

Pre-Consultation Meeting Form

Niagara Region &
City of Port Colborne

Persons intending to make an application for a proposed development are required to consult with planning staff prior to submitting an application. A pre-consultation meeting will identify what is required to be submitted for a complete application and will provide the opportunity to discuss:

- The nature of the application;
- Development and planning issues;
- Fees;
- The need for information and/or reports to be submitted with the application;
- The *Planning Act* approval process;
- Other matters, as determined.

Pre-Consultation Meeting Date: Thursday, April 23, 2020, 10:00am to 11:30am, via Skype for Business

Site Location: See Schedule 'A' attached.
Lands east of existing Pit 3-
boundary to be confirmed
based on technical studies

**Approximate Land Area
(metric):** 108.35
hectares
(255.2 acres)

**Site Legal
Description:** Part Lot 17, 18 and 19, Con 2,
(formerly Township of
Humberstone) City of Port
Colborne, Ontario

Owner Contact Information:

Name of Owner: Port Colborne Quarries Inc.

Contact: Shawn Tylee and John MacLellan

Phone Number:

Email: stylee@rankinconstruction.ca
jmaclellan@rankinconstruction.ca

Agent Contact Information:

Name of Agent: IBI Group

Contact: David Sisco, MCIP, RPP (Senior Planner)

Phone Number: 519-585-2255

Email: david.sisco@ibigroup.com

Regional/Local/Agency See Appendix 'E'
Contact Information:

Application Types:

☒ Regional Official Plan
Amendment

☒ Local Official Plan
Amendment

☒ Zoning By-law
Amendment

1. Brief description of proposed development:

Regional Official Plan Amendment, City of Port Colborne Official Plan and Zoning By-law Amendments to permit the proposed below water aggregate quarry operation

2. Existing Regional Official Plan Designations:

Good General Agriculture and Environmental Conservation Area

Conformity with Regional Official Plan land use designations and policies?

☐ Yes ☒ No

If 'No', what is the nature of the amendment needed?

To add site specific policies to Section 13 to permit the proposed quarry operation

3. Check All Applicable: ☐ Brownfield ☐ Greenfield ☐ Built-up ☐ NEP ☐ Greenbelt

4. Existing Local Official Plan Designation:

Agricultural, Environmental Conservation Area and Environmental Protection Area

Conformity with Official Plan land use designations and policies?

☐ Yes ☒ No

If 'No', what is the nature of the amendment needed?

To change the designation to Mineral Aggregate Operation and add a Special Policy Area to permit the proposed quarry operation

5. Existing Zoning:

Agricultural (A)

Conformity with existing zoning?

☐ Yes ☒ No

If 'No', what is the proposed zoning?

Mineral Aggregate Operation

6. **Is Site Plan approval required?** ☒ Yes ☐ No

7. Fees Required at time of Submission of the Applications:

Application	City of Port Colborne	Niagara Region	Niagara Peninsula Conservation Authority	Other Fees
Regional Official Plan Amendment		\$113,885	\$7,425	
Local Official Plan Amendment	\$7,803 (combined fee)	\$9,715	\$7,425	
Zoning By-law Amendment		\$1,300	\$7,425	
Plan of subdivision				
Plan of Condominium				
Consent				
Site Plan Control or Amendment		\$1,300 (when required)	\$800 (when required)	
Other	\$62,424 Base Fee	\$1870 Stormwater Management review fee (site over 5ha) \$1,200- Hydrogeology review fee- \$1,200 (per study) \$2,245- EIS review fee (2+ features) Peer Reviews and Aggregate Advisor	\$ – 1755 Storm Water Management Review \$ – 1755 Hydrogeological Review \$ – 2205 EIS review	
TOTAL	\$70,227	\$130,215 + Aggregate Advisor and Peer Reviews (excludes SPA fee)	\$27,990 (excludes SPA fee)	

Notes:

- Notwithstanding the fees noted above, all fees are payable based upon the rate in the fee schedule by-law in effect on the date the application is received.
- Further fees may be required at a later date as per the fee schedule by-law.
- Separate cheques shall be made payable to the appropriate agency.

- The owner/applicant shall bear the cost of peer reviews and an aggregate advisor as per the Regional Municipality of Niagara Fee By-Law in accordance with the Cost Acknowledgement Agreement
- As provided for under Section 69 of the *Planning Act* an applicant may pay the fees under protest.

8. Additional Agencies to be contacted:

☒ Hydro ☒ Pipelines ☐ NEC ☒ Other MNRF and MMAH

9. Required Information and Studies to be submitted with the Application(s):

See Schedule 'B' attached

10. Additional Comments:

In addition to the comments provided below, please see other preliminary staff comments attached as Schedule 'C'.

- All studies listed in Section 9 (Schedule 'B') of this form may be peer reviewed. The Terms of Reference for a peer review is determined by the Joint Agency Review Team (JART) and paid for by the applicant. An Aggregate Advisor will be required. As per the Regional Municipality Fee By-Law the applicant/owner shall bear any and all costs associated with the peer reviews and the aggregate advisor. The applicant/owner shall be required to sign a cost acknowledgment agreement, which must be signed and submitted as part of the application.
- Some of the above mentioned studies/required information may be combined. If the required information/study as listed above is not found in a standalone report, the applicant will be required to indicate in a covering letter to the application where the information/study can be found within the application package. In addition, if a report contains information/studies on multiple topics from the table above, the qualified person writing each section shall be clearly identified within the report and this portion of the report shall be signed and dated by the qualified professional.
- A Joint Agency Review Team will be formed. The purpose of the JART is to share information and expertise among review agencies; review, analyze and comment on the completeness of the submissions; engage the public more efficiently; and, improve decision-making and efficiency associated with aggregate applications. A JART does not make recommendations on whether or not applications should be approved.
- Certain reports, such as the Natural Environment Study, Traffic Study and Land Use Studies, shall not be more than five years old when submitted, and will not be accepted unless previously agreed to by the JART. All studies shall be in accordance with current applicable regulations, policies and standards.
- To date, Terms of References for the following studies have been submitted to the Region, City and NPCA for review:
 - Surface Water Work Program
 - Hydrogeological Work Program
 - Natural Environment Work Program
 - Blast Impact Assessment
 - Agricultural Impact Assessment

- Archeological Work Program
- Planning Justification Report Table of Contents
- Noise and Air Quality Assessments
- Transportation Impact Study
- Cultural Heritage Screening Report
- Social Impact Assessment (via email)
- Comments on the above Terms of Reference documents are included as Schedule 'D'. The JART may request additional scoping or Terms of Reference for other studies, as necessary. Generally, Terms of Reference comments are provided by the individual or agency responsible for reviewing the study. However, it is noted that the Aggregate Advisor and peer reviewers have not been retained to date. Future scoping or Terms of Reference comments may be provided by the Aggregate Advisor or a peer reviewer when they are retained.

11. Site Visits:

- Two initial site visits (one from the roadways surrounding the subject lands and the other on the wooded portion of the subject lands) have been conducted. Additional site visits, as required, may be requested. Reasonable requests for site visits will be accommodated. The owner consents to these site visits by signing this Pre-Consultation Meeting Checklist.

12. Items Requiring Follow-up:

- Realignment of municipal drain (David Schulz)
- Meeting with MTO regarding entrance onto Highway 3 (David Sisco)

13. Additional Notes:

1. The purpose of this document is to identify the information required to commence processing and evaluating an application as set out in the *Planning Act*. This pre-consultation process is designed to proceed based on the mutual agreement of the parties as shown by the signatures below.
2. Pre-consultation does not imply or suggest any decision whatsoever on behalf of staff or the municipality to either support or refuse the application.
3. The applicant should be aware that the information provided is accurate as of the date of the pre-consultation meeting. Should an application not be submitted in the near future, and should other policies, by-laws or procedures be approved by the Province, Municipality, Region or other agencies prior to the submission of a formal application, the applicant will be subject to any new policies, by-laws or procedures that are in effect at the time of the submission of a formal application. If an application is not submitted within 1 year, it is advisable that the applicant confirm with the municipality the directives of the original pre-consultation meeting.
4. Any application submitted without the information identified in this Pre-consultation Document will be deemed incomplete and not processed. Alternately, staff may recommend refusal of the application based upon insufficient information to properly evaluate the application.

