

**Hillstreet Developments Ltd.**  
**5868 County Road 65, Osaca**  
PART OF LOT 27, CONCESSION 5, MUNICIPALITY OF PORT HOPE  
COUNTY OF NORTHUMBERLAND  
Osaca, Ontario

# PLANNING JUSTIFICATION REPORT ADDENDUM

**Zoning By-law Amendment  
Draft Plan of Subdivision**



File No. 122049

February 2025

**1.0-A INTRODUCTION**

D.G. Biddle and Associates Limited has been retained by Hillstreet Developments Ltd. to provide professional consulting services in support of applications to amend the zoning by-law and to draft-approve a plan of subdivision to allow for the development of a 38-lot residential subdivision in the Hamlet of Osaca. The property is legally described as Part of Lot 27, Concession 5, Municipality of Port Hope, County of Northumberland.

This is an addendum to the Planning Justification Report prepared by D.G. Biddle and Associates dated April 2023. The Addendum Report speaks to changes to the development proposal, draft amending zoning by-law, the new Provincial Planning Statement policy, and the Planning Act.

Only updated and amended Sections of the Planning Justification Report are include in this Addendum and are appended with an ‘A’.

Document	Requested Amendment
Municipality of Port Hope Zoning By-law 20/2010	A) Amend Zoning By-law Schedule “B” to change zone category from Development (D) Zone to Environmental Protection (EP) Zone, Open Space (OS) Zone, and Hamlet Residential One Exception (RESV1(XX)) Zone.

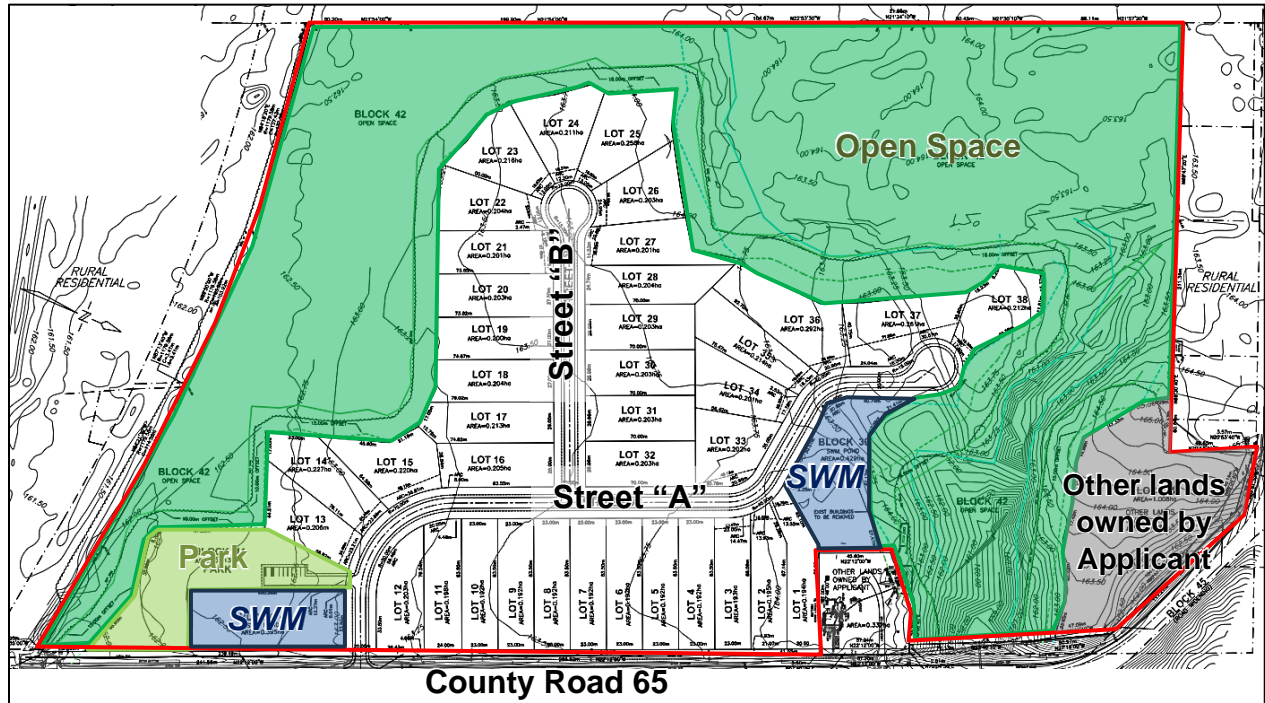
**4.0-A PROPOSED DEVELOPMENT**

The proposed development originally consisted of 58 detached residential dwelling lots on four new proposed local streets. The current proposal includes 38 detached residential dwelling lots on two new proposed public streets, one park block, and two stormwater management facility blocks. Changes between the original submission proposal and the current proposal are described further herein.

