands along the banks of the Garden Hill Conservation Reservoir.

3) An overview of any safety or operational constraints along Mill Street that cannot be resolved with reasonable upgrades within the existing right-of-way and would thus likely remain with increased traffic.

The major safety constraint for Mill Street is flooding in the event of the Regional storm. A floodplain analysis would be required to review expansion measures in the proposed conditions to facilitate slope stability works.

Tranplan Associates completed preliminary field work to review sightlines on Mill Street. Based on their investigation, there is likely only one location for site access to Mill Street that will provide adequate sight distance. This location is at the present field entrance to the site.

Sightlines are also a concern for traffic leaving Mill Street. Particularly left turning traffic heading west on County Road 9. The Mill Street/CR 9 intersection will require upgrades on at least the north approach and potentially the south approach as well. Any reconstruction of this intersection will likely have some impact on adjacent residential and commercial development located in three of the four quadrants of the intersection.

4) Quantification of the estimated existing daily traffic volumes along both Mill Street and Porter Crescent and an estimate of the increased daily volumes on these roads if access is provided via Mill Street rather than County Road 9.

Based on Tranplan Associates September, 2021 traffic counts it is estimated that the north approach to Mill Street carries about 50 cars per day (2-way). Based on this daily volume and current TAC guidelines, Mill Street is defined as a low volume road. Assuming some additional infill development along Mill Street and the addition of potential future site traffic, preliminary future traffic forecasts (2032) indicate that daily traffic will grow to about 400 to 425 vehicles

per day (2-way). It is estimated that about 350 of these vehicles will be from the new subdivision. This will certainly change the present character of Mill Street.

Detailed traffic volumes under existing and proposed conditions are covered for Porter Crescent and Woodland Avenue under Tranplan's *Traffic Study Report*.

5) An outline of general "good planning" policies that would make certain access alternatives preferable.

As discussed herein, Mill Street is located entirely within the floodplain adjacent to the subject lands. Vehicular access from the proposed development onto Mill Street would be required to pass through the floodplain. As per Section 3.2 of the Provincial Policy Statement, development shall not be permitted within areas that would be rendered inaccessible to people and vehicles during times of flooding hazards. Although there is a second access from Porter Crescent that would be located outside of the floodplain, any access through the floodplain should be avoided when there are alternative options to avoid same.

A Place to Grow: Growth Plan for the Greater Golden Horseshoe also provides direction for the avoidance of hazards in Section 2.2.1.2 e), where it is stated that development will generally be directed away from hazardous lands.

Furthermore, the improvements that would be required for Mill Street could potentially create issues related to floodplain displacement. This could result in potential risks to human safety during flood events if the floodplain is altered due to the large amount of fill and materials required to upgrade Mill Street.

An entrance from Ganaraska Road is safe and can be accommodated from sight line and traffic generation perspective. Based on the foregoing, an entrance from Ganaraska Road is a safe alternative entrance that is consistent with planning policy and the tenets of good planning.

6) The proposed access point on County Road 9 be shifted east to provide approximately 200m separation from Mill Street and 110m from John Street without encroaching into the setback areas for the watercourse/tributary that passes through the Site and that the setback area be satisfactory to both GRCA and MPH.

The proposed access has been shifted east to meet the 200m separation from Mill Street as illustrated on the attached Draft Plan drawing (07). The wetland and watercourse setbacks are respected with the new access location. Floodplain limits are discussed in the comment below.

7) Grading and other upgrades necessary to remove the new intersection from the floodplain of the watercourse/tributary that passes through the site be included in future detailed design in a fashion that is satisfactory to GRCA, MPH and the County.

The existing 900mm culvert crossing west of the new access was determined to generate excess backwater effect in the event of the Regional storm flooding a large portion of the development area. A detailed floodplain analysis was completed by Monument in the *Servicing and Stormwater Management Report* prepared under a separate cover.

Monument is proposing that the culvert crossing be replaced to reduce the impact of ponding on the development lands and support the new access location. The floodplain analysis also recognized that a minor storage area would be intersected by the new access in the proposed conditions.

