

**ASSESSMENT OF AGRICULTURAL AND URBAN INTERFACE
FOR
144, 176, AND 200 JOHN STREET EAST &
588 CHARLOTTE STREET, NIAGARA-ON-THE-LAKE**

PREPARED FOR:

Solmar (Niagara 2) Inc. and Two Sisters Resorts Corp.
122 ROMINA DRIVE
CONCORD, ON
L4K 4Z7

PREPARED BY:



COLVILLE CONSULTING INC.
432 NIAGARA STREET, UNIT 2
ST. CATHARINES, ONTARIO
L2M 4W3

C26037

APRIL 15, 2026

TABLE OF CONTENTS

List of Figures	ii
List of Appendices.....	ii
1. Introduction	1
1.1 Description of Proposed Development	1
1.2 Subject Lands	3
1.3 Study Area.....	3
1.4 Study Purpose.....	3
2. Methodology.....	5
2.1 Background Data Collection.....	5
2.2 Site Investigations.....	5
2.2.1 Land Use Survey	5
3. Observations	6
3.1 Subject Lands	6
3.2 Land Uses in Study Area.....	8
3.2.1 Agricultural Uses	8
3.2.2 Agricultural Uses Adjacent to Settlement Areas	8
4. Response to Previous Region Comments.....	14
4.1 Region Question 1	14
4.2 Region Question 2	14
4.3 Region Question 3	14
4.4 Region Question 4	17
4.5 Region Question 5	17
4.6 Region Question 6	18
4.7 Region Question 7	18
5. Recommendations.....	19
6. Conclusion	20
7. References	21

LIST OF FIGURES

Figure 1: Location of Subject Lands2
Figure 2a: Agricultural/Urban Interface – Old Town.....9
Figure 2b: Agricultural/Urban Interface – Virgil.....10
Figure 2c: Agricultural/Urban Interface – St. Davids.....11

LIST OF APPENDICES

Appendix A – Master Site Plan
Appendix B - Two Sisters Vineyards Best Management Practices
Appendix C - Land Use Notes
Appendix D – Site Photographs

1. INTRODUCTION

Colville Consulting Inc. was retained by Solmar (Niagara 2) Inc. and Two Sisters Resorts Corp to complete an Assessment of Agricultural and Urban Interface for the proposed development located at 144, 176, and 200 John Street East and 588 Charlotte Street, Town of Niagara-on-the-Lake, Niagara Region. These lands, herein referred to as the Subject Lands, contain four parcels combined to make one larger irregularly shaped parcel. These lands are located southwest of John Street East, southeast of Charlotte Street, east of The Promenade, and north of the Two Sisters Vineyards. The Subject Lands are approximately 17.67 ha (43.68 acres) in size. There are existing residential areas to the west, treed areas and parklands to the east, and vineyards to the south. The Subject Lands are shown in Figure 1.

The Town of Niagara-on-the-Lake's urban boundary transects the southern portion of the Subject Lands, resulting in the lands being partially within the settlement area, and partially within a prime agricultural area. Approximately 12.74 ha (31.48 acres) of the Subject Lands are located within the settlement area boundary and are designated "Towns/Villages" within the Greenbelt Plan. According to Schedule B Land Use Plan of the Town of Niagara-on-the-Lake Official Plan, this portion of the Subject Lands are designated for Low Density Residential uses.

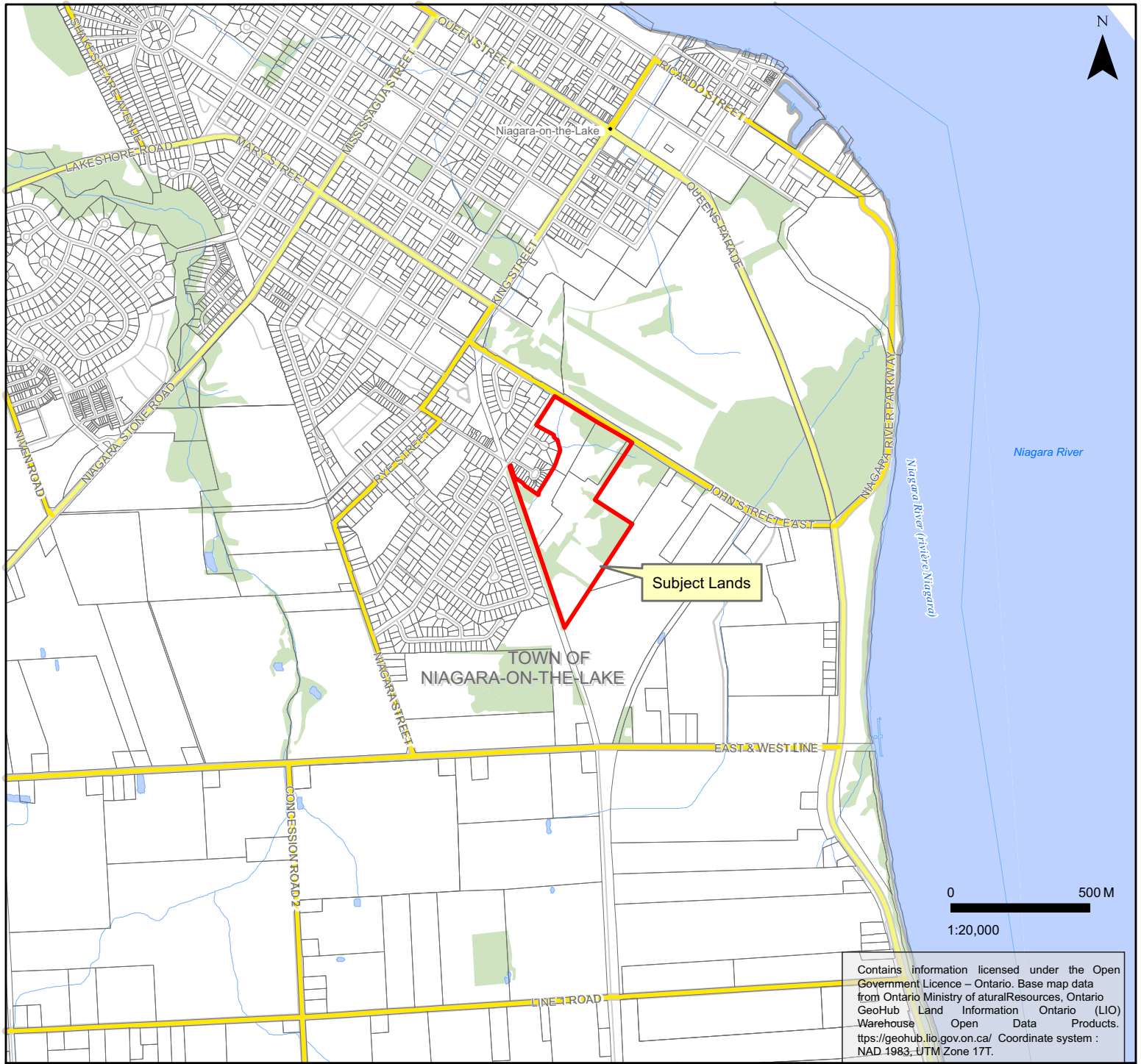
The remaining 4.93 ha (12.18 acres) are located outside of the urban area and are part of the Region and Town's *prime agricultural area*. These lands are located in the Niagara Region's Specialty Crop Area designation and in the Town of Niagara-on-the-Lake's Agricultural designation. These lands are shown in the Greenbelt Plan as Protected Countryside (Schedule 1) and Specialty Crop Area – Niagara Peninsula Tender Fruit and Grape Area (Schedule 2).

It is understood that Solmar (Niagara 2) Inc. and Two Sisters Resorts Corp is pursuing an Official Plan Amendment and a Zoning By-law Amendment to permit a mixed use commercial and residential development within the Subject Lands. This report has been prepared to address the compatibility and transition between the adjacent agricultural uses and the proposed development, identify the direct and indirect impacts on the agricultural system, and recommend mitigation measures with a focus on edge planning and best management practices. The report also assesses compliance with provincial, regional and local agricultural policies.

1.1 Description of Proposed Development

Solmar (Niagara 2) Inc. and Two Sisters Resorts Corp is proposing the development of a mixture of commercial and residential uses on the Subject Lands. The Master Site Plan includes commercial uses such as a hotel, spa, and restaurant, as well as five 3-storey multiple residential buildings, a private road network, walkways, maintained lawns, and wooded areas. Appendix A shows the Master Site Plan. This plan shows that two three-storey residential units are proposed along the Urban/Agricultural Interface. It is understood that there will be a minimum of 9.5 m of amenity space between the three-storey residential units and the agricultural/urban interface.

No non-agricultural development is proposed on the portion of the Subject Lands which is designated Agricultural in the Town of Niagara-on-the-Lake Official Plan. These lands are currently in viticultural production (grapes) and are being managed by the adjacent Two Sisters Vineyards.



Contains information licensed under the Open Government Licence – Ontario. Base map data from Ontario Ministry of Natural Resources, Ontario GeoHub Land Information Ontario (LIO) Warehouse Open Data Products. <https://geohub.lio.gov.on.ca/> Coordinate system : NAD 1983-UTM Zone 17T.



Figure 1
Location of Subject Lands

**144, 176, & 200 John Street East
& 588 Charlotte Street
Niagara-On-The-Lake**

Prepared for: **Solmar (Niagara 2) Inc.**

Prepared by: **COLVILLE CONSULTING INC.**

DATE: April 2026

FILE: C26037

1.2 Subject Lands

This study focuses on the interface between the agricultural lands and the proposed development. There is no agricultural infrastructure within the Subject Lands; however, the agricultural lands are systematically tile drained, and the grape vines planted in 2023 are maintained by the Two Sisters Vineyard operations.

1.3 Study Area

The Study Area includes all lands within and in close proximity to urban areas in Niagara-on-the-Lake, including the areas adjacent to the Old Town, Virgil, and St. Davids. We identified areas with similar characteristics to the proposed development, where vineyard or orchard operations interface with residential uses.

The majority of the Study Area is designated “Specialty Crop Area”, “Urban Area”, “Protected Countryside” and “Built-Up Area” in the Niagara Region Official Plan. In the Town of Niagara-on-the-Lake Official Plan, much of the Study Area is designated “Agricultural” and “Low Density Residential”.

1.4 Study Purpose

The purpose of this report is to investigate the agricultural-urban interface and assess the potential for conflicts arising between agricultural uses and operations adjacent to the proposed development within the settlement area boundary. Prior to the current proposed development, an earlier development application was submitted to develop the urban portion of the Subject Lands entirely with residential uses. As part of the application process, the Region requested additional information regarding the proposed development, and the proposed uses of the lands within the Subject Lands which are part of the prime agricultural area.

