THE MANORS OF BELFOUNTAIN

Visual Impact Assessment Report

Respectfully submitted to
The Niagara Escarpment Commission
and
cc: The Town of Caledon

Respectfully submitted by

Baker Turner inc

Landscape Architecture / Site Design
8501 Mississauga Road, Suite 300
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on behalf of
The Manors of Belfountain Corp.

in connection with the
Application for an Estate Residential Development of The Manors of Belfountain Property

March 5, 2018

Baker Turner inc

Landscape Architecture | Site Design

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March 5, 2018

Niagara Escarpment Commission
232 Guelph Street
Georgetown, ON
L7G 4B1

Attention: Ms. Linda LaFlamme, Landscape Architect

RE: VISUAL IMPACT ASSESSMENT REPORT FOR THE MANORS OF BELFOUNTAIN ESTATE RESIDENTIAL DEVELOPMENT

Ms. LaFlamme,

We are pleased to submit this report of the Visual Impact Assessment study carried out by BTi for the proposed estate residential development of The Manors of Belfountain property, owned by The Manors of Belfountain Corp.

An Application for a Development Permit is being filed with the Niagara Escarpment Commission concurrent with a resubmission of a Draft Plan of Subdivision to the Town of Caledon.

We would be most pleased to discuss the particulars of the report with you and meet with you and the Town of Caledon if this would be facilitate obtaining the Niagara Escarpment Commission's and the Town's approval for the development in connection with satisfying the requirements for a visual impact assessment of the proposed changes in the landscape and understanding the extent of the impact of the changes and the recommended mitigation measures to be applied.

Yours sincerely,

Baker Turner inc.

Michael Thistle, Landscape Architect OALA, CSLA

EXECUTIVE SUMMARY

The Manors of Belfountain Corp. is making an application for an estate residential development, referred to as The Manors of Belfountain, on approximately 70 hectares of land which is located within the Niagara Escarpment, the Town of Caledon (Town), and the Hamlet of Belfountain. The Niagara Escarpment Commission (NEC) requires a Visual Impact Assessment study of the proposed development to be undertaken to ascertain if the proposal is in keeping with the purpose and objectives of its planning and development legislation, and more particularly, if the development preserves the natural scenery and maintains the landforms and open landscape character of the Escarpment. The Town of Caledon also requires a Visual Impact Report to be prepared to determine and assess the visual impacts associated with the development on the surrounding visual environment.

Baker Turner inc (BTI) has carried out the Visual Impact Assessment (VIA) study, as set out in this report, to establish the baseline for the existing conditions, to identify the proposed physical changes to the landscape, to assess the impact of these proposed changes on the visual and scenic resources, and to propose mitigation measures where necessary to reduce the impact of changes on these resources. The methodology focuses on investigating the visibility of the proposed changes on the landscape when viewed from surrounding public roads, public lands and public trails, as required by the NEC. The methodology also investigates the visibility of proposed changes when viewed from other surrounding lands (private lands) to assess the impacts of development on the sense of place and the visual amenity of the Belfountain area. The scope of the study was broadened to purposes of meeting the Town's Visual Impact Report requirements.

*** A viewshed mapping was undertaken to indentify where the proposed development could be seen from the surrounding landscape. It was found that the visual catchment area boundary (i.e. the outer limits of locations in the landscape at which the proposed development could be seen) does not extend significantly beyond the property boundary and falls well within a 2 kilometre radius from the property. *** As well, photographic simulations were undertaken. This involved 3-D modeling and taking pictures of the existing conditions of the landscape and simulating the proposed changes to the landscape as a result of the proposed development. Simulations are seen through viewsheds from selected viewpoint positions in the surrounding landscape. 7 of the 16 viewsheds require some application of mitigation measures to reduce or eliminate the visibility of the proposed development. The simulations show the effect of these mitigation measures on the viewshed. 5 of the 7 viewsheds requiring mitigation measures are along Shaws Creek Road and the other 2 viewsheds requiring similar treatment are south of the development on Mississauga Road. *** Lastly, cross sections were undertaken for 2 key viewpoints positions (at Caledon Ski Club and Belfountain Community Centre) to supplement the photographic simulations and to better understand what is seen in the landscape in the path of the line of sight directed towards the property. These cross sections confirmed that no mitigation measures were required for these 2 viewsheds to screen the property from view.

The recommended mitigation measures consist of i) enhancing the existing hedgerows with in-fill planting at strategic locations along the property line boundary, ii) planting deciduous and evergreen trees and shrubs at carefully selected locations to screen views of the property from adjacent properties and to provide some privacy for adjacent residents, iii) discretely using in a minimal way berms in strategic locations to provide an additional layer of screening as well as to increase the height of the vegetation screening. All such plantings would be comprised of native species plant material as recommended by Credit Valley Conservation. To ensure that the mitigation measures have a long-term and lasting effect, the NEC requires a long-term protection and management plan to be prepared for the hedgerows, and for this work to be done in concert with the subdivision approval process.

BTi has implemented a well documented process that is replicable and sound, identified the changes in the physical and scenic resources in an accurate and objective manner, and produced a final product with a sufficient level of detail and accuracy as to enable the NEC and the Town to assess the impact of the proposed residential development on the scenic and visual quality of the Niagara Escarpment and Caledon landscapes.

Concurrent with this study, a Urban Design and Architectural Design Guidelines document has been prepared by a team of consultants to provide an urban design framework and vision for the development of the property as well as specific design criteria for the different aspects of the development, e.g. open space system, street-lot configuration, hedgerows preservation, house placement, and architectural character and built form. These guidelines will guide the development to ensure that it will integrate seamlessly with the surrounding community and environment. This urban design framework and its specific design components have been reflected in the Draft Plan of Subdivision of the property, with this draft plan being the foundation and reference base for the VIA work carried out.

The design of The Manors of Belfountain estate residential development has been carefully planned to enhance local community character and maintain the open landscape character of the Belfountain area and the Niagara Escarpment as well as to preserve the area's natural scenery. This new development is compatible with the surrounding natural environment and preserves the predominant natural features of the site, being the rolling open landform, the rural hedgerows and the surrounding woodlots and naturalized areas.

The proposed development achieves NEC's development objective for scenic resources and landform conservation: to ensure that development preserves the *natural scenery*, and maintains *Escarpment Related Landforms* and the *open landscape character* of the Escarpment. The VIA study found that with appropriate siting and design measures applied (as reflected in the Draft Plan of Subdivision), including mitigation measures as described above, the impact of the proposed development on the scenic resources of the Escarpment and the Belfountain area is minimized.

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AN ESTATE RESIDENTIAL DEVELOPMENT

VISUAL IMPACT ASSESSMENT REPORT

INTRODUCTION

The Manors of Belfountain Corp. (“MB”) is making an application for an estate residential development on approximately 70 hectares of land which is located within the Town of Caledon ("Town") and the Hamlet of Belfountain: south of the Belfountain hamlet, west of Mississauga Road and East of Shaws Creek Road. As per Section 6.2.1.6.2 of the Town of Caledon Official Plan, a Visual Impact Report is required.

The Town's Terms of Reference for the Visual Impact Report state:

> *The purpose of a Visual Impact Report is to determine and assess the visual impacts associated with the development on the surrounding visual environment. Visual impact relates to the changes in available views of the landscape and the sense of place experienced by people. The assessment is concerned with the impacts of the development on views of the landscape through intrusion, obstruction or changing the focus of views and the overall change in visual amenity.*
>
> *The goal of the assessment is to identify that there are no known visual impacts related to the project. However, if significant visual impacts are found, the Visual Impact Report must propose measures to avoid or minimize these adverse impacts associated with the project on the surrounding visual environment.*

As well, the Niagara Escarpment Commission (“NEC”) requires a Visual Impact Assessment ("VIA") study of the proposed development to be undertaken to ascertain if the proposal is in keeping with the Niagara Escarpment Planning and Development Act (Consolidated November 14, 2017) and the Niagara Escarpment Plan ("NEP") (Consolidated June 1, 2017). Part 2.13 of the NEP sets out the objective and development criteria for scenic resources and landform conservation. "The objective is to ensure that development preserves the *natural scenery*, and maintains *Escarpment Related Landforms* and the *open landscape character* of the *Escarpment*."

Accordingly, Baker Turner inc ("BTi") has carried out a study, as set out in this report, to establish the baseline for the existing conditions, to identify the proposed physical changes to the landscape, to assess the impact of these proposed changes on the visual and scenic resources, and to propose mitigation measures where necessary to reduce the impact of changes on these resources. The methodology focuses on investigating the visibility of the proposed changes on the landscape when viewed from surrounding public roads, public

lands and public trails (including the Bruce Trail), as required by the NEC. The methodology also investigates the visibility of proposed changes on other surrounding lands (private lands) to assess the impacts of development on the sense of place and the visual amenity of the Belfountain hamlet area. The scope of the investigation was broadened to embrace the requirements of the Town's Visual Impact Report's Terms of Reference.

Independent of this study, an Urban Design and Architectural Design Guidelines document has been prepared for the proposed estate residential development of the property. Thus this visual impact assessment study does not address matters that are otherwise dealt with in these design guidelines. NEP's development criteria for scenic resources and landform conservation have been incorporated in these design guidelines.

The design guidelines address the design of the development, including such items as:

i) the estate residential units (e.g. architectural style, exterior building materials used (e.g. non-reflective), setbacks, sizes, footprints, maximum heights, orientation, placement (for minimal disturbance and for optimal use of existing natural elements as screening), the septic tile fields, surfacing materials and driveways,
ii) topography (e.g. maintain/enhance existing landform, maintain natural drainage, minimize contour changes, and minimize cut and fill)
iii) the streetscape (e.g. entry features and signage),
iv) lighting for both estate units and streetscape (e.g. minimize exterior light),
v) plantings (e.g. preserve/maintain existing hedgerows and other vegetation, utilize for screening, enhance with new plantings of native species), and
vi) other natural elements (e.g. creation of swales).

In developing the guidelines, the NEC has indicated that the recommendations in the Columbia River Gorge Scenic Resources Implementation Handbook should be considered. As well, the NEC has indicated that the principles of the Dark Skies initiative should be considered in reducing light pollution emanating from the development. These reference sources have been taken into account in the design guidelines.

The design guidelines are reflected in the design of the development, as shown in the Draft Plan of Subdivision (reproduced in this report), e.g. lot layout, lot configuration, building envelope within a lot, and the street layout, all with the view to preserving and maintaining the character of the area, and the existing scenic qualities, landform and vegetation (e.g. hedgerows) of the property.

SITE and CONTEXT CHARACTERISTICS

Surrounding Area and Context

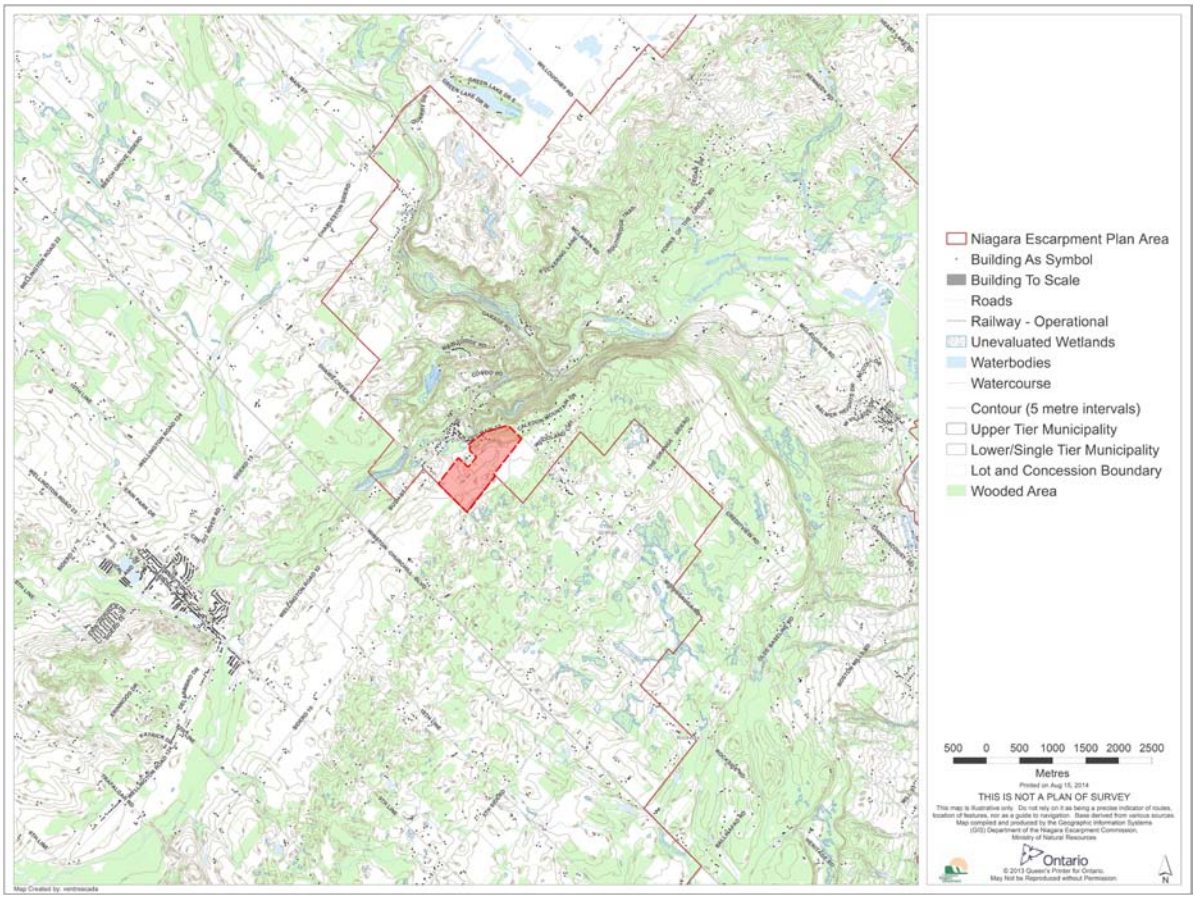
The Belfountain property owned by MB covers approximately 70 hectares of land of which roughly 70 % consists of agricultural fields and 30% consists of naturalized areas with woodlots and grasslands. The Google Earth Aerial image presented below shows the location of the property, as a red outline, within the surrounding landscape and the adjacent land uses.

The length of the property runs in a **northeast-southwest direction** and is bounded by Mississauga Road on its north side and Shaws Creek Road on its southwest side. To the northwest and in close proximity to the property is the heart of the Belfountain community and the hamlet centre. On the east side Mississauga Road, there is an existing estate residential subdivision that was built approximately 35 years ago. It has two roads of access off Mississauga Road: Caledon Mountain Drive and Woodland Court. On the west side of Shaws Creek Road, there are expansive open agricultural lands with hedgerows and to the south of these lands there are some woodlots. All along the southeast side of the property between Shaws Creek Road and Mississauga Road there is a heavily wooded area situated on elevated lands.

Google Earth Aerial

Just north of the Belfountain hamlet and on the other side of Mississauga Road there is the Credit River. From the Google Earth Aerial image one can see the winding path of the river evident by the sinuous band of dark green vegetation. The NEC Base Map presented

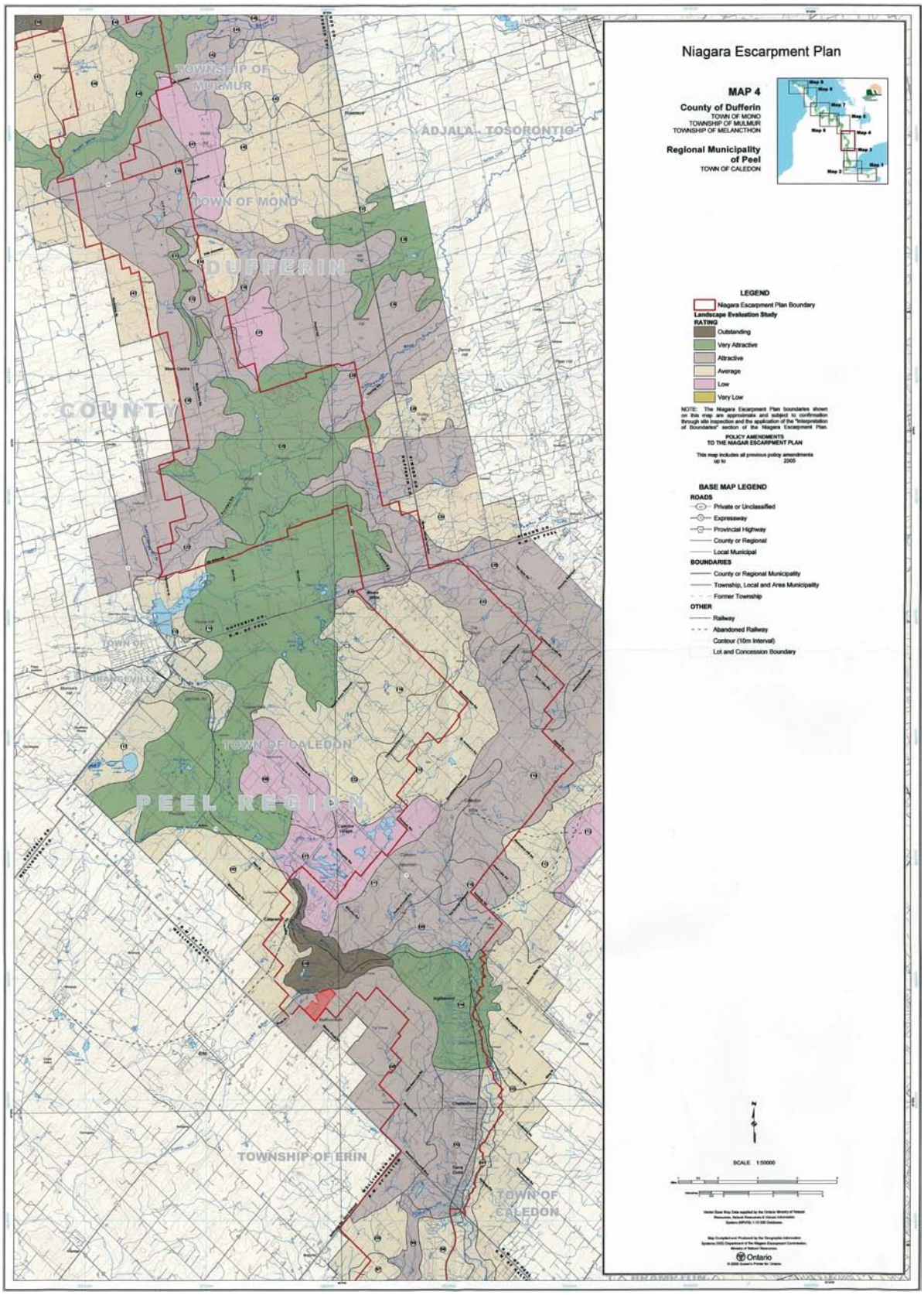
below (provided to us by the NEC) shows the hamlet of Belfountain and the greater surrounding area. The location of the property within this wider landscape is shown by the coloured red area in the centre of the map. This map shows the steep slopes of the Credit River basin and the rolling topography at the top of the banks within a concentrated area that is near the Belfountain hamlet. Within this area there is the Belfountain Conservation Area and a little further north, the Forks of the Credit Provincial Park. Between these two conservation areas, there is the Caledon Ski Club.



NEC Base Map of Surrounding Area

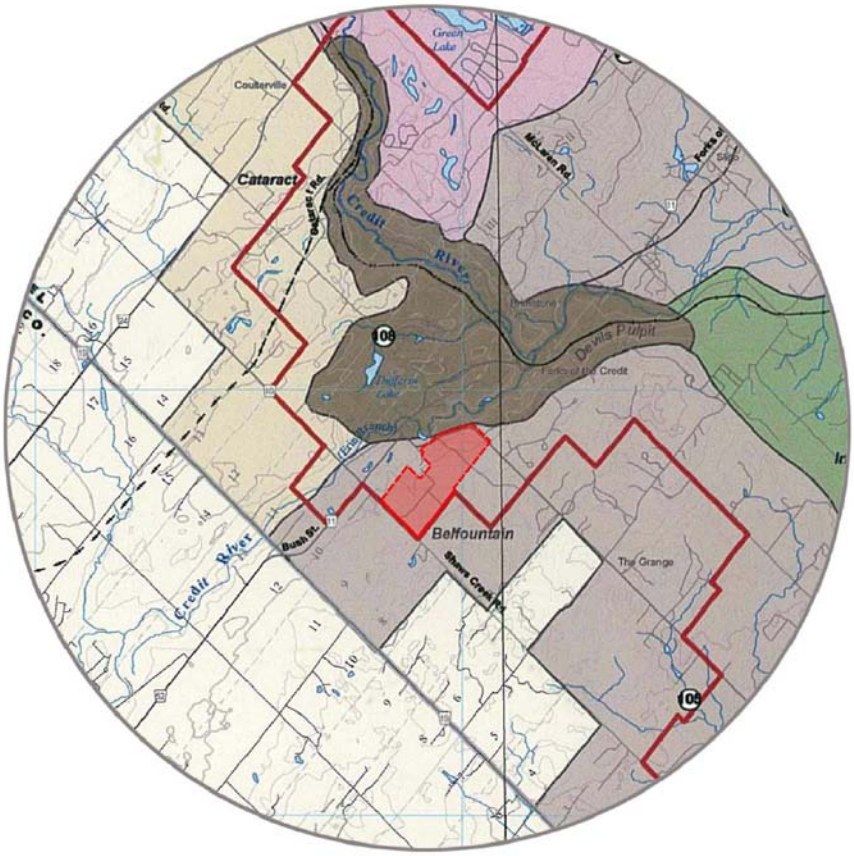
Scenic Quality

A study was previously undertaken by the NEC to evaluate the scenic quality of lands within and immediately adjacent to the Niagara Escarpment Plan Area boundary. As a result of this work, the Niagara Escarpment Plan now contains a scenic quality landscape rating system for these lands. The scenic quality of lands are rated, denoted by different colours, as either "outstanding" (brown), "very attractive" (green), "attractive" (gray/purple), "average" (beige), "low"(pink) or "very low" (yellow). According to NEC's Landscape Evaluation Study Map (containing Map #4 for County of Dufferin in which property is located) shown below, the subject property is located within the Niagara Escarpment Plan Area boundary and its landscape is considered to be visually "attractive".

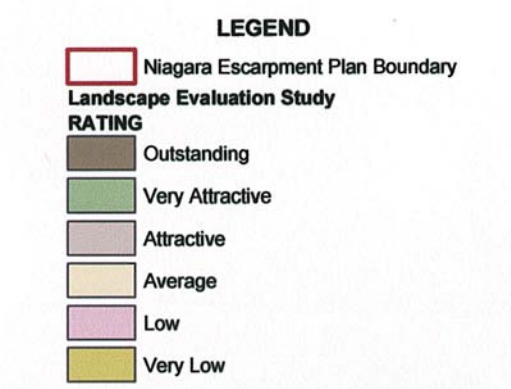


NEC Landscape Evaluation Study Map

We have provided below a "Zoom-in" of the larger NEC Landscape Evaluation Study Map so one can see clearly the scenic quality ratings of the lands in close proximity to the property. Areas south of the Belfountain hamlet, including the subject property and the existing estate residential subdivision to the east, are considered to be visually attractive (gray/purple). The large area directly to the north of the property is considered to be visually outstanding (brown). The boundary of this area runs through the heart of the hamlet and along the top of the bank of the Credit River near Mississauga Road.



"Zoom-in" of NEC Landscape Evaluation Study Map



The subject property is visually attractive with its gentle rolling agricultural fields divided by well established mature hedgerows. A pronounced wooded area runs along the north side of the property where the land descends to Mississauga Road and the Belfountain hamlet. This wooded area, which is of natural interest, contains wildlife habitats and provides wildlife corridors to surrounding areas. Even with the openness of the fields there is a sense of enclosure to the property, due to the heavily wooded area to the southeast and the hedgerows along Shaws Creek Road. This sense of enclosure adds to the attractiveness of the property.

Presented below are some images of the property which convey the attractive scenic quality rating of its landscape.



