

**AGRICULTURAL IMPACT ASSESSMENT
FOR
12489 & 12861 DIXIE ROAD, TOWN OF CALEDON**

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1. INTRODUCTION

1.1 Background

Colville Consulting Inc. was retained by QuadReal Property Group to complete an Agricultural Impact Assessment (AIA) for the properties located at 12489 & 12861 Dixie Road, Town of Caledon, in the Regional Municipality of Peel, herein referred to as the Subject Lands. The Subject Lands are generally located south of Old School Road and east of Dixie Road (Figure 1).

Approximately half of the property at 12489 Dixie Road is designated as “Urban System” and “Rural System” in Schedule E-1 – Regional Structure of the Regional of Peel Official Plan (2022). The remaining northern and southern portions of the Subject Lands are designated as Prime Agricultural Area in Schedule D-1 – Rural System of the Region of Peel Official Plan (2022). The Subject Lands are designated as “Prime Agricultural Area” and “Environmental Policy Area” in Schedule A of the Town of Caledon Official Plan (2018). Approximately half of the property is proposed to be designated “New Employment Area” and are included within the Settlement Area Boundary shown in Draft Schedule B4 – Land Use designations as part of the Town of Caledon’s Official Plan update.

The majority of the property at 12861 Dixie Road is designated as “Urban System” with remainder designated “Rural System” in Schedule E-1 – Regional Structure of the Regional of Peel Official Plan (2022). The Subject Lands are designated as “Prime Agricultural Area” and “Environmental Policy Area” in Schedule A of the Town of Caledon Official Plan (2018). The majority of the Subject Lands are proposed to be designated “New Employment Area” and are included within the Settlement Area Boundary shown in Draft Schedule B4 – Land Use designations) as part of the Town of Caledon’s Official Plan update.

Contrary to what is shown in the provincial Agricultural Land Base mapping, the province no longer recognizes the portion of the Subject Lands where development is proposed as being part of a *prime agricultural area*. The Region of Peel updated its Official Plan through a Municipal Comprehensive Review (MCR), and subsequently included part of the Subject Lands within the Urban System. The remainder of the Subject Lands is located within the Rural System. The updated Official Plan was approved by the Province in November of 2022, allowing the Region’s mapping to take precedence.

At the March 26, 2024 Council Meeting for the Town of Caledon, Council adopted the Future Caledon Official Plan. The Future Caledon Official Plan has not yet received approval from the Province. The adopted Future Caledon Official Plan aligns with the Region of Peel Official Plan and shows the majority of the Subject Lands designated New Urban Area 2051 within the Urban Area, with smaller areas outside the development footprint designated Prime Agricultural Area and Natural Features and Area.

1.2 Description of Proposed Development

The development proposal for the property located at 12489 Dixie Road will include the construction of three industrial buildings, associated parking, and a Storm Water Management Pond. The industrial buildings are proposed to be used for commercial operations including but not limited to distribution, dry storage, and general commercial uses.

The development proposal for the property located at 12861 Dixie Road will include the construction of two industrial buildings, associated parking, and a Storm Water Management Pond. The industrial

buildings are proposed to be used for commercial operations including but not limited to distribution, dry storage, and general commercial uses.

An Official Plan Amendment (OPA) and Zoning By-Law Amendment (ZBA) are required for development on the Subject Lands. Development is limited to the areas on the Subject lands that have been included in the Region of Peel Urban System. A copy of the Development Concept Plan can be found in Appendix A.

1.3 Retainer & Professional Qualifications

Colville Consulting Inc. was established in 2003 and provides agricultural and environmental consulting services to both private and public sector clients throughout Ontario. Colville Consulting Inc. has extensive experience preparing Agricultural Impact Assessments for proposed developments related to non-agricultural land use applications in the Town of Caledon and across the province of Ontario.

QuadReal Property Group initially retained Colville Consulting Inc. to complete a Minimum Distance Separation assessment on December 18, 2023, and again on January 11, 2024, to complete an Agricultural Impact Assessment (AIA). This study was led by Sean Colville, who has over 30 years of experience preparing Agricultural Impact Assessments in Ontario and assisted with the preparation of the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) draft Agricultural Impact Assessment Guidance Document (2018). Brett Espensen was the Project Manager responsible for completing the field investigations and preparation of the AIA. Brett has over 10 years of experience preparing AIAs with Colville Consulting Inc. The CVs of Sean Colville and Brett Espensen can be found in Appendix B.

1.4 Purpose of Study

The Subject Lands are located within the Town of Caledon's Prime Agricultural Area. Section 5.1.1.17.1 of the Town of Caledon Official Plan states, "Proposals in the Prime Agricultural Area that have the potential to negatively impact agricultural uses will require an Agricultural Impact Assessment." Non-agricultural *development* within the Prime Agricultural Area has the potential to negatively impact *agricultural uses*, therefore an AIA is required before *development* can commence.

This AIA has been prepared in accordance with OMAFRA's Draft Agricultural Impact Assessment (AIA) Guidance Document (2018). The AIA assesses and evaluates the potential impacts of the proposed *development* on agricultural operations, the farming community, and the broader *Agricultural System*. In cases where impacts cannot be avoided, the AIA recommends ways to minimize and mitigate adverse impacts. The AIA will also assess whether the proposed *development* complies with provincial, regional, and local agricultural policies.

1.5 Study Area

The *Study Area* is primarily located within the Town of Caledon's Prime Agricultural Area. To be consistent with the draft Agricultural Impact Assessment Guidance Document (2018), the AIA must identify a *Primary Study Area* and a *Secondary Study Area*. For this AIA, the *Primary Study Area (PSA)* includes the Subject Lands, while all lands within approximately 750m of the *PSA* comprise the *Secondary Study Area (SSA)*. Figure 1 shows the *Study Area*, which includes the *Primary and Secondary Study Areas*.

Typically, a Settlement Area Boundary Expansion (SABE) would use a *SSA* of 1500m. After a review of the surrounding land uses and Official Plan mapping, it was determined that an *SSA* of 750m was adequate to assess the potential impacts of the SABE and future industrial developments. When looking at the

sensitivity of surrounding agricultural lands, it was noted that the vast majority are located within the Region of Peels 2051 New Urban Area within the Regional Urban Boundary and are proposed to be removed from the agricultural land base over the long term.

1.5.1 Primary Study Area

The PSA (i.e., Subject Lands) includes both 12489 Dixie Road and 12861 Dixie Road.

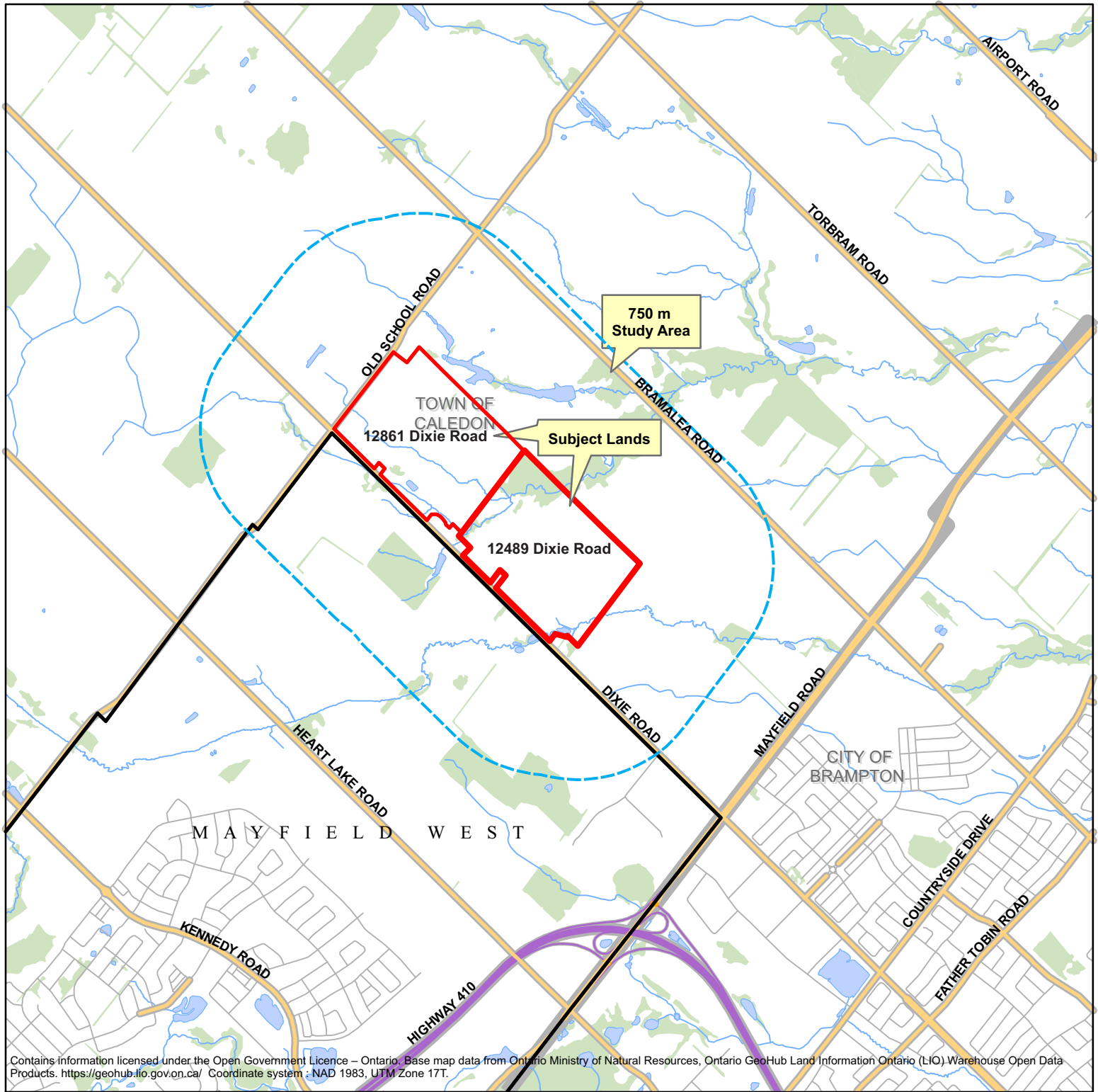
12489 Dixie Road is generally located south of Old School Road and east of Dixie Road and measures approximately 58.02 ha (143.24 acre) in size. The development is proposed to be situated on approximately 32.0 ha (79.0 acres) of the property, with the remaining 26.02ha (64.37 acres) left in a natural state or to continue in agricultural production. There is currently an active livestock and cash cropping operation on the Subject Lands. We understand that this livestock operation is under a licensing agreement and that this farm will continue to operate until the property is developed, at which time the livestock will be removed from site and any existing agricultural infrastructure will be decommissioned.

12861 Dixie Road is generally located southeast of the intersection of Old School Road and east of Dixie Road and measure approximately 58.23 ha (143.58 acre) in size. There is currently an active livestock and cash cropping operation on the Subject Lands. We understand that this livestock operation is under a licensing agreement and that this farm will continue to operate until the property is developed at which time the livestock will be removed from site and any existing agricultural infrastructure will be decommissioned.

1.5.2 Secondary Study Area

The *Secondary Study Area*, herein referred to as the *Study Area*, includes all lands within 750m of the *PSA* boundaries. The *Study Area* is generally bounded to the east by Bramalea Road, to the south by Mayfield Road, to the west by Heart Lake Road, and to the north by King Street.

The *Study Area* is primarily designated in the Region of Peel Official Plan as Prime Agricultural Area within the Rural System, as well as 2051 New Urban Area within the Regional Urban Boundary. The Town of Caledon Official Plan designates the *Study Area* as a mix of Prime Agricultural Area and Environmental Policy Area. The western portion of the *Study Area* is located within the Mayfield West Study Area Boundary. Additionally, portions of the *Study Area* are located within the Greenbelt Plan and are designated as Protected Countryside.



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.

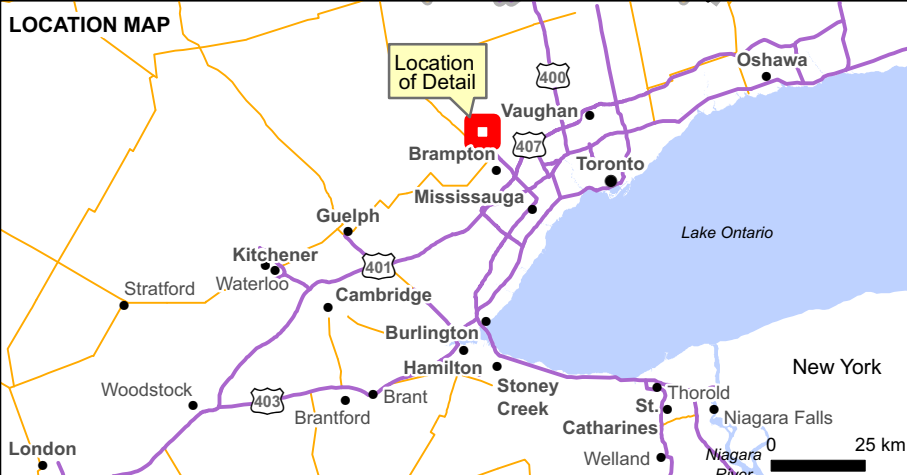
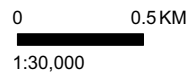


Figure 1
Location of Subject Lands

Agricultural Impact Assessment
12489 & 12861 Dixie Road, Town of Caledon

Prepared for: **QuadReal Property Group**

Prepared by: **COLVILLE CONSULTING INC.**



DATE:
DEC 2024

FILE:
C23120

2. Scope of Study

The proposed scope of the AIA will follow the methodology recommended in the Draft Agricultural Impact Assessment Guidance Document (2018). It includes:

- ♦ a review of applicable agricultural policies, land use information, and other background information for lands within the surrounding area (e.g., aerial photography);
- ♦ a review of data sources such as AgMaps, the Agricultural Systems Portal, and OMAFRA's digital soil resource database (for soil and CLI information, parcel fabric and land fragmentation, artificial drainage, agri-food components, etc.);
- ♦ a land use survey of all lands within 750m of the Subject Lands and a characterization of the area;
- ♦ an assessment of the *Minimum Distance Separation (MDS)* application and requirements for the proposed *development* using the 2017 *MDS I formula*;
- ♦ the identification *agricultural uses, agriculture-related uses*, and where possible, the identification of on-farm diversified uses;
- ♦ an assessment of the level of fragmentation of agricultural lands in the *Study Area*;
- ♦ an assessment of the potential impacts of the proposed *development* on the *Agricultural System*, agricultural resources, farm operations, and the broader *agri-food network*;
- ♦ the identification of net impacts, mitigation measures and recommendations that can be implemented to avoid or minimize potential impacts;
- ♦ an assessment of the proposed *development's* consistency with agricultural policies in the *Provincial Planning Statement*, , the Region of Peel Official Plan, and the Town of Caledon Official Plan; and
- ♦ the preparation of a report summarizing our findings.

The AIA does not assess alternative locations for the proposed *development*. For *settlement area* boundary expansion in *prime agricultural areas*, the *Provincial Planning Statement (PPS)* requires an assessment of alternative locations. The purpose of this assessment is to show that there are no reasonable alternative locations which avoid *prime agricultural areas*. If *prime agricultural areas* are unavoidable, the assessment must show that there are no reasonable alternative locations on lower priority agricultural lands. Given the Provincial approval of the Region of Peel's 2051 New Urban Area, and the Subject Lands' inclusion in this area, it is reasonable to assume that additional assessment would yield no reasonable alternative locations for the proposed *development*.

3. METHODOLOGY

The study methodology for the AIA was prepared in accordance with the OMAFRA draft Agricultural Impact Assessment Guidance Document (2018). It includes a review of relevant provincial, regional, and local agricultural policies, other agricultural-related sources of information, and the completion of field inventories. Upon compilation and assessment of the data, the potential impacts of the proposed *development* will be considered and recommendations to avoid and/or minimize potential impacts will be made. The AIA also assesses the *development's* consistency with provincial, regional, and local agricultural policies.

3.1 Background Data Collection

Information sources reviewed for this study included:

- ♦ *Provincial Planning Statement (2024);*
- ♦ *Region of Peel Official Plan and Land Use Schedules (2022);*
- ♦ *Town of Caledon Official Plan and Land Use Schedules;*
- ♦ *Future Caledon Official Plan and Land Use Schedules;*
- ♦ *Soil Survey of Peel County – Report No. 18 of the Ontario Soil Survey (1953);*
- ♦ *British Columbia Ministry of Agriculture's Guide to Edge Planning: Promoting Compatibility Along Agricultural-Urban Edges (2015);*
- ♦ *MHBC's Edge Planning Report – The Region of Peel & The Town of Caledon LEAR Study and MDS Review (2015);*
- ♦ *OMAFRA's digital Soil Resource Database to obtain soil series and CLI agricultural capability mapping and data;*
- ♦ *OMAFRA's The Minimum Distance Separation (MDS) Document: Formulae and Guidelines for Livestock Facility and Anaerobic Digester Odour Setbacks. Publication 853 (2016);*
- ♦ *OMAFRA's Artificial Drainage Systems mapping;*
- ♦ *OMAFRA's AgriSuite, AgMaps and Agri-Systems databases;*
- ♦ *OMAFRA's Draft Agricultural Impact Assessment (AIA) Guidance Document (2018);*
- ♦ *Ortho-rectified, digital aerial photography viewed using Google Earth™.*

Aerial photography covering the *Study Area* and the parcel fabric were examined to assess the presence of *non-agricultural land uses, agricultural uses, agriculture-related uses, on-farm diversified uses*, and the level of fragmentation based on the lot fabric. This review will provide a general impression of the agricultural activity and level of agricultural investments in the area surrounding the Subject Lands.

3.2 Field Inventories

Field inventories were completed on December 12, 2023. Field inventories included a reconnaissance level land use survey of the surrounding area to identify agricultural operations, relative level of investment in agriculture, the cropping pattern observed, and the mix of land uses within the Subject Lands and *Study*

Area. Information required to calculate the *MDS I* setback requirements was also collected during the land use survey.

3.2.1 Land Use Survey

The land use survey identified the number and type of agricultural operations (both active and *retired*), *agriculture-related uses*, *on-farm diversified uses*, and the extent and type of *non-agricultural land uses* in the area. Field crops observed were identified and mapped. Visual evidence of agricultural land improvements was recorded where identified.

3.2.2 MDS Calculations

The *MDS* is a land use planning tool developed by OMAFRA to minimize land use conflicts and nuisance complaints arising from odours generated by *livestock operations*. The *MDS* calculates a recommended separation distance between a *livestock* or *manure storage* and other land use(s). The most recent version of the *MDS Guidelines*, *The Minimum Distance Separation (MDS) Document, Publication 853* (2016), came into effect on March 1st, 2017. The *MDS formulae* only apply to lands designated *prime agricultural area* or rural. The *MDS* does not apply to lands in non-agricultural land use designations.

The *MDS* uses two separate formulae depending on the type of land use proposed: *MDS I* and *MDS II*. The *MDS I formula* is used when a new non-agricultural *development* is proposed in proximity to *livestock facilities*. The *MDS II formula* is used when a new, enlarged, or remodeled *livestock facility* or *manure storage* system is proposed in proximity to existing or approved *development*.

The information required to complete an *MDS I* calculation was obtained through a combination of sources. As per the *MDS Guidelines*, we attempted to gather information directly from the landowner/tenant. Where landowners could not be contacted or were not available, self-addressed envelopes were left in mailboxes of potential *livestock operations*.

To calculate the *MDS* setback requirements, we used OMAFRA's Agricultural Planning Tools Suite (AgriSuite). It provides the most up to date software developed by OMAFRA to calculate the *MDS I* requirements for active *livestock facilities* and *empty livestock facilities* that are structurally sound and capable of housing *livestock*. To determine the *MDS I* setback requirements, specific information regarding each *livestock facility* is required. This includes:

- the type of *livestock* housed in the facility;
- the maximum capacity of the barn housing *livestock*;
- the type of *manure storage* facility; and
- the size of the property upon which the *livestock facility* is located.

This information was collected for all *livestock facilities* (active and *retired*). In cases where we were not able to collect information directly from the landowner, we used visual observations of the *livestock facility* and determined the most likely type of *livestock* housed and the type of *manure storage* system used. These observations were supplemented with aerial photography and web mapping tools such as AgMaps and Google Earth™. Barn capacity and lot size were determined using these online mapping tools.

3.3 Evaluation of the Agricultural System

An *Agricultural System* includes a continuous and productive land base comprised of *prime agricultural areas*, including *specialty crop areas*, and *rural lands*, as well as a complementary *agri-food network* that together enable the agri-food sector to thrive. An evaluation of the *Agricultural System* and associated features within the *Study Area* was completed through a reconnaissance level land use survey on December 12, 2023, and online review to assist in identifying agricultural related features.

Potential features identified include regional infrastructure and transportation networks, on-farm buildings and infrastructure, agricultural services, as well as small towns and hamlets that are supportive of agriculture and are important to the viability of the agri-food sector. The evaluation of the *Agricultural System* within the *Study Area* is used to identify the features and provide insight into the significance of those features on the overall *Agricultural System* within the Region.

3.4 Evaluation of Alternative Locations

The *PPS* directs *settlement area* boundary expansion to avoid *prime agricultural areas*, where possible. Where *prime agricultural areas* cannot be avoided, policy directs *development* to lower priority agricultural lands. The AIA must demonstrate that there are no reasonable alternative locations which avoid *prime agricultural areas* and where *prime agricultural areas* cannot be avoided, that there are no reasonable alternative locations in *prime agricultural areas* with lower priority agricultural lands.

The Subject Lands have primarily been included in the Region of Peel Official Plan's 2051 New Urban Area within the Urban System, which was approved by the Province in November 2022. The portion of the Subject Lands that are not located within the 2051 New Urban Area form part of the Prime Agricultural Area and Greenbelt Plan Area and no *development* is proposed on these lands. The Region of Peel was required to assess alternative locations for *settlement area* boundary expansion, which indicates there are no reasonable alternative locations which avoid *prime agricultural areas* or locations of lower priority agricultural lands. Therefore, an assessment of alternative locations has not been completed as part of this AIA.

3.5 Evaluation of Agricultural Priority

The *PPS* directs *development* in prime agricultural areas to "lower priority agricultural lands". Although the *PPS*, nor other provincial planning documents, specifically define "lower priority agricultural lands", there are a number of considerations used by OMAFRA to determine the 'agricultural priority' of an area. These considerations include criteria such as the current land use, amount of capital investment in agricultural infrastructure, amount of land under active cultivation, existing degree of lot fragmentation to the surrounding agricultural land base, and proximity to incompatible (e.g., urban) land uses. The AIA considers these criteria to assess the agricultural priority of the Subject Lands.

3.6 Identification of Potential Impacts and Mitigation Measures

Potential impacts of the proposed *development* were identified following an assessment of the agricultural resources on and adjacent to the Subject Lands. Direct impacts are those that directly impact the Subject Lands and include:

- a) Interim or permanent loss of agricultural land, including the quality and quantity of farmland lost;

- b) The type of agricultural, agriculture-related or on-farm diversified uses being lost and the significance this has for supporting other agricultural production in the surrounding area;
- c) The loss of existing and future farming opportunities
- d) The loss of infrastructure, services or assets important to the surrounding agricultural community and agri-food sector
- e) The loss of agricultural investments in structures and land improvements (e.g. artificial drainage)
- f) The disruption or loss of function to artificial drainage and irrigation installations
- g) Changes to the soil drainage regime

Indirect impacts can negatively affect adjacent lands, farm operations and farm practices. They include:

- a) Fragmentation of agricultural lands and operations;
- b) Minimum Distance Separation changes (where applicable) that will constrain future farm operations;
- c) Changes to surface drainage features which could have an effect on adjacent lands;
- d) Changes to landforms, elevations and slope that could alter microclimatic conditions (e.g. modification to slopes that may reduce or improve cold air drainage opportunities and changes to elevation may have an impact on diurnal temperatures);
- e) Changes to hydrogeological conditions that could affect neighboring municipal or private wells, sources of irrigation water and sources of water for livestock;
- f) Disruption to surrounding farm operations, activities and management (e.g. temporary loss of productive agricultural lands, cultivation, seeding, spraying, harvesting, field access, use of road network);
- g) The potential effects of noise, vibration, dust, traffic and vandalism and trespassing on agricultural operations, lands, activities and investments;
- h) Potential compatibility concerns between agricultural operations employing *normal farm practices* and new non-farm development (e.g. nuisance complaints);
- i) The inability or challenges to move farm vehicles and equipment along roads due to increased traffic caused by haul routes, changes in road design.

