

4. LAND USE / SOCIO-ECONOMIC ENVIRONMENT

4.1 LAND USE POLICIES, GOALS, OBJECTIVES

4.1.1 First Nation and Métis Communities

4.1.1.1 Notified First Nation and Métis Communities

Below is a list of First Nation and Métis Communities and organizations that were notified of the project commencement. The specific First Nations and Métis communities listed below will be consulted throughout the duration of Stage 2 of this project.

- Aboriginal Relations Branch, MTO
- Alderville First Nation
- Association of Iroquois and Allied Indians
- Beausoleil First Nation
- Credit River Métis Council
- Chippewas of Georgina Island First Nation
- Chippewas of Rama First Nation
- Coordinator of the Williams Treaties
- Curve Lake First Nation
- Haudenosaunee Confederacy Chief's Council
- Haudenosaunee Development Institute
- Hiawatha First Nation
- Kawartha-Nishnawbe First Nation
- Métis Nation of Ontario
- Ministry of Aboriginal Affairs
- Mississaugas of the New Credit First Nation
- Mississaugas of Scugog Island First Nation
- Nation Huronne Wendat
- Oshawa and Durham Region Métis Council
- Six Nations of the Grand River Territory First Nation
- Union of Ontario Indians

4.1.1.2 Land Claims, Treaty Rights and Traditional Uses

The GTA West Route Planning Study Area does not currently include any First Nations reserves or land tracts. However the Mississaugas of the New Credit has recently settled the Toronto Purchase Specific claim with the Government of Canada, which involves large tracts of land within and beyond the GTA West Route Planning Study Area.

The Project Team and MTO are continuing consultation with all of the First Nations and Métis communities listed above throughout the duration of Stage 2 of this project, including but not limited to invitations to PIC's, invitations for one-on-one meetings with representatives of each First Nation and Métis community, and the provision of opportunities for First Nations and Métis Communities to review study documents and to provide input or feedback at key project milestones. We recognize a high potential for lands within the Study Area to be of interest to specific First Nations for traditional uses, and

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also for having potential for the presence of archaeological resources related to ancestral or cultural-historical land use.

4.1.1.3 First Nations Reserves

There are no First Nations Reserves found within the Study Area, however several First Nations or Métis communities could have an interest in the local land use. This involves protecting the natural environment to protect the longevity of the lands and their traditional land use practices.

4.1.1.4 First Nations Sacred Grounds

Although the reserves of the Mississaugas of the New Credit and the Six Nations of the Grand River are located south and west of the Study Area, there are potential First Nations sacred grounds and archaeological sites. Ongoing discussions with First Nations and Métis Communities will occur throughout the study.

Note to Reader

The following sections that describe land use in the GTA West Route Planning Study Area are current as of December 2014. Land use and the status of various development applications, etc. are changing rapidly in the Study Area and will continue to change during the study before it is completed in 2018. These sections of the report will be updated before the final Individual Environmental Assessment (IEA) Report is submitted to MOECC.

4.1.2 Provincial Land Use Planning/Goals/Objectives

The *Growth Plan* has been introduced in **Section 2.1**.

Section 3.2.2.3 of the *Growth Plan* relates to the, “development, optimization, and/or expansion of new or existing transportation corridors”. The *Growth Plan* states that government bodies will:

- Ensure that corridors are identified and protected to meet current and projected needs for various travel modes;
- Support opportunities for multi-modal use where feasible, in particular prioritizing transit and goods movement needs over those of single occupant vehicles;
- Consider increased opportunities for moving people and moving goods by rail, where appropriate;
- Consider separation of modes within corridors, where appropriate; and

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- For goods movement corridors, provide for linkages to planned or existing inter-modal opportunities where feasible.

Municipal Official Plans and planning decisions must conform to the *Growth Plan*.

The *Growth Plan* identifies proposed transportation infrastructure intended to move people and goods efficiently within and through the GGH. These plans are conceptual in nature and need to be supported through appropriate studies such as this EA.

Schedule 6 of the *Growth Plan* identifies a Future Transportation Corridor extending from Guelph (in the west) to Highway 400 (in the east), north of Highway 401 and Highway 407. In the same area, the *Growth Plan* shows a northward extension of Highway 427 to a terminus south of the Oak Ridges Moraine.

Other Future Transportation Corridors shown in the *Growth Plan* include:

- A conceptual Future Transportation Corridor from the western GTA, through the Niagara Peninsula to the border with the United States at Fort Erie. This Future Transportation Corridor lies within the area covered by the ongoing Niagara to GTA Transportation Corridor EA; and
- A conceptual Future Transportation Corridor from the termination of Highway 407 in Pickering east towards Highway 35/115 to Peterborough, with connections south to Highway 401. This project has now entered design and construction phases.