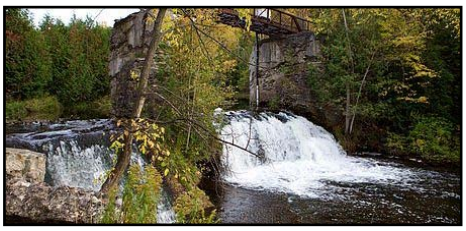
To the north and in close proximity to the subject property, the landscape is considered to be visually outstanding. This landscape is characterized by the valley of the Credit River, a largely natural landscape of dramatic beauty. This area attracts numerous visitors and tourists each year who travel the steep and curvy roads that wind through the hamlets of Belfountain and Forks of the Credit and the hilly terrain to glimpse the breathtaking views. Others, such as naturalists and hikers, seek out the Forks of the Credit Provincial Park, the Belfountain Conservation Area and the network of trails (Forks of the Credit Provincial Park Trail, Trans Canada Trail, Elora Cataract Trailway, Bruce Trail and Credit Valley Conservation (CVC) Trails.) The closest trails to the subject property are those within the nearby Belfountain Conservation Area. These trails consist of CVC's Gorge Loop Trail and the Pond Loop Trail (which traverse along the Credit River valley basin) and the Bruce Trail side trails, the Trimble Side Trail, and the Crow's Nest Side Trail (which traverse along the northern ridge of the Credit River valley). Further along the Credit River valley to the northeast is the Devil's Pulpit Ridge, a prominent rock formation on the south bank of the river. Near the Devil's Pulpit scarp face is the Bruce Trail Ring Kiln Side Trail. Also within this hilly terrain, there is the Caledon Ski Club, with its south lodge located at a high point in the landscape with panoramic views.

The Belfountain Conservation Area is directly north of the subject property and across Mississauga Road. The property has an approximate elevation of 405 metres while the Credit River basin has an elevation of 340 metres. Despite this difference in elevation, the heavily wooded slopes of the Credit River provides a visual separation of the valley and conservation area from Mississauga Road and the property beyond. This visual separation

will be demonstrated through the photographic simulations and line of sight cross sections carried out in this study.

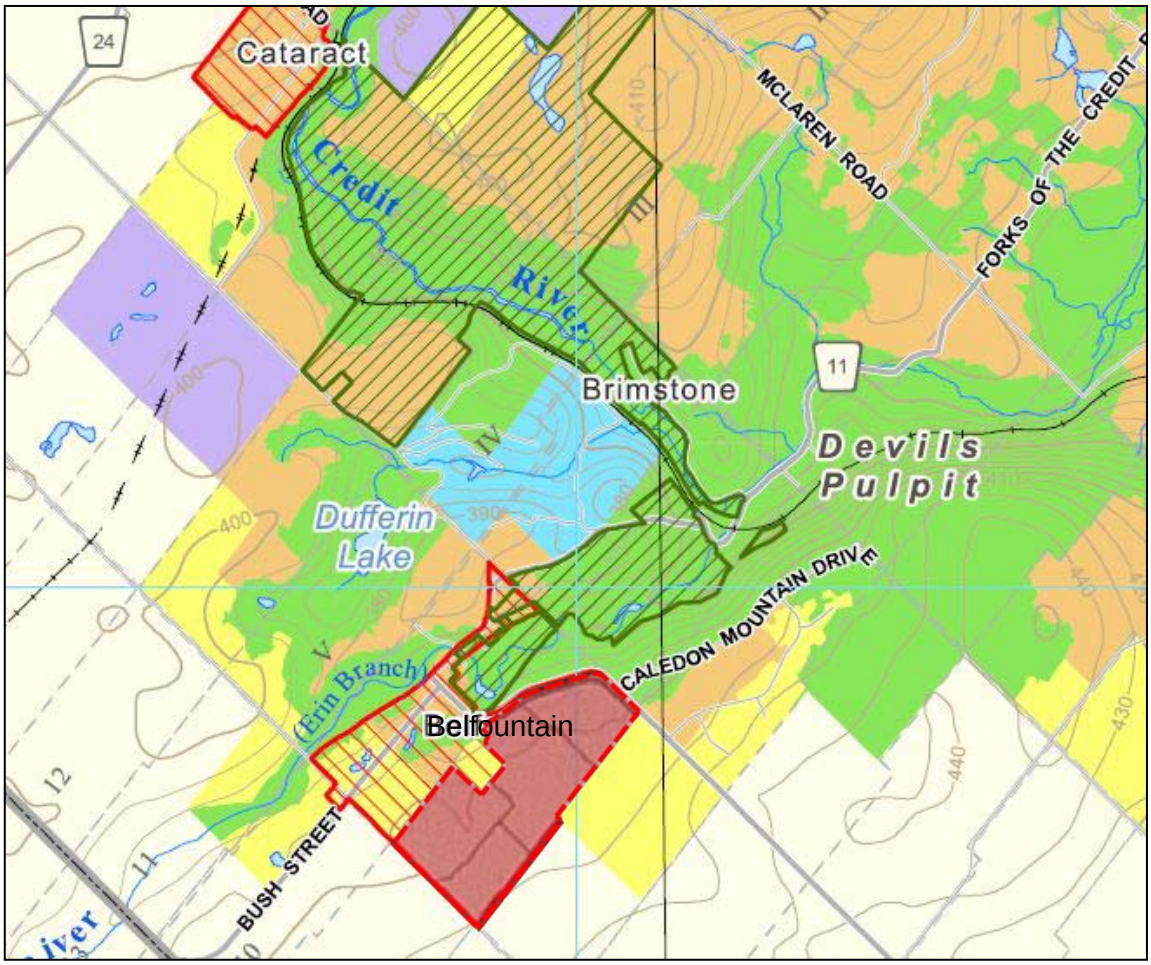
Presented below are some images of the Credit River valley which convey the outstanding scenic quality rating of this landscape.





NEP Area Designations and Parks and Open Space System

The NEP has area plan designations for the preservation, conservation and use of lands within the Niagara Escarpment boundary. The designations for the area in which the subject property is located and for the surrounding lands are shown in the "zoom-in" of the NEP's Area - Plan Designations Map 4, as shown below. The property is situated in an area designated as a Minor Urban Centre (shown as red striped area). As well, the mid and southern portions of the property fall within the designation of Escarpment Rural Area, and the most northern portion of the property falls within the designations of Escarpment Natural Area and Escarpment Protection Area. To the north of the property, there are lands designated as part of the Parks and Open Space System (shown as green striped area), which is primarily within the Escarpment Natural Area designation (shown as solid green area). The Parks and Open Space System includes the nearby Belfountain Conservation Area and the Forks of the Credit Provincial Park further north, as discussed previously. In between these two conservation areas, there is an area designated as an Escarpment Recreation Area (shown as sold blue area). The Caledon Ski Club is situated within this recreation area. Most of the trails mentioned previously fall within this Parks and Open Space System. This VIA study investigates the visibility of the proposed changes on the landscape when viewed from surrounding public roads, public lands and public trails. Thus, this study investigates the visibility of the proposed changes when viewed from areas in the Parks and Open Space System and trail systems, and where these areas fall within the visual catchment area (discussed in detail below).



"Zoom-in" of NEP Area - Plan Designations Map 4

LEGEND

NIAGARA ESCARPMENT PLAN AREA

PLAN DESIGNATIONS

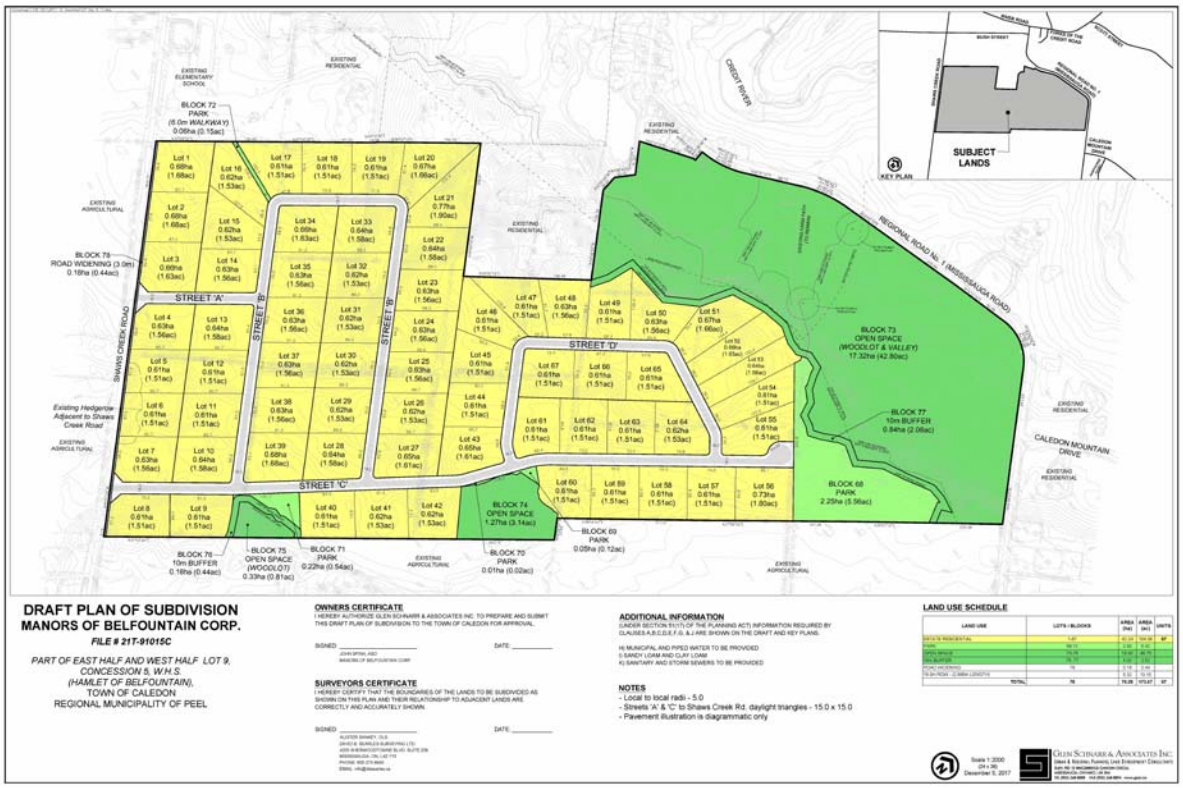
- Escarpment Natural Area
- Escarpment Protection Area
- Escarpment Rural Area
- Mineral Resource Extraction Area
- Escarpment Recreation Area
- Urban Area
- Minor Urban Centre

OVERLAY

- Niagara Escarpment Parks and Open Space System

Site and Proposed Development

A draft plan of subdivision for the proposed development of the property is presented below. This Draft Plan of Subdivision (21T-91015C, dated December 5, 2017) drawing was provided by Glen Schnarr & Associates Inc. (GSAI).



Draft Plan of Subdivision (21T-91015C, dated December 5, 2017)

The site is characterized principally by its open agricultural fields and grid-like internal hedgerows and by the wooded area on its north side. Of the site's 70 hectares, 20 hectares consist of existing naturalized areas of woodlots and grasslands, while the remaining 50 hectares consist of open fields and hedgerows. Thus, a significant portion of the site, being 28%, has vegetation that contributes to its naturalized character and attractive scenic quality.

The elevation of the site ranges from approximately 405 metres at its northeast end to approximate 400 metres at its southwest end (with some isolated high and low elevations). Thus the site slopes slightly from north to south. At the north end of the site there is a ridge which drops in elevation to Mississauga Road and the Belfountain hamlet at approximately 388 metres. This ridge, with its woodlot, provides an effective visual separation of the hamlet area from the property.

The Draft Plan of Subdivision shown above depicts the key information regarding the proposed residential development: lot layout, street configuration, and park and existing naturalized areas that will be preserved. Within the developable area of 50 hectares, 2.6 hectares are shown to be reserved for parkland and additional naturalized areas. This Draft Plan of Subdivision, as well as the suitability of the proposed lot layouts and siting of the estate units in relation to the site's existing natural features, is discussed further in the Methodology section of the report.

Visibility of Site

The visibility of the subject property is dependent on the landscape characteristics of the immediately surrounding lands. These characteristics and how they affect the views of the property from these surrounding lands are discussed below. Where the implications on the viewsheds of the property are significant, they have been noted in **Bold**. This information assisted with directing the focus of the VIA work to examining those viewsheds most vulnerable of impact from the proposed development.

To the east and southeast of the property, there are expansive agricultural lands with a continuous wooded area along the southern edge of these agricultural lands running from Mississauga Road to Shaws Creek Road. At Shaws Creek Road, this wooded area abuts the property along its southern boundary. To the southeast of the property, the wooded area merges with wetlands situated along the east side of Shaws Creek Road.

The wooded area to the southeast of the property is situated on a crest of elevated lands, ranging from 415 to 425 metres in elevation, and overlooks the agricultural lands and the property below. **This wooded area provides a visual buffer to the property directly from the southeast for public and private lands situated southeast of the wooded area.**

To the southwest of the property and Shaws Creek Road, there are agricultural lands to the north and residential lots within wooded areas to the south. The residential lots are accessed directly from Shaws Creek Road. Along Shaws Creek Road, there is a semi-continuous hedgerow of mature trees. **The entire southwest side of the property can be viewed, to varying degrees, from Shaws Creek Road.**

To the northeast of the property and Mississauga Road, there are estate residential lots with wooded areas interspersed. Access to this residential area is obtained from Mississauga Road via Caledon Mountain Road to the north and Woodland Court to the south. There is a sparsely wooded area that runs along the east side of Mississauga Road. **Views towards the property from the northeast estate residential lots on Caledon Mountain Road are buffered well due primarily to the large woodlot on the northeast side of the property along Mississauga Road. Views towards the property from the northeast estate residential lots on Woodland Court are buffered only by the trees along Mississauga Road.**

As one travels north along Mississauga Road and reaches the crest of the elevated lands described above, the property first becomes visible. **Views across the open agricultural lands towards the property from the northeast along Mississauga Road are expansive. The property is not as easily visible from the southwest, as one travels north along Shaws Creek Road and reaches the same crest of elevated lands.** This is due to the wooded area which abuts the southern property boundary providing a visual barrier from the southwest along Shaws Creek Road.

There is a school property on Shaws Creek Road that is directly adjacent to and west of the property. The school is located on open flat lands which are at approximately the same elevation as that for the southwest corner of the property. **Thus, there is a clear unrestricted view of the southwest corner of the property from the school property.**

Directly to the west of the property (and northeast of the school property), there are open natural areas with some wooded areas. **Views from these open areas from the west towards the property would have little buffer.** Further north and closer to Bush Street the land descends where there are more heavily wooded areas and wetlands. As well, there is a ridge which runs west-east from the Wilkins property through the subject property to Mississauga Road. **This heavily wooded area farther to the north provides a natural visual buffer for views from Bush Street towards the property from the northwest.**

At the midpoint and on the northwest side of the property, there is a single residential property. **Although this property is located on the northwest downward slope of the land, it is still sufficiently elevated to obtain a view of the property to its southeast.**

The north boundary of the property abuts Mississauga Road (and Old Main Street). There is a large wooded area in the north corner of the property adjacent to the road. This wooded area is shown in the Draft Plan of Subdivision drawing as the green "Open Space" area. **This wooded area in the north corner of the property provides an effective natural visual barrier for views from the north towards the property. Thus views towards the property from Mississauga Road, from Caledon Mountain Road, as well as from the Belfountain Conservation Area further north, are completely restricted.**

METHODOLOGY

Introduction

This section of the report sets out the methodology used by BTi to determine and assess the visual impacts associated with the proposed residential development on the surrounding visual environment.

The methodology describes what was done and what information was used to:

i) establish a baseline for the existing conditions of the subject property and surrounding areas,
ii) identify the proposed physical changes to the landscape,
iii) assess the impact of these proposed changes on the visual and scenic resources, and
iv) demonstrate the effect of mitigation measures in minimizing adverse impacts, where such an assessment was made.

The methodology applied follows NEC's Visual Assessment Guidelines of July 17, 2008 and the accompanying Supplemental (Draft) Photograph Simulations Guidelines of May 29, 2013.

At the time the VIA work was first undertaken by BTi, the subject property was owned by ORB Property Corporation. Since BTi's last meeting with the NEC in 2016, the ownership of the subject property has changed hands, with its new owner now being The Manors of Belfountain Corp.

BTi originally met with the NEC, with the Town in attendance, on October 22, 2014 to discuss the appropriate methodology for the VIA work for the subject property and the potential viewpoints that should be considered for selection. For purposes of discussion, BTi presented at that time draft documents i) viewshed mapping drawing with potential viewpoints noted thereon, ii) 3-D modelling views of the proposed development, iii) sample simulations of viewsheds for two viewpoints, iv) plan drawing with field of views from the two viewpoints, and v) line of sight cross sections from the Belfountain hamlet centre and from the Belfountain Conservation Area. At this meeting, NEC and the Town indicated that the viewsheds from two key viewpoints for significant locations in the landscape should be examined. These key viewpoints are the Belfountain Community Centre and the Caledon Ski Club. Line of sight cross sections for these key viewpoints were recommended. Since the time of this 2014 meeting and to the date of writing, BTi has carried out additional VIA work in accordance with NEC's and Town's comments and recommendations as expressed at that meeting.

BTi had a second meeting with the NEC and the Town on January 20, 2016 to provide a progress report on the VIA work carried out since the last meeting and to receive further input from the NEC and Town. BTi made a visual presentation showing the updated

viewshed mapping, the photographic simulations for 14 individual viewsheds, and the two line of sight cross sections for the Belfountain Community Centre and the Caledon Ski Club. It was suggested by the NEC and the Town that the viewshed towards the property from Mississauga Road may require further examination, and that additional VIA work may be required in this regard. Since that time, BTi has undertaken photographic simulations for two additional viewsheds from Mississauga Road during the winter 2016. One of the viewpoints is located on Woodland Court at its intersection with Mississauga Road, and the other viewpoint is located on Mississauga Road, south of Woodland Court, where the viewshed towards the property is the most expansive and open.

In keeping with NEC and Town goals, BTi believes it has implemented a well documented process that is replicable and sound, identified the changes in the physical and scenic resources in an accurate and objective manner, and produced a final product with a sufficient level of detail and accuracy as to enable the NEC and the Town to assess the impact of the proposed residential development on the scenic and visual quality of the Niagara Escarpment and Caledon landscapes.

In consultation with NEC, there are three main components of the VIA work that must be carried out for the subject property and its proposed development. These consist of:

1. Viewshed Mapping
2. Photographic Simulations
3. Line of Sight Cross Sections

The methodology for these three VIA work components is described in detail below. The discussion of the analysis of the proposed physical changes to the landscape and the assessment of their impact on the visual and scenic resources is set out in the following section of the report, Analysis and Assessment of Impact of Proposed Changes.

Prior to carrying out the three VIA work components, it was necessary to create a base plan or a Development Master Plan as a foundation drawing, for further drawings required. We have included in this Methodology section a description of the detailed steps that were undertaken to create the Development Master Plan. These steps are described in a) to e) below under the heading Development Master Plan. In addition, we have described what the Development Master Plan and its component drawings visually depict and reveal to the reader about the existing conditions of the subject property and about the design and layout of the proposed development.

Development Master Plan

BTi created a Development Master Plan drawing to show in plan view the proposed residential development on the existing landscape and to allow for further analysis. Information from this plan drawing fed into a Visual Analysis Plan drawing, discussed in

detail below, which shows the viewshed mapping and the visual catchment area for the subject property and lays the foundation for the selection of the individual viewpoints and viewsheds to be analyzed. The Development Master Plan drawing also enabled the creation of a 3-D model of the proposed development which was necessary to carry out the photographic simulations required for the individual viewpoints and viewsheds.

a) Draft Plan of Subdivision as Base Plan

A Draft Plan of Subdivision, dated December 5, 2017, was prepared by GSAI (and Cole Engineering) and provided to BTi in AutoCAD file format to serve as a base plan of the subject property for the VIA work. (Refer to Draft Plan of Subdivision drawing) This plan drawing depicts key information regarding the proposed residential lot layout, street configuration, and park areas and the existing naturalized areas (that will be preserved) within the property boundary. The plan drawing also provides contextual information about adjacent lands, particularly to the north of the property towards the Belfountain hamlet centre. (Refer to Table 1 for details of program and databases used in creating the Draft Plan of Subdivision)

b) Existing Conditions

Using the AutoCAD base plan of the subject property provided by GSAI, BTi created an Existing Conditions drawing. (Refer to SK.1 Existing Conditions drawing) This drawing depicts the existing roads and buildings for the adjacent lands, and the existing vegetation (woodlots and hedgerows) and contour elevations for the subject property and adjacent lands. The existing contour elevations contained within GSAI's Draft Plan of Subdivision were obtained via aerial topography, which was undertaken by a sub-consultant of GSAI during the early development phases of the project. The contour interval of the data is 5 metres. Existing buildings, vegetation and driveways/laneways were checked for completeness by importing into the AutoCAD drawing a Google Earth Pro aerial image of the subject property (Refer to Google Earth Aerial image) and the surrounding greater area and by comparing the information supplied by GSAI for the adjacent lands with the aerial image. Any missing information for existing buildings, vegetation and driveways/laneways, up to a 2 kilometre distance from the subject property, was drawn in the Existing Conditions drawing. The existing buildings include those within the Caledon Mountain Drive and the Woodland Court estate subdivision to the northeast and also within the Belfountain hamlet centre to the northwest. This Google Earth Pro aerial image contains latitude, longitude and elevation above sea level information, which is used in subsequent steps. (Refer to Table 2 for coordinate and elevation information for extents of Google Earth Pro aerial image)

c) Slope Analysis

Within the Existing Conditions drawing a slope analysis was carried out in AutoCAD Civil 3D for the subject property and the central area directly north of the property line boundary up to the Wilkins property. The slope analysis yielded areas with slope ranges of 0-10% (yellow), 10-20% (pink) and over 20% (blue). The analysis highlights the ridge which runs west-east from the Wilkins property through the subject property to Mississauga Road. Most of this ridge within the subject property is contained within the existing naturalized areas adjacent to Mississauga Road.

d) Overlay and Suitability

BTi then created an overlay AutoCAD drawing consisting of the Existing Conditions drawing and the Draft Plan of Subdivision. (Refer to SK.2 Existing Conditions with Development Master Plan drawing) This overlay drawing shows the proposed lot layout, street configuration and park areas superimposed on top of the existing conditions site information. BTi added to this drawing, the proposed residential estate unit footprints, septic tile fields, driveways and Right of Ways.

There are 4 proposed architectural models for the estate units, which were provided to BTi in 3-D SketchUp format for purposes of carrying out 3-D modelling. (Refer to 3-D Estate Unit Models image) The 2D footprints of the estate units in SketchUp were imported into the AutoCAD file and placed on the building lots, taking into account the size of the lots, setbacks required and the existing grades. As well the placement of the estate units was carried out in a manner to create an informal rural feeling. (Note: These 4 architectural models may be refined and modified based on the Urban Design and Architectural Design Guidelines that have been prepared for the subject property.)

This overlay drawing shows that some of the ridge, referred to above, extends out into proposed Lots #19,# 20, #21 and #22 on the west side of the subject property and beyond into Lots #33, #32 and #31. As well, there is a small area at the south end of the property adjacent to Shaws Creek Road that has slopes over 20%. This small area is within proposed Lot #8. Other than these described areas, virtually all of the developable lands of the subject property have slopes less than 10%.