5. The applicant acknowledges that the Municipality and Region considers the application forms and all supporting materials including studies and drawings, filed with any application to be public information and to form part of the public record. With the filing of an application, the applicant consents and hereby confirms that the consent of the authors of all supporting reports have been obtained, to permit the Municipality and Region to release the application and any supporting materials either for its own use in processing the application, or at the request of a third party, without further notification to, or permission from, the applicant.
6. It is hereby understood that during the review of the application additional studies or information may be required as a result of issues arising during the processing of the application or the review of the submitted studies.
7. If the Municipality or Region does not have sufficient expertise to review and determine that a study is acceptable, the municipality may require a peer review. The Terms of Reference for a peer review is determined by the Municipality or Region and paid for the applicant.
8. Some studies may require NPCA review and clearance/approval. In this instance the NPCA review fee shall be paid by the applicant.
9. All plans and statistics must be submitted in metric. All plans must be folded.
10. This Pre-consultation Meeting Form and the contents included herein will expire one year from the date of signing. If formal applications are not submitted within that date, a new pre-consultation meeting may be required.

Signatures:

City of Port Colborne
Planning Staff

Port Colborne Staff (signature)

Niagara Region
Development Services Staff

Signature

Niagara Region
Policy Planning Staff

Signature

Niagara Region
JART Chair

Signature

NPCA Staff

Signature

Agent

Signature

Agent

Signature

Owner

Signature

Owner

Signature

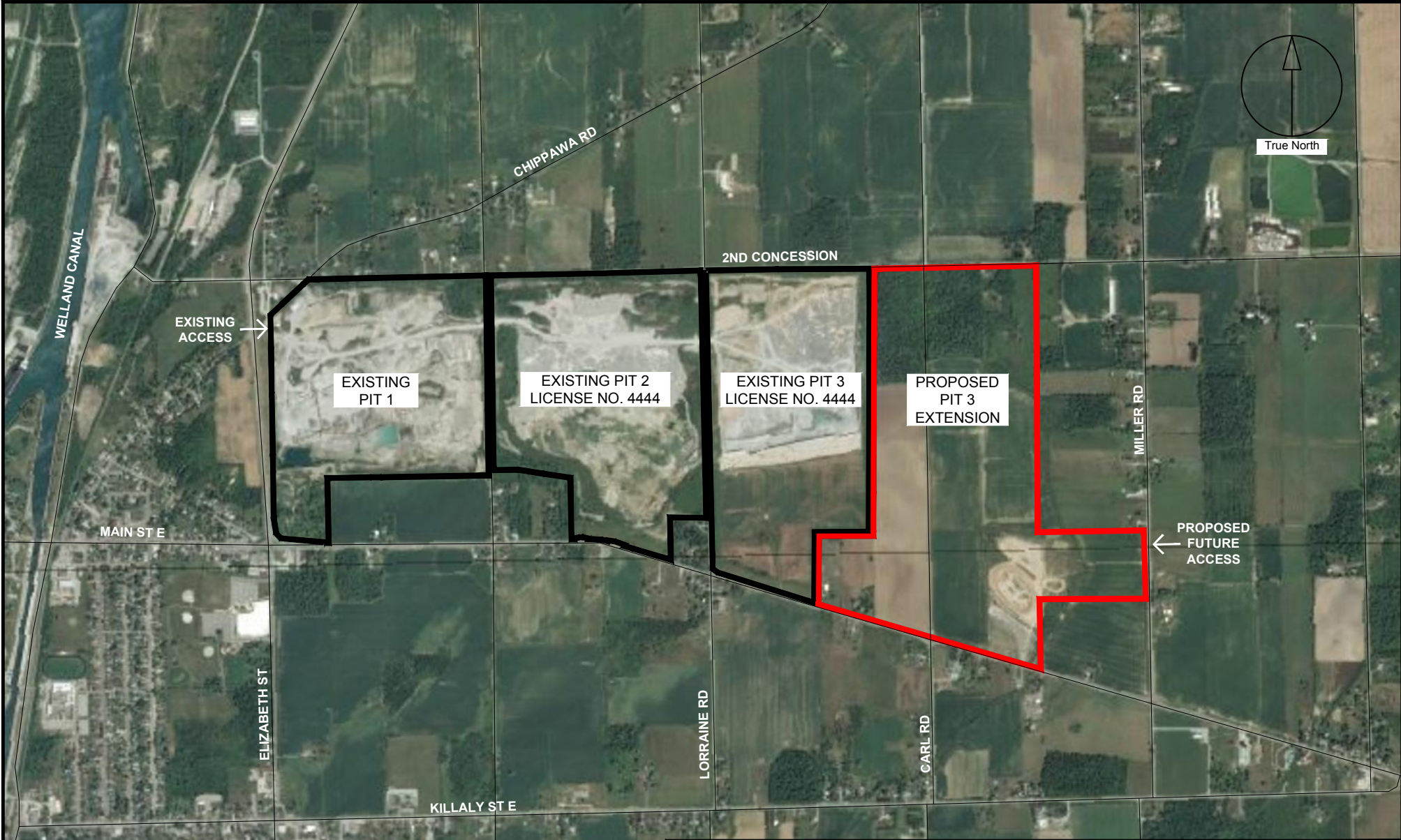
Signature


Signature

Signature

Signature

Schedule 'A' Site Location



CLIENT PORT COLBORNE QUARRIES INC. 222 MARTINDALE ROAD PO BOX 1116 ST. CATHARINES ON L2R 7A3		PROJECT NAME PIT 3 EXTENSION		 IBI GROUP Suite 101 - 410 Albert Street Waterloo ON N2L 3V3 Canada tel 519 585 2255 ibigroup.com	
PROJECT NO: 115774		SCALE: 1:20,000	DATE: 2020-02-04	FIGURE NAME LOCATION MAP	FIGURE NO. 1
		PROJECT MGR: DS	DRAWN BY: JM		
		CHECKED BY: DS	APPROVED BY: DS		
				REVISION 1	

Schedule 'B' – Required Information and Studies

Region	City	NPCA	Submission Requirement (See Notes for Additional Details)	Notes	Peer Review	Number of Physical Copies	Digital Copy
✓	✓	✓	Completed Application Forms			1 original + 5 copies	✓
✓			Draft Regional Official Plan Amendment			5	✓
✓	✓		Draft Local Official Plan Amendment			5	✓
✓	✓		Draft Zoning By-Law Amendment			5	✓
✓	✓	✓	Survey Plan/Sketch			10	✓
✓	✓	✓	Site Plans	As per Aggregate Resources Act (ARA) standards (including Existing Features, Proposed Operations, Cross-Sections), show phasing.		10	✓
✓	✓	✓	Landscaping Plans	Including fencing and screening (coordinate with Grading Plan). Must be prepared by a Professional Landscape Architect who is certified and licensed in Ontario.		10	✓
✓	✓	✓	Rehabilitation Plan / End Use Plan / Long-Term Monitoring	Including progressive rehabilitation and final rehabilitation. Must address comprehensive rehabilitation as per PPS 2.5.3.2.		10	✓
✓	✓	✓	Planning Justification Report	Must be prepared by a Registered Professional Planner (RPP). Specifically address 14.D.5 of ROP. Please include surrounding land uses plan within 500 m of property (including buildings and structures).		8	✓
✓	✓	✓	Public Consultation Plan			8	✓
✓	✓		Agricultural Impact Assessment	Must be prepared by a qualified professional who has knowledge in:		6	✓

				<ul style="list-style-type: none"> • Agri-business, agricultural supply chain linkages, rural/agricultural economic development in Ontario, and within the GGH, the agri-food network, where relevant; • Rural and agricultural lands use planning • Canada Land Inventory (CLI) classifications of capability for agriculture assessment and, where relevant a practical understanding of soil science, including the ability to review technical information from non-agricultural disciplines and assess its relevance and utility in identifying potential agricultural impacts; and • Assessment and evaluation of the potential effectiveness of agricultural impact mitigation measures to reduce impacts. 			
✓	✓		Land Use Compatibility / Sensitive Land Use Study	<p>Must be prepared by a registered professional engineer, licensed in Ontario (Association of Professional Engineers of Ontario).</p> <p>Includes Land Use Compatibility / Sensitive Land Use Study, informed by applicable Provincial Guidelines (e.g., D-Series, NPC-300) and applicable Air Quality, Noise and Vibration Studies.</p>	✓	6	✓
✓	✓		Air Quality Assessment	Must be prepared by a registered professional engineer, licensed in Ontario (Association of Professional Engineers of Ontario).	✓	6	✓
✓	✓		Noise Study	Must be prepared by a registered professional engineer, licensed in Ontario (Association of Professional Engineers of Ontario).	✓	6	✓
✓	✓		Blasting Impact Assessment / Vibration Study		✓	6	✓
✓	✓		Visual Impact Study			6	✓
✓	✓	✓	Environmental Impact Study / Natural Heritage Evaluation	Must be prepared by a Senior Ecologist or professional with comparable experience.	✓	8	✓