The initial submission was made in January 2023. Several updates to the draft plan were made as a result of the municipal, county and peer review comments. Our 4<sup>th</sup> submission includes the following changes to the original proposed plan of subdivision:

- Decrease in the number of proposed residential detached dwelling lots from 58 to 38. The unit count was reduced based on the recommendations of the Hydrogeological Report to allow for accommodation of private services. Additional unit reduction was as a result of elimination of 4 residential detached dwelling lots on the north side of the Open Space Block. These lands are now excluded from the subdivision lands.
- Decrease in the number of proposed new public streets from 4 to 2.

- Increase in the natural heritage buffers as per the Environmental Impact Study recommendation to include a 30m setback to the wetland and a 10 to 15m setback to the woodlot.
- Addition of 2 stormwater management (SWM) blocks as per recommendation of the Civil Engineering Consultant in collaboration with the Conservation Authority staff.
- Addition of a park block located at the south portion of the site at the recommendation of Municipality of Port Hope staff.



**Figure 1-A: Proposed Plan of Subdivision**

Despite the draft plan modifications, the main objective of the development of the lands for detached residential dwellings on private water and sanitary services have remained consistent throughout all submissions. The draft zoning by-law amendment has also remained consistent and has only been updated to reflect the requested lot areas and frontages. The proposed changes have not resulted in any policy discrepancies and will not affect the original planning analysis of the proposal.

The current proposed Plan of Subdivision will consist of 38 detached dwelling lots fronting onto two new streets. The proposed lots range from 16.54m to 71.85m in frontages and 1,920m<sup>2</sup> to 2,920m<sup>2</sup> in lot areas. Lands within the wetland complex are intended to be conveyed to the Municipality as open space and include a 30m buffer to the identified wetland and a 10 to 15m buffer to the woodlot. Two stormwater management blocks are proposed to the north and south portions of the subdivision plan. A park block is proposed on the south side of the plan and is intended to be

conveyed to the Municipality of Port Hope. The existing farm dwelling has been approved to be severed from the rest of the property as per decision of the Port Hope’s Committee of Adjustment on July 18, 2024. Lands on the north side of the open space block will be retained by the property owner.

The zoning by-law amendment is intended to allow for reduction in minimum lot frontages and areas. The Zoning By-law Amendment and the proposed Plan of Subdivision will not apply to the existing residential dwelling (Severed lands) and lands immediately adjacent to the north. The northern portion of the site is to be retained by the landowner.

**Table 1-A: Density**

Use	Dwelling Units	Total Persons	Area (ha)	Density	
				Units/Hectare	Persons/Hectare
Hamlet Residential	38	100.6	7.9	4.81	12.73
<b>Net Density</b>	<b>38</b>	<b>100.6</b>	<b>7.9</b>	<b>4.81</b>	<b>12.73</b>
<b>Gross Density (Total Development Area)</b>	<b>38</b>	<b>100.6</b>	<b>11.037</b>	<b>3.44</b>	<b>9.12</b>

**Table 2-A: Parkland Dedication**

Use	Net Units	Gross Developable Area (ha)	Parkland Dedication Rate	Required Parkland Dedication (ha)
Hamlet Residential	38	11.037	5%	0.552
			1ha/300 units	0.127
<b>Total Parkland Required</b>				<b>0.552</b>
<b>Total Proposed Parkland Dedication (Area)</b>				<b>0.603</b>
<b>Total Proposed Cash-in-lieu of Parkland Area</b>				<b>-</b>

No cash-in-lieu of parkland dedication is required for the registration of the Plan of Subdivision based on the area of the proposed park.

**5.0-A PLANNING CONTEXT**

**5.1-A PLANNING ACT, R.S.O. 1990, CHAPTER P.13**

The proposed zoning by-law amendment and plan of subdivision have regard for matters of provincial interest under Section 2 of the Planning Act. It is the author’s opinion that the proposed plan of subdivision adequately addresses the approval criteria of Section 51(24) of the Planning Act; though

it is the responsibility of Council to have regard for said criteria when issuing a decision.

#### **5.4-A MUNICIPALITY OF PORT HOPE ZONING BY-LAW NO. 20/2010**

The Municipality of Port Hope Zoning By-law No. 20/2010 identifies the subject land as Development (D) Zone.

The D Zone identifies lands that are designated for development in the Municipality by the Official Plan but have yet to be granted full development permissions. A Zoning By-law Amendment is required to change the zone category to Hamlet Residential One Special Exception (RESV1(XX)), Open Space (OS) and Environmental Protection (EP) Zones.

The RESV1 Zone permits residential dwellings on lots with a minimum frontage of 30m and a minimum area of 2,800m<sup>2</sup>. Thirty-five of the of the proposed thirty-eight lots will have street frontages of less than 30m. The lot areas for the entire property will range between 1,920m<sup>2</sup> and 2,920m<sup>2</sup>. A change to the zoning by-law performance standards is required to allow for the reduced lot frontage and lot area permissions.

