

PLANNING REPORT

PROPOSED ZONING BY-LAW AMENDMENT

HIDDEN QUARRY

**PART OF LOT 6
CONCESION 1
TOWNSHIP OF GUELPH-ERAMOSA
(FORMER TOWNSHIP OF ERAMOSA)
COUNTY OF WELLINGTON**

SEPTEMBER, 2012

PREPARED FOR:

**JAMES DICK CONSTRUCTION LIMITED
P.O. Box 470
Bolton, ON
L7E 5T4**

PREPARED BY:

**STOVEL AND ASSOCIATES INC.
297 Briarhill Drive
Stratford, ON
N5A 7T1**

PHONE: 519-272-2884

EMAIL: STOVEL.ASSOCIATES@SYMPATICO.CA

1. INTRODUCTION

1.1 Description of Development

James Dick Construction Limited (JDCL) has operated a commercial aggregate and concrete business in southern Ontario since the early 1960's. The customer base for JDCL's business activities is primarily road construction projects, however JDCL also supplies private sector consumers with construction aggregate and concrete fine and coarse aggregate. In an effort to maintain reserves of high quality aggregate, JDCL purchased the subject property, located on Part of Lot 6, Concessions 1 in the Township of Guelph-Eramosa, former Township of Eramosa, County of Wellington (Map 1 – Location Map) in 1985.

JDCL has an extended history of planning-related approvals on the subject property. Since 1985 when the site was purchased by JDCL, the property was identified in the Township of Eramosa's Official Plan as an Existing Gravel Pit Operation. In 1993, when the former Township of Eramosa updated its local Official Plan, the site was identified as an Aggregate Resource area, in recognition of its future possible use as a quarry. JDCL has attempted to keep both the Township of Guelph-Eramosa and County of Wellington well-informed as to its interest in developing a quarry on the subject property.

Recently, the applicant has submitted an application for a Zoning By-law Amendment to the Township of Guelph-Eramosa to permit the use of the site as a mineral aggregate operation. An Official Plan Amendment is not required as the site is mapped as a Mineral Aggregate Area in the County of Wellington Official Plan.

The total area of the lands in question is approximately 39.4 ha, however the proposed area to be extracted is approximately 24.9 ha.

The licence sought is a Class A – Category 2 licence with extraction permitted both above and below the established water table. The proposed zoning application does not seek approval for the following land uses: Ready-mix concrete plant, asphalt plant, aggregate transfer station or a waste recycling depot.

1.2 Proposed Planning Amendments

The Hidden Quarry is designated Prime Agricultural and Core Greenlands in the County of Wellington Official Plan (1999). An Official Plan Amendment is not required to permit the establishment of a new aggregate operation on the subject property, given that the site is mapped in a recognized Mineral Aggregate Area in the County of Wellington Official Plan (Map 2).

The subject land is zoned Agricultural and Environmental Protection in the Township of Guelph-Eramosa Comprehensive Zoning By-law (Map 3). A Zoning By-law Amendment is required to permit the establishment of a new mineral aggregate operation on the subject land. The Zoning By-law Amendment will change the zone from Agricultural to Extractive Industrial.

1.3 Purpose of the Study

This report addresses the following planning matters:

- a) the impact on adjacent land uses and residents and public health and safety;
- b) the impact on the physical (including natural) environment;
- c) the capabilities for agriculture and other land uses;
- d) the impact on the transportation system;
- e) existing and potential municipal water supply resource areas;
- f) the possible effect on the water table or surface drainage patterns;
- g) the manner in which the operation will be carried out;
- h) the nature of rehabilitation work that is proposed;
- i) the effect on cultural heritage resources and other relevant matters deemed relevant by Council.

These planning issues are among the matters to be considered by Council prior to an amendment to the Zoning By-law to permit new or expanded areas for extractive purposes.

2. ADJACENT LAND USES

The subject land consists mainly of coniferous plantations/woodlands (Map 4). Two small, former pit areas are also located onsite. These lands have been colonized with wetland species and are now mapped as wetlands.