As per GRCA's Policies for the *Implementation of Ontario Regulation 168/06*, section 1.5.10 states that Minor Fill and Site grading may be permitted within the Regulatory floodplain if it has been demonstrated to the satisfaction of the Conservation Authority that the control of flooding, erosion, pollution, or the conservation of land will not be affected. Monument is proposing that an ecofriendly wetland compensation area be constructed adjacent to the flood limit that will provide additional storage to the east and provide an overall enhance net-ecological benefit to the wetland areas onsite.

Further details are provided under Monument's *Servicing and Stormwater Management Report*.

8) Provide continuous illumination (conforming to RP-8) along the County Road frontage of the development to improve conspicuity of the new intersection and existing intersections/entrances.

Continuous illumination along County Road 9 will be reviewed at the time of detailed design and incorporated in the lighting design for the development.

9) No entrance or gateway features be located within the County Road 9 right-of-way and that the setback of any such features from the right-of-way be innkeeping with the County's entrance and setback policies.

The proposed development does not propose any temporary entrance or gateway feature to County Road 9. All proposed features (i.e. storm ponds, swales) have also been kept outside of

the 18.25m road-widening as agreed at time of pre-consultation and incorporated into the draft plan.

10) That the Traffic Impact Study (TIS) prepared for the development address intersection operations and sightlines at any proposed intersection along County Road 9 in a comprehensive manner and that the developer undertake any necessary upgrades resultant from the TIS.

Intersection operations and sightlines are reviewed in the *Traffic Study Report* prepared by Transplan Associates under a separate cover.

11) Integration of hamlet traffic calming measures for Garden Hill into the design of proposed works on County Road 9 and contribution to overall traffic calming measures for the community will be considered as conditions of approval for an entrance to County Road 9.

Integration of calming measures for the proposed entrance can be reviewed further with the Municipality and County Staff at the time of detailed design.

In Summary

We trust this Revised Access Review letter provides sufficient explanation to satisfy Northumberland County's comments and any other concerns from Municipal staff to support the proposed access locations.

Sincerely,

Cody Oram, P.Eng
Project Manager
Monument Geomatics & Estimating Inc.

Attached:

01 – Northumberland County Response Letter (Received – February 11, 2022)

RE: 3852 Ganaraska Road (County Road 9) Site Access Options

02 - Drawing: Options for Site Access

03 – Excerpt: Ganaraska Regional Conservation Authority Fill and Flood Plain Mapping of the Ganaraska River (Page 94 of 117)

04 – Excerpt: Ganaraska Regional Conservation Authority Fill and Flood Plain Mapping of the Ganaraska River (Page 82 of 117)

05 – Reference Plan 39R-14329

06 – Drawing: Mill Street Existing Alignment (MILL#1 & MILL#2)

07 – Drawing: Garden Hill Estates Draft Plan



Monument Geomatics & Estimating Inc.
93 Bellevue Drive, Belleville, ON K8N 4Z5
via email [cody.oram@monumentge.com]

Attention: Mr. Cody Oram, P.Eng. – Senior Project Manager

Re: 3852 Ganaraska Road (County Road 9) Site Access Options

In advance of a formal submission for draft plan approval Monument Geomatics and Estimating Inc. (MGE) made a preliminary submission dated January 25, 2022 (and submitted January 27, 2022), related to site access options for the proposed residential development at 3852 Ganaraska Road (County Road 9) within the Rural Settlement Area of Garden Hill in the Municipality of Port Hope (the Site). It is understood that the Site will be developed as a residential subdivision similar in nature to the existing development located to the east of the Site along Woodland Avenue.

Northumberland County has reviewed the above noted submission and consulted with other approval agencies including the Ganaraska Region Conservation Authority (GRCA) and the Municipality of Port Hope (MPH). We note that this submission reviews four possible access points and suggests a preferred approach that includes the provision of three (3) access points as follows:

1. Westerly extension of Frost Avenue to provide access to relatively small area at the southeast corner of the Site that is isolated from the larger site by the tributary/watercourse the flows through the southern portion of the site.

The County is supportive of the Frost Avenue connection point as it provides connectivity for the southeastern portion of the site that is similar to that of the existing development without the need for additional private entrances or municipal road connections along the Site's eastern frontage to County Road 9, which the County would not support.

The County understands that further westerly extension of Frost Avenue to include a crossing of the tributary/watercourse to provide a secondary access to the balance of the is not favourable from GRCA or MPH's perspective.

