

May 31st, 2011

City of Brampton
Planning, Design and Development
2 Wellington Street West
Brampton ON L6Y 4R2

RE: Visual Impact Assessment Peer Review Report for the Norval Quarry

Please find attached my independent review of the Visual Assessment and Vegetation Management Plan for the Norval Quarry prepared by Todhunter Associates dated July 20, 2010. The purpose of this review is to determine whether the report addresses all of the issues regarding the quarry proposal and adheres to standard tests for visual assessments and meets the relevant provincial plans and applicable Brampton and Peel Official Plan policies.

This work includes a site visit and a review of the site from the municipal roads, review of background reports, review of the visual assessment methodology that was applied, review of other related studies and correspondence, along with submissions of information from the proponent's consultant as relevant to visual assessment matters.

The peer review provides support to the City of Brampton in reviewing the technical completeness of the proponent's assessment of the visual resources for the Norval Quarry subject area; compliance with applicable Official Plan policies; and an evaluation from a professional perspective of the methodology, conclusions and mitigation measures identified in the proposed plans. A preliminary peer review matrix is included in **Appendix A**.

During the peer review I discussed my findings with Unterman MacPhail Associates, specifically to better understand issues related to the cultural heritage features of the property and the potential for impairment to the visual character of those features.

The opinions expressed in this peer review (including appendices) may be supplemented, reconsidered or otherwise revised by the author due to new or previously unknown information.



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1.0 Documents

During the peer review process the following documents were reviewed.

1.1 Reports

- Visual Assessment and Vegetation Management Plan Norval Quarry July 20, 2010 for Brampton Brick Limited prepared by Roger Todhunter
- Norval Quarry Site Plan Report July 10, 2010 prepared by Long Environmental Consultants Inc.
- Heritage Impact Assessment 10315 Winston Churchill Blvd Brampton Brick/Norval Property City of Brampton, Regional Municipality of Peel June 2010 (July 2010) prepared by Archaeological Services inc.

1.2 Drawings

- Views and Viewsheds Analysis V.1
- Key Plan and Cross-sections V.2
- Cross-sections V.3
- Cross-sections V.4
- Site Plan, August 5, 2010
- Site Environs, 1 of 7 August 9, 2010
- Existing Features, 2 of 7 August 9, 2010
- Progressive Rehabilitation Plan, 4 of 7 August 10, 2010
- Final Rehabilitation Plan, 5 of 7 August 10, 2010
- Adaptive Water Management Plan, 6 of 7 August 10, 2010
- Vegetation Management Plan, 7 of 7 July 20, 2010
- Operational Plan, 3 of 6 August 9, 2010

2.0 Methodology

The purpose of the visual assessment report is clearly stated, an initial visual assessment was prepared in 2008 for the rezoning application and subsequently revised in 2010 following recommendations made by Archaeological Services Inc. related to the protection of cultural heritage resources at 10315 Winston Churchill Boulevard. This resulted in the development of an additional Vegetation Management Plan to screen the proposed quarry to retain the natural setting of that property. That plan

proposed mitigation measures to address views into the quarry to protect the cultural heritage context of the area and natural vegetation associated with the tributary of the Credit River.

The methodology selected for the visual assessment is based on the United States Forest Service Landscape Management Branch Process and Guidelines for Landscape and Visual Impact Assessment (1st Edition, The Landscape Institute of Environmental Management and Assessment, 2002).

The peer reviewer cannot verify that the methodology has been applied in accordance with these guidelines. The methodology for selecting the location of the cross-sections and the equipment and or software used for preparing the photographs was not described and therefore could not be replicated by the peer review team.

In the opinion of the peer reviewer, this methodology is not commonly used in southern Ontario, particularly in urbanizing environments because it is designed for large scale landscape assessments such as linear infrastructure (roads, overhead utility corridors). This methodology is not typically used in this context, to assess a facility that is surrounded by sensitive receptors in close proximity to the subject property.

The concern for the peer reviewer is that it is not evident what criteria was employed to select the location of the cross-sections and that the selected methodology does not objectively assess where the quarry, operations area, acoustic berms and stockpiles may be visible from. In our view, if a typical assessment methodology was applied the conclusions would be different.

The technical concern is that the selection of cross-section locations is arbitrary and does not allow for a comprehensive assessment of the impacts to all of the sensitive receptors, as a result the conclusions are not complete or accurate.

3.0 Adequacy of the data

The applicant has not furnished sufficient data to establish baseline conditions or identify all sensitive receptors. Without this data it is not possible to identify all the physical changes that may have a

negative visual impact. Without complete data, it is not possible to evaluate the degree of impact on the change to the visual resources.

The missing data is critical to a complete analysis and in our view, the visibility of the stockpile was not adequately evaluated. Only cross-section H-H was prepared to illustrate the visual impact. The stockpile may be visible from other homes that back onto the quarry property and other receptors to the north and west of the stockpile site. The impact from these homes has not been evaluated. The stockpile may also be visible from the rear yards of homes along the east side of Pinecrest Road, this impact was not evaluated.