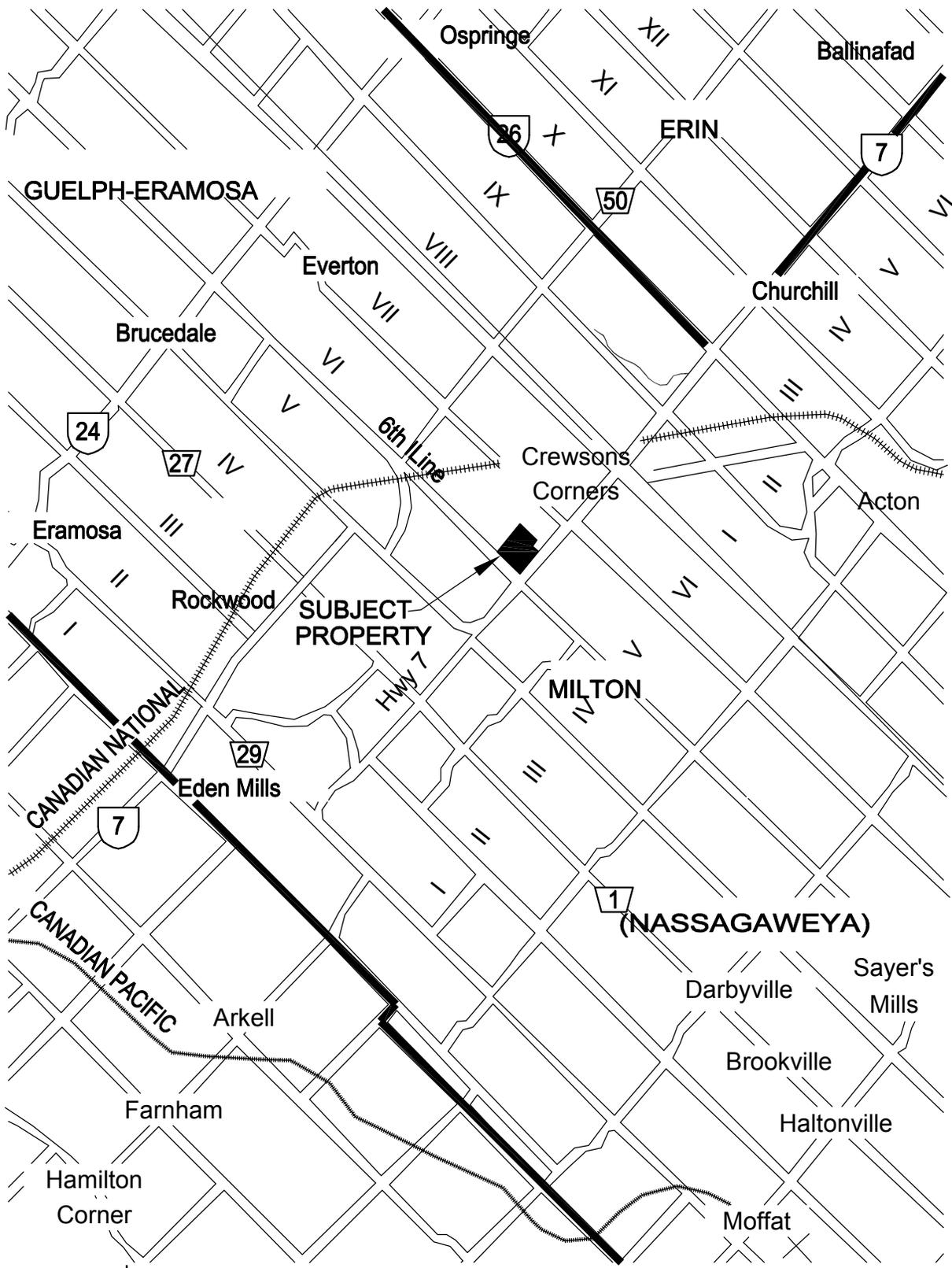
Adjacent land uses include the following:

- Farmland to the north and west,
- Scattered non-farm residences to the north, south and east,
- A recently approved industrial subdivision to the east,
- Provincial Highway 7 is located to the south, and
- Existing industrial to the south.

The closest non-farm residence not associated with the existing farm is located approximately 165 m south of the proposed area to be extracted.

2.1 Potential Social Impacts

Potential concerns associated with new mineral aggregate operations relate to the following types of issues: noise, dust, blasting and vibration, and water-related concerns. These potential impacts are addressed in the following paragraphs. Technical



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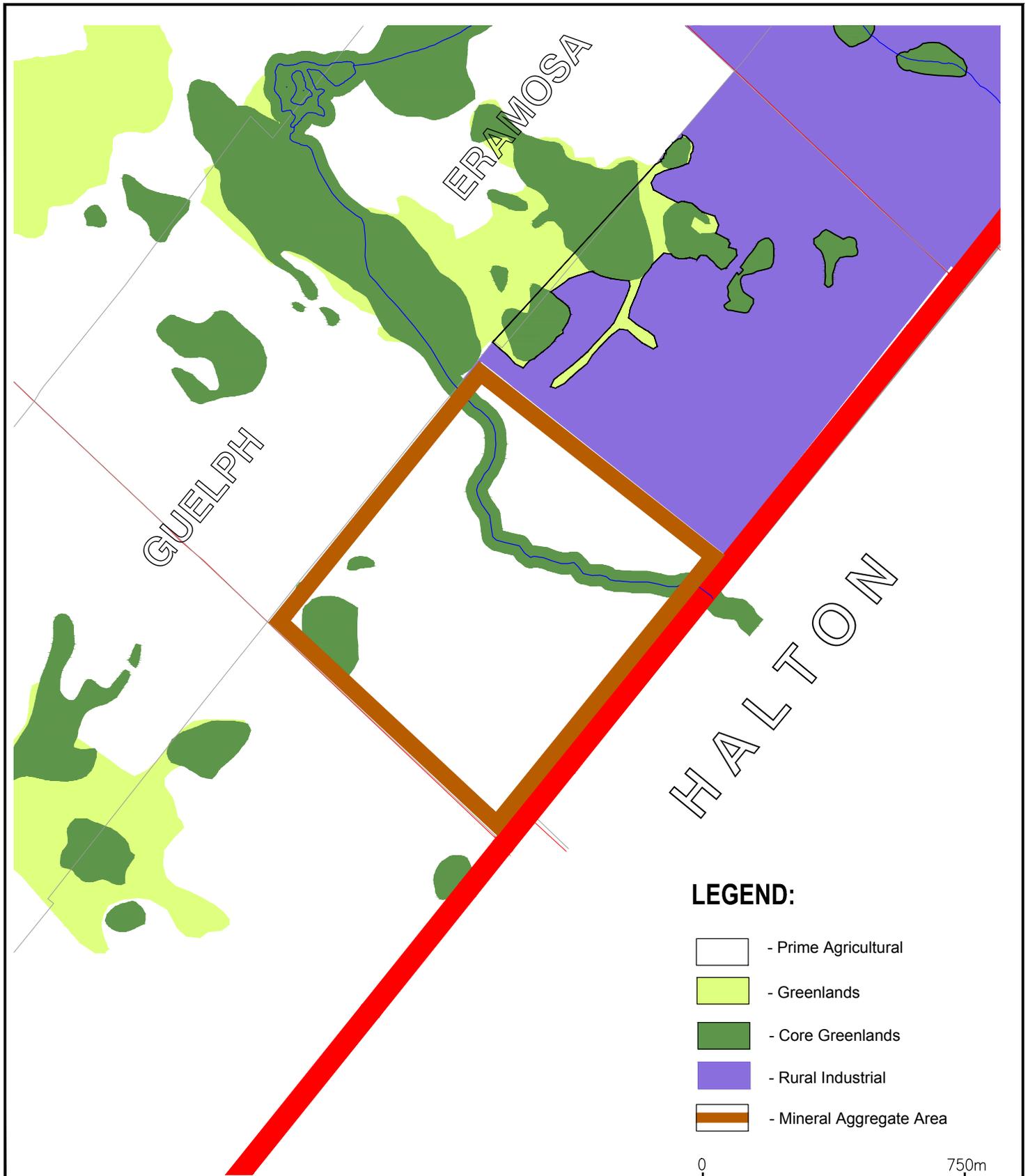
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**STOVEL
and Associates Inc.**