The Draft Zoning By-law for the proposed subdivision is attached to this report as Appendix “B-A”

## **7.0-A PLANNING POLICY**

### **7.1-A PROVINCIAL PLANNING STATEMENT 2024**

On August 20<sup>th</sup>, 2024, the Ministry of Municipal Affairs and Housing issued a new Provincial Planning Statement. The Ministry-issued Provincial Planning Statement has come into effect on October 20<sup>th</sup>, 2024. After coming into effect, the 2024 Statement replaces both the Provincial Policy Statement (2020) and the Growth Plan for the Greater Golden Horseshoe (2019).

*The Provincial Planning Statement 2024 “provides policy direction on matters of provincial interest related to land use planning and development. As a key part of Ontario’s policy-led planning system, the Provincial Planning Statement sets the policy foundation for regulating the development and use of land province-wide, helping achieve the provincial goal of meeting the needs of a fast-growing province while enhancing the quality of life for all Ontarians.”*

The vision for the Provincial Planning Statement is grounded in the following selected principles that provide the basis for guiding decisions on how land is developed, and resources, infrastructure, public health and safety are

managed and protected. The goals of the Provincial Planning Statement will be achieved through the following directions:

- Plan for and support development of complete communities that are designed to provide a range of housing options, transportation and other uses to meet the long-term needs of future residents.
- Increase the housing supply across the province by facilitating all types of residential intensification specifically within the strategic growth areas and major transit station areas.
- Plan development where infrastructure and transportation are available and supportive to promote a strong and competitive economy that is investment ready.
- Promote the long-term viability of rural areas through the focus of growth, development, vitality and regeneration.
- Protect agricultural lands, the environmentally sensitive areas, public health and safety.

The proposed development meets and/or addressed relevant policies of the Provincial Planning Statement as described herein:

- The proposed infill rural residential development promotes efficient land use patterns by locating within the Osaca Hamlet Boundary immediately adjacent to municipal infrastructure.
- The proposed residential development is sensitive to adjacent land uses with regard to use, density and rural character of the area.
- The proposed residential development relied on private sanitary and water services.

The Provincial Policy Statement policies that specifically relate to and support the subject proposal are described in Appendix “A-A”.

## **11.0-A CONCLUSIONS AND PLANNING JUSTIFICATION**

The proposed development satisfies the relevant policies of the Provincial Planning Statement (2024), the County of Northumberland Official Plan (2016) and the Municipality of Port Hope Official Plan (2017).

This report has reviewed the proposed use of the subject site against the relevant Provincial, Regional and Municipal planning policy and concluded that a zoning by-law amendment to allow for the proposed residential use and density and for the development of a 38-dwelling unit residential subdivision is appropriate for the site and neighbourhood from a land use planning perspective.

It is the opinion of the author that the proposed Zoning By-law Amendment and Draft Plan of Subdivision, as outlined in this Planning Justification

Report, are consistent with the Provincial Policy initiatives and current Regional and Municipal planning policy and represents good planning.