Cole Engineering created a Functional Grading Plan drawing which addresses the extent of the grading of the property. This drawing shows the existing contour elevations and vegetation (woodlots and hedgerows), and the proposed lot layout, street configuration and park areas. This drawing however also shows the existing and proposed spot elevations for the each of the lots at roadways, and the extent of cut and fill for the interior street and for the lots. The proposed elevations for the interior street are closely aligned with the existing elevations in order to maintain and conserve the existing landform and its character and to minimize disturbance. Thus the interior street follows the existing

contours of the site as much as possible. As well, the grading adjacent to hedgerows will be minimized to ensure their preservation where possible. As for the lots, the majority of the lots will require some grading in order to site a house. However, the grading will be localized to a buildable envelope (an area where a house and septic tile field can be located) and within 5 metres of the house. In most cases, local grading to site a house will be less than a .5 metre change in elevation around the house. 11 of the 60 lots require more substantial grading. This drawing shows the proposed cut-fill for the 11 lots, Lots # 18 to #24, #31 to #33, and #8. These are the lots that are situated within or near the higher slope areas of the property, as discussed previously. For these 11 lots, the sitings of the buildings, wells and septic tile fields will be strategically placed in order to avoid the steepest slopes of those lots and to ensure minimal site disturbance. (Refer to Cole Engineering - Functional Grading Plan drawing, following SK.3 Development Master Plan drawing below, and to the Appendix)

BTi's overlay drawing, Existing Conditions with Development Master Plan, depicts the key naturalized area that will be retained and preserved. This is the large area to the north along Mississauga Road which contains woodlots with some open space and that is designated as Escarpment Natural and Protection Areas.

The overlay drawing also depicts the existing 'internal' hedgerows that appear grid-like throughout the open fields within the subject property. Many of these internal hedgerows are situated along proposed estate lot lines which will allow for their preservation. Some of the internal hedgerows cross through estate lots. To preserve as much as possible these hedgerows, the estate unit footprints, septic tile fields, and driveways were strategically placed on the lots to avoid hedgerows wherever possible. A small percentage of the internal hedgerows will however require removal. This is the case where the hedgerows cross streets and Right of Ways. The overlay drawing depicts, as well, an existing lengthy 'external' hedgerow, that runs along a significant portion of the property line boundary (on the west side near the existing public elementary school, on the southwest side adjacent to Shaws Creek Road and on the entire southeast side running from Shaws Creek Road to Mississauga Road). In addition to preserving this external hedgerow, simulated mitigation plantings were made at strategic locations and at the two proposed entrances to the subdivision off of Shaws Creek Road in order to provide visual screening of the development. Reference should be made to the RECOMMENDATIONS section of the report where the protection and management of the hedgerows are discussed.

The overlay drawing demonstrates the suitability of the lot layouts and the siting of the estate units in relation to the existing natural features of the subject property that is available for lot development.

e) Development Master Plan

BTi then created the final AutoCAD Development Master Plan drawing. (Refer to SK.3 Development Master Plan drawing)

This drawing is similar to the SK.2 Existing Conditions with Development Master Plan drawing, except for the following:

i) the slope analysis has been removed,
ii) entry features at the two entrances to the subdivision off of Shaw's Creek Road have been added,
iii) street trees have been added along both sides of the interior residential streets,
iv) portions of the existing hedgerows that are located within the streets, Right of Ways, driveways and the two subdivision entrances have been removed, and
v) zones of mitigation plantings have been added (as result of the findings of the VIA simulations work) where required.

This drawing depicts at a close-up scale a) the viewpoint positions (#1 to #16) for the individual viewsheds directed towards the subject property which were used to carry out the visual simulations (Refer to section of report, 2. Photographic Simulations), and b) the sight lines which cross the subject property that were incorporated in the line of sight cross section analysis (Refer to section of report, 3. Line of Sight Cross Sections).

The Development Master Plan drawing shows in a more complete way how the proposed residential development will appear on the subject property in plan view. This drawing builds on the Draft Plan of Subdivision prepared by GSAI (and Cole Engineering) and shows the siting of the estate units with the septic tile fields and driveways, the impact of the development on the existing hedgerows, the naturalized areas to be preserved and the additional plantings that are required as mitigation measures. (Refer to Table 2 for details of program and databases used in creating the SK.1, SK.2 and SK.3 drawings discussed above)

VIA Methodology

1. Viewshed Mapping

Viewshed Mapping *is used to identify where proposed residences will be visible from existing and proposed public roads, public trails (e.g. CVC Trails, Bruce Trail) and public lands.*

Visual Catchment Area Reconnaissance

The purpose of viewshed mapping is to objectively and accurately identify where the proposed development and the residential estate units would be visible from existing and proposed roads, public lands and from the trail systems (e.g. CVC Trails and Bruce Trail). The points or locations in the landscape at which the proposed development (all or any portion thereof) is seen establishes the boundary for a visual catchment area.

BTi undertook an extensive field reconnaissance to define the visual catchment area. Two circular zones with distances of 5 kilometres, as well as 2 kilometres, from the subject property (high point) were established on a NEC Base Map (Refer to discussion below under Visual Analysis Plan) beforehand to guide the field reconnaissance. NEC recommends as a guide that the distance away from a structure to be viewshed mapped should be a minimum of 5 kilometres. These two circular zones provided the extent to which the viewshed mapping might extend.

In the field and on a number of occasions, BTi travelled by vehicle all the public roads adjacent to and surrounding the subject property, gradually travelling outwards from the subject property to the limits of the 5 kilometre zone. Key roads travelled were roads in close proximity to the subject property, i.e. Mississauga Road, Shaws Creek Road, Bush Street and Wellington 52 Road (#11). A reconnaissance of areas of significance to the Belfountain community was also undertaken. These areas consisted of the Belfountain hamlet, the residential estate subdivision on Caledon Mountain Road and Woodland Court, the Belfountain Conservation Area, Bruce Trail and access points at public roads and within the Belfountain Conservation Area, CVC Trails within the Belfountain Conservation Area and, at the request of NEC, the Caledon Ski Club. Locations in the field at which the subject property could be seen were noted on the NEC Base Map for further examination. At these locations, BTi staff stopped and exited the vehicle to obtain a better view of the area.

Visual Analysis Plan

An AutoCAD Visual Analysis Plan drawing was created by BTi to depict the viewshed mapping for the subject property. Embedded within this drawing was the AutoCAD base plan for the Draft Plan of Subdivision provided by GSAI. Then BTi used a NEC Base Map of the greater surrounding area in the Visual Analysis Plan drawing. This Base Map was

provided by NEC's GIS Specialist in jpeg image format. This image was imported into the AutoCAD Visual Analysis Plan drawing at the appropriate scale and aligned with the property line boundary and other landscape elements in the AutoCAD base plan provided by GSAI.

The NEC Base Map provided information for the greater surrounding area on: buildings, roads and railways, watercourses and waterbodies, unevaluated wetlands, wooded areas, contour elevations (5 metre intervals), Lot and Concession boundaries, Municipal boundaries, and the Niagara Escarpment Plan Area boundary. (Refer to Table 3 for the details of the program and databases that were used in creating this NEC Base Map)

BTi then recorded the following additional information in the Visual Analysis Plan drawing:

i) the boundaries of the 2 kilometre and 5 kilometre zone,

ii) high elevation points for the surrounding lands, which were obtained from the Google Earth Pro aerial image elevation information,

iii) the boundaries of the areas of the scenic quality landscape ratings, which were obtained from the Landscape Evaluation Study Map produced by NEC (Refer to Landscape Study Evaluation Map and close-up view on pages 5 and 6),

iv) the boundary of the NEP Parks and Open Space System, which was obtained from the NEP Area - Plan Designations Map 4 produced by NEC (Refer to NEP Area - Plan Designation Map 4 close-up view on page 9),

v) CVC Trails within the Belfountain Conservation Area (Gorge Loop Trail and Pond Loop Trail), which were obtained from the Belfountain Complex Strategic Directions Report, Stage Two, CVC 2016. Note: a) These trails fall within the 2 kilometre boundary, b) These trails cannot be discerned on the scale of our drawings, so they are noted by a red star. (Refer to CVC Trails Map from this Belfountain Complex Strategic Directions Report in the Appendix),

vi) the Bruce Trail side trails in or near the Belfountain Conservation Area (Trimble Side Trail, Crow's Nest Side Trail and Ring Kiln Side Trail), which were obtained from The Bruce Trail Conservancy (BTC) Note: These trails fall within the 2 kilometre boundary. (Refer to BTC Map #14 Terra Cotta and to BTC Map #15 Forks of the Credit in the Appendix),

vii) other trails systems in the surrounding area: Bruce Trail and side trails (The Quarryman's Side Trail, Dorothy Medhurst Side Trail, McLaren Road Side Trail), Forks of the Credit Provincial Park Trail (Meadow Trail), Trans Canada Trail, and the Elora Cataract Trailway, which were obtained from The Bruce Trail Conservancy (BTC) maps. Note: These trails fall within the 5 kilometre boundary, but outside of the 2 kilometre boundary. (Refer to BTC Map #14 Terra Cotta and to BTC Map #15 Forks of the Credit in the Appendix),

viii) existing buildings and vegetation for adjacent lands not reflected on the NEC Base Map, which were obtained from the Google Earth Pro aerial image.

The Landscape Evaluation Study Map, the NEP Area - Plan Designations Map 4, the CVC Trails Map and the BTC Maps were digitized in the AutoCAD Visual Analysis Plan drawing, with the information in these maps appearing as linework in the AutoCAD file. The maps were aligned with landscape elements in the AutoCAD base plan provided by GSAI and the NEC Base Map. Similar to what was done for the SK.1 Existing Conditions drawing, the existing buildings and vegetation for the adjacent lands as reflected on the NEC Base Map were compared to the Google Earth Pro aerial image and any missing information was recorded in the Visual Analysis Plan drawing. (Refer to Table 4 for details of program and databases used in creating the Visual Analysis Plan)

BTi transcribed onto the NEC Base Map in the Visual Analysis Plan drawing, the locations in the landscape at which the proposed development (all or any portion thereof) could be seen as a result of the field reconnaissance work. BTi then examined on the NEC Base Map the areas between the locations in the landscape at which the proposed development could be seen and the areas adjacent to the property to draw the line of the visual catchment area boundary and connect the field location points. In determining the visual catchment area boundary line, open areas adjacent to the property extended the visual catchment area away from the property to the maximum field of view, while wooded areas adjacent to the property limited and restricted the visual catchment area to the edge of the wooded areas. As well, consideration was given to the elevation of the surrounding lands and the marked high points relative to the subject property. High elevation points were scrutinized further and revisited in the field where necessary, particularly where the high points were located in expansive open areas or at key locations such as at the Caledon Ski Club. As necessitated, the visual catchment area boundary was stretched and modified as appropriate to take into account these additional considerations described above.

This work culminated in defining the visual catchment area for the subject property. This area is shown on the Visual Analysis Plan drawing as the red striped zone, surrounding the subject property. The visual catchment area happens to fit within the 2 kilometre zone. The subject property can not been seen at a distance greater than 2 kilometres from its location. (Refer to Visual Catchment Area and Viewpoints drawing, and the Visual Analysis Plan drawing)

This Visual Analysis Plan drawing laid the foundation for the selection of the individual viewpoints and viewsheds that were analyzed in the Photographic Simulations phase of work. This drawing depicts at a "zoomed out" scale a) the viewpoint positions (#1 to #16) for the individual viewsheds directed towards the subject property which were used to carry out the visual simulations. How these individual viewpoints were selected is discussed in detail below.

2. Photographic Simulations

Photographic Simulations *from selected viewpoints and individual viewsheds are used to document existing conditions and produce simulations.*

This component of the VIA work entailed a two step process: the creation of a 3-D model of the Development Master Plan and then the creation of progressive-stepped photographic simulations. These two steps are described in detail below. The photographic simulations, the product of this work, present in a visually clear way the individual viewsheds of the existing conditions and the proposed physical changes to the landscape. These simulations assist in the determination of the impact of these changes on the visual and scenic resources of the Belfountain landscape.

Step 1 - Creation of 3-D Model of Development Master Plan

BTi created a 3-D model of the Development Master Plan to show in a 3 dimensional way the proposed residential development on the existing landscape and to allow for further analysis. This 3-D model enabled the creation of individual viewsheds of the subject property in 3-D model space perspective view so that the required photographic simulations could be carried out. The detailed steps that were undertaken to create the 3-D model of the Development Master Plan are described in a) to c) below.

a) 3- D Terrain

The AutoCAD file of the Development Master Plan was imported into SketchUp, a 3-D architectural modelling program. The contour database information in AutoCAD contains Z coordinate information (in addition to plan view X and Y coordinates) that is used by SketchUp to create a 3-D terrain model of the subject property. This is accomplished by using the "Sandbox" tool in SketchUp.

For the area outside of the subject property, BTi imported a Google Earth Pro aerial image into SketchUp. This is accomplished by using the tool "Add Geolocation". BTi then created a 3-D terrain model of the area outside of the subject property in SketchUp by turning the "Terrain" layer on. SketchUp uses elevation information from Google Earth to create a 3-D model of the surrounding terrain. (Note: The Google Earth Pro aerial image here is the same image as that used for the Development Master Plan and the Visual Analysis Plan AutoCAD drawings.)

For clarity, the 3-D terrain model was based on the existing topography and elevations of the subject property, that were obtained via aerial topography during the early development phases of the project. An analysis of the site indicates that minimal grading can be achieved during the development of the subject property. Existing grades can be preserved as much as possible, other than for the footprint areas of the estate units and the

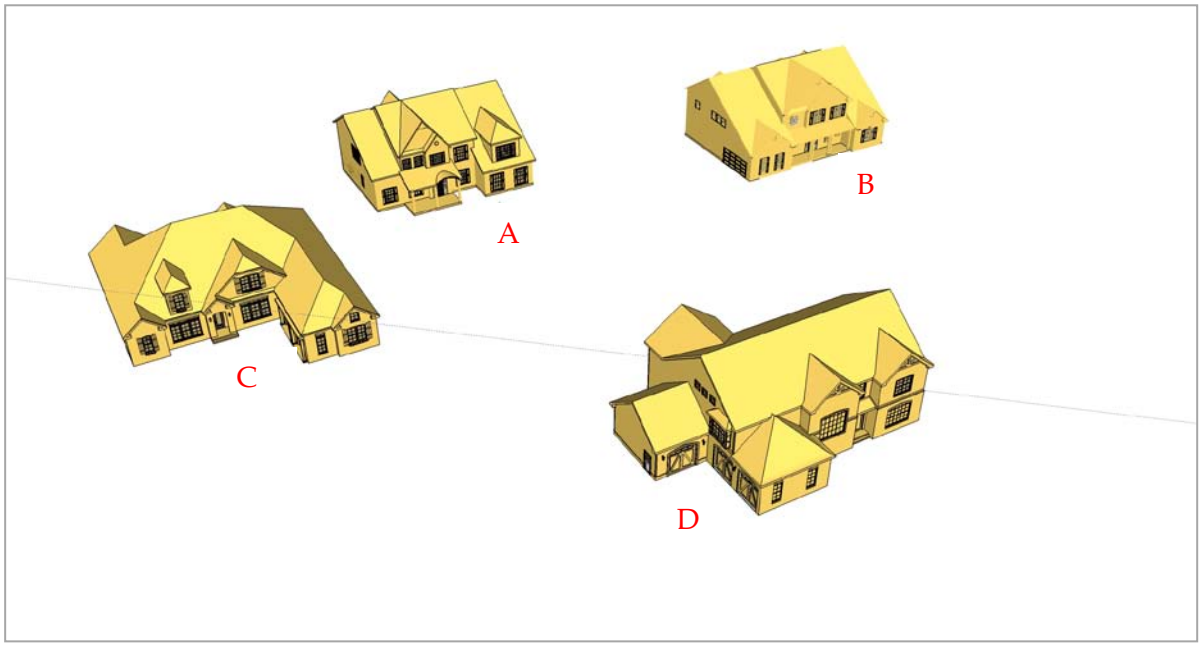
septic tile fields. As was shown in the overlay drawing, SK.2 Existing Conditions with Development Master Plan and in the slope analysis, as well as in Cole Engineering's Functional Grading drawing, both of which were discussed previously, virtually all of the developable lands have slopes of less than 10%. This means that the development of the lots and the placement of the estate units can be accomplished with minimal change to the existing grades. The 3-D model of the Development Master Plan and the photographic simulations are based on the topographic information, noted above, that has been currently supplied by GSAI and Cole Engineering. Should the proposed grades alter, or the existing grades be different for some reason, from that used in the modelling and simulations carried out in the VIA work, BTi acknowledges NEC's request that the modelling and simulations work may need to be revised to reflect any significant changes to the elevation and grading information. NEC has indicated that the need for new modelling/simulations work would be dependent upon such factors as the extent of the changes and the proximity of the view or cross section to a changed area. For example, a higher finished grade would trigger an examination of the changed elevation-heights of the built form of the estate units and their effect on the viewsheds.

b) Landscape Line Elements

Other landscape information depicted on the Development Master Plan within the subject property that are shown as line elements, i.e. property line, lot lines, roads/streets, estate unit footprints, driveways, septic tile fields and vegetation boundaries (street trees, hedgerows, and woodlots), were then projected in SketchUp onto the 3-D terrain model. (Note: This landscape information is included as layers in the imported AutoCAD file.)

c) 3-D Estate Units and Vegetation

To create a 3-D effect of other landscape information, BTi added to the 3-D terrain model the SketchUp file of the 3-D models (4 types) of the estate units. These 3-D estate unit models had previously been provided by Bousfields Inc., the Architects who acted for the previous owner of the property. These 3-D estate unit models are still representative of the proposed estate units and thus are still appropriate for purposes of the Visual Analysis Simulations work. BTi placed these 3-D models on the estate unit footprints already reflected as a landscape line element in b) above. The 4 model types and their peak heights and footprints are shown in the image, 3-D Estate Unit Models - 4 Types, and legend below. Finally, BTi added 3-D models of vegetation (from SketchUp Library), such as trees and shrubs (evergreen and deciduous) and placed them on the vegetation footprint boundaries within the subject property.



3-D Estate Unit Models - 4 Types
Unit A - Peak height 10.4 m, Footprint 260 m^2
Unit B - Peak height 10.8 m, Footprint 300 m^2
Unit C - Peak height 10.3 m, Footprint 330 m^2
Unit D - Peak height 10.9 m, Footprint 415 m^2

Step 2 - Creation of Progressive-Stepped Photographic Simulations

BTi carried out photographic simulations of the individual viewsheds of the subject property as seen from selected viewpoints. This work entailed a progressive-stepped process (and the creation of 5 images for each viewpoint) which is described in detail below under a) to g). The work resulted in the creation of a Visual Analysis Simulations sheet for each viewpoint. Each sheet displays 5 images, that progressively build on one another and show in perspective view the existing conditions, the visual impact of the development, and the effect of any mitigation measures applied.

The 5 images are:

- 1st image - Existing Conditions Photograph
- 2nd image - Development Model
- 3rd image - Overlay of Development Model and Existing Conditions Photograph
- 4th image - Simulation (no mitigation)
- 5th image - Simulation (with mitigation) OR Simulation (mitigation not applicable)

The Visual Analysis Simulations sheets for the selected viewpoints are discussed and analyzed in detail under the section of the report, Analysis and Assessment of Impact of Proposed Changes.

a) Selection of Viewpoints

BTi met with NEC, along with the Town, on October 22, 2014 to discuss the potential viewpoints that should be considered for selection. Potential viewpoints considered by BTi and their approximate locations were presented at this meeting on a draft viewshed map, referred to as the Visual Analysis Plan, and were discussed. At this meeting, NEC and the Town indicated that two key viewpoints for significant locations in the landscape and their viewsheds should be examined. These key viewpoints are the Belfountain Community Centre and the Caledon Ski Club. It was recommended that line of sight cross sections for these key viewpoints should be carried out.

Subsequent to the NEC meeting, BTi refined the Visual Analysis Plan and carried out more extensive field reconnaissance to define the visual catchment area and consider more thoroughly significant viewpoints in the landscape for which viewsheds should be visually captured and for which simulations should be carried out to determine the impact of the proposed development. BTi had selected in total 14 viewpoints to be examined. 11 viewpoints were essentially the same as those presented at the NEC October 22, 2014 meeting. Another viewpoint was added along Shaw Creeks Road, and the two key viewpoints for the Belfountain Community Centre and the Caledon Ski Club were also added as requested by NEC and the Town, to bring the total viewpoints examined to 14.

As mentioned previously, BTi met for a second time with the NEC and the Town on January 20, 2016. At that meeting, the NEC and the Town indicated that the viewshed towards the property from Mississauga Road may require further examination, and that additional VIA work may be required in this regard. Since that time BTi has undertaken photographic simulations for two additional viewsheds from Mississauga Road: one on Woodland Court at its intersection with Mississauga Road, and another on Mississauga Road where the viewshed towards the property is the most expansive. This brings the total viewpoints examined to date to 16.

b) Field Location of Viewpoints

The viewpoints previously selected were located in the field by reference to the Visual Analysis Plan and the Development Master Plan. The exact location of the viewpoint established in the field was determined by use of an iPhone 5S and an iOS GPS application called Commander Compass Lite (Version 3.7.11). This application provides the latitude, longitude and elevation above sea level for the specific location of the iPhone. (Refer to Table 8 Viewpoints 1-16 GPS Positions - Latitude, Longitude and Elevation)

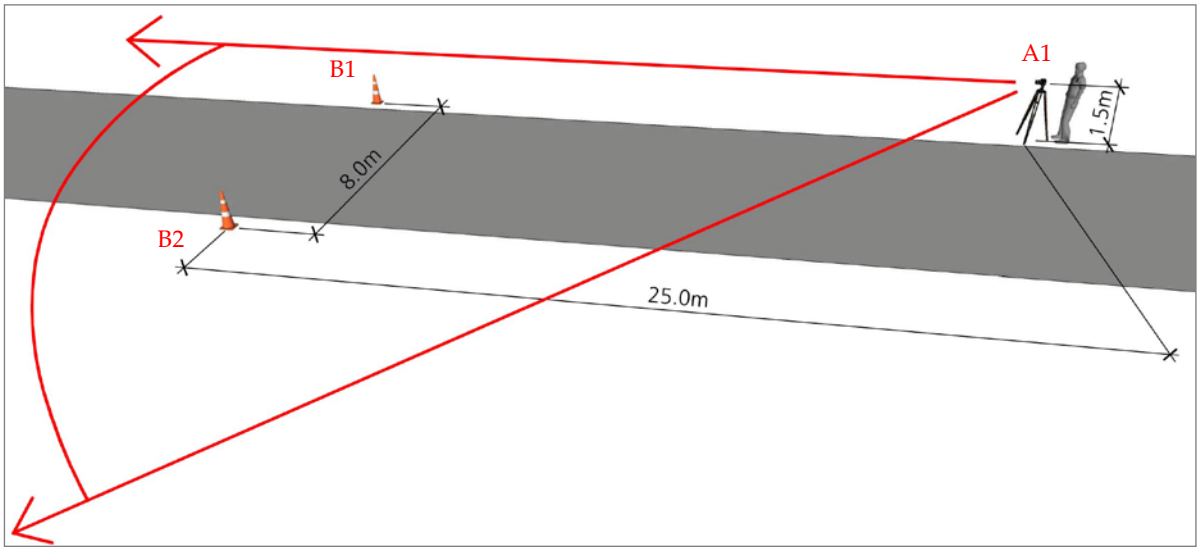
At the viewpoint location, a camera tripod was set up and the iPhone was set at camera level to capture the GPS information.

Each viewpoint was located within the AutoCAD file (for the Visual Analysis Plan and the Development Master Plan) and the SketchUp file (for the 3-D model of the Development Master Plan) by reference to the Google Earth Pro aerial image (which contains latitude, longitude and elevation information). The elevation recorded in the field using the iPhone GPS application for each viewpoint position was cross referenced and checked for accuracy against the Google Earth Pro aerial image, and where possible, against the survey information for the subject property and directly adjacent areas. This survey information was obtained from GSAI via the AutoCAD file of the Draft Plan of Subdivision.

c) Photographic Capture of Individual Viewsheds from Viewpoints

Photographs from the selected viewpoints of the individual viewsheds were taken during non-leaf conditions, as a worst case scenario, in order to document the existing conditions of the viewsheds. The photographs were taken on November 25, 2015 for viewpoints #1 to #12, on January 13, 2016 for viewpoints # 13 and #14, on February 19, 2016 for viewpoint #15, and on February 22, 2016 for viewpoint #16. A digital Canon EOS 60D camera was used with a 50 mm wide aperture lens to take the photographs. (Refer to Table 7 Camera Specifications Canon EOS 60D)

The method for setting up the photographic capture of each individual viewshed at a viewpoint is illustrated in the diagram M.1 Method of Setup for Photographic Capture of Individual Viewshed shown below.



