FINAL

# Visual Impact Assessment
# Port Colborne Quarries Inc. – Pit 3 Extension

Part of Lot 17, 18, and 19, Concession 2 (formerly Township of Humberstone) and Plan 59R-16702, City of Port Colborne, Ontario

Prepared for Port Colborne Quarries Inc.
by IBI Group
December 23, 2020
(Revised December 15, 2021)

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# 1 Introduction

This Visual Impact Study has been prepared to support applications for the re-designation, rezoning and licensing of lands owned by Port Colborne Quarries Inc. (PCQ) to permit aggregate extraction. Specifically, this report is being required to fulfill the following:

- Provincial Policy Statement 2020
  Policy 2.5 Mineral Aggregate Resources
  2.5.2.2) whereby; "*Extraction shall be undertaken in a manner which minimizes social and environmental impacts*"
- Region of Niagara Official Plan
  Policy 6.C Mineral Resources
  6.C.5 b) "*compatibility with surrounding land uses"*
- City of Port Colborne Official Plan (2017):
  Policy 10.2 Aggregate / Extractive Industrial Sites
  10.2.1 e) Pre-Consultation Policies

  "*Visual Impact Report*"
- In addition to these planning policy requirements, the Provincial Standards for a Category 2 Licence under the Aggregate Resources Act (2.1.1) requires "*any planning and land use considerations*"

The subject lands are located east of the existing PCQ properties (Pit 2 and Pit 3) that are currently licensed under the Aggregate Resources Act (ARA) to operate a Category 2- Class A Quarry Below Water, identified as Licence 4444. PCQ is requesting approval to extend the existing Pit 3 licensed operation eastward on additional lands owned by PCQ.

In order for extraction to occur on the subject lands, the following approvals are required:

- Amendment to the Region of Niagara Official Plan 2014, to designate the lands as *Licensed Pits and Quarries*.
- Amendment to the City of Port Colborne Official Plan 2017, to re-designate the lands from *Agricultural* to *Mineral Aggregate Operation*.
- Amendment to the City of Port Colborne Zoning By-Law 6575/30/18, to rezone the lands from *Agricultural* (A) to *Mineral Aggregate Operation* (MAO) and to reduce the minimum setback from a Provincial Highway from 90.0 metres to 30.0 metres.
- Application to the Ministry of Natural Resources, under the Aggregate Resources Act for a Category 2 Licence (Class A Quarry Below Water).

The lands are bound by Second Concession Road to the north, Highway 3 to the south, existing quarry lands owned by PCQ to the west and rear lot line of homes fronting onto Miller Road to the east.

The study is partially informed by the following:

- Noise (Acoustical) Impact Assessment, Golder Associates Inc. dated December 2020, and updated December 2021.
- Natural Environment Level 1 & 2 Report (EIS), Golder Associates Inc., dated October 2020, and updated November 2021.

# 2 Technical Studies Completed

PCQ retained experts to undertake technical studies related to the above noted disciplines which provide as follows:

a) An Acoustical (Noise) Impact Study has been completed and is attached to the Planning Justification Report as Appendix B. The report was prepared by Golder Associates Inc. and authored by J. Tomaselli dated December 2020, and updated December 2021.

   This report made recommendations regarding perimeter berms which included:

   - Along Highway 3 (Main Street) a 4.0 metre high berm.
   - Along the northern and eastern boundary, a 2.0 metre high berm

b) Natural Environment Level 1 & 2 Report (EIS), Golder Associates Inc., dated October 2020 and updated November 2021, has been completed and is attached to the Planning Justification Report as Appendix L. The report was prepared by Golder Associates Inc. and authored by H. Melcher.

   This report made recommendations regarding ecological linkages/connections which indirectly will provide visual screening that includes:

   - The setback area at the north end of extraction area 3 and east of the deciduous swamp (License 4444) be supplemented with additional plantings to enhance connectivity and wildlife movement opportunities between the deciduous swamp and the hedgerow located east of the site woodland located northeast of the site across 2nd Concession Road.
   - The area north of the existing quarry (Pit 3) and west of the northern end of the deciduous swamp is to be rehabilitated to enhance connectivity and wildlife movement between the deciduous swamp and the significant woodland located north of 2nd Concession Road between Carl Road and Babion Road.