**HIDDEN QUARRY
LOCATION OF
SUBJECT LANDS**

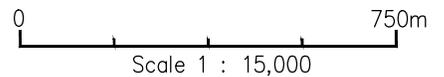
PART OF LOT 1, CONCESSION 6
TOWNSHIP OF GUELPH-ERAMOSA
FORMER TOWNSHIP OF ERAMOSA
COUNTY OF WELLINGTON

**MAP
1**



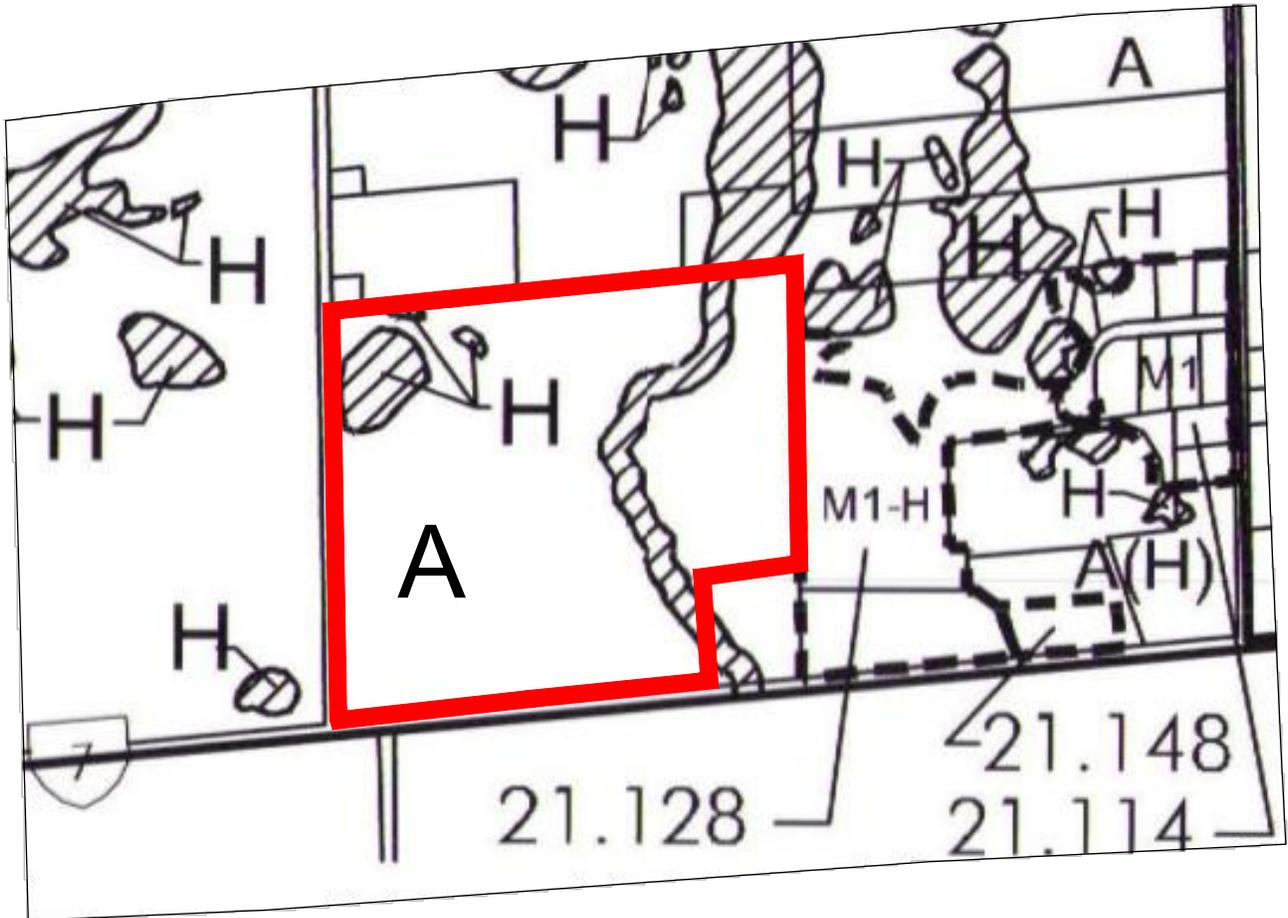
LEGEND:

-  - Prime Agricultural
-  - Greenlands
-  - Core Greenlands
-  - Rural Industrial
-  - Mineral Aggregate Area



Source: County of Wellington Official Plan. Schedule A-1 Centre Wellington

<p>JAMES DICK CONSTRUCTION LTD.</p>	<p>STOVEL and Associates Inc.</p>	<p>HIDDEN QUARRY OFFICIAL PLAN DESIGNATION</p>	<p>PART OF LOT 1, CONCESSION 6 TOWNSHIP OF GUELPH-ERAMOSA FORMER TOWNSHIP OF ERAMOSA COUNTY OF WELLINGTON</p>	<p>MAP NO: 2</p>
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LEGEND:

- M1** RURAL INDUSTRIAL
-  **H** HAZARD LAND
- A** AGRICULTURAL

 BOUNDARY TO BE LICENSED

N.T.S.