				Will be combined with Natural Environment Level 1 and Level 2 Studies required as part of the ARA process.			
✓	✓	✓	Hydrological / Surface Water Resources Study / Stormwater Management Plan/Report	Includes an analysis of the ability of the site to support private services and a plan illustrating the location of services. Includes on-site sedimentation and erosion control plans; drainage and grading plans.	✓	8	✓
✓	✓	✓	Hydrogeological / Groundwater Study	Must be prepared by a licensed Professional Geoscientist. In addition, the Region may also accept Hydrogeological Studies prepared by a Professional Engineer or Hydrogeologist. Hydrogeological components of the study will include geotechnical considerations.	✓	8	✓
✓			Soil Management Plan/Environmental Site Assessment	To ensure location of excavated soil from the Humberstone Speedway property (and any other contaminated lands if applicable) is traced to ensure proper disposal or remediation if it is to be used as fill on site.		4	✓
✓	✓		Archaeological Assessment	Must be prepared by a Professional Archaeologist licensed in Ontario.		6	✓
✓	✓		Cultural Heritage Assessment	Must be prepared by a qualified individual, such as an architectural and/or landscape consultant with knowledge of accepted standards of historical research, identification, evaluation, and methods of conservation and mitigation. This person may be a RPP and/or may also be a member of the Canadian Association of Heritage Professionals (CAHP). Must identify all Built Resources and Cultural Heritage Resources (including Cultural Heritage Landscapes).	✓	6	✓
✓	✓		Transportation Impact Study / Transportation / Haul Route Study	Must be prepared by a registered professional engineer, licensed in		6	✓

				Ontario with experience in transportation planning and traffic engineering.			
✓	✓		Financial Impact Assessment / Economic Benefits	Must be prepared by an economist specializing in municipal finance or a Professional Land Economist (PLE).	✓	6	✓
	✓		Social Impact Assessment.	Per Policy 10.2.1. c) of City OP		3	✓
✓	✓	✓	Summary of Well Records	Including information related to the decommissioning of on-site wells		8	✓
✓	✓	✓	Required Fees				
✓			Cost Acknowledgement Agreement			1	✓

- Please note that some of the above mentioned studies/required information may be combined. If the required information/study as listed above is not found in a standalone report, the applicant will be required to indicate in a covering letter to the application where the information/study can be found within the application package. In addition, if a report contains information/studies on multiple topics from the table above, the qualified person writing each section shall be clearly identified within the report and this portion of the report shall be signed and dated by the qualified professional.
- Comments on detailed study requirements and Terms of References submitted to date can be found in Schedule 'C', 'D', 'F' and 'G'.
- In accordance with the Memorandum of Understanding and Regional Fee By-Law, the Joint Agency Review Team will retain third party consultants to peer review certain technical studies and to provide advice and recommendations on specific topics. Please note that the "Peer Review" column above is provided for information only at this time and represents a preliminary prediction of which studies will be peer reviewed.

Schedule 'C' - Other Preliminary Comments

Based on information received to date, the following preliminary comments are provided. These comments are not intended to be comprehensive and are provided to assist the applicant in preparing the application and technical reports.

Niagara Region

Planning

- The property is located within the Prime Agricultural Area under the 2020 Provincial Policy Statement (PPS) and the 2019 Growth Plan for the Greater Golden Horseshoe (Growth Plan).
- The property is designated Good General Agriculture in the Regional Official Plan (ROP). A full range of agricultural, agriculture-related and secondary/on-farm diversified uses are permitted within this designation. A quarry is not permitted, and an amendment to the Regional Official Plan is required for the proposed use.
- A Planning Justification Report (PJR), prepared by a Registered Professional Planner, is required to demonstrate how the proposal meets the goals, objectives and policies of the planning policy regime (Provincial/Region/Local), and to provide an indication of whether the proposal conforms to and is consistent with policy plans. The PJR should include an analysis of all applicable planning policy as well as conformity to the plans overall, and rationale for the application/whether it is supported by the policy regime. Draft Regional and Local Official Plan Amendments, as well as a Draft Zoning By-law Amendment should be included in the PJR or as stand alone documents. The Rehabilitation/End Use Plan and Public Consultation Plan should also be addressed in the PJR. Additional comments are provided in Schedule 'D'.
- An Agricultural Impact Assessment is required to identify and assess potential impacts of the proposed quarry on agricultural operations and the agricultural system. The AIA should evaluate the soil, microclimate and drainage conditions, existing pattern of agricultural or non-agricultural activities, and any potential impacts on surrounding agricultural activities. The AIA should demonstrate that there are no reasonable alternative sites for the proposed use located in urban areas, rural areas, or lower priority agricultural land. Additional technical guidance can be obtained from the Ministry of Agricultural, Food and Rural Affairs' Draft Guidance Document for Agricultural Impact Assessments (2018). Additional comments are provided in Schedule 'D'.
- The PPS requires that major facilities (including quarries) and sensitive land uses be planned to "ensure they are appropriately designed, buffered and/or separated from each other to prevent or mitigate adverse effects from odour, noise and other contaminants, minimize risk to public health and safety...". An Air Quality Assessment and Noise/Vibration Study must be submitted with the applications to evaluate the impact of the quarry on existing and zoned sensitive land uses to prevent or minimize future land use problems. The Noise Study should be prepared based on the Ministry of Environment, Conservation and

Park's (MECP) Noise Guidelines (NPC-300). The Air Quality Assessment should be prepared based on MECP's Ambient Air Quality Criteria and the D-series Guidelines. Because more than one technical study is required, it is recommended that the consultant(s) provide a "Sensitive Land Use Report", which summarizes the results of the studies and provides an analysis of the proposal against the D-series Guidelines. Additional comments are provided in Schedule 'D'.

- In accordance with Chapter 7 of the ROP, a Hydrogeological Study is required because the subject lands are located within a Highly Vulnerable Aquifer. The Hydrogeological Study should, among other things, determine whether the proposal will have a negative impact on the quantity and quality of ground water, the function of ground water recharge and discharge areas, aquifers and headwaters, and the municipal water supply to ensure the safety and quality of municipal drinking water will be protected or improved. Additional comments are provided in Schedule 'D'.
- Due to potential groundwater contamination from reuse of fill from the subject lands in the rehabilitation work for Pits 1-3, a Soil Management Plan (SMP) for the existing New Humberstone Speedway property is required. The SMP should identify areas of potential contamination, as well as remediation/relocation plans for excavated soil. An Environmental Site Assessment may be required to inform the SMP, and if so should be prepared by a Professional Engineer or Professional Geoscientists.
- The PPS and ROP require that archeological resources be conserved prior to site alteration or development. The lands contain several registered archaeological sites. All archaeological assessment completed for the subject lands as of the date of the application should be submitted, together with the acknowledgement letters from the Ministry of Heritage, Sport, Tourism and Culture Industries. Additional comments are provided in Schedule 'D'.
- The PPS and ROP require that significant building heritage resources and cultural heritage landscapes be conserved. A Heritage Impact Assessment should evaluate and assesses the impact of a proposed quarry on any cultural heritage value identified on or adjacent to the subject lands, including a background study of the attributes and significance of the cultural heritage resource(s); an evaluation of potential impacts from the proposed quarry; and, recommendations, which may include mitigation options grounded in and compliant with relevant heritage policies. The City of Port Colborne has no identified any building heritage resources on the subject lands; however, this should be confirmed by the qualified individual.
- The Financial Impact Assessment (FIA) is required in accordance with Policy 14.D.5 of the ROP. Guidance on the FIA is provided in Schedule 'F'.

Core Natural Heritage System

The subject property contains and is adjacent to portions of the Region's Core Natural Heritage System (CNHS). Specifically, the CNHS on and adjacent to the property consists of Upper Wignell Drain Locally Significant Wetland (LSW), Significant

Woodland and Important (Type 2) Fish Habitat. Consistent with Regional Official Plan (ROP) policies 7.B.1.11 and 7.B.1.15, an Environmental Impact Study (EIS) is required in support of site alteration and/or development proposed within 50 m of LSW/Significant Woodland and/or 15 m of Important (Type 2) Fish Habitat to demonstrate there will be no significant negative impact on the features or their ecological functions.

In addition, consistent with ROP policy 7.B.1.31, the EIS must include consideration of:

- a) Whether the following will be maintained or enhanced before, during or after mineral aggregate extraction.
 - i. Connectivity among Core Natural Areas and hydrologic features; and
 - ii. Significant hydrologic features and functions; and
- b) How significant natural heritage features and ecological functions that would be affected will be replaced, on or off site, with features and functions of equal or greater ecological value that are representative of the natural ecosystem in that particular setting or ecodistrict.