Respectfully submitted,

**D.G. BIDDLE & ASSOCIATES LIMITED  
ENGINEERS AND PLANNERS**

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Appendix “A”- A – Policy Review		
Policy Review		
Provincial Planning Statement 2024		
Policy No.	Policy Text	Analysis
Section 2.2. – Housing, Policy 1	<p>Planning authorities shall provide for an appropriate range and mix of housing options and densities to meet projected needs of current and future residents of the regional market area by:</p> <p>b) permitting and facilitating:</p> <ol style="list-style-type: none"> <li>1. all <i>housing options</i> required to meet the social, health, economic and wellbeing requirements of current and future residents, including <i>additional needs housing</i> and needs arising from demographic changes and employment opportunities; and</li> <li>2. all types of residential <i>intensification</i>, including the <i>development</i> and <i>redevelopment</i> of underutilized commercial and institutional sites (e.g., shopping malls and plazas) for residential use, development and introduction of new <i>housing options</i> within previously developed areas, and <i>redevelopment</i>, which results in a net increase in residential units in accordance with policy 2.3.1.3;</li> </ol> <p>c) promoting densities for new housing which efficiently use land, resources, <i>infrastructure</i> and <i>public service facilities</i>, and support the use of <i>active transportation</i>; and</p> <p>d) requiring <i>transit-supportive</i> development and prioritizing <i>intensification</i>, including potential air rights development, in proximity to transit, including corridors and stations.</p>	<p>The proposed development promotes an appropriate range and mix of housing options by:</p> <ul style="list-style-type: none"> <li>• Implementing efficient land use patterns through greenfield development within the Hamlet Boundary; and</li> <li>• Implementing cost-effective development patterns by locating in close proximity to existing public infrastructure (including roads and electricity facilities), thus reducing the need to extend infrastructure.</li> </ul>
Section 2.5 Rural Areas in Municipalities, Policy 1	<p>Healthy, integrated and viable <i>rural areas</i> should be supported by:</p> <ol style="list-style-type: none"> <li>a) building upon rural character, and leveraging rural amenities and assets;</li> <li>c) accommodating an appropriate range and mix of housing in rural <i>settlement areas</i>;</li> <li>d) using rural <i>infrastructure</i> and <i>public service facilities</i> efficiently;</li> </ol>	<p>The proposed development promotes health, integrated and viable rural areas by:</p> <ul style="list-style-type: none"> <li>• Providing residential development that is sensitive to adjacent land uses with regard to use, density and rural character of the area; and</li> <li>• Implementing infill residential development that provide a mix of residential uses to the area; and</li> <li>• Implementing cost-effective development patterns by relying on existing public infrastructure (including roads and electricity facilities), thus reducing the need for the new infrastructure.</li> </ul>
Section 2.5 Rural Areas in Municipalities, Policy 2	<p>In <i>rural areas</i>, rural <i>settlement areas</i> shall be the focus of growth and development and their vitality and regeneration shall be promoted.</p>	<p>The proposed development promotes residential growth and densities to meet the projected requirements of current and future residents by:</p> <ul style="list-style-type: none"> <li>• Increasing density through a more compact built form; and</li> <li>• Implementing cost-effective development patterns by relying on the incremental extension of existing public infrastructure (including roads and electricity facilities), thus reducing the need for the new infrastructure.</li> </ul>
Section 2.5 Rural Areas in Municipalities, Policy 3	<p>When directing development in rural <i>settlement areas</i> in accordance with policy 2.3, planning authorities shall give consideration to locally appropriate rural characteristics, the scale of development and the provision of appropriate service levels</p>	<p>The proposed development will be consistent with the existing single detached dwellings in the hamlet boundary. The proposed lot areas are sufficient to accommodate required private servicing.</p>



<p>Section 3.6 Sewage, Water and Stormwater, Policy 4</p>	<p>Where <i>municipal sewage services</i> and <i>municipal water services</i> or <i>private communal sewage services</i> and <i>private communal water services</i> are not available, planned or feasible, individual onsite sewage services and individual on-site water services may be used provided that site conditions are suitable for the long-term provision of such services with no negative impacts.</p>	<p>The proposed development will utilize private individual water and sewage services. No negative impacts of such services have been described by the Hydrogeological Report attached to the submission.</p>
<p>Section 4.1 – Natural Heritage, Policy 8</p>	<p>Development and <i>site alteration</i> shall not be permitted on <i>adjacent lands</i> to the <i>natural heritage features and areas</i> identified in policies 4.1.4, 4.1.5, and 4.1.6 unless the <i>ecological function</i> of the adjacent lands has been evaluated and it has been demonstrated that there will be no <i>negative impacts</i> on the natural features or on their <i>ecological functions</i>.</p>	<p>The proposed development established a natural heritage buffer between the proposed development and natural features. An EIS Report has been prepared which outlined that there are no negative impacts are expected based on the provided recommendations.</p>

**Appendix “B”-A – Draft Zoning By-law Amendment****THE CORPORATION OF THE MUNICIPALITY OF PORT HOPE****BY-LAW NO. XX/2025**

*Being a By-law Under the Provisions of Section 34 of the Planning Act, R.S.O., 1990, c.P.13, as Amended, to Amend Zoning By-law 20/2010, as Amended, of the Corporation of the Municipality of Port Hope, for lands described as Part of Lot 27, Concession 5, Formerly in the Township of Hope, Now in the Municipality of Port Hope, County of Northumberland, municipally known as 5868 County Road 65 in the Municipality of Port Hope, in the County of Northumberland.*

WHEREAS Zoning By-law No. 20/2010, as amended, was passed under authority of Section 34 of the Planning Act, R.S.O. 1990, c.P.13, as amended;

AND WHEREAS this By-law conforms with the general intent of the Municipality of Port Hope Official Plan, as amended;

AND WHEREAS on July 5, 2023 the Council of The Corporation of the Municipality of Port Hope conducted a public meeting, in regard to the proposed zoning, as required by Section 34(12) of the Planning Act. R.S.O. 1990, c.P.13, as amended;

AND WHEREAS the Council of The Corporation of the Municipality of Port Hope deems it advisable to amend Zoning By-law No. 20/2010, as otherwise amended, with respect to the above-described lands, and under the provisions of the Planning Act has the authority to do so;

NOW THEREFORE the Council of The Corporation of the Municipality of Port Hope ENACTS as follows:

1. THAT Schedule “B” (Zone Map) forming part of Zoning By-law 20/2010, as otherwise amended, is hereby amended by changing the zone classification on the subject lands identified on Schedule “A” to this By-law hereto **from** the current Development ‘D’ Zone **to** Environmental Protection ‘EP’ Zone, Open Space ‘OS’ Zone, , and Hamlet Residential One Exception ‘RESV1(XX)’ Zone, all in accordance with Schedule “A” attached hereto and forming part of this By- law;
2. That Part 12, entitled “EXCEPTIONS” of Zoning By-law No. 20/2010, as otherwise amended, is hereby amended by adding the following to Part 2 – Exceptions:

Col. 1	Col. 2	Col. 3	Column 4	Column 5	Column 6
Zone	Exception Number	Additional Permitted Uses	Only Permitted Uses	Uses Prohibited	Special Provisions
RESV1	XX ZZ/2025				(i) Minimum Lot Area: 0.19ha (ii) Minimum Lot Frontage 16.5m

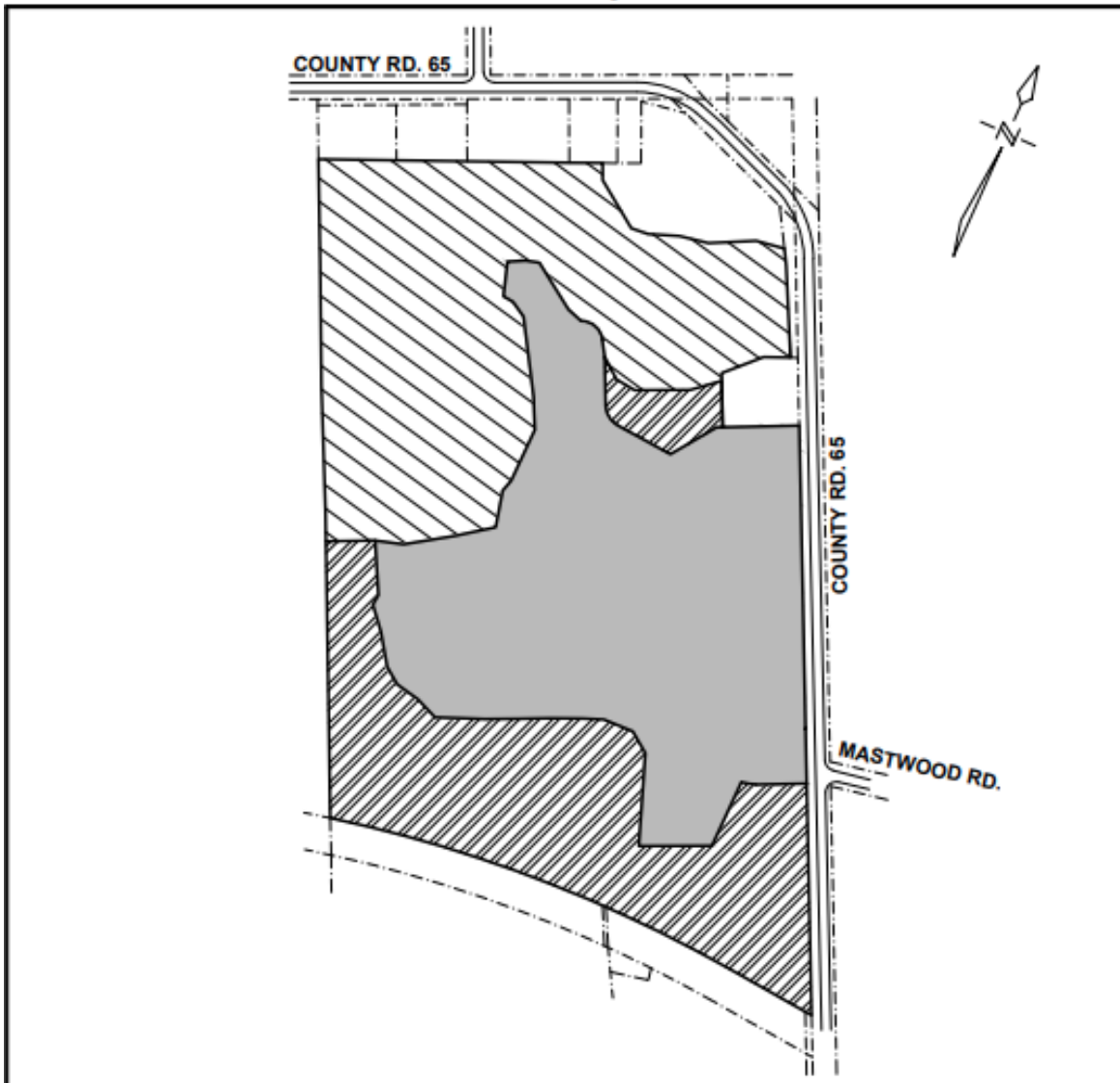
3. THAT Zoning By-law No. 20/2010, as otherwise amended, is hereby amended to give effect to the foregoing, but Zoning By-law No. 20/2010, as otherwise amended, shall in all respects remain in force and effect save as same may be otherwise amended or hereinafter dealt with.
  