<p>JAMES DICK CONSTRUCTION LTD.</p>	<p>STOVEL and Associates Inc.</p>	<p>HIDDEN QUARRY ZONING MAP</p>	<p>PART OF LOT 1, CONCESSION 6 TOWNSHIP OF GUELPH-ERAMOSA FORMER TOWNSHIP OF ERAMOSA COUNTY OF WELLINGTON</p>	<p>MAP NO: 3</p>
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W = WOODLAND
A = AGRICULTURE

FP = FLOODPLAIN
- - - PROPOSED LICENCE LIMITS

N.T.S.

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LAND USE

HIDDEN QUARRY
PART OF LOT 1, CONCESSION 6
TOWNSHIP OF GUELPH-ERAMOSA
FORMER TOWNSHIP OF ERAMOSA
COUNTY OF WELLINGTON

MAP NO:
4

recommendations have been summarized in the following paragraphs but it is recommended that the reader review the appropriate technical reports and refer to detailed figures, appendices and technical recommendations contained within these documents.

Noise and Blasting

A Noise and Blast Impact Study for the proposed operation was completed by Aercoustics Engineering Limited (“Aercoustics”). The phasing of the proposed quarry operation was developed in consultation with Aercoustics. The mitigation measures recommended by the Aercoustics were included on the Site Plans.

There are several important considerations related to the potential for affecting the current noise environment. These considerations relate to the following:

- the existing topography and extraction face have been used as a natural noise barrier;
- a main processing area will be established in the western portion of the site. The processing plant will be enclosed by stockpiles that will have a minimum height of 10 m and 12 m;
- onsite mitigation measures, such as perimeter berming and setbacks, will be employed to ensure that noise levels do not exceed regulated limits; and
- a phased approach to extraction that will make use of the extraction face as a shield between the operation and the sensitive receptors.

In terms of operating hours, JDCL will use the following:

- Extraction and processing operations may occur between the hours of 7 am and 7 pm, Monday to Fridays and 7 am to 1 pm on Saturdays; and
- Loading and hauling operations may occur between the hours of 6 am and 6 pm, Mondays to Fridays, and 6 am to 1 pm on Saturdays;
- Drilling and Blasting will occur from 8 am to 5 pm weekdays (no drilling or blasting on weekends).

These operational protocols are addressed in the Noise and Blast Impact Study and set out on the Site Plans. Despite the times indicated, the practice at James Dick is to operate shipping from 7 am to 5 pm and production from 7 am to 5 pm. Saturday work is rarely done and then usually only in response to a government project that has certain time restrictions on it such as a highway closure only on weekends. The reader is directed to review the Noise and Blast Impact Study and the Site Plans to obtain more details on noise impacts and mitigation measures.

Blasting and Vibration

Overpressure and vibration due to quarry production blasting shall meet the specific limits outlined in MOE publication NPC-119. Provided that routine monitoring of levels is employed, the target criteria defined by this publication are 128dBLin and 12.5mm/sec. peak for overpressure and vibration, respectively.

Recommendations

The following recommendations are provided in order to meet the applicable criteria:

- 12m and 10m high stockpiles should be maintained in certain locations around the processing plant for each phase and stage. The stockpile peaks should be located no further than 30m from the processing plant, and should be located such that, in plan, they block line-of-sight between processing plant equipment and sensitive receptors, as described in the table below:

Table 4: Recommended Stockpile Height and Position

Stockpiles Positioned to Shield Receptor	Minimum Stockpile Height (m)
R1, R15, R16, R17, R18	10
R3, R4, R5, R11, R19	12

This configuration is illustrated on Figure 3.

- A quiet drill with a maximum sound power rating of 112dBA should be used. This corresponds to a maximum sound pressure level rating of 75dBA at 30 meters.
- Earth berms should be constructed to the elevations shown and located as shown on Figure 3.
- The recommended direction of extraction is indicated on Figure 3.
- The processing plant area should be established at an elevation of 349m, and a haul route trench connecting the processing plant area to the Phase 1 extraction area should be excavated to the same 349m elevation.
- A blast design should be employed which limits the allowable weight of charge per minimum delay period. Typically the minimum delay period is in the order of 10 milliseconds and the weight of charge is designated accordingly depending on setback distance.

- All construction equipment used in site preparation/construction must meet the sound emission standards defined in MOE publication NPC-115. The relevant background information on non-stationary noise sources as well as publication NPC-115 is given in MOE Model Municipal Noise Control Bylaw, 1978 as well as the sound source exclusions defined in MOE publications NPC 205/232, 1995, included in the attached.

These recommendations have been incorporated onto the Site Plans.

Dust

Dust will be controlled through the regular application of water, on an as needed basis.

A requirement to mitigate dust-related impacts is set out in Prescribed Conditions under the Aggregate Resources Act. Prescribed Conditions are appended to the licence. The Prescribed Conditions that relate to the control of dust are as follows:

- 3.1 Dust will be mitigated on site.
- 3.2 Water or another provincially approved dust suppressant will be applied to internal haul roads and processing areas as often as required to mitigate dust.
- 3.3 Processing equipment will be equipped with dust suppressing or collection devices, where the equipment create dust and is being operated within 300 m of a sensitive receptor.