# 3 Existing Sensitive Land Uses

Surrounding the proposed Pit 3 lands are numerous sensitive receivers. The nearest individual sensitive land uses are referenced in the table below. It is being presumed that when a sensitive land use, in close proximity to the site is visually screened, then those further afield and in a similar line of sight are equally screened.

**Table 1 –Visual Sensitive Land Use Locations**

| Visual Report Reference Number | Municipal Address | Distance to Pit 3 Ext. property boundary | Distance to Limit of Extraction | Current Land Use |
|---|---|---|---|---|
| Permanent Views | | | | |
| 1 | 1740 Second Conc. Rd. | 25.0 metres | 55.0 metres | Private recreation facility |
| 2 | 2024 Miller Road | 367.0 metres | 387.0 metres | Residence |
| 3 | 1864 Miller Road | 297.0 metres (residence) | 312.0 metres (residence) | Residence |
| 4 | 1826 Miller Road | 349.0 metres | 364.0 metres | Residence |
| 5 | 1778 Miller Road | 372.0 metres | 387.0 metres | Residence |

| Visual Report Reference Number | Municipal Address | Distance to Pit 3 Ext. property boundary | Distance to Limit of Extraction | Current Land Use |
|---|---|---|---|---|
| 6 | 1732 Miller Road | 362.0 metres | 377.0 metres | Residence |
| 7 | 1682 Miller Road | 355.0 metres | 370.0 metres | Residence |
| 8 | 1630 Miller Road | 280.0 metres | 300.0 metres | Residence |
| 9 | 1580 Miller Road | 190.0 metres | 210.0 metres | Residence |
| 10 | 1498 Miller Road | 10.0 metres | 40.0 metres | Residence |
| 11 | 1359 Miller Road | 30.0 metres | 62.5 metres | Residence |
| 12 | 1838 Main Street | 159.0 metres | 178.0 metres | Residence |
| 13 | 1751 Main Street | 50.2 metres | 85.5 metres | Residence |
| 14 | 1695 Main Street | 75.0 metres | 105.0 metres | Residence |
| 15 | 1627 Main Street | 41.5 metres | 71.5 metres | Residence |
| 16 | 1577 Main Street | 56.0 metres | 86.0 metres | Residence |
| 17 | 1284 Weaver Road | 26.5 metres | 56.5 metres | Vacant lot |
| 18 | 1266 Weaver Road | 91.5 metres | 121.5 metres | Residence |
| 19 | 1331 Main Street | 37.0 metres | 110.5 metres | Residence |
| 20 | 1305 Main Street | 54.0 metres | 144.0 metres | Residence |
| Transitory Views | | | | |
| 21 | Second Concession Road | 4.0 metres | 35.5 metres | Passing traffic/cyclists/ pedestrians |
| 22 | Miller Road | 2.8 metres | 32.8 metres | Passing traffic/cyclists/ pedestrians |
| 23 | Highway 3 (Main Street) | 9.0 metres | 39.0 metres | Passing traffic/cyclists/ pedestrians |

# 4 Quarry Activities

The Pit 3 Extension will be operated sequentially through a series of three extraction phases and the activities associated with the extraction activity/component of the quarry include:

- Stripping of topsoil, subsoil and the underlying clay overburden will be done by an earth scraper and used to construct the perimeter berms. This activity will be completed during the initial start-up stage.
    - Equipment: Earth scrapers.
    - Duration: Temporary.
    - Location: At surface grade and along the entire site perimeter.
- Blasting related equipment at the top of the active quarry face. This would include both a drill rig (used to drill holes into the rock), and a blasting contractor truck whose operator packs the drilled holes with explosives. As extraction gets deeper, this activity correspondingly gets deeper, however, during all phases, this activity initially will be required to occur generally at the existing surface grade.
    - Equipment: Drill rig, contractor blasting truck.
    - Duration: Life of quarry operation.
    - Location: At surface grade until extraction deepens and, everywhere throughout the quarry.