The purpose of this study is to proactively evaluate the interface between the current proposed non-agricultural development and adjacent lands within the prime agricultural area, and to provide additional context regarding the intended long-term use and management of these lands. While this report has not been specifically requested by the Region, it has been prepared in support of the current application to assist in addressing prior potential land use compatibility concerns raised by the Region for the previous development application.

The lands located outside of the urban area boundary, which form part of the prime agricultural area, are immediately adjacent to the proposed development. Although the agricultural lands abutting the urban area are no longer identified as Block 79, for the purposes of this application, this reference has been retained throughout this report for consistency with the Region’s June 2021 correspondence to the Town of Niagara-on-the-Lake. The Block 79 lands are intended to remain in agricultural production. Given this interface, it is important to demonstrate how compatibility between agricultural and non-agricultural uses will be achieved through appropriate design, land use planning, and, where necessary, mitigation measures.

This study considers key matters associated with the potential urban/agricultural interface, including:

- ♦ the long-term use of the Block 79 lands and how impacts on the agricultural system will be minimized and/or mitigated;

- ♦ land use compatibility between agricultural and non-agricultural uses;
- ♦ whether Block 79 will become a landlocked agricultural parcel and whether Block 79 could be merged in title to ensure long-term viability of the Greenbelt Plan lands; and
- ♦ the manner in which an appropriate transition between agricultural and non-agricultural uses can be established.

Settlement area expansions and/or the introduction of non-agricultural uses within prime agricultural areas typically require the completion of an Agricultural Impact Assessment (AIA). In this instance, no development is proposed within the prime agricultural area, and all non-agricultural uses are confined to lands within the existing urban area boundary. As such, an AIA is not required. Notwithstanding, this report has been prepared to demonstrate that the proposed development has appropriately considered the surrounding agricultural context and to support a compatible land use interface.

2. METHODOLOGY

The study methodology included a review of background material, site visits, and a land use survey of the lands surrounding the existing urban areas in the Town of Niagara-on-the-Lake.

2.1 Background Data Collection

We have collected and reviewed several information sources such as those listed below:

- ♦ Provincial Planning Statement (2024);
- ♦ Places to Grow: Growth Plan for the Greater Golden Horseshoe (2020);
- ♦ Greenbelt Plan (2017);
- ♦ Niagara Official Plan and Land Use Schedules (May 2024 Consolidation);
- ♦ Regional Planning and Development Services staff comments on previous development application (June 21, 2021);
- ♦ The Town of Niagara-on-the-Lake Official Plan and Land Use Schedules (2017);
- ♦ Master Site Plan;
- ♦ Two Sisters Vineyards Best Management Practices (November 09, 2021);
- ♦ OMAFRA's AgriSuite, AgMaps and Agri-Systems databases; and,
- ♦ Ortho-rectified, digital aerial photography viewed using Google Earth™.

A more detailed list of the information sources reviewed is provided in Section 9 of the report.

2.2 Site Investigations

Site visits were completed on October 27, 2021, January 26, 2024, March 19, 2026, and April 1, 2026, to understand the location of the proposed development in relation to the vineyard and the existing conditions on the site. On October 27, 2021, we met with Mr. Adam Pearce, the winemaker for Two Sisters Vineyards, to discuss the proposed new vineyard location and the vineyards management practices. We have also corresponded with Mr. Wilhelm Muller, the Vineyard Manager at Two Sisters Vineyards. Two Sisters Vineyards has prepared Best Management Practices for the urban/agricultural interface, included in Appendix B.

2.2.1 Land Use Survey

The field inventories were completed on December 14, 2021. The field inventory included a reconnaissance level land use survey of the lands along the Town's agricultural and urban interface. A desktop survey of the agricultural/urban interface in the Town of Niagara-on-the-Lake was completed prior to the field inventories. The purpose of the desktop exercise was to identify locations where the orchards and vineyards occur immediately adjacent to urban areas. The crop types observed were noted as well as specific management practices in the form of buffers, barriers, visual screens or other edge planning methodologies.

3. OBSERVATIONS

As observed using aerial photography, the land uses in the Study Area consist of a mix of both agricultural and non-agricultural uses. The agricultural uses predominantly include specialty crops such as grapes (vineyards) and tender fruit trees (orchards). The majority of non-agricultural uses in the Study Area include urban areas, consisting of low and medium density residential clusters, and single non-farm residential dwellings located in the prime agricultural area.

The land use survey completed on December 14, 2021, included an inventory and observation of areas where agricultural uses are immediately adjacent to residential clusters or subdivisions within Niagara-on-the-Lake. The land uses for both the Subject Lands and the Study Area observed for this study are described below.

3.1 Subject Lands

The Subject Lands were visited on several occasions. The first site visit was completed on October 27, 2021 when the land uses on site were first observed. At that time, the portion of the Subject Lands within the prime agricultural area was cleared but no crops had been planted.



Photo 1. Stakes separate the prime agricultural area from the Urban Area (Oct. 2021)



Photo 2. Location for new vineyard (Oct. 2021)



Photo 3. Showing the new vineyard (Apr. 2026)

The vineyard was established in 2023 and a site visit was conducted on January 26, 2024 to confirm the presence of the vineyard. The site was visited again on April 1, 2026 to confirm our previous observations. Photo #3 shows the site conditions on April 1, 2026.

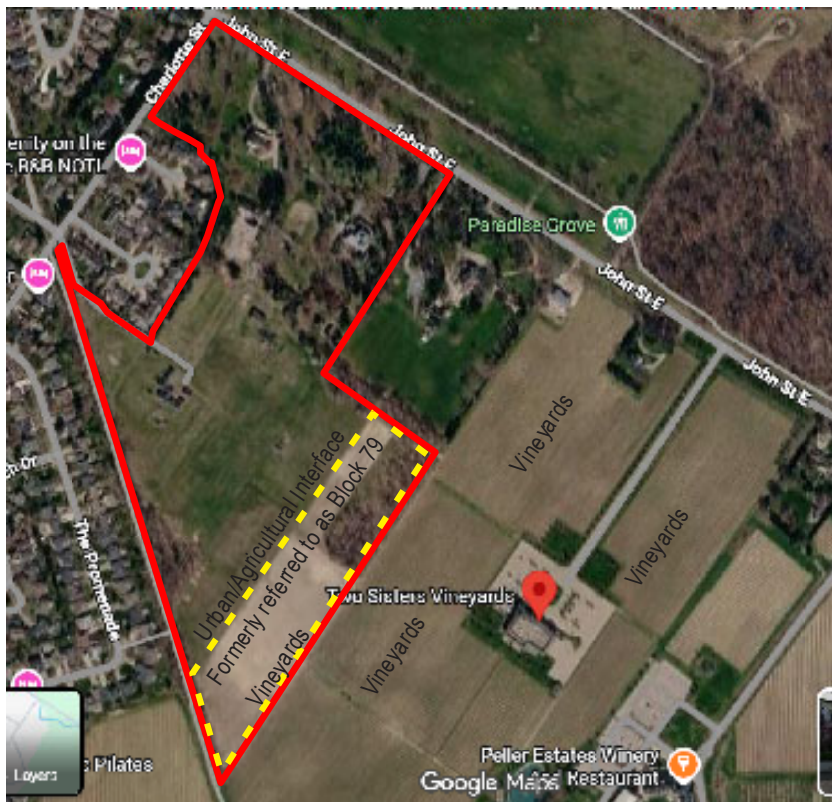


Photo 4: Shows the proximity of Two Sisters Vineyards to the vineyards on the Subject Lands

3.2 Land Uses in Study Area

We investigated the agricultural/urban interface at several other locations in the Town of Niagara-on-the-Lake. A reconnaissance level land use survey was completed on December 14, 2021, with a second land use survey conducted on April 1, 2026. The land use survey identified areas where agricultural uses interfaced directly with residential uses, type of agricultural crops, and demonstration of edge planning techniques. The Study Area included lands along the urban fringe in Niagara-on-the-Lake.

3.2.1 Agricultural Uses

The PPS defines agricultural uses as “the growing of crops, including nursery, biomass and horticultural crops; raising of livestock; raising of other animals for food, fur or fibre, including poultry and fish; aquaculture; apiaries; agro-forestry; maple syrup production; and associated on-farm buildings and structures, including, but not limited to livestock facilities, manure storages, value-retaining facilities, and housing for farm workers, when the size and nature of the operation requires additional employment.” Specialty crops commonly grown in this area include both cold-sensitive orchard and vineyard crops.

Several farms growing specialty crops were noted and identified where they interface with settlement areas and evaluated based on their similarity to the proposed commercial and residential development adjacent to the abutting agricultural lands. Any mitigative measures such as edge planning techniques in place at these locations, if any, were noted.

3.2.2 Agricultural Uses Adjacent to Settlement Areas

Figures 2a, 2b, and 2c show several examples of the interface between agricultural and urban uses observed in the Study Area. Each location is numbered, and short descriptions are contained in the land use survey notes in Appendix C. Photographs of each site taken during the site visit are included in Appendix D.