RWDI Inc. has completed an Air Quality Assessment for the proposed Hidden Quarry. The following recommendations were developed to ensure that the proposed quarry operates within acceptable limits:

1. *The quarry is limited to 12 hours of operation per day, from 7:00 am to 7:00 pm for site preparation, drilling, blasting, excavation, processing operations and rehabilitation activities, and 6:00 am to 6:00 pm for shipping operations.*
2. *The maximum processing rate of 6,000 tonnes per day is not exceeded.*
3. *Equipment-specific controls (tailpipe emission tiers, dust suppression, speed limits, etc.) listed in Appendix B of this report will be implemented;*
4. *An Environmental Compliance Approval under Section 9 of the Environmental Protection Act (EPA) will be obtained as required.*
5. *A Best Management Practices Plan will be developed and implemented.*

6. *The processing plant should be located approximately as shown on the site plans*
7. *Stripping of overburden should be limited to times when extraction, production and shipping activities are well below the estimated peak rate of 6,000 tonnes per day.*

3. NATURAL ENVIRONMENT

In accordance with Provincial Standards, a Natural Environment Report was prepared. The purpose of the Natural Environment Report was to:

“...determine whether any of the following features exist on and within 120m of the site: significant wetland, significant portions of habitat of endangered or threatened species, fish habitat, significant woodlands (south and east of the Canadian Shield), significant valley lands (south and east of the Canadian Shield), significant wildlife habitat and significant areas of natural and scientific interest.”

Subsequently, a Natural Environment Level 2 study will be required if:

“...where the Level 1 study identified any features on and within 120 m of the site ... (a natural environment Level 2 study will be required)... in order to determine any negative impacts on the natural features or ecological functions for which the area is identified, and any proposed preventative, mitigative or remedial measures.”

GWS Forestry and Ecological Services Inc. prepared a Level 2 Natural Environment Technical Report. The Natural Environment Technical Report was conducted to determine the significance of natural features that occur in the study area and assess the potential impacts associated with proposed mineral aggregate extraction. Natural features found on the property and adjacent lands include provincially significant wetlands, significant woodlands and significant wildlife habitat. The following conclusions have been reached.

- *There will be no direct or indirect impacts to on-site or off-site PSWs and their significant wildlife habitat functions.*
- *The woodlands on the subject property have not been previously identified as significant and the analysis provided herein confirms that only a small portion of the existing woodland area has attributes that could potentially warrant this designation.*
- *There will be no effects on significant wildlife habitat, including amphibian breeding areas and snapping turtle habitat. The progressive rehabilitation will enhance habitat for these species.*

- *Progressive site rehabilitation will, over time, increase biodiversity on the site through the creation of a lake, additional marsh and meadow habitat, cliff habitat and forested sideslopes. Existing ecological linkages to adjacent natural features will be maintained.*

These conclusions are based on implementation of the following recommended environmental protection and mitigation measures.

Recommendations

- *A 30m buffer will be established from the limit of the PSW provided the identified archaeological feature is cleared. If this is not the case, a hydraulic barrier will be installed approximately 20m from the PSW in this area in order to maintain buffer requirements around the archaeological feature. This is shown in Figure 4.2 of the Hydrogeological Investigation Hidden Quarry by Harden Environmental Services Ltd. A 20 to 30m buffer will be established from the banks of the intermittent stream and the edge of the locally significant wetland (MAM3-2) as shown on the Site Plans. Wetland boundaries will be flagged by GWS staff and confirmed by GRCA staff prior to staking setback limits.*
- *In the southeastern portion of the site GWS staff will flag and/or stake the dripline of trees which mark the boundary of FOM2-02 and will also assist the surveyors in staking the setback required from the existing off-site residence (i.e. minimum of 165m) which traverses portions of woodland units CUP3-12a, FOC2-2, FOD5-7 and CUP3-12d. Elsewhere on the property the surveyor must stake the required setbacks from property boundaries.*
- *Prior to the initiation of tree clearing operations trees which occur immediately beyond the specified setbacks will be marked with orange spray paint by GWS staff to further ensure there are no intrusions into tree protection areas. Trees to be removed will be marked with an orange dot at chest height and a slash of the butt which extends to the ground.*
- *Tree protection fencing will be installed around the limit of the extraction area after all tree clearing and grubbing is completed as discussed in Section 7.5 and shown the Site Plan. All protective fencing will be monitored during operations and maintained in a functional condition.*
- *To facilitate access to the eastern extraction area an appropriately sized culvert must be installed in the intermittent stream at the location shown in the Operations Plan. Culvert installation should occur in the summer months when there is no flow in the stream.*

- *Topsoil and overburden will be stripped and stored separately in bermed stockpiles as illustrated on the Operational Plan. All berms will be graded to stable slopes and seeded with a native uplands meadow mix to prevent erosion and minimize dust.*
- *Dust control will be implemented in accordance with the procedures described on the Operational Plan.*
- *Progressive rehabilitation will be implemented as specified in the Site Plans and replanting will commence as early as possible with an emphasis on the area adjacent of the PSW and northern property line (i.e. Phase 1 on the Operational Plan).*
- *All tree and shrub planting stock will be obtained from nurseries that utilize seed from the same genetic seed zone wherein the James Dick property is located.*
- *Shoreline wetlands will only be planted with native species taken from local wetlands.*

The Site Plans implement these recommendations.

4. SOIL CAPABILITY FOR AGRICULTURE

The Ministry of Agriculture, Food and Rural Affairs (correspondence dated October 1, 1997) indicates that the subject property consists of primarily 50% Class 3 and 50% Class 5 lands, with some Class 2 lands, according to the Canada Land Inventory manuscript mapping of Soil Capability for Agriculture. The Ministry noted that the subject property has been designated for a use other than agriculture and are not of provincial interest from an agricultural perspective.

5. TRANSPORTATION

Cole Engineering Limited (2012) prepared a Traffic Impact Study for the proposed quarry. As set out in the conclusions of this study, the potential for impacts related to transportation is minimal.