- Once the rock is blasted the result is a large pile of boulders on the quarry floor where large excavators are used to load that material into large quarry trucks.
    - Equipment: Front-end loaders, Quarry haul trucks.
    - Duration: Life of quarry operation.
    - Location: At the lowest working floor of the active quarry, but a minimum 8.0 metres below grade.
- Limited processing(crushing/screening) may occasionally occur at the quarry face using portable equipment. Site Plan notes limit the height of any such temporary stockpiles to 20.0 metres in height.
    - Equipment: Portable crusher/screener, stacker.
    - Duration: Occasionally during the life of quarry operation.
    - Location: At the lowest working floor of the active quarry, but a minimum 8.0 metres below grade.
- Internal haul roads used by large dump trucks hauling the rock from the active quarry face to the processing plant, which will initially be in Pit 1 and eventually in Pit 3.
    - Equipment: Quarry haul trucks.
    - Duration: Life of quarry operation.
    - Location: At the lowest working floor of the active quarry, but a minimum 8.0 metres below grade.
- Processing equipment including crushers and screening plants. As noted above, this will be located off-site in either Pit 1 or Pit 3.
    - Equipment: Semi-permanent crushing operation, screen plant, wash-plant, stackers.
    - Duration: Life of quarry operation.
    - Location: At the lowest working floor of Pit 1 or Pit 3, but approximately 16.0 metres below grade.
- Product stockpiles of screened or processed sand and gravel will also be located at the main processing area, located in either Pit 1 or Pit 3. Height of such stockpiles could be up to 20.0 metres high. Also associated with the stockpiles are the stackers which are used to create product stockpiles.
    - Equipment: Stockpile stackers.
    - Duration: Life of quarry operation.
    - Location: At the lowest working floor of Pit 1 or Pit 3, but approximately 16.0 metres below grade.
- Weight scale and scale house will be located at the Highway 3 entrance/exit once it is constructed.
- Other pit related traffic that would include staff vehicles, fuel trucks, and water trucks.

The following will assess each of the identified view sheds for unacceptable impacts during the extraction of each of the Phases. Not all of these activities will be located everywhere within the quarry nor for the full duration of the quarry life.

# 5 Visual Impact Analysis

As noted above, the only technical studies which made recommendations relative to perimeter berms was the Acoustical Study. In addition to perimeter berms providing attenuation/mitigation for noise and fugitive dust, they are also an important tool as a visual screen. Although the

majority of the quarry activities will be a considerable depth below grade, there is a general preference that they be visually screened to limit views of the industrial form of activity in an otherwise rural setting.

The focus of the visual screening is primarily for the permanent neighbouring residents and less so on vehicular traffic on adjacent roads.

Of key consideration to determining visual screening between the quarry and the sensitive receivers includes:

- Topography; Overall, the subject lands are very level with generally 3 - 4 metres of topographic relief across the entire site, ranging from 178.0 masl to 182 masl.
- Separation distance; As Noted above in Table 1, the separation distance between the limit of extraction and the visual sensitive receivers varies from 40.0 metres to 386.0 metres.
- Existing vegetation in the intervening lands. For the most part, there is very little existing vegetation on the site which could be used as visual buffers for the identified Miller Road residences, with the exception of the hedgerow along the eastern property boundary.

# 6 The Potential for Visual Impacts by Aggregate Operations

Aggregate deposits are found in fixed locations as a result of being deposited where glacial action left them, which in most circumstances, are mostly in rural areas of the Province. Since pit related activities are industrially focused, there is a public preference for visual screening of these uses which include: internal truck haul routes, aggregate processing areas, stockpiles of product and the active extraction activities.

Visual screening of these activities is primarily intended for those permanent residents surrounding the property that may have views into the pit either during the entire life of the pit or during a single extraction Phase. Additionally, there is a preference to also visually screen the operation from permanent land uses and temporary users such as local roads by passing motorists and cyclists.

## 6.1 Screening Techniques

The most effective manner to provide an immediate visual screen is through the construction of berms that are strategically located and built from topsoil, and/or subsoil stripped in advance of extraction. Depending on the mitigation purpose, the material may be stored in the berms either for the full duration of the pit life or just during one particular extraction Phase. Subsequently, when individual extraction phases are completed, and/or at the end of the pit life, the material will be replaced onto the final pit floor to initiate rehabilitation of the lands back to an agricultural use.