4. THAT this By-law shall come into force on the date it is passed by the Council of The Corporation of the Municipality of Port Hope, subject to the applicable provisions of the Planning Act, R.S.O. 1990, c.P.13, as amended.




READ A FIRST, SECOND AND THIRD TIME and finally passed in Open Council this \_\_\_\_\_ the day of \_\_\_\_\_, 2025.

\_\_\_\_\_  
Olena Hankivsky, Mayor

\_\_\_\_\_  
Brian Gilmer, Clerk

**Schedule “A”- A to By-law XX/2025**



-  LANDS TO BE REZONED FROM THE DEVELOPMENT (D) ZONE TO THE ENVIRONMENTAL PROTECTION – (EP) ZONE
-  LANDS TO BE REZONED FROM THE DEVELOPMENT (D) ZONE TO THE OPEN SPACE – (OS) ZONE
-  LANDS TO BE REZONED FROM THE DEVELOPMENT (D) ZONE TO THE HAMLET RESIDENTIAL ONE – (RESV1(XX)) ZONE

**ZONING BY-LAW AMENDMENT SCHEDULE - OSACA SUBDIVISION**

PART OF LOT 27, CONCESSION 5 FORMERLY IN THE TOWNSHIP OF HOPE NOW IN THE  
**MUNICIPALITY OF PORT HOPE** COUNTY OF NORTHUMBERLAND



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 DRAWN B.B.  
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 CHECKED M.F.  
 DATE FEB 12/25

PROJECT **122049**

DWG **FIG 1**

**Appendix “C”-A – Section 51 (24) of the Planning Act – Analysis**

The following table assesses the draft subdivision in accordance with Sections 51 (24) of the *Planning Act*.

Criteria Stated in Section 51 (24)		Does the Proposal Satisfy the Criterion?	Comments
(a)	The effect of development of the proposed subdivision on matters of provincial interest as referred to in section 2;	Yes	The proposed subdivision addresses all relevant matters of provincial interest as referred to in Section 2.
(b)	Whether the proposed subdivision is premature or in the public interest;	Yes	The proposed subdivision is not premature and is in the public interest.
(c)	Whether the plan conforms to the official plan and adjacent plans of subdivision, if any;	Yes	The proposed subdivision conforms to the land use permissions and policies of the Official Plan.
(d)	The suitability of the lands for the purposes for which it is to be subdivided;	Yes	The lands are suitable for the residential subdivision.
(d1)	If any affordable housing units are being proposed, the suitability of the proposed units for affordable housing;	N/A	No affordable housing units are proposed within this development.
(e)	The number, width, location and proposed grades and elevations of highways, and the adequacy of them, and the highways linking the highways in the proposed subdivision with the established highway system in the vicinity and adequacy of them;	Yes	Highway widths, elevations and grades are provided on the plan DP-1.

Criteria Stated in Section 51 (24)		Does the Proposal Satisfy the Criterion?	Comments
(f)	The dimensions and shapes of the proposed lots;	Yes	The majority of lots proposed are of a rectangular shape with pie shaped lots at the east cul de sac. The dimensions are shown on plan DP-1.
(g)	The restrictions or proposed restrictions, if any, on the land proposed to be subdivided or the buildings and structures proposed to be erected on it and the restrictions, if any, on adjoining land;	Yes	The proposed development is constricted by woodlands and wetlands. Drawing DP-1 outlines the required setbacks of both.
(h)	Conservation of natural resources and flood control;	Yes	An Environmental Impact Study and Tree Inventory and Preservation Plan have been prepared and submitted with the subject applications which demonstrate compliance with the regulatory requirements.
(i)	The adequacy of utilities and municipal services;	Yes	The proposed dwellings will be on individual septic and well for water and sanitary. Existing public utilities include electricity infrastructure. Existing private utilities include communication (telephone and cable) facilities.
(j)	The adequacy of school sites;	N/A	The Plan of Subdivision will rely on the bussing of students to the nearest available primary and secondary schools.
(k)	The area of land, if any, within the proposed subdivision that, exclusive of highways, is to be conveyed or dedicated for public purposes;	Yes	Block 41 &42 as shown on DP-1 is proposed to be dedicated to the Municipality of Port Hope as open space.