The EIS must also include consideration of appropriate Growth Plan policies regarding mineral aggregate resources. Consistent with ROP policy 7.B.2, a Terms of Reference (TOR) dated March 13, 2020 was prepared by Golder Associates Ltd. Regional Environmental Planning staff reviewed the TOR and provided comments, which are included in Schedule 'D'. Following a site visit on April 20th, staff prepared an EIS scoping checklist (Schedule 'G'). The TOR should be updated to reflect the comments provided on in Schedule 'D' and the attached EIS Scoping Checklist (Schedule 'G'). An updated TOR should be submitted for Municipal, Regional and NPCA review and approval.

Please note that City of Port Colborne and NPCA staff may have additional comments and should also be consulted regarding their requirements.

Stormwater Management

1. If the quarry operation will release non-contact stormwater runoff (storm water from the areas outside the quarry excavation) the Region will require that:
 - a) Water quality meet the MECP Normal standard prior to discharge from the site;
 - b) Peak flows should not exceed the pre-development flow levels for all storm events (2-year up to and including the 100-year storm);
 - c) Information how the site will manage external flows;
 - d) Best Management Practices (BMP) with respect to stormwater management plan such as control oil/grease discharge, emergency plan;
 - e) A stormwater management report indicating in details how the above noted requirements will be achieved;

- f) Prior to construction, the Niagara Region will require that detailed grading, storm servicing, stormwater management, and construction sediment control drawings be submitted to this office for review and approval.
- 2. The Region will require that the Ministries' licences along with the information of surface water management be circulated to the office for our records.

Note: The Region may require a third party's review on the submitted materials at the development proponent's expense.

Schedule 'D' - Terms of Reference Comments

To date, Terms of References for the following studies have been submitted to the Region, City and NPCA for review:

- Surface Water Work Program
- Hydrogeological Work Program
- Natural Environment Work Program
- Blast Impact Assessment
- Agricultural Impact Assessment
- Archeological Work Program
- Planning Justification Report Table of Contents
- Noise and Air Quality Assessments
- Transportation Impact Study
- Cultural Heritage Screening Report
- Social Impact Assessment (via email)

The following comments are provided to support the applicant in completing/finalizing the studies. In addition to these Terms of Reference, Regional staff provided guidance for the required Financial Impact Assessment by email on April 9, which is included as Schedule 'F' to this agreement.

Surface Water Work Program

From the Region:

The following should be considered in the 'Terms of Reference for Surface Water Work Program', prepared by Golder Associated Ltd. (dated March 18, 2020):

1. Indication of how the site will manage external stormwater runoff;
2. If stormwater is leaving the site, then how they are going to discharge from Pit 3 Expansion and achieve the quality requirement to a normal standard treatment;
3. Sediment and erosion control measures that are deemed necessary;
4. Best Management Practices with respect to stormwater management for mineral aggregate operations, such as the measures to control oil & grease discharge/spill, etc.

From the NPCA:

Background Review:

1. Include the NPCA's Wignell Drain Floodplain Mapping Report.
2. Include and analysis of meteorological data from NPCA climate stations.
3. Include reference to the NPCA's Water Quality Monitoring Program.

Field Work:

1. Please expand on the scope of the site reconnaissance component. This should include:

- a. A geomorphological assessment of any impacted watercourses including an associated photo log;
 - b. Extend at least 1500m downstream of the study area;
 - c. Include a provision for erosion monitoring for critical stretches.
2. Please indicate the proposed locations of the water level monitoring stations.
3. Please indicate the proposed locations and timing of the manual flow measurements.
4. Please add appropriate water quality monitoring stations.

Desktop Analysis:

1. Include a summary of water quality data.

Reporting:

1. Include recommendations for a post construction monitoring plan to assess the suitability of the proposed water management plan and propose appropriate mitigation measures should deficiencies in the water management plan be detected.

Hydrogeological Work Program

From the Region:

The proposed hydrogeological work program is generally reasonable in scope. However, the following recommendations are provided:

1. Deployment of datalogging pressure transducers into the monitoring wells set for 1-hour readings rather than the proposed monthly measurements. This level of data collection should greatly assist in evaluating future well interference from quarry dewatering much better than monthly measurements. Hourly measurements are the frequency completed by the province in their monitoring of background conditions.
2. An investigation be completed of the hydrological function of the provincially significant wetland (i.e. monitoring using drive-point piezometers and datalogging pressure transducers)
3. The water well survey include collection of baseline groundwater quality of general chemistry, nutrients and metals. This will best inform any future concerns of groundwater quality changes from new extraction activities.
4. A pumping test, or pumping tests, be completed to obtain hydraulic conductivity (or conductivities) for the overall site to best inform the estimated zone of dewatering influence as sometimes packer testing can underestimate hydraulic conductivities

From the NPCA:

The TOR for the Surface Water and Hydrogeological Study appear to be comprehensive and integrated, including a water balance (though details on the balance are vague). The water balance should take into consideration the connectivity between

the northern wetland feature and all of the associated channel network (not just the main drains).

Natural Environment Work Program

From the Region:

The following preliminary comments were provided by email on April 9, 2020, as there are spring field-work implications. Please update the ToR and final comments will be provided:

1. The TOR proposes amphibian habitat assessment and call count surveys (one round conducted in late April). Staff note that amphibian surveys should follow the Marsh Monitoring Program Participant's Handbook for Surveying Amphibians (Environment Canada, 2008). This protocol requires 3 rounds of surveys between the following dates at least 15 days apart (dates are provided as a guideline, as air and temperature and lack of wind are the most important variables):
 - April 15th – April 30th (when night-time air temp exceeds 5°C)
 - May 15th – May 30th (when night-time air temp exceeds 10°C)
 - June 15th – June 30th (when night-time air temp exceeds 17°C)
2. Botanical Inventories (three rounds, May, June/July and September) are proposed. Staff note that the Fall survey should be timed to ensure that the habitat for White Wood Aster can be assessed.
3. Additional details are requested for the fish habitat assessment proposed (i.e., the protocol that will be followed, etc.).
4. Snake surveys are not currently proposed. Staff request that rationale be provided in an updated TOR to address this omission.
5. If S1-S3 species are found on site or within adjacent lands, their locations and habitat extent must also be mapped and included within the impact assessment to ensure no negative impact to the species or its habitat.
6. If wetlands are identified on the subject property, a preliminary assessment following Ontario Wetland Evaluation System (OWES) protocols should be completed.
7. Significant woodland boundaries should be staked in the field with Regional Environmental Planning staff.
8. Please include all field survey data sheets (e.g., ELC Data Cards) as an appendix in the EIS.
9. Please note that there are some Niagara-specific background studies/documents that could be consulted during the background review including the Natural Areas Inventory, prepared by the Niagara Peninsula Conservation Authority.
10. Please include a Species at Risk (SAR) and Significant Wildlife Habitat (SWH) screening in the updated TOR submission. Attached is a SWH screening table which we prefer is used during TOR development. This will assist staff with scoping of field surveys. For example, the TOR notes that “general wildlife surveys” will be conducted in conjunction with other surveys. If the screenings indicate potential for SAR or SWH species, general surveys would not typically

be acceptable. Rather, specific surveys according to accepted protocols should be used (e.g., Survey Protocol for Ontario's SAR Snakes, etc.).

11. Following a site visit on April 20, 2020, an EIS Scoping checklist was completed and is included as Schedule 'G'. Staff request that Golder Associates Ltd. review the checklist and incorporate the requirements into an updated TOR. The above preliminary comments were provided by email to ensure that amphibian surveys are completed in accordance with the appropriate protocol and that timing windows are not missed.

From the NPCA:

1. The Natural Environment Assessment should be revised to include:
 - i. amphibian monitoring as per the Marsh Monitoring Program (i.e. minimum three surveys).
 - ii. there are a number of headwater drainage features, in addition to the municipal drains. The Headwater drainage feature assessment (TRCA) or the Ontario Stream Assessment Protocol (MNRFP, module 4) should be completed on all the regulated channels to ensure that indirect habitat features are well documented (not just fish habitat).
 - iii. delineation of the wetland feature, if different from the MNRFP mapped polygon, should be completed.

Blast Impact Assessment

Review of TOR for the Blast Impact Assessment is beyond the expertise of Regional staff, and will need to be verified by the peer review consultant(s) hired to review the study.