M.1 Method of Setup for Photographic Capture of Individual Viewshed

The camera tripod was set up at the viewpoint location A1, and the camera was attached to the tripod at a height of 1.5 metres above the ground elevation. From point A1, a 25 metre measurement point, B1, was established down the road and parallel to the road. Then an 8 metre measurement point, B2, was established across the road and perpendicular to point B1. The 25 and 8 metre distances were measured using a Rolatape measuring wheel (Rolatape Corporation WA USA - Model 515). An orange pylon was then placed at each point location B1 and B2.

The digital camera was then used to photograph the individual viewshed, by taking 3 pictures: 1) the first picture was aimed directly at point B1, 2) the second picture was aimed towards the subject property with a 1/3 overlap with the first picture, and 3) the third picture was aimed in a similar manner, i.e. towards the subject property, with a 1/3 overlap with the second picture.

BTi then created one panoramic picture of the individual viewshed with the three pictures taken for the viewpoint by using the Canon Photostitch Version 3.1 by Canon program. This panoramic picture documents the existing conditions for the viewshed of the subject property as seen from a particular viewpoint and is referred to as Existing Conditions Photograph image for purposes of the Visual Analysis Simulations sheet. This panoramic picture of the viewshed is an original unaltered photograph of existing conditions.

d) Establish Same Individual Viewsheds in SketchUp

BTi then established the same individual viewsheds, captured in the Existing Conditions Photographs, in the 3-D model SketchUp file.

From the viewpoint location of A1 previously established in the SketchUp file, the locations of points B1 and B2 were easily determined in the 3-D model (with the known distances and angles used in the field). 3-D SketchUp orange pylons were similarly placed at points B1 and B2.

Next, BTi positioned the eyesight viewing level in SketchUp at 1.5 metres above grade.

Using the Existing Conditions Photograph for each viewpoint as reference, BTi angled the "camera" or perspective view of the 3-D model in SketchUp until the 3-D model image matched and coincided with the photograph. The perspective view in SketchUp was seen through a "50 mm wide aperture lens", the same as that viewed through the Canon EOS 60D camera in the field. As well, BTi ensured that the focal length of the 3-D model image matched the focal length of the camera to create the panoramic photographs. (Note: The 8 and 25 metre distances used in the field and the point locations of A1, B1 and B2 assisted with establishing the focal lengths.)

The result of this work was the creation of a perspective view of the 3-D model in SketchUp that mirror-imaged the individual viewshed captured in the Existing Conditions Photograph. This 3-D model perspective view of the existing conditions is referred to as the Development Model image for purposes of the Visual Analysis Simulations sheet.

e) Overlay

In order to determine the impact of the proposed development on the visual quality of the landscape and on the individual viewsheds of the development as seen from the various viewpoints exterior to the subject property, it was necessary to carry out an overlay of the images created to this point.

The overlay involved the laying of the Development Model image over the Existing Conditions Photograph (both as jpeg files) in Adobe Photoshop. The Development Model image was set with some transparency to more easily detect landscape elements in the foreground (as shown in the Existing Conditions Photograph) that would otherwise be masked by the estate unit structures. The estate units and property line were coloured red so that they could be seen more clearly. The resulting overlay image is referred to as the Overlay of Development Model and Existing Conditions Photograph image for purposes of the Visual Analysis Simulations sheet.

f) Simulation

The overlay image created above was then refined to more realistically simulate how the proposed development would appear within the landscape. The estate units were coloured a natural earthy tone, the property line was removed, and the exterior walls of the estate units that were visually hidden by landscape elements in the foreground (e.g. berms, existing vegetation) were erased.

The refined overlay images created for the selected viewpoints are absolutely key in comprehending the impact of the proposed development on the visual quality of the landscape. These images show the impact of the proposed development without the application of any mitigation measures that might be necessary. These images are referred to as Simulation (no mitigation) image for purposes of the Visual Analysis Simulations sheet.

g) Application of Mitigation Measures

The Simulation (no mitigation) images were scrutinized to determine if the estate units were prominently visible in the viewshed for each viewpoint. Where this was considered to be the case, simulated mitigation measures were applied by placing additional vegetation, such as deciduous and evergreen trees, in strategic locations to buffer the view of the estate units. Images of vegetation were obtained and scaled for appropriate size and

placed on the Simulation (no mitigation) image to create a revised image referred to as the Simulation (with mitigation) image for purposes of the Visual Analysis Simulations sheet. SketchUp models used for i) deciduous trees are approximately 4 metres in height, ii) evergreen trees are approximately 3 metres in height, and iii) deciduous shrubs are approximately 1 metre in height. In some instances, berms were added as an additional mitigation measure. Berms at the two entrances to the residential development are approximately 1 metre in height. Berms were introduced in other areas only where the natural vegetation was considered to be insufficient to mitigate visually incompatible land uses, i.e., between the boundary of the residential development and the adjacent major roads (Shaws Creek Road and Mississauga Road). This Simulation (with mitigation) image shows how the impact of the proposed development on the views of the subject property can be mitigated with natural elements placed in the landscape.

As discussed later on in the report, 9 of the 16 individual viewsheds for the selected viewpoints do NOT require any mitigation measures to be applied, since existing natural elements, i.e. topography (elevation changes and berms) and vegetation, already mask or screen the estate units effectively. Where an individual viewshed does not require any mitigation measure, the last image on the Visual Analysis Simulations sheet is exactly the same as the image directly above it, i.e. Simulation (no mitigation), and this last image is referred to as Simulation (mitigation not applicable).

3. Line of Sight Cross Sections

Line of Sight Cross Sections *of selected areas are used to further scrutinize selected viewpoints and individual viewsheds towards the property.*

Line of sight cross sections further illustrate in a 2-dimensional way as a cross section view an individual viewshed from a viewpoint. Two line of sight cross sections were selected at the request of the NEC and the Town. One cross section was prepared for the viewpoint location at the Caledon Ski Club and the other was prepared for viewpoint location at the Community Centre in Belfountain hamlet.

The lines of sight were recorded in the AutoCAD drawing and then reflected on two plan drawings: the SK.3 Development Master Plan drawing (showing the property) and the Key Plan (showing the property and the surrounding lands) that is presented with the Sections drawing. (Refer to Sections) The AutoCAD Key Plan drawing presents the same information as the SK.3 Development Master Plan drawing except that the former drawing shows the NEC Base Map. (Refer to Key Plan drawing)

The alignment of the lines of sight on the plan drawings follow the middle of the view as seen in the viewsheds (i.e. centre of the panoramic pictures) for the viewpoints selected. (Refer to Visual Analysis Simulations sheets in the Appendix) For the Caledon Ski Club the line of sight, referred to as A A', is directed at the Belfountain Conservation Area and the

north corner of the subject property. For the Community Centre the line of sight, referred to as B B', is directed southeast along the portion of Mississauga Road within the hamlet and up to the ridge on the northwest side of the subject property. Each line of sight crosses to the other side of the subject property continuing in a straight line.

The line of sight cross sections for A A' and B B' were prepared in the AutoCAD file and presented in 2-D sectional view in the Sections drawing. (Refer to Sections) The sections were prepared using a vertical (elevation) and horizontal (ground level) ratio of 1:1.

By referring to the NEC Base Map and the elevation information for the subject property (i.e. the survey information from the Draft Plan of Subdivision) within the AutoCAD file, the elevation of each contour line that intersected the line of sight along its path was recorded at that location of intersection (at its length from the viewpoint). AutoCAD Civil 3D has the functionality to create a model of the existing terrain by reference to the contour/elevation information. By creating a cross section line, Civil 3D produces an accurate model of the existing terrain in cross section view. Thus, the contour lines were translated into the vertical axis and the locations of intersection along the path of the line of sight were translated into the horizontal axis of the cross sections. Other landscape elements, such as existing and proposed buildings and vegetation, intersecting the line of sight were also recorded at the locations of intersections (at their lengths from the viewpoint) by referring to the AutoCAD information for the subject property and the NEC Base Map.

To gain a fuller appreciation of the landscape and the immediate contextual information, the horizontal axis was extended behind the viewpoint position to some degree and mapped in a similar manner for the line of sight as described above. In the case of the Community Centre viewpoint, the cross section extends along Mississauga Road to the Belfountain hamlet centre. A second line of sight from the Belfountain hamlet centre is presented on the B B' cross section and it travels along the same alignment (in plan view) as the line of sight from the Community Centre.

The line of sight for A A' was set at a viewing height of 1.5 metres about the ground level at the high elevation point at the south lodge of the Caledon Ski Club. The line of sight for B B' was set from the second story window of the Community Centre (and from the second story window of the highest building in the hamlet centre). The vegetation along the lines of sight was assumed to have a height of 9 to 10 metres (30 to 40 feet). The height of existing buildings (in the Belfountain hamlet) were assumed to be at a two story level of 8 metres (26 feet) height. The proposed 3-D model of the estate unit that intercepted the line of sight was presented at its actual height (depending on the model type situated on the lot intercepting the line of sight).

The Sections drawing depicts what is seen of the existing landscape conditions in the path of each line of sight: topography, elevation and grade changes, wooded areas, hedgerows, residential and commercial buildings, and points of intersections for roads/streets and for trails. The Sections drawing also depicts what would be seen within the property line boundary, being the proposed estate units and street trees. The Sections drawing as presented does not reflect any mitigation measures for the two line of sight cross sections. (Refer to Table 6 for details of program and databases used in creating the Sections and the Key Plan)

ANALYSIS and ASSESSMENT of IMPACT of PROPOSED CHANGES

This section of the report sets out BTi's analysis and assessment of the visual impacts associated with the proposed estate residential development on the surrounding visual environment.

The analysis of the proposed physical changes to the landscape and the assessment of their impact on the visual and scenic resources is discussed under the 3 VIA work components headings:

1. Viewshed Mapping
2. Photographic Simulations
3. Line of Sight Cross Sections

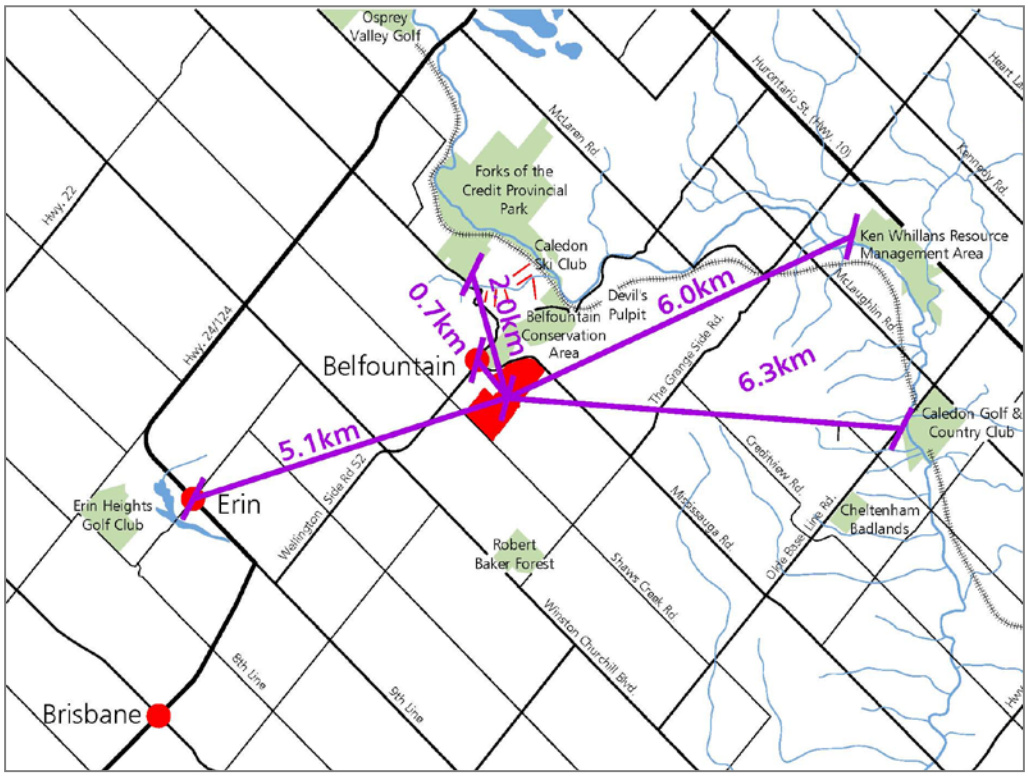
1. Viewshed Mapping

Visual Catchment Area and Visual Analysis Plan

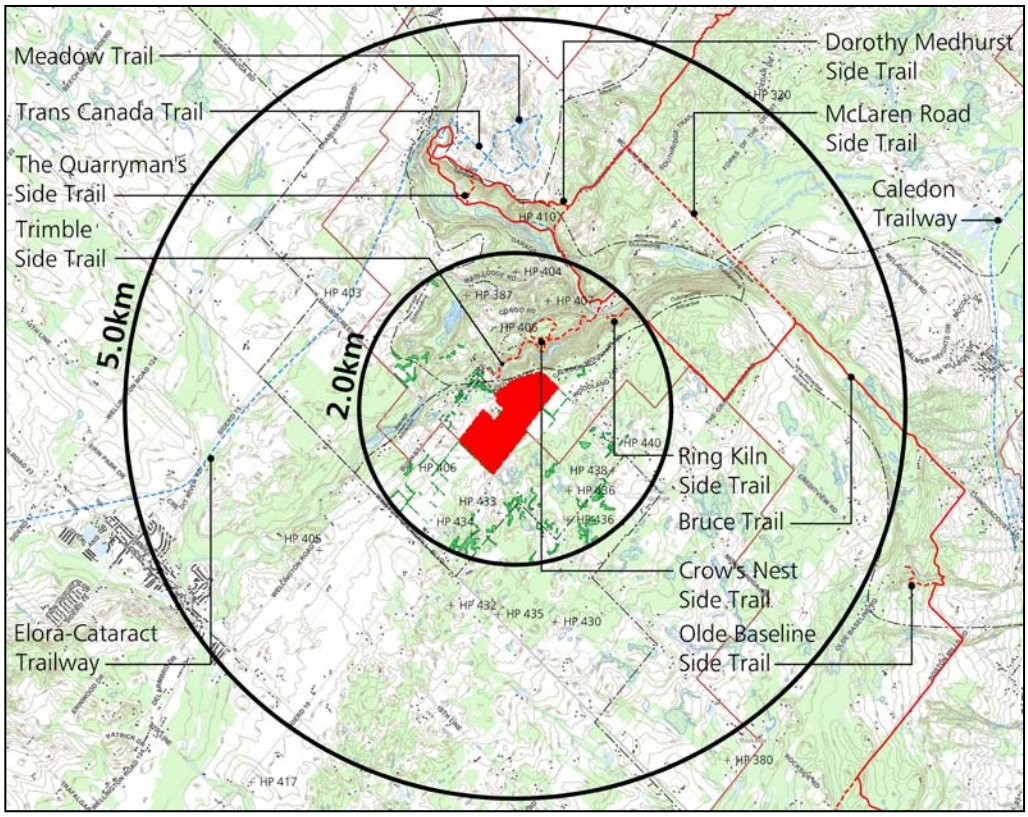
The viewshed mapping was undertaken to identify where the proposed development would be visible from the existing and proposed roads , public lands, trail systems including the Bruce Trail, and places of significance in the Belfountain area. Locations in the landscape at which the proposed development can be seen establishes the boundary for the visual catchment area.

The schematic diagram presented below shows the location of the subject property (red area in centre) relative to Belfountain hamlet and to Erin as well as to nearby places of recreational interest such as conservation and resource management areas and ski and golf clubs. The schematic diagram also shows the public roads that surround the subject property. The kilometre distances to the places of significance shown on the schematic diagram give one an appreciation of the extents at which the viewshed might be mapped and what places of significance might fall within the visual catchment area. As can be seen, the Belfountain hamlet area, the Belfountain Conservation Area and the Caledon Ski Club are in close proximity to the property and within the 5 kilometre viewshed mapping distance recommended by the NEC.

BTi undertook extensive field reconnaissance within two circular zones to define the visual catchment area. These two zones, with distances of 5 kilometres and 2 kilometres from the subject property (red area in centre), are reflected on the NEC Base Map shown below. As fully described in the Methodology section of the report, BTi travelled the key roads in close proximity to the property and visited the areas of significance to the Belfountain community to establish where in the landscape the proposed development could be seen.

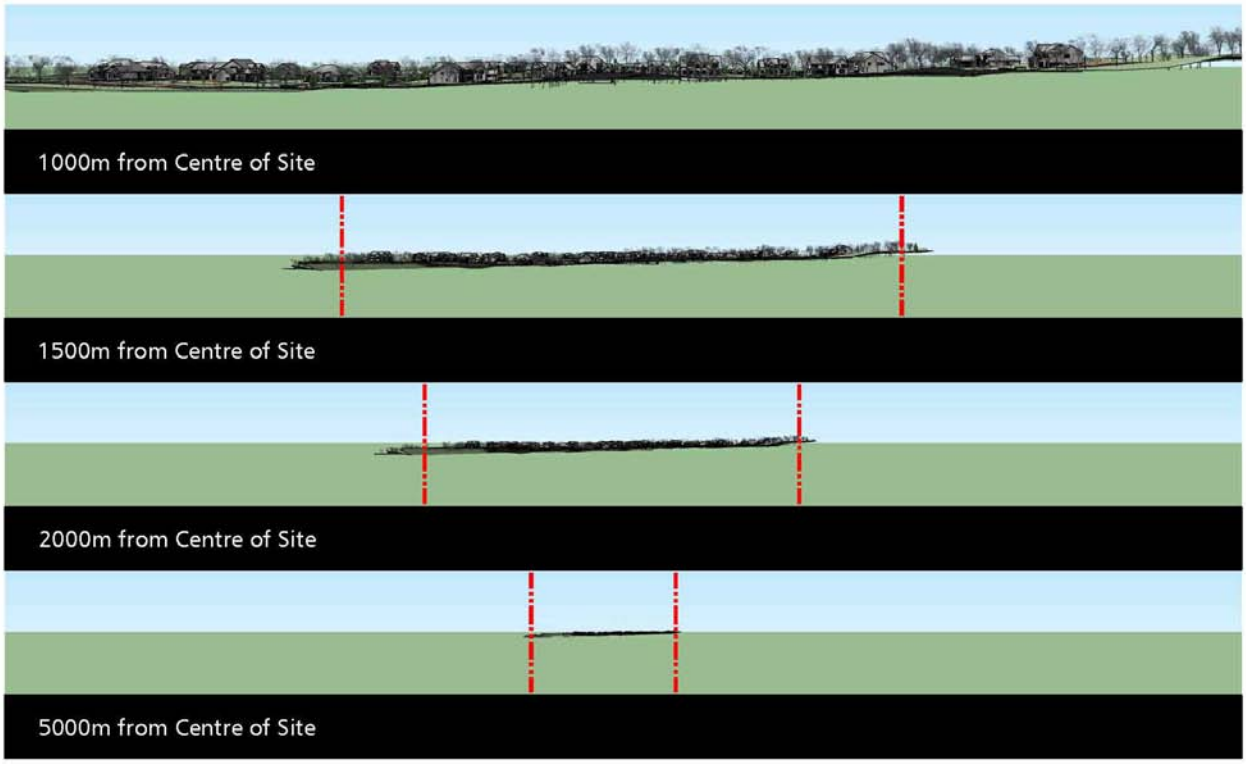


Schematic Diagram - Context and Distances



NEC Base Map - 2 and 5 Kilometre Zones

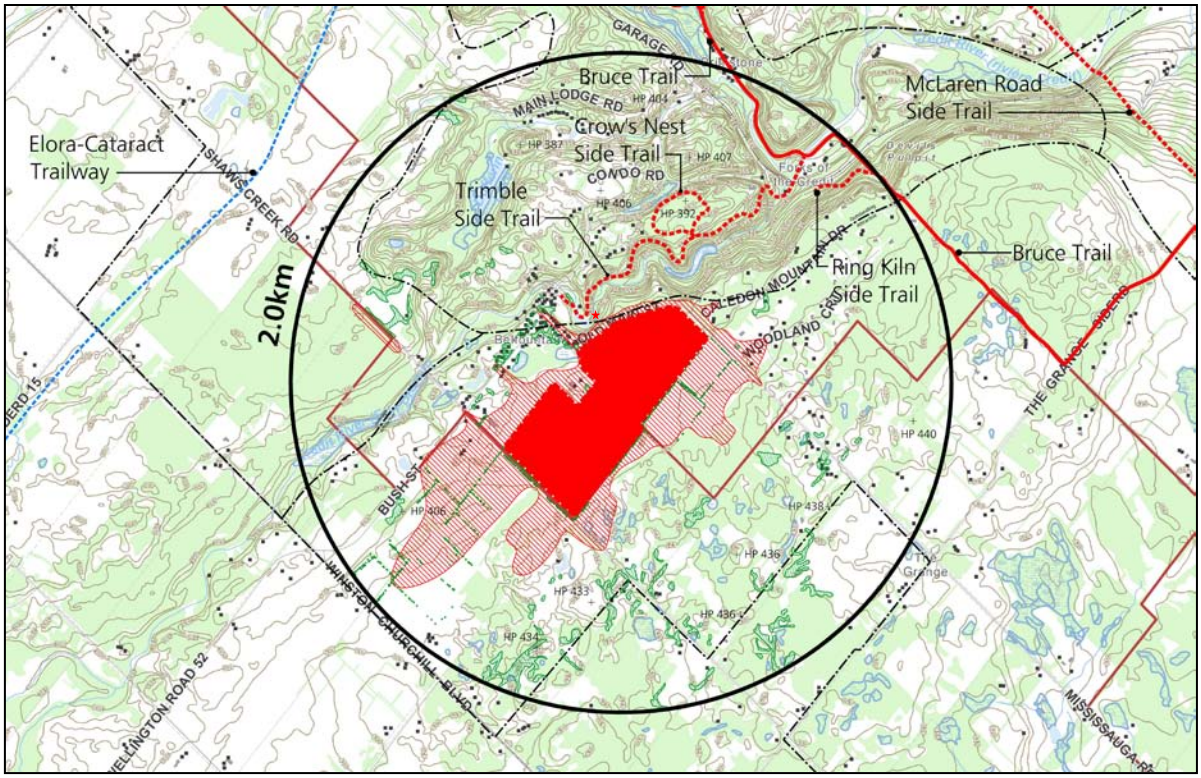
It may seem obvious that as one travels further away from an object the smaller the object will appear to the viewer. This becomes even more compelling when one is able to compare the size of the object, in this case the subject property, at different distances from the object. 3-D SketchUp modelling allows us to illustrate this point. As can be seen from the series of perspective model images of the property shown below, the extent of the proposed development seen in the viewshed at 1000 metres distance from the property shrinks considerably to approximately i) 3/10ths of its size at 2000 metres distance from the property, and ii) 1/10th of its size at 5000 metres distance from the property. This further illustrates the point that at a viewshed mapping distance of 5 kilometres, the subject property is barely discernible in the landscape by the viewer. The results of the field reconnaissance work did in fact establish that the subject property could not be seen at a distance greater than 2 kilometres away from the property.



Relationship of Distance versus Size of Landscape Elements

As a result of the field reconnaissance work, BTi transcribed onto the NEC Base Map the locations in the landscape at which the proposed development could be seen. BTi then completed the boundary of the visual catchment area by examination of the adjacent lands. The procedures carried out to establish the visual catchment area are fully described in the Methodology section of the report. The property (red area in centre) and its visual catchment area (red striped zone) are reflected on the Visual Analysis Plan shown below. One will note that the 2 kilometre zone, reflected on the map, includes the entire visual catchment area. The NEC Base Map drawing referred to earlier contains the same information presented below but it also includes the 5 kilometre zone for illustrative purposes.