Extraction of the PCQ – Pit 3 will be undertaken in a series of phases to promote ongoing or progressive rehabilitation and which allows all the non-active extraction lands to be available for agricultural crop use. However, the timing of berm construction is such that they will all be constructed initially.

As noted above, the recommended minimum berm heights include a 4.0 metre high berm along the Highway 3 (Main Street) frontage and a 2.0 metre high berm along the northern and eastern property limits.

The use of berms as a visual screen, is meant to interrupt the line of sight between the active pit uses and the identified view sheds including those which are permanent (i.e., residential homes), and transitory users of the abutting roads.

In addition to the above physical screening techniques, there are other recommendations incorporated into the Site Plans that will augment visual screening. These include:

- Quarry activities (equipment and stockpiles) being located at the lowest pit floor elevation whenever possible.
- Locating the weight scale activities inside the berm area.

Furthermore, once the initial stripping is completed, the majority of the quarry activity will be a minimum of 8.0 metres below grade.

# 7 Viewsheds and Visual Impacts

The following has divided the external views of the subject lands into a series of common viewsheds and a description of the potentially impacted views and the proposed mitigation being recommended. The viewsheds are as follows:

Viewshed 1 – Second Concession Road
Representative cross-section:
- A-A'

Viewshed 2 – Miller Road
Representative cross-section:
- B-B'

Viewshed 3 – Miller Road 'east tab' view
Representative cross-sections:
- C-C'
- D-D'
- E-E'

Viewshed 4 – Highway 3 (Main Street) east end
Representative cross-section:
- F-F'

Viewshed 5 – Highway 3 (Main Street) frontage and west end view
Representative cross-sections:
- G-G'
- H-H'

Refer to Figure 1 for both i) locations of the cross-sections and ii) the cross-sections.

**Viewshed 1**:

At the northern extent of the site is 1740 Second Concession Road which is situated directly across from the proposed Phase 3, and indirect sight views might be possible. This building is associated with a former soccer field facility (also at this location) and was used as a small private recitation facility. Notwithstanding that this is not a residence and has no windows on the south side of the building toward the proposed quarry, it is being considered. However, this viewshed does includes the transitory users of Second Concession Road as well.

Mitigation:

An existing hedgerow exists along the north side of Second Concession Road that provides thick visual screening somuch so that it is difficult to see the 1740 building from the road.

Noise Study: The Noise study has recommended a 2.0 metre berm be constructed within the 30.0 metre setback, along the Phase 3 frontage of the Second Concession Road.

Natural Environment Level 1 - 2 Report has recommended that within the 30.0 metre setback between Second Concession Road and Phase 3, that plantings be added to enhance connectivity and wildlife movement opportunities between the deciduous swamp and the hedgerow located east of the site woodland located northeast of the site across 2nd Concession Road. These will include native tree and shrub species plantings selected based on their suitability for the soils and moisture regime in those areas and may include: red oak, trembling aspen, eastern white cedar, red maple, basswood, bur oak, white pine, serviceberry species, gray dogwood and staghorn sumac.

Sightline View:

See cross-section A-A' which illustrates the sight-line of this viewshed.

Additional Recommendations:

i) To be consistent with the proposed berm heights on Highway 3, it is being recommended to increase the perimeter berm along Second Concession (Berm A) to 4.0 metre high with side slopes of 4:1 on the front side (street-side).

ii) The reduction of the height of all product stockpiles to 10.0 metres during the first 8.0 metre excavation lift when within 200.0 metres of a residence.

The cross-section A-A' demonstrates that a person standing in front of 1740 Second Concession Road will not be able to see any portion of the Pit 3 Extension operation due to;

a) The existing screening vegetation associated 1740 Second Concession Road.
b) The proposed 4.0 metre high perimeter berm.
c) The proposed vegetation to be planted as recommended by the Natural Environmental Assessment.