Mitigation measures will then be developed for both direct and indirect impacts identified, which avoid or minimize potential impacts on the *Agricultural System*.

3.7 Assessment of Consistency with Agricultural Policies

All planning decisions must be consistent with the *PPS* and comply with applicable provincial land use plans. Municipalities also have their own agricultural policies that the proposed *development* must adhere to. A background review of all applicable provincial and municipal agricultural policies was undertaken. Policies applicable to the proposed *development* were identified and assessed for conformance as part of this AIA.

4. AGRICULTURAL POLICIES

In accordance with the OMAFRA's draft Agricultural Impact Assessment Guidance Document (2018) this AIA has reviewed and provided a description of the relevant agricultural policies and requirements contained in applicable provincial policy documents and municipal, regional, or local official plans and zoning by-laws. Policies reviewed as part of this AIA are provided below. An assessment of the proposed developments consistency with these policies is provided in Section 9.

4.1 Provincial Planning Statement (2024)

Land Use Policy and *development* in Ontario are directed by the *Provincial Planning Statement*. The *PPS* was issued under the authority of Section 3 of the Planning Act and came into effect on October 20, 2024. Section 3 of the Planning Act states that decisions affecting planning matters "shall be consistent with" policy statements issued under the Act.

4.1.1 Prime Agricultural Areas

Section 4.3 of the *Provincial Planning Statement* specifically deals with agricultural policy. Section 4.3.1.2 states that "As part of the agricultural land base, prime agricultural areas, including specialty crop areas, shall be designated and protected for long-term use for agriculture". The *Provincial Planning Statement* defines *prime agricultural areas* as areas where *prime agricultural lands* predominate. *Prime agricultural lands* include *specialty crop areas* and Canada Land Inventory (CLI) Classes 1, 2, and 3 soils, in this order of priority for protection. Section 4.3.2.4, Permitted Uses, states that "New land uses in prime agricultural areas, including the creation of lots and new or expanding livestock facilities, shall comply with the minimum distance separation formulae."

4.1.2 Policies for Removal of Land from Prime Agricultural Areas

Policy 4.3.4.1 of the *Provincial Planning Statement* states that "Planning authorities may only exclude land from prime agricultural areas for expansion of or identification of settlement areas in accordance with policy 2.3.2."

Policy 2.3.2.1 states that "In identifying a new settlement area or allowing a settlement area boundary expansion, planning authorities shall consider the following:

- a) the need to designate and plan for additional land to accommodate an appropriate range and mix of land uses;
- b) if there is sufficient capacity in existing or planned infrastructure and public service facilities;
- c) whether the applicable lands comprise specialty crop areas;
- d) the evaluation of alternative locations which avoid prime agricultural areas and, where avoidance is not possible, consider reasonable alternatives on lower priority agricultural lands in prime agricultural areas;
- e) whether the new or expanded settlement area complies with the minimum distance separation formulae;
- f) whether impacts on the agricultural system are avoided, or where avoidance is not possible, minimized and mitigated to the extent feasible as determined through an agricultural impact assessment or equivalent analysis, based on provincial guidance; and

g) the new or expanded settlement area provides for the phased progression of urban development.”

Policy 2.3.2.2 states that “Notwithstanding 2.3.2.1.b), planning authorities may identify a new settlement area only where it has been demonstrated that the infrastructure and public service facilities to support development are planned or available.”

As stated above, the Subject Lands are still mapped as part of a *prime agricultural area* in the approved Town of Caledon Official Plan; however, the portion of the Subject Lands proposed to be included within the Town of Caledon Settlement Area are no longer provincially recognized as being part of a *prime agricultural area*, following the provincial approval of the updated Region of Peel Official Plan. Additionally, no *development* has been planned for the portion of the Subject Lands that remain designated as Prime Agricultural Area (i.e., Greenbelt Plan area) in the Region of Peel Official Plan.

4.2 Region of Peel Official Plan

Section 3.3 of the Region of Peel Official Plan recognizes the *Agricultural System*, which includes lands designated as Prime Agricultural Area and Rural Lands. The portion of the Subject Lands proposed for development is no longer located within the Region of Peel’s Rural System designation (Appendix C). As previously stated, the majority of the Subject Lands have recently been included in the Region of Peel’s 2051 New Urban Area following the Region’s *settlement area* boundary expansion (SABE). Therefore, the proposed *development* is not required to be consistent with the agricultural policies of the Region of Peel Official Plan.

It should be noted that on July 1, 2024, through Ontario Bill 23 and Bill 185, the Region of Peel became an upper-tier municipality without planning authority. As of July 1, 2024, the Region of Peel Official Plan became a plan of the local municipalities, which includes the Town of Caledon. As such, the Town of Caledon is required to implement, and ensure applications conform to the Region of Peel Official Plan

4.3 Town of Caledon Official Plan

The Subject Lands are primarily designated Prime Agricultural Area in Schedule A – Town of Caledon Land Use Plan of the City’s Official Plan (2018). The remaining land adjacent the watercourses associated riparian area are designed as Environmental Policy Area and are located within the boundaries of the Greenbelt Plan (Appendix D). *Development* on the Subject Lands is proposed outside of the Greenbelt Plan Area. Section 4.1.3 of the Official Plan identifies Prime Agricultural Areas and General Agricultural Areas as lands that “generally coincide with a relatively large area of high capability agricultural lands recognized as Class 1, 2, and 3 agricultural lands according to the Canada Land Inventory of the Soil Capability for Agriculture through the Region of Peel Official Plan.”

The requirement to complete an Agricultural Impact Assessment is outlined in Section 5.1.1.17.1, that states:

“Proposals in the Prime Agricultural Area that have the potential to negatively impact agricultural uses will require an Agricultural Impact Assessment.”

The proposed industrial *development* is limited to lands that are currently designated Prime Agricultural Area, and must meet the requirements outlined in section 5.1.1.17.2 that state:

“The Agricultural Impact Assessment must be conducted by a qualified agricultural expert such as a Professional Agrologist or Agronomist, must describe the proposed development including

the need for the proposed development in the Town, the on-site and surrounding land uses and agricultural capabilities, the physical and socio-economic components of the agricultural resource base, the land use compatibility of the proposed use with surrounding agricultural uses and agricultural community, must identify the direct and indirect impacts of the proposed development on existing agricultural uses, and on the flexibility of the area to support different types of agriculture, must provide an alternative location analysis, and must identify possible mitigative measures or methods of reducing any adverse impacts to the agricultural resource base and agricultural community.”

Section 4.2.3.3.1 outlines the requirements for settlement area boundary expansion and states that “Expansions to settlements will require an amendment to this Plan and shall be undertaken through a municipal comprehensive review”. Section 4.2.3.3.1 states in part that the municipal comprehensive review “will address the following:

- h) An examination of reasonable alternative locations which avoid Prime Agricultural Areas, and reasonable alternative locations on lands with lower priority in the Prime Agricultural Area;
- j) Compliance with minimum distance separation formulae;
- o) Mitigation of impacts of settlement area expansions on agricultural operations which are adjacent to or close to the settlement area to the greatest extent feasible;”.

As stated in section 5.1.1.1, the objective of the land use policies for lands designated as Prime Agricultural Area is “To protect Prime Agricultural Areas by encouraging the business of agriculture, by providing for innovation and diversification within agriculture, by providing additional economic opportunities through On-farm Diversified Uses, and by limiting non-agricultural uses and non-agricultural severances.”

The AIA will address section 4.1.3, 4.2.3, and 5.1.1.1 of the Town of Caledon Official Plan.

4.4 Future Caledon Official Plan

The Future Caledon Official Plan (2024) was adopted by Town Council on March 26, 2024, which will guide *development* to the year 2051. The Future Caledon Official Plan has not yet been approved by the Province; however, the proposed *development* has been assessed for consistency with the policies of the Future Caledon Official Plan in the event that the Future Caledon Official Plan is approved by the Province prior to submission of the application.

Schedule B4 of the Future Caledon Official Plan shows that the portion of the Subject Lands on which *development* is proposed is designated New Employment Area within the Town’s Urban Area. No portion of the Subject Lands proposed for development are located within the Town’s Rural Lands, nor Prime Agricultural Area land use designation. Therefore, the agricultural policies of the Future Caledon Official Plan will not apply to the proposed *development* following provincial approval of the Future Caledon Official Plan. If the Province modifies the Future Caledon Official Plan so that any portion of the Subject Lands where development is proposed are excluded from the Urban Area, the AIA will be updated through an addendum to evaluate the proposed *development’s* consistency with the approved Future Caledon Official Plan.

5. STUDY FINDINGS

5.1 Physiography

The Subject Lands are located within the South Slope Physiographic Region (Chapman and Putnam, 1984). This physiographic region lies between the Oak Ridges Moraine to the north and east, the Peel Plain to the south, and the Niagara Escarpment to the west. The lands gently slope towards Lake Ontario and in this portion of the South Slope, the slope is smoothed, faintly drumlinized, and scored at intervals by valleys tributary to the Humber River system.

The bedrock geology of the South Slope includes the limestones of the Verulam and Lindsay Formations, the grey shales of the Georgian Bay Formations, and the reddish shales of the Queenston Formation. The South Slope contains a variety of soils that have developed upon tills which are sandier in the east of the South Slope and more clayey and steeper sloped in the west. Bondhead Loam and Darlington Loam soils are the more desirable agricultural soils in the area, whereas the Chinguacousy Clay Loam, Oneida Clay Loam, and Jeddo Clay Loam soils have drainage conditions and clayey textures that make it harder to work.

Typical farm operations on the South Slope include small livestock operations, equestrian operations, and hobby farms. There appears to have been a decline in the overall number of livestock operations in this area and an increase in field crop production. Crops are predominantly common field crops such as hay, pasture, wheat, corn, and soybean.

5.2 Climate

Climate data is available through Environment Canada's National Climate Data and Information Archive's online database. Climate Normals and Extremes for the Albion Field Centre station (1981-2010) were obtained from the online database (Appendix E).

Environment Canada's Albion Field Centre station is located approximately 12.26 km from the Subject Lands. Records show that this area receives an average of 821.5 mm of precipitation annually; 681.0 mm of rainfall and 140.5 cm of snowfall. The daily average temperature ranges from a high of 19.9°C to a low of -7.0°C.

The Ministry of Agriculture and Food Factsheets provide data on crop production and growing seasons across Ontario. The rate of development of crops from planting to maturity is mainly dependent upon temperature. Areas within the Region of Peel begin to experience average temperatures greater than 10°C starting May 7th before reaching temperatures greater than 12.8°C for 3 consecutive days around May 19th. During this time and up until the season's average ending date, September 30th, the area accumulates an average of 3200 crop heat units (CHU).

On average, the last spring frost in the Caledon area occurs on May 3rd. The first fall frost is expected on October 8th. This provides the surrounding area with a growing period of approximately 150-170 days. The climate in the Caledon area provides a good overall growing period that can support a wide range of crops.

5.3 Agricultural Crop Statistics

Agricultural crop statistics are available from OMAFRA and Statistics Canada's Agriculture and Food Statistics Census of Agriculture. The Subject Lands are located within the Census Western Ontario Region,

Peel Region. Agricultural crop statistics were obtained from the online database and are included in Appendix F. This data provides a general overview of agriculture and agri-food operations in the area but is unlikely to be inclusive of all operations present at the time of this report.

The County and Township Agricultural Profile for Peel includes data from 2011, 2016, and 2021 census periods. The total number of farms in the Town of Caledon decreased from 345 in 2016 to 308 in 2021, while total cropland increased from 63,239 acres in 2016 to 73,460 acres in 2021.

Field crops grown in the Town of Caledon include winter wheat, oats for grain, barley for grain, mixed grains, corn for grain, corn for silage, hay, soybeans, and potatoes. According to census data, field crop production between 2016-2021 decreased for potatoes, whereas all other major field crop production in the Town of Caledon increased in production. Census data from 2016 shows that there was no production of winter wheat, oats for grain, barley for grain, corn for grain, or corn for silage. This is highly unlikely to be reflective of the true crop production in the Town of Caledon in 2016.

Fruit crops grown in the Town of Caledon include apples, grapes, strawberries, and raspberries. Fruit crop acreage increased from 149 acres in 2016 to 196 acres in 2021. Vegetable crops grown in the Town of Caledon include sweet corn, tomatoes, green peas, and green or wax beans. Vegetable crop acreage increased from 240 acres in 2016 to 479 acres in 2021.

5.4 Specialty Crop Areas

The *PPS* defines a *specialty crop area* as: “areas designated using guidelines developed by the Province, as amended from time to time. In these areas, specialty crops are predominantly grown such as *tender fruits* (peaches, cherries, plums), grapes, other fruit crops, vegetable crops, greenhouse crops, and crops from agriculturally developed organic soil, usually resulting from:

- a) soils that have suitability to produce specialty crops, or lands that are subject to special climatic conditions, or a combination of both;
- b) farmers skilled in the production of specialty crops; and
- c) a long-term investment of capital in areas such as crops, drainage, infrastructure and related facilities and services to produce, store, or process specialty crops.”

There are two *specialty crop areas* recognized by the Province through the Greenbelt Plan: the Niagara Peninsula Tender Fruit and Grape Area and the Holland Marsh. Neither the Subject Lands, nor any portion of the *Study Area*, are located within either of these *specialty crop areas*. Additionally, the Subject Lands do not exhibit any of the characteristics of a *specialty crop area*.

5.5 Regional Soils

5.5.1 Soil Series

The *Soil Survey of Peel County - No. 18* of the Ontario Soil Survey (Hoffman, D.W., Richards, N.R., 1953) includes a soil map that shows the distribution of the various soil series in the Region of Peel. The digital Provincial Soil Resource database is compiled and administered by the Ontario Ministry of Agriculture, Food and Agribusiness (OMAFRA) and includes most of the soil surveys completed in Ontario. Much of this information is accessible from the Province’s Agricultural Information Atlas. The database was accessed in November 2024.

The *Soil Survey of Peel County* mapping shows that the soils at 12489 Dixie Road are comprised primarily of Chinguacousy Clay Loam (83.89%), with smaller amounts of Bottom Land (14.02%), Oneida Clay Loam (1.20%), and Pontypool Sandy Loam (0.90%). This mapping also shows that the soils at 12861 Dixie Road are comprised almost entirely of Chinguacousy Clay Loam (87.05%), with a smaller amount of Bottom Land (12.95%) along Dixie Road. Regional scale soil mapping for 12489 Dixie Road and 12861 Dixie Road is shown in Figures 2A and 2B respectively.

Chinguacousy Clay Loam Soils

The *Soil Survey of Peel County* mapping shows that the soils on the Subject Lands are almost entirely comprised of the Chinguacousy Clay Loam soils. The regional soil survey mapping is shown in Figure 2.

The Chinguacousy soil series is the imperfectly drained member of the Oneida Catena. Oneida soils are well drained and have developed from a calcareous, silty clay to silty clay loam textured till, common throughout the South Slope physiographic region.

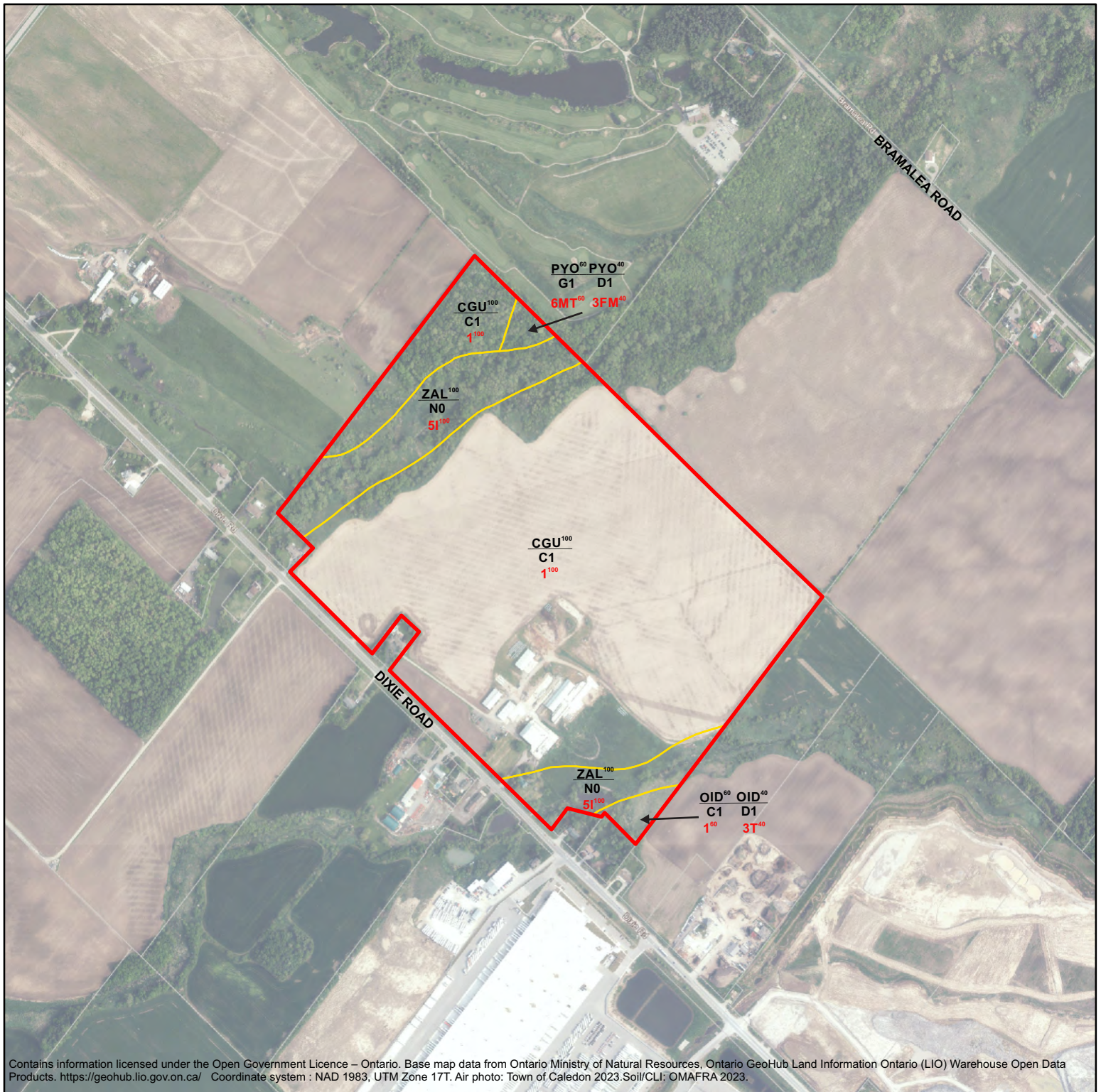
The imperfectly drained Chinguacousy soil series has developed from the same calcareous, silty clay to silty clay loam till, parent material. The friable, silty clay loam surface (Ap) is 20 to 25 cm deep and contains few stones. It overlies a firm, clay loam to silty clay loam subsoil (Bmgj and Btgj horizons) and typically, the firm, parent material (Ckgj) is found at a depth between 60 and 80 cm.

Chinguacousy soils are imperfectly drained soils and mottles are present in the upper 50 cm of the soil profile. Mottles are described as few to common and distinct. These soils have a relatively high water-holding capacity. They are moderately to slowly permeable and surface runoff is moderate. Excess soil water is often found in the upper soil horizons as a result of high groundwater or perched conditions during the growing season, most commonly in the spring and fall which corresponds to sowing and harvest periods. The high-water content in the soils during the spring may delay seeding.

Oneida Clay Loam

The Oneida *catena* developed on clay till derived from shale and, to a lesser extent, limestone materials. The amount of shale present is considerably greater than the till in the King *catena*. The Oneida series is the well drained member of the Oneida *catena*. Oneida Clay Loam soils occur in smooth, moderately sloping topography and are characteristic of the Grey-Brown Podzolic Great Soil Group. These soils have slow percolation of moisture through the *soil profile* but experience rapid runoff, making them well drained.

These soils have good internal drainage and supply of plant nutrients, making them well adapted to the growing of cereal grains, hay, *pasture*, and other crops. The growing of *forage* crops and the application of manure allow for excellent soil management. These soils are also low in organic matter, phosphate, potash, and nitrogen, which can be built up and maintained through applications of manure and mineral fertilizers.

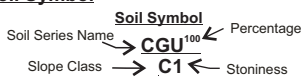


Contains information licensed under the Open Government Licence – Ontario. Base map data from Ontario Ministry of Natural Resources, Ontario GeoHub Land Information Ontario (LIO) Warehouse Open Data Products. <https://geohub.lio.gov.on.ca/> Coordinate system : NAD 1983, UTM Zone 17T. Air photo: Town of Caledon 2023. Soil/CLI: OMAFRA 2023.

Legend

- Subject Lands
- Soil/CLI

Soil Symbol



Soil Series

- CGU - Chinguacousy Clay Loam
- OID - Oneida Clay Loam
- PYO - Pontypool Sandy Loam
- ZAL - Bottomland

Slope Classes (%)

- A s - Level slopes (0.0 - 0.5%)
 - B b - Nearly level slopes (0.5 - 2.0%)
 - C c - Very Gentle slopes (2.0 - 5.0%)
 - D d - Gentle slopes (5 - 9%)
 - E e - Moderate slopes (9 - 15%)
 - F f - Strong slopes (15 - 30%)
 - G g - Very Strong slopes (30 - 45%)
- Simple Slopes (uniform, lengths > 50 metres) denoted in upper case
 Complex Slopes (short, irregular slopes) denoted in lower case

Stoniness/Rockiness

- 0 - Non
- 1 - Slightly
- 2 - Moderately
- 3 - Very
- 4 - Exceedingly
- 5 - Excessively



CLI AGRICULTURAL CAPABILITY CLASSES

- Class 1** - Soils in this class have no significant limitations to use for common field crops
- Class 3** - Moderately severe limitations that reduce the choice of crops, or require special conservation practices.
- Class 5** - Very severe limitations that restrict their capability to produce perennial forage crops, improvement practices are feasible.
- Class 6** - Soils in this class are capable only of producing perennial forage crops, and improvement practices are not feasible.

CLI AGRICULTURAL CAPABILITY SUBCLASSES

- Subclass F** - Low natural fertility due to lack of available nutrients, pH, low exchange capacity, high CaCO₃, or toxic chemicals
- Subclass I** - Inundation by streams or lakes: Flooding by streams and lakes causes crop damage or restricts agricultural use.
- Subclass M** - Low moisture holding capacity caused by adverse inherent soil characteristics.
- Subclass T** - Topography due to steepness of slope.