2. Westerly extension of Porter Crescent from into the Site from existing residential development to the east.

The County is supportive of the Porter Crescent connection point as it provides for connectivity to existing municipal roads that intersect the County's network at County Roads 9 & 10 and is in keeping with Port Hope Official Plan Policy D2.2.3, which encourages "in-depth" development in Garden Hill utilizing the existing road network.

Based on the parcel layout for the existing development to the east it appears extension of Porter Crescent is consistent with the original plan for additional development in this area.

3. A new connection to the north side of Ganaraska Road (County Road 9) located at the southwest corner of the site, which is approximately 140 m east of Mill Street and 50 m east of John Street.

In keeping with prior discussions with County staff, the County's Entrance and Setback Policy discourages the establishment of additional entrances onto County arterial roads where an opportunity may exist to obtain access from a local or collector side road. With consideration for this policy the County is currently not in favour of this proposed access location and requires additional information and analysis to support a proposed local road entrance onto County Road 9.

In particular, the selection of the County Road 9 access point as preferred is based largely on the assertion that an alternative access via Mill Street is not possible given that:

- Mill Street (between the potential access point and County Road 9) is flood susceptible as it is situated within the regional floodplain; and
- This situation would thus require upgrades involving raising the grade of Mill Street by ± 2 m to remove it from the floodplain.

It is the County's understanding that the Ganaraska Region Conservation Authority (GRCA) has advised that it is only necessary to provide one (1) access point that is clear of the regional floodplain and that this can be achieved via connections to Porter Crescent and Frost Avenue.

Comments as provided by GRCA regarding this item are included in italics below:

- *GRCA does not object to a secondary access off Mill St or Ganaraska Road provided safe vehicular access is demonstrated (via Porter Cres and Frost Ave). However, should a secondary access be determined to be necessary, it is recommended that the access is through the area of least risk due to the hazard.*
- *Should Mill St be proposed to be the secondary access, it must be determined if upgrades would be required. If so, GRCA will have additional comments.*

- *A permit from GRCA will be required for an additional access within the floodplain. GRCA will require that the access meet all applicable GRCA policies for permit issuance.*

Based on the foregoing we request that the January 25, 2022 evaluation of site access options be expanded to include the following items in order to more comprehensively justify the preferred approach:

- Recognition of the GRCA's position regard access requirement related to the regional floodplain.
- An overview of the impacts and costs associated with completing geometric and structural improvements along Mill Street to upgrade it to a local standard acceptable to the Municipality of Port Hope (MPH) without raising the road out of the regional floodplain.
- An overview of any safety or operational constraints along Mill Street that cannot be resolved with reasonable upgrades within the existing right-of-way and would thus likely remain with increased traffic.
- Quantification of the estimated existing daily traffic volumes along both Mill Street and Porter Crescent and an estimate of the increased daily volumes on these roads if access is provided via Mill Street rather than County Road 9.
- An outline of general "good planning" policies that would make certain access alternatives preferable.

The updated evaluation of site access options should account for the following items that would be minimum requirements for the design and construction of any proposed access to County Road 9:

- The proposed access point on County Road 9 be shifted east to provide approximately 200m separation from Mill Street and 110m from John Street without encroaching into the setback areas for the watercourse/tributary that passes through the Site and that the setback area be satisfactory to both GRCA and MPH.
- Grading and other upgrades necessary to remove the new intersection from the floodplain of the watercourse/tributary that passes through the site be included in future detailed design in a fashion that is satisfactory to GRCA, MPH and the County.
- Provide continuous illumination (conforming to RP-8) along the County Road frontage of the development to improve conspicuity of the new intersection and existing intersections/entrances.

- No entrance or gateway features be located within the County Road 9 right-of-way and that the setback of any such features from the right-of-way be in keeping with the County's entrance and setback policies.
- That the Traffic Impact Study (TIS) prepared for the development address intersection operations and sightlines at any proposed intersection along County Road 9 in a comprehensive manner and that the developer undertake any necessary upgrades resultant from the TIS.
- Integration of hamlet traffic calming measures for Garden Hill into the design of proposed works on County Road 9 and contribution to overall traffic calming measures for the community will be considered as conditions of approval for an entrance to County Road 9.

The County looks forward to receiving and reviewing the additional information requested above to better facilitate the access review. If you have any questions or require clarification, please contact the undersigned.