The annual extraction rate of the proposed quarry is set at a maximum of 700,000 tonnes per year.

The proposed quarry will use Concession Road 6 to gain access to Provincial Highway 7. The entrance will be located approximately 200 m north of the intersection of Highway 7 and Concession 6. Both the entrance and the intersection at Highway 7 provide clear sight lines. On Concession Road 6, no residences will be affected by the proposed haul route as there are no houses located along this stretch of the municipal road.

The proposed quarry will not have an impact on the County road system, as no County roads are used as part of the primary haul route.

6. WATER

A Level 1 and 2 Hydrogeological Investigation of the Proposed Hidden Quarry was prepared by Harden Environmental Services Ltd (2012). Harden provided the following conclusions for their investigations:

- 1) The proposed extraction will be conducted with conventional methods above the water table. Where the dolostone occurs below the water table, the rock will be removed by dragline after being broken by blasting. This results in a relatively minor disturbance to groundwater levels in the dolostone aquifer. The maximum predicted impact on water levels at the property boundary is 1.8 metres.
- 2) The on-site wetland is underlain by a layer of silt till. The proposed extraction will ultimately result in additional vertical movement of groundwater beneath the wetland. A hydraulic barrier will be constructed to retain water in the overburden sediments beneath the wetland, thus minimizing any impact to flora and fauna in the wetland. It is predicted that the water balance of the wetland will change by less than 4% of the present hydrologic inputs to the wetland. The groundwater level beneath the wetland naturally falls below the surface water level in the wetland, therefore. The wetland is capable of retaining water in the absence of groundwater support
- 3) There is a net increase in the water available to the wetland post-extraction. This is mainly due to the retention of water on the wetland side of the hydraulic barrier. The calculated 6 % increase in the water volume available to the wetland is not significant. An overflow culvert will be installed at an elevation of 355.8 m AMSL to ensure that the wetland is not flooded above historical high water level mark.
- 4) There will be no negative impacts to off-site wetlands. The ground surface of the Allen wetland located north of the site is at least six metres above the groundwater level measured in nearby on-site monitor TP8. There is a loss of water in Tributary B as it passes through the Allen wetland and the wetland is situated at a higher elevation than lands to the west, south and

- east thereby eliminating the potential for groundwater contributions from those directions. The Allen wetland is therefore supported by direct precipitation, runoff from the property to the north (De Grandis) and interflow.
- 5) There will not be any loss of water to wetlands, ponds or streams downgradient of the site. It is predicted that water levels in the bedrock aquifer will increase downgradient of the quarry.
 - 6) The measured surface water levels in the northeast wetland are 3.5 metres above the groundwater elevation measured in TP8 nearby. This wetland is not groundwater dependant and will not be affected by the proposed extractive activities.
 - 7) Local residences obtain water from the dolostone aquifer. The minor disturbance to water levels in the dolostone aquifer will not significantly affect any water well with respect to quantity or quality of water available to the residence. The maximum predicted impact to the nearest water well is a drawdown of 1.6 metres. The aquifer in this area productive over a saturated thickness of more than forty metres, therefore no significant change in the yield in the nearest well, or any other well will occur.
 - 8) Spring discharge on the Allen and De Grandis properties will not be affected by the proposed extraction. These springs occur in areas higher in elevation relative to the site and are sourced from permeable overburden sediments distant from the proposed quarry. Spring discharge on the Brydson Farm will not be negatively impacted by the proposed extraction.
 - 9) The slow extraction process and extraction phasing will allow for monitoring to detect changes in groundwater levels in the overburden and dolostone. Should unexpected water level changes arise, mitigation measures will be implemented.
 - 10) The predicted final water level in the West Quarry pond is 348.6 m AMSL and in the East Quarry Pond is 348.4 m AMSL.

Municipal water is not available to the subject property or near surrounding area. There are no potential for impacts on the existing water-related municipal services as a result of the proposed project.

The subject property is not located within a Well Head Protection Area.

The monitoring program for this proposed pit/quarry involves the following activities:

- measuring groundwater levels,
- obtain water quality samples,
- monitoring water levels in the on-site wetland and stream, and
- stream flow measurements.

Parameter	Monitoring Locations	Frequency
Groundwater Levels	M1 S/D, M2, M3, M4, M6, M13S/D, M14 S/D M, MPN1, MPN2, MPS1, MPS2, MPE1, MPE2, MPW1, MPW2, TP1, TP8, TP9	Monthly April to November, February
Groundwater Levels	M2, M3, TP1, M13 S/D M14 S/D	Weekly during first 3 months of extraction
Surface Water Levels	SW6	Monthly April to November
Surface Water Flow	SW4, SW8, SW3	Monthly April to November
Groundwater Quality	M2, M4	Annually
Surface Water Quality	West Pond, East Pond	Annually

A hydraulic barrier shall be installed along the southern and eastern portions of the wetland. The barrier will limit the outflow of groundwater downgradient of the wetland. The schematic of the hydraulic barrier is set out on the Site Plans.

A water well complaint protocol will be implemented. Details are contained in the Harden report.

7. OPERATIONS AND REHABILITATION

Extraction on the subject property will occur above and below the established water table. Standard processing methods, such as extraction by a front-end loader, processing on the floor and loading/shipping from a main processing area are included for the extraction process above the water table.

Extraction below the water table involves the drilling and blasting of dolostone resources. Once the dolostone has been broken up, the raw aggregate will be removed by an excavator or drag-line, and stockpiled in the main processing

area. In the main processing area, the aggregate will be crushed/screened to appropriate sizes, stockpiled and then loaded for transport to market. Extraction will be done at the site without the need for dewatering of the excavation area, therefore there is anticipated to be minimal impacts to the water levels at the proposed quarry.