Figure 2A
 Regional Soils and CLI Mapping for
 12489 Dixie Road

Agricultural Impact Assessment
 12489 and 12861 Dixie Road, Town of Caledon

Prepared for: **QuadReal Property Group**

Prepared by: **COLVILLE CONSULTING INC.**

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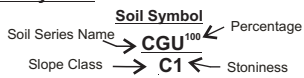
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Legend

- Subject Lands
- Soil/CLI

Soil Symbol



Soil Series

- CGU - Chinguacousy Clay Loam
- ZAL - Bottomland

Slope Classes (%)

- A a - Level slopes (0.0 - 0.5%)
 - B b - Nearly level slopes (0.5 - 2.0%)
 - C c - Very Gentle slopes (2.0 - 5.0%)
 - D d - Gentle slopes (5 - 9%)
 - E e - Moderate slopes (9 - 15%)
 - F f - Strong slopes (15 - 30%)
 - G g - Very Strong slopes (30 - 45%)
- Simple Slopes (uniform, lengths > 50 metres) denoted in upper case
 Complex Slopes (short, irregular slopes) denoted in lower case

Stoniness/Rockiness

- 0 - Non
- 1 - Slightly
- 2 - Moderately
- 3 - Very
- 4 - Exceedingly
- 5 - Excessively



CLI AGRICULTURAL CAPABILITY CLASSES

- Class 1** - Soils in this class have no significant limitations to use for common field crops
- Class 5** - Very severe limitations that restrict their capability to produce perennial forage crops, improvement practices are feasible.

CLI AGRICULTURAL CAPABILITY SUBCLASSES

- Subclass I** - Inundation by streams or lakes: Flooding by streams and lakes causes crop damage or restricts agricultural use.

Figure 2B
 Regional Soils and CLI Mapping for
 12861 Dixie Road

Agricultural Impact Assessment
 12489 and 12861 Dixie Road, Town of Caledon

Prepared for: **QuadReal Property Group**

Prepared by: **COLVILLE CONSULTING INC.**

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Pontypool Sandy Loam

Pontypool sandy loams have developed from poorly sorted glacio-fluvial sands and gravels. The Pontypool series is a well to excessively drained soil and are typically found on irregular, steeply sloping topography. These soils are not considered to be good agricultural soils for the production of common field crops because of limitations relating to adverse topography (i.e., steep, irregular slopes), excessive drainage which often leads to droughty conditions, and low inherent fertility. These soils on steeper slopes are also highly susceptible to erosion when not under a permanent sod cover. The topography of the Pontypool Sandy Loam varies from undulating to strongly rolling. Due to the character of the topography and the high proportion of row crops grown on the Pontypool soils, protective measures should be used to control the erosion hazard. For the most part, slopes of this type range from 5-15%. Both the external and internal drainage are good.

Although very little uncleared land remains on the type, maple and beech appear to have been the dominant trees. A wide range of crops are grown on this soil. The Pontypool Sandy Loam can be cultivated with ease and is well-adapted to the production of corn, peas and tomatoes. Usually, the farm business consists of a combination of dairying, crop production and fruit growing. Since the sandy loam requires heavy applications of manure to maintain and build up the organic matter content, the combination of dairy farming and growing of canning crops works out very well.

Bottom Land

Bottom Land soils are low lying soils which occur along stream courses and are often subject to flooding. These soils are immature and show little horizon differentiation. The *soil profile* usually consists of variable textures and the drainage also often varies but is usually poor.

Bottom Land soils are not well suited for most common field crops. They can be used for *pasture* in some locations while in others they are not farmed. Bottomland soils in Peel Region tend to be best suited for perennial crops or left to naturalize.

Table 1. Regional CLI Capability Ratings for 12489 Dixie Road				
Soil Series	CLI Rating	Slope Class	Area (Ha)	% of Subject Lands
Chinguacousy Clay Loam	1	C	48.67	83.89%
Oneida Clay Loam	1	C	0.42	0.72%
Oneida Clay Loam	3T	D	0.28	0.48%
Pontypool Sandy Loam	3FM	D	0.21	0.36%
Bottom Land	5I	G	8.13	14.02%
Pontypool Sandy Loam	6MT	G	0.31	0.54%
Total			58.02	100.00%

Table 2. Regional CLI Capability Ratings for 12861 Dixie Road

Soil Series	CLI Rating	Slope Class	Area (Ha)	% of Subject Lands
Chinguacousy Clay Loam	1	C	50.69	87.05%
Bottom Land	5I	G	7.54	12.95%
Total			58.23	100.00%

5.5.2 CLI Agricultural Land Classification

The Canada Land Inventory (CLI) is an interpretative system for assessing the effects of climate and soil characteristics on the limitations of land for growing common field crops. The CLI system has seven soil classes that descend in quality from Class 1, which have no significant limitations, to Class 7 soils which have no agricultural capability for common field crops. Class 2 through 7 soils have one or more significant limitations, and each of these are denoted by a capability subclass. There are thirteen subclasses described in CLI Report No. 2 (1971). Eleven of these subclasses have been adapted to Ontario soils. More information regarding the CLI Classification system is provided in Appendix G.

According to the provincial database, the majority of the property at 12489 Dixie Road is mapped as CLI Class 1 lands (84.60%), and to a lesser extent CLI Class 3 lands (0.84%), CLI Class 5 lands (14.02%) and CLI Class 6 lands (0.54%), as shown in Table 1. The majority of the property at 12861 Dixie Road is mapped as CLI Class 1 lands (87.05%), and to a lesser extent CLI Class 5 lands (12.95%), as shown in Table 2.

The Oneida and Chinguacousy soils are rated CLI Class 1. These soils have no or very minor limitations for common field crop production. On the D class slopes, the Oneida soils are rated CLI Class 3T. These soils have moderately severe limitations for common field crop production due to adverse topography. CLI Class 3FM lands also have moderately severe limitations due to low fertility and droughtiness. CLI Class 5I lands have very severe limitations for common field crop production due to periodic flooding by streams or lakes and are best suited to perennial crops or left to naturalize. The severity of the limitations for the CLI Class 6MT lands are such that they are only capable of being used for unimproved pasture. Agricultural production on these soils is limited by adverse topography and low moisture holding capacity. These soils are also highly susceptible to erosion on exposed slopes. Arable agriculture is not recommended on these soils.

5.5.3 Evaluation of Agricultural Productivity

The Hoffman Productivity Indices (HPI) are used to relate the productivity of land to the CLI capability based on expected yields. Assuming the same level of management is applied to different CLI classes, the productivity for each class will differ. Hoffman (1971) determined the average yields produced for common field crops on CLI classes 1 through 4 lands. He determined that CLI Class 2 lands produce yields approximately 20% less than CLI Class 1 lands and therefore has a value of 0.80 relative to a CLI Class 1 soil. The value for a CLI Class 3 soil is 0.64 and for a CLI Class 4 soil the value is 0.49. The values for CLI Classes 5, 6, & 7 were obtained through extrapolation. The HPI was calculated for the Subject Lands to assess the relative productivity of the land for common field crop production.

An HPI rating above 0.9 is considered to be equivalent in productivity to a CLI Class 1 soil. An HPI of between 0.73-0.89 is equivalent in productivity to a CLI Class 2 soil, an HPI in the range of 0.58-0.72 is equivalent in productivity to a CLI Class 3 soil, and so forth.

Table 3 below show the results of the HPI calculations using the CLI classes for 12489 Dixie Road. The HPI was calculated to be 0.91, which is equivalent in productivity to CLI Class 1 soils.

Table 4 below show the results of the HPI calculations using the CLI classes for 12871 Dixie Road. The HPI was calculated to be 0.92, which is equivalent in productivity to CLI Class 1 soils.

Table 3. Relative Agricultural Productivity for 12489 Dixie Road					
CLI Class	Area (HA)	Percentage	Points	HPI	Total Productivity Index Range
1	49.09	84.60%	1	0.85	0.90 – 1.00
2	0	0.00%	0.8	0.00	0.73 – 0.89
3	0.49	0.84%	0.64	0.01	0.58 - 0.72
4	0	0.00%	0.49	0.00	0.43 - 0.57
5	8.13	14.02%	0.33	0.05	0.28 - 0.42
6	0.31	0.54%	0.17	0.00	0.10 - 0.27
7, O, & NM	0	0.00%	0.02	0.00	0.00 – 0.09
	58.02	100.00%		0.91	CLI Class 1

Table 4. Relative Agricultural Productivity for 12861 Dixie Road					
CLI Class	Area (HA)	Percentage	Points	HPI	Total Productivity Index Range
1	50.69	87.05%	1	0.87	0.90 – 1.00
2	0	0.00%	0.8	0.00	0.73 – 0.89
3	0	0.00%	0.64	0.01	0.58 - 0.72
4	0	0.00%	0.49	0.00	0.43 - 0.57
5	7.54	12.95%	0.33	0.04	0.28 - 0.42
6	0	0.00%	0.17	0.00	0.10 - 0.27
7, O, & NM	0	0.00%	0.02	0.00	0.00 – 0.09
	58.23	100.00%		0.92	CLI Class 1

5.6 Land Use

A reconnaissance level land use survey was completed on December 12, 2023. The land use survey identified the number and type of agricultural operations (both active and inactive), *agriculture-related uses*, *on-farm diversified uses*, and the extent and type of *non-agricultural land uses* within the *Study Area*. Inactive farm operations were evaluated to determine whether they should be considered an *empty livestock facility* or as a *remnant* farm. *Remnant* farms have no infrastructure that is suitable for housing *livestock*, whereas

the infrastructure for an *empty livestock facility* is still in a condition that could permit the keeping of *livestock* with minimal investment. The crop types observed within the *Study Area* were recorded and mapped.

The purpose of the land use survey is to document the mix of agricultural and *non-agricultural uses* within the Subject Lands and *Study Area*; identify agricultural operations that may be sensitive to the introduction of new land uses; and identify *livestock facilities* to calculate the *MDS* setback requirements. Figure 3 shows the land uses and crop types observed. Photographs from the land use survey can be found in Appendix H. All observed land uses are numbered, and short descriptions of these operations are included in the land use survey notes in Appendix I.

The land use survey identified seven agricultural uses in and adjacent the *Study Area*. The agricultural uses include three active livestock operations, three empty livestock facilities, and one remnant livestock operation.

No *agriculture-related use* or *on-farm diversified uses* were observed during the land use survey and desktop review.

In addition to the approximately 46 *non-farm residences* observed, six *non-agricultural uses* were identified within the *Study Area*. These uses include four commercial uses, one institutional use, and one recreational use.

5.6.1 Agricultural Uses

The *PPS* definition of *agricultural uses*: “means 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.”

Farm types were noted and identified as either active or inactive farm operations (e.g., *empty livestock facilities*) *livestock operations*, *cash crop operations*, or *hobby farms*.

Subject Lands

Two *agricultural uses* were identified on the Subject Lands during the land use survey and desktop review. A retired feedlot operation, “Sunnymead Farms Ltd.” (Site #7) is located on the 12489 Dixie Road property. Attempts to get Information from the landowner on the property were unsuccessful via site visit, email and phone call. Several agricultural buildings were observed on the property including 2 large barns, 2 Quonset huts, and 3-4 implement and hay sheds. It is understood that the livestock operation has been retired for several years, and that all agricultural infrastructure will be removed as part of the proposed development.

The second agricultural use observed on the Subject Lands was an active livestock operation (Site #3) located at 12861 Dixie Road. Information on the agricultural operation and surrounding operations was obtained from the landowner via phone call. The livestock operation on site is a former feedlot that is slowly being phased out and moved to a new location in the area. Livestock barns on the Subject Lands are currently housing beef cattle until the new barns have been built at the new location. Agricultural infrastructure on site includes an old bank barn, pole barn, hay sheds and outdoor manure storage. It is understood that that all agricultural infrastructure will be removed as part of the proposed development.



Legend

- Subject Lands
- - - Secondary Study Area
- - - Mayfield West Study Area
- - - Municipal Boundary

Agricultural Use

- Active Livestock
- Remnant Livestock Operation
- Empty Livestock Operation

Non-Agricultural Uses

- Non-farm Residence
- Recreational
- Commercial
- Institutional

Land Use Type

- Soybeans
- Corn
- Hay/Pasture
- Winter Wheat
- Cultivated
- Idle
- Recreational
- Disturbed/Under Construction

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Figure 3
Land Use Mapping

Agricultural Impact Assessment for
12489 & 12861 Dixie Road, Town of Caledon

Prepared for: **QuadReal Property Group**

Prepared by: **COLVILLE CONSULTING INC.**

DATE: December 2024

FILE: C23120

Study Area

Within the *Study Area*, five *agricultural uses* were identified. These include three livestock operations (#1 – Dairy Operation & #2 - Beef), two *empty livestock facilities* (#5 and #13) and one *remnant farm* (#4).

5.6.2 Agriculture-Related Uses

Agriculture-related uses are farm-related commercial and industrial uses. As defined in the *PPS*, these are uses “that are directly related to farm operations in the area, support agriculture, benefit from being in close proximity to farm operations, and provide direct products and/or services to farm operations as a primary activity.” These uses may include operations such as:

- ♦ retailing of agriculture-related products (e.g., farm supply co-ops, farmers’ markets, and retailers of value-added products like wine or cider made from produce grown in the area);
- ♦ *livestock* assembly yards;
- ♦ farm equipment repair shops;
- ♦ industrial operations that process farm commodities from the area such as abattoirs, feed mills, grain dryers, cold/dry storage facilities and fertilizer storage facilities, which service agricultural area;
- ♦ distribution facilities;
- ♦ food and beverage processors (e.g., wineries and cheese factories); and
- ♦ agricultural biomass pelletizers.

No *Agriculture-related uses* were identified on the Subject Lands or within the *Study Area*.

5.6.3 On-Farm Diversified Uses

The *PPS* defines on-farm diversified uses as “uses that are secondary to the principal agricultural use of the property and are limited in area. On-farm diversified uses include, but are not limited to, home occupations, home industries, Agri-tourism uses, uses that produce value-added agricultural products, and electricity generation facilities and transmission systems, and energy storage systems.”

No *on-farm diversified uses* were identified on the Subject Lands or within the *Study Area*.

5.6.4 Non-Agricultural Uses

Non-agricultural land uses include *non-farm residences*, residential clusters, hamlets and *settlement areas*, municipal utilities, commercial and industrial operations, recreational uses, and institutional uses. Approximately 46 *non-farm residences* were observed throughout the *Study Area*.

Excluding the *non-farm residences*, six *non-agricultural uses* were identified within the *Study Area*. These uses include four commercial uses, one institutional use, and one recreational use (a golf course).

5.6.5 Land Use Summary

Table 5 below summarizes the types of land uses observed within the Subject Lands and *Study Area*. The lands uses observed within the *Study Area* are reflective of an agricultural area in transition to more urbanized land uses.

Table 5. Summary of Observed Land Uses			
	Total Number	Active	Empty or Remnant
Agricultural	7	3 – Livestock Operations	3 – Empty Livestock Facility 1 – Remnant Farm
Agriculture-Related	0	0	0
On-farm Diversified	0	0	0
	Total Number	Type	
Non-Agricultural	52	4 – Commercial 1 – Institutional 1 – Recreational 46 – Non-Farm Residences	

5.6.6 Cropping Pattern

The land use survey was completed on December 12, 2023. The crops were identified based on observations of crop stubble and supplemented with aerial photographic interpretation. As shown in Figure 3, the crops grown on the Subject Lands and in the *Study Area*, are predominantly a mix of common field crops (e.g., corn, winter wheat, and soybeans). Where the crop type could not be determined the lands were mapped as *cultivated* lands. Small areas of hay/pasture, idle lands, and disturbed lands were also mapped.

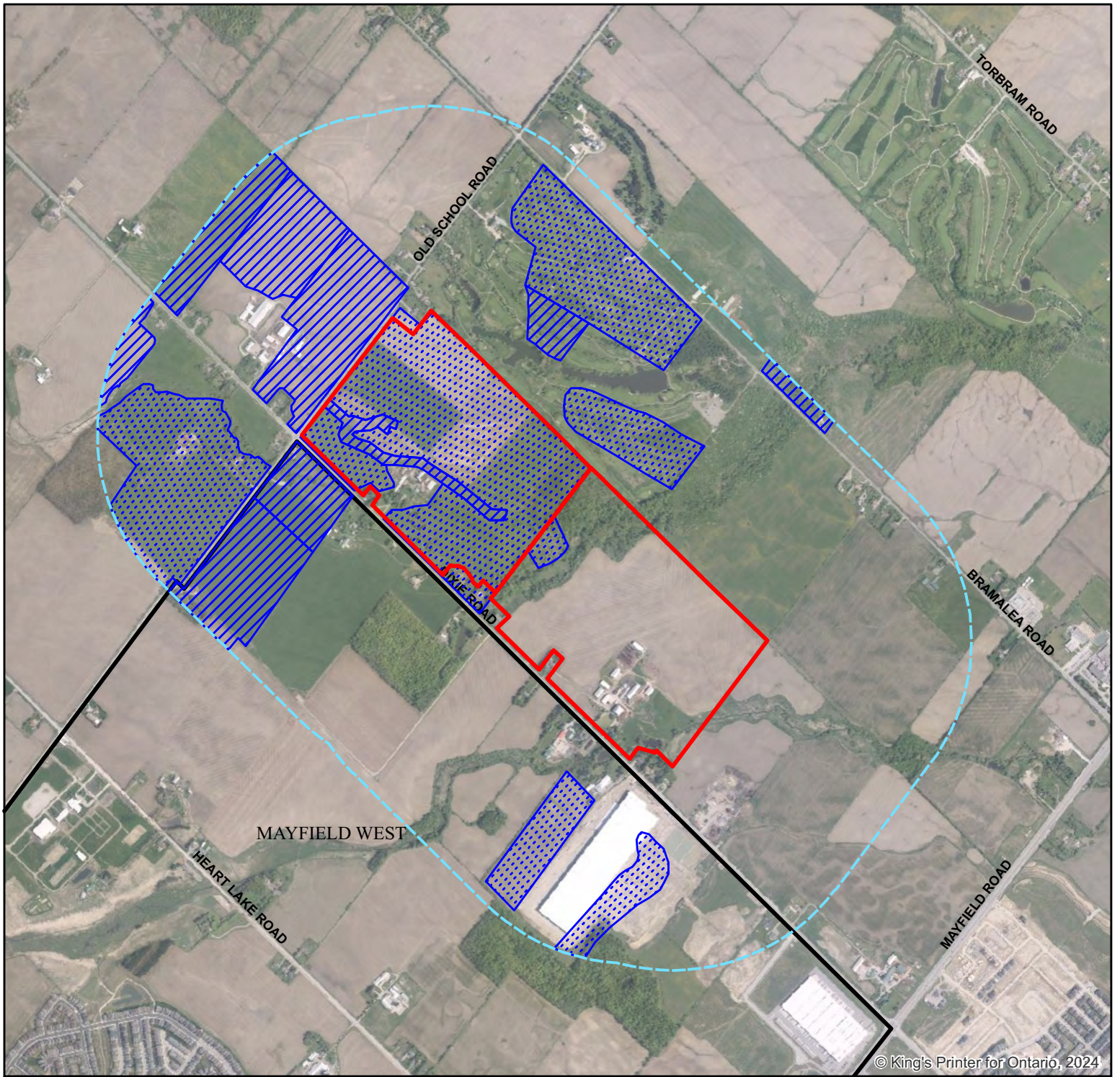
5.7 Land Improvements

OMAFRA's Agricultural Information Atlas (AgMaps) provides artificial drainage mapping for the province. This online tool was accessed to obtain drainage mapping for the Subject Lands and *Study Area*. Figure 4 below shows the drainage improvements within the Subject Lands and *Study Area*.

5.7.1 Drainage Improvements on Subject Lands

According to OMAFRA's online mapping tool, AgMaps, approximately 59.02 ha of the Subject Lands are tile drained with approximately 55.22 ha of the Subject Lands contain random tile drainage and 3.80 ha systematically tile drained. The vast majority of tile drainage is located on the northern portion of the Subject Lands on the 12861 Dixie Road property. Approximately 53.7ha of systematic tile drainage on the property is primarily associated with the cultivated portions of the Subject Lands. Systematic tile drainage was installed in 2019 and is generally located within the watercourse and riparian areas that traverses the property as identified in Figure 4 below. 3.8ha of systematic tile drainage is also present and associated with low areas along the western side of the property. The majority of the tile drainage on the Subject Land will need to be removed or rendered ineffective to facilitate development.

On the 12489 Dixie Road property, random tile drainage is limited to a small area (1.52ha) located along the northern boundary of the property adjacent to the watercourse. Historical air photos do not indicate that this area has been farmed within the last 20 years. No development is proposed within this portion of the Subject lands



- Legend**
- Subject Lands
 - Secondary Study Area (750m)
 - Mayfield West Study Area Boundary
 - Tile Drainage Systematic
 - Tile Drainage Random

Figure 4 OMAFRA Tile Drainage Mapping

Agricultural Impact Assessment
12489 and 12861 Dixie Road, Town of Caledon, ON

Prepared for: **QuadReal Property Group**

Prepared by: **COLVILLE CONSULTING INC.**

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.

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Approximately 9.1 ha of random tile drainage is anticipated to remain on the Subject Lands within the Greenbelt designated area.

No other random or systematic tile drainage, nor any constructed drains were observed during land use surveys or mapped through AgMaps on the Subject Lands.

5.7.2 Drainage Improvements in Study Area

Random tile drainage and a smaller area of systematic tile drainage are located within the *Study Area*. The systematic and random tile drainage is primarily located to the north and northwest portion of the *Study Area*. There is approximately 71.0 ha of systematic tile drainage and 127.9 ha of random tile drainage within the *Study Area*.

According to OMAFRA's online mapping tool, AgMaps, no portion of the *Study Area* contains constructed drains.

5.7.3 Other Land Improvements

No other investments in land improvements within the Subject Lands nor *Study Area* were identified using the AgMaps Portal or during the land use survey.

5.8 Fragmentation of Agricultural Lands

Fragmentation of agricultural lands can have a negative impact on the viability of agricultural lands and its long-term preservation for agricultural purposes. Fragmentation of farmlands can diminish the economic viability of the agricultural area by reducing farming efficiency and increasing operating costs for farmers who must manage multiple small, separated parcels. Larger farm parcels can accommodate a wider range of agricultural activities and ensure long term viability of the property. In contrast, smaller farm parcels cannot offer the same flexibility and may not be viable as standalone parcels. Generally, smaller farm parcels cannot sustain a family farm without a secondary source of income (off farm) to maintain the agricultural operation.

Additionally, agricultural areas which have been fragmented often have a higher occurrence of *non-agricultural land uses*, which in turn can result in more frequent occurrences of conflict arising between agricultural and *non-agricultural land uses*. Agricultural areas with lower levels of fragmentation are considered to be more viable economically for *agricultural uses* and generally have fewer sources of *non-agricultural land use* conflicts. In most cases, these areas have a higher priority for protection. High levels of fragmentation in an agricultural area lower the areas agricultural priority.

The *PPS* planning policies recognize the impact of fragmentation on agricultural lands and try to minimize the fragmentation of agricultural lands for *non-agricultural uses*. For example, the *PPS* policies do not permit lot creation in *prime agricultural areas* for residential purposes. New permitted *development* in *prime agricultural areas* should avoid further fragmentation of the agricultural land base whenever possible.

Based on our review of the lot fabric in the *Study Area* using AgMaps and direct observation of residential lots, there is a mix of parcel sizes ranging from single residential (< 1 ha) to large agricultural parcels (>50 ha). A number of the parcels within the agricultural land base are not suitably sized for a variety of *agricultural uses*.



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- Legend**
- Subject Lands
 - Secondary Study Area (750m)
 - Mayfield West Study Area Boundary
- Regional of Peel Official Plan (2022)**
- Rural System
 - 2051 New Urban Boundary

Figure 5 Fragmentation of Agricultural Land Base

Agricultural Impact Assessment
12489 and 12861 Dixie Road, Town of Caledon, ON

Prepared for: **QuadReal Property Group**

Prepared by: **COLVILLE CONSULTING INC.**

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. Land Use Plan: Town of Caledon Official Plan (2023) Schedule B4 Land Use Designations.

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The majority of the Study Area has also been included in the 2051 New Urban Area within the Region of Peel Official Plan. Areas omitted from the 2051 New Urban Area are part of the Rural System and primarily consists of natural heritage corridors and marginal agricultural lands. The development application will not lead to further fragmentation of the agricultural land base as these lands are already planned for non-agricultural land uses. The lot fabric in the *Study Area* is shown in Figure 5 above.