The visual catchment area typically included open areas adjacent to the property where the field of view was unimpeded. Wooded areas adjacent to the property restricted the field of view and limited the visual catchment area to the edge of the woodlot. One can see that the visual catchment area is significantly smaller in the Belfountain hamlet centre. As well the visual catchment area does not include the Belfountain Conservation Area, the Credit River valley to the north, and the areas beyond.



Visual Analysis Plan (with Visual Catchment Area and 2 Kilometre Zone)

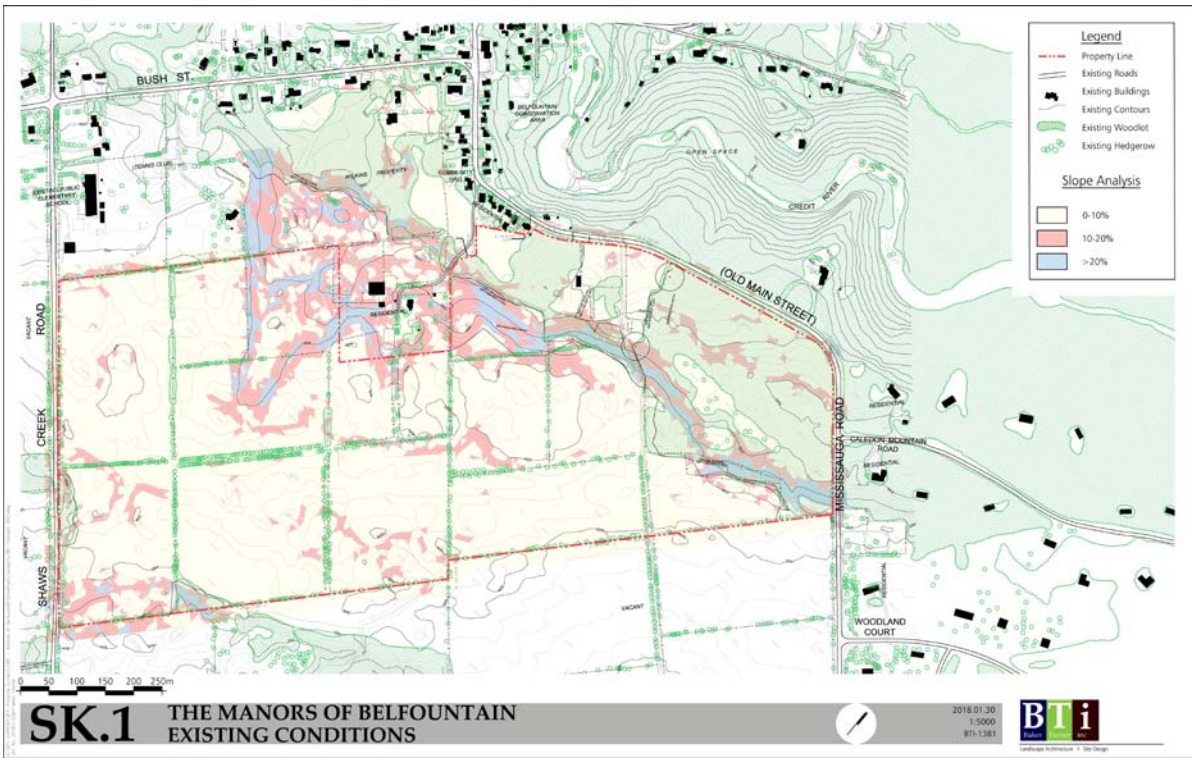
As indicated previously, the heavily wooded upper ridge and slope sides of the Credit River valley provide a visual separation of the valley and the Belfountain Conservation Area from Mississauga Road and the property beyond, and fall outside of the visual catchment area. Thus, the property is not visible from the trails located within the Belfountain Conservation Area (i.e. Bruce Trails - Trimble Side Trail, Crow's Nest Side Trail (on the north side of the valley, at river basin to upper ridge) and Ring Kiln Side Trail (on the south side of the valley, at mid to lower slope side), and CVC's Trails - Gorge Loop Trail and Pond Loop Trail (at river basin)) due to the dense surrounding forest and the steep valley sides in which the trails traverse. Consequently, no additional VIA work was carried out specifically for these trails. Note: The line of sight cross section A A' from the Caledon Ski Club to the subject property shows that the view of the property from the Trimble Side Trail, where it crosses the path of this line of sight, is impeded by the surrounding forest, as well as the woodlot located within the subject property that is on the northern side of the property and situated at a higher elevation. Further, no VIA work was carried out for the trails beyond the 2 km zone, i.e. the Forks of the Credit Provincial Park Trail, Trans Canada Trail, Elora Cataract Trailway, and the Bruce Trail. These trails are well beyond the visual catchment area and as shown previously, the subject property is barely discernible in the landscape by the viewer at a viewshed mapping distance of 5 kilometres.

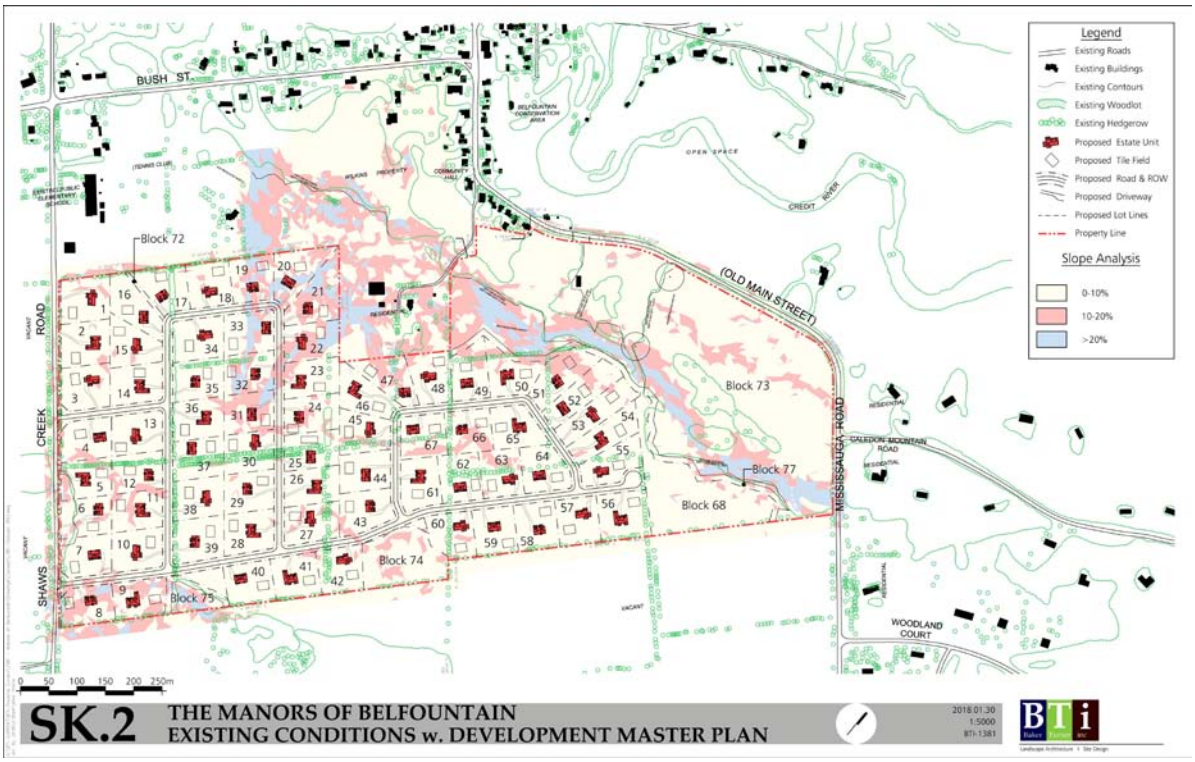
2. Photographic Simulations

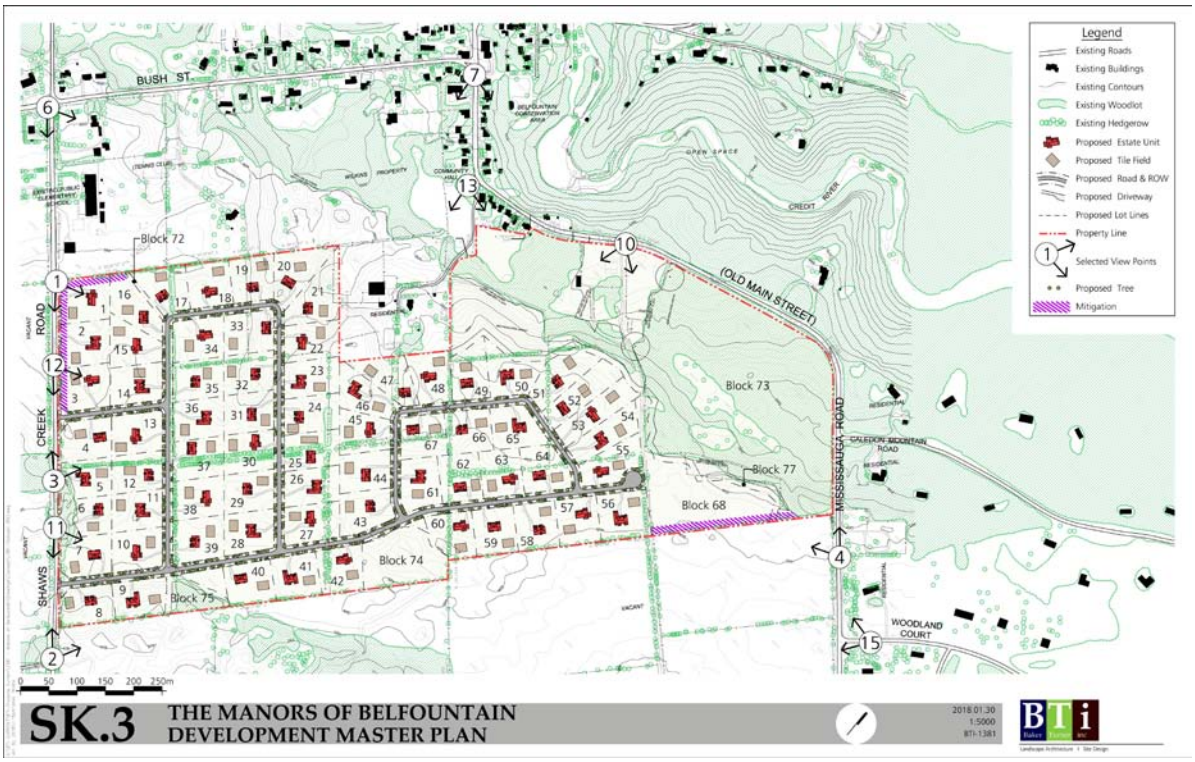
Development Master Plan

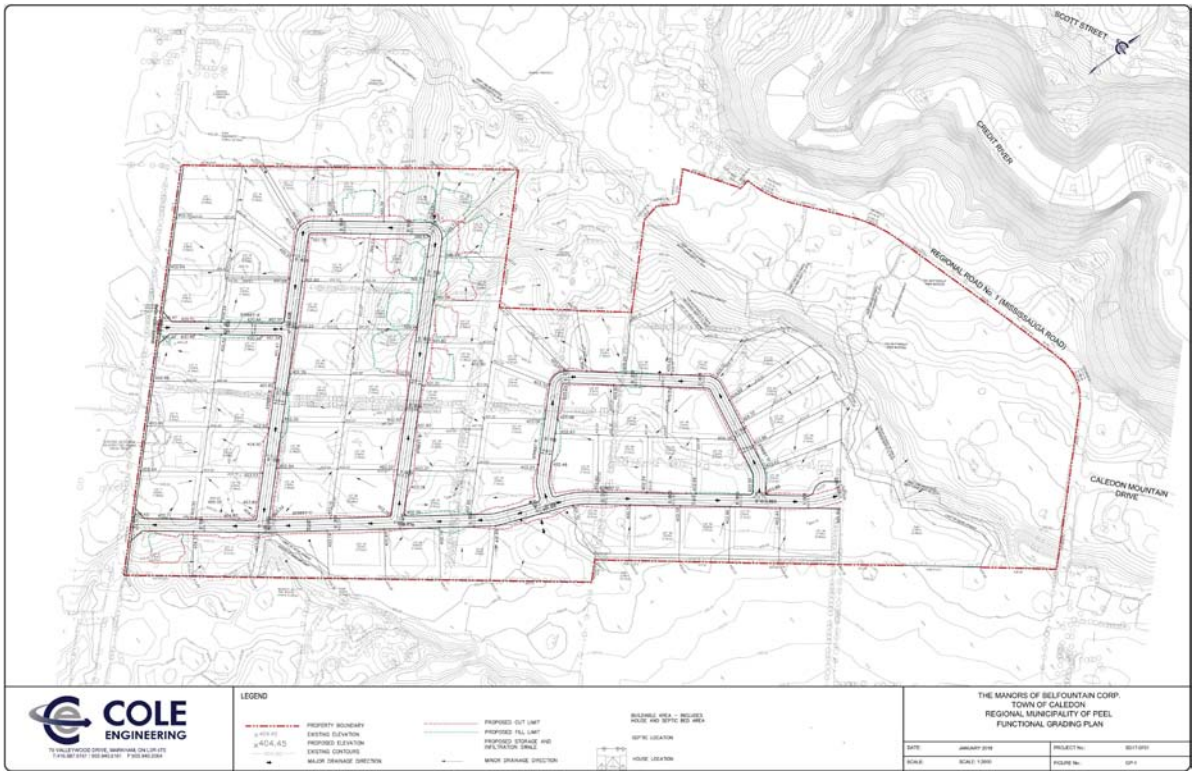
BTi created a Development Master Plan drawing to show in plan view the proposed development on the existing landscape. An overlay of the SK.1 Existing Conditions drawing and the Draft Plan of Subdivision (presented earlier) resulted in the creation of the SK.2 Existing Conditions with Development Master Plan drawing. This overlay drawing demonstrates the suitability of the Draft Plan of Subdivision in relation to the existing natural features of the property. This overlay drawing was then refined for additional landscape design elements, such as entry features, street trees and recommended mitigation measures, to create the SK.3 Development Master Plan drawing. These 3 drawings are presented below. As well, Cole Engineering created a Functional Grading Plan drawing, which shows that the extent of the required grading for the development will be minimal and that the existing character and landform can be substantially maintained and conserved. This drawing is also presented below, following BTi's drawings SK.1, SK.2 and SK.3. The reader should refer to the Methodology section of the report for a complete discussion of these drawings.

The Development Master Plan drawing enabled the creation of the 3-D SketchUp model of the proposed development. This 3-D SketchUp model served two purposes: 1) to create a 3-D model simulation of the entire estate residential development that can be viewed from different angles, and 2) to carry out the photographic simulations that are required for the individual viewpoints and viewsheds.


Legend
Property Line
Existing Roads
Existing Buildings
Existing Contours
Existing Woodlot
Existing Hedgerow
Slope Analysis
0-10%
10-20%
>20%
BUSH ST.
(OLD MAIN STREET)
MISSISSAUGA ROAD
CREEK ROAD
SHAWS
CREDIT RIVER
OPEN SPACE
CALEDON MOUNTAIN ROAD
WOODLAND COURT
0 50 100 150 200 250m
SK.1
THE MANORS OF BELFOUNTAIN
EXISTING CONDITIONS
2018.01.30
1:5000
BTI-1381


Legend
Existing Roads
Existing Buildings
Existing Contours
Existing Woodlot
Existing Hedgerow
Proposed Estate Unit
Proposed Tile Field
Proposed Road & ROW
Proposed Driveway
Proposed Lot Lines
Property Line
Slope Analysis
0-10%
10-20%
>20%
BUSH ST.
(OLD MAIN STREET)
MISSISSAUGA ROAD
CREEK ROAD
SHAWS
CREDIT RIVER
OPEN SPACE
CALEDON MOUNTAIN ROAD
WOODLAND COURT
Block 72
Block 73
Block 74
Block 75
Block 77
Block 68
0 50 100 150 200 250m
SK.2
THE MANORS OF BELFOUNTAIN
EXISTING CONDITIONS w. DEVELOPMENT MASTER PLAN
2018.01.30
1:5000
BTI-1381



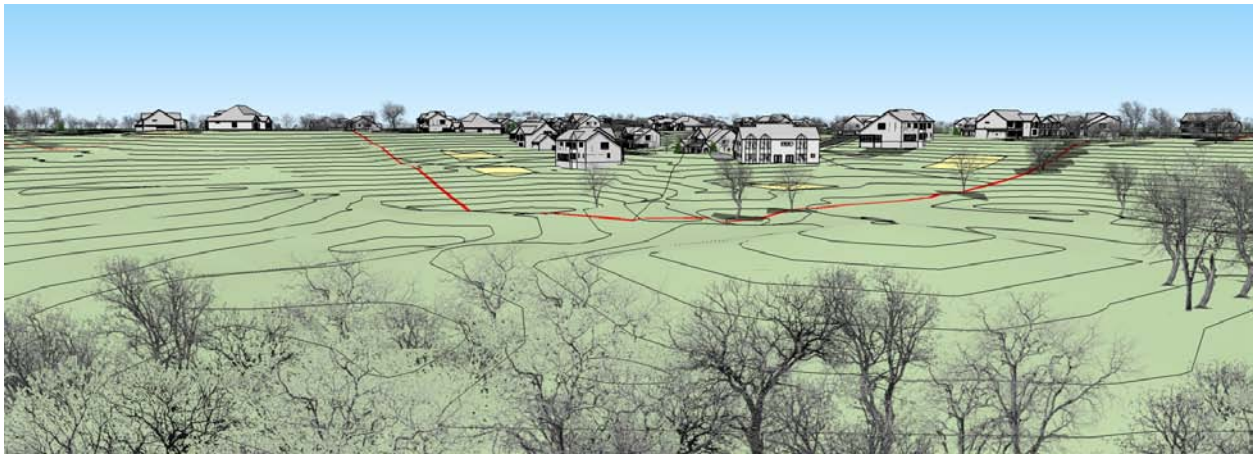


Cole Engineering - Functional Grading Plan

3-D SketchUp Modeling

3-D SketchUp modelling is a powerful tool for visualizing how a proposed residential development will appear in the landscape. Modelling allows the viewer to see the landscape from different angles and different heights to mimic "being" in the landscape and having a personal sense of scale or "flying above" the landscape and having a panoramic all encompassing view of the landscape. Presented below are three examples of 3-D models of the proposed development as reflected in the SK.3 Development Master Plan drawing. As well, an aerial view in 3-D Sketchup modelling of the entire residential development is provided in the Appendix. (Refer to 3-D Model Aerial View of Development in Appendix)

3-D Model View A

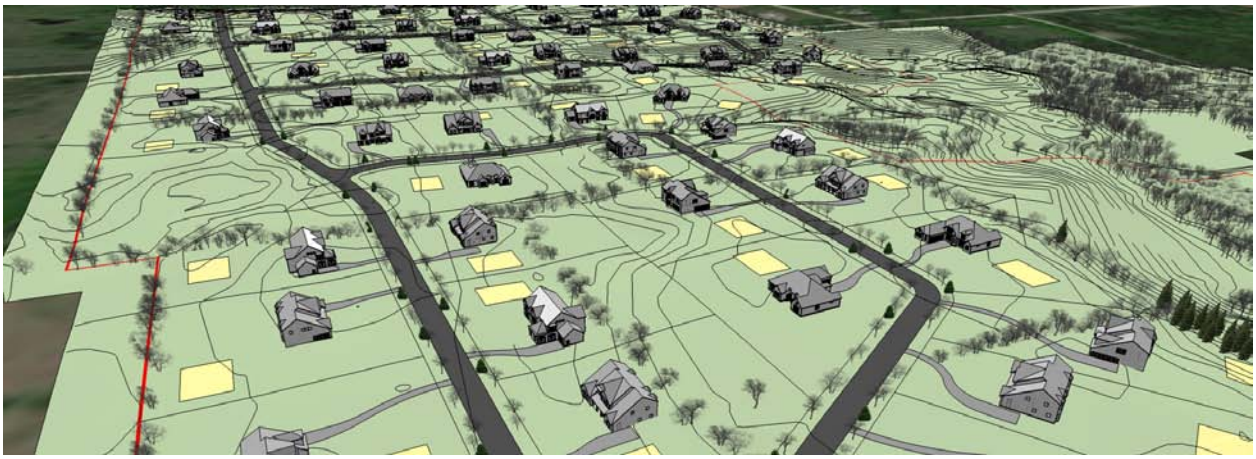


The first image shows a panoramic view of the residential development taken from above the tree line at the northwest ridge of the property and looking south towards Lots #19, #20, #21 and #22. The second image shows a view at human scale of the residential street, street trees, estate units and strategic plantings of native evergreen trees. This image is taken from the opposite direction, beside Lot #33 looking towards Lot #20.

3-D Model View B

The first image shows a panoramic view of the residential development taken from above the centre of the property and looking towards Mississauga Road. One can see the inner loop street at the northern end of the property (area of Lots #43 to #67). The second image shows a view at human scale of the residential street, street trees, estate units, existing hedgerows, and strategic plantings of native evergreen trees. This image is taken between Lots #67 and #47 looking towards Lots #45 and #46 and beyond.

3-D Model View C

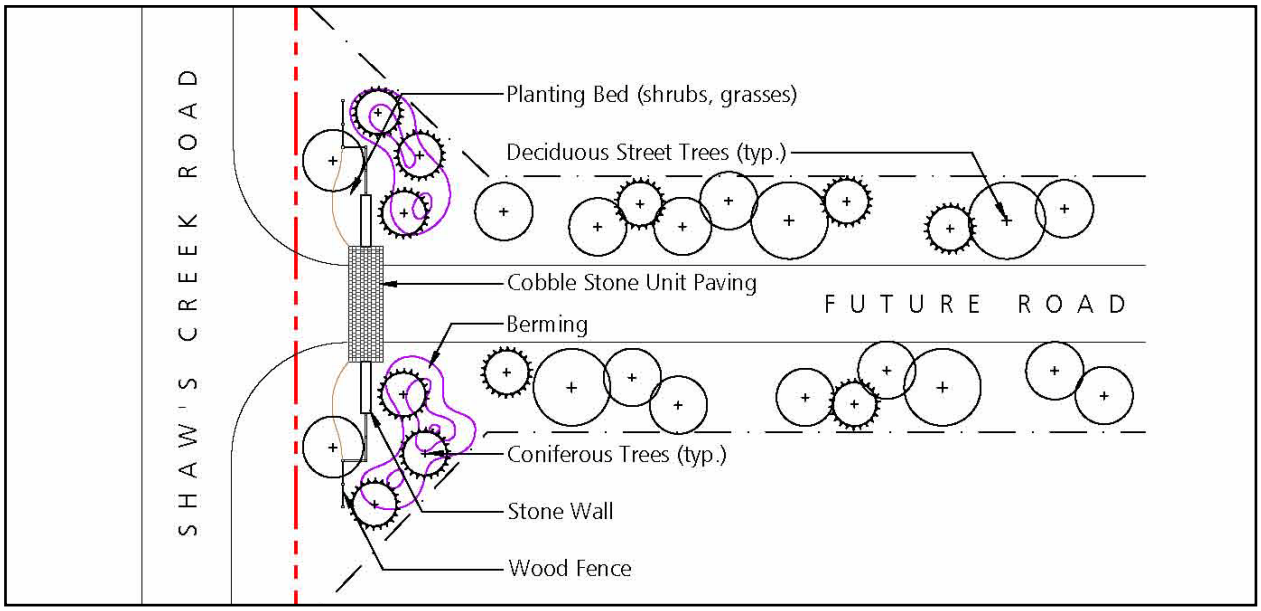


Both of these images show a panoramic view of the residential development. These images are taken above the property near Mississauga Road and are looking towards Shaws Creek Road. The first image is a more close-up view of the second image. Both of these images show the low density of the development, the simple layout of the residential streets, the irregular rural placement of the estate units, the existing hedgerows and the dense wooded area on the northern ridge.

3-D SketchUp modelling was also used to design a gateway entry feature for the two entrances to the proposed development from Shaws Creek Road. The 3-D model image of the concept design for the entry feature is presented below. A plan view image of the concept design has been presented as well.