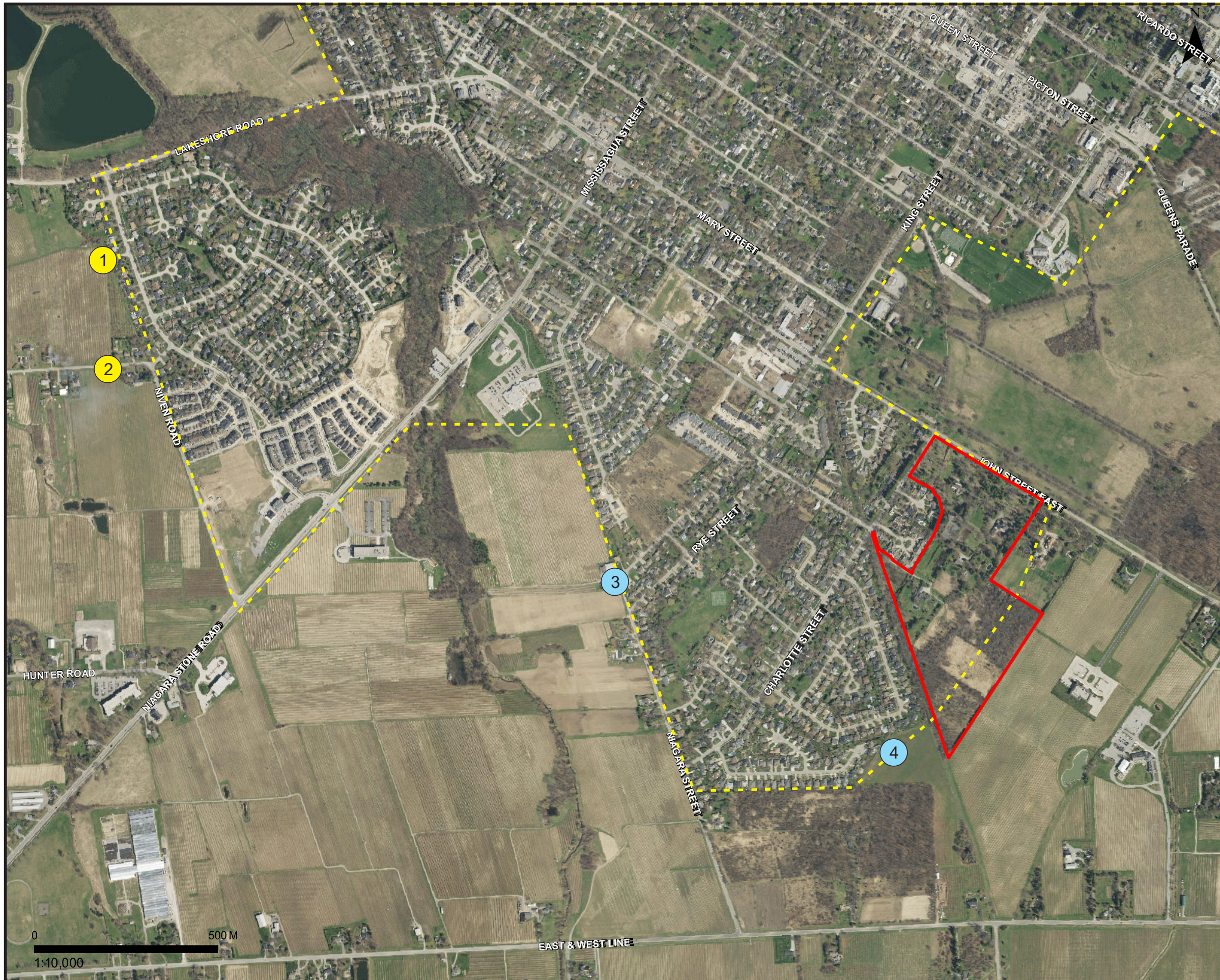
The land use survey identified nine (9) examples where agricultural uses (specialty crops such as orchards and vineyards) were observed adjacent to urban residential uses. These include:

- ♦ Five vineyard operations (#3, #4, #5, #8, and #9); and,
- ♦ Four Orchards (#1, #2, #6, and #7).

The nine land uses identified interface with settlement areas in Niagara-on-the-Lake, including Old Town, Virgil, and St. Davids, and include older residential development, new residential development and residential complexes, and display a variety of edge planning techniques. Site design was observed and recorded, including vegetated buffer design, fencing, subdivision layout, land use separation and setback, and headland size.

Site #1 – Old Town

Site #1 is located at the end of Westgate Drive, west of Garrison Village Drive and south of Lakeshore Road in Niagara-on-the-Lake. There are single family detached homes with a fence barrier and a narrow, grassed buffer between the property line and a cherry orchard. In other areas, there is no fencing and back yards extend nearly to the orchard trees.



Legend

— Subject Lands

- - - Settlement Boundary

Agricultural Use

- Orchards
- Grape Vines

0 500 M
1:15,000

Air photo: MNRF

Figure 2a
Land Use Mapping -
Old Town Study Area

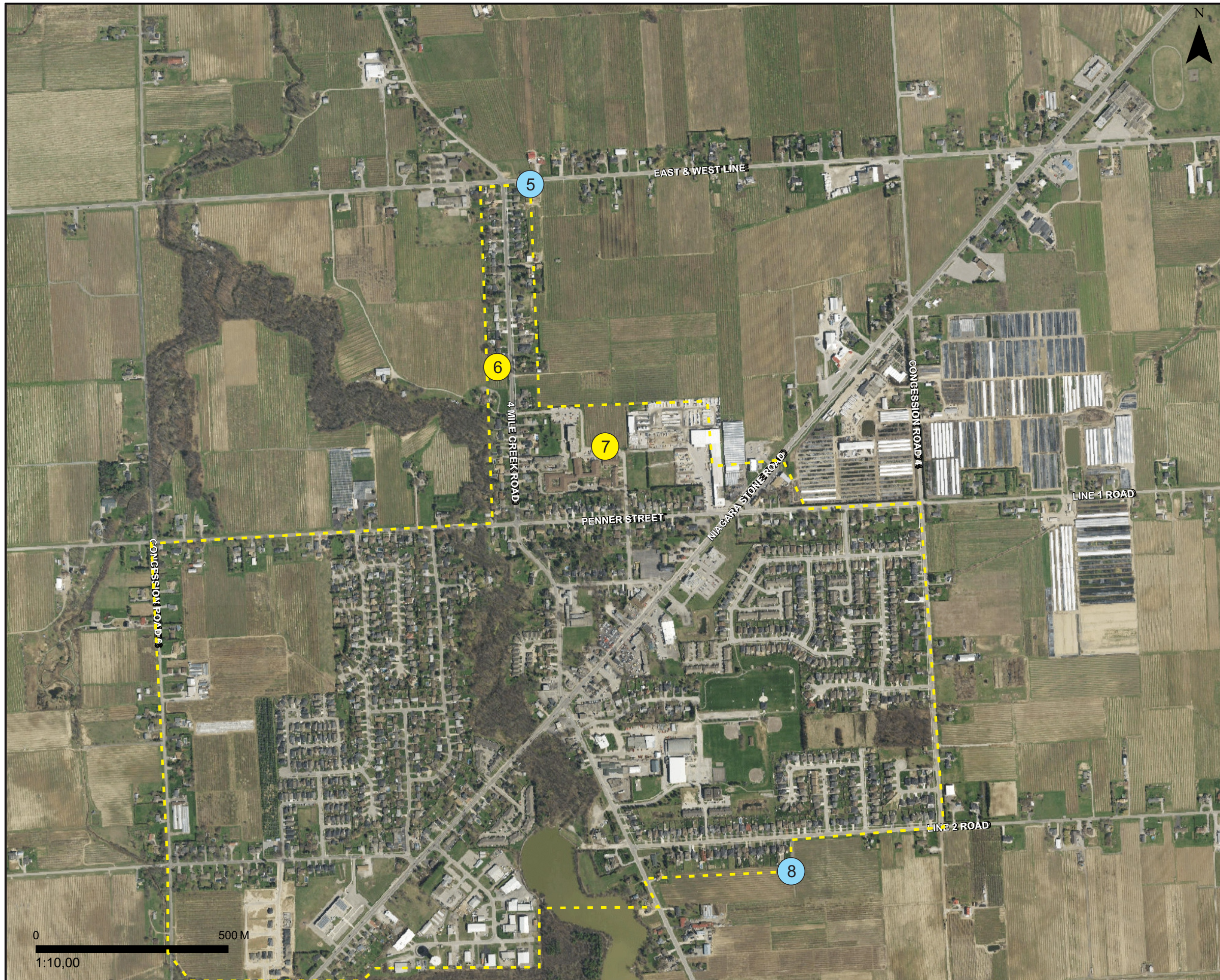
144, 176, & 200 John Street East
& 588 Charlotte Street
Niagara-On-The-Lake

Prepared for: Solmar (Niagara 2) Inc.
& Two Sisters Resorts Corp.

Prepared by: COLVILLE CONSULTING INC.

DATE: April 2026

FILE: C26037



Legend

- Subject Lands
- - - Settlement Boundary

Agricultural Use

- Orchards
- Grape Vines

0 500M
1:15,000

Air photo: MNRF

Figure 2b
Land Use Mapping -
Virgil Study Area

144, 176, & 200 John Street East
& 588 Charlotte Street
Niagara-On-The-Lake

Prepared for:

Solmar (Niagara 2) Inc.
& Two Sisters Resorts Corp.

Prepared by:

COLVILLE
CONSULTING INC.

DATE: April 2026

FILE: C26037

0 500M
1:10,000



Legend



--- Settlement Boundary

Agricultural Use

● Grape Vines

0 500 M

Figure 2c
Land Use Mapping
St. Davids Study Area

144, 176, & 200 John Street East
& 588 Charlotte Street
Niagara-On-The-Lake

Prepared for: Solmar (Niagara 2) Inc.

Prepared by: **COLVILLE** CONSULTING INC.

Date: April 2026

FILE: C26037

Site #2 – Old Town

Site #2 is located on the north side of Niven Road, west of Garrison Village Drive and Village Road. An orchard is located immediately adjacent to the west side of several single-family residences. There is a fence barrier, a vegetated buffer (cedar hedge) and a setback of approximately 15 - 20m from the orchard trees.

Site #3 – Old Town

Site #3 is located at the intersection of King Street, and Niagara Street. A vineyard is located in close proximity to a detached, residential subdivision. Figure 2a shows a structure associated with the vineyard and a farm residence. The subdivision and vineyard operations are separated by a vegetated buffer and fencing along each property line. The farm residence has a cedar vegetated buffer around a majority of the property.

Site #4 – Old Town

Site #4 is located south of Block 79 where residential uses along Harmony Drive and The Promenade interface with vineyards associated with the Two Sisters Vineyards operation. The vineyard is located in close proximity to a detached, residential subdivision. The subdivision and vineyard operations have varying degrees of buffers and barriers, including no vegetated buffer or barrier, chain-link fences, wrought iron fences, and tree plantings. Headlands for the vineyard also provide separation between the agricultural and residential uses.

Site #5 - Virgil

Site #5 is located on East & West Line, east of the intersection with 4 Mile Creek Road. The site has young grape vines adjacent to single family homes along 4 Mile Creek Road. The new vineyard has recently replaced former orchard lands. The backyards of each house appear to be fenced so that direct access to the vineyard is thwarted. The area between the vineyard and the residential area appears to be less than 10 m.

Site #6 - Virgil

Site #6 is located on the east side of 4 Mile Creek Road, south of East & West Line and north of Penner Street. A single-family home is adjacent to an orchard. There is a relatively wide, grassed buffer area between the orchard lands and the residence. There are two hedges of various sizes that delineate the boundary between the orchard and the residential property.

Site #7 - Virgil

Site #7 is located on Elden Street and Pleasant Lane, north of Line 1 Road. An orchard is located in close proximity to a long term care residential complex. The buffer area includes a parking lot and newly planted cedars.

Site #8 - Virgil

Site #8 is located south of Line 2 Road, where detached single-family homes are located in close proximity to a vineyard. A chain link fence separates the vineyard from the residential development. The area between the vines and the fence that separates the two land uses is less than 10 m.

Site #9 – St. Davids

Site #9 is located west of 4 Mile Creek Road, where single-family homes and commercial operations are located adjacent to a vineyard. No fencing or vegetative buffer was observed at the majority of boundaries, and chain-link fencing was observed at the remainder.