5.9 Minimum Distance Separation

5.9.1 Application of MDS

The MDS is a land use planning tool developed by OMAFRA to minimize land use conflicts and nuisance complaints arising from odours generated by *livestock operations* as previously mentioned, the *MDS formulae* only applies to lands that are designated agricultural or rural outside of *settlement areas*. The Region of Peel has included the Subject Lands in the 2051 New Urban Area and considers these lands to be within the Urban System. The MDS formulae are not applied within an existing settlement area boundary.

The following MDS Guidelines are applicable to the proposed development. The italicized text below is sourced directly from the Minimum Distance Separation (MDS) Document, Publication 853 OMAFRA (2016).

Guideline #36. Non-Application of MDS Within Settlement Area

MDS I setbacks are NOT required for proposed land use changes (e.g., consents, rezonings, redesignations, etc.) within approved settlement areas, as it is generally understood that the long-term use of the land is intended to be for non-agricultural purposes.

No development on the Subject Lands is proposed to occur outside of the Settlement Area (Appendix A). The Subject Lands are primarily located within the Region of Peel Settlement Area Boundary (Appendix C). As per Guideline #36 above, the MDS I setbacks are not required for proposed land use changes on the Subject Lands as they are already located within an approved settlement area.

5.10 Economic and Community Benefits of Agriculture

Identifying the economic and community benefits associated with agriculture in the *Study Area* is an important consideration and informs the impacts associated with the proposed *development*. The agriculture and agri-food sector is one of the largest primary goods producing sectors and plays a key role in the Town of Caledon and Region of Peel economies. According to Census of Agriculture data, the total number of farms in the Region of Peel decreased from 440 in 2011, to 408 in 2016, to 377 farms in 2021. The Town of Caledon observed a similar trend of decreasing farm numbers, with data showing 365 farms in 2011, 345 farms in 2016, and 308 farms in 2021. These farms employ residents from the Region of Peel and the Town of Caledon, contributing economically to the area and supporting the *agri-food network*.

As of 2021, the agriculture, forestry, fishing and hunting industry employed approximately 1,465 individuals within the Region of Peel, which is a decrease from the 2,010 individuals employed in 2016. The Town of Caledon observed a similar decrease in individuals employed by the agriculture, forestry, fishing and hunting industry, with data showing the industry employed 600 individuals in 2016 and 505

individuals in 2021. Within the Region of Peel, there were approximately 6,993 agri-food businesses in 2021, with 569 of these businesses located within the Town of Caledon. Both the Region of Peel and the Town of Caledon have experienced a slight increase in agri-food businesses between 2016 and 2021.

As of 2021, of the 308 total farms within the Town of Caledon, seven farms were valued under \$200,000, three farms were valued between \$200,000 and \$499,999, 26 farms were valued between \$500,000 and \$999,999, and 272 farms were valued \$1,000,000 and over. Over the past three census periods, the number of farms valued at \$1,000,000 and over has increased, with the number of farms valued under \$1,000,000 decreasing.

The Subject Lands are located in a fast-developing area in which the lands are being transformed from agriculture to *non-agricultural uses*, in part due to the Region of Peel *settlement area* boundary expansion. While agriculture in this area still provides economic and community benefits, the influence of agriculture is waning in the *Study Area*.

With the implementation of mitigation measures to minimize indirect impacts on surrounding farm operations, it is expected that the proposed *development* will have negligible impact on the *agri-food network* in the short-term. In the long-term, the lands are expected to be brought into the Town of Caledon's settlement area boundary. The inclusion of these lands within the settlement area boundary will have a far greater impact on the *agri-food network*.

6. ASSESSMENT OF AGRICULTURAL PRIORITY

The *PPS* requires that settlement area boundary expansion avoid locating in *prime agricultural areas* whenever possible. Where this is not possible or practical, the *PPS* directs *development* to lands with lower agricultural priority. When choosing between two or more locations with the same or similar agricultural capability, the *PPS* directs *development* to “lower priority agricultural lands”. Although, neither the *PPS* nor OMAFRA specifically defines in policy “lower priority agricultural lands”, there are a number of considerations used by OMAFRA to determine the 'agricultural priority' of an area. These considerations include the ability of the site to comply with the requirements of *MDS I*, current land use, amount of capital investment in agricultural infrastructure, amount of land under active cultivation, existing degree of lot fragmentation to the surrounding agricultural land base, and proximity to incompatible land uses such as urban and rural *settlement areas*.

In the long term, the Subject Lands are destined for non-agricultural uses as a result of the Region’s decision to include these lands within the settlement area boundary. However, the Subject Lands are currently located within the Town of Caledon’s *prime agricultural area*. Therefore, an assessment of the agricultural priority of the Subject Lands is required to be consistent with OMAFRA’s draft Agricultural Impact Assessment Guidance Document. This analysis involves an assessment of whether the lands are considered to be part of a *specialty crop area*, the soil capability relative to other lands within the *Study Area*, the level of investment in agricultural infrastructure and land improvements, the parcel size, presence of existing *non-agricultural land uses*, ability to minimize potential conflict (e.g., meeting the *MDS I* setback requirements), and the zoning of the parcels.

Although there is a high percentage of prime agricultural land within the Subject Lands, we have concluded that the Subject Lands have a lower priority for the following reasons:

1. The main reason we consider these lands to be of lower priority agricultural lands is that the long-term future of agriculture in the area surrounding the Subject Lands is in question due to the inclusion of these lands within the 2051 New Urban Area in the Region of Peel Official Plan. This will eventually result in an increase in non-agricultural *development* in the future and the proposed removal of these lands from the Town of Caledon’s Prime Agricultural Area designation following the completion of the Future Caledon Official Plan, which must conform to the Region of Peel Official Plan;
2. The Subject Lands are not located within a *specialty crop area* and no specialty crops such as vegetable or fruit crops are grown in the vicinity;
3. The Subject Lands are located in close proximity to the Mayfield West *settlement area* boundary and the City of Brampton urban boundary. The close proximity and high concentration of *non-agricultural land uses* significantly increases the potential for conflicts with agriculture and make these lands less desirable to farm than other lands further removed from these non-agricultural influences;
4. High traffic volumes along Dixie Road and Mayfield Road make moving farm machinery difficult and dangerous at times. Traffic volumes are expected to increase as *development* within the *Study Area* continues;

5. *MDS I* setbacks can be met for the proposed *development* on the Subject Lands; and
6. The Region of Peel *settlement area* boundary and *non-agricultural land uses* creates potential *MDS II* setback constraints that are likely to significantly limit the opportunity for new or expanding *livestock operations* on and adjacent the Subject Lands.

7. ASSESSMENT OF ALTERNATIVE LOCATIONS

The evaluation of alternative locations as part of an AIA needs to demonstrate that higher quality agricultural land was avoided by selecting lower priority lands when *prime agricultural areas* cannot be avoided.

7.1 Provincial Policy

Policy 2.3.2.1 states that “In identifying a new settlement area or allowing a settlement area boundary expansion, planning authorities shall consider the following:

- a) the need to designate and plan for additional land to accommodate an appropriate range and mix of land uses;
- b) if there is sufficient capacity in existing or planned infrastructure and public service facilities;
- c) whether the applicable lands comprise specialty crop areas;
- d) the evaluation of alternative locations which avoid prime agricultural areas and, where avoidance is not possible, consider reasonable alternatives on lower priority agricultural lands in prime agricultural areas;
- e) whether the new or expanded settlement area complies with the minimum distance separation formulae;
- f) whether impacts on the agricultural system are avoided, or where avoidance is not possible, minimized and mitigated to the extent feasible as determined through an agricultural impact assessment or equivalent analysis, based on provincial guidance; and
- g) the new or expanded settlement area provides for the phased progression of urban development.”

The portion of the Subject Lands proposed for development are no longer provincially recognized as being part of a *prime agricultural area* following provincial approval of the Region of Peel Official Plan in November 2022. The long-term use of these lands will be for non-agricultural (i.e., urban) uses. Therefore, an assessment of alternative locations for settlement area boundary expansion is not required for the proposed development.

7.2 Evaluation of Alternative Locations

The updated Region of Peel Official Plan was approved by the Province and shows the location of development on the Subject Lands within the 2051 New Urban Area in the Urban System and designates the Subject Lands as Designated Greenfield Area. Therefore, the portion of Subject Lands proposed for development are no longer provincially recognized as being part of a *prime agricultural area*. Given the Subject Lands’ approved designation in the Region of Peel Official Plan and the level of non-agricultural *development* in the *Study Area*, the Subject Lands are a logical location for the proposed *development*.

7.2.1 Avoidance of Prime Agricultural Areas

The Region of Peel Official Plan was approved by the Province, designating Subject Lands as Designated Greenfield Area and maps them as part of the 2051 New Urban Area within the Urban System. The Provincial approval of the Region of Peel Official Plan has resulted in the areas of the Subject Lands

proposed for development being removed from the provincially recognized *prime agricultural area*. Therefore, the proposed *development* is consistent with Section 2.3.2.1. d) and will avoid the Region's *prime agricultural area*.

7.2.2 Low Priority Alternative Areas

Where it is not possible or practical to avoid lands within a *prime agricultural area*, the *PPS* directs *development* to locate on lands with lower agricultural priority. As discussed previously in this AIA, the location of the proposed development on the Subject Lands is no longer provincially recognized as being part of a *prime agricultural area* following provincial approval of the Region of Peel Official Plan in November 2022. The proposed development is therefore consistent with Policy 2.3.2.1 in the *PPS*.

7.3 Summary of Assessment of Alternative Locations

Assuming that the need for additional urban areas has been demonstrated, the removal of these lands from the Town's *prime agricultural area* for urban uses is consistent with provincial and regional policies. The Subject Lands are a reasonable choice of location as they are lower priority agricultural lands and the *MDS* setback requirements can be met.

8. ASSESSMENT OF IMPACTS TO AGRICULTURE

Farm operations can be adversely impacted by new non-agricultural *development* on adjacent lands. Non-agricultural *development* adjacent to agricultural lands can cause disruptions to existing farm practices as a result of construction activity, an increase in non-farm traffic, incidence of trespass and vandalism, and increased levels of noise, dust, and lighting. Farmers may also experience an increase in nuisance complaints from residents and/or patrons of non-agricultural facilities. These complaints are often related to issues such as odour, light, dust, and noise generated through *normal farm practices*.

The proposed industrial uses on the Subject lands will be located within a future urban area and as such the development proposal will have only limited direct and indirect impacts in the short-term. The development proposal will not have significant, long-term negative effects on the surrounding agricultural lands and community. Any long-term impacts to agricultural operations, activities and the agri-food network are primarily the result of the removal of the Subject Lands and surrounding lands from the agricultural land base by the Region.

8.1 Direct Impacts

8.1.1 Prime Agricultural Lands

8.1.1.1 12489 Dixie Road

The property is approximately 58.02ha (143.37 acres) in size, of which approximately 49.58ha (122.51 acres) are regionally mapped as *prime agricultural lands*. *Development* of the Subject Lands will lead to the loss of approximately 31.82 ha of *prime agricultural lands*. To mitigate this loss in the short-term, the lands should be kept in agricultural production until the land is needed for *development*.

8.1.1.2 12861 Dixie Road

The property is approximately 58.23 ha (143.58 acre) in size, of which approximately 50.69ha (125.26 acres) are regionally mapped as *prime agricultural lands*. *Development* of the Subject Lands will lead to the loss of approximately 41.97 ha of *prime agricultural lands*. To mitigate this loss in the short-term, the lands should be kept in agricultural production until the land is needed for *development*.

8.1.2 Agricultural Infrastructure

8.1.2.1 12489 Dixie Road

There is one empty livestock facility on the property. Agricultural infrastructure on site as part of the Sunnymead Farms Ltd feedlot operation included two large livestock barns, two Quonset huts, and 3-4 implement sheds/hay sheds. The *development* of the Subject Lands will result in the eventual removal of all agricultural infrastructure on the property.

8.1.2.2 12861 Dixie Road

There is one active livestock operation on the property. Information on the property was obtained from the landowner via phone call. The livestock operation on site is a former feedlot that is slowly being phased out and moved to a new location in the area. Agricultural infrastructure on the property includes an old bank barn, pole barn, hay sheds and outdoor manure storage. The *development* of the Subject Lands will result in the eventual removal of all agricultural infrastructure on the property.

8.1.3 Agricultural Land Improvements

8.1.3.1 12489 Dixie Road

The property contains approximately 1.52 ha of random tile drainage. Development on the Subject Lands is not anticipated to require the removal of this tile drainage on the property. There are also no constructed drains located within the Subject Lands. *Development* of the Subject Lands will not result in any loss of agricultural land improvements.

8.1.3.2 12861 Dixie Road

The property contains approximately 53.7 ha of random tile drainage and 3.80 ha of systematic tile drainage. Development on the Subject Lands is anticipated to require the removal of 46.12 ha of random tile drainage and 3.80 ha of systematic tile drainage on the property. There are no constructed drains located within the Subject Lands. *Development* of the Subject Lands will not result in the loss of any other agricultural land improvements.

8.1.4 Loss of Crop Land

8.1.4.1 12489 Dixie Road

The property is primarily *cultivated* for the production of common field crops , but also contain natural heritage features such as woodlands, watercourses and wetlands totalling approximately 17.3 ha. The property also contains a livestock operation and associated infrastructure. Of the property's' 58.02 ha, approximately 35.09 ha are *cultivated*. The future use of the property for non-agricultural development will result in the eventual loss of the majority of these cultivatable lands. The loss of approximately 26.94 ha of cultivatable land is expected to have a negligible impact on the *Agricultural System* in the area.

8.1.4.2 12861 Dixie Road

The property is primarily *cultivated* for the production of common field crops, but also contains natural heritage features such as watercourses and wetlands totalling approximately 5.58 ha. The property also contain a livestock operation and associated infrastructure totalling approximately 2.51 ha. The cultivated portion of the property measures approximately 50.14 ha. The future use of the Subject Lands for non-agricultural development will result in the eventual loss of the majority of these cultivatable lands. The loss of approximately 42.48 ha (104.96 acres) of cultivatable land is expected to have a negligible impact on the *Agricultural System* in the area.

8.2 Indirect Impacts

Potential impacts to adjacent farm operations and farm practices are considered to be indirect impacts. These would include changes to the surface drainage that could impact adjacent lands, disruption to farm traffic and access to adjacent agricultural fields, instances of trespass and vandalism, and conflicts arising from farm odour and other nuisance complaints often received by farmers in close proximity to *non-agricultural uses*.

8.2.1 Disruption to Surficial Drainage

The *development* of the Subject Lands has the potential to cause changes in surface runoff, which can have a potential negative impact on adjacent agricultural lands. It is our understanding that a Grading Plan and Stormwater Management Plan have been developed as part of the proposed *development*. Implementation

of the recommendations provided in these studies will minimize or eliminate the potential impacts, which are expected to be negligible.

8.2.2 Disruption to Farm Operations

The majority of active agricultural operations in the *Study Area* are well removed from the Subject Lands. These farms are unlikely to experience any form of disruption to their operations from the proposed development. *Development* of the Subject Lands and subsequent removal of farmland and livestock infrastructure may have an impact on the flexibility on some of the surrounding farm operations if they relied on the Subject Lands as an additional source of farmland to supplement their home operation or as part of their livestock operations.

Based on the approved Region of Peel However, the adjacent lands will not be directly affected, and current farm operations will still be able to cultivate common field crops and other agricultural products without limitation.

New non-agricultural *development* may have an impact on the existing farm wells, irrigation ponds, and ponds or other waterbodies used to provide *livestock* with sources of water in the surrounding area. A Hydrogeological Study has been prepared to facilitate the proposed *development*. The Hydrogeological Assessment Report prepared by Stantec (2023) provides recommendations to mitigate potential impacts to these water sources and should be implemented as part of the future development.

Noise, dust, and light can have a negative impact on some farm operations. Construction may temporarily generate greater levels of noise, dust, and lighting. No sensitive farm operations were identified that would be impacted by noise, dust, and lighting. However, it is recommended that these elements be controlled and in compliance with Ministry of Environment, Conservation and Parks (MECP) guidelines and as outlined in the Environmental Noise and Vibration Study prepared by SLR for the proposed development. No negative indirect impacts are anticipated from construction activity.

8.2.3 Trespass and Vandalism

Some farm operations within the *Study Area* may already have to deal with the potential for trespass and vandalism due to the close proximity of the of *non-agricultural uses* in the surrounding area. People walking their pets in farmers' fields, crossing and damaging fences, and rutting fields with dirt bikes and all-terrain vehicles are all examples of trespass and vandalism that may occur. As a result of the potential increase in urban population and construction activities, there is also a chance that debris (litter) can end up in farmers' fields. Establishing temporary buffers, fencing, and other short-term edge planning techniques should be considered to minimize impacts.

The proposed *development* should consider the use of permanent edge-planning techniques along the interface of the Greenbelt Plan area and Region of Peel Rural System. Edge planning techniques are discussed in further detail in Section 8.3 of this report.

8.2.4 Minimum Distance Separation

As discussed previously, based on our review of the proposed development plan, relevant provincial, regional, and municipal policy, the Minimum Distance Separation (MDS) Document Publication 853, and consultation with OMAFRA planning staff, it was determined that the Minimum Distance Separation

Formulae is not required because the Subject Lands are located within an approved settlement area and are not designated for agricultural uses.

As per MDS Implementation Guideline #1, the application of the MDS formula is only required for non-farm development proposed in prime agricultural areas or on rural lands. The MDS I setbacks from adjacent livestock operations do not extend into lands that are not designated prime agricultural areas or rural designated lands.

This assessment is consistent with MDS Implementation Guideline #36 and the MDS I formula does not apply to the Subject Lands the adjacent lands located within the approved settlement area boundary.

8.2.5 Transportation Impacts

The Region's expansion of the urban area and the proposed 400 series highway that traverses north of the Subject Lands will substantially transform the agricultural character of the area. It is expected that traffic volumes will increase accordingly. Currently, there is a substantial amount of traffic along Dixie Road and Mayfield Road, and it is likely that the *development* of the Subject Lands will introduce more traffic to these roads over time. Given the close proximity of the City of Brampton Urban Boundary and the existing *non-agricultural uses* within the *Study Area*, it is likely that the agricultural operations in the *Study Area* have already become accustomed to non-farm traffic and modified their practices accordingly. It is unlikely that increased traffic levels from the proposed *development* of the Subject Lands will significantly impact farm operations. Increased traffic levels will have no long-term impact on these farm operations.

An Urban Transportation Considerations study has been prepared by BA Group for the proposed *development*. To ensure transportation impacts are minimized, recommendations outlined in the Traffic Impact Study should be adhered to where potential impacts are identified.

8.2.6 Economic and Community Impacts

Local and regional economies and agricultural communities can be adversely impacted by the introduction of new *development* on agricultural lands as a result of the loss of farmland, fragmentation, removal of agricultural investments, commodities, services, and impacts to other farming operations.

While agriculture in the Town of Caledon provides economic and community benefits, the influence of agriculture is waning in the *Study Area*. The inclusion of a portion of the Subject Lands and majority of the *Study Area* within the Region of Peels new Urban Boundary further degrades the agricultural function of the Subject Lands.

The proposed *development* is anticipated to be beneficial to the local and regional economies through the increase in job creation. The loss of input to the agricultural economy is likely to be offset by the additional inputs to the economies associated with the proposed *development*. A Fiscal Impact Study was completed by Urban Metrics (2023) in support of the proposed development of the Subject Lands. Based on this analysis, it was determined that the proposed development on the Subject Lands would generate a positive net financial benefit to the Town and the Region of Peel. Although no direct analysis between existing and future land use was identified as part of this study, it is understood that the economic benefits of the development will outweigh the loss of inputs to the agricultural economy.

8.3 Implementation of Edge Planning Techniques

The agricultural/urban interface (AUI) is typically the area where farm operations are negatively impacted the most. When *settlement area* boundary expansion is being proposed, some consideration should be given to minimizing the length of the AUI. The proposed *development* of the Subject Lands does not substantially create a new agricultural/urban interface because the majority of the lands surrounding the Subject Lands have already been included within the Region of Peel Settlement Area Boundary. Lands on and in the vicinity of the Subject Lands that are proposed to remain within the Agricultural System are primarily naturalized and associated with Greenbelt Plan areas. Edge planning techniques should be considered along the boundary of the Agricultural System and Greenbelt Plan area.

The *Guide to Edge Planning: Promoting Compatibility Along Agriculture-Urban Edges* (2015) developed by the British Columbia Ministry of Agriculture and Lands provides a basis for achieving compatibility where agricultural and urban uses interface. *Edge Planning: Strategies for Rural and Urban Interface* (2015) developed by MHBC for the Peel Agricultural Advisory Working Group provides a review of case study examples, methods and recommendation for addressing the mitigation of conflict where *settlement areas* and *prime agricultural areas* interface. These guides recognize and address the potential negative impacts that agricultural and *non-agricultural uses* can have on one another and presents options to prevent such impacts. Edge planning techniques to reduce potential impacts on farmers and non-farmers are discussed below.

8.3.1 Development Design: Density, Road, and Lot Patterns

The proposed *development* layout should be designed to maximize, to the extent possible, a setback distance from the *non-agricultural uses* and farm operations. Creating a vegetated buffer between farming operations and the *non-agricultural uses* will further enhance the effectiveness of the setback. In addition to this, the consideration of building dimensions and density, along with driveways and service design can help reduce impacts to adjacent farming activities and help to reduce impacts to urban land uses. Overall, the design of the proposed *development* should be directing vehicular traffic away from the agricultural-urban interface (AUI) as much as possible.

8.3.2 Building Design and Layout

Building setbacks from the AUI can help create separation between agricultural and urban land uses. The urban-side of the AUI should consider a setback distance and green spaces to provide physical separation from the farmlands. Setbacks could include space for a wide, vegetated buffer. There is a range of recommended building setback distances from the AUI depending on the type of land use. The recommended setback distance from the AUI is 15 metres for commercial or industrial land uses, 30 metres for residential land uses, and 90 metres for institutional land uses. Based on the Development Concept Plans prepared for the Subject Lands, a 15-metre setback of the proposed industrial buildings will mostly be achieved.

8.3.3 Open Space and Landscape Design

Any open space and landscape design should retain existing tree cover (where possible) in natural state in designated buffer areas. When selecting plant species for open space areas and landscape design, species which will not negatively affect adjacent farmland and provide greater benefit to natural heritage features should be given priority (i.e., use native, non-invasive species, low maintenance/drought tolerant plants,

tree/shrub species that will filter dust and spray drift from agricultural area (e.g., conifers), tree/shrub species that will not carry insects/disease, etc.).

8.3.4 Urban-side Buffer Design

As part of the building setback, the urban-side buffer design should include a continuous vegetative buffer along the urban-side of the AUI within the building setback. Buffers can provide a visual screen of farmlands and activities, provide a deterrent to trespass onto farms, as well as capture dust, spray drift, and litter. A buffer design with a total minimum separation distance of 8 metres (including vegetative buffer) between industrial use and the AUI is recommended and found to be effective in reducing nuisance complaints.

The *Guide to Edge Planning: Promoting Compatibility Along Agriculture-Urban Edges* recommends a minimum vegetative buffer width of 15 metres for residential or institutional land uses, and 8 metres for commercial or industrial land uses. Crown density of the buffer should be 50-75% to provide optimal screening and air circulation. Furthermore, the vegetative buffer should include both deciduous and coniferous plantings to ensure four-season screening is provided. If there is excess soil generated as a result of *development*, the construction of topsoil berms can also be considered to provide some visual screening and potentially increase the height of the vegetative screen.

The height of the vegetative buffer should exceed 6 metres at plant maturity to create an effective vegetative screen and capture more dust and spray drift between agricultural and urban land uses. A good vegetative buffer will also reduce the intensity of winds, which will minimize the extent of obnoxious odours originating from *livestock operations*. It can also minimize sound and lighting generated by farm operations.