Agricultural Impact Assessment

From Niagara Region:

1. Scope of Work
 - a. The AIA should include an introduction providing details of the proposal and when an AIA is required (draft AIA guidance document).
 - b. The purpose of the study should also be outlined (objective of the AIA, how it will satisfy provincial and municipal planning requirements).
2. Preliminary Assessment-Background Data Collection
 - a. The policy documents listed should be entitled by their proper names (Regional Official Plan, A Place to Grow: Growth Plan for the Greater Golden Horseshoe, Implementation Procedures for the Agricultural System in the Greater Golden Horseshoe).
 - b. Size of application should outline both the primary study area (where extraction is occurring) and the secondary study area (1km radius beyond extraction site). Draft AIA guidance document suggests that for mineral aggregate operations that may include blasting and dewatering a 1km radius should be used for the secondary study area.

- c. Please consider addressing how excess soil will be managed.
- 3. Collection of Field Data
 - a. The AIA guidance document suggests verification of soil capability and farm operations.
 - b. review definition of agri-food network. The agricultural uses, agriculture-related uses, and on-farm diversified uses are permitted uses, not necessarily encompassing all of the agri-food network elements. The agri-food network also includes regional infrastructure and transportation networks
- 4. Analysis of Impact
 - a. Page 30 of the AIA guidance document outlines economic and community impacts. Please make sure to review the primary considerations listed by OMAFRA in this section (see AIA guidance document pg. 30).

Archeological Work Program

From the Region:

The archaeological assessment(s) must be carried out by consultant archaeologists. All archaeologists who carry out fieldwork in Ontario must hold a licence issued by the Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI). Licensed archaeologists must abide by the Terms and Conditions for Archaeological Licences. In addition, consultant archaeologists must follow the Standards and Guidelines for Consultant Archaeologists.

1. The project area must cover the entirety of the lands subject to the applications, except for any lands proposed to be designated Environmental Protection Area where quarrying or associated activities will not be permitted.
2. Any requirements for subsequent Stage 4 archaeological assessments will be guided by the recommendations of the licensed archaeologist in consultation with the MHSTCI.
3. All reports must be submitted to the MHSTCI. A copy of the reports and associated acknowledgement letters from the MHSTCI should be submitted with the applications to the Niagara Region.
4. No demolition, grading or other soil disturbances shall take place on the subject property prior to the issuance of an acknowledgement letter from the MHSTCI confirming that all archaeological resource concerns have been mitigated and meet licensing and resource conservation requirements.

Planning Justification Report

From the Region:

The Planning Justification Report must be prepared by a Registered Professional Planner, and must address all relevant policies from the Provincial Policy Statement (2020), A Place to Grow: Growth Plan for the Greater Golden Horseshoe (2019), Niagara Region Official Plan (2014) and City of Port Colborne Official Plan.

Where a policy provides direction for a municipality to include policies in their official plan, these directives should be incorporated into the Regional and Local Official Plan Amendments where Regional and Local policies do not already exist.

In addition to the policy analysis, the following comments should be addressed:

1. Summary of application should also include detailed description of the proposal (overview of key features, site and contextual consideration), including projected extraction timeline based on available volumes and demand.
2. Surrounding land uses should also include context/built form and should extend a minimum of 500m from all boundaries of the lands subject to the applications.
3. Section 6 should include discussion as to how each applicable policy is being addressed in addition to whether the proposal conforms to it or not. All applicable policies must be read and applied comprehensively. Regional staff question why specific policies of the PPS, GP and OP are outlined. The proposal must consider the entirety of each of the plans, and the list provided excludes many important policies.
4. Section 6.2 (Growth Plan) includes Policy 2.2.9 (Rural Lands); however, the lands are designated Good General Agriculture in the ROP and so fall under the definition of Prime Agricultural Area under the Growth Plan. Policy 4.2.6 (Agricultural System) should be addressed instead.
5. Discussion of Greenbelt Plan and Niagara Escarpment Plan is not required, as the lands are not covered under those plans.
6. The outline does not seem to address NPCA policies. NPCA Policy is often addressed in both the EIS and the PJR. The technical review should be in the EIS (and any other supporting study i.e. hazard assessments) and a summary of how NPCA Policy has been addressed is best incorporated into the PJR.
7. ROP Policy 14.6.2 is referenced. Please be sure to specifically consider 14.D.5
8. Section 8.0 should include an overview of the public consultation plan or note that the Region requires this as a stand alone document.
9. Section 8.1 supporting documents must address the entirety of the "list of supporting studies" which is provided as Schedule 'B' to this agreement.
10. Draft Official Plan Amendments (Regional and Local) are required.
11. The PJR should address conformity and proposed amendments to the Port Colborne Zoning By-law.
12. It would be helpful if the PJR outlined other approvals that are required, like ARA, DFO, MNRF, MOECC, MTO, and how those approvals relate to the Planning Act process/applications.
13. It would be helpful to have a pre and post grading plan at some point through the approval process, specifically in relation to the Visual Impact Assessment and stormwater management concerns that may be identified by neighbouring property owners.

Noise and Air Quality Assessments

The noise and vibration study will evaluate the projected sound and vibration outputs for the proposed quarry on existing sensitive land uses using methodologies approved by

the Ministry of Environment, Conservation and Parks (MECP). Guidance should be taken from the MECP D-series and NPC-300 guidelines.

In addition to the items identified in the Terms of Reference for the Noise and Air Quality Assessment, this report should address the following comments:

1. The study should review the proposed site design in the context of existing or zoned sensitive land uses;
2. An assessment of indoor and outdoor acoustical environments for sensitive land uses is required, and should be quantified in terms of impact of the proposal on those uses;
3. Minimum setbacks from sensitive uses, appropriate layout, design and required mitigation measures should be determined based on the nature of the operation, including maintenance procedures where required;
4. The single noise scenario for each phase of operation noted in the TOR should be the worst case scenario;
5. Design of mitigation should be detailed, not conceptual, and should be provided for each phase of the operation or based on the worst case scenario phase;
6. The study should also confirm feasibility and responsibility for the implementation and maintenance of the recommended mitigation measures, and ensure the recommended mitigation measures are incorporated in the development;
7. The technical details, including assessment method, and a summary of the results and recommended noise control measures should also be included.
8. The NIA should also be verified by the peer review consultant as Regional staff's expertise on noise impact assessment is limited to transportation noise sources.

The air quality component of the report must consider odour, dust and other emissions from the quarry operation and any impacts to existing sensitive land use. The ToR identifies three tasks for the AQIA. Task 1 proposes an assessment of air quality using "existing air quality in the vicinity of the Site using publicly available monitoring data and/or information reported to the National Pollutant Release Inventory (NPRI) by facilities located close to the Site". The ToR should also propose alternative measures in the absence of any publicly available monitoring data or info reported to the NPRI (i.e. as the surrounding lands, other than the existing quarry, are agricultural there may not be any monitoring data available). Also, NPRI website indicates the following: "Under the authority of the [Canadian Environmental Protection Act \(CEPA\)](#), owners or operators of facilities that meet published reporting requirements are required to report to the NPRI. Companies that meet reporting requirements but which fail to report, do not report on time, or knowingly submit false or misleading information, face penalties as listed under [Section 272 and 273 of CEPA](#)." The AQIA should confirm whether the quarry is required to report. The report should also assess impacts to human health and the natural environment, and provide direction on mitigation measures for any adverse impacts to sensitive land uses. A detailed review of TOR for the AQIA is beyond the expertise of Regional staff, and should be verified by the peer review consultant hired to review the study.

The Noise, Vibration and Air Quality Assessments must be prepared and stamped by a qualified Professional Engineer.

Transportation Impact Study

Given that Regional Road 84 (Miller Road) is within the study limits, any analysis for intersections under Niagara Region's jurisdiction shall be assessed in accordance with Niagara Region's Guidelines for Transportation Impact Studies (i.e. growth rates, saturation flow rates, peak hour factors). Based on the conceptual site plan, a new access is proposed on Regional Road 84 (Miller Road) with mention of a southbound right-turn lane. Any recommendations impacting geometry shall be supported by a functional plan that demonstrates feasibility of the improvement.

Although Miller Road is a Regional Road, it currently does not have significant truck volumes. The TIS should also evaluate if the existing road structure can support the proposed number of truck trips to the site.

Given that Regional Road 84 (Miller Road) is within the study limits, any analysis for intersections under Niagara Region's jurisdiction shall be assessed in accordance with Niagara Region's Guidelines for Transportation Impact Studies (i.e. growth rates, saturation flow rates, peak hour factors).