The main mitigation measures include:

- a) the use of perimeter berming for acoustic shielding, and
- b) the use of a main processing area where the processing plant will be shielded by 10 and 12 m high stockpiles.

With regard to transport of aggregate, trucks will be loaded by a front-end loader, from stockpiles in the main processing area. Trucks will haul material onto Concession Road 6 and then to Provincial Highway 7. County roads are not part of the main haul route for this proposed mineral aggregate operation.

Extraction of the subject property should be viewed as an interim land use. Extraction will be phased thus permitting progressive rehabilitation of the subject property as soon as the operational equipment is removed.

Rehabilitation will include the following:

- The two cells that will be extracted below the water table will be rehabilitated to diverse shorelines that include wetland areas along the shoreline and deep and shallow water fish habitat.
- Tableland areas, including setback areas, will be largely reforested with native trees and shrubs.

8. CULTURAL HERITAGE

A Cultural Heritage study was completed by a qualified archaeologist, York North Archaeological Services. One significant cultural heritage feature was identified in the northwest portion of the site.

Technical recommendations of the archaeologist have been incorporated onto the Site Plan to ensure protection of the cultural heritage resources.

- *An archaeological resource area has been identified in the north-western portion of the site, as outlined on the Site Plans.*
- *The extent of the archaeological site has been buffered with a 20 m setback area. A 50 m monitoring zone has also been established around the site and around a buffer zone. Site disturbance will not be permitted within the 20 m buffer zone.*
- *Any soil disturbance within the monitoring zone will be monitored by a licensed archaeologist who is empowered to stop construction if*

there is a concern for impact to the archaeological site. The area within the 20 m buffer is a no go zone for construction crews at any time.

- *No activities within the confines of this site are allowed until after the Stage 3 archaeological assessment has been implemented to the satisfaction of the Ministry of Tourism, Culture and Sport and the report has been entered into the Ontario Registry of Reports. A partial clearance is requested and a letter from the Ministry confirming that there are no further concerns with regard to alterations to archaeological sites for the specified area of the project area namely AjHa-50 (Section 7.8.5-a-e).*
- *A Stage 3 archaeological study and removal will be required to clear this property post licensing. The buffer zone shall not be disturbed should archaeological clearance not be granted. The acoustic berm will be relocated to the east and south of the Buffer zone if clearance is not granted. The limit of extraction will also be modified in this area.*
- *Should deeply buried archaeological material be found on the property during construction activities, the Ministry of Culture shall be contacted immediately (519) 675-7742.*
- *In the event that human remains are encountered during construction, the licensee shall immediately contact about the Ministry of Culture and the Registrar of the Cemeteries Regulations Unit of the Ministry of Consumer and Commercial Relations (416) 326-8404.*

9. ECONOMIC IMPACTS

The economic impacts of the proposed pit are considered to be positive, and include the following:

- The provision of a continuous supply of high quality aggregate resources in close proximity to the primary market;
- The employment of 18 full-time and contract workers;
- The contribution of fees and taxes to various levels of government;
- Payment of Aggregate Resources Act levies to the local municipality;
- Local contribution of \$84,000,000 over 20 years of goods and labour; and
- Additional expenditures in procuring local transportation services.

The most significant economic benefit of this proposed quarry relates to the continuous supply of essential construction materials in close proximity to the market. This proposed operation will provide high quality construction materials in proximity to the Halton and Peel Regions, as well as local Wellington County markets. Most of the material produced will be shipped to the east of this source location. Proximity to consumers (primarily associated with urban areas) reduces transportation costs. Transportation costs can account for up to 60% of the cost

of delivered aggregate. Close proximity to markets can also reduce wear and tear on infrastructure, such as bridges and roads, and it minimizes pollution. The products produced from this source will be capable of meeting the highest quality specifications for concrete and asphalt that will provide great value to the consumer considering the proximity to market.

10. PLANNING CONSIDERATIONS

The following paragraphs summarize the proposed pit applications relative conformity to the planning policy framework. The policies and plans that are considered in the following paragraphs include the Provincial Policy Statement (2005), the County of Wellington Official Plan and the Township of Guelph-Eramosa Zoning By-law.

10.1 Provincial Policy Statement

Based on a review of the policies set out in the Provincial Policy Statement (2005), it is my opinion that the proposed application is consistent with these policies. These policies are assessed in the following paragraphs.

Natural Heritage

The Level 1 and 2 Natural Environment Report indicates that the following significant natural heritage features are located on or adjacent to the subject property:

- Significant wetland,
- Significant wildlife,
- Significant woodland.

To ensure that negative impacts do not result from the proposed quarry, recommendations have been implemented on the Site Plans. These measures include, but are not limited to the following:

- Installation of a hydraulic barrier which will protect the onsite wetlands,
- Implementation of dust mitigation,
- Rehabilitation of the site to include ecological enhancement measures both for the aquatic/wetland systems and reforestation of the tableland areas.

Given these findings, it is my opinion that the proposed application is consistent with the provincial planning policies associated with the Natural Heritage features and functions.

Water

A Level 1 and 2 Hydrogeological Investigation was completed for the subject property. A hydraulic barrier will be installed in the northwestern portion of the

site to protect the adjacent wetland. In addition, monitoring measures and contingency plans were set out to ensure that the proposed quarry would not result in an impact on the adjacent natural heritage features.