4. RESPONSE TO PREVIOUS REGION COMMENTS

The Region had presented a list of questions for the previous development application that they requested to be addressed in an update to the original Planning Assessment Report. We have addressed those agriculture-related questions as they relate to the current development proposal.

4.1 Region Question 1

What is the long-term use of Block 79?

The long-term use of the lands within Block 79 will predominantly be viticulture; a use that is permitted and that is to be promoted and protected in the specialty crop areas. Two Sisters Vineyards planted grapes on the lands in 2023.

It is understood that the wooded areas in Block 79 will remain as such.

4.2 Region Question 2

How will adverse impacts on the agricultural system be minimized and/or mitigated?

We have assessed the potential for adverse impacts on the agricultural system. The lands within Block 79 are part of the prime agricultural area and no non-agricultural development is being proposed in Block 79. There will be no direct impact on the agricultural system.

- ♦ There will be no loss to the agricultural land base;
- ♦ There will be no loss of agricultural infrastructure;
- ♦ There will be no loss of investment in agricultural land improvements;
- ♦ There will be no loss of investment in rootstocks; and,
- ♦ There will be no disruption to farm operations or practices.

The planting of grape vines within Block 79 in 2023 shows a strong commitment to maintaining these lands for agricultural (specialty crop) production.

4.3 Region Question 3

How will compatibility/transition between Block 79 and the proposed residential subdivision be attained if it will be used for “farmland” purposes?

The development application is for both residential and commercial uses.

Two Sisters Vineyards will maximize the area available for agricultural purposes within the Block 79 lands.

Policy 3.1.2 of the Greenbelt Plan outlines policies for specialty crop areas. Policy 3.1.2.5 of the Greenbelt Plan states that “Where agricultural uses and non-agricultural uses interface, land use compatibility shall be achieved by avoiding or, where avoidance is not possible, minimizing and mitigating adverse impacts on the Agricultural System, based on provincial guidance. Where mitigation is required, measures should be incorporated as part of the non-agricultural uses, as appropriate, within the area being developed..”

Policy 3.1.2.2 of the Greenbelt Plan states that “Lands shall not be redesignated in official plans for non-agricultural uses. Non-agricultural uses may be permitted subject to the policies of sections 4.2 to 4.6. These

non-agricultural uses are generally discouraged in specialty crop areas and may only be permitted after the completion of an agricultural impact assessment.”

An agricultural impact assessment is not required because no development is being proposed within the prime agricultural area (i.e., Block 79 lands). The Greenbelt Plan only requires an agricultural impact assessment in cases where non-agricultural development is being proposed. Agricultural uses in the prime agricultural areas are to be permitted, protected and promoted.

Maximizing the use of the agricultural lands adjacent to the proposed development, particularly specialty crop lands, should have the highest priority. This will bring the new vineyard in close proximity to the existing urban boundary. In this case, avoidance of some potential impacts may not always be possible. Therefore, the goal should be to minimize and mitigate any adverse effects on the Agricultural System.

Two Sisters Vineyards has prepared Best Management Practices (BMP's) that are employed at the agricultural/urban interface. A summary of their BMP's is provided in Appendix B. Two Sisters Vineyards recognize that the operation of their farm has the potential to cause nuisance complaints generated as a result of normal farm practices. Their BMP's have been implemented at other locations and have proven to be successful in minimizing the potential impact on adjacent non-farm land uses. The BMPs consider the adverse effects of noise, traffic, odours, and the application of fertilizers and pesticides that are employed at the agricultural/urban interface. This report also provides additional recommendations to improve land use compatibility.

Noise

Noise impacts are generally associated with the operation of wind machines and bird bangers. Wind machines are used to protect cold-sensitive crops (e.g., grapes) from cold temperatures that are experienced from time to time during a temperature inversion. Two Sisters Vineyards follows the Ontario Ministry of Agriculture, Food and Agribusiness (OMAFRA) best management practices which include the establishment of setbacks from urban and other sensitive uses. Two Sisters Vineyards does not use fixed-in-place wind machines, and has no plans to install any. Two Sisters Vineyards adheres to setback requirements for the use of non-fixed in place wind machines, locating machines no closer than 125 m from the urban boundary.

Bird bangers are used to deter bird predation of crops and are considered to be a normal farm practice in the Niagara Region. Bird bangers ignite propane in a cylinder to produce loud, random, unexpected sound blasts to scare birds away from crops. OMAFRA best management practices for the use of bird bangers include setback distances from non-agricultural residences based on their settings and the season in which they are to be used. Setback distances range from 50 m to 250 m.

Two Sisters Vineyards does not use bird bangers or similar noise emitting devices to protect crops. If in the future these devices are used and placed following OMAFRA best management practices, the impacts will have been mitigated to the extent feasible. It is expected that the OMAFRA setback recommendations can be accommodated should this form of crop protection become necessary in the future.

Traffic and Farm Operations

Farm traffic and other normal farm practices are generally limited to times of the day that will have the least impact on sensitive land uses. The use of farm machinery is generally restricted for the hours between 7:00 am and 5:00 pm. This practice minimizes negative impacts on neighbouring residences.

Odour-related Impacts

Odours generated as a result of normal farm practices may be objectionable to some sensitive land uses. Undesirable odours generated by vineyard operations are relatively minor compared to other types of agriculture (e.g., livestock operations). However, Two Sisters Vineyards does try to limit odours produced as a result of pesticide, fertilizer and organic matter applications, and the application of soil amendments is used infrequently in their operation. With the exception of composted material applied to newly planted grapes, which is incorporated at planting, no other amendments have been applied in the last 10 years. Methods used to control adverse effects of future additions include limiting applications to only when needed and only when environmental conditions permit. Two Sisters Vineyards follows OMAFA best management practices and Health Canada restrictions.

Pest Management

Two Sisters Vineyards uses an Integrated Pest Management Plan to determine the timing and application rate for all pesticide applications. Applications are only undertaken when necessary to prevent economic injury as indicated by regular scouting and sampling. Restrictions on applications regarding drift and buffer zones established by Health Canada are followed at all times. Two Sisters Vineyards utilizes recycling sprayers when applying chemical sprays near non-farm residences, which can reduce spray drift by up to 99% as compared to conventional sprayers, and can reduce the amount of spray agent used throughout the growing season by 35-40% (LIPCO, 2024). Neighbours are notified prior to implementing pest management controls.

Communications

One of the best methods to minimize conflicts between farm operations and adjacent non-farm land uses is effective communication of planned farm practices that could disrupt or inconvenience neighbours. Two Sisters Vineyards recognizes their obligations and responsibilities as a good neighbour and uses effective communication strategies to minimize potential for conflicts and nuisance complaints.

Adverse effects on the Two Sisters Vineyards operation and the broader Agricultural System are anticipated to be minimal, and are expected to be limited to nuisance complaints, and trespass and vandalism due to the close proximity to the settlement area. Implementation of good communication practices has proven to nearly eliminate these minor inconveniences.

Nuisance Complaints

Nuisance complaints from non-farm residences within the settlement area may occur as a result of normal farm practices associated with the care, maintenance and harvesting of the new vineyard established on the Block 79 lands. There are two reasons why nuisance complaints are not expected to be a significant impact on the Two Sisters Vineyard.

1. Nuisance complaints will be minimized by the implementation of Best Management Practices already implemented by Two Sisters Vineyards. These practices have proven to be successful; Two

Sisters Vineyards has not received nuisance complaints about their existing operation and practices despite some of their lands being in close proximity to other non-farm land uses.

2. The vineyard has been established, and normal farm practices have been undertaken well before the proposed development is to be constructed. New residents will be aware of the existence of the vineyard and prospective buyers will have the opportunity not to purchase a residence if they have concerns about the proximity to the vineyard. Patrons of the proposed commercial development are likely to desire close proximity to vineyards and are unlikely to experience agricultural-related nuisances due to the limited visitation duration at the Subject Lands.

Trespass and Vandalism

Trespass and vandalism are nuisances that farmers often have to deal with when operating adjacent to urban land uses. People walking pets in fields, crossing and damaging fences, and rutting fields with dirt bikes and all-terrain vehicles are all examples of trespass and vandalism. There is also the potential for debris to end up in fields as a result of an increase in the urban population and during construction activities.

It is anticipated that some form of barrier separating the agricultural lands from the proposed development will be established and that signage will be posted to inform residents and patrons that unauthorized trespassing is not permitted within the adjacent vineyards. This is expected to significantly limit the opportunities for trespass and vandalism within the vineyard. The implementation of other edge planning techniques, such as creating an adequate setback, vegetated buffers, and barriers between the proposed development and the agricultural lands will further limit the potential for trespass, vandalism and litter.

It is worth noting that Two Sisters Vineyards have had no serious trespass and vandalism issues under existing conditions where residential dwellings back directly on to their vineyards to the west of Block 79.

4.4 Region Question 4

Does the creation of Block 79 result in the creation of a landlocked agricultural parcel making this parcel unviable?

The Block 79 lands will not be “unviable” as a result of the proposed development. These lands are located immediately adjacent to the Two Sisters Vineyard, which have incorporated these lands into their farm. Access to these lands will be directly from the Two Sisters Vineyard lands.

4.5 Region Question 5

Could Block 79 be merged in title with the abutting agricultural operation to ensure the long-term viability of the Greenbelt land?

We understand that Two Sisters Vineyard will own the Block 79 lands and has established vineyard operations on these lands, ensuring the long-term viability of the agricultural lands within the Greenbelt.

4.6 Region Question 6

How is the interface/transition between agricultural and non-agricultural uses being addressed?

It is anticipated that the interface/transition between agricultural and non-agricultural land uses will be addressed in a fashion similar to how the Town has dealt with this issue in other areas of Niagara-on-the-Lake. The Block 79 lands will be used for agricultural purposes and the use of the adjacent urban area designated for other forms of non-agricultural development will be developed in accordance with local zoning and site plan control. Additional recommendations are provided in Section 5 of this report to improve land use compatibility between the agricultural and proposed non-agricultural uses.

4.7 Region Question 7

Could an easement or other mechanism be established for a recreational trail/restoration works along the subdivision edge to buffer the residential uses from agricultural uses?

We do not recommend any encroachment or establishment of a recreational trail or restoration works along the agricultural/urban interface, within Block 79. A recreational trail provides opportunities for unsupervised, non-local pedestrian access to the vineyard. This could lead to a potential increase in trespass and vandalism, and potential loss of crops. We would also discourage the establishment of a recreational trail within the residential area situated along the urban-agricultural interface.

The proposed plans for the development show that there are opportunities for the residents to access the Upper Canada Heritage Trail.