**Viewshed 2:**

Along the entire eastern boundary of the site, the proposed extraction boundary abuts numerous non-farm residences, including those north of Second Concession Road, and one farm property. These properties include:

- 2024 Miller Road,
- 1864 Miller Road
- 1826 Miller Road
- 1778 Miller Road
- 1682 Miller Road
- 1630 Miller Road
- 1580 Miller Road
- 1498 Miller Road

Mitigation:

An existing hedgerow exists along much of the eastern property line which will augment the screening of reviews especially during the prime operational season when foliage is on the trees. However, much of this vegetation is off-site and therefore PCQ has no ability to ensure it remains intact.

Noise Study: The Noise study has recommended a 2.0 metre berm be constructed within the 15.0 metre setback, along the Phase 1, 2, and 3 side-flankage of the common property boundary with the above noted residences.

Sightline View:

See cross-section B-B' which illustrates a representative sight-line of this viewshed through the residence at 1778 Miller Road.

The cross-section B-B' demonstrates that a person standing in the rear yard of 1778 Miller Road would be able to see the uppermost portion of a 15.0 metre high product stockpile / stockpile stacker if it were placed in proximity to the quarry boundary during the initial 8.0 metre extraction lift. However, to place the view in perspective, the operational view will be >400 metres distant and be partially and/or fully obscured due to:

a) The existing intervening screening vegetation.
b) The proposed 2.0 metre high perimeter berm.

Therefore, although a temporary view of a stockpile might be possible during a short duration of the quarry life, it will be at a substantial distance and partially or fully obscured by intervening vegetation.

**Viewshed 3:**

Referenced as the 'eastern-tab' of the subject lands, the subject property extends to Miller Road. Several of the Miller Road non-farm residences will be physically closer to this portion of the proposed extraction operation than any others. These properties include:

- 1630 Miller Road
- 1580 Miller Road
- 1498 Miller Road
- 1359 Miller Road

In addition, this viewshed includes the transitory users of Miller Road as well.

Mitigation:

Noise Study: The Noise study has recommended a 2.0 metre berm be constructed within the 15.0 metre setback, along the north property limit of the 'eastern tab'.

Sightline View:

1. See cross-section C-C' which illustrates a representative sight-line of this viewshed through the residence at 1630 Miller Road.

   The cross-sections C-C', demonstrates that a person standing in the rear yard of **1630** Miller Road would be able to see the uppermost portion of a 15.0 metre high product stockpile / stockpile stacker if it were placed in proximity to the quarry boundary during the initial 8.0 metre extraction lift. However, to place the view in perspective, the operational view will be >**333** metres distant and be partially obscured due to:

   a) The existing intervening screening vegetation,
   b) The proposed 2.0 m high perimeter berm.

   Therefore, although a temporary view of a stockpile might be possible during a short duration of the quarry life, it will be at a substantial distance and partially or fully obscured by **the** intervening **2.0 metre high berm**.

Additional Recommendations:

i) The reduction of the height of all product stockpiles to 10.0 metres during the first 8.0 metres excavation lift when within 200.0 metres of a residence.

2. See cross-section D-D' which illustrates a representative sight-line of this viewshed through the residence at 1498 Miller Road.

   The cross-sections D-D', demonstrates that a person standing in the side yard of 1498 Miller Road would be able to see the uppermost portion of a 15.0 metre high product stockpile/stockpile stacker if it were placed in proximity to the quarry boundary during the initial 8.0 metre extraction lift. However, the operational view will be partially obscured due to:

   a) The proposed 2.0 m high perimeter berm.

   Additional Recommendations:

   i) To be consistent with the proposed berm heights on Highway 3, it is being recommended to increase the perimeter berm along Miller Road to 4.0 metre high (Berm D) with side slopes of 4:1 on the front side (street-side).

   ii) That Berm D extending a minimum 100.0 metres from the Miller Road frontage along the north and south boundaries and be 4.0-metre-high tapering to 2.0 metres.

   iii) The reduction of the height of all product stockpiles to 10.0 metres during the first 8.0 metre excavation lift when within 200.0 metres of a residence.

3. See cross-section E-E' which illustrates a representative sight-line of this viewshed through the residence at 1359 Miller Road.

   The cross-sections E-E', demonstrates that a person standing in the front yard of 1498 Miller Road would be able to see the uppermost portion of a 15.0 metre high product stockpile/stockpile stacker if it were placed in proximity to the quarry boundary during the initial 8.0 metre extraction lift. However, the operational view will be partially obscured due to:

   a) The existing intervening screening vegetation,
   b) The proposed 2.0 metre high perimeter berm.