Mineral Aggregate Resources

The main provincial policies related to Mineral Aggregate Resources are as follows:

- 2.5.1 *Mineral aggregate resources shall be protected for long-term use.*
- 2.5.2.1 *As much of the mineral aggregate resources as is realistically possible shall be made available as close to markets as possible. Demonstration of need for mineral aggregate resources, including any type of supply/demand analysis, shall not be required, notwithstanding the availability, designation or licensing for extraction of mineral aggregate resources locally or elsewhere.*
- 2.5.2.2 *Extraction shall be undertaken in a manner which minimizes social and environmental impacts.*
- 2.5.2.3 *The conservation of mineral aggregate resources should be promoted by making provision for the recovery of these resources, wherever feasible.*
- 2.5.3.1 *Progressive and final rehabilitation shall be required to accommodate subsequent land uses, to promote land use compatibility, and to recognize the interim nature of extraction. Final rehabilitation shall take surrounding land use and approved land use designations into consideration.*
- 2.5.4.1 *In prime agricultural areas, on prime agricultural land, extraction of mineral aggregate resources is permitted as an interim use provide that rehabilitation of the site will be carried out so that substantially the same areas and same average soil quality for agriculture are restored.*

The subject property is located within **Selected Bedrock Resource Area 5**, as set out in the County of Wellington Aggregate Resources Inventory Paper. Selected Bedrock Resource Area 5 covers an area of the Amabel Formation that is located at the southern boundary of Eramosa Township and extends into Erin Township. The sediments that overlie the bedrock are ice-contact stratified sand and gravel which have been designated as a selected sand and gravel resource area of primary significance.

Bedrock Resource Area 5 is well situated with respect to road (Highway 7) and rail transport routes and, for the most part, is sparsely populated. Consequently, it may be well suited for large-scale extractive development.

The Site Plans for proposed pit have been prepared based on the results and recommendations of technical studies (i.e. Noise, Environmental, and Hydrogeological Studies) to ensure that social and environmental effects are

minimized. In addition, considerations relating to rehabilitation have been considered in the preparation of the Site Plans. Progressive and Final Rehabilitation measures have been set out to ensure that ecological enhancements are incorporated on the Site Plans.

Full agricultural restoration is not required as the subject property is not comprised primarily of good quality, i.e. Class 1-3 soils, and the lands have already been removed from agricultural use, as per correspondence from the Ontario Ministry of Agriculture, Food and Rural Affairs.

It is my opinion that the approval of the proposed pit satisfies these policies, thus providing for as much of the mineral aggregate resource as is realistically possible as close to the market as possible.

Archaeology

As previously noted, a Level 2 Cultural Heritage Study was completed for the subject property. A significant archaeological resource was found in the north-western portion of the lands in question. Mitigation measures recommended in the study were implemented on the Site Plans.

Based on the results of this study, it is my opinion that the proposed application is consistent with this provincial planning policy.

10.2 County of Wellington Official Plan

The subject land is designated “Prime Agricultural” and is shown as a Mineral Aggregate Area” overlay in the County of Wellington Official Plan. An Official Plan Amendment is not required to permit the establishment of a new aggregate operation in the Mineral Aggregate Area.

Section 6.6.5 of the Official Plan sets out a series of tests for the zoning of new mineral aggregate operations. This section reads as follows:

“...New aggregate operations may be established within the Mineral Aggregate Area subject to the appropriate re-zoning and licensing. New operations proposed outside of this area shall require an amendment to this Plan. In considering proposals to establish new aggregate operations, the following matters will be considered:

- a) the impact of the adjacent land uses and residents and public health and safety;*
- b) the impact on the physical (including natural) environment;*
- c) the capabilities for agricultural and other land uses;*
- d) the impact on the transportation system;*
- e) the impact on any existing or potential municipal water supply resource areas;*

- f) *the possible effect on the water table or surface drainage pattern;*
- g) *the manner in which the operation will be carried out;*
- h) *the nature of rehabilitation work that is proposed; and*
- i) *the effect on cultural heritage resources and other matters deemed relevant by Council.*

It is essential that extraction be carried out with as little social and environmental cost as practicable. Provincial standards, guidelines and regulations will be used to assist in minimizing impacts.”

These matters were discussed in preceding sections of this Planning Report. It is my opinion that the proposed application is consistent with these planning policies.

10.3 Township of Guelph-Eramosa Zoning By-law

The approval of the proposed quarry will require a site-specific amendment to the Township of Guelph-Eramosa Zoning By-law. The zoning amendment would result in the re-zoning of the lands in question from “Agriculture” to “Extractive Industrial”.

11. SUMMARY AND CONCLUSIONS

James Dick Construction Limited proposes to establish a mineral aggregate operation in the Township of Guelph-Eramosa (former Township of Eramosa). The site is referred to as the Hidden Quarry. A Zoning By-law Amendment is required to permit this land use. An Official Plan Amendment is not required as the site has already been mapped as part of the Mineral Aggregate Area overlay in the County of Wellington Official Plan.

This Planning Report summarizes the key issues associated with the proposed application. Based on the findings of this report, it is my opinion that the proposed application is consistent with the planning policies set out in the Provincial Policy Statement and the County of Wellington Official Plan. The approval of this application will ensure that valuable mineral aggregate resources are utilized, not sterilized.

Technical reports have been prepared to address impacts related to the following:

- noise,
- dust,
- blasting and vibration,
- traffic,
- ecology,
- cultural heritage, and

- water-related concerns.

The Site Plans incorporate the recommendations of the various technical reports. Based on the findings and recommendations of these technical reports, it is concluded that the proposed quarry application will be undertaken in a manner that minimizes social impacts and environmental impacts.

In conclusion, it is my opinion that the proposed pit application represents good planning and is consistent with the planning principles set out in the Provincial Policy Statement, 2005 and the County of Wellington Official Plan. The mitigation measures / technical recommendations set out on the Site Plans, coupled with the Prescribed Conditions of the Class A Licence – Category 2, adequately protect environmental resources and ensure that potential social impacts are minimized.