5. RECOMMENDATIONS

To support long-term land use compatibility along the agricultural/urban interface, a series of mitigation measures are recommended to avoid and minimize potential impacts associated with the proximity of the proposed development to the adjacent vineyard.

It is recommended that a physical barrier (e.g., fencing) be installed along the urban side of the agricultural/urban interface. This measure will assist in discouraging trespass, reducing the potential for vandalism, and clearly delineating the interface between the agricultural operation and proposed non-agricultural development.

In addition, appropriate signage should be installed at regular intervals along the interface to inform residents and visitors of the presence of an active agricultural operation and to clearly communicate that unauthorized access to the vineyard is prohibited. Educational signage may also serve to increase awareness of normal farm practices and promote respectful coexistence.

Consideration may also be given to incorporating landscape buffering (e.g., vegetative screening) along the interface, where feasible, to provide an additional visual and spatial separation between uses. This can further reinforce the boundary and enhance compatibility.

Building setbacks from the agricultural/urban interface can help create separation between agricultural and urban land uses. The Master Site Plan indicates that there will be a 9.5 m setback from the nearest proposed residential unit to the agricultural/urban interface. Additionally, there is approximately 4.25 m between the nearest row of grape vines and the agricultural/urban interface. This separation distance is similar to setback distances observed at other agricultural/urban interface locations in the Town of Niagara-on-the-Lake and will help to mitigate potential interface impacts, improving land use compatibility between the agricultural and proposed non-agricultural uses.

The recommended mitigation measures represent appropriate edge planning techniques to address potential conflicts along the agricultural/urban interface. Together with the continued application of Best Management Practices (BMPs) by Two Sisters Vineyards, the proposed development is expected to achieve and maintain compatibility with the adjacent agricultural use in accordance with applicable land use planning policy.

6. CONCLUSION

Colville Consulting Inc. was retained by Solmar (Niagara 2) Inc. and Two Sisters Resorts Corp to assess the Agricultural/Urban Interface for the proposed commercial and residential development located at 144, 176, and 200 John Street East, and 588 Charlotte Street, Town of Niagara-on-the-Lake, Regional Municipality of Niagara. Specific attention was given to the land formerly identified as Block 79 and its future agricultural use. We have also considered and addressed the previous questions provided by Regional Planning staff regarding the future activities and uses proposed at the agricultural/urban interface, and how potential adverse effects on the Agricultural System will be managed.

Application of mitigation measures and best management practices at the agricultural/urban interface will minimize impacts on both the farm operation (Two Sisters Vineyards) and the future commercial and residential uses. We have concluded that the proposed development will have no impact on the agricultural system and will likely have a negligible effect on the Two Sisters Vineyard operations.

Respectfully submitted by:



Sean Colville, B.S.c., P.Ag.
Colville Consulting Inc.

7. REFERENCES

- British Columbia Ministry of Agriculture. Guide to Edge Planning - Promoting Compatibility Along Agricultural-Urban Edges. 2015.
- LIPCO. (2024). *Tunnel-Sprayer TSG for Viniculture*. Retrieved from <https://www.lipco.com/en/products/recycling-sprayer-for-viniculture-fruit-cultivation/tunnel-sprayer-tsg-for-viniculture/>
- MHBC. Edge Planning Report - The Region of Peel & Town of Caledon LEAR Study and MDS Review. 2015.
- Niagara Official Plan (May 2024 Consolidation. Available Online: <https://www.niagararegion.ca/official-plan/pdf/2022-niagara-official-plan.pdf>
- Ontario Ministry of Agriculture, Food and Rural Affairs, 2016. Guidelines of Permitted uses in Ontario's Prime Agricultural Areas Publication 851, Queen's Printer for Ontario.
- Ontario Ministry of Agriculture, Food and Agribusiness . Agriculture Information Atlas. Available Online: <http://www.gisapplication.lrc.gov.on.ca/AIA/Index.html?viewer=AIA.AIA&locale=en-US>
- Ontario Ministry of Agriculture, Food and Agribusiness. Agricultural System Portal. Available Online: http://www.omafra.gov.on.ca/english/landuse/gis/WCAG_AGOL/index.html?appid=3cbd2393a1e548949450e21d90646353
- Ontario Ministry of Municipal Affairs. Provincial Planning Statement. 2024, King's Printer for Ontario.
- Ontario Ministry of Municipal Affairs. Greenbelt Plan. 2017, Queen's Printer for Ontario.
- Regional Municipality of York. York Region Edge Planning Background Report. 2018.
- Town of Niagara-on-the-Lake. Town of Niagara-on-the-Lake Official Plan, As Amended to July 17, 2017. Available Online: <https://notl.civicweb.net/document/8526>
- Two Sisters Vineyards. Best Management Practices – Urban Agricultural Interface. 2021.

Appendix A
Master Site Plan

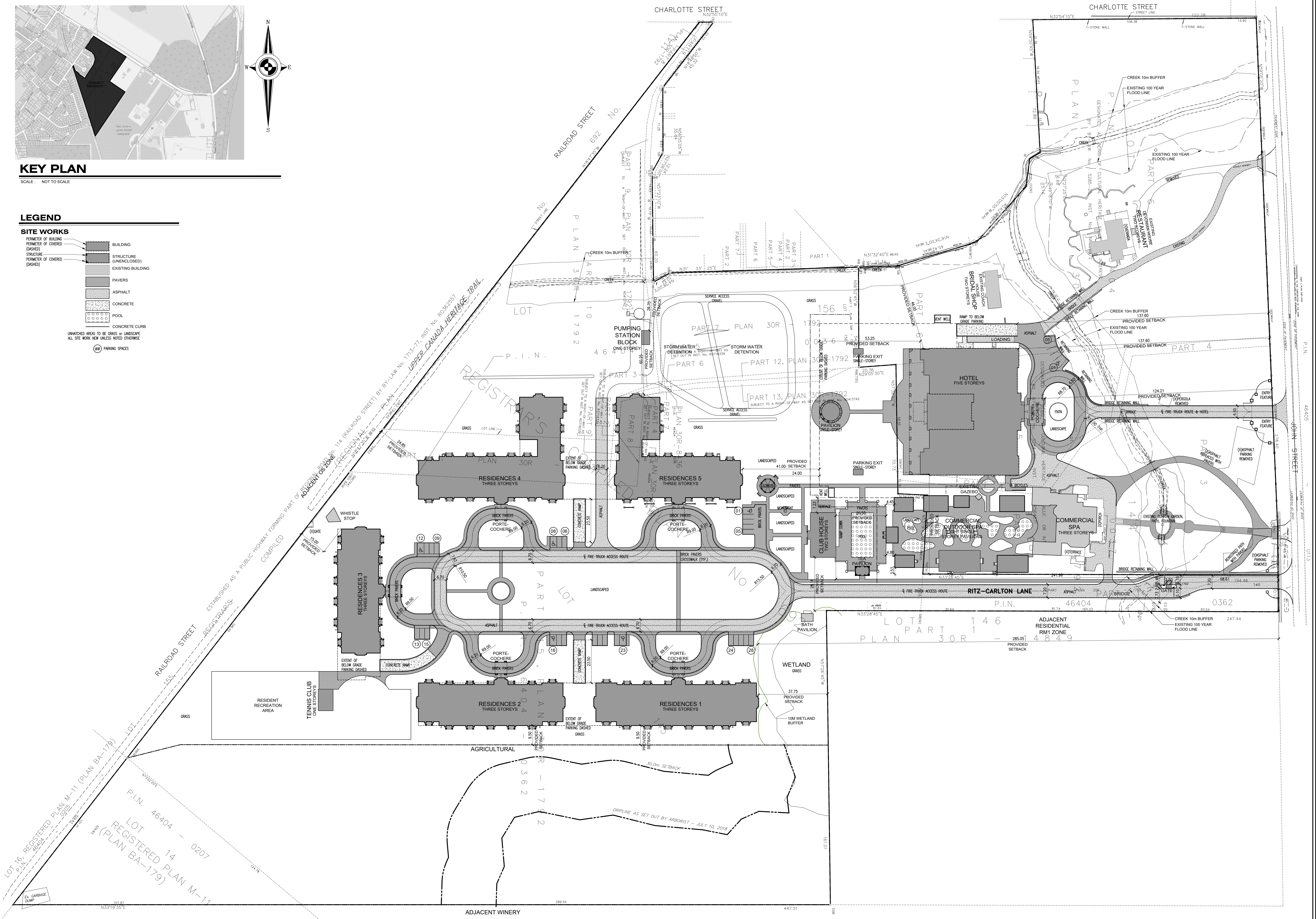
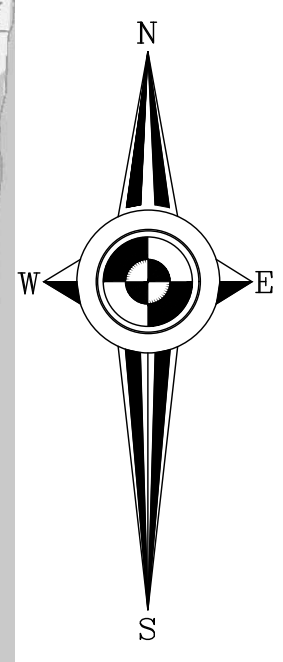


KEY PLAN

SCALE: NOT TO SCALE

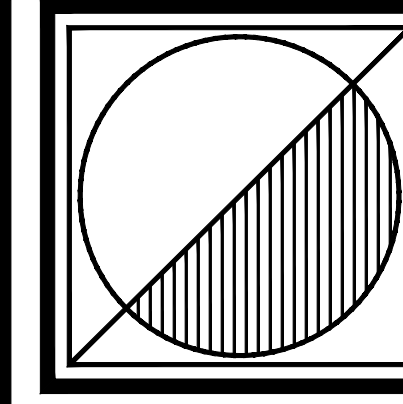
LEGEND

- SITE WORKS**
- PERIMETER OF BUILDING (DASHED)
 - PERIMETER OF COVERED (DASHED)
 - STRUCTURE (UNENCLOSED)
 - PERIMETER OF COVERED (DASHED)
 - EXISTING BUILDING
 - PAVERS
 - ASPHALT
 - CONCRETE
 - POOL
 - CONCRETE CURB
 - UNMATCHED AREAS TO BE GRASS OR LANDSCAPE
 - ALL SITE WORK NEW UNLESS NOTED OTHERWISE
 - (P) PARKING SPACES