8.4 Summary of Impacts

The potential direct and indirect impacts identified for 12489 and 12861 Dixie Road are summarized in Tables 6 & 7 respectively along with the potential degree of impact, mitigation measures to avoid or minimize the potential impact, and the resulting anticipated impact.

Table 6. Summary of Impacts on 12489 Dixie Road Property

Potential Impact	Potential Degree of Impact	Mitigation Measure	Anticipated Net Impact
Direct Impacts			
Loss of Prime Agricultural Land	Moderate	♦ None	Eventual loss of approximately 32 ha of prime agricultural lands
Loss of Agricultural Infrastructure	High	♦ None	Eventual removal of several agricultural buildings associated with retired livestock operation.
Loss of Agricultural Land improvements	Low	♦ None	No Impact
Loss of cropland	Low	♦ Continue farming lands until needed for development	Eventual loss of approximately 26.94 ha of cultivatable land
Indirect Impacts			
Surficial Drainage	Low	♦ Implement recommendations of Functional Servicing and Stormwater Management Design Report.	No significant impact anticipated
Disruption to Farm Operations	Low	♦ Ensure that access to farm operations and farm fields is maintained at all times throughout construction.	No impact anticipated
Non-farm traffic	Low	♦ Implement recommendations of Traffic Impact Study where impact identified.	No significant impact anticipated
Trespass, Vandalism, and Stray Pets	Low	♦ Consider the use of edge planning techniques along the boundary of the Agricultural System and Greenbelt Plan area.	No significant impact anticipated
Noise, Dust & Light	Low	♦ Adhere to Ministry of the Environment and Climate Change (MOECC) guidelines	No Impact

Table 6. Summary of Impacts on 12489 Dixie Road Property

Potential Impact	Potential Degree of Impact	Mitigation Measure	Anticipated Net Impact
Conflict with MDS Formula	Low	♦ None required. Complies with MDS Formulae	No Impact
Economic	Low	♦ None	No significant negative impact
Wells, Irrigation, Water Bodies	Low	♦ Implement recommendations of Hydrogeological Assessment Report where impacts identified.	No impact anticipated

Table 7. Summary of Impacts on 12861 Dixie Road Property

Potential Impact	Potential Degree of Impact	Mitigation Measure	Anticipated Net Impact
Direct Impacts			
Loss of Prime Agricultural Land	Moderate	♦ None	Eventual loss of 41.97 ha of prime agricultural lands
Loss of Agricultural Infrastructure	High	♦ None	Eventual removal of several agricultural buildings associated with livestock operation.
Loss of Agricultural Land improvements	High	♦ None	Eventual loss 46.12 ha of random tile drainage and 3.80 ha of systematic tile drainage.
Loss of cropland	Low	♦ Continue farming lands until needed for development	Eventual loss of approximately 42.48 ha of cultivatable land

Table 7. Summary of Impacts on 12861 Dixie Road Property

Potential Impact	Potential Degree of Impact	Mitigation Measure	Anticipated Net Impact
Indirect Impacts			
Surficial Drainage	Low	♦ Implement recommendations of Functional Servicing and Stormwater Management Design Report.	No significant impact anticipated
Disruption to Farm Operations	Low	♦ Ensure that access to farm operations and farm fields is maintained at all times throughout construction.	No impact anticipated
Non-farm traffic	Low	♦ Implement recommendations of Traffic Impact Study where impact identified.	No significant impact anticipated
Trespass, Vandalism, and Stray Pets	Low	♦ Consider the use of edge planning techniques along the boundary of the Agricultural System and Greenbelt Plan area.	No significant impact anticipated
Noise, Dust & Light	Low	♦ Adhere to Ministry of the Environment and Climate Change (MOECC) guidelines	No Impact
Conflict with MDS Formula	Low	♦ None required. Complies with MDS Formulae	No Impact
Economic	Low	♦ The Region, Town and land developers promote local farm livestock and produce	No significant negative impact
Wells, Irrigation, Water Bodies	Low	♦ Implement recommendations of Hydrogeological Assessment Report where impacts identified.	No impact anticipated

9. CONSISTENCY WITH AGRICULTURAL POLICIES

9.1 Provincial Planning Statement

The updated Region of Peel Official Plan shows the portion of the Subject Lands proposed to be developed within the 2051 New Urban Area in the Urban System. The Provincial approval of the Region of Peel Official Plan in November of 2022 resulted in the portions of the Subject Lands proposed for development being removed from the provincially recognized *prime agricultural area*. The proposed *development* will comply with the *MDS formulae* and recommendations have been made to mitigate the potential impacts of the non-agricultural development on surrounding agricultural uses. The proposed *development* of the Subject Lands is consistent with the agricultural policies of the *PPS*.

9.2 Region of Peel Official Plan

The Region of Peel Official Plan recognizes the Rural System, which includes lands designated as Prime Agricultural Area and Rural Lands. The portion of the Subject Lands proposed for development are not located within the Rural System of the Region of Peel. The updated Regional Official Plan shows the portion of the Subject Lands proposed for development is located within the 2051 New Urban Area in the Urban System and designates the Subject Lands as Designated Greenfield Area. As such, adherence to the agricultural policies of the Region of Peel Official Plan is not required.

9.3 Town of Caledon Official Plan

Section 4.2.3.3.1 of the Town of Caledon Official Plan outlines the requirements for settlement area boundary expansion and states that “Expansions to settlements will require an amendment to this Plan and shall be undertaken through a municipal comprehensive review”. Section 4.2.3.3.1 states in part that the municipal comprehensive review “will address the following:

- h) An examination of reasonable alternative locations which avoid Prime Agricultural Areas, and reasonable alternative locations on lands with lower priority in the Prime Agricultural Area;
- j) Compliance with minimum distance separation formulae;
- o) Mitigation of impacts of settlement area expansions on agricultural operations which are adjacent to or close to the settlement area to the greatest extent feasible;”.

Section 5.1.1.17.1 of the Town of Caledon Official Plan states “Proposals in the Prime Agricultural Area that have the potential to negatively impact agricultural uses will require an Agricultural Impact Assessment”.

This AIA fulfills the requirement of completing an Agricultural Impact Assessment for non-agricultural *development* in the Town of Caledon’s Prime Agricultural Area. The proposed *development* avoids the Region’s prime agricultural areas and the development utilizes lower priority agricultural lands. The proposed development will comply with the *MDS formulae*, and mitigation measures have been provided to minimize impacts on existing agricultural resources.

10. CONCLUSION

This AIA has identified and described the agricultural resources and farm operations within the Subject Lands and *Study Area*. The potential impacts associated with the proposed *development* have been assessed and we have determined the following:

1. The proposed development is not located in a provincially recognized *prime agricultural area* and are not part of a *specialty crop area*;
2. The Town of Caledon still considers the Subject Lands to be part of a *prime agricultural area* and are designated Prime Agricultural Area in the Town of Caledon Official Plan. However, it is understood that the agricultural designation is likely to be removed where development is proposed on the Subject Lands and designated as New Employment Area as part of the Official Plan update. Therefore, the proposed *settlement area* boundary expansion will comply with the local Official Plan;
3. Potential impacts associated with the *development* of the Subject Lands are primarily limited to the loss of *prime agricultural land*, cultivatable land, and livestock infrastructure. Recommendations have been provided that will ensure potential impacts will be avoided or mitigated to the extent possible. The net indirect impacts will be negligible with the implementation of the recommended mitigation measures;
4. Following the inclusion of the Subject Lands into the future expanding Town of Caledon settlement area, it is expected that the proposed industrial use will be compatible with the surrounding non-agricultural land uses.
5. The proposed *development* will comply with the *MDS I* setback requirements;
6. The Subject Lands have already been included within the Region of Peel's 2051 New Urban Area, and any MDS II impacts on surrounding livestock operations should have already been considered through the Regional SABE process.
7. The Subject Lands are primarily located within the Region of Peel's 2051 New Urban Area and are not part of the agricultural land base. The latest draft of the Future Caledon Official Plan also indicates that the Subject Lands will be included within the Town's settlement area boundary. Therefore, the Subject Lands are lower priority lands and are a reasonable location for *non-agricultural development* compared to other lands within the Region's *prime agricultural area*; and
8. The proposed *development* will comply with all relevant provincial and regional agricultural policies. It is anticipated that the Subject Lands will be brought into the Town of Caledon *settlement area* and will comply with the local agricultural policies at such time.

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11. GLOSSARY OF TERMS

Agricultural uses:* - 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.

Agriculture-related uses:* - those farm-related commercial and farm-related industrial uses that are directly related to farm operations in the area, support agriculture, benefit from being in close proximity to farm operations, and provide direct products and/or services to farm operations as a primary activity.

Agricultural system: - means a system comprised of a group of inter-connected elements that collectively create a viable, thriving agri-food sector. It has two components:

- An agricultural land base comprised of *prime agricultural areas*, including *specialty crop* areas. It may also include *rural lands* that help to create a continuous productive land base for agriculture.
- An *agri-food network* which includes agricultural operations, *infrastructure*, services, and assets important to the viability of the agri-food sector.

Agri-food network:* - a network within the *agricultural system* that includes elements important to the viability of the agri-food sector such as regional *infrastructure* and transportation networks; agricultural operations including on-farm buildings and primary processing; infrastructure; agricultural services, farm markets, and distributors; and vibrant, agriculture-supportive communities.

Agri-tourism uses:* - means those farm-related tourism uses, including limited accommodation such as a bed and breakfast, that promote the enjoyment, education or activities related to the farm operation.

Altered livestock facility:* - Any building activity occurring on, or in, an *existing livestock facility* that requires a building permit issued under the *Building Code Act, 1992*, and results in a change in *design capacity*. This also includes the alteration of earthen *manure storages*.

Anaerobic digester:* - A permanent structure designed for the decomposition of organic matter by bacteria in an oxygen-limiting environment.

Anaerobic digester materials:* - Solid or liquid organic input materials that are intended for treatment in an *anaerobic digester*, whether the materials are generated at the agricultural operation or received at the agricultural operation from an outside source.

Anaerobic digester output (digestate):* - Any solid or liquid materials that result from the treatment of *anaerobic digestion* materials in an *anaerobic digester*.

Beef farm: a farm operation whose predominant livestock is beef cattle, including cow-calf operations.

Brownfield sites:* - means undeveloped or previously-developed properties that may be contaminated. They are usually, but not exclusively, former industrial or commercial properties that may be underutilized, derelict, or vacant.

Cash crop: - means a crop being produced for income purposes and not to supplement a livestock operation by contributing to feed requirements.

Catena: - the group of soils that have developed on the same parent material but as a result of being located on a different position in the landform the group differs by drainage class (i.e., well drained, imperfectly drained, and poorly drained).

Cultivated: - means lands that have recently been under active agricultural production, however, depending on the season or growth stage of the crop during the land use survey or through aerial photographic interpretation the crop type could not be determined.

Dairy farm: - a farm whose primary livestock is dairy cattle, including dairy heifers.

Development: - means the creation of a new lot, a change in land use, or the construction of buildings and structures, requiring approval under the Planning Act; but does not include activities that create or maintain infrastructure authorized under an environmental assessment process; or works subject to the Drainage Act.

Dwelling:* - Any permanent building that is used, or intended to be used, continuously or seasonally, as a domicile by one or more persons and usually containing cooking, eating, living, sleeping, and sanitary facilities.

Forage/Pasture: - means a crop that consists of either pastureland, including rough grazing, or hay crops including silage and haylage.

Former livestock facility:* - means an empty livestock facility that no longer contains manure or livestock. The buildings are generally in fair to good condition and the potential for housing livestock in the building remains. The MDS formula is applied to these facilities.

Glaciolacustrine deposit: - soil derived from material deposited in a glacial lake environment.

Gleyed: – means soils that are poorly drained and exhibit greyish colours in the profile indicating that they have developed in a reduced environment (i.e., oxygen depleted) due to high water tables throughout the year.

Gleyed horizon: – greyish colours and prominent mottles in the soil horizon profile which indicate that soils are poorly drained and have developed in a reduced environment (i.e., oxygen depleted) due to high water tables throughout the year.

Hobby farm: - A residential dwelling, with or without accessory buildings, which may include some crop production for personal consumption or limited sale; and/or small numbers of livestock raised for personal consumption, pleasure, or limited sale. A hobby farm normally will generate little or no income and as such may not have a Farm Business Registration Number.

Idle agricultural lands: - means lands that have not been used for agricultural production for at least five years (estimated).

Inclusion: - a small soil polygon that occurs within a larger soil polygon and which is comprised of a different soil type or is located on a different slope class, however it is too small to map as a single unit given the scale of map.

Livestock:* - includes dairy, beef, swine, poultry, horses, goats, sheep, ratites, fur-bearing animals, deer & elk, game animals, birds, and other animals.

Livestock facility:* - means one or more barns or permanent structures with livestock-occupied portions, intended for keeping or housing livestock. A livestock facility also includes all manure or material storages and anaerobic digesters.

Mineral aggregate resources:* - means gravel, sand, clay, earth, shale, limestone, dolostone, sandstone, marble, granite, rock, or other material prescribed under the *Aggregate Resources Act, 1990*, suitable for construction, industrial, manufacturing and maintenance purposes but does not include metallic ores, asbestos, graphite, kyanite, mica, nepheline syenite, salt, talc, wollastonite, mine tailings or other material prescribed under *The Mining Act, 1990*.

Minerals:* - means metallic *minerals* and non-metallic *minerals* as herein defined but does not include *mineral aggregate resources* or *petroleum resources*.

Minimum Distance Separation (MDS) formulae: - formulae and guidelines developed by the province, as amended from time to time, to separate uses so as to reduce incompatibility concerns about odour from livestock facilities.

Minimum Distance Separation (MDS) I formulae: - used to determine the minimum distance separation for new development from any existing and some former livestock facilities.

Minimum Distance Separation (MDS) II formulae: - used to determine the minimum distance separation for new or expanding livestock facilities from existing non-farm land uses.

Morainal till: - generally a compact, poorly sorted, and poorly stratified material deposited by glacial action.

Mottles: - are spots of colour in soil horizons, caused by impeded drainage. The mottle colours are recorded as faint, distinct or prominent depending on the contrast between the mottle colour and the basic horizon colour.

Non-agricultural uses:* - Buildings designed or intended for a purpose other than an *agricultural use*; as well as land, vacant or otherwise not yet fully developed, which is zoned or designated such that the principal or long-term use is not intended to be an *agricultural use*, including, but not limited to: commercial, future urban development, industrial, institutional, *open space uses*, *recreational uses*, *settlement area*, *urban reserve*, etc.

Non-farm residential (NFR): - means residential buildings and lots not associated with a farm operation such as farm retirement lots/severances and/or other residences in the Agricultural and Rural Area. Second farm residences for farm help would be considered a farm residence if it is on an existing farm operation.

Normal farm practices:* - means a practice, as defined in the *Farming and Food Production Protection Act, 1998*, that is conducted in a manner consistent with proper and acceptable customs and standards as established and followed by similar agricultural operations under similar circumstances; or makes use of innovative technology in a manner consistent with proper advanced farm management practices. *Normal farm practices* shall be consistent with the *Nutrient Management Act, 2002* and regulations made under that Act.

Prime agricultural area:* - means an area where *prime agricultural land* predominates. Prime agricultural areas may also be identified through an alternative agricultural land evaluation system approved by the Province.

Prime agricultural land:* - means land that includes *specialty crop lands* and/or Canada Land Inventory Class 1, 2 and 3 soils, in this order of priority for protection.

Provincial Planning Statement, 2024: - the Provincial Planning Statement (PPS), 2024 is a streamlined province-wide land use planning policy framework that replaces both the *Provincial Policy Statement, 2020*

and *A Place to Grow: Growth Plan for the Greater Golden Horseshoe, 2019* while building upon housing-supportive policies from both documents. The PPS 2024 provides municipalities with the tools and flexibility they need to build more homes. It enables municipalities to:

- plan for support development, and increase the housing supply across the province;
- align development with infrastructure to build a strong and competitive economy that is investment-ready;
- foster the long-term viability of rural areas; and
- protect agricultural lands, the environment, public health and safety.

Redevelopment:* - means the creation of new units, uses or lots on previously developed land in existing communities, including *brownfield sites*.

Remnant: - means a location where one or more farm buildings once stood. All or some of the buildings have fallen, are severely structurally unsound and/or been removed. No MDS would be applied to a remnant farm operation.

Retired farm operation: - means a former farm operation whose buildings or farm related structures remain; however, it has either been converted to a non-agricultural use; would require significant upgrades and investment to modernize; or it is in poor condition and not suitable for agricultural uses. The MDS may still apply if it is a former livestock facility.

Rural areas:* - means a system of lands within municipalities that may include *rural settlement areas, rural lands, prime agricultural areas*, natural heritage features and areas, and resource areas.

Rural lands:* - means lands which are located outside *settlement areas* and which are outside *prime agricultural areas*.

Rural residential cluster:* - means four or more, adjacent rural lots, generally one hectare or less in size, sharing a common contiguous boundary. Lots located directly across a road from one another shall be considered as having a common boundary.

Scrub land: - means lands that are no longer farmed and woody species (young trees and shrubs) have begun regenerating and/or sparsely treed areas.

Secondary uses:* - means uses secondary to the principal use of the property, including home occupations, home industries, and uses that produce value-added agricultural products from the farm operation on the property.

Settlement areas:* - means urban areas and rural settlement areas within municipalities (such as cities, towns, villages, and hamlets). Ontario's *settlement areas* vary significantly in terms of size, density, population, economic activity, diversity and intensity of land uses, service levels, and types of infrastructure available. Settlement areas are:

- a) built up areas where development is concentrated and which have a mix of land uses; and
- b) lands which have been designated in an official plan for development over the long term.

Soil horizon: - a layer of soil, approximately parallel to the land surface, that differs from adjacent layers in properties such as texture, colour, structure, etc. As an example, the surface horizon of a mineral soil is recorded as the "A" horizon. If the surface is ploughed then the suffix p is used (i.e., Ap) if the surface has not been ploughed, as in a forest soil, a humic layer generally develops and an eluviated light coloured soil

horizon often forms immediately below. These horizons are identified with the suffix h is used (i.e., Ah) and e (i.e., Ae), respectively. The weathered portion of the profile below the A horizons is identified as the "B" horizon and the unweathered, parent material is the "C" horizon.

Soil profile: - a vertical section of the soil through all its horizons and extending into the soil parent material.

Soil texture: - the relative portion of particle sizes in soil (i.e., sand, silt, and clay) that are used to describe the soil textural class (e.g., clay, sandy clay loam, sandy loam, loam, clay loam, sand, loamy sand, etc.).

Specialty crop area:* - means areas within the agricultural land base designated based on provincial guidance. In these areas, specialty crops are predominantly grown such as tender fruits (peaches, cherries, plums), grapes, other fruit crops, vegetable crops, greenhouse crops and crops from agriculturally developed organic soil., usually resulting from:

- a) soils that have suitability to produce specialty crops, or lands that are subject to special climatic conditions, or a combination of both;
- b) farmers skilled in the production of specialty crops; and
- c) a long-term investment of capital in areas such as crops, drainage, infrastructure and related facilities and services to produce, store, or process specialty crops.

Tender fruit: - a term applied to tree fruits such as peaches, apricots, and nectarines which are particularly sensitive to low winter and/or spring temperatures.

Unoccupied livestock barn: - A livestock barn that does not currently house any livestock, but that housed livestock in the past and continues to be structurally sound and reasonably capable of housing livestock.

Wooded: - Forested areas of various age composition and size.

** Indicates that the definition is essentially derived from OMAFRA publications.*

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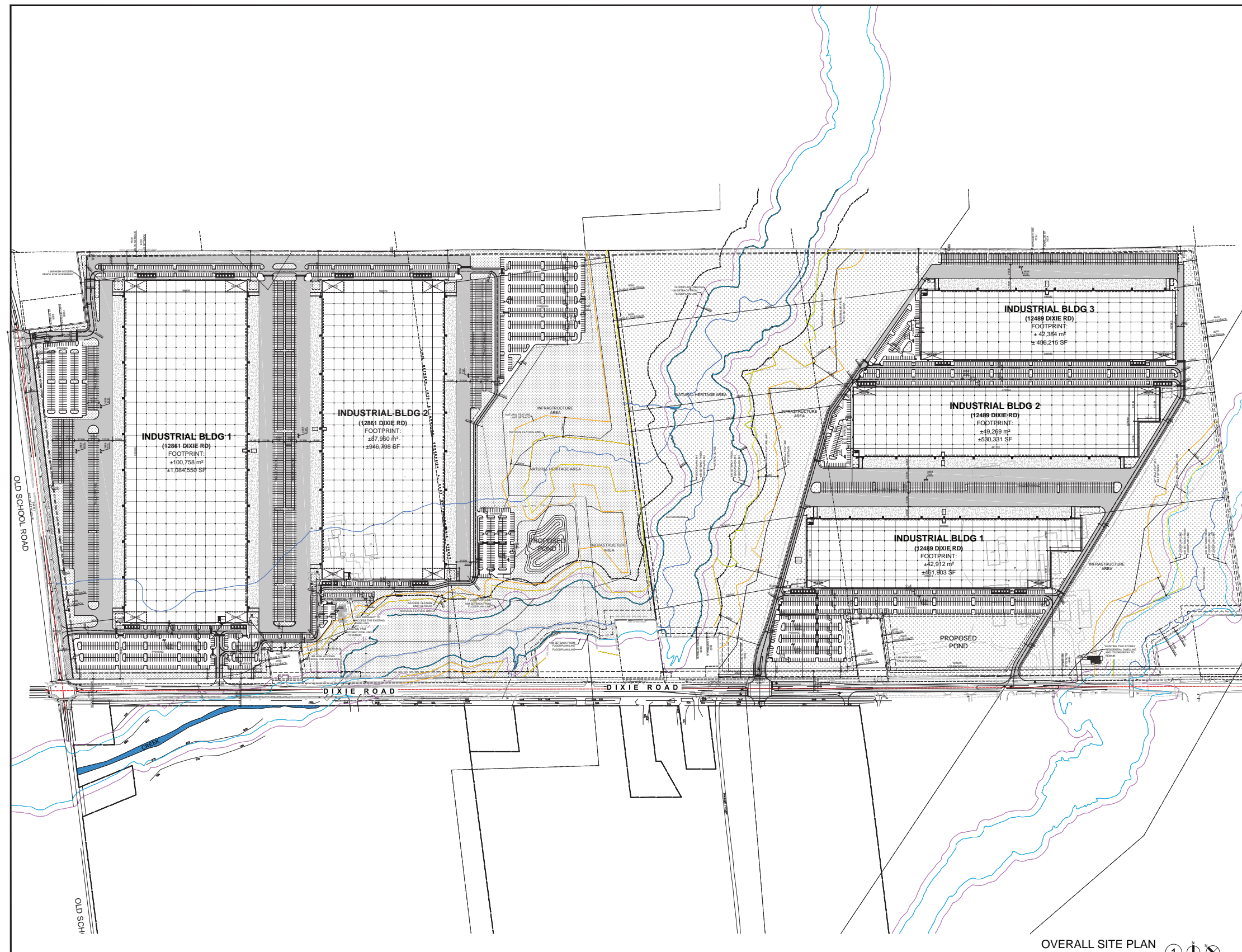
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APPENDIX A