The evaluation concluded that the quarry and stockpiles are not visible, however cross-section H-H illustrates that the top of the stockpile will be visible from two homes along Pinecrest Road. The evaluation does not address the visual impact of the acoustic berm and sound attenuation wall on the cultural heritage features, specifically the effectiveness of the mitigation measures in the short term. Illustrations identifying the effectiveness of the plant materials overtime have not been provided (short term, midterm, long term).

The visual impact to the homes in the vicinity of the entrance has not been addressed. The impact of trucking activity, the need for road improvements to facilitate access and egress to the quarry property (widening resulting in loss of landscaping, screening and privacy) had not been identified.

Section E-E evaluates the visual impact of the quarry to the home to the east of the site. The cross-section illustrates that an acoustic berm is positioned along the property line (approximately 50m from the farm complex), this berm is partially screened with existing hedgerow, however, the impact of the berm and the loss of long scenic views is not addressed.

4.0 Certainty

The report concludes that the acoustic berms and vegetative enhancement zone will effectively screen the quarry where existing

vegetation and topography is ineffective. In the peer reviewer's mind this conclusion is overstated. In particular the issue of the acceptability of the visual impact of the berm and fencing is not illustrated. The acoustic berms create a significant visual impact because they are located close to sensitive receptors and the Vegetation Management Plan will require time to provide an effective screen for mitigation. Also, the loss of scenic views as a consequence of the berms and fencing has not been addressed.

5.0 Issue Gaps

- 5.1 The visual impact of the stockpile has not been adequately addressed.
- 5.2 The potential visibility of the pit, the plant and the stockpile from the north and east, as the lands urbanize has not been evaluated.
- 5.3 The visual impact of the acoustic berms and the effectiveness of the Vegetation Management Plan have not been addressed in sufficient detail to determine if the community impacts are minimized.
- 5.4 The visual impact of truck traffic, headlights and the road improvements to facilitate access and egress from Winston Churchill Boulevard have not been addressed. Two properties located at 10368 and 10364 Winston Churchill Boulevard are negatively impacted by the movement of trucks entering and exiting the site.

6.0 Mitigation/Monitoring

Of the mitigation measures that have been proposed, there is not sufficient detail to determine whether the measures will be effective. It has not been demonstrated that the mitigation measures including the vegetative enhancement zone will be adequate and function as intended. The plant materials are small (conifers at 80 cm ht, shrubs at 50 cm ht. and trees at 175 cm ht), will require time to grow in order to screen the engineered appearance of the acoustic berms.

There is no mitigation proposed to address the intrusion of truck traffic and widening of Winston Churchill Boulevard at the entrance to the proposed quarry.

7.0 Policy Review

The policy context for the protection of visual resources includes:

- 1) **Provincial Policy Statement** 2.5 Mineral Aggregate Resources, 2.5.2.2 Extraction shall be undertaken in a manner which minimizes social and environmental impacts.
- 2) **City of Brampton 2006 Official Plan** Section 4.14.4.2 In conjunction with the Provincial and Regional regulations, the City shall regulate shale extraction operation and accessory uses to ensure that environmental and community impacts are minimized, consistent with the standards laid down in pertinent legislation and municipal regulations.
- 3) **Region of Peel** Section 3.3 states “proper siting, design, management, operation and rehabilitation are essential to minimizing impacts”.
- 4) **Aggregate Resources Act** section 12.(1)(b) the effect of the operation of the pit or quarry on nearby communities; 12.(1)(d) the suitability of the progressive rehabilitation and final rehabilitation plans for the site;

8.0 Adequacy of the Report

The report does not adequately assess all of the visual impacts because some key sightlines have not been evaluated. The study should have included:

- visibility mapping (GIS Spatial Analyst) as the tool to identify all the sensitive receptors and form the basis of selecting the location of the cross-sections;
- illustration on views from each sensitive receptor (at a minimum all properties bordering the site);

- additional cross-sections need to be prepared to better evaluate the impact of the stockpile;
- photographic simulations from sensitive receptors where the viewsheds will change (acoustic berm in foreground).

The report should identify the effectiveness of the vegetative enhancements over time

9.0 Summary of Conclusions

The visual assessment report concludes that that the visual impact will be minimal because of the distance to the acoustic berm and the presence of vegetative enhancement zone associated with the acoustic berm. The peer review does not agree with this conclusion because of insufficient data and the peer reviewer cannot replicate the methodology that was employed.

The peer review has identified that there are visual impacts that have not been mitigated and the proposed mitigation measures will be inadequate until the plants in the vegetative enhancement zone grows to become effective sometime in the future.

The peer review concluded that the loss of scenic views and the replacement of these views with engineered berms represent a degradation of the scenic quality for the residents in the vicinity of the quarry.

The report fails to address the type and scale of mitigation that will be required to address visual impacts when the lands to the north and east urbanize.

The visual impact to the homes in the vicinity of the truck entrance (potential road widening) has not been identified nor have mitigation measures been proposed.

Based on the peer review, the technical report falls short of demonstrating that the community impacts are minimized consistent with the standards laid down in pertinent legislation and municipal regulations.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read "Eha Naylor". The signature is fluid and cursive, with a large, stylized initial "E".

Eha Naylor FCSLA, OALA, CIP, RPP
Dillon Consulting