Criteria Stated in Section 51 (24)	Does the Proposal Satisfy the Criterion?	Comments
(l) The extent to which the plan’s design optimizes the available supply, means of supplying, efficient use and conservation of energy; and	Yes	<p>Street trees will be planted within municipal boulevards, the existing trees as shown on TIPP plan will be preserved. The planting of the trees will maintain a shade canopy to reduce the heat island effects.</p> <p>Water efficient plumbing fixtures are considered for this development to help conserve water wastage. This includes low flow faucets and shower heads. Programable thermostats are also being considered for this development allowing homeowner to run their furnace and air conditioning more efficiently, by lowering energy use during the night and other times.</p>
(m) The interrelationship between the design of the proposed plan of subdivision and site plan control matters relating to any development on the land, if the land is located within a site plan control area designated under subsection 41 (2) of this Act or subsection 114 (2) of the <i>City of Toronto Act, 2006</i> .	N/A	

## Appendix “D”-A – Supporting Documents Review

### Stormwater Management and Functional Servicing Report

*D.G. Biddle and Associates Limited*

January 28, 2025

The (SWM) report identifies the method in which the proposed development can be serviced in accordance with the Municipality of Port Hope, the Northumberland County and Ganaraska Conservation Authority requirements. The investigation into these requirements have resulted in the following conclusion for the future Plan of Subdivision:

- Sanitary servicing for each dwelling will be provided through individual septic systems on each lot. Detailed sizing of the individual septic systems will occur during the building permit process.
- On-site firefighting water supply will be provided through the implementation of a dry hydrant system and on-site underground water supply tank.
- Domestic water supply for each dwelling will be supplied by individual water wells located on each lot.

The following quantity control measures are proposed:

- A combination of formal end of pipe stormwater treatment facility for runoff quantity controls and infiltration galleries are proposed on-site.
- LID measures are not to be used in the site’s water quantity control strategy.

The following stormwater quality controls are proposed:

- The development implements the use of open ditches and end of pipe stormwater treatment facilities.
- Water quality controls will be implemented to the tributary areas for the north and south development. Treatment train approach has been proposed to provide stormwater quality controls.
- Two dry stormwater management ponds are proposed on site. The pond has been designed with a flat bottom and to have a stormceptor which will allow for the settlement of sediment and promote the infiltration of water. The ponds have been oversized to store 20 years of sediment to reduce the frequency of cleaning.
- There will also be 4 infiltration galleries on site to promote groundwater recharge and which will also mitigate nitrate runoff.

The following temporary sediment control measures during construction are recommended:

- Perimeter enviro fence, construction vehicle access route, rip rap check dams and good engineering practices.



## Hydrogeological Study Report

*D.M. Wills Associates Limited*

December 19, 2024

The Hydrogeological report review the condition of soil and groundwater for the proposed development. The investigation was conducted through field work including 12 test pits, 5 monitor wells, 8 infiltrometers, soil samples, pumping tests, and groundwater level measurements. The investigation through these tools were able to conclude the following:

- Majority of shallow subsurface soils included a thin layer of silty sand topsoil underlain by sand with slight variations in gravel, silt, and clay content. A north-south trending band of silt and clay rich soils was observed on the western side of the property.
- Static groundwater levels were generally consistent across the Subject Property and ranged from:
  - 2.34 mbg to 2.71 mbg on September 27, 2022
  - 2.34 mbg to 2.66 mbg on October 5, 2022
  - 2.83 mbg to 2.99 mbg on December 5, 2023
- Infiltration rates and percolation times may vary across the Subject Property, as topography, moisture content, soil gradation and relative compactness will affect in-situ infiltration rates.
- Groundwater seepage was encountered in all test pits at an approximate depth of 2.9 mbg to 3 mbg. Three of the test pits were found to be dry prior to backfilling.
- The original investigation concludes that a groundwater nitrate concentration of 10.0 mg/L will be achieved at the property boundary, which meets the ODWS and satisfies the requirements of D-5-4. Additional nitrate investigation did not detect Nitrate in any of the three O. Reg. 903 Water Supply Wells installed in 2024 on the Subject Property.
- The proposed 38 domestic wells located either in the same aquifer as the O. Reg. 903 wells, or in the same coarse gravel formation intercepted by well installed in 2024, would meet the need of the proposed development without secondary storage systems.
- The level of interactions between pumping activities on the Subject Property is significant. Where possible, shallower water bearing formations with acceptable water quality should be the preferred option to install future drinking water wells on the Subject Property.

The report provides the following recommendations prior to the development construction:

- Install, record, analyze and report static groundwater levels for 7 monitor wells on a bi-annual basis during the spring and summer to determine the levels of Nitrite, Nitrate, Organic Nitrogen, Total Coliform and E. Coli.
- Record, analyze and report groundwater samples in the 7 newly installed monitor wells and the 3 existing Water Supply Wells twice a year during spring and

summer, for a period of three years to determine the levels of Nitrite, Nitrate, Organic Nitrogen, Total Coliform and E. Coli.