The entry feature has been designed to convey a rural image of the estate residential subdivision, with its open rural-style fences and simple yet tasteful plantings. The stone walls, signage plaque and cobblestone paving convey an additional message that this residential development is of high quality and estate status. Behind the walls and fences, there are small gentle berms and evergreen trees which have been placed atop the berms. These trees and the use of the berming provides important visual screening of views of the residential development from Shaws Creek Road. These trees assist with filling the gaps in the existing hedgerow along Shaws Creek Road. Behind the entry feature, one can see the row of deciduous street trees within the residential development.

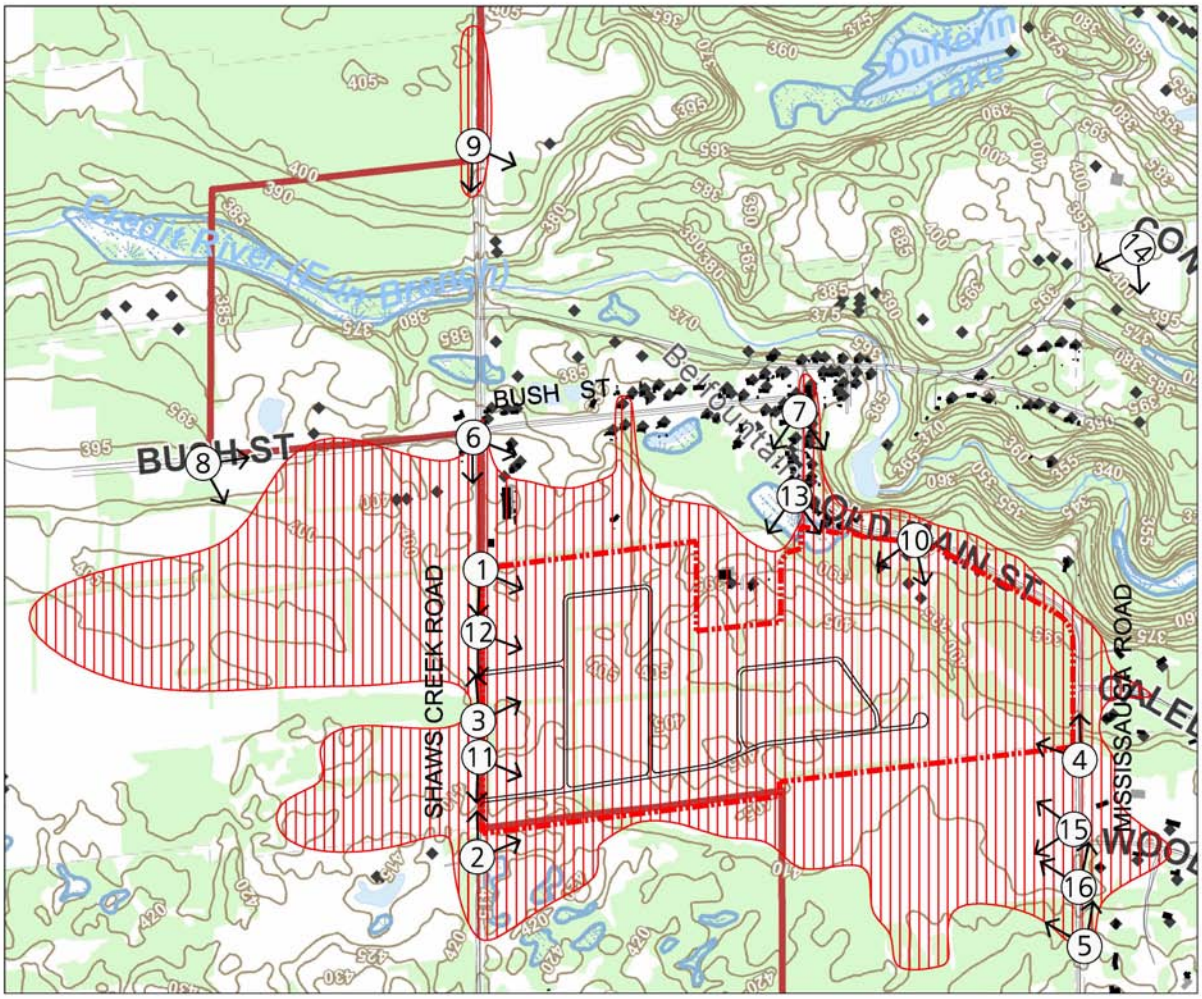
3-D Model of Gateway Entry Feature



Plan View of Gateway Entry Feature

Viewpoints and Viewsheds

The visual catchment area for the subject property is presented in the image below. This area is shown on the Visual Analysis Plan drawing and in the image below as the red stripped zone surrounding the subject property. The red boundary line containing the area represents the outer limits of locations in the landscape at which the proposed development can been seen. The 16 viewpoints, which were the subject of photographic simulations, and their locations in the landscape are shown in the image as well.



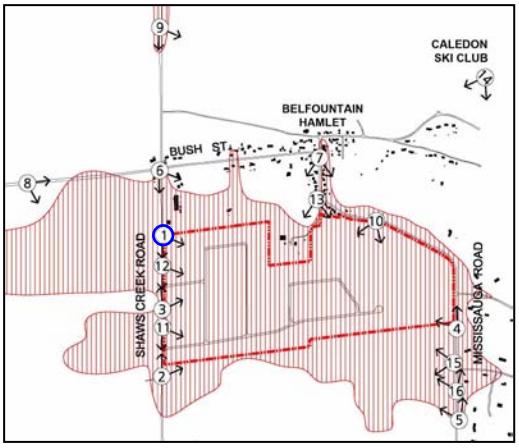
Visual Catchment Area and Viewpoints

Following is a detailed discussion of the results of the photographic simulations. For each viewpoint, the existing conditions of the landscape as seen through the individual viewshed is described. This description is accompanied by an image entitled "Existing Conditions", presenting the "Before" conditions. Then the simulation of the proposed changes to the landscape as a result of the proposed development, as seen through the same viewshed, is described. Where appropriate, mitigation measures are applied in the

simulation to reduce or eliminate the visibility of the proposed development. The description of the visual impact of the proposed development is also accompanied by an image presenting the "After" conditions. This image is entitled either as "Simulation Mitigation Not Applicable" or "Simulation with Mitigation", depending on whether mitigation measures are recommended.

Reference should also be made to the Visual Analysis Simulations sheets created for the 16 viewpoints and their individual viewsheds. These sheets show 5 sequential images created as a result of the progressive-stepped photographic simulation process. The 1st and 5th images on these sheets (as described in the Methodology section of the report) are reproduced below in the discussion of the results of the photographic simulations and represent the "Before" and "After" conditions referred to above.

1 Viewpoint #1 and Viewshed



Description of Existing Conditions

V.1 Existing Conditions

Viewpoint #1 is located just beyond the west corner of the subject property on Shaws Creek Road overlooking in an easterly direction Lot #1. The viewshed from Viewpoint #1 is shown in the above image. This viewshed captures what is seen of the property as one approaches the property from the north on Shaws Creek Road. The small berm seen on the left is located at the edge of the public elementary school property. This existing berm partially screens the open fields of the property to the east. In the far distance one can see the continuous wooded area that runs along the southeast side of the property from Shaws Creek Road to Mississauga Road and sits on a crest of elevated lands overlooking the

property. As the eye follows Shaws Creek Road in the distance, one can see the decline in elevation and a glimpse of the lower lying open fields of the property adjacent to Shaws Creek Road. One can see the existing hedgerow of trees in the distance along Shaws Creek Road partially screening the open fields behind.

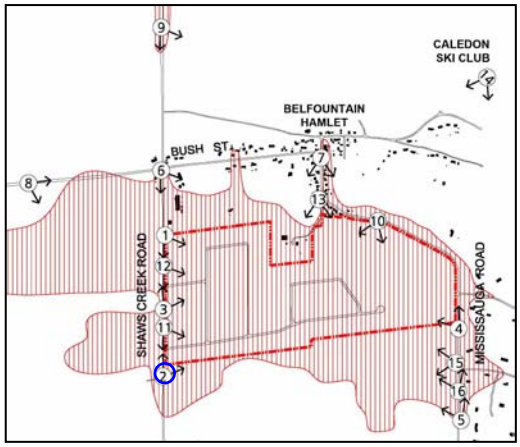
Simulation of Proposed Changes

V.1 Simulation with Mitigation

The simulation of the proposed changes shows the estate units that can been seen from Viewpoint #1. Without any mitigation measures applied, the estate unit for Lot #1 is prominent in the foreground. Beyond this, one can see the rooftops of the other estate units on the lots behind Lot#1 and beside Shaws Creek Road. These other estate units are screened substantially by the decline in elevation from Viewpoint #1 and by the existing hedgerow of trees along Shaws Creek Road.

Mitigation measures are recommended to screen the view of Lot #1 estate unit particularly and, to a lesser extent, the view of the rooftops of the other estate units seen beyond. In the simulation showing mitigation measures applied, evergreen trees and deciduous trees and shrubs have been planted at the corner of Lot #1 densely and along Shaws Creek Road beside Lots #2 and #3 in the interrupted open areas of the existing hedgerow. These mitigation measures, as shown in the above image, demonstrate that the estate unit on Lot #1 can be significantly screened from view and the estate units that were partially visible before can be substantially hidden.

2 Viewpoint #2 and Viewshed



Description of Existing Conditions

V.2 Existing Conditions

Viewpoint #2 is located just beyond the south corner of the property on Shaws Creek Road overlooking in a northwesterly direction Lot #8, with other estate lots behind, and further away, the subdivision's south entrance on Shaws Creek Road. The viewshed from Viewpoint #2 is shown in the above image. Viewpoint #2 is located beside the continuous wooded area that runs along the southeast side of the property from Shaws Creek Road to Mississauga Road and which sits on a crest of elevated lands overlooking the property. This viewshed captures what is seen of the property as one approaches this crest of elevated lands from the south on Shaws Creek Road. One sees a small opening in the hedgerow in the mid ground, traces of what appears to be open fields in the far distance, and the wooded horizon beyond. The hedgerow along Shaws Creek Road between the two entrances to the subdivision is quite dense and hides much of the view beyond. As well, the existing steep berm on the east side of Shaws Creek Road, as seen on the right side of the image, provides an effective barrier to the view of the property towards the north.

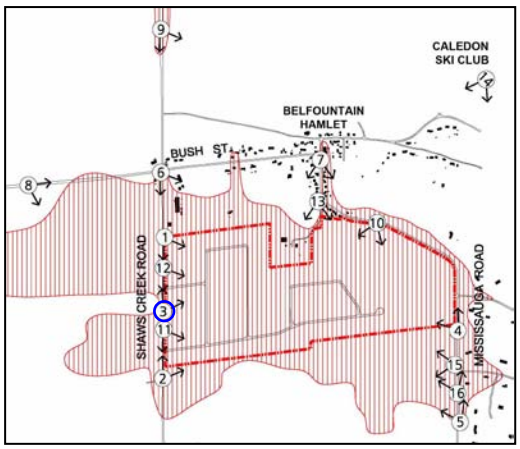
Simulation of Proposed Changes

V.2 Simulation with Mitigation

The simulation of the proposed changes shows the estate units that can been seen from Viewpoint #2. Without any mitigation measures applied, the estate units for Lots #8 and #7 are somewhat visible through a small window in the viewshed from Shaws Creek Road. The lower topography of the lots near Shaws Creeks Road and the decrease in elevation from the viewpoint position minimizes the building structures in the landscape as seen in this viewshed so that only the upper half and rooftops of the estate units are visible. The entry gate feature at the subdivision's south entrance on Shaws Creek Road cannot be discerned in the simulation for the proposed changes since this entrance is a distance from the viewer and screened by the hedgerow. The viewshed seen from Viewpoint #2 should be studied in conjunction with the viewshed seen from Viewpoint # 11, since each viewshed is directed towards the subdivision's south entrance (one looking from the north direction and the other looking from the south direction).

Some mitigation measures are recommended to screen the view of Lots #8 and #7 from Viewpoint # 2. In the simulation showing mitigation measures applied, a few evergreen trees have been planted within the hedgerow along Shaws Creek Road to screen further the view through this existing hedgerow, as described above. This mitigation measure is shown in the above image. With the mitigation measures applied, the estate units seen in this viewshed can be effectively screened.

3 Viewpoint #3 and Viewshed



Description of Existing Conditions

V.3 Existing Conditions

Viewpoint #3 is located opposite Lot # 4 on Shaws Creek Road overlooking in a northwesterly direction Lot #3, with Lots # 14, #15, and #16 behind, and the subdivision's north entrance on Shaws Creek Road. The viewshed from Viewpoint # 3 is shown in the above image. One can see clearly the expansive open fields of the property rising slightly in the distance. The hedgerow along Shaws Creek Road just south of the subdivision's north entrance is discontinuous and has large open breaks where the property can be seen quite well from the road.

Simulation of Proposed Changes

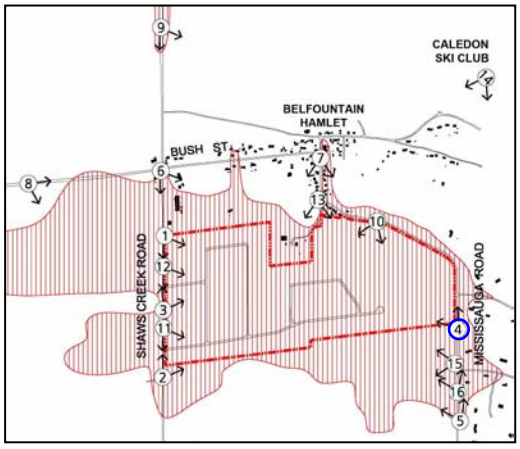
V.3 Simulation with Mitigation

The simulation of the proposed changes shows the estate units that can been seen from Viewpoint #3. Without any mitigation measures applied, the estate unit for Lot #3, as well as the estate units for Lots #14, #15 and #16, are highly visible in this viewshed from Shaws

Creek Road. The rising topography somewhat accentuates the building structures in the landscape. The simulation for the proposed changes shows the entry gate feature at the subdivision's north entrance on Shaws Creek Road. This feature is shown without any mitigation measures applied. The viewshed seen from Viewpoint #3 should be studied in conjunction with the viewshed seen from Viewpoint # 12, since each viewshed is directed towards the subdivision's north entrance (one looking from the north direction and the other looking from the south direction).

Mitigation measures are recommended to screen the view of Lots # 3, #14, #15 and #16. In the simulation showing mitigation measures applied, a number of evergreen trees and a few deciduous trees have been planted in the interrupted open areas of the existing hedgerow as seen in foreground along Shaws Creek Road. As well, additional plantings, such as evergreen trees, have been added to enhance the entry gate feature at the subdivision's north entrance on Shaws Creek Road. (Refer to the SketchUp perspective image of the Entry Gate Feature) These mitigation measures are shown in the above image. With the mitigation measures applied, the estate units seen in this viewshed can be effectively screened. The visibility of the estate units can be further reduced with additional tall evergreen plantings along Shaw Creeks Road.

4 Viewpoint #4 and Viewshed



Description of Existing Conditions

V.4 Existing Conditions

Viewpoint #4 is located opposite the northeast corner of the property on Mississauga Road. The viewshed from Viewpoint # 4 is shown in the above image. From this location, one can see the edge of the large wooded area in the north part of the property which follows alongside Mississauga Road to the Belfountain hamlet centre. As well, one can see on the left of the image a hedgerow of trees and shrubs on Mississauga Road just before the property line boundary and the wooded area. This stretch of hedgerow shields from view the open fields beyond.

On the right of the image, one can see the existing wooded area alongside Mississauga Road and between the two entrances for Caledon Mountain Drive and Woodland Court and the existing Belfountain estate subdivision. This wooded area provides this residential subdivision with a visual buffer from Mississauga Road.

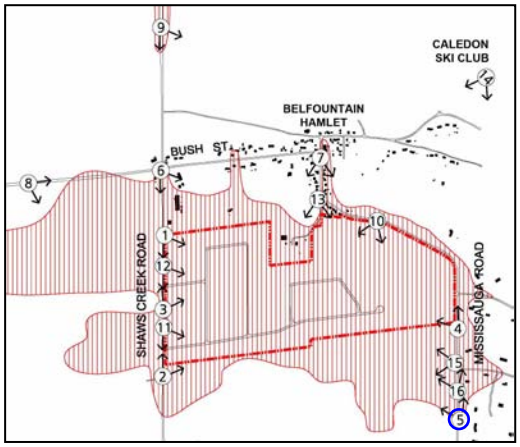
Simulation of Proposed Changes

V.4 Simulation Mitigation Not Applicable

The simulation of the proposed changes shows the estate units that can been seen from Viewpoint #4. Without any mitigation measures applied, the estate units cannot be seen in the viewshed from this viewpoint position. The wooded area in the north part of the property, which will be preserved, completely hides the estate units from view.

No mitigation measures are recommended for this viewshed as they are not applicable. The simulation, with no mitigation measures applied, is shown in the above image. This image demonstrates that the estate units cannot be seen from this viewpoint position on Mississauga Road.

5 Viewpoint #5 and Viewshed



Description of Existing Conditions

V.5 Existing Conditions

Viewpoint #5 is located beyond the northeast corner of the property on Mississauga Road overlooking in an northwesterly direction towards Lot #56, with other estate lots behind. The viewshed from Viewpoint #5 is shown in the above image. Viewpoint #5 is located beside the continuous wooded area that runs along the southeast side of the property from Shaws Creek Road to Mississauga Road and which sits on a crest of elevated lands overlooking the property. This viewshed captures what is seen of the property as one has reached this crest of elevated lands from the south on Mississauga Road and commences to descend. One sees the expansive open fields in the mid ground view which abut Mississauga Road. These lands are owned by another landowner. In the distance, there is an intermittent hedgerow along the southeast side of the property line boundary and more open fields beyond. The existing steep berm on the west side of Mississauga Road with its existing evergreen trees, as seen on the left side of the image, provides an effective barrier to the view of the property towards the west from the crest of elevated lands on Mississauga Road.

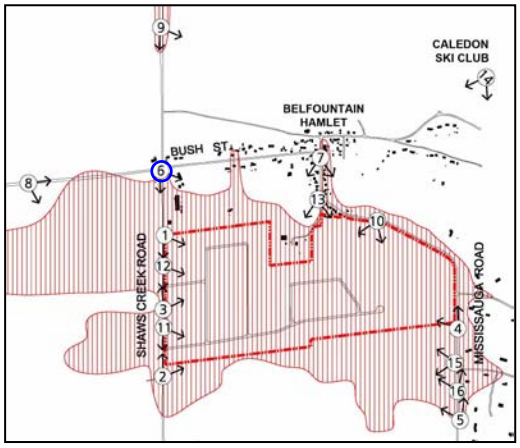
Simulation of Proposed Changes

V.5 Simulation with Mitigation

The simulation of the proposed changes shows the estate units that can been seen from Viewpoint #5. Without any mitigation measures applied, the estate unit for Lot #56 is partially visible through the evergreen trees located at the edge of the wooded area beside Mississauga Road. As one descends Mississauga Road and travels beyond the wooded area on the left, Lot #56 and the adjacent Lots #57 to #60 situated along the southeast property line boundary are more visible in the landscape, across the expansive open fields, from Mississauga Road. The estate units on these lots however are located some distance away from Mississauga Road and therefore they appear smaller and less prominent in the landscape as viewed from Mississauga Road.

Mitigation measures are recommended to screen the view of the lots, especially Lots #56 to #60, along the southeast property line boundary that is closest to Mississauga Road. In the simulation showing mitigation measures, evergreen trees have been planted along the length of this section of the property line boundary and they are interspersed with the existing hedgerow to screen the view of the estate units seen in this viewshed and from Mississauga Road as one travels north from this viewpoint position.

6 Viewpoint #6 and Viewshed



Description of Existing Conditions

V.6 Existing Conditions

Viewpoint # 6 is located on Shaws Creek Road just south of the intersection at Bush Street. The viewshed from Viewpoint #6 is shown in the above image. This viewshed captures what is seen as one approaches the property from the north on Shaws Creek Road. From this viewpoint position, one can see the rise in elevation of the road as is travels south. At the southeast corner of Shaws Creek Road and Bush Street there is a residential property and further south there is a public elementary school. Beside these two properties one can see the dense hedgerow, in the foreground, along Shaws Creek Road. As well, one can see the dense hedgerow at the higher elevation to the left, in the mid ground view, which separates the residential and school properties. These hedgerows, as well as the elevated topography, effectively block from view the property and its estate units in this viewshed.

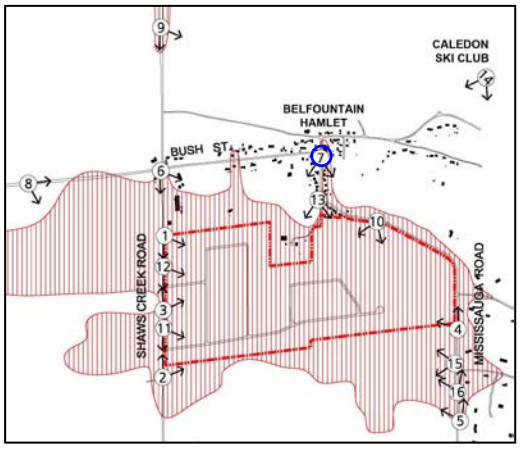
Simulation of Proposed Changes

V.6 Simulation Mitigation Not Applicable

The simulation of the proposed changes shows the estate units that can be seen from Viewpoint #6. Without any mitigation measures applied, the property and the estate units cannot be seen in this viewshed. The rise in elevation and the dense hedgerows are the two factors that completely hide the southwest corner of the property from view.

No mitigation measures are recommended for this viewshed as they are not applicable. The simulation, with no mitigation measures applied, is shown in the above image. This image demonstrates that the estate units cannot be seen from this viewpoint position on Shaws Creek Road.

7 Viewpoint #7 and Viewshed



Description of Existing Conditions

V.7 Existing Conditions

Viewpoint # 7 is located in Belfountain hamlet, on Mississauga Road just south of the intersection at Bush Street. The viewshed from Viewpoint #7 is shown in the above image. Along both sides of Mississauga Road there are numerous buildings in-filled with dense vegetation of mature evergreen and deciduous trees. One can see that Mississauga Road rises in elevation as it travels south and that there is a cluster of evergreen trees in the distance following the line of sight with centre of the road. Beyond this cluster of evergreen trees is the property. From this viewpoint position, the property and its estate units cannot be seen.

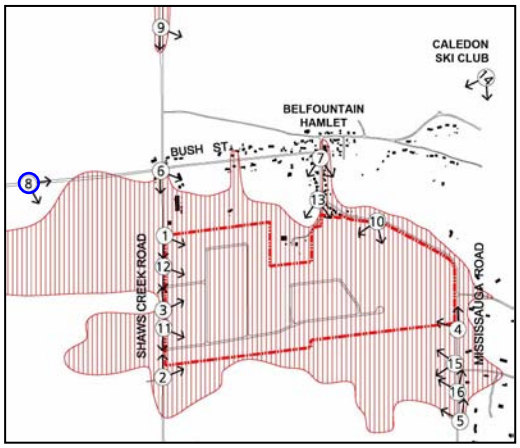
Simulation of Proposed Changes

V.7 Simulation Mitigation Not Applicable

The simulation of the proposed changes shows the estate units that can be seen from Viewpoint #7. Without any mitigation measures applied, the property and the estate units cannot be seen in this viewshed. The rise in elevation, the dense vegetation and the hamlet buildings along Mississauga Road and the cluster of evergreen trees in the distance in the line of sight completely screen from view the northwest corner of the property.

No mitigation measures are recommended for this viewshed as they are not applicable. The simulation, with no mitigation measures applied, is shown in the above image. This image demonstrates that the estate units cannot be seen from the Belfountain hamlet.