Sincerely,

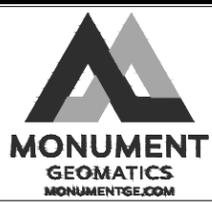


Dan Campbell
Manager of Infrastructure

cc Mike Van den Broek – Engineering Manager – Municipality of Port Hope
Theodora Merapeza – Planning Manager – Municipality of Port Hope
Ken Thajer – Planning & Regulations Coordinator – Ganaraska Region Conservation Authority
Denise Marshall – Associate Director, Engineering – Northumberland County



MILL STREET
EXISTING ALIGNMENT
STA 0+000 TO 0+320



CONSULTANTS PROJECT No.: 21-0135
DRAWN: P.Q.
CHECKED: C.O.
ENGINEER: C.O.
DATE: 2022/04/14
HORIZ: 1:1000
VERT: N/A
MILL-01

LEGEND	
	EX. LEGAL R.O.W. & EASEMENT
	EX. CULVERT
	EX. ROAD SIGN(S)
	EX. SHOULDER
	EX. TOP OF SLOPE
	EX. TOE OF SLOPE
	EX. DITCH or SWALE
	EX. FENCE
	EX. OVERHEAD LINES
	100-YR FLOOD LIMIT
	REGIONAL FLOOD LIMIT
	EX. CENTERLINE CHAINAGE/ ELEVATIONS

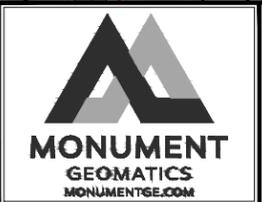
NO.	DATE (D/M/Y)	REVISION

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DISCLAIMER/NOTICE TO THE RECIPIENT: THE INFORMATION GIVEN AND/OR DIGITAL FILES PROVIDED IS AN "AS-IS" BASIS WHEREBY THE RECIPIENT SHALL USE AT THEIR OWN RISK. MONUMENT GEOMATICS & ESTIMATING INC. MAKES NO GUARANTEES, REPRESENTATION, OR WARRANTIES REGARDING ANY INFORMATION, EITHER EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE COMPLETENESS, ACCURACY, OR USE FOR ANY PARTICULAR PURPOSE. USE OF ANY INFORMATION AND/OR DIGITAL FILES PROVIDED INDICATES THAT THE RECIPIENT AGREES TO THE AFORESAID TERMS. UNLESS OTHERWISE AGREED TO IN WRITING BY BOTH PARTIES, THE AFORESAID TERMS SHALL GOVERN ANY AND ALL FUTURE TRANSFERS OF ADDITIONAL DIGITAL INFORMATION. GENERAL NOTES: ALL INFORMATION TO BE VERIFIED ON SITE PRIOR TO COMMENCING ANY WORK. UTILITY LOCATIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE. ALL DIMENSIONS SHOWN ARE IN METERS OR MILLIMETERS, UNLESS OTHERWISE NOTED.



MILL STREET
 EXISTING ALIGNMENT
 STA 0+320 TO 0+660



CONSULTANTS PROJECT No.: 21-0161
 DRAWN: P.Q.
 CHECKED:
 ENGINEER:
 DATE: 2022/04/14
 HORIZ: 1:1000
 VERT: N/A
 MILL-02

LEGEND

---	EX. LEGAL R.O.W. & EASEMENT	---	EX. CENTERLINE CHAINAGE/ELEVATIONS
---	EX. CULVERT	---	173.00 0+100
---	EX. ROAD SIGN(S)	---	
---	EX. SHOULDER	---	
---	EX. TOP OF SLOPE	---	
---	EX. TOE OF SLOPE	---	
---	EX. DITCH or SWALE	---	
---	EX. FENCE	---	
---	EX. OVERHEAD LINES	---	

NO.	DATE (D/M/Y)	REVISION

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SCHEDULE		
PART	LOT	PIN
1	PART OF LOT 16	CONCESSION 8
2		ALL OF 51052-0479

PLAN 39R-14329
 Received and deposited
 August 16th, 2021
Jane Potter
 Representative for the
 Land Titles Division of
 Northumberland
 (No.39)

PLAN OF SURVEY OF
PART OF LOT 16,
CONCESSION 8
 GEOGRAPHIC TOWNSHIP OF HOPE
 MUNICIPALITY OF PORT HOPE
 COUNTY OF NORTHUMBERLAND