## **Environmental Impact Study Report**

*D.M. Wills Associates Limited*

July 18, 2024

The Environmental Impact Study identifies the method in which the proposed development provides the least amount of disturbance to the natural heritage features and local habitat in accordance with Provincial Legislation, Municipality of Port Hope, the Northumberland County and Ganaraska Conservation Authority requirements. The investigations into these requirements have resulted in the following conclusion for the future Plan of Subdivision:

- Woodlands, a watercourse and wetlands were identified adjacent to the proposed development as well as various Confirmed and Candidate Significant Wildlife Habitat and Species at Risk, including Butternut and Black Ash trees.
- Policies protecting these features in the Northumberland County Official Plan (OP), the Municipality of Port Hope OP and the Province of Ontario have been addressed through the implementation of protection buffers which encompass these features.
- The woodlands on the Subject Property have been deemed significant based on the Woodlands Evaluation. To prevent impacts to the natural heritage features on the Subject Property from the proposed development a 10 m or 15 m buffer has been recommended for the woodlands.
- A wetland evaluation has not been completed for the unevaluated wetlands on site. Therefore, they should be treated as a Provincially Significant Wetland. No development is recommended within 30m of the delineated wetland boundaries.
- A chain-link fence is recommended to be installed along the buffer around the entire property.

Given the results of background review and on-site investigations, long-term adverse impacts to natural heritage features, associated habitat, and local wildlife populations are not anticipated to be resultant from the proposed development, provided that the environmental protection/mitigation measures outlined herein are implemented.

## **Geotechnical Investigation Report**

*Cambium*

April 5, 2024

The Geotechnical Investigation included field work on 11 boreholes across the site as well as drilling and sampling of ground and groundwater on site. The investigation concluded that:

- Topsoil was encountered from the surface of all borehole locations. The topsoil thickness varies from 125 to 250 mm.

- The topsoil at the site is underlain by a native deposit of sand. The thickness of the sand deposit, where fully penetrated ranges from 2.1 to 4.8 m.
- A native deposit of clayey silt was encountered underlying the sand deposit five (5) borehole locations.
- A deposit varying from sandy silt to sand and silt to silty sand was encountered underlying the clayey silt deposit in three (3) borehole locations.
- The static groundwater level varies from about  $2.9\pm 0.1$  mbgs during the seasonal low in winter, to about  $2.2\pm 0.2$  mbgs during the seasonal high in the spring.

The report provides recommendations include but not limited to the following:

- Temporary excavations must be carried out in accordance with the latest edition of the Occupation Health and Safety Act. Excavation of side slopes should be protected from exposure to precipitation and associated ground surface runoff and should be inspected regularly for signs of instability.
- The excavation should not advance deeper than the prevailing groundwater table without advanced dewatering.
- Prior to construction of foundations, all bearing soils beneath the building footprints are proofrolled and compacted using a minimum 10 tonne smooth drum roller under vibratory conditions and inspected by geotechnical personnel. If the foundation is made to bear directly on the native, undistributed sand should conform to Ontario Provincial Standards Specification Granular B Type II, should be sized using a net reaction at SLS of 75kPa and factored geotechnical resistance at ULS of 150 kPa.
- At least 1.3m earth cover and backfill of non-frost susceptible granular material for foundation walls are recommended for frost protection.
- All fill material places for proposed grade raises must be composed of engineered fill placed directly on undisturbed native sand.
- Exterior grader around the proposed dwelling is recommended to be sloped away at least 1.2m to prevent basement seepage.

## **Phase Two Environmental Site Assessment**

*Cambium*

October 21, 2022

The property has been a subject to a Phase One ESA that identified potentially contaminating activities including a former orchards, adjacent towing operation and automotive repair with several spill report. The Phase two ESA investigated the potential contamination and determined the following:

- The concentration of all contaminants of potential concern (COPCs) met the applicable generic full-depth potable site condition standards for the planned property use.
- Soil pH was within the acceptable range for surface and sub-surface soil.
- Soil at the Site meets the Table 2 Site Condition Standards, no further investigation required.

**Stage 1 & 2 Archeological Assessment**  
*Earthworks Archaeological Services Inc.*  
April 18, 2023

The Archeological study has been completed to determine any archeological potential of the area. The site was investigated through historical documentation, pedestrian survey and test pit survey. The Study has determined:

- The study area contains evidence of archaeological potential. A Stage 2 archaeological assessment was determined to be required in order to identify and document any archaeological material that may be present.
- The Stage 2 archaeological survey resulted in the recovery of an isolated lithic formal tool. Location of the artefact does not meet the criteria for further cultural heritage value or interest, and as a result no additional archaeological assessments are required.

Based on the results of the Stage 1 background investigation and the subsequent Stage 2 survey, the surveyed area is considered to be free of archaeological material of further cultural heritage value or interest. The Ministry of Citizenship and Multiculturalism reviewed this report and provided a letter indicating their satisfaction that the fieldwork and reporting for this archaeological assessment.