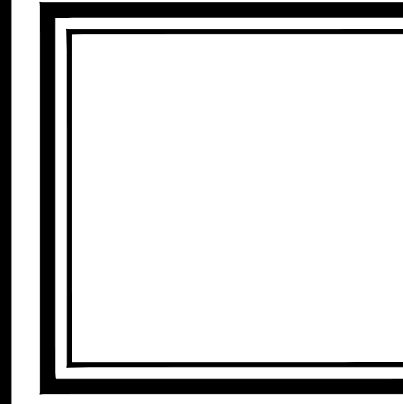
MASTER SITE CONCEPT PLAN

SCALE: 1:750



Peter J. Lesdow
architect

ONTARIO ASSOCIATION
OF ARCHITECTS
PETER J. LESDOW
LICENSE
3745



MASTER SITE CONCEPT PLAN
144, 176 & 200 John St.,
856 Charlotte St

DATE	REVISIONS	DATE	REVISIONS
14-107-20	FOR COORDINATION		
14-137-20	FOR ZONING SUBMISSION		
14-157-20	FOR ZONING SUBMISSION		

**RITZ-CARLTON HOTEL,
SPA & RESIDENCES**
144, 176 & 200 John St., 856 Charlotte St.
Niagara-on-the-Lake, Ontario

DATE: Nov. 18/ 22
SCALE: 1:750
DRAWN BY: MW/OD
CHECK BY: PJL

25 - 01

A101

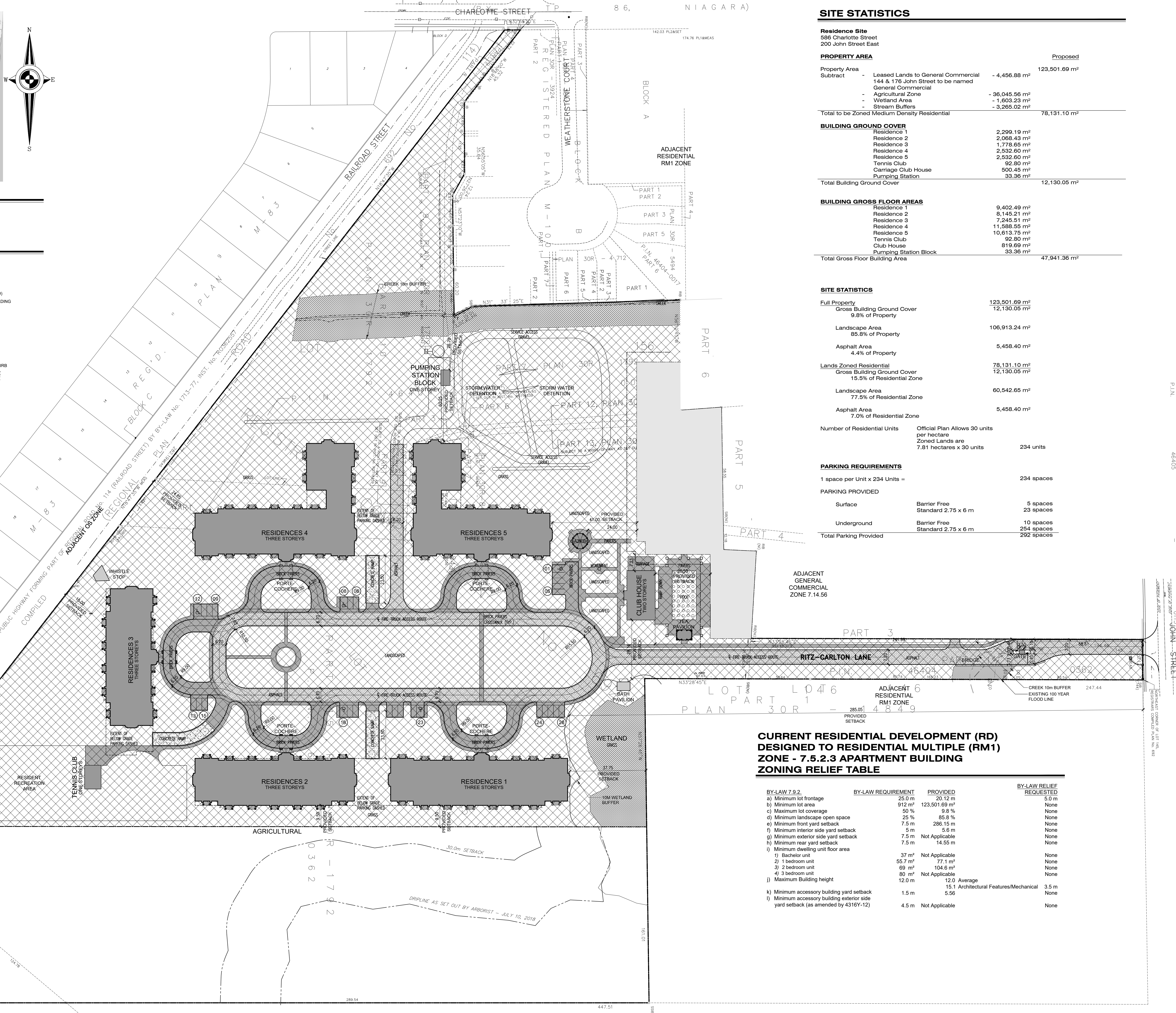


KEY PLAN

SCALE: NOT TO SCALE

LEGEND

ZONING	SITE WORKS
RESIDENTIAL (RD) ZONE PROPOSED 7.5.2.3	BUILDING
GENERAL COMMERCIAL ZONE LEASED	STRUCTURE (UNENCLOSED)
WETLAND or STREAM BUFFER	EXISTING BUILDING
	PAVERS
	ASPHALT
	CONCRETE
	POOL
	CONCRETE CURB
	UNWATCHED AREAS TO BE GRASSY or LANDSCAPED
	ALL SITE WORK NEW UNLESS NOTED OTHERWISE
	PARKING SPACES



SITE STATISTICS

Property Area	Proposed
Residence Site 586 Charlotte Street 200 John Street East	
Property Area	123,501.69 m ²
Subtract	
- Leased Lands to General Commercial	- 4,456.88 m ²
- 144 & 176 John Street to be named General Commercial	
- Agricultural Zone	- 36,045.56 m ²
- Wetland Area	- 1,603.23 m ²
- Stream Buffers	- 3,265.02 m ²
Total to be Zoned Medium Density Residential	78,131.10 m²
BUILDING GROUND COVER	
Residence 1	2,299.19 m ²
Residence 2	2,068.43 m ²
Residence 3	1,778.65 m ²
Residence 4	2,532.60 m ²
Residence 5	2,532.60 m ²
Tennis Club	92.80 m ²
Club House	500.45 m ²
Pumping Station	33.36 m ²
Total Building Ground Cover	12,130.05 m²
BUILDING GROSS FLOOR AREAS	
Residence 1	9,402.49 m ²
Residence 2	8,145.21 m ²
Residence 3	7,245.51 m ²
Residence 4	11,589.55 m ²
Residence 5	10,613.75 m ²
Tennis Club	92.80 m ²
Club House	819.69 m ²
Pumping Station Block	33.36 m ²
Total Gross Floor Building Area	47,941.36 m²

SITE STATISTICS

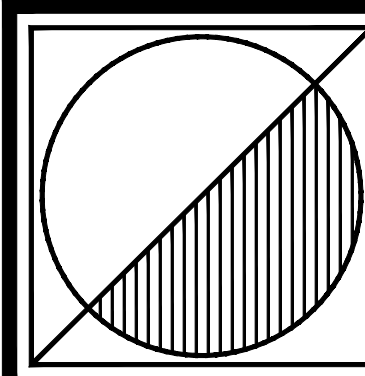
Full Property	123,501.69 m ²
Gross Building Ground Cover	12,130.05 m ²
9.8% of Property	
Landscape Area	106,913.24 m ²
85.8% of Property	
Asphalt Area	5,458.40 m ²
4.4% of Property	
Lands Zoned Residential	78,131.10 m ²
Gross Building Ground Cover	12,130.05 m ²
15.5% of Residential Zone	
Landscape Area	60,542.65 m ²
77.5% of Residential Zone	
Asphalt Area	5,458.40 m ²
7.0% of Residential Zone	
Number of Residential Units	234 units
Official Plan Allows 30 units per hectare	
Zoned Lands are 7.81 hectares x 30 units	
PARKING REQUIREMENTS	
1 space per Unit x 234 Units =	234 spaces
PARKING PROVIDED	
Surface	5 spaces
Barrier Free Standard 2.75 x 6 m	23 spaces
Underground	10 spaces
Barrier Free Standard 2.75 x 6 m	254 spaces
Total Parking Provided	292 spaces

CURRENT RESIDENTIAL DEVELOPMENT (RD) DESIGNED TO RESIDENTIAL MULTIPLE (RM1) ZONE - 7.5.2.3 APARTMENT BUILDING ZONING RELIEF TABLE

BY-LAW 7.9.2	BY-LAW REQUIREMENT	PROVIDED	BY-LAW RELIEF REQUESTED
a) Minimum lot frontage	25.0 m	20.12 m	5.0 m
b) Minimum lot area	912 m ²	123,501.69 m ²	None
c) Maximum lot coverage	50 %	9.8 %	None
d) Minimum landscape open space	25 %	85.8 %	None
e) Minimum front yard setback	7.5 m	286.15 m	None
f) Minimum interior side yard setback	5 m	5.6 m	None
g) Minimum exterior side yard setback	7.5 m	Not Applicable	None
h) Minimum rear yard setback	7.5 m	14.55 m	None
i) Minimum dwelling unit floor area			
1) Bachelor unit	37 m ²	Not Applicable	None
2) 1 bedroom unit	55.7 m ²	77.1 m ²	None
3) 2 bedroom unit	69 m ²	104.6 m ²	None
4) 3 bedroom unit	80 m ²	Not Applicable	None
j) Maximum Building height	12.0 m	12.0 Average	None
k) Minimum accessory building yard setback	1.5 m	5.56 m	None
l) Minimum accessory building exterior side yard setback (as amended by 4316Y-12)	4.5 m	Not Applicable	None

ZONING SITE PLAN - RESIDENTIAL

SCALE: 1:750



Peter J. Lesdow
architect

REGISTERED ARCHITECT
144, 176 & 200 JOHN ST., 856 CHARLOTTE ST.
NIAGARA-ON-THE-LAKE, ONTARIO

ONTARIO ASSOCIATION OF ARCHITECTS

PETER J. LESDOW
LICENSE
3745

ZONING PLAN
RESIDENTIAL
200 John St &
856 Charlotte St

DATE	REVISIONS	DATE	REVISIONS
14-107-20	FOR COORDINATION		
14-137-20	FOR ZONING SUBMISSION		
14-157-20	FOR ZONING SUBMISSION		