SCALE 1:750 METRES

THE INTENDED PLOT SIZE OF THIS PLAN IS 889MM IN WIDTH BY 1473MM IN HEIGHT WHEN PLOTTED AT A SCALE OF 1:750

- LEGEND**
- DENOTES SURVEY MONUMENT FOUND
 - DENOTES SURVEY MONUMENT SET
 - SSB DENOTES SHORT STANDARD IRON BAR
 - SB DENOTES STANDARD IRON BAR
 - IB DENOTES IRON BAR
 - WT DENOTES WITNESS
 - M DENOTES MEASURED
 - OU DENOTES ORIGIN UNKNOWN
 - BM DENOTES BOUND & MUCKLESTONE O.L.S.
 - 721 DENOTES JOHN L. SYLVESTER O.L.S.
 - 869 DENOTES BARD & MUCKLESTONE O.L.S.
 - 1140 DENOTES JOHN F. LASHLEY O.L.S.
 - 1271 DENOTES FREL & BOHME O.L.S.
 - 1283 DENOTES SYLVESTER & BROWN O.L.S.
 - 1560 DENOTES LAWRENCE M. NESBIT O.L.S.
 - P1 DENOTES REGISTERED PLAN 364-722
 - P2 DENOTES REGISTERED PLAN 364-760
 - P3 DENOTES PLAN 39R-9074
 - P4 DENOTES PLAN OF SURVEY BY K.F. LASHLEY DATED DECEMBER 15, 1967 (67-211)
 - P5 DENOTES PLAN 39R-6884
 - P6 DENOTES PLAN OF SURVEY BY J.L. SYLVESTER DATED MARCH 19, 1971 (71-222)
 - P7 DENOTES PLAN 9R-7941
 - P8 DENOTES REGISTERED PLAN 136
 - P9 DENOTES PLAN OF SURVEY BY IVAN B. WALLACE O.L.S. DATED NOVEMBER 25, 1998 (98-3282)
 - P10 DENOTES PLAN 9R-2758
 - P11 DENOTES PLAN 39R-4609
 - A— DENOTES ANCHOR POINT
 - U— DENOTES UTILITY POLE
 - P— DENOTES UTILITY LIGHT STANDARD POLE
 - O— DENOTES OVERHEAD UTILITY WIRES
- ALL BEARINGS AND DISTANCES AGREE WITH CITED PLANS UNLESS OTHERWISE NOTED.



BEARING NOTES
 BEARINGS ARE IN GRID, DERIVED FROM OBSERVED REFERENCE POINTS A AND B, BY REAL TIME NETWORK OBSERVATIONS, UTM ZONE 17 (81° WEST LONGITUDE), NAD83(CSRS)2010.
 FOR BEARING CONVERSIONS, THE FOLLOWING ROTATIONS WERE APPLIED:
 P1,P2 = 1°48'30" COUNTER-CLOCKWISE
 P3,P4,P9 = 1°59'00" COUNTER-CLOCKWISE

DISTANCE NOTES - METRIC
 DISTANCES ARE IN METERS AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048.
 DISTANCES AND GROUNDS CAN BE CONVERTED TO GRID BY MULTIPLYING BY THE COMBINED SCALE FACTOR OF 1.00008.

SURVEYOR'S CERTIFICATE
 I CERTIFY THAT
 1. THIS SURVEY AND PLAN ARE CORRECT AND IN ACCORDANCE WITH THE SURVEY ACT, THE SURVEYORS ACT, THE LAND TITLES ACT AND THE REGULATIONS MADE UNDER THEM.
 2. THE SURVEY WAS COMPLETED ON JULY 15, 2021.
 DATE: AUGUST 11, 2021
 SIGNATURE: *Jan Well*
 NAME: IVAN B. WALLACE, O.L.S.

THIS PLAN OF SURVEY RELATES TO AGLS PLAN SUBMISSION FORM NUMBER 3-15068

INTEGRATION DATA
 OBSERVED REFERENCE POINTS BOUND BY OBSERVATIONS USING A REAL TIME NETWORK AND ARE REFERRED TO UTM ZONE 17 (81° WEST LONGITUDE) MEAN COORDINATES
 UTM EASTING
 UTM NORTHING
 UTM SCALE FACTOR
 UTM FALSE EASTING
 UTM FALSE NORTHING

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