   Additional Recommendations:

   i) To be consistent with the proposed berm heights on Highway 3, it is being recommended to increase the perimeter berm along Miller Road to 4.0 metres high (Berm D) with side slopes of 4:1 on the front side (street-side).

   ii) That Berm D extending a minimum 100.0 metres from the Miller Road frontage along the north and south boundaries and be 4.0 metres high tapering to 2.0 metres.

   iii) To provide access for farm equipment, a temporary 4.0 metre wide gap is to be retained at the mid-frontage location of the Miller Road berm. A temporary minimum 2.0 metre high berm that is a minimum 50.0 metres long, will be constructed behind the 4.0 metre berm at the gap location to provide further visual screening.

   iv) The reduction of the height of all product stockpiles to 10.0 metres during the first 8.0 metre excavation lift when within 200.0 metres of a residence.

   Therefore, no view will be available into the quarry operation via this viewshed.

v) Vegetation is being proposed to be planted along the Miller Road frontage which will include a mixture of native deciduous and coniferous trees (red maple, sugar maple, elm, black oak, white pine, black walnut, white pine and black spruce).

**Viewshed 4:**

1838 Main Street (Highway 3) is a single non-farm residence located south and east of the site with potential sight-lines to both the 'eastern-tab, (to the north and the balance of Phase 1A to the east.

Mitigation:

An existing hedgerow exists along much of the eastern property line which will augment the screening of reviews especially during the prime operational season when foliage is on the trees.

Noise Study: The Noise Study has recommended a 2.0 metre berm be constructed within the 15.0 metre setback, along the Phase 1 side-flankage of the common property boundary with the above noted residence.

Sightline View:

See cross-section F-F' which illustrates a sight-line of this viewshed through the residence at 1838 Highway 3 (Main Street).

The cross-section F-F' demonstrates that a person standing in the rear yard of 1838 Main Street would be able to see the uppermost portion of a 15.0 metre high product stockpile / stockpile stacker if it were placed in proximity to the quarry boundary during the initial 8.0 metre extraction lift. However, to place the view in perspective, the operational view will be >300 metres distant and be partially and/or fully obscured due to:

a) The existing intervening screening vegetation,
b) The proposed 2.0 m high perimeter berm.

Therefore, although a temporary view of a stockpile might be possible during a short duration of the quarry life, it will be at a substantial distance and partially or fully obscured by intervening vegetation.

**Viewshed 5:**

South of Main Street (Highway 3) are numerous residences and small commercial businesses. These include;

- 1838 Main Street
- 1751 Main Street
- 1695 Main Street
- 1627 Main Streeyt
- 1577 Main Street
- 1284 Weaver Road
- 1266 Weaver Road
- 1331 Main Street
- 1305 Main Street

In addition, this viewshed includes the transitory users of Main Street.

Mitigation:

Noise Study: The Noise study has recommended a 4.0 metre berm be constructed within the 30.0 metre setback, along the Highway 3 frontage with the above noted residences.

Sightline View:

1. See cross-section G-G' which illustrates a representative sight-line of this viewshed through the residence at 1627 Main Street.

   Additional Recommendations:

   - Vegetation is being proposed to be planted along the Highway 3 (Main Street) frontage which will include a mixture of native deciduous and coniferous trees (red maple, sugar maple, elm, black oak, white pine, black walnut, white pine and black spruce).
   - Because the main quarry access location will eventually be aligned with the Weaver Road intersection, an opening in the proposed Main Street 4.0 metre berm will be required. To ensure visual sight-lines are well screened, a cross-over alignment of the berms is being proposed.
   - The proposed 4.0 metre high berm is being proposed to be designed with a 4:1 front side (street-side) slope. With a shallower slope on the front will provide ease of regular maintenance (regular cutting) of that slope during the spring, summer and fall.

   The cross-section G-G' demonstrates that a person standing in the front yard of 1627 Miller Road would not be able to see any of the quarry operation even during the initial 8.0 metre extraction lift. This view will be fully screened due to:

   a) The proposed 4.0 metre high perimeter berm.
   b) The proposed Main Street vegetation.