Development Concept Plan

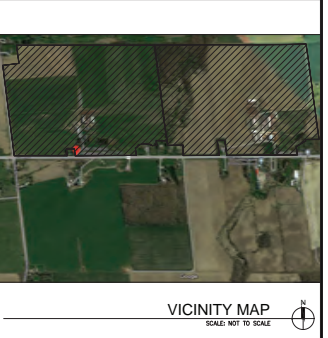
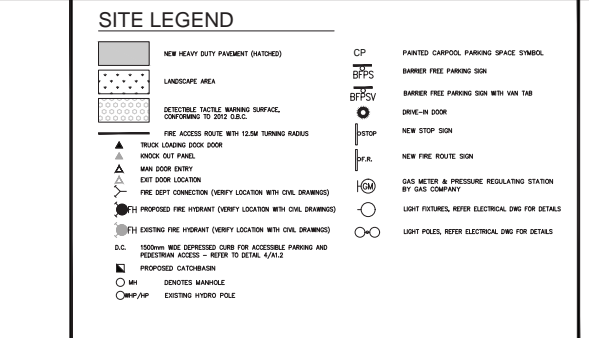
WARE MALCOMB
 CIVIL ENGINEERING
 ARCHITECTURE
 INTERIORS
 BUILDING MEASUREMENT

QUADREAL PROPERTY GROUP
 TOWN OF CALEDON DIXIE ROAD
 12489 & 12861 DIXIE ROAD
 CALEDON, ONTARIO CANADA



NO.	DESCRIPTION	AMOUNT	UNIT	REMARKS
1	INDUSTRIAL BLDG 1 (12489 DIXIE RD)	42,912	m ²	FOOTPRINT
2	INDUSTRIAL BLDG 2 (12489 DIXIE RD)	49,289	m ²	FOOTPRINT
3	INDUSTRIAL BLDG 3 (12489 DIXIE RD)	42,354	m ²	FOOTPRINT
4	INDUSTRIAL BLDG 4 (12861 DIXIE RD)	100,758	m ²	FOOTPRINT
5	PROPOSED POND	1,200	m ²	AREA
6	PARKING SPACES	1,500	SPACES	TOTAL
7	INFRASTRUCTURE	500	m ²	AREA
8	LANDSCAPE AREA	2,000	m ²	AREA
9	SCREEN WALL	100	m	LENGTH
10	PHYLON SIGNAGE	10	UNITS	QUANTITY
11	DRIVE-IN RAMP	1	UNIT	QUANTITY
12	RESERVED	1	UNIT	QUANTITY
13	DETECTIBLE TACTILE WARNING SURFACE	100	m ²	AREA
14	MIN. 3m WIDE CONCRETE DOLLY PAD	10	UNITS	QUANTITY
15	ACCESSIBLE PARKING GRADE SLOPING UP TO MEET PROPOSED CURB LEVEL	10	UNITS	QUANTITY
16	TRUCK LOADING DOOR	10	UNITS	QUANTITY
17	NEW FIRE ROUTE SIGN	10	UNITS	QUANTITY
18	GAS METER & PRESSURE REGULATING STATION BY GAS COMPANY	1	UNIT	QUANTITY
19	LIGHT FIXTURES, REFER ELECTRICAL DWG FOR DETAILS	100	UNITS	QUANTITY
20	SCREEN WALL	100	m	LENGTH
21	PROPOSED PHYLON SIGNAGE	10	UNITS	QUANTITY
22	DRIVE-IN RAMP WITH GALVANIZED GUARDRAIL ON EACH SIDE, SEE CIVIL DWGS FOR SLOPE %	1	UNIT	QUANTITY
23	RESERVED	1	UNIT	QUANTITY
24	DETECTIBLE TACTILE WARNING SURFACE, CONFORMING TO 2012 O.B.C.	100	m ²	AREA
25	MIN. 3m WIDE CONCRETE DOLLY PAD AT TRAILER STALLS	10	UNITS	QUANTITY
26	ACCESSIBLE PARKING GRADE SLOPING UP TO MEET PROPOSED CURB LEVEL	10	UNITS	QUANTITY
27	TRUCK LOADING DOOR	10	UNITS	QUANTITY
28	NEW FIRE ROUTE SIGN	10	UNITS	QUANTITY
29	GAS METER & PRESSURE REGULATING STATION BY GAS COMPANY	1	UNIT	QUANTITY
30	LIGHT FIXTURES, REFER ELECTRICAL DWG FOR DETAILS	100	UNITS	QUANTITY
31	SCREEN WALL	100	m	LENGTH
32	PROPOSED PHYLON SIGNAGE	10	UNITS	QUANTITY
33	DRIVE-IN RAMP WITH GALVANIZED GUARDRAIL ON EACH SIDE, SEE CIVIL DWGS FOR SLOPE %	1	UNIT	QUANTITY
34	RESERVED	1	UNIT	QUANTITY
35	DETECTIBLE TACTILE WARNING SURFACE, CONFORMING TO 2012 O.B.C.	100	m ²	AREA
36	MIN. 3m WIDE CONCRETE DOLLY PAD AT TRAILER STALLS	10	UNITS	QUANTITY
37	ACCESSIBLE PARKING GRADE SLOPING UP TO MEET PROPOSED CURB LEVEL	10	UNITS	QUANTITY
38	TRUCK LOADING DOOR	10	UNITS	QUANTITY
39	NEW FIRE ROUTE SIGN	10	UNITS	QUANTITY
40	GAS METER & PRESSURE REGULATING STATION BY GAS COMPANY	1	UNIT	QUANTITY
41	LIGHT FIXTURES, REFER ELECTRICAL DWG FOR DETAILS	100	UNITS	QUANTITY
42	SCREEN WALL	100	m	LENGTH
43	PROPOSED PHYLON SIGNAGE	10	UNITS	QUANTITY
44	DRIVE-IN RAMP WITH GALVANIZED GUARDRAIL ON EACH SIDE, SEE CIVIL DWGS FOR SLOPE %	1	UNIT	QUANTITY
45	RESERVED	1	UNIT	QUANTITY
46	DETECTIBLE TACTILE WARNING SURFACE, CONFORMING TO 2012 O.B.C.	100	m ²	AREA
47	MIN. 3m WIDE CONCRETE DOLLY PAD AT TRAILER STALLS	10	UNITS	QUANTITY
48	ACCESSIBLE PARKING GRADE SLOPING UP TO MEET PROPOSED CURB LEVEL	10	UNITS	QUANTITY
49	TRUCK LOADING DOOR	10	UNITS	QUANTITY
50	NEW FIRE ROUTE SIGN	10	UNITS	QUANTITY
51	GAS METER & PRESSURE REGULATING STATION BY GAS COMPANY	1	UNIT	QUANTITY
52	LIGHT FIXTURES, REFER ELECTRICAL DWG FOR DETAILS	100	UNITS	QUANTITY
53	SCREEN WALL	100	m	LENGTH
54	PROPOSED PHYLON SIGNAGE	10	UNITS	QUANTITY
55	DRIVE-IN RAMP WITH GALVANIZED GUARDRAIL ON EACH SIDE, SEE CIVIL DWGS FOR SLOPE %	1	UNIT	QUANTITY
56	RESERVED	1	UNIT	QUANTITY
57	DETECTIBLE TACTILE WARNING SURFACE, CONFORMING TO 2012 O.B.C.	100	m ²	AREA
58	MIN. 3m WIDE CONCRETE DOLLY PAD AT TRAILER STALLS	10	UNITS	QUANTITY
59	ACCESSIBLE PARKING GRADE SLOPING UP TO MEET PROPOSED CURB LEVEL	10	UNITS	QUANTITY
60	TRUCK LOADING DOOR	10	UNITS	QUANTITY
61	NEW FIRE ROUTE SIGN	10	UNITS	QUANTITY
62	GAS METER & PRESSURE REGULATING STATION BY GAS COMPANY	1	UNIT	QUANTITY
63	LIGHT FIXTURES, REFER ELECTRICAL DWG FOR DETAILS	100	UNITS	QUANTITY
64	SCREEN WALL	100	m	LENGTH
65	PROPOSED PHYLON SIGNAGE	10	UNITS	QUANTITY
66	DRIVE-IN RAMP WITH GALVANIZED GUARDRAIL ON EACH SIDE, SEE CIVIL DWGS FOR SLOPE %	1	UNIT	QUANTITY
67	RESERVED	1	UNIT	QUANTITY
68	DETECTIBLE TACTILE WARNING SURFACE, CONFORMING TO 2012 O.B.C.	100	m ²	AREA
69	MIN. 3m WIDE CONCRETE DOLLY PAD AT TRAILER STALLS	10	UNITS	QUANTITY
70	ACCESSIBLE PARKING GRADE SLOPING UP TO MEET PROPOSED CURB LEVEL	10	UNITS	QUANTITY
71	TRUCK LOADING DOOR	10	UNITS	QUANTITY
72	NEW FIRE ROUTE SIGN	10	UNITS	QUANTITY
73	GAS METER & PRESSURE REGULATING STATION BY GAS COMPANY	1	UNIT	QUANTITY
74	LIGHT FIXTURES, REFER ELECTRICAL DWG FOR DETAILS	100	UNITS	QUANTITY
75	SCREEN WALL	100	m	LENGTH
76	PROPOSED PHYLON SIGNAGE	10	UNITS	QUANTITY
77	DRIVE-IN RAMP WITH GALVANIZED GUARDRAIL ON EACH SIDE, SEE CIVIL DWGS FOR SLOPE %	1	UNIT	QUANTITY
78	RESERVED	1	UNIT	QUANTITY
79	DETECTIBLE TACTILE WARNING SURFACE, CONFORMING TO 2012 O.B.C.	100	m ²	AREA
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81	ACCESSIBLE PARKING GRADE SLOPING UP TO MEET PROPOSED CURB LEVEL	10	UNITS	QUANTITY
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84	GAS METER & PRESSURE REGULATING STATION BY GAS COMPANY	1	UNIT	QUANTITY
85	LIGHT FIXTURES, REFER ELECTRICAL DWG FOR DETAILS	100	UNITS	QUANTITY
86	SCREEN WALL	100	m	LENGTH
87	PROPOSED PHYLON SIGNAGE	10	UNITS	QUANTITY
88	DRIVE-IN RAMP WITH GALVANIZED GUARDRAIL ON EACH SIDE, SEE CIVIL DWGS FOR SLOPE %	1	UNIT	QUANTITY
89	RESERVED	1	UNIT	QUANTITY
90	DETECTIBLE TACTILE WARNING SURFACE, CONFORMING TO 2012 O.B.C.	100	m ²	AREA
91	MIN. 3m WIDE CONCRETE DOLLY PAD AT TRAILER STALLS	10	UNITS	QUANTITY
92	ACCESSIBLE PARKING GRADE SLOPING UP TO MEET PROPOSED CURB LEVEL	10	UNITS	QUANTITY
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94	NEW FIRE ROUTE SIGN	10	UNITS	QUANTITY
95	GAS METER & PRESSURE REGULATING STATION BY GAS COMPANY	1	UNIT	QUANTITY
96	LIGHT FIXTURES, REFER ELECTRICAL DWG FOR DETAILS	100	UNITS	QUANTITY
97	SCREEN WALL	100	m	LENGTH
98	PROPOSED PHYLON SIGNAGE	10	UNITS	QUANTITY
99	DRIVE-IN RAMP WITH GALVANIZED GUARDRAIL ON EACH SIDE, SEE CIVIL DWGS FOR SLOPE %	1	UNIT	QUANTITY
100	RESERVED	1	UNIT	QUANTITY

- GENERAL NOTES**
- PROPERTY LINE
 - 270x6000 PARKING STALL, PAINTED PARKING STRIPING PER CITY STANDARDS, WITH 6M WIDE DOUBLE LOADED AISLE.
 - PRINCIPLE ENTRY - TENANT FIT-UP SUBJECT TO INTERIOR ALTERATION PERMIT
 - TYPICAL SHARED ACCESSIBLE PARKING STALLS, PAINTED PARKING STRIPING PER CITY STANDARDS, TO HAVE (2) TYPE B (270x6000), (2) TYPE A STALLS (3400x6000) OR ONE OF EACH WITH 1500mm PAIN STRIP BETWEEN - REFER TO TOWN OF CALEDON'S ACCESSIBLE PARKING STANDARDS.
 - 1500mm WIDE CURB TYPICAL
 - MIN. 1500mm WIDE SIDEWALK TYPICAL U.L.O
 - TRAILER PARKING STALL - 12'-0" X 55'-0"
 - ACCESSIBLE CURB RAMP AS PER DETAIL
 - FIRE DEPARTMENT CONNECTION / SHIMASE
 - PROPOSED LOCATION OF TRANSFORMER C/W CONCRETE PAD
 - 1.8m HIGH BLACK VINYL CHAIN LINK FENCING OR APPROVED EQUAL, ALONG DEVELOPMENT LIMIT BOUNDARY
 - CONCRETE APRON
 - LANDSCAPE AREA - SEE LANDSCAPE DWGS.
 - PEDESTRIAN RAIL (1070mm HIGH) SET INTO RETAINING WALL WHERE GRADE CHANGE GREATER THAN 400mm. PROVIDE CONCRETE-FILLED STEEL BOLLARD AT END OF RETAINING WALL - SEE CIVIL DWGS.
 - EXTERIOR STEEL STAIRS W/ TUBE STEEL GUARDRAIL, TYP.
 - TRUCK LOADING DOOR (TYPICAL)
 - LOADING SPACE - U.S. MIN. 3.5m x 14.0m
 - FIRE ACCESS ROUTE W/ 12M TURNING RADIUS
 - PROPOSED ELECTRICAL ROOM
 - PROPOSED MECHANICAL ROOM
 - CURB RAMP AT ENTRANCES WITH MUNICIPAL SIDEWALK LIMITS TO CONFORM TO OPD 350.010. - SEE CIVIL DWGS.
 - 1.8M WIDE PAINTED PEDESTRIAN PATHWAY
 - HATCHED AREA DENOTES HEAVY DUTY ASPHALT, TYPICAL FOR ALL AREAS REQUIRING HEAVY TRUCK OR TRACTOR TRUCK ACCESS.
 - 15.0m CENTERLINE RADIUS DISTANCE TO FIRE ACCESS ROAD
 - ROAD CURB AND SIDEWALK TO BE CONTINUOUS THROUGH THE DRIVEWAY. DRIVEWAY GRADE TO BE COMPATIBLE WITH EXIST. SIDEWALK AND A CURB DEPRESSION WILL BE PROVIDED FOR AT EACH ENTRANCE.
 - INVERTED U-SHAPE GALVANIZED BICYCLE RACKS
 - MIN. 1.8Mx0.5M PER SPACE
 - PROPOSED STOP SIGN LOCATION
 - PRESSED PATTERNED ASPHALT PEDESTRIAN PATHWAY
 - YELLOW PAINTED LINES
 - RETAINING WALL - REFER TO STRUC. DWGS
 - PRECAST SCREEN WALL TO BE INSTALLED ON TOP OF RETAINING WALL - REFER TO STRUC. DWGS
 - PROPOSED FIRE ROUTE SIGN LOCATION
 - RESERVED
 - PROPOSED AMENITY AREA
 - SNOW STORAGE ON SITE AT 2% TOTAL SITE AREA
 - PROPOSED CHAIN-LINK FENCE
 - CONCRETE/STEEL SAFETY BOLLARD
 - SCREEN WALL
 - PROPOSED PHYLON SIGNAGE
 - DRIVE-IN RAMP WITH GALVANIZED GUARDRAIL ON EACH SIDE, SEE CIVIL DWGS FOR SLOPE %
 - RESERVED
 - DETECTIBLE TACTILE WARNING SURFACE, CONFORMING TO 2012 O.B.C.
 - MIN. 3m WIDE CONCRETE DOLLY PAD AT TRAILER STALLS
 - ACCESSIBLE PARKING GRADE SLOPING UP TO MEET PROPOSED CURB LEVEL



OVERALL SITE PLAN

DATE	ISSUED FOR	REVISIONS
2024.12.12	ISSUED FOR PERMITS	
2024.10.16	REVISED PER OP/PA/VA	
2024.10.16	ISSUED FOR COORDINATION	
2024.10.16	ISSUED FOR COORDINATION	

PA/PMC: SK
 DRAWN BY: JS
 JOB NO.: TOR22-0960-01
 SHEET: A100

APPENDIX B

Curriculum Vitae



SEAN M. COLVILLE, B.Sc., P.Ag.

432 Niagara St., Unit 2, St. Catharines, ON L2M 4W3
Tel: (905) 935-2161 | Email: sean@colvilleconsultinginc.com

EDUCATION

B.Sc. Geology, Acadia University, 1986
Soil Science, University of Guelph, 1984

PROFESSIONAL AFFILIATIONS

Ontario Institute of Agrology
Agricultural Institute of Canada

POSITIONS HELD

2003 – Present **President** - Colville Consulting Inc., St. Catharines, Ontario
2001 – 2003 **Senior Project Manager** - ESG International Inc., St. Catharines, Ontario
1998 – 2001 **Senior Project Manager** - ESG International Inc., Guelph, Ontario
1988 – 1998 **Project Manager** - ESG International Inc., Guelph, Ontario
1984 – 1988 **Soil Scientist** – MacLaren Plansearch Ltd., Halifax, Nova Scotia
1982 – 1983 **Assistant Soil Scientist** – Nova Scotia Department of Agriculture and Marketing

EXPERIENCE

Colville Consulting Inc. (CCI) was established in June of 2003 by Sean Colville. CCI offers agricultural and environmental consulting services to clients across Ontario, catering to both public and private sectors. Sean has over 35 years of agricultural consulting experience, which includes agricultural resource evaluation studies, soil surveys, interpretations of agricultural capability, agricultural impact assessments, alternative site assessments, and soil and microclimatic rehabilitation/restoration projects. Sean has extensive experience interpreting agricultural land use policies for a wide variety of development applications.

Sean is a Professional Agrologist (P.Ag.), and a member of both the Ontario Institute of Agrology and the Agricultural Institute of Canada. Sean has been recognized by the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) as an expert in the identification of Prime Agricultural Areas and in the interpretation of the Minimum Distance Separation requirements for livestock operations.

Sean has presented expert testimony before the Ontario Land Tribunal (formerly OMB, LPAT), Consolidated Joint Board, Assessment Review Board, Ontario Superior Court, and the Normal Farm Practices Protection Board. Sean's testimonies have involved land use planning matters as they relate to agriculture, impact assessments, resource evaluations, soil science, and normal farm practices.

Agricultural Impact Assessments and Alternative Site Studies

Colville Consulting Inc. specializes in agricultural impact assessment and alternative site studies for development applications in Prime Agricultural Areas. Sean has prepared over 200 agricultural impact assessments for a wide variety of development projects, including settlement area boundary expansions, linear facilities (Class EAs), new and expanding aggregate operations, and residential, commercial, recreational, industrial, and institutional developments. The majority of these projects required the interpretation of agricultural land use policies, an inventory and assessment of the agricultural resources,

land use, land tenure, an assessment of conflict potential including determination of minimum distance separation requirements, interpretation of the agricultural priority, and development of mitigation measures to avoid or minimize potential impacts. Justification of the location for development proposals in agricultural areas is required by the Provincial Policy Statement and can often be addressed by an alternative site study.

Recent examples of Sean Colville's agricultural work include:

- Agricultural Impact Assessment for Stubbes New Durham Precast Plant (2021)
- Agricultural Impact Assessment for New Tecumseth Community Builders Inc., County of Simcoe (2021)
- Agricultural Impact Assessment for Caledon Costco (2021)
- Agricultural Impact Assessment for Walker Industries' Redford Pit Expansion, West Grey (2022)
- Agricultural Impact Assessment for Milton Business Park (2022)
- Minimum Distance Separation for Mono Hills Corporation (2022)
- Land Evaluation and Area Review for Norfolk County (2022)

Publications

Rees, H.W.; Duff, J.P.; Colville, S.; Soley, T and Chow T.L. 1995. Soils of selected agricultural areas of Moncton Parish, Westmoreland County, New Brunswick. New Brunswick. Soil Survey Report No. 15. CLBRR Contribution No. 95-13, Research Branch, Agriculture AND Agri-Food Canada, Ottawa, Ontario

Rees, H.W.; Duff, J.P.; Colville, S.; Soley, T and Chow T.L. 1996. Soils of selected agricultural areas of Shediac and Botsford Parishes, Westmoreland County, New Brunswick. New Brunswick. Soil Survey Report No. 16. CLBRR Contribution No. 95-13, Research Branch, Agriculture and Agri-Food Canada, Ottawa, Ontario. 127 pp. with maps.



Brett Espensen, B.A.(Hons), A.Ag (P)

432 Niagara St., Unit 2, St. Catharines, ON L2M 4W3
Tel: (905) 935-2161 | Email: Brett@colvilleconsultinginc.com

EDUCATION

Environmental Management and Assessment – Graduate Certificate, Niagara College, 2014
B.A. Honours, Double Major in Environmental Governance and Geography, University of Guelph, 2013

PROFESSIONAL AFFILIATIONS

Agri-food Innovation Council
Canadian Society of Soil Science
Eco Canada - Environmental Professional (EP)
Certified Inspector of Sediment and Erosion Control (CISEC)
International Society of Arboriculture (ON-2656A)
City of Hamilton Environmentally Significant Areas Impact Evaluation Group (ESAIEG)

POSITIONS HELD

2020 - Present	Project Manager- Ecologist/Agrologist, Colville Consulting Inc.
2014 – 2020	Ecologist/Agrologist - Colville Consulting Inc.
May – July, 2011-2013	Silvicultural Technician - PRT Growing Services Ltd,

EXPERIENCE

Brett Espensen, Environmental and Agricultural Consultant at Colville Consulting Inc., has over 9 years of formal educational training and experience in Environmental and Agricultural Planning. Brett has completed Minimum Distance Separation (MDS) Requirements, Agricultural Impact Assessments, Post and Active Construction Monitoring, and Soil Surveys in his role as an Agricultural Consultant at Colville.

Brett's career as an agrologist has included the interpretation of provincial, regional, and local agricultural policies, and interpretation of land use maps, edge planning policies, and regional soils mapping. He has prepared Agricultural Impact Assessments, Minimum Distance Separation studies, and LEAR evaluations. He has undertaken soil surveys and land use surveys for these studies and prepared reports and mapping. Brett has experience working with both public and private sector clients to identify and address agricultural policy requirements throughout the development process. Brett also has experience working on peer reviews for agricultural reports with a focus on content and objectivity.

Agricultural Impact Assessment, Alternative Site Studies, and Minimum Distance Separation

Brett's primary focus is on agricultural impact assessment and alternative site studies for development applications and urban boundary expansion proposals that have the potential to impact agricultural lands. His experience includes writing and assisting in the preparation of over 30 agricultural impact assessments and soil surveys for a wide variety of projects including Class EAs for municipal services, impact assessments for aggregate operations, residential, commercial, recreational, industrial, and institutional developments. Many of these projects require the interpretation of agricultural land use policies, inventory and assessment of the agricultural resources, land use, land tenure, an assessment of conflict potential including determination of minimum distance separation requirements, identification of prime agricultural lands and areas, and interpretation of the agricultural priority of lands proposed for development.