Based on the conceptual site plan, a new access is proposed on Regional Road 84 (Miller Road). There is some concerns with the proposed entrance on Miller Road for the Quarry expansion since Miller Road structure may not be able to handle the proposed truck traffic and maybe required to be rebuilt as well the additional truck traffic maybe an issue with the abutting homeowners. So the TIS should evaluate the following:

- Entrance onto Main Street East instead of Miller – use existing entrance
- If that is not possible can the access to Miller road be limited to entering going north from Highway 3 and exiting only going south to Main Street East to limit the section of road that may need to be upgraded
- The TIS will need to evaluate the structure of the road based on the proposed number of trips.

If there are any recommendations for improving Miller Road (additional lanes, additional lane widths, rebuilding to of the roads structure) the TIS should include functional plans that demonstrates feasibility of the improvement.

Schedule 'E' - Pre-consultation Meeting Attendees

Name	Organization	Email Address
David Sisco	IBI Group	David.Sisco@IBIGROUP.COM
John Maclellan	Port Colborne Quarries Inc	jmaclellan@rankinconstruction.ca
Shawn Tylee	Port Colborne Quarries Inc	stylee@rankinconstruction.ca
Sean McFarland	Golder	Sean_McFarland@golder.com
Heather Melcher	Golder	Heather_Melcher@golder.com
James Bakker	MNRF (Aggregate Resources Coordinator)	James.bakker@ontario.ca
Erik Acs	Region of Niagara	Erik.Acs@niagararegion.ca
Sean Norman	Region of Niagara	Sean.Norman@niagararegion.ca
Pat Busnello	Region of Niagara	Pat.busnello@niagararegion.ca
Britney Fricke	Region of Niagara	Britney.Fricke@niagararegion.ca
Adam Boudens	Region of Niagara	Adam.Boudens@niagararegion.ca
Susan Dunsmore	Region of Niagara	Susan.dunsmore@niagararegion.ca
Cara Lampman	NPCA	clampman@npca.ca
David Schulz	City of Port Colborne	davidschulz@portcolborne.ca

Schedule 'F' - Financial Impact Assessment / Economic Benefits Guidance

Policy 14.D.5 of the Niagara Region Official Plan states:

Where an amendment is proposed to the Regional Official Plan, the Region should consider the following criteria in evaluating the Amendment....

- v. The effect of the proposed change on regional services and infrastructure...*
- viii. The effect of the proposed change on the financial health, safety, and economic sustainability of the Region...*

A Financial Impact Assessment:

- is required for development applications that may cause a financial, environmental, or economic hardship for the local municipality and the Region;
- assesses the financial implications of a proposed development on municipal services and infrastructure (hard and soft);
- considers financial, environmental, and economic hardships associated with the proposed development for both the local and upper tier Municipality; and
- will be prepared by an economist specializing in municipal finance or a Professional Land Economist (PLE).

Niagara Region does not currently have detailed guidelines for Financial Impact Assessment for new mineral aggregate operations. However, direction provided in the *'Halton Region Aggregate Resource Reference Manual'* can be relied upon in developing the terms of reference for the study. An excerpt from those guidelines is as follows:

"4.5 Financial Impact Study

Purpose of the Study:

- 1. To demonstrate that the proposal will have a minimal negative financial impact on the Region or taxpayers from the cost of providing services such as road maintenance, long term monitoring and replacement water supplies among other matters.*
- 2. To demonstrate that extraction will occur in a manner that minimizes social, economic and environmental impacts.*

3. *To demonstrate that there will be no public costs associated with the proposal throughout extraction, complete rehabilitation and any long term continuing mitigation and monitoring requirements, and to demonstrate that there will be adequate securities put in place, through an agreement or legislation, to ensure that the public and agencies will not be put at financial risk as a consequence of the approval.*
4. *To demonstrate to what degree the proposal will create direct and indirect financial benefits or costs to the municipalities affected.*
5. *To demonstrate what financial benefits to the community may be created as a consequence of the approval.*

Objectives of the Study:

1. *To quantify the amount of assessment to be generated as a consequence of the approval of the application (compared to loss of existing use i.e. farmland).*
2. *To identify what the economic impacts may be.*
3. *To estimate how much in license fees will be provided to the affected municipalities.*
4. *To determine what impacts the additional truck traffic will have on the cost of providing maintenance on affected roads.*
5. *To determine whether the proposal, if approved, will impact on the timing and/or need for road improvements to be paid for by the municipality.*
6. *To identify the financial benefits that may occur generally as a consequence of the approval (i.e. TOARC payments for road improvements).*
7. *To identify the potential cost of any long-term monitoring and mitigation on the site and the responsibility for that monitoring and the liability to any public authority or agency associated with that responsibility.”*

Schedule 'G' - Niagara Region EIS Scoping Checklist



Environmental Impact Study (EIS) Requirements

Proponent: **Port Colborne Quarries**

Date: April 22, 2020

File #

Property Address: Corner of Chippawa Road & Hwy. 140

Municipality: Port Colborne

Type of Application: ROPA, ZBA and SPA

Completed by: A. Boudens

Is the subject site **located within an Urban or Rural area?**

<input type="checkbox"/> Urban Area	<input checked="" type="checkbox"/> Rural Area	<input type="checkbox"/> Hamlet
Details:		

Is the subject site **identified in the Provincial Natural Heritage System?**

<input checked="" type="checkbox"/> No	<input type="checkbox"/> Places to Grow Act	<input type="checkbox"/> Greenbelt Plan	<input type="checkbox"/> NEC
Details (<i>Designations</i>):			

Is the subject site **located within an identified Agricultural Area?**

<input type="checkbox"/> No	<input checked="" type="checkbox"/> Good General Agricultural Area	<input type="checkbox"/> Unique Agriculture Area
Details:		

Is the subject site **regulated by another agency?**

<input type="checkbox"/> No	<input checked="" type="checkbox"/> NPCA	<input checked="" type="checkbox"/> MECP	<input type="checkbox"/> MNRF	<input type="checkbox"/> NEC	<input type="checkbox"/> Other Please Specify:
Details:					

Was a Site Visit Conducted?

☒ Yes

Date: April 20, 2020

☐ No

Staff Member: A. Boudens & B. Fricke

Details: Staff walk the perimeter of the woodland/wetland

Ecological Land Classification (ELC) Vegetation Communities identified on Mapping:

SWX_MNR, FOD, THD, MEM

Natural Heritage features identified or likely to exist:

Environmental Protection Area (EPA)

	Feature	Located On and/or Adjacent Subject Property	Details
<input type="checkbox"/>	Provincially Significant Wetland (PSW)	<input type="checkbox"/> On <input type="checkbox"/> Adjacent <input type="checkbox"/> Both	Name:
<input type="checkbox"/>	Provincially Significant Life Science Area of Natural and Scientific Interest (ANSI)	<input type="checkbox"/> On <input type="checkbox"/> Adjacent <input type="checkbox"/> Both	Name:
<input checked="" type="checkbox"/>	Significant Habitat of Threatened or Endangered Species	<input type="checkbox"/> On <input type="checkbox"/> Adjacent <input checked="" type="checkbox"/> Both Possibly	Species:
<input type="checkbox"/>	Key Natural Heritage features within the Greenbelt Natural Heritage System	<input type="checkbox"/> On <input type="checkbox"/> Adjacent <input type="checkbox"/> Both	Feature:

Environmental Conservation Area (ECA)

	Feature	Located On and/or Adjacent Subject Property	Details
<input checked="" type="checkbox"/>	Significant Woodlands	<input checked="" type="checkbox"/> On <input type="checkbox"/> Adjacent <input type="checkbox"/> Both	Criteria: <input type="checkbox"/> Significant Wildlife Habitat <input type="checkbox"/> ANSI <input type="checkbox"/> Other <input type="checkbox"/> Environmentally Sensitive Area <input checked="" type="checkbox"/> Interior Habitat <input type="checkbox"/> Old Growth <input type="checkbox"/> Rare Species <input checked="" type="checkbox"/> Size <input type="checkbox"/> Water <input checked="" type="checkbox"/> Wetland
<input checked="" type="checkbox"/>	Significant Wildlife Habitat	<input type="checkbox"/> On <input type="checkbox"/> Adjacent <input type="checkbox"/> Both	Details: Possibly
<input checked="" type="checkbox"/>	Significant Habitat of Species of Concern	<input type="checkbox"/> On <input type="checkbox"/> Adjacent <input type="checkbox"/> Both	Species: Possibly
<input type="checkbox"/>	Significant Valleylands	<input type="checkbox"/> On <input type="checkbox"/> Adjacent <input type="checkbox"/> Both	Details:

<input checked="" type="checkbox"/>	Other Evaluated Wetland (Non-Provincially Significant)	<input checked="" type="checkbox"/> On <input type="checkbox"/> Adjacent <input type="checkbox"/> Both	Name: Upper Wignell Drain Wetland Complex
<input type="checkbox"/>	Regionally Significant Life Science ANSI	<input type="checkbox"/> On <input type="checkbox"/> Adjacent <input type="checkbox"/> Both	Name:
<input type="checkbox"/>	Publicly Owned Conservation Lands	<input type="checkbox"/> On <input type="checkbox"/> Adjacent <input type="checkbox"/> Both	Details:
<input type="checkbox"/>	<input type="checkbox"/> Savannah <input type="checkbox"/> Tallgrass Prairie <input type="checkbox"/> Alvar <input type="checkbox"/> Dune	<input type="checkbox"/> On <input type="checkbox"/> Adjacent <input type="checkbox"/> Both	Details:
<input type="checkbox"/>	Regional Local Amendment	<input type="checkbox"/> On <input type="checkbox"/> Adjacent <input type="checkbox"/> Both	Details:

Fish Habitat

	Feature	Located On and/or Adjacent Subject Property	Details
<input checked="" type="checkbox"/>	Fish Habitat <input checked="" type="checkbox"/> Reach (Watercourse) <input type="checkbox"/> Area (Pond/Lake)	<input type="checkbox"/> On <input type="checkbox"/> Adjacent <input checked="" type="checkbox"/> Both	Fish Habitat Classification: (identified by MNRFP) <input type="checkbox"/> 1: Critical <input checked="" type="checkbox"/> 2: Important <input type="checkbox"/> 3: Marginal Details: Also identified as a Municipal Drain

Candidate Significant Wildlife Habitat (*Study must determine presence/absence*)

Seasonal Concentration Areas of Animals:

<input type="checkbox"/> Waterfowl Stopover and Staging Areas (Terrestrial and Aquatic)	<input type="checkbox"/> Colonially Nesting Bird Breeding Habitat (Bank and Cliff/ Tree/ Shrub/ Ground)	<input checked="" type="checkbox"/> Reptile Hibernacula
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<input type="checkbox"/> Shorebird Migratory Stopover Area	<input checked="" type="checkbox"/> Turtle Wintering Area	<input type="checkbox"/> Deer Winter Congregation Area
<input type="checkbox"/> Raptor Wintering Area	<input type="checkbox"/> Bat Hibernacula	<input type="checkbox"/> Deer Yarding Area
<input type="checkbox"/> Landbird Migratory Stopover Area	<input checked="" type="checkbox"/> Bat Maternity Colonies	
<input type="checkbox"/> Migratory Butterfly Stopover Area	<input type="checkbox"/> Bat Migratory Stopover Area	

Rare Vegetation Communities:

<input type="checkbox"/> Cliff and Talus Slope	<input type="checkbox"/> Old Growth Forest	<input checked="" type="checkbox"/> Other (Provincially Rare S1, S2, S3 Vegetation Communities)
<input type="checkbox"/> Sand Barren	<input type="checkbox"/> Savannah	
<input type="checkbox"/> Alvar	<input type="checkbox"/> Tallgrass Prairie	

Specialized Habitat for Wildlife:

<input type="checkbox"/> Waterfowl Nesting Area	<input type="checkbox"/> Woodland Raptor Nesting Habitat	<input type="checkbox"/> Seeps and Springs
<input type="checkbox"/> Bald Eagle and Osprey Nesting, Foraging, Perching Habitat	<input type="checkbox"/> Turtle Nesting Areas	<input checked="" type="checkbox"/> Amphibian Breeding Habitat – Woodland and Wetland

Habitat for Species of Conservation Concern (Not including Endangered or Threatened Species)

<input type="checkbox"/> Marsh Bird Breeding Habitat	<input type="checkbox"/> Shrub/Early Successional Bird Breeding Habitat	<input checked="" type="checkbox"/> Special Concern and Rare Wildlife Species
<input type="checkbox"/> Open Country Bird Breeding Habitat	<input type="checkbox"/> Terrestrial Crayfish	<input type="checkbox"/>

Animal Movement Corridors

<input checked="" type="checkbox"/> Amphibian Movement Corridors	<input type="checkbox"/> Bat Migratory Stopover Area	<input checked="" type="checkbox"/> Deer Movement Corridors
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Has the property been identified as a Groundwater Protection Area (HVA)?

☒ Yes ☐ No

Additional Comments/Details:

The EIS must consider corridor functions on site, and the impacts associated with having an active quarry operation and a road (Second Concession Road) surrounding the feature.

See attached example table for Screening for Significant Wildlife Habitat. Include completed table in proposed Terms of Reference (TOR).

This document is for scoping purposes only, an EIS TOR is required and will be circulated to the Town and NPCA.

Aerial Map:



Required Field Surveys

(Any relevant information gathered from existing studies conducted within the last 5 years should be discussed to determine whether they are suitable to replace some of the requirements below)

	Field Surveys	General Timing Window	Protocol	Notes
✓	Ecological Land Classification (ELC) mapping, including soils	Spring to Fall (i.e., generally May to October)	Ecological Land Classification for Southern Ontario (Lee et al., 1998)	Undertake ecological land classification down to eco-element (vegetation type).
✓	Botanical Inventory (floral species list)	<input type="checkbox"/> Single Season <input type="checkbox"/> Two Season (Spring/Summer and Fall) <input checked="" type="checkbox"/> Three Season (Spring/Summer/Fall) <input type="checkbox"/> Other	Systematic searches	Must be completed for each ELC community, with particular attention to presence/absence and habitat for rare (local and S1-S3) species and SAR.
✓	Breeding Birds	<ul style="list-style-type: none"> Between May 24th and July 10th; Two surveys spaced 10 days apart; Anytime between dawn and 5 hours after dawn. 	Ontario Breeding Bird Atlas – Guide for Participants (2001)	<ul style="list-style-type: none"> Counts should <i>not</i> be done if it is raining, there is thick fog, or if winds are greater than 19km/hr; If unseasonably warm or cold conditions are encountered in the spring, survey dates may need to be adjusted.

✓	Amphibians: Frogs and Toads	<p>Three rounds of surveys between the following dates at least 15 days apart:</p> <ul style="list-style-type: none"> ➤ April 15th – April 30th (when night-time air temp exceeds 5°C) ➤ May 15th – May 30th (when night-time air temp exceeds 10°C) ➤ June 15th – June 30th (when night-time air temp exceeds 17°C) 	Marsh Monitoring Program Participant's Handbook for Surveying Amphibians (Environment Canada, 2008)	<ul style="list-style-type: none"> • Dates provided as a guideline, as air temperature and lack of wind are the most important variables; • If unseasonably warm or cold conditions are encountered in the spring, survey dates may need to be adjusted; • Favourable conditions consist of nights that are damp, foggy or have light rain falling. Persistent or heavy rainfall and nights with strong winds are to be avoided; • Surveys can begin half hour after sunset and end before midnight; • Each station is surveyed for three minutes; • Additional amphibian breeding habitat surveys may be required based on the results of the calling surveys.
✓	<p>Bats</p> <p>Phases 1 and 2 required. Further phases dependent on results. Contact MECP for protocols.</p>	Spring, Fall or Winter (i.e., both leaf-off and leaf-on periods)	<p>Criteria from the <i>Significant Wildlife Technical Guide (MNRF 2000)</i> in conjunction with methods outlined by MNRF Guelph District (<i>Recommended Approach for Surveying Buildings and Survey method for SAR Bats within Treed Habitats – Please contact MECP for protocols and field data sheets</i>)</p>	<ul style="list-style-type: none"> • Surveys to identify potentially suitable habitat should be completed prior to June; • If suitable maternity roost habitat is identified, separate acoustic surveys in the month of June may be recommended by MECP; • Please contact the MECP for protocols, field data sheets, and guidance.