   Therefore, no view will be available into the quarry operation via this viewshed.

2. See cross-section H-H' which illustrates a representative sight-line of this viewshed through the residence at 1331 Main Street.

   Mitigation:

   Noise Study: The Noise study has recommended a 4.0 metre berm be constructed along the Highway 3 frontage and a 2.0 metre high berm on all other perimeter limits.

   Additional Recommendations

   - That the berm along the western property limit be increased 3.0 metres in height.

   The cross-section G-G' demonstrates that a person standing in the front yard of 1331 Main Street would not be able to see any of the quarry operation even during the initial 8.0 metre extraction lift. This view will be fully screened due to:

   a) The proposed 3.0 metre high perimeter berm.
   b) The proposed Main Street vegetation.

   Therefore, no view will be available into the quarry operation via this viewshed.

Viewshed Summary

In summary, in no situations has visually screening relied solely on existing or proposed vegetation. The primary tool for creating visual screening is where PCQ Inc. has full control of its implementation and maintenance including perimeter berms and reduction of stockpile/equipment heights. Where existing vegetation exists, it is primarily on adjoining / neighbouring lands where PCQ Inc. has no assurances of its long-term health nor retention. As such, any reference to vegetation acting as a visual screen is only to augment what PCQ will physically be required to provide.

# 8 Recommendations

1. To visually screen the Pit 3 Extension, the following is recommended:

   Berm A: A 4.0 metre high berm along the Second Concession frontage built with a 4:1 slope on the external side and 3:1 on the internal side and with vegetation plant between the berm and boundary fence as recommended in the NEL 1-2 report.

   Berm B: A 2.0 metre high berm along the northern portion of the eastern property boundary with a 3:1 slope. Existing hedgerow vegetation is to be retained where possible.

   Berm C A 2.0 metre high berm along the northern portion of the 'eastern-tab' built with a 3:1 slope.

   Berm D A 4.0 metre high berm along the Miller Road frontage and extending latterly for 100.0 metres along the northern and southern property limits of the 'eastern-tab' with a 4:1 slope on the external side.

   Where the 4.0 metre gap is retained at the mid-frontage location in the berm for farm equipment access, a temporary minimum 2.0-metre-high berm (minimum 50.0 metres long) will be constructed behind the 4.0 metre berm at the gap location.

   Berm E 2.0 metre-high berm along the southern portion of the 'eastern-tab' built with a 3:1 slope.

   Berm F A 2.0 metre high berm along the eastern boundary of the property extending south to Main Street and built with a 3:1 slope.

   Berm G A 4.0 metre high along the Main Street frontage built with a 4:1 slope on the external side.

   Berm H A 3.0 metre high berm along the western property boundary associated with 1326 Main Street.

2. During the initial 8.0 metre deep excavation lift, all stockpiles within 200.0 metres of Highway 3, Miller Road and Second Concession Road; shall not exceed 10.0 metres in height.

3. Both coniferous and deciduous trees are to be planted between the berm and the Highway 3 (Main Street) and Miller Road boundary fence.

4. That all berms be immediately vegetated with a grass type legume ground cover to avoid erosion, sedimentation and dust.

# 9 Conclusion

Based on the identification of the numerous viewsheds and individual visual sensitive receivers, views of the proposed Pit 3 Extension quarry for the abutting sensitive receivers have been sufficiently visually screened subject to the implementation of the above noted recommendations.

Yours truly

**IBI GROUP**

David R. Sisco, BA, MCIP, RPP
Senior Planner

DRS/baw

DAVID R. SISCO
REGISTERED PROFESSIONAL PLANNER
R.P.P.

I hereby certify that this Visual Impact Assessment was prepared by a Registered Professional Planner, within the meaning of the Ontario Professional Planner's Institute Act, 1994.

Jan. 28th 2022 _____
Date David R. Sisco, BA, MCIP, RPP

https://ibigroup.sharepoint.com/sites/Projects/115774/Project Documents/10.0 Reports/VisualImpactAssessment/PTR_VisualImpactAssessment-JART Response.docx\2022-01-28\BW