8 Viewpoint #8 and Viewshed



Description of Existing Conditions

V.8 Existing Conditions

Viewpoint # 8 is located on Bush Street, at the midpoint between Shaws Creek Road and Winston Churchill Boulevard, and approximately .8 kilometres from the property. The viewshed from Viewpoint #8 is shown in the above image. One can see the expansive open fields in the foreground stretching into the distance. Beyond these fields is Shaws Creek Road and the property. Far in the distance and on the horizon, one can see low lying vegetation, being the hedgerows along Shaws Creek Road. In the centre of this view and at the far edge of the fields there are some large but sparsely planted deciduous trees. And to the right, there is a dense hedgerow which blocks the view of the landscape beyond. The vegetation seen in this viewshed as well as the distance from the property are the key factors that prevent the property and the estate units from being seen at this viewpoint position.

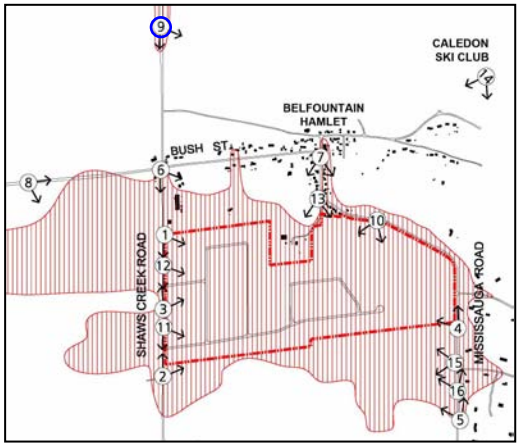
Simulation of Proposed Changes

V.8 Simulation Mitigation Not Applicable

The simulation of the proposed changes shows the estate units that can be seen from Viewpoint #8. Without any mitigation measures applied, the property and the estate units cannot be seen in this viewshed. Vegetation and distance are the key factors that prevent the property from being seen from this viewpoint position.

No mitigation measures are recommended for this viewshed as they are not applicable. The simulation, with no mitigation measures applied, is shown in the above image. This image demonstrates that the estate units cannot be seen from this location on Bush Street.

9 Viewpoint #9 and Viewshed



Description of Existing Conditions

V.9 Existing Conditions

Viewpoint # 9 is located on Shaws Creek Road north of Bush Street, approximately 1 kilometre from the property. The viewshed from Viewpoint #9 is shown in the above image. From this elevated viewpoint position, one can see looking south along Shaws Creek Road the decline in elevation, a valley basin in the distance, and the steep rise in elevation beyond. The elevated lands in the far distance include the wooded area on the southeast side to the property which runs from Shaws Creek Road to Mississauga Road. In this viewshed, all of the landscape appears to be heavily wooded and there are no visibly discernible open areas. Hidden within this valley basin is the property. The expansive and far reaching vegetation and the distance from the property are the two key factors that prevent the property and the estate units from being seen at this viewpoint position.

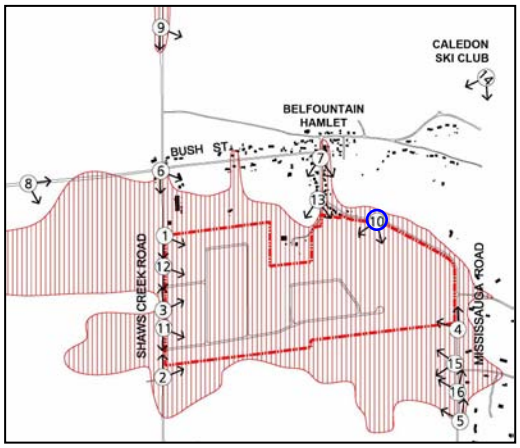
Simulation of Proposed Changes

V.9 Simulation Mitigation Not Applicable

The simulation of the proposed changes shows the estate units that can be seen from Viewpoint #9. Without any mitigation measures applied, the property and the estate units cannot be seen in this viewshed. Vegetation and distance are the key factors that prevent the property from being seen from this viewpoint position.

No mitigation measures are recommended for this viewshed as they are not applicable. The simulation, with no mitigation measures applied, is shown in the above image. This image demonstrates that the estate units cannot be seen from this location on Shaws Creek Road.

10 Viewpoint #10 and Viewshed



Description of Existing Conditions

V.10 Existing Conditions

Viewpoint # 10 is located just south of Belfountain hamlet, off of Mississauga Road at the entrance to the old laneway to the north side of the property. The viewshed from Viewpoint #10 is shown in the above image. At the entrance, one can see the existing heavily wooded areas along the laneway (centre of image) and along the north side of the ridge which runs west-east from the Wilkins property to Mississauga Road (left to right across image). Lots #51, #52, #53, and #54 are located just behind on the southeast side and downward slope of the ridge. One cannot see the open areas of the property beyond the ridge of trees.

Simulation of Proposed Changes

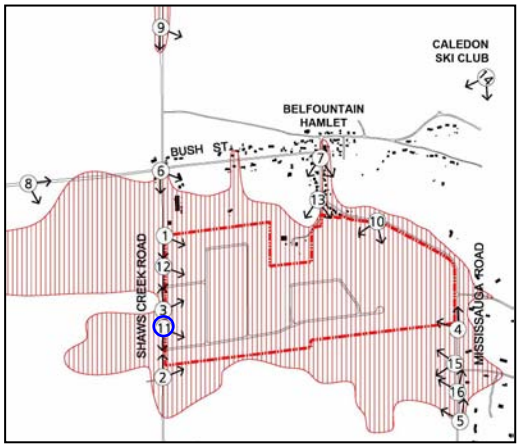
V.10 Simulation Mitigation Not Applicable

The simulation of the proposed changes shows the estate units that can been seen from Viewpoint #10. Without any mitigation measures applied, the estate units for Lots #51, #52, #53, and #54 are hidden from view. The existing conditions seen in this viewshed provide a

natural visual barrier to the proposed development. The siting of the estate units on the southeast side of the downward slope of the heavily wooded ridge prevents the property and the estate units from being seen from this viewpoint position.

No mitigation measures are recommended for this viewshed as they are not applicable. The simulation, with no mitigation measures applied, is shown in the above image. This image demonstrates that the property and the estate units are hidden from view by the existing conditions of the landscape.

11 Viewpoint #11 and Viewshed



Description of Existing Conditions

V.11 Existing Conditions

Viewpoint #11 is located opposite Lot # 7 on Shaws Creek Road overlooking in an easterly direction towards Lots #7, #8, and # 9 (situated in the most southern part of the property) and the subdivision's south entrance on Shaws Creek Road. The viewshed from Viewpoint # 11 is shown in the above image. The hedgerow along this section of Shaws Creek Road beside Lots #5 and #6, as seen in the foreground, is relatively dense, thus permitting only glimpses of the open fields behind. In the distance, one can see the slight rise in Shaws Creek Road and the adjacent lands, with the continuous wooded area beyond. However, the change in elevation is moderate so that the vegetation at eye level can sufficiently mask the ground plane view of the open fields in the distance.

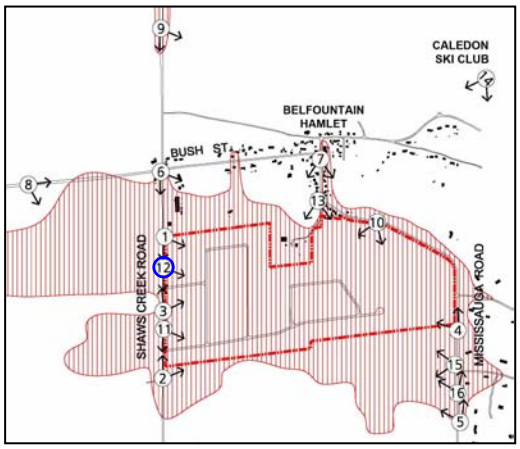
Simulation of Proposed Changes

V.11 Simulation with Mitigation

The simulation of the proposed changes shows the estate units that can been seen from Viewpoint #11. Without any mitigation measures applied, the estate units for Lots #7, #8, and # 9 are hardly visible due to the density of the hedgerow. Within this viewshed, it is not possible to see other estate units. The simulation for the proposed changes shows the entry gate feature at the subdivision's south entrance on Shaws Creek Road. This feature is shown without any mitigation measures applied. The viewshed seen from Viewpoint #11 should be studied in conjunction with the viewshed seen from Viewpoint # 2, since each viewshed is directed towards the subdivision's south entrance (one looking from the north direction and the other looking from the south direction).

Mitigation measures are recommended, primarily, to screen the open area created by the subdivision's south entrance. Evergreen trees, and some deciduous trees, have been added to enhance the entry gate feature at the subdivision's south entrance on Shaws Creek Road while providing a vegetation infill to the existing dense hedgerow. (Refer to the SketchUp perspective image of the Entry Gate Feature) As shown in the above image, mitigation measures are not necessary to screen any further estate units on Lots #7, #8 and #9 from Viewpoint #11, since they are well hidden by the existing vegetation.

12 Viewpoint #12 and Viewshed



Description of Existing Conditions

V.12 Existing Conditions

Viewpoint #12 is located opposite Lot # 3 on Shaws Creek Road overlooking in an easterly direction Lots #4 and #13 and the subdivision's north entrance on Shaws Creek Road. The viewshed from Viewpoint # 12 is shown in the above image. One can see in the distance, the rise in the elevation of Shaws Creek Road and the existing dense hedgerow along that section of the road. Through the interrupted open areas of the hedgerow in the foreground, one can glimpse the open fields of the property beyond the hedgerow and the continuous wooded area on the elevated lands beyond the southeast side of the property.

Simulation of Proposed Changes

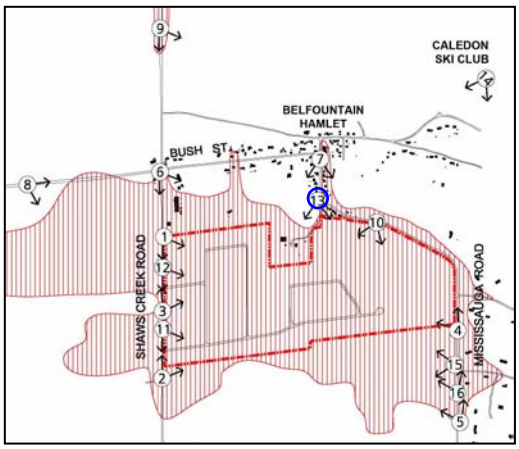
V.12 Simulation with Mitigation

The simulation of the proposed changes shows the estate units that can been seen from Viewpoint #12. Without any mitigation measures applied, the estate unit for Lot #13 is partially seen in the mid ground due to the sparse screening of the existing hedgerow in the foreground. Estate unit for Lot #4, which is closer to Shaws Creek Road but further away

from the viewer, is actually less visible due to the density of the hedgerow in that area. Within this viewshed, it is not possible to see the other estate units. The simulation for the proposed changes shows the entry gate feature at the subdivision's north entrance on Shaws Creek Road. This feature is shown without any mitigation measures applied. The viewshed seen from Viewpoint #12 should be studied in conjunction with the viewshed seen from Viewpoint # 3, since each viewshed is directed towards the subdivision's north entrance (one looking from the north direction and the other looking from the south direction).

Mitigation measures are recommended to screen the view of Lots #4 and #13. In the simulation showing mitigation measures applied, evergreen and deciduous trees have been planted in the interrupted open areas of the existing hedgerow in the foreground along Shaws Creek Road. As well, additional plantings, such as evergreen trees, have been added to enhance the entry gate feature at the subdivision's north entrance on Shaws Creek Road. (Refer to the Sketchup perspective image of the Entry Gate Feature) These mitigation measures, as shown in the above image, demonstrate that the estate unit on Lot #13 can be substantially screened from view and the estate unit on Lot #4 can be virtually hidden by these new plantings.

13 Viewpoint #13 and Viewshed



Description of Existing Conditions

V.13 Existing Conditions

Viewpoint #13 is located just south of the Community Centre in Belfountain hamlet at the junction of Mississauga Road and the laneway to the existing residence which is located on

the northwest side of the property. The viewshed from Viewpoint # 13 is shown in the above image. At the entrance to the laneway, one can see the existing heavily wooded areas along the laneway fence and, in the mid ground view, along the north side of the ridge which runs west-east from the Wilkins property to Mississauga Road. The existing residence, which is located at a higher elevation than the laneway entrance, is slightly visible through the wooded area. One can faintly discern, through the branches of the woodland trees and at the crest of the ridge, the open lands of the property in the distance. Lots #47, #48, #49, and #50 are located just behind and adjacent to the exiting residence on the southeast side and downward slope of the ridge.

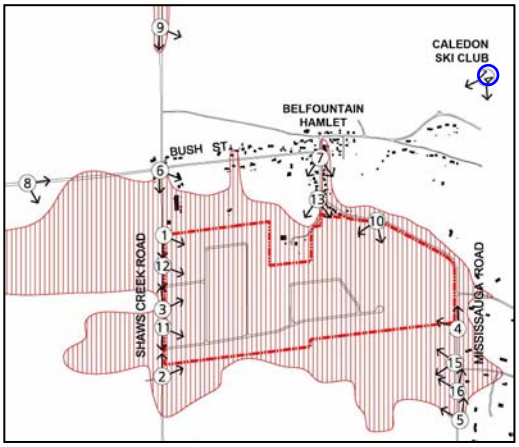
Simulation of Proposed Changes

V.13 Simulation Mitigation Not Applicable

The simulation of the proposed changes shows the estate units that can been seen from Viewpoint #13. Without any mitigation measures applied, the estate units for Lots #47, #48, #49, and #50 are virtually hidden from view. Estate unit for Lot #49, which is located directly in line with the laneway, can barely be seen. The existing conditions seen in this viewshed provide a natural visual barrier to the proposed development. The siting of the estate units on the southeast side of the downward slope of the ridge and at the lengthy distance from the viewpoint position minimizes what would otherwise be seen of the estate units, such as the top upper half and rooftops of the structures. The existing wooded area along the north side of the ridge effectively blocks from view what would otherwise be seen of the estate units for Lots #47, #48, #49, and #50.

No mitigation measures are recommended for this viewshed as they are not applicable. The simulation, with no mitigation measures applied, is shown in the above image. This image demonstrates that the estate units for Lots #47, #48, #49, and #50 can be virtually hidden from view by the existing conditions of the landscape.

14 Viewpoint #14 and Viewshed



Description of Existing Conditions

V.14 Existing Conditions

Viewpoint #14 is located at the Caledon Ski Club, at its high elevation point by the South Lodge. This viewpoint position is approximately 1.2 kilometres from the property. The viewshed from Viewpoint #14 is shown in the above image. The direction of view is south towards the property. The segment of Mississauga Road that traverses through the Belfountain hamlet runs in an east-west direction (left to right side of image) in the viewshed. Behind Mississauga Road in the far distance is the property and beyond that in the horizon are the elevated wooded areas southeast of the property. In this viewshed, one can see only the evergreen and deciduous trees along the ridge of the ski hill and the far distant landscape as a horizon. From the distance of this viewpoint position, no open areas of the property can be visually discerned.

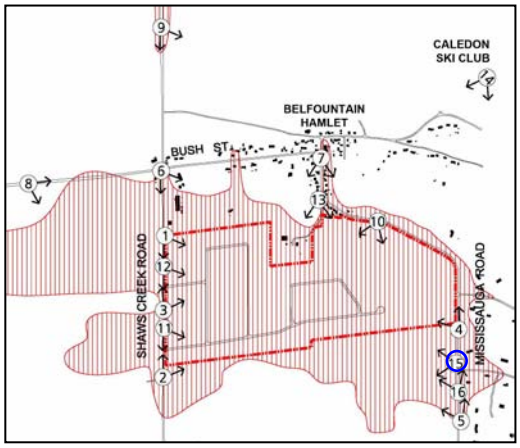
Simulation of Proposed Changes

V.14 Simulation Mitigation Not Applicable

The simulation of the proposed changes shows the estate units that can been seen from Viewpoint #14. Without any mitigation measures applied, the estate units cannot be seen in the viewshed from this viewpoint position. Given the distance away from the property, the estate units are visually very small and are at a height in the view plane that the estate units are hidden by the existing evergreen and deciduous trees at the ski hill and are lost in the horizon landscape.

No mitigation measures are recommended for this viewshed as they are not applicable. The simulation, with no mitigation measures applied, is shown in the above image. This image demonstrates that the estate units cannot be seen from the Caledon Ski Club.

15 Viewpoint #15 and Viewshed



Description of Existing Conditions

V.15 Existing Conditions

Viewpoint #15 is located opposite the northeast corner of the property on Woodland Court at its intersection with Mississauga Road. The Town has requested that a photographic simulation be done for the viewshed from this location. The viewshed from Viewpoint # 15 is shown in the above image. From this location, one can see on the right of the image a hedgerow of trees and shrubs on Mississauga Road just before the property line boundary and the wooded area to the north. On the left of the image, the hedgerow becomes more sparse and one can see the open fields beyond and the continuous elevated wooded area overlooking the property in the distance. Hidden behind the hedgerow to the right are Lots #57, #56 and #55, the closest lots to Mississauga Road.

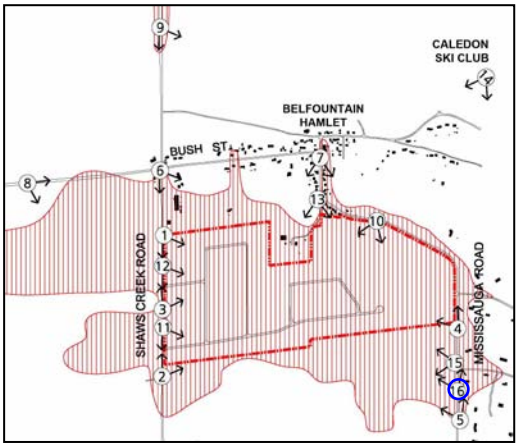
Simulation of Proposed Changes

V.15 Simulation Mitigation Not Applicable

The simulation of the proposed changes shows the estate units that can been seen from Viewpoint #15. Without any mitigation measures applied, the estate units cannot be seen in the viewshed from this viewpoint position. The hedgerow of trees and shrubs on Mississauga Road just before the property line boundary and the wooded area to the north, all of which will be preserved, completely hide the estate units from view.

No mitigation measures are recommended for this viewshed as they are not applicable. The simulation, with no mitigation measures applied, is shown in the above image. This image demonstrates that the estate units cannot be seen from this viewpoint position on Woodland Court (at its entry from Mississauga Road).

16 Viewpoint #16 and Viewshed



Description of Existing Conditions

V.16 Existing Conditions

Viewpoint #16 is located beyond the northeast corner of the property on Mississauga Road overlooking in an northwesterly direction towards Lots #57, #56 and #55, with other estate lots behind. Viewpoint #16 is just south of Viewpoint #15 which is located at the entrance to Woodland Court and just north of Viewpoint #5 which is located near the crest of Mississauga Road. Viewpoint #16 captures the most expansive and open view towards the property that one can see from Mississauga Road as one travels north. The viewshed from Viewpoint #16 is shown in the above image. One sees the expansive open fields in the mid ground view which abut Mississauga Road. These lands are owned by another landowner. In the distance, there is an intermittent hedgerow along the southeast side of the property line boundary and more open fields of the property beyond. Lots # 56 to #60 are situated along this southeast side of the property line boundary. There is also an interior hedgerow on the south side of Block #68 (an open area which is not being developed) which partially screens Lots #56 and #55 from Mississauga Road.

Simulation of Proposed Changes

V.16 Simulation with Mitigation

The simulation of the proposed changes shows the estate units that can been seen from Viewpoint #16. Without any mitigation measures applied, the estate units for Lots #56 to #60 along the southeast side of the property line boundary and for the estate unit for Lot #55, which are closest to Mississauga Road are visible on the left. The estate units on these lots however are located some distance away from Mississauga Road and therefore they appear smaller and less prominent in the landscape as viewed from Mississauga Road. Other estate units beyond are located quite a distance away from Mississauga Road and cannot be discerned in the landscape as viewed from this viewpoint position on Mississauga Road.

Mitigation measures are recommended to screen the view of Lots #55 to #60, along the southeast property line boundary that is closest to Mississauga Road. In the simulation showing mitigation measures, evergreen trees have been planted along the length of this section of the property line boundary and they are interspersed with the existing hedgerows to screen the view of the estate units seen in this viewshed and from Mississauga Road, as one travels north along this section of the road.

*****Summary of Photographic Simulations and Mitigation Recommendations*****

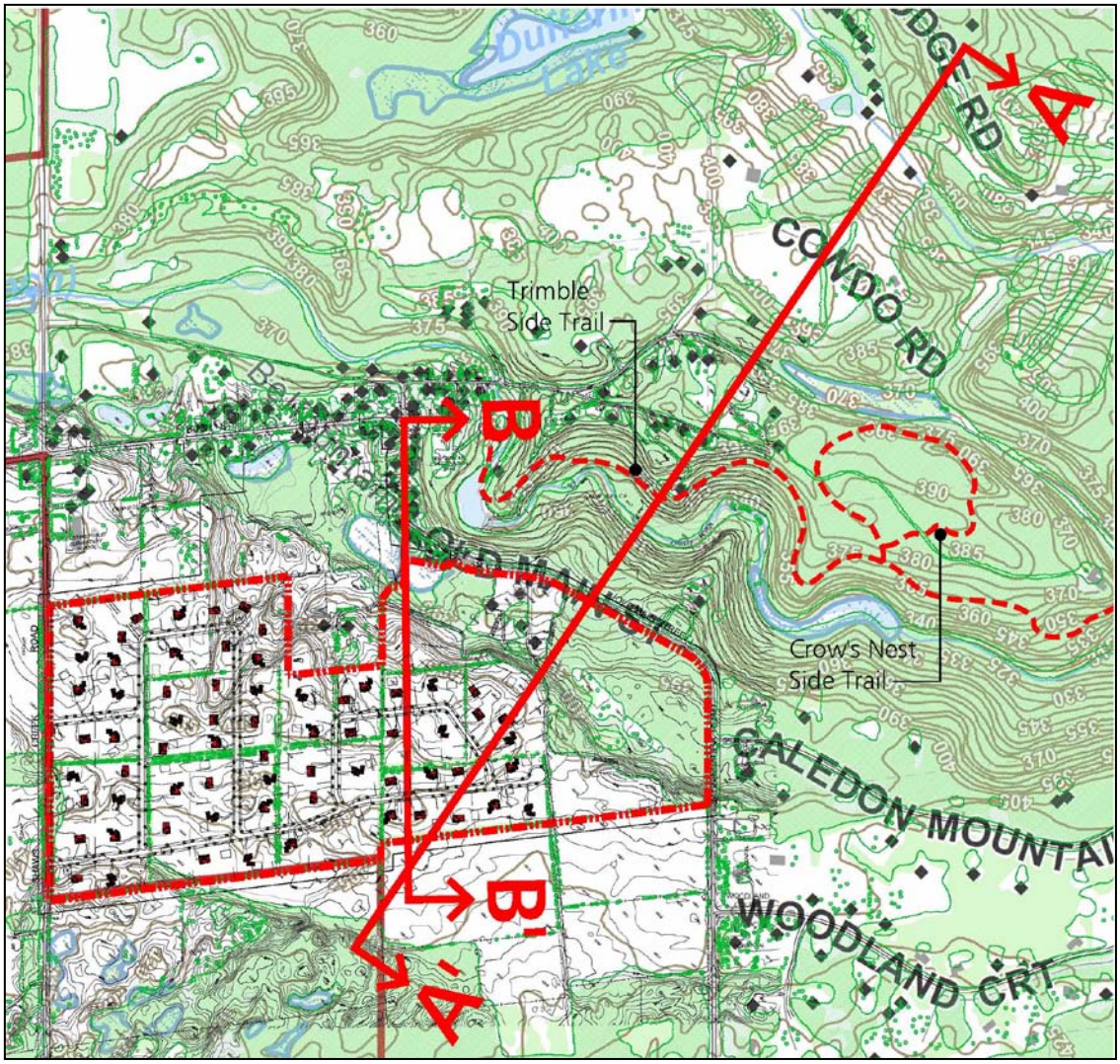
As can be gleamed from the above discussion, only 7 of the 16 individual viewsheds examined require some form of mitigation measure to be applied in order to minimize the visibility of the proposed development within the surrounding landscape. Mitigation measures were typically recommended where the viewpoint location was in close proximity to the property. 5 of the 7 individual viewsheds, which require mitigation measures, are those for Viewpoints #1, #12, #3, #11 and #2 along Shaws Creek Road. For these viewpoints, mitigation recommendations consist of plantings of evergreen and deciduous trees to in-fill the existing hedgerow along Shaws Creek Road. More plantings are recommended along the northern portion of Shaws Creek Road beside the property where the existing hedgerow is sparse or intermittent. The two remaining individual viewsheds, which require mitigation measures, are those for Viewpoints #5 and #16 on Mississauga Road. For these viewpoints, mitigation recommendations consist of plantings of evergreen trees to in-fill the existing hedgerow along the southeast property line boundary closest to Mississauga Road.