A selection of the agricultural projects worked on by Brett include:

- ◆ Agricultural Assessment – Analysis of North Markham Settlement Area Boundary Expansion Options (2015)
- ◆ Minimum Distance Separation Report Investigation for Innisfil Area and Peer review. (2016)
- ◆ Post Construction Reclamation Monitoring (PCRM) for TC Energy Parkway East Mainline Expansion (2016-2023)
- ◆ Post Construction Reclamation Monitoring (PCRM) for TC Energy Kings North Connection pipeline Project (2017-2022)
- ◆ Minimum Distance Separation Constraints Analysis. Township of Mulmur, Dufferin County (2018)
- ◆ Minimum Distance Separation Constraints Analysis. City of Thorold, Regional Municipality of Niagara (2018)
- ◆ Minimum Distance Separation Constraints Analysis, Township of Wainfleet, Regional Municipality of Niagara (2018)
- ◆ Agricultural Impact Assessment for Employment Lands – Northumberland County (2014, 2018)
- ◆ Agricultural Characterization for Holt Road Property, Municipality of Clarington (2019)
- ◆ Minimum Distance Separation constraints analysis for Millcroft Inn and Spa, Village of Alton (2019)
- ◆ Agricultural Impact Assessment for 63 Pyle Road, Village of Lowbanks (2019)
- ◆ Minimum Distance Separation Constraints Analysis for Sunnybrae Golf Course – Town of Port Perry (2019)
- ◆ Independent Construction Monitoring for Enbridge Kingsville Transmission Reinforcement Project (2019-2020)
- ◆ Agricultural Impact Assessment for 6939 King Street, Town of Caledon (2020)
- ◆ Agricultural Impact Assessment for 10192 9th Line, City of Markham (2020)
- ◆ Minimum Distance Separation Constraints Analysis for West Half of Lot 1, Concession 5 EHS Township of Mulmur (2020)
- ◆ Post Construction Reclamation Monitoring (PCRM) for TC Energy Gravenhurst Pipeline Replacement Project (2020-Present)
- ◆ Agricultural Impact Assessment for Mayfield West Secondary Plan (Stage 2) – Town of Caledon (2021)
- ◆ Agricultural Impact Assessment for Stubbe’s Precast Expansion, New Durham (2021)
- ◆ Preliminary Agricultural Analysis for Bramalea Road Property, Town of Caledon (2021)
- ◆ Agricultural Impact Assessment for Private Client, Township of McNab/Braeside (2021)
- ◆ Hoffman Productivity Indices (HPI) memo for Stouffville Road property – Whitchurch-Stouffville (2021)
- ◆ Minimum Distance Separation Constrains for Industrial Application, Town of Milton (2021)
- ◆ Agricultural Impact Assessment for Block 27 Landowners Group Inc.- City of Vaughan (2021)
- ◆ Agricultural Impact Assessment for City of Orillia Urban Boundary Expansion (2022)
- ◆ Assessment of Permitted Uses and MDS Report, Township of Uxbridge (2022)
- ◆ Agricultural Impact Assessment for Milton Business Park (2022)
- ◆ Agricultural Justification Report for 5th Side Road Bradford (2022)
- ◆ Independent Construction Monitoring for Enbridge 2021-2022 Storage Enhancement Project (SEP) (2022-2023)
- ◆ Minimum Distance Separation Constraints Analysis for Industrial Land Expansion, County of Brant (2023)
- ◆ Minimum Distance Separation Constraints Analysis for Industrial Land Expansion, Township of Essa (2023)

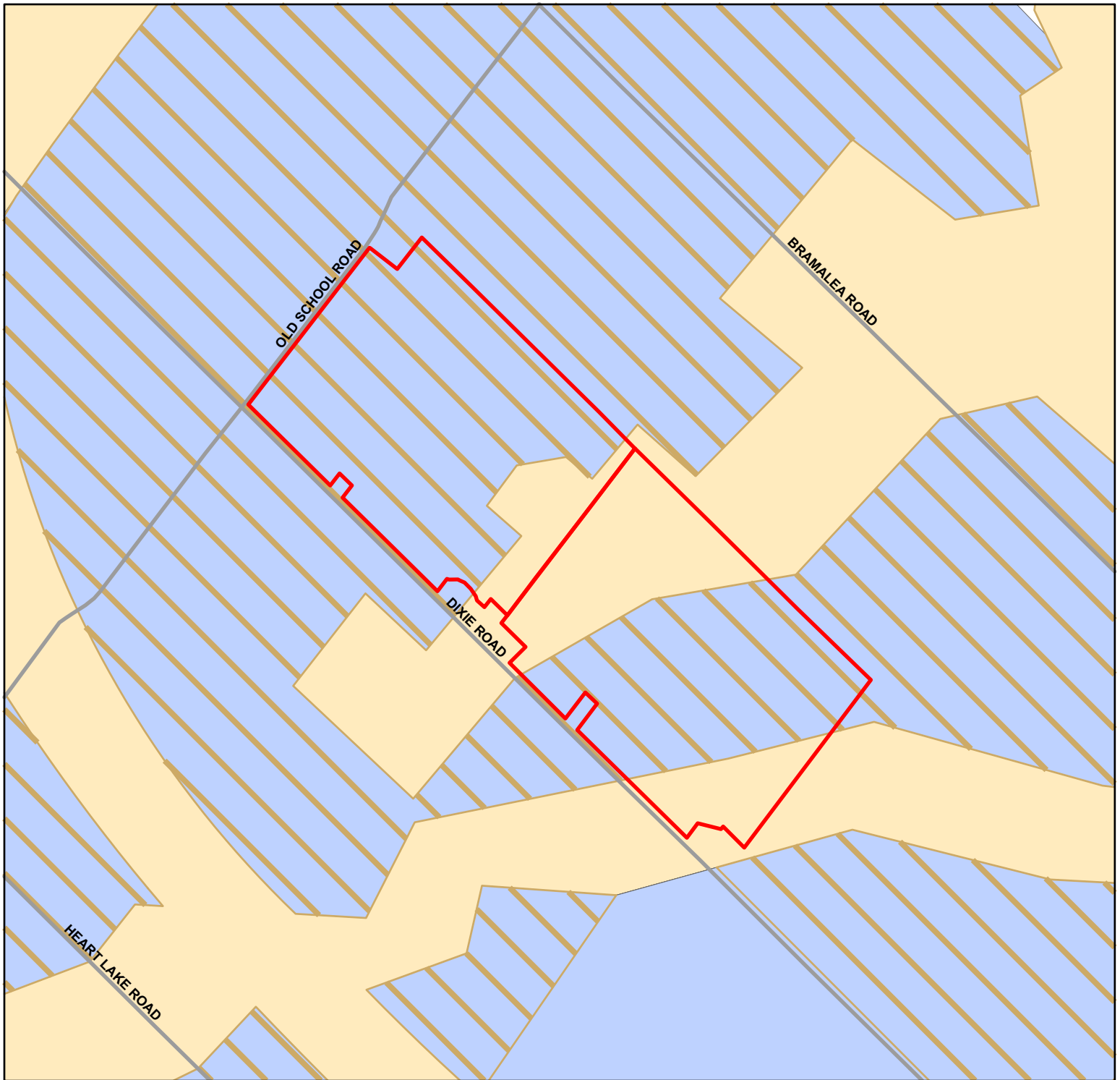
SELECTED TRAINING AND WORKSHOPS

- Minimum Distance Separation Formulae (OMAFRA, 2017)
- Permitted Uses in Prime Agricultural Areas (OMAFRA, 2023)
- Soils Classification and Mapping Courses (Paragon, 2023).
- Various undergraduate level soil science courses – University of Guelph (2020)
- Ontario Butternut Health Assessor (BHA #701)
- Professional Locate Administrator Course (PLAC)
- Introduction to Arboriculture Trees and Construction
- MNRF NHIC Sensitive Data Training

APPENDIX C

Region of Peel Official Plan

Schedule E-1 Regional Structure



- Legend**
- Subject Lands
 - Regional Structure (ROP OP SCH E-1)**
 - Urban System
 - Rural System
 - 2051 New Urban Boundary

Appendix C Region of Peel Official Plan Schedule E-1 Regional Structure

Agricultural Impact Assessment
12489, 12861 Dixie Road, Town of Caledon, ON

Prepared for: **QuadReal Property Group**

Prepared by: **COLVILLE CONSULTING INC.**

0 200 Meters

 1:15,000

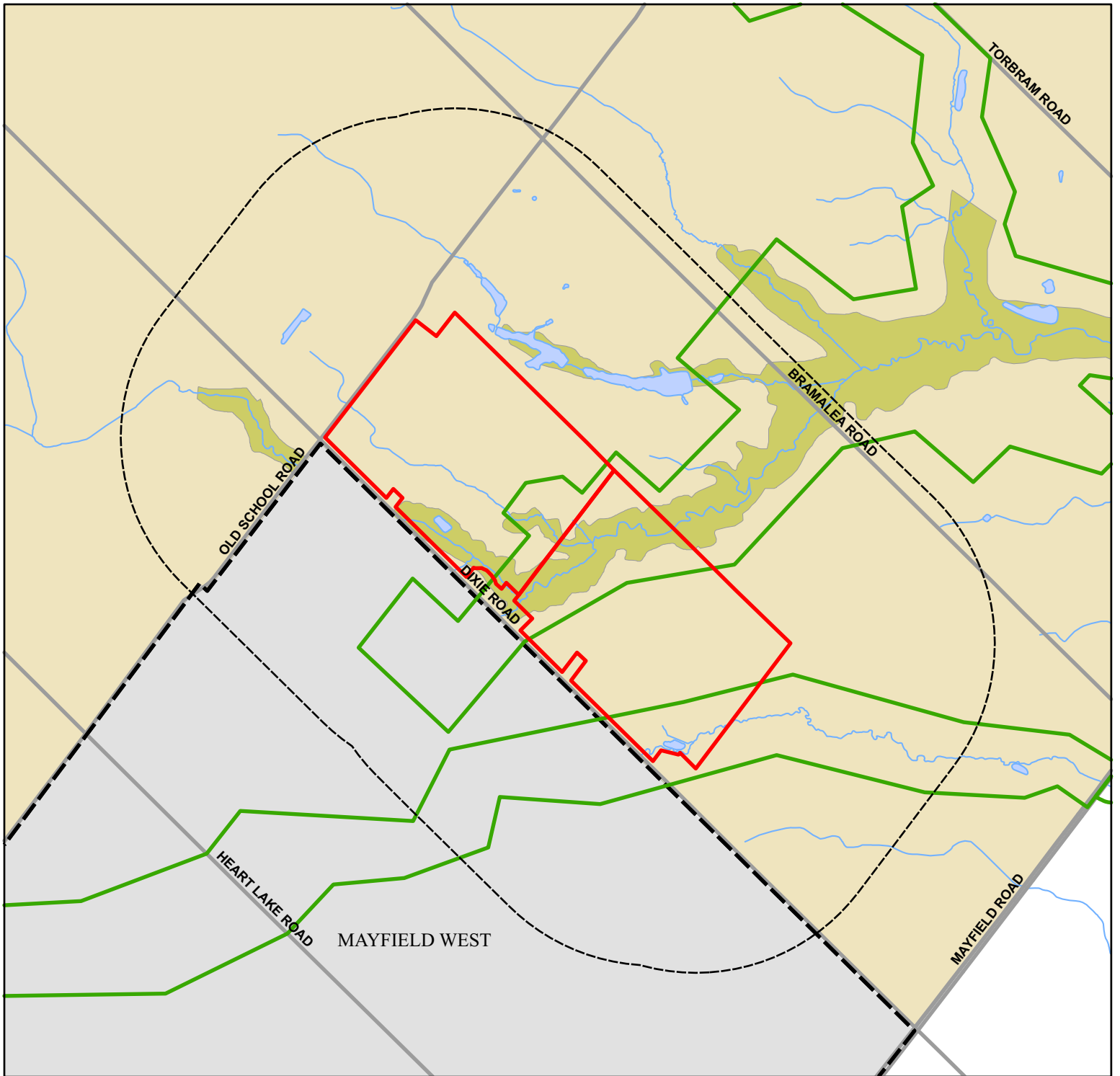








DATE:
Dec 2024

FILE:
C23120

APPENDIX D

2018 Caledon Official Plan
Schedule A Land Use



- Legend**
-  Subject Lands
 -  Secondary Study Area (750m)
 -  Prime Agriculture
 -  Environmental Policy Area
 -  Boundary of Greenbelt Plan Area
 -  Mayfield West Study Area Boundary

Appendix D 2018 Caledon Official Plan Schedule A Land Use Plan

Agricultural Impact Assessment
12489, 12861 Dixie Road, Town of Caledon, ON

Prepared for: **QuadReal Property Group**

Prepared by: **COLVILLE CONSULTING INC.** 

0 200 Meters
1:20,000



DATE: Dec 2024	FILE: C23120
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APPENDIX E

Climate Normals Data

Climate Normals 1981-2010 Station Data

Metadata including Station Name, Province or Territory, Latitude, Longitude, Elevation, Climate ID, WMO ID, TC ID							
STATION NAME	PROVINCE	LATITUDE	LONGITUDE	ELEVATION	CLIMATE ID	WMO ID	TC ID
ALBION FIELD CENTRE	ON	43°55'00.000"	79°50'00.000"	281.9 m	6150103		

Legend	
A = WMO "3 and 5 rule" (i.e. no more than 3 consecutive and no more than 5 total missing for either temperature or precipitation)	
B = At least 25 years	
C = At least 20 years	
D = At least 15 years	

1981 to 2010 Canadian Climate Normals station data														
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year	Code
Temperature														
Daily Average (°C)	-7	-5.9	-1.4	6.1	12.4	17.3	19.9	19.1	14.3	8.1	2.1	-3.9	6.7	D
Standard Deviation	3.1	2.5	2.2	1.6	2	1.3	1.4	1.5	1	1.6	1.2	3.1	2.6	D
Daily Maximum (°C)	-2.8	-1.4	3.7	11.6	18.8	23.7	26.3	25.1	19.9	13.2	5.8	-0.3	12	D
Daily Minimum (°C)	-11.2	-10.4	-6.6	0.5	5.9	10.9	13.5	13	8.6	2.9	-1.7	-7.4	1.5	D
Extreme Maximum (°C)	12	14.5	24.5	30	33	34.5	36.1	35	34.4	30.6	22.2	19.5		
Date (yyyy/dd)	1988/31	1984/23	1986/30	1990/25	1998/15	1988/25	1975/31	Jan-75	Mar-73	Feb-71	Jan-74	Mar-82		
Extreme Minimum (°C)	-36.5	-35	-31.5	-21.1	-6.1	-1.5	1.7	-0.5	-5	-11.5	-19	-32		
Date (yyyy/dd)	1994/16	1979/18	Aug-84	Jul-72	Apr-74	Dec-80	May-72	1982/29	1973/21	1978/17	1989/22	Nov-77		
Precipitation														
Rainfall (mm)	24	22.2	27.3	63	76.1	75.5	81.8	77.4	75	64.9	67.8	25.9	681	D
Snowfall (cm)	36.4	28	23	4	0	0	0	0	0	3.4	13.8	31.9	140.5	D
Precipitation (mm)	60.4	50.2	50.3	67	76.1	75.5	81.8	77.4	75	68.3	81.7	57.7	821.5	D
Average Snow Depth (cm)		27		0	0	0	0	0	0	0	0	0		
Median Snow Depth (cm)		29		0	0	0	0	0	0	0	0	0		
Snow Depth at Month-end (cm)	22	4	0	0	0	0	0	0	0	0	0	0		
Extreme Daily Rainfall (mm)	26	33	42.5	50.5	58	68	68.9	58	48.2	56	47.4	31		
Date (yyyy/dd)	1996/26	1984/13	1997/25	2000/21	Dec-00	2000/24	1985/15	Apr-89	Oct-86	May-95	Dec-92	1979/24		
Extreme Daily Snowfall (cm)	20.3	33	20	16.5	0.6	0	0	0	0	20	19	33		
Date (yyyy/dd)	1976/13	Oct-81	Sep-80	Feb-75	1984/14	Jan-69	Jan-69	Jan-69	Jan-69	1997/26	1986/20	Oct-92		
Extreme Daily Precipitation (mm)	26	61	43.5	50.5	58	68	68.9	58	48.2	56	47.4	36.8		
Date (yyyy/dd)	1996/26	Oct-81	1997/25	2000/21	Dec-00	2000/24	1985/15	Apr-89	Oct-86	May-95	Dec-92	Dec-72		
Extreme Snow Depth (cm)	42	43	5	0	0	0	0	0	0	20	4	7		
Date (yyyy/dd)	1985/20	Dec-85	Mar-85	Jan-83	Jan-83	Jan-83	Jan-83	Jan-83	Jan-83	1981/23	1984/19	1984/20		
Days with Rainfall														
>= 0.2 mm	3.3	3.6	5.2	9.9	10.3	10.2	9	9.8	10.8	11.2	9.3	3.7	96.2	D
>= 5 mm	1.7	1.5	2.2	4.2	5	4.4	4.9	4.5	4.5	4.2	4.2	1.9	43.2	D
>= 10 mm	0.89	0.76	0.78	2	2.3	2.9	2.6	2.8	2.5	2.4	2.4	1	23.5	D
>= 25 mm	0.16	0.1	0.11	0.37	0.53	0.61	0.68	0.63	0.68	0.33	0.53	0.11	4.8	D
Days With Snowfall														
>= 0.2 cm	9.8	6.4	5.3	1.4	0.05	0	0	0	0	0.58	4	6.8	34.3	D
>= 5 cm	2.6	2	1.5	0.26	0	0	0	0	0	0.21	0.68	2.3	9.4	D
>= 10 cm	0.89	0.65	0.74	0.11	0	0	0	0	0	0.11	0.32	0.89	3.7	D
>= 25 cm	0.06	0.05	0	0	0	0	0	0	0	0	0	0.11	0.22	D
Days with Precipitation														
>= 0.2 mm	12.4	9.4	9.6	10.8	10.3	10.2	9	9.8	10.8	11.3	12.1	9.8	125.5	D
>= 5 mm	4.4	3.4	3.7	4.5	5	4.4	4.9	4.5	4.5	4.3	5	3.9	52.5	D
>= 10 mm	1.9	1.5	1.7	2.1	2.3	2.9	2.6	2.8	2.5	2.5	2.9	2	27.9	D
>= 25 mm	0.22	0.15	0.16	0.37	0.53	0.61	0.68	0.63	0.68	0.39	0.53	0.21	5.2	D
Days with Snow Depth														
>= 1 cm				0	0	0	0	0	0	0	0	0		
>= 5 cm				0	0	0	0	0	0	0	0	0		
>= 10 cm				0	0	0	0	0	0	0	0	0		
>= 20 cm				0	0	0	0	0	0	0	0	0		
Wind														
Speed (km/h)		9.4		9	8.9	8.9	7.2	5.4		7.7				
Most Frequent Direction	CALM	NW	CALM	CALM	NW	NW	NW	NW	CALM	NW	CALM	CALM	CALM	
Maximum Hourly Speed (km/h)	56	63	64	50	48	45	35	37	39	42	60	66	66	
Date (yyyy/dd)	1974/31	1971/27	May-76	1975/19	Jan-70	1971/29	Jan-77	Apr-83	Oct-70	1973/14	Feb-71	1972/13	1972/13	
Direction of Maximum Hourly Speed	NW	SW	W	NW	SW	W	SW	S	W	NW	W	W	W	
Bright Sunshine														
Total Hours		85.6		240.9	240.2	255.9	197	130	71.8	19.4				
Days with measurable		18.3		26	29	28	31	28	18.8	7				
% of possible daylight hours		29.3		52.8	52	54.6	45.5	38	24.7	7				
Extreme Daily	8.9	10.1	10.7	13.5	14.3	15	14.3	11.7	10.6	9.5	9			
Date (yyyy/dd)	1970/30	1979/27	1981/25	1972/27	1971/22	Aug-76	1970/22	Feb-70	Jan-70	1985/27	Mar-71	Mar-69		

APPENDIX F

Agricultural Crop Statistics

Peel Regional Municipality at a Glance - 2021

Item	Peel	Province	Percent of province	Percent from 2016	Item	Peel	Province	Percent of province	Percent from 2016
Farms, 2021 Census (number)									
Total	377	48,346	0.78%	-7.80%	Major Field Crops, 2021 Census (acres)	10,343	1,144,406	0.90%	21.54%
Under 10 acres	52	3,217	1.62%	-1.80%	Wheat	344	84,220	0.41%	64.00%
10 to 19 acres	122	12,886	0.64%	-22.27%	Barley for grain	1,058	88,756	1.46%	-42.21%
20 to 29 acres	70	10,024	0.64%	0.00%	Oats for grain	483	59,861	0.76%	45.00%
30 to 179 acres	10	4,422	0.50%	-12.00%	Maize (corn)	19,831	2,022,465	0.89%	45.86%
180 to 239 acres	22	3,981	0.50%	4.70%	Corn for silage	1,271	299,878	0.54%	-8.50%
240 to 399 acres	19	5,568	0.50%	0.00%	Hay	14,008	1,704,017	0.82%	8.31%
400 to 599 acres	24	2,866	0.44%	4.50%	Soybeans	29,915	2,066,255	1.07%	21.60%
600 to 759 acres	12	1,658	0.38%	0.00%	Other	7	39,193	0.02%	-76.87%
760 to 1,119 acres	18	1,601	1.00%	0.00%					
1,120 to 1,509 acres	8	720	1.1%	102.00%					
1,600 to 2,239 acres	5	461	1.11%	-44.44%	Major Fruit Crops, 2021 Census (acres)	196	48,611	0.58%	-29.53%
2,240 to 2,879 acres	5	173	2.80%	0.00%	Total fruit crops	132	10,808	0.62%	7.32%
2,880 to 3,519 acres	0	0	0.00%	0.00%	Apples	0	1,383	0.00%	0.00%
3,520 acres and over	1	118	0.85%	0.00%	Peaches	0	4,608	0.00%	0.00%
					Cherries	60	18,432	0.33%	0.00%
					Grapes	59	2,833	2.24%	5.36%
					Raspberries	17	458	0.88%	0.00%
					Major Vegetable Crops, 2021 Census (acres)	112	49,109	0.58%	-11.37%
					Total vegetables	519	127,893	0.41%	37.87%
					Tomatoes	112	20,518	0.41%	80.20%
					Other	38	14,614	0.22%	0.00%
					Green peas	28	14,644	0.20%	100.00%
					Green or wax beans	28	14,644	0.21%	157.14%
					Land Use, 2021 Census (acres)	67,408	9,021,298	0.75	-91.50
					Summertime land	75	15,885	0.47	-8.16
					Winter or wooded pasture	3,048	514,198	0.60	-30.25
					Natural land for pasture	3,764	793,366	0.48	4.44
					Christmas trees, woodland & wetland	5,152	1,542,627	0.30	-23.37
					All other land	2,708	470,909	0.68	-20.23
					Total area of farms	67,408	12,342,463	0.67	-11.49
					Greenhouse Area, 2021 Census (square feet)	204,236	185,113,328	0.55	-44.92
					Total area in use	8,350	1,604,010	0.24%	-5.40%
					Landfills and culverts	1,940	209,540	0.65%	1.15%
					Beef cows	1,184	224,194	0.59%	1.15%
					Dairy cows	1,036	327,712	0.46%	0.00%
					Total pigs	195	4,071,902	0.00%	189.47%
					Total sheep and lambs	542	322,558	0.17%	-40.84%
					Greenhouse Area, 2016 Census (square feet)	204,236	185,113,328	0.55	-44.92
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					Total sheep and lambs	542	322,558	0.17%	-40.84%
					Greenhouse Area, 2016 Census (square feet)	204,236	185,113,328	0.55	-44.92
					Total area in use	8,350	1,604,010	0.24%	-5.40%
					Landfills and culverts	1,940	209,540	0.65%	1.15%
					Beef cows	1,184	224,194	0.59%	1.15%
					Dairy cows	1,036	327,712	0.46%	0.00%
					Total pigs	195	4,071,902	0.00%	189.47%
					Total sheep and lambs	542	322,558	0.17%	-40.84%
					Greenhouse Area, 2016 Census (square feet)	204,236	185,113,328	0.55	-44.92
					Total area in use	8,350	1,604,010	0.24%	-5.40%
					Landfills and culverts	1,940	209,540	0.65%	1.15%
					Beef cows	1,184	224,194	0.59%	1.15%
					Dairy cows	1,036	327,712	0.46%	0.00%
					Total pigs	195	4,071,902	0.00%	189.47%
					Total sheep and lambs	542	322,558	0.17%	-40.84%
					Greenhouse Area, 2016 Census (square feet)	204,236	185,113,328	0.55	-44.92
					Total area in use	8,350	1,604,010	0.24%	-5

\$250,000 to \$499,999	32	4,448	0.72%	6.67%
\$500,000 to \$999,999	26	3,954	0.66%	44.44%
\$1,000,000 to \$1,999,999	9	2,462	0.37%	49.00%
\$2,000,000 and over	8	1,696	0.47%	33.33%

Farms by Industry Group, 2011 Census (number of farms)

Beef cattle ranching and farming	43	7,986	0.54%	19.44%
Dairy cattle and milk production	12	3,189	0.34%	-33.33%
Hog and pig farming	3	1,189	0.25%	200.00%
Poultry and egg production	10	2,061	0.49%	11.11%
Sheep and goat farming	4	1,309	0.31%	-42.86%
Other animal production	55	4,558	1.21%	-38.20%
Cereal and grain farming	93	16,194	0.51%	-3.13%
Vegetable and melon farming	27	1,562	1.73%	42.11%
Fruit and tree nut farming	10	1,211	0.83%	-16.67%
Greenhouse, nursery and floriculture	14	1,672	0.84%	-12.50%
Other crop farming	37	5,418	0.68%	-11.90%

\$250,000 to \$499,999	30	4,797	0.64	-3.23
\$500,000 to \$999,999	18	3,089	0.46	20.00
\$1,000,000 to \$1,999,999	15	2,919	0.74	25.00
\$2,000,000 and over	6	1,233	0.40	0.00

Farms by Industry Group, 2016 Census (number of farms)

Beef cattle ranching and farming	36	6,798	0.53	-18.18
Dairy cattle and milk production	16	3,439	0.52	-18.18
Hog and pig farming	1	1,229	0.09	-
Poultry and egg production	9	1,816	0.50	12.50
Sheep and goat farming	7	1,097	0.64	0.00
Other animal production	89	5,902	1.51	8.54
Cereal and grain farming	96	16,876	0.57	7.67
Vegetable and melon farming	19	1,856	1.02	35.71
Fruit and tree nut farming	12	1,362	0.88	0.00
Greenhouse, nursery and floriculture	16	2,050	0.79	-44.83
Other crop farming	42	7,187	0.58	-27.59

\$250,000 to \$499,999	31	5,086	0.81
\$500,000 to \$999,999	15	3,348	0.46
\$1,000,000 to \$1,999,999	12	1,558	0.77
\$2,000,000 and over	6	803	0.75

Farms by Industry Group, 2011 Census (number of farms)

Beef cattle ranching and farming	44	7,105	0.62
Dairy cattle and milk production	22	4,006	0.35
Hog and pig farming	0	1,235	0.00
Poultry and egg production	8	1,619	0.49
Sheep and goat farming	7	1,446	0.48
Other animal production	82	6,968	1.18
Cereal and grain farming	99	15,816	0.56
Vegetable and melon farming	14	1,531	0.91
Fruit and tree nut farming	12	1,543	0.78
Greenhouse, nursery and floriculture	20	2,372	1.22
Other crop farming	58	8,174	0.70

APPENDIX G

Canada Land Inventory Information

Canada Land Inventory Soil Capability Classification for Agriculture

The Canada Land Inventory (CLI) classification system was developed to classifying soil capability for agricultural use for use across Canada. CLI is an interpretative system which assesses the effects of climate and soil characteristics on the limitations of land for growing common field crops. It classifies soils into one of seven capability classes based on the severity of their inherent limitations to field crop production. Soils descend in quality from Class 1, which is highest, to Class 7 soils which have no agricultural capability for the common field crops. Class 1 soils have no significant limitations. Class 2 through 7 soils have one or more significant limitations, and each of these are denoted by a capability subclass.