**RITZ-CARLTON HOTEL,
SPA & RESIDENCES**

144, 176 & 200 John St., 856 Charlotte St.
Niagara-on-the-Lake, Ontario

DATE: Nov. 18/ 22
SCALE: 1:750
DRAWN BY: MW/OD
CHECK BY: PJL

25 - 01

A102



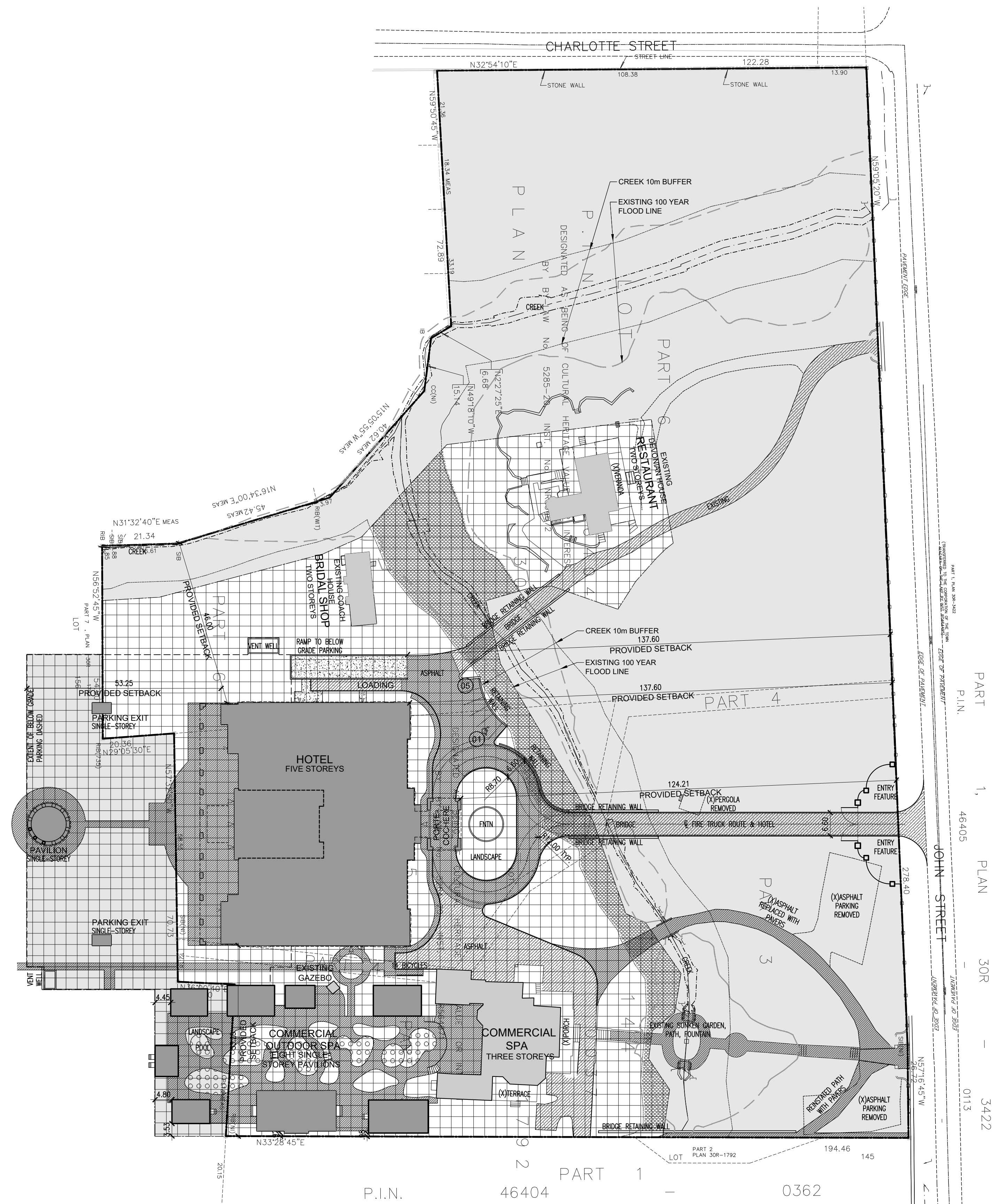
KEY PLAN

SCALE: 1:750

LEGEND

ZONING	SITE WORKS
<ul style="list-style-type: none"> GENERAL COMMERCIAL (GC) ZONE DESIGNATION (B6) ZONE PROPOSED 7.5.2.3 DESIGNATION (C) ZONE LEASED DESIGNATION (M) ZONE LEASED WETLANDS 	<ul style="list-style-type: none"> PERIMETER OF BUILDING (DASHED) PERIMETER OF COVERED STRUCTURE (DASHED) PERIMETER OF COVERED (DASHED) BUILDING STRUCTURE (UNENCLOSED) EXISTING BUILDING PAVERS ASPHALT CONCRETE POOL CONCRETE CURB PARKING SPACES

UNIMPAVED AREAS TO BE GRASS OR LANDSCAPE
ALL SITE WORK NEW UNLESS NOTED OTHERWISE



ZONING SITE PLAN - GENERAL COMMERCIAL & OPEN SPACE

SCALE: 1:750

SITE STATISTICS

Ritz Carlton Hotel / Spa Site 144 and 176 John Street			
PROPERTY AREA			Proposed
Property Area		53,262.42 m ²	
Commercial Zoned Area Plus	Lease Lands from Ritz Carlton Residences Long Term 583 Charlotte Street and 200 John Street East	+4,751.56 m ²	
Minus	Existing Open Space Zone	- 30,564.84 m ²	
Total to be Zoned General Commercial Area			27,449.14 m ²
BUILDING GROUND COVER			
	Ritz Carlton Hotel	3,832.38 m ²	
	Rand Spa	769.57 m ²	
	Outdoor Spa Pavilions	938.00 m ²	
	Coach House	146.6 m ²	
	Devonian House	253.73 m ²	
Total Building Ground Cover			5,940.28 m ²
BUILDING GROSS AREAS			
Ritz Carlton Hotel	Basement	2,591.02 m ²	
	Underground Parking	7,340.42 m ²	
	Ground Floor	3,832.38 m ²	
	Second Floor	3,160.13 m ²	
	Third Floor	3,160.13 m ²	
	Fourth Floor	3,160.13 m ²	
	Fifth Floor	3,166.31 m ²	
	Mechanical Penthouse	75.00 m ²	
Total			26,515.52 m ²
Rand Spa	Basement	880.56 m ²	
Existing Building	Ground Floor	769.57 m ²	
	Second Floor	329.7 m ²	
	Third Floor	312.95 m ²	
	Widow's Walk	27.25 m ²	
Total			2319.93 m ²
Outdoor Spa Pavilions		938 m ²	
Coach House	Ground Floor	146.6 m ²	
Existing Building	Second Floor	102.4 m ²	
Total			249 m ²
Devonian House	Ground Floor	253.73 m ²	
Existing Building	Second Floor	253.73 m ²	
Total			507.46 m ²
Total Gross Building Area			30,529.91 m ²

SITE STATISTICS

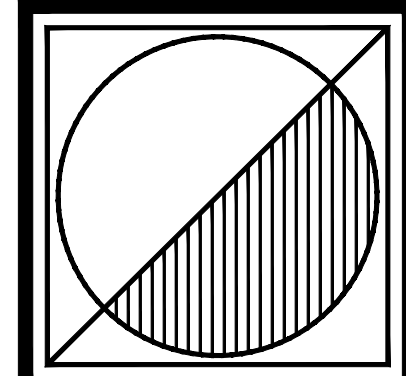
Full Property	53,262.42 m ²
Gross Building Ground Cover	5,940.28 m ²
11.2% of Property	
Landscaped Area	44,840.41 m ²
84.2% of Property	
Asphalt Area	2,481.73 m ²
4.7% of Property	
Land Zoned General Commercial	27,154.46 m ²
Gross Building Ground Cover	5,940.28 m ²
21.9% of G.C. Zone	
Landscaped Area	19,710.35 m ²
72.6% of G.C. Zone	
Asphalt Area	1,503.83 m ²
5.5% of G.C. Zone	

PARKING REQUIREMENTS

HOTEL COMPONENTS		VEHICLE PARKING REQUIRED		BICYCLE PARKING REQUIRED	
Hotel Rooms	111	1 per guestroom in addition to other uses	111 spaces	No requirements	0 spaces
Restaurants					
River View Restaurant	Seats: 99, Area: 288.48 m ²				
Upper Banquet Room	240, 336.45 m ²				
Grand Salon	39, 169.57 m ²				
Private Lounge	34, 40.9 m ²				
Lower Restaurant	118, 87.3 m ²				
Lower Banquet Room	266, 349.16 m ²				
Subtotal	738, 1,271.86 m ²	1 per 9m ² GFLA	141 spaces	Restaurants (375.78 m ²) 2 per 100 m ² GFLA	7.52 spaces
Restaurant - Outdoor Patio					
	Seats: 104, 414.46 m ²	1 per 30 m ² GFLA of Outdoor Patio Area in addition to the requirements for a restaurant or take-out restaurant.	14 spaces	No requirements	0 spaces
Conference Rooms on Areas Used in Conjunction with Other uses					
Meeting Room A	94.52 m ²				
Meeting Rooms B, C, D & E	187.99 m ²				
Conference Room	43.46 m ²				
Subtotal	325.97 m ²	1 per 18.5 m ² GFLA	18 spaces	No requirements	0 spaces
Office					
Front Reception	69.26 m ²				
Human Resources	85.19 m ²				
Management and Marketing	231.04 m ²				
Accounting	84.13 m ²				
Subtotal	469.62 m ²	1 per 28 m ² GFLA	17 spaces	Offices 1 per 250 m ² GFLA	1.88 spaces
Retail Sales					
Wine Shop	38.20 m ²				
Gift Shop	25.70 m ²				
Subtotal	63.9 m ²	1 per 18.5 m ² GFLA	4 spaces	Commercial 1 per 200 m ² GFLA	0.32 spaces
PROPERTY COMPONENTS					
Existing Rand Mansion - Conversion to Spa	Total GFLA of Mansion: 2,086.43 m ² Area of to be Used as Spa (Other Areas Unoccupied): 1,260.86 m ²	1 per 15 m ² GFLA	85 spaces	No requirements	0 spaces
Outdoor Spa Pavilions	Combined Area of Pavilions: 980.64 m ²	1 per 15 m ² GFLA	66 spaces	No requirements	0 spaces
Existing Devonian House - Ground Floor Conversion to Restaurant (Remainder Unoccupied)	Dining Area: 178.50 m ² Outdoor Covered Porch Area: 188.27 m ²	1 per 9 m ² GFLA 1 per 30 m ² GFLA of Outdoor Patio Area	20 spaces 6 spaces	Restaurant 2 per 100 m ² GFLA No requirements	3.57 spaces 0 spaces
Existing Coach House - Ground Floor Conversion to Bridal Shop (Remainder Unoccupied)	Ground Floor to be Used Only (Second Storey Unoccupied): 135 m ²	1 per 18.5 m ² GFLA	8 spaces	Commercial 1 per 200 m ² GFLA	0.68 spaces
TOTAL PARKING REQUIRED			484 spaces		14 spaces
PARKING PROVIDED					
Surface	Barrier Free: 1 space Standard 2.75x6.0 m: 4 spaces		5 spaces	BICYCLE PARKING	14 Provided
Underground	Barrier Free: 8 spaces Standard 2.75x6.0 m: 209 spaces		217 spaces		
TOTAL PARKING PROVIDED			222 spaces		