For each Viewpoint # we have summarized in the table below whether mitigation measures are applicable and the mitigation recommendations.

Viewpoint #	Mitigation Measures Applicable	Mitigation Recommendations
1	Yes	Planting of evergreen and deciduous trees and shrubs
2	Yes	Enhance existing hedgerow with some evergreen trees
3	Yes	Enhance existing hedgerow with evergreen and deciduous trees, and berming at entry gate feature
4	No	
5	Yes	Enhance existing hedgerow with evergreen trees
6	No	
7	No	
8	No	
9	No	
10	No	
11	Yes	Enhance existing hedgerow with evergreen and deciduous trees, and berming at entry gate feature
12	Yes	Enhance existing hedgerow with evergreen and deciduous trees, and berming at entry gate feature
13	No	
14	No	
15	No	
16	Yes	Enhance existing hedgerow with evergreen trees

3. Line of Sight Cross Sections

Line of sight cross sections further illustrate in a 2-dimensional way what can be seen in individual viewsheds from selected viewpoints. These cross sections augment the photographic simulations carried out for those viewpoints and provide additional information. Two line of sight cross sections were prepared for two key places of significance, one being the Caledon Ski Club and the other being the Belfountain hamlet and its Community Centre. The line of sight cross section for the Caledon Ski Club at Viewpoint #14 is referred to as A A', while the line of sight cross section for the Belfountain hamlet at Viewpoints # 7 and #13 is referred to as B B'. Following is a Key Plan which shows the alignment of the lines of sight for the Cross Sections A A' and B B'. The alignment of the A A' and B B' lines follow the centre of the viewsheds as seen from the viewpoints.



Key Plan - Cross Sections

Cross Section A A'

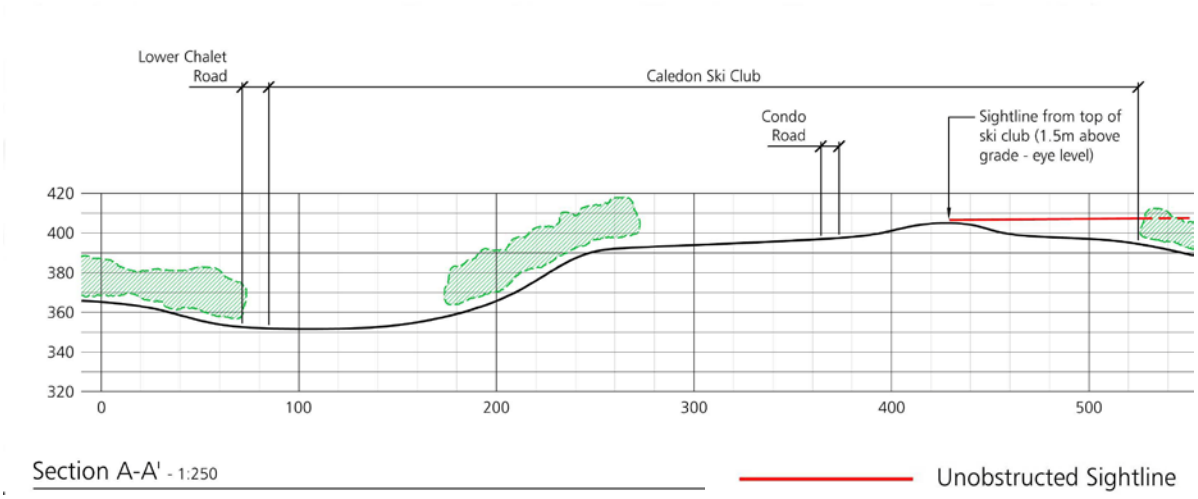
The cross section for A A' is shown below in four segments. (Refer also to Sections drawing included in the Appendix for an unsegmented version of Cross Sections A A' and B B') In Cross Section A A' the viewer is located at the high elevation point at the south lodge of the Club. The line of sight of the viewer is shown as a red line. This red line is solid where the view is unimpeded. When the view first becomes interrupted and blocked by an object in the line of sight, the red line becomes a dashed line.

Cross Section A A' shows all the existing landscape elements in the path of the line of sight: topography, elevation and grade changes, wooded areas, woodlots and hedgerows, and points of intersections for roads (Forks of the Credit Road, Scott Street, and Mississauga Road) and trails (Trimble Side Trail), the Belfountain Conservation Area and the Credit

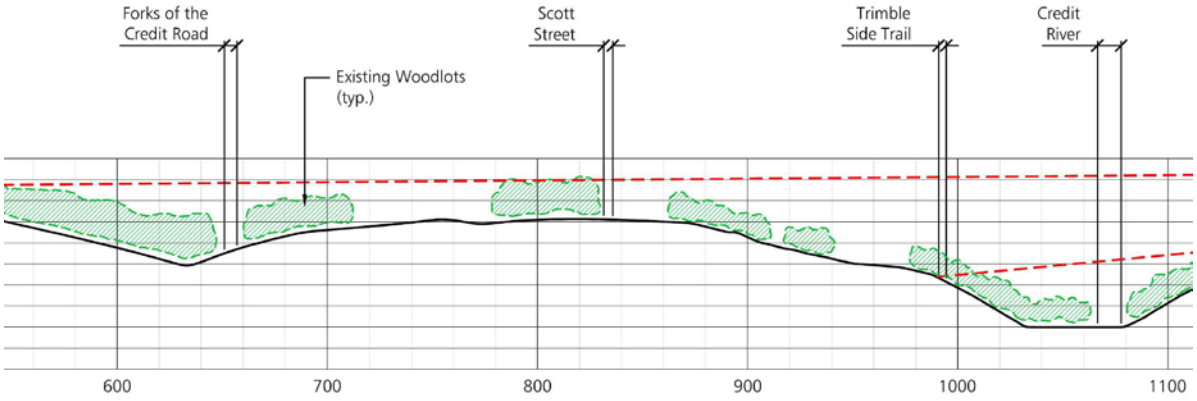
River. The cross section also shows the proposed estate units situated on the estate lots in the path of the line of sight.

Based on the viewers height of 1.5 metres and on an assumed tree height of 9-10 metres (for the mature woodlot at the edge of the south lodge hill), the view of the property and the proposed development from the top of the Caledon Ski Club hill is interrupted and blocked by the treetops of the adjacent woodlot. As was shown in the photographic simulation for Viewpoint #14, one can see in the viewshed for this viewpoint only the evergreen and deciduous trees along the ridge of the ski hill and the far distant landscape as a horizon. Previously we discussed how the apparent size of an object in the landscape diminishes as the viewer's distance from the object increases. This is very much the case for this viewpoint. From the distance of the property to the viewpoint position , the property cannot be visually discerned from the distant horizon.

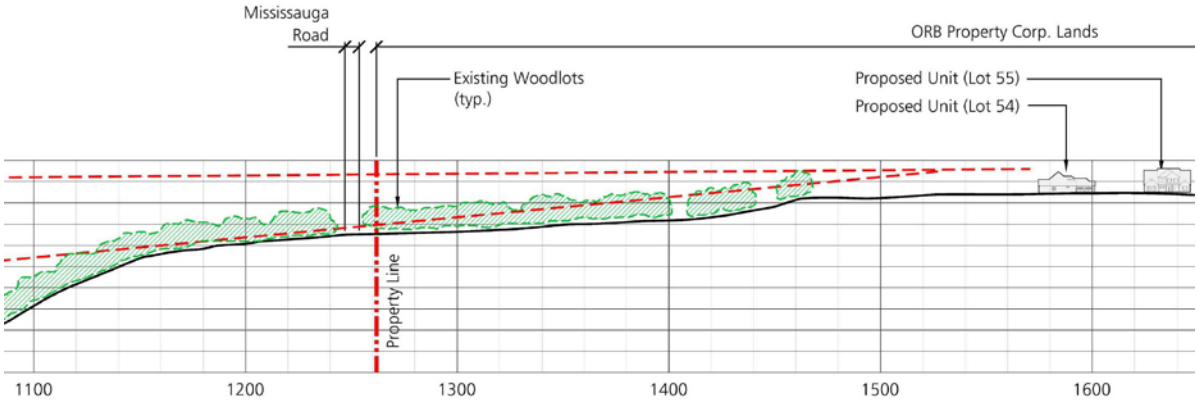
A second line of sight is shown on the Cross Section A A'. Here the viewer is located on the Trimble Side Trail in the Belfountain Conservation Area. From this trail position, the line of sight shows that the view of the property and the proposed development is blocked immediately by the surrounding vegetation and the heavily wooded slopes of the Credit River. The deep valley with the river at its basin provides a visual separation of the conservation area and its trails from Mississauga Road and the property beyond.



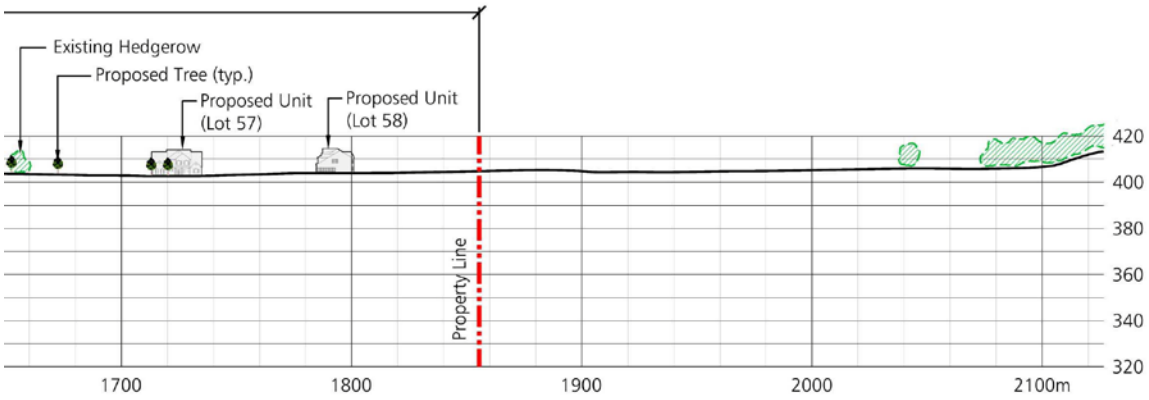
Cross Section A A' - Segment 1



Cross Section A A' - Segment 2



Cross Section A A' - Segment 3



Cross Section A A' - Segment 4

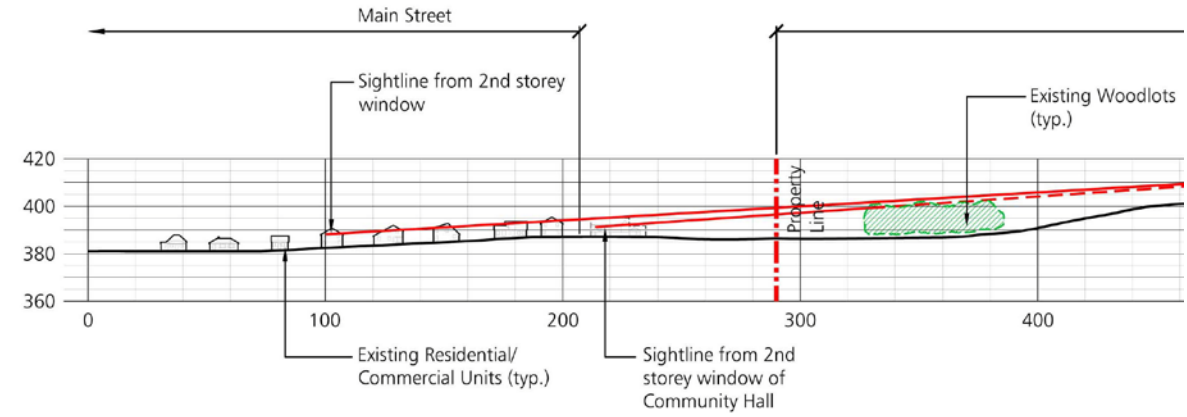
Cross Section B B'

The cross section for B B' is shown below in two segments. In Cross Section B B' the viewer is located at the second story level of the Belfountain Community Centre. The alignment of the line of sight follows the route of Mississauga Road in the hamlet.

Cross Section B B' shows all the existing landscape elements in the path of the line of sight: topography, elevation and grade changes, the wooded area that runs along the northern ridge of the property, and the hedgerows. The cross section also shows the proposed estate units situated on the estate lots in the path of the line of sight.

Based on the viewers height of 8 metres above ground (based on a two story height level) and on an assumed tree height of 9-10 metres (for the wooded area on the ridge), the view of the property and the proposed development is interrupted and blocked by the treetops of the wooded area on the ridge. If the viewer was instead at ground level and further south of the Belfountain Community Centre , the proposed development could be faintly discerned in the distance, through the branches of the woodland trees. As was shown in the photographic simulation for Viewpoint #13, the existing conditions seen in the viewshed provide a natural visual barrier to the proposed development. As previously indicated, the siting of the estate units on the southeast side of the downward slope of the ridge and at the lengthy distance from the viewpoint position minimizes what would otherwise be seen of the estate units, such as the top upper half and rooftops of the structures.

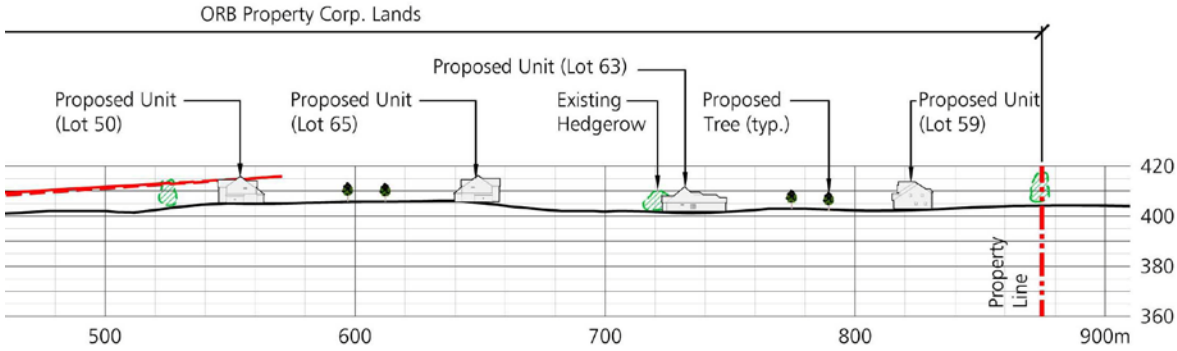
A second line of sight is shown on the Cross Section B B'. Here the viewer is located at the second story level of an existing residential/commercial building in the Belfountain hamlet. From this position, the view of the property and the proposed development is interrupted and blocked by the existing hedgerows on the property. If the viewer was a ground level, the view of the proposed development would be completely blocked. This was shown to be the case in the photographic simulation for Viewpoint #7.



Section B-B' - 1:250

Unobstructed Sightline

Cross Section B B' - Segment 1



Cross Section B B' - Segment 2

*****Summary of Line of Sight Cross Sections*****

The line of sight cross sections for the Caledon Ski Club and the Belfountain hamlet (including the Community Centre) reaffirm the findings from the photographic simulations for the individual viewsheds captured for these places at Viewpoints #14, #13 and #7. From the photographic simulation and the line of sight cross section work carried out, it was determined that there is no visual impact of the proposed development on the viewsheds seen from these places of significance. Further, mitigation measures were not recommended to screen views as there were not applicable for these cases.

RECOMMENDATIONS

Mitigation Measures

Where the proposed development was considered to have an some impact on the visual and scenic resources of the Belfountain area landscape, mitigation measures were proposed to reduce the impact of the changes on these resources.

Such mitigation measures typically consisted of plantings of native evergreen and deciduous trees to in-fill the existing hedgerows along Shaws Creek Road and along the southeast property line boundary closest to Mississauga Road. The strategic use of mitigation measures is shown in the images below.

Mitigation Measure 1 – Hedgerows

Hedgerows can be found throughout the property, along the length of its property line boundary and along Shaws Creek Road. The enhancement and preservation of the existing hedgerows is a significant aspect of the design of the proposed development in minimizing its visual impact on the surrounding landscape. Hedgerows of evergreen and deciduous trees work quite effectively in screening views, while maintaining the greening of the Belfountain rural landscape.

Mitigation Measure 2 – Deciduous and Evergreen Planting

Deciduous and evergreen tree and shrub plantings would be used to screen views of the proposed development as seen from adjacent properties (e.g. elementary public school and the residential property on the southwest side of the property). The selection and location of the plantings would be carefully considered, such that they provide some privacy for adjacent residents and screen their views of the property. Plantings would be indigenous to the area and conform with Credit Valley Conservation's approved species list.

As well, plantings of evergreen trees (atop small berms) and shrubs and perennials have been recommended for the gateway entry features for the two entrances to the proposed development. The use of evergreen trees atop the small berms will provide additional screening in the opening caused by the residential street entrance.

Mitigation Measure 3 - Berming

Subtle berming can be used in strategic locations to enhance the screening effect of the residential development. The berms can be used as an additional layer of screening as well as to increase the height of the screening where plantings of trees are placed on the crest of the berms. Such berms would need to be wider and flatter at their crest to ensure rainwater does not drain quickly away from the root system of the trees. The berms may range in height from 1 to 2 metres and they should have a slope ratio not greater than 1:3 (height to length). They may be planted with meadowland and/or fescue turf grass for low maintenance and a naturalized effect.

Protection and Management of Hedgerows

As evident from this VIA study, the existing hedgerows and their enhancement are an important mitigation measure in screening the development and minimizing its visual impact on the scenic resources of the landscape. The NEC has expressed concern regarding the long term protection and management of the hedgerows, especially where the hedgerows contain Ash trees, which are expected to die due to the Emerald Ash Borer.

Pursuant to detailed discussions and meetings with NEC over recent years, we recommend the following to be undertaken as part of the design and approval process for the residential development:

i) an inventory of the vegetation, showing the composition of the hedgerows and including OLS survey data for tree locations, dripline and trunk elevations and recommended setbacks from the driplines to minimize impact on the vegetation,
ii) an assessment of the viability of the hedgerows to provide continued visual screening,
iii) a protection plan with recommendations where required for enhancing the hedgerows with new tree and/or sapling plantings, especially where Ash trees are present, and
iv) a management plan that informs and defines the hedgerows as a feature of the residential development that is to be managed and retained once the lots are developed and held in private ownership.

NEC has indicated that the inventory, assessment and protection/management plans of the hedgerows are to be done in concert with the overall grading and servicing plans and the individual lot site plans for the subdivision. This work is most appropriately completed as part of the detailed design of the Plan of Subdivision, once final lot layout is determined and specific opportunities can be identified.

SUMMARY AND CONCLUSION

Summary

Based on the findings of the VIA work carried out, the construction of the proposed estate residential development on the MB property at the Belfountain site will not have an adverse impact on the visual character of the surrounding area. To demonstrate this we have answered the following questions:

1. Where can the property be seen from?

- The VIA work resulted in defining a visual catchment area and the Visual Analysis Plan drawing.
- The visual catchment area surrounding the property is very limited and falls within a 2 kilometres radius. It does not extend north of Mississauga Road where the landscape is considered to be visually outstanding.
- Refer to the Visual Analysis Plan drawing and discussion under ANALYSIS and ASSESSMENT of IMPACT of PROPOSED CHANGES - 1. Viewshed Mapping

2. What are the existing conditions of the site context and the property itself?

- The existing conditions and characteristics of the site and adjacent properties strongly contribute to minimizing the visibility of the property from the surrounding landscape.
- Refer to discussion under SITE and CONTEXT CHARACTERISTICS
- Refer to SK.1 Existing Conditions drawing and discussion under METHODOLOGY - Development Master Plan

3. How will the appearance of the property change with the proposed development?

- The VIA work demonstrated the suitability of the proposed development (lot layout, siting of estate units, and retention of wooded areas and hedgerows) in relation to the existing natural features of the property.
- 3-D modeling of the proposed development was carried out to assist with visualizing the changes in the appearance of the property.
- Refer to drawings Draft Plan of Subdivision, SK.2 Existing Conditions with Development Master Plan and SK.3 Development Master Plan and to discussion under METHODOLOGY - Development Master Plan
- Refer to discussion under ANALYSIS and ASSESSMENT of IMPACT of PROPOSED CHANGES - 2. Photographic Simulations - 3-D SketchUp Modeling

4. What is the impact of the proposed changes on the visual and scenic resources of the Belfountain area?

- The VIA work resulted in the creation of photographic simulations of the proposed changes on the landscape for 16 viewpoints. The individual viewsheds for these viewpoints were analyzed and assessed for potential impacts on the visual and scenic resources of the Belfountain area.
- The VIA work also resulted in the creation of line of sight cross sections for two key viewpoint locations: Belfountain hamlet and Caledon Ski Club
- This work showed that the impact on the proposed development does not have an adverse effect on the visual quality of the area.
- Refer to Visual Analysis Simulations sheets and discussion under ANALYSIS and ASSESSMENT of IMPACT of PROPOSED CHANGES - 2. Photographic Simulations - Viewpoints and Viewsheds
- Refer to Sections drawing and discussion under ANALYSIS and ASSESSMENT of IMPACT of PROPOSED CHANGES - 3. Line of Sight Cross Sections

5. If there is an impact, what mitigation measures can be applied to minimize the impact of the changes on the visual and scenic resources

- The photographic simulations showed that for 7 of the 16 viewpoints, mitigation measures should be applied to reduce or eliminate the visibility of the proposed development from the surrounding landscape. The mitigation measures recommended are moderate and consist primarily of enhancing existing hedgerows along Shaws Creek Road and near Mississauga Road.
- Refer to discussion under ANALYSIS and ASSESSMENT of IMPACT of PROPOSED CHANGES - 2. Photographic Simulations - Viewpoints and Viewsheds ***Summary of Photographic Simulations and Mitigation Recommendations***
- Refer to discussion under RECOMMENDATIONS - Mitigation Measures

6. Where hedgerows are used as a mitigation measure, what plans can be put in place to protect and manage the hedgerows over the long-term?

- As part of the design process and prior to the approval of the residential development, an inventory of the hedgerows and an assessment of their viability to provide continued visual screening will be carried out. As well protection/management plans will be established at the outset to protect, enhance, manage and retain the hedgerows over the long term.
- Refer to discussion under RECOMMENDATIONS - Protection and Management of Hedgerows.

Conclusion

BTi carried out the VIA study to assess the impact of the proposed estate residential development on the visual and scenic resources of the Belfountain area, and implemented a methodology pursuant to the NEC's Guidelines for a Visual Impact Assessment and to the Town's Terms of Reference for a Visual Impact Report. Based on the work carried out by BTi, including the photographic simulations, it was determined that the visual impact of the proposed development is minimal. Some mitigation measures are recommended which would reduce or eliminate the visibility of the proposed development from the surrounding landscape. These mitigation measures are moderate and consist primarily of enhancing existing hedgerows along Shaws Creek Road and a portion of Mississauga Road. The proposed estate residential development has been designed to blend in with the existing topography of the landscape and to preserve the natural features of the property. As well, the estate units and the lot layout have been designed to be compatible with the built form of the Belfountain hamlet and to enhance the rural character of the surrounding area. The photographic simulations carried out as part of the VIA study have shown the effectiveness of the design of the proposed development in reducing the visual impact on the visual and scenic resources of the Belfountain area.