In Ontario the document, "Classifying Prime and Marginal Agricultural Soils and Landscapes: Guidelines for Application of the Canada Land Inventory in Ontario" (OMAFRA, 2008) provides a Provincial interpretation of the CLI classification system. These guidelines are based on the "Canada Land Inventory, Soil Capability Classification for Agriculture" (ARDA Report No. 2, 1965) and have been modified for use in Ontario. In Ontario, CLI Classes 1 to 4 lands are generally considered to be arable lands and Classes 1 to 3 soils and specialty crop lands are considered to be prime agricultural lands.

The following definitions were taken from Classifying Prime and Marginal Agricultural Soils and Landscapes: Guidelines for Application of the Canada Land Inventory in Ontario (2008).

Definitions of the Capability Classes

Class 1 - Soils in this class have no significant limitations in use for crops. Soils in Class 1 are level to nearly level, deep, well to imperfectly drained and have good nutrient and water holding capacity. They can be managed and cropped without difficulty. Under good management they are moderately high to high in productivity for the full range of common field crops

Class 2 - Soils in this class have moderate limitations that reduce the choice of crops, or require moderate conservation practices. These soils are deep and may not hold moisture and nutrients as well as Class 1 soils. The limitations are moderate and the soils can be managed and cropped with little difficulty. Under good management they are moderately-high to high in productivity for a wide range of common field crops.

Class 3 - Soils in this class have moderately severe limitations that reduce the choice of crops or require special conservation practices. The limitations are more severe than for Class 2 soils. They affect one or more of the following practices: timing and ease of tillage; planting and harvesting; choice of crops; and methods of conservation. Under good management these soils are fair to moderately high in productivity for a wide range of common field crops.

Class 4 - Soils in this class have severe limitations that restrict the choice of crops, or require special conservation practices and very careful management, or both. The severe limitations seriously affect one or more of the following practices: timing and ease of tillage; planting and harvesting; choice of crops; and methods of conservation. These soils are low to medium in productivity for a narrow to wide range of common field crops, but may have higher productivity for a specially adapted crop.

Class 5 - Soils in this class have very severe limitations that restrict their capability to producing perennial forage crops, and improvement practices are feasible. The limitations are so severe that the soils are not capable of use for sustained production of annual field crops. The soils are capable of producing native or tame species of perennial forage plants and may be improved through the use of farm machinery. Feasible improvement practices may include clearing of bush, cultivation, seeding, fertilizing or water control.

Class 6 - Soils in this class are unsuited for cultivation, but are capable of use for unimproved permanent pasture. These soils may provide some sustained grazing for farm animals, but the limitations are so severe that improvement through the use of farm machinery is impractical. The terrain may be unsuitable for the use of farm machinery, or the soils may not respond to improvement, or the grazing season may be very short.

Class 7 - Soils in this class have no capability for arable culture or permanent pasture. This class includes marsh, rockland and soil on very steep slopes.

Definitions of the Prime and Non-prime Agricultural Lands

In Ontario, CLI Classes 1, 2 and 3 and specialty crop lands are considered prime agricultural lands. Non-prime agricultural lands are comprised of CLI Class 4-7 lands.

Organic soils (Muck) are not classified under the CLI system but are mapped and identified as O in the provincial mapping.

Definitions of the Capability Subclasses

Capability Subclasses indicate the kinds of limitations present for agricultural use. Thirteen Subclasses were described in CLI Report No. 2. Eleven of these Subclasses have been adapted to Ontario soils.

Subclass Definitions:

Subclass C - Adverse climate: This subclass denotes a significant adverse climate for crop production as compared to the "median" climate which is defined as one with sufficiently high growing-season temperatures to bring common field crops to maturity, and with sufficient precipitation to permit crops to be grown each year on the same land without a serious risk of partial or total crop failures. In Ontario this subclass is applied to land averaging less than 2300 Crop Heat Units.

Class	Crop Heat Units
1	>2300
2C	1900-2300
3C	1700-1900
4C	<1700

Subclass D - Undesirable soil structure and/or low permeability: This subclass is used for soils which are difficult to till, or which absorb or release water very slowly, or in which the depth of rooting zone is restricted by conditions other than a high water table or consolidated bedrock. In Ontario this subclass is based on the existence of critical clay contents in the upper soil profile.

Class	Soil Characteristics
2D	The top of a clayey horizon >15 cm thick occurs within 40 cm of the soil surface. Clayey materials in this case must have >35% clay content.
3D	The top of a very fine clayey (clay content >60%) horizon >15 cm thick occurs within 40 cm of the soil surface

Subclass E - Erosion: Loss of topsoil and subsoil by erosion has reduced productivity and may in some cases cause difficulties in farming the land e.g. land with gullies.

Class	Soil Characteristics
2E	Loss of the original plough layer, incorporation of original B horizon material into the present plough layer, and general organic matter losses have resulted in moderate losses to soil productivity.
3E	Loss of original solum (A and B horizons) has resulted in a plough layer consisting mostly of

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	Loamy or Clayey parent material. Organic matter content of the cultivated surface is less than 2%.
4E	Loss of original solum (A and B horizons) has resulted in a cultivated layer consisting mainly of Sandy parent material with an organic matter content of less than 2%; shallow gullies and occasionally deep gullies which cannot be crossed by machinery may also be present.
5E	The original solum (A and B horizons) has been removed exposing very gravelly material and/or frequent deep gullies are present which cannot be crossed by machinery.

Subclass F - Low natural fertility: This subclass is made up of soils having low fertility that is either correctable with careful management in the use of fertilizers and soil amendments or is difficult to correct in a feasible way. The limitation may be due to a lack of available plant nutrients, high acidity, low exchange capacity, or presence of toxic compounds.

Class	Upper Texture Group (>40 and <100 cm from surface)	Lower Texture Group (remaining materials to 100 cm depth)	Drainage Class	Additional Soil Characteristics ¹
2F	Sandy	Sandy or very gravelly	Rapid to imperfect	Neutral or alkaline parent material with a Bt horizon within 100 cm of the surface
3F	Sandy	Sandy or very gravelly	Any drainage class	Neutral or alkaline parent material with no Bt horizon present within 100 cm of surface
3F	Sandy	Loamy or Clayey	Any drainage class	Acid parent material
3F	Loamy or clayey	Any Texture Group	Any drainage class	Acid parent material
4F	Sandy	Sandy or very gravelly	Any drainage class	Acid parent material
4F	Very gravelly	Any texture	Rapid to imperfect	Neutral to alkaline parent material
5F	Very Gravelly	Any texture	All drainage classes	Acid parent material

¹ "Acid" means pH<5.5; "Neutral" pH 5.5 to 7.4; "Alkaline" pH>7.4 as measured in 0.01 M CaCl₂ (CSCC, 1998). PH 's measured in distilled water tend to be slightly higher (up to 0.5 units).

Bt horizon should be fairly continuous and average more than 10cm thickness

Subclass I - Inundation by streams or lakes: Flooding by streams and lakes causes crop damage or restricts agricultural use.

Class	Soil Characteristics
3I	Frequent inundation with some crop damage; estimated frequency of flooding is less than once every 5 years (Floodplain); includes higher floodplain-terraces on which cultivated field crops can be grown.
5I	Very frequent inundation with some crop damage; estimated frequency of flooding is at least once every 5 years (Floodplain); includes active floodplain areas on which forage crops can be grown primarily for pasture.
7I	Land is inundated for most of the growing season; often permanently flooded (Marsh)

Subclass M – Moisture deficiency: Soils in this subclass have lower moisture holding capacities and are more prone to droughtiness.

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Class	Soil Texture Groups		Drainage	Additional Soil Characteristics
	Upper materials1	Lower materials2		
2M	15 to 40 cm of loamy or finer materials	Sandy to Very Gravelly	Well	
2M	40 to < 100 cm of sandy to very gravelly material.	Loamy to Very Fine Clayey	Well	
2M	Sandy		Rapid to well	Well developed Bt3 horizon occurs within 100 cm of surface
3M	Sandy material to > 100cm		Rapid	Bt horizon absent within 100 cm of surface
4M	Very Gravelly to > 100 cm		Rapid	Bt horizon present within 100 cm of surface
5M	Very gravelly to > 100cm		Very rapid	Bt horizon absent within 100cm

Subclass P - Stoniness: This subclass indicates soils sufficiently stony to hinder tillage, planting, and harvesting operations.

Class	Soil Characteristics
2P	Surface stones cause some interference with tillage, planting and harvesting; stones are 15-60 cm in diameter, and occur in a range of 1-20 m apart, and occupy <3% of the surface area. Some stone removal is required to bring the land into production.
3P	Surface stones are a serious handicap to tillage, planting, and harvesting; stones are 15-60 cm in diameter, occur 0.5-1m apart (20-75 stones/100 m ²), and occupy 3-15% of the surface area. The occasional boulder >60 cm in diameter may also occur. Considerable stone removal is required to bring the land into production. Some annual removal is also required.
4P	Surface stones and many boulders occupy 3-15% of the surface. Considerable stone and boulder removal is needed to bring the land into tillable production. Considerable annual removal is also required for tillage and planting to take place.
5P	Surface stones 15-60 cm in diameter and/or boulders >60 cm in diameter occupy 15-50% of the surface area (>75 stones and/or boulders/100 m ²).
6P	Surface stones 15-60 cm in diameter and/or boulders >60 cm in diameter occupy >50% of the surface area.

Subclass R - Shallowness to Consolidated Bedrock: This subclass is applied to soils where the depth of the rooting zone is restricted by consolidated bedrock. Consolidated bedrock, if it occurs within 100 cm of the surface, reduces available water holding capacity and rooting depth. Where physical soil data were available, the water retention model of McBride and Mackintosh was used to assist in developing the subclass criteria.

Class	Soil Characteristics
3R	Consolidated bedrock occurs at a depth of 50-100 cm from the surface causing moderately severe restriction of moisture holding capacity and/or rooting depth.
4R	Consolidated bedrock occurs at a depth of 20-50 cm from the surface causing severe restriction of moisture holding capacity and/or rooting depth.
5R	Consolidated bedrock occurs at a depth of 10 to 20 cm from the surface causing very severe restrictions for tillage, rooting depth and moisture holding capacity. Improvements such as tree removal, shallow tillage, and the seeding down and fertilizing of perennial forages for hay and grazing may be feasible.

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6R	Consolidated bedrock occurs at a depth of 10-20 cm from the surface but improvements as in 5R are unfeasible. Open meadows may support grazing.
7R	Consolidated bedrock occurs at < 10cm from the surface.

Subclass S - Adverse soil characteristics: This subclass denotes a combination of limitations of equal severity. In Ontario it has often been used to denote a combination of F and M when these are present with a third limitation such as T, E or P.

Subclass T - Topography

The steepness of the surface slope and the pattern or frequency of slopes in different directions are considered topographic limitations if they: 1) increase the cost of farming the land over that of level or less sloping land; 2) decrease the uniformity of growth and maturity of crops; and 3) increase the potential of water and tillage erosion.

Determination of Subclass T for Very Gravelly and Sandy Soils

Slope %	<2		2-5		5-9		9-15		15-30		30-60		>60	
Slope type	S	C	S	C	S	C	S	C	S	C	S	C	S	C
Class				2T	2T	3T	3T	4T	5T	5T	6T	6T	7T	7T

Slope %	<2		2-5		5-9		9-15		15-30		30-60		>60	
Slope type	S	C	S	C	S	C	S	C	S	C	S	C	S	C
Class				2T	3T	3T	4T	4T	5T	5T	6T	6T	7T	7T

S = Simple Slopes >50 m in length

C =Complex Slopes <50 m in length

Subclass W - Excess water:

The presence of excess soil moisture, other than that brought about by inundation, is a limitation to field crop agriculture. Excess water may result from inadequate soil drainage, a high water table, seepage or runoff from surrounding areas.

Soil Textures and Depths	Depth to Bedrock (cm)	Soil Class (Drainage in place or feasible)	Soil Class (Drainage not feasible)
Very gravelly, sandy, or loamy extending >40 cm from the surface, or, <40 cm of any other textures overlying very gravelly, sandy or loamy textures	>100	2W	4W, 5W
>40 cm depth of clayey or very fine clayey textures, or, <40 cm of any other texture overlying clayey or very fine clayey textures	>100	3W	5W
<40 cm of peaty material overlying any texture	>100	3W	5W
All textures	50-100	4W	5W
All textures	0-50	NA	5W

APPENDIX H

Site Photographs



Photo 1: View of Site #1 “Armstrong Manor Farm” north of the Subject Lands. A Large dairy operation with multiple agricultural structures on site.



Photo 2: viewing northwest at Site #2, livestock operation.

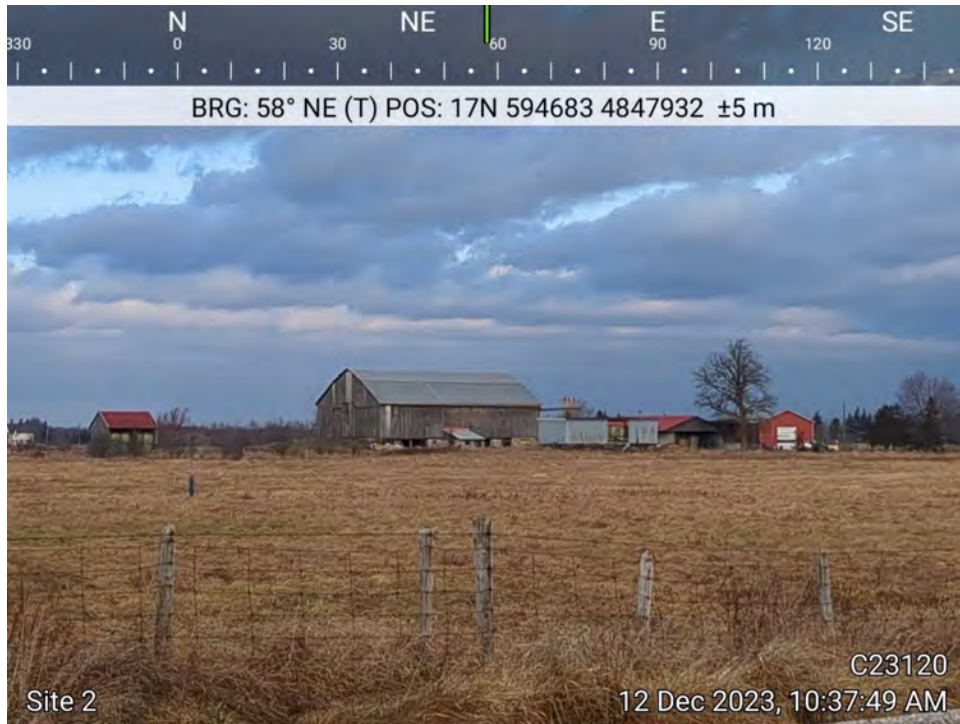


Photo 3: Viewing south towards site #3 on the Subject Lands. Large wooden bank barn and outbuildings observed.



Photo 4: View of remnant livestock operation at Site #4. Abandoned residence and small shed remain on site.



Photo 5: View of livestock housing at site #5, retired livestock operation.



Photo 6: View of retired livestock operation at Site #7 on Subject Lands from roadside.



Photo 7: View of cemetery associated with Mayfield United Church.



Photo 8: View from roadside of Site #12, "Salisbury Garden Supplies"



Photo 9: View of retired livestock operation at Site #13.

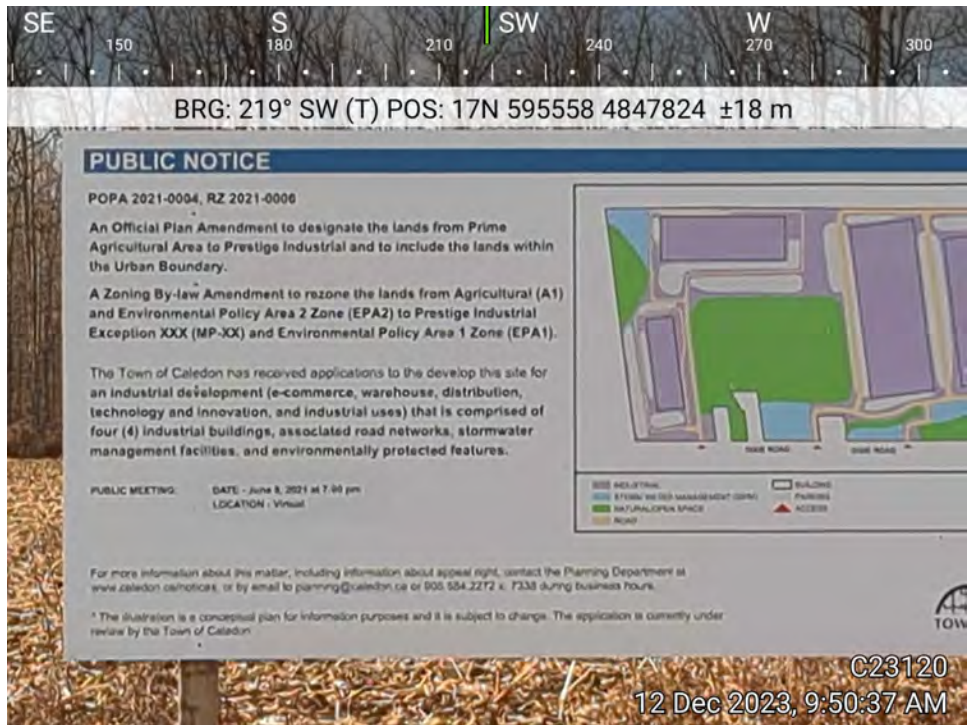


Photo 10: Public notice observed south of Site #4.

APPENDIX I

Land Use Notes

Staff – Brett Espensen			
Land Use Survey Notes – December 12th, 2023		Project Number – C23120	
Weather	Temperature	Cloud Cover	Wind
Mostly Sunny	1° (-5°)	25%	23km/h South

Site No.	Type of Operation	Land Use	Description of Operation
1	Agricultural	Livestock Operation	“Armstrong Manor Farm” https://armstrongmanorfarm.ca/ Large dairy operation with multiple buildings on site. Website states “Armstrong Manor Farm has a total of 675 animals, 375 milking cows and 300 young animals”.
2	Agricultural	Livestock Operation	OFA Member. Bank barn in good condition with outbuildings. 5 Beef cattle observed in pasture.
3*	Agricultural	Livestock Operation	Active livestock operation on Subject Lands. Former feedlot that is slowly being phased out and moved to a new location. Currently housing beef cattle until barns are built at new location. Old bank barn, pole barn and hay sheds on site. Infrastructure to be removed as part of future development on Property.
4	Agricultural	Remnant Livestock Operation	Remnant livestock operation. Barn majority of agricultural structures removed between 2021 and 2022 based on aerial photos. No sign of livestock and house appears to be abandoned.
5	Agricultural	Empty Livestock Operation	Appears to be retired poultry operation. Barns are in fair condition and may still be suitable for housing livestock. No sign of livestock or manure storage observed on site.
6	Non-Agricultural	Recreational	“Banty’s Roost Golf Course” https://www.golfinks.ca/courses/bantys-roost-golf-club
7**	Agricultural	Empty Livestock Operation	Retired feedlot operation on Subject Lands. “Sunnymead Farms Ltd.” Beef operation. 2 large barns, 2 Quonset huts, 3-4 implement sheds. Infrastructure is still on site, but no longer housing livestock. Historically had approximately 500 head of beef cattle when in operation.
8	Non-Agricultural	Commercial	“BP Landscaping and Snow Removal” http://www.bplandscaping.ca/
9	Non-Agricultural	Institutional	“Mayfield United Church” https://www.mayfieldunitedchurch.org/
10	Non-Agricultural	Commercial	Small commercial storage operation. No signage out front. Additional outdoor storage area constructed in 2021.
11	Non-Agricultural	Commercial	“UPS (Caledon)” Shipping Distribution Centre.
12	Non-Agricultural	Commercial	“Salisbury Garden Supplies” https://www.salisburygardensupplies.ca/ Garden supply

Site No.	Type of Operation	Land Use	Description of Operation
			centre
13	Agricultural	Empty Livestock Operation	Appears retired livestock facility. Large barn and outbuilding on site. Review of aerial photography indicates the site has not been used to house livestock for at least 10 years.

*Information obtained from landowner

**Information obtained from adjacent landowner

	Total Number	Active	Empty or Remnant
Agricultural	7	3 – Livestock Operation	3 – Empty Livestock Operation 1 – Remnant Livestock Operation
Agriculture-related	0	0	0
On-farm Diversified	0	0	0
	Total Number	Type	
Non-Agricultural	52	4 - Commercial 1 – Recreational 1 – Institutional 46 Non-Farm Residences	