<input type="checkbox"/>	Deer	Variable depending on survey effort	<ul style="list-style-type: none"> Some information pertaining to the habitat specification of winter deer yards is available in the <i>Forest Management Guidelines for the Provisions of White-tailed Deer Habitat</i>; More information pertaining to protocols that can be used to monitor deer populations is available in the <i>Wildlife Monitoring Programs and Inventory Techniques for Ontario</i>. 	<ul style="list-style-type: none"> Correspondence with the MNRF is required in order to confirm survey protocols and details on the evaluation of winter deer yards; To confirm the presence of deer migration corridors, transects can be completed in order to evaluate the use of habitat in relation to a study area.
<input type="checkbox"/>	Meander Belt Study	Variable	Meander Belt Width Delineation Protocol (Toronto and Region Conservation Authority, Revised 2004)	
<input type="checkbox"/>	Migratory Bird Survey	Spring Surveys (March to May) and Fall Surveys (August to October)	Bird and Bird Habitats: Guidelines for Wind Power Projects (MNRF, 2011)	

✓	Fisheries Assessment	<input type="checkbox"/> Headwater Drainage Features Assessment	Evaluation, Classification and Management of Headwater Drainage Features Guidelines (CVC & TRCA, 2013)	<ul style="list-style-type: none"> Habitat assessments follow the methods outlines in the OSAP Protocol; Aquatic habitat characterization should identify potential baseflow sources, barriers to fish migration and general habitat quality; Physical stream measurements should be identified (width, height, length); Identify any evidence of upwelling or groundwater concentration (may require a late fall/early winter site visit); Fisheries inventories should be completed in the spring to ensure any fish usage of intermittent or ephemeral systems is identified. Inventories of permanent features may occur throughout the spring and summer. Habitat assessments and detailed habitat mapping should be completed during snow/ice free conditions; Surveys should be completed within spring and fall, as these seasons capture the most diverse community assemblages.
		✓ Habitat Characterization	Ontario Stream Assessment Protocol – <i>Version 10.0</i> (Ontario, 2017); Environmental Guide for Fish and Fish Habitat (MTO, 2009)	
		<input type="checkbox"/> Fisheries Assessment	Ontario Stream Assessment Protocol – <i>Version 10.0</i> (Ontario, 2017)	
<input type="checkbox"/>	Raptor Nests	Between March 23 rd and April 23 rd , prior to “leaf out”	Forest Raptors & Their Nests in Central Ontario: A guide to Stick Nests & Their Users (Ontario, 1998)	<ul style="list-style-type: none"> Surveys should consist of a thorough investigation of potentially suitable habitat searching for active or inactive stick nests and evidence of raptor activity.
✓	Species at Risk Screening	Variable	<ul style="list-style-type: none"> ✓ DFO ✓ MECP 	<ul style="list-style-type: none"> Contact applicable agencies for survey requirements. All agency correspondence must be included in the EIS.

<input type="checkbox"/>	Marsh Birds	<ul style="list-style-type: none"> Between May 20th and July 5th; Two surveys spaced 10 days apart; Morning or Evening, must remain consistent for both visits; Morning surveys can begin 30 min before sunrise and end no later than 10 am; Evening surveys can begin no earlier than 4 hours before sunset and must be completed by dark. 	Marsh Monitoring Participant's Handbook for Surveying Marsh Birds (Environment Canada, 2008)	<ul style="list-style-type: none"> Each station is surveyed for 15 minutes; Surveys should be undertaken in weather that is favourable for surveying birds: <i>good visibility, warm temperatures (at least 16°C), no precipitation and little or no wind.</i>
✓	Water Balance	Variable	Wetland Water Balance Monitoring Protocol (Toronto and Region Conservation Authority, 2016)	
✓	Wetland Evaluation (Only if needed)	Variable	Ontario Wetland Evaluation System - Southern Manual (Ontario, 2013)	Any proposed refinements to Provincially Significant Wetland boundaries require approval from the MNRF. Please include all correspondence as an appendix in the EIS.
✓	Wildlife Movement Survey (e.g. Road Mortality)	Variable	Environmental Guide for Mitigating Road Impacts to Wildlife (MTO, 2017)	

✓	Salamanders Habitat availability?	Early Spring – between late-March to mid-April, immediately following snow melt and/or the first spring rains	Wildlife Monitoring Programs and Inventory Techniques for Ontario	<p>Surveys can consist of one or more of the following three techniques:</p> <ul style="list-style-type: none"> • Visual Surveys completed in the evenings during the period specified. A visual inspection of the habitat, including carefully overturning and replacing potential cover can be included as part of this survey. Egg mass surveys can also be completed during daylight hours; • Fine mesh dipnets can be used to catch amphibians. Capture occurs by sweeping or churning the water. <i>Correspondence with the MNRF/MECP prior to survey commencement recommended as permits may be required;</i> • Pitfall or funnel traps, often in association with drift fences, are the most common way of trapping terrestrial amphibians. Traps should be checked daily, before noon to minimize mortality. <i>Correspondence with the MNRF/MECP prior to survey commencement recommended as permits may be required.</i>
✓	Tree Saving Plan Potential – Will be based on the location of development and proposed impact	Variable	Section 1.36 of the Niagara Region's Tree and Forest Conservation By-law (By-law No. 30-2008)	<ul style="list-style-type: none"> • All requirements listed in the identified protocol must be included for a Tree Saving Plan to be deemed complete.

✓	Snakes Cover Board surveys should be completed	<ul style="list-style-type: none"> • Spring, Summer and Fall; • most likely to be observed under cover objects in the morning after cool evenings when they seek out their area and try and maintain their body temperatures. 	<ul style="list-style-type: none"> • Survey Protocol for Ontario's Species at Risk Snakes (MNRF, 2016) and/or Milksnake Protocol (MNRF, 2013) is recommended for species that are not at risk; • Wildlife Monitoring Programs and Inventory Techniques for Ontario. 	<ul style="list-style-type: none"> • Visual surveys should be completed by overturning all objects that provide cover (i.e., large branches, logs, rocks, etc.). Objects should be returned, to the extent possible, to their original positions; • Roadside surveys can also be used; • Artificial cover boards can be installed recognizing that it takes time for the boards to be used as habitat; • Contact the MECP for protocols related to SAR snakes.
✓	Turtles	<ul style="list-style-type: none"> • Early Spring • Between 8 am and 5 pm on sunny days when the air temperature is at least 10 °C; • Between 8 am and 5 pm on partially cloudy or overcast days when air temperatures are greater than 15 °C, and greater than water temperatures 	<ul style="list-style-type: none"> • Wildlife Monitoring Programs and Inventory Techniques for Ontario (MNRF, 1997) • Occurrence Survey Protocol for Blanding's Turtle in Ontario (MNRF, 2013) 	<ul style="list-style-type: none"> • Visual surveys of ponds or wetlands; • Searching for basking turtles is the most effective method of confirming presence of turtles within suitable habitat; • In open water wetlands, surveys can be completed from the shoreline using binoculars to scan the perimeter of the shoreline and potential basking sites; • Basking surveys should be surveyed from the sunlit side as this is the side that turtles are most likely to be located; • In wetlands that lack large pools of open water, surveys should consist of using evenly spaced transects or aerial surveys to cover all areas of the wetland; and • Surveying roads with sandy and gravelly shoulders near wetlands during the late May to early July nesting season may also be undertaken.

What must be included in an EIS?

The EIS should focus on the significant natural heritage features and/or hydrological features and functions for which the area was designated, and any additional natural heritage or hydrological features identified on site. It should identify, describe and delineate these features and their ecological and hydrological functions in order to avoid impacts to them. However, it should also address the site's setting in the broader landscape and its role in, and linkages to, broader natural heritage and hydrologic systems. It should assess any unavoidable impacts of the proposed development, indicating the magnitude and implications of those impacts, recommend mitigation measures to reduce negative impacts, identify opportunities for restoration or enhancement of natural heritage features which may also help offset negative impacts, recommend further study, monitoring, and provide recommendations on proceeding with the proposed development, including conditions to be attached to any approvals.

The key components of an EIS include:

- A biophysical and/or hydrologic inventory and analysis, including a description and analysis of the aquatic and terrestrial settings, as well as hydrological conditions such as surface and groundwater features and functions;
- A description of the ecological and hydrological functions served and required by the natural heritage features and/or hydrologic features;
- A description of the linkages between and among natural features and areas, surface water features and ground water features both on the site and in the surrounding area;
- A description of the proposed undertaking;
- Identification of constraints and opportunities;
- Mapping;
- Identification and analysis of potential direct, indirect and cumulative impacts from the proposed activities on the ecological and/or hydrological functions identified;
- The development of appropriate development modifications, recommendations, mitigation measures and enhancement opportunities;
- An assessment of the significance of the cumulative net environmental impacts expected over the long term after these measures have been implemented;
- The recommendation and description of monitoring needs and programs; and
- Recommendations regarding possible residual impacts, including recommendations for proceeding with the development as proposed or modified.

Steps involved in the environmental impact study process:

Step 1: Determining EIS Requirements

1.1 Initial Screening to Determine if an EIS is Required, or if EIS Requirement can be Waived

1.2 Pre-consultation and Scoping (This EIS Scoping Checklist satisfies this step)

Step 2: Terms of Reference (Next Step!)

Step 3: Constraints Analysis

Step 4: Ecological Impact Assessment

Step 5: Recommendations and Conclusion

Please refer to the Niagara Region's Environmental Impact Study Guidelines for a detailed description of each step.