EXISTING SITE-SPECIFIC GENERAL COMMERCIAL 7.14.56 ZONING RELIEF TABLE

BY-LAW 7.14.56	BY-LAW REQUIREMENT	PROVIDED	BY-LAW RELIEF REQUESTED
a) Minimum Lot Frontage	300.0 m	305.12 m	None
b) Minimum Lot Depth	120 m	121 m	None
c) Minimum Landscaped Open Space	50%	84.2 %	None
d) Maximum Lot Coverage	12%	11.2 %	None
e) Minimum main building setbacks in accordance with Figure 7.14.56(f)	93.75 m	137.6 m	None
f) Minimum vehicular access ramp setback	30.48 m	137.6 m	None
g) Maximum building height	17.35 m	24.74 m	8.09 m
h) Maximum seating capacity for restaurant	200 seats	99 seats River View Restaurant 240 seats Upper Banquet Room 39 seats Grand Salon 34 seats Private Lounge 118 seats Lower Restaurant 266 seats Lower Banquet Room 786 seats Total	600 seats 5 rooms
i) Maximum number of rooms for the hotel	106	111	5 rooms
j) Maximum ground floor area of all buildings in the commercial zone	4,181 m ²	5,940.3 m ²	1,850 m ²
k) Maximum floor area of the spa & Learning Center	185.8 m ²	1,707.6 m ²	1,650 m ²
l) Maximum ground floor area of Arts & Learning Center	1,250 m ²	Not Applicable	None
m) Devonian House: No other commercial use shall be permitted except for a maximum of 8 guest rooms associated as part of the hotel use		Restaurant	Restaurant Use to be permitted



Peter J. Lesdow
architect



ZONING PLAN
GENERAL COMMERCIAL
& OPEN SPACE
144 & 176 John St

PETER J. LESDOW
ARCHITECT
LICENSE
3745

DATE	REVISIONS	DATE	REVISIONS
14-107-20	FOR COORDINATION		
14-137-20	FOR ZONING SUBMISSION		
14-157-20	FOR ZONING SUBMISSION		

RITZ-CARLTON HOTEL,
SPA & RESIDENCES

144, 176 & 200 John St., 855 Charlotte St.
Niagara-on-the-Lake, Ontario

DATE: Nov. 18/ 22
SCALE: 1:100
DRAWN BY: MW/OD
CHECK BY: PJL

Appendix B

Two Sisters Vineyards Best Management Practices

BMP Title	Urban Agricultural Interface
------------------	------------------------------

	NAME	TITLE	SIGNATURE	DATE
Author	J. Aitken	Vineyard Manager		09-NOV-21

1. **PURPOSE**

To identify the interaction between agricultural operations and neighbouring urban areas and outline methods of managing this interaction.

2. **INTRODUCTION**

Two Sisters Vineyards agricultural operations are in close proximity to some urban areas of Niagara-on-the-Lake which creates positive and negative impacts. Positive impacts of agriculture on urban areas in close proximity include storm water management, aesthetically pleasing landscapes, and social and recreational opportunity. Negative impacts include potentially undesirable noise, traffic, and smells from farming practices. This document, Two Sisters Vineyards farm management strategies, and relevant industry best management practices are used to create sustainable and economically viable production while at the same time controlling negative impacts on agriculture and urban areas.

3. **MANAGING IMPACT OF AGRICULTURAL OPERATIONS ON URBAN AREAS**

Two Sisters Vineyards currently operates vineyards near urban areas of Niagara-on-the-Lake (Harmony Dr, The Promenade, Concession 3). All necessary and required precautions are taken to prevent the unacceptable impact of farm practices on these areas. Negative impacts of noise and traffic are limited by scheduling operations to times with the least impact on residents (7am-5pm). When operations must occur outside of this time (i.e. wind machine operation for protection from cold temperatures) best management practices are followed regarding setbacks from urban areas. Undesirable smells from pesticide, fertilizer, and organic matter use are limited by applying only during conditions permitted according to OMAFRA best management practices and Health Canada restrictions. In addition, Two Sisters Vineyards uses Integrated Pest Management and a Nutrient Management Plan to inform all applications. Applications are only undertaken when necessary to prevent economic injury as indicated by regular scouting and sampling. Restrictions on applications regarding drift and buffer zones established by Health Canada are followed at all times.

Positive impacts from agricultural operations near urban areas have been observed. Subsurface tile drainage and surface drainage are carefully managed to control storm water impacts on agricultural production. Consequently, storm water is managed within the agricultural area, reducing requirements of storm water management in nearby urban areas. Social and recreational opportunities are also created by the agricultural operation

through on-site wine production, sales, and other tourism. Positive impacts on urban areas are also created by maintaining aesthetically pleasing vineyard landscapes.

4. MANAGING IMPACT OF URBAN AREAS ON AGRICULTURAL OPERATIONS

Proximity of urban areas to existing agricultural operations at Two Sisters Vineyards has not negatively affected operations or economic viability. Common concerns with the local grape growing industry, of which Two Sisters Vineyards is a part, include wind machine operations, use of propane fired cannons (bird bangers) for bird control, and pesticide applications. Current wind machine practice at Two Sisters is either of no impact on nearby urban areas or is managed according to best management practices, including setbacks from urban areas and acceptable operation parameters, as laid out in OMAFRA best management practices. Two Sisters Vineyards does not use bird bangers for bird control. Pesticide applications are only undertaken according to acceptable parameters for areas of habitation laid out by Health Canada and the Pest Management Regulatory Agency. Effective communication with residents of nearby urban areas ensures Two Sisters Vineyards obligations and responsibilities area clearly identified and adhered to.

5. CONCLUSION

This document outlines the interaction between agricultural operations at Two Sisters Vineyards and urban areas in close proximity. There are positive and negative interactions between agricultural operations and urban areas. Agricultural practices are carefully managed in accordance with relevant best management practices and effective communication with parties from the urban area ensures economically and socially viable agricultural operations near urban areas.

Appendix C
Land Use Notes

Land Use Survey Notes – April 1, 2026 – C26037 –Agricultural and Urban Interface Assessment, Rand and Randwood	
Weather	Temperature
Cloudy	9°C

Site No.	Type of Use	Crop Type	Description of Interface
1	Residential	Orchard	Single family home residential area, cherry orchard directly adjacent to backyard of homes. Approximate 30m buffer between backyard fence and orchard.
2	Rural Residential	Orchard	Single family home with an apple orchard adjacent to the west side of the property. Fence barrier and cedar hedge. Approximate 30m buffer between cedar hedge and orchard.
3	Residential	Vineyard	Single family home residential community with a vineyard operation adjacent to the terminus of King Street. Homes and vineyard operations are separated by a vegetated buffer and fencing along each property boundary.
4	Residential	Vineyard	Single home residential subdivision with vineyard operation adjacent to rear yards. Varying buffers/barriers including no buffer/barrier, chain-link fence, wrought iron fence, and limited tree plantings.
5	Residential	Vineyard	Single family home residential development with grape vines planted directly adjacent. Fence barrier along home property boundary. No vegetated buffer or setback.
6	Residential	Orchard	Single family home interface with apple orchard. Significant setback at south side of house with a vegetated buffer at property boundary. Fencing along rear of home.
7	Institutional	Orchard	Long-term care home with recently built expansion on former vineyard lands. Parking lot and newly planted cedars separate long-term care home and vineyards.
8	Residential	Vineyard	Single family home interface with mature grape vines. An approximate 15-20m setback from homes to crop rows, and fence barrier at rear of homes.

Site No.	Type of Use	Crop Type	Description of Interface
9	Residential and Commercial	Vineyard	Single family homes and commercial operations adjacent to vineyard associated with Ravine winery. Majority of boundaries have no fencing or vegetative buffer, limited installations of chain-link fences.

Appendix D

Site Photos



Site 1: Looking south, cherry orchard interface with residential backyards



Site 1: Looking north, cherry orchard and residential interface



Site 2: Looking north, orchard bordering single family residence to the east, cedar hedge barrier



Site 3: Looking north, single family home bordering vineyard operational infrastructure



Site 3: Looking north, vineyard operations building with residence to the east. Small fence and cedar barrier



Site 3: Looking west, driveway of vineyard operation and a second residence. Cedar vegetated buffer along front of house

East Elevation

☉ 258°W (T) ● 43°14'21"N, 79°4'26"W ±3m ▲ 92m



Site 4: Looking west, vineyard and residential subdivision interface. Varying buffers including, no buffer, chain-link fence, wrought iron fence, and limited tree plantings

North East Elevation

☉ 213°SW (T) ● 43°14'21"N, 79°4'30"W ±2m ▲ 91m



Site 4: Looking southwest, vineyard and residential subdivision interface. Varying buffers including, no buffer, chain-link fence, wrought iron fence, and limited tree plantings



Site 5: New residential development and young grape vines. Fence barrier parallel with crop rows



Site 5: New vineyard (facing south)



Site 6: Orchard interface with residential, facing west



Site 6: Orchard interface with residential, facing west

East Elevation

📍 261°W (T) 📍 43°13'41"N, 79°7'15"W ±5m ▲ 89m



Site 7: Long term care residential complex interface with orchards, facing west



Site 8: Residential backyards interface with grape vines, facing west

North West Elevation

☉ 121°SE (T) ☉ 43°9'32"N, 79°6'17"W ±5m ▲ 121m



Site 9: Looking southeast, vineyard and residential uses interface. Varying buffers including, no buffer, chain-link fence, and limited tree plantings

South West Elevation

☉ 30°NE (T) ● 43°9'34"N, 79°6'7"W ±5m ▲ 119m



Site 9

C26037
01 Apr 2026, 09:54:43

Site 9: Looking north, vineyard and residential uses interface. Varying buffers including, no buffer, wood fence, and cedar bushes

North East Elevation

☉ 214°SW (T) ☉ 43°9'34"N, 79°6'7"W ±5m ▲ 119m



Site 9: Looking southwest, vineyard and commercial/residential uses interface. No buffer between commercial use, wood fence between residential use