The *Growth Plan* directs that the majority of growth will occur in designated Urban Growth Centres. It identifies three (3) Urban Growth Centres within the GTA West Stage 1 Study Area, namely, Downtown Milton, Downtown Brampton, and the Vaughan Corporate Centre. The *Growth Plan* also identifies four Urban Growth Centres, namely Downtown Guelph, Uptown Waterloo, Downtown Kitchener, and Downtown Cambridge, close to the Stage 1 Study Area in the west, as well as many Urban Growth Centres close to the Study Area in the south and east. Those to the north of the GTA are also important since connections between north and west are of relevance to this corridor.

[Halton Region](#)

The Halton Region Official Plan provides policies for transportation in Section O, subsection 173(5.1) (c) provides direction for the Study Area:

Where through the Environmental Assessment process, has identified a preferred transportation route, the Region, and the Local Municipalities, shall undertake the necessary amendments to protect for the route in their respective Official Plans.

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Through Regional Official Plan Amendment 43, the Region has included the following policy in its Official Plan:

173(1.4) Prohibit the development of urban lands within the Halton Peel Boundary Area Transportation Study/Greater Toronto Area West Corridor Protection Area as shown on Maps 3 and 5, until the completion of the appropriate Environmental Assessments and by amendment to this Plan and the Halton Hills Official Plan.

The Functional Plan of Major Transportation Facilities, (Map 3 in the Official Plan) has been amended to identify this Corridor Protection Area, as shown on the hatched area on a portion of Map 3 attached as **Exhibit 4.1**

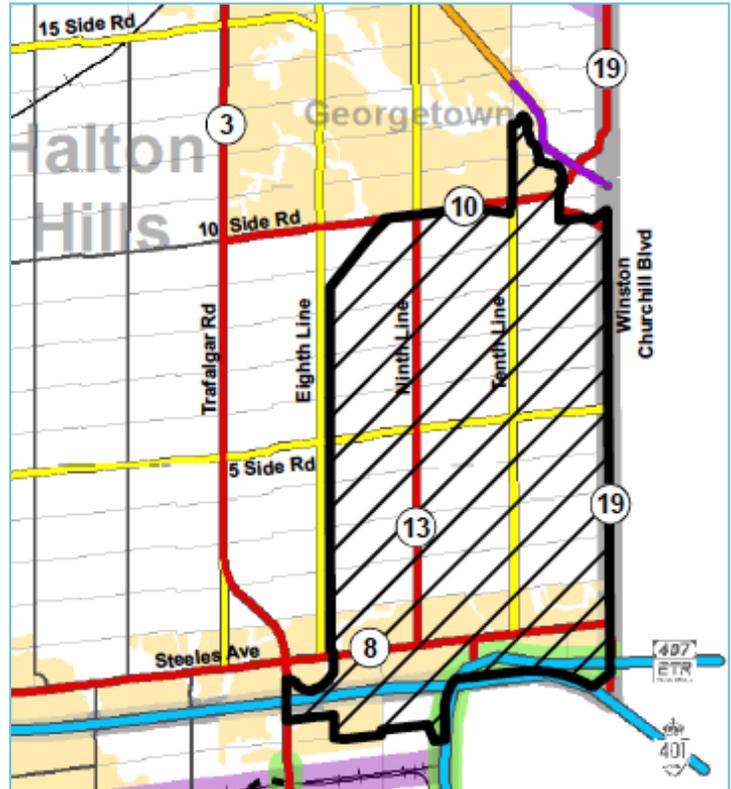


Exhibit 4-1 Map 3, Amended Halton OP

[Peel Region](#)

Section 5, subsection 5.9.12.2 of the Regional Official Plan provides policies for the Future GTA West Route Planning. As adopted by Regional Official Plan Amendment (ROPA) 26, it is the policy of Regional Council to:

Plan for and protect the Future GTA West Corridor and rights-of-way for transportation and transit facilities to meet current and projected needs and not permit development in such planned corridors that could preclude or negatively affect the use of the corridor for the purpose(s) for which it was identified or actively being planned.

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Ensure transportation and land use considerations be integrated and coordinated at all stages of the planning and Environmental Assessment process.

Work with the Provincial and area municipalities to plan for and protect for the GTA West Corridor and its connections to the existing highway network including Highway 410 in the Mayfield West area (as identified on Schedule E).

Direct the area municipalities, in consultation with and to the satisfaction of the Province, to develop official plan policies that provide corridor protection to ensure that development applications will not predetermine or preclude the planning and/ or implementation of the GTA West Transportation Corridor.

Recognize that as the Environmental Assessment Act process progresses, any related Official Plan or Secondary Plan may, in consultation with the proponent, include provisions for the phased release of lands that are appropriate to the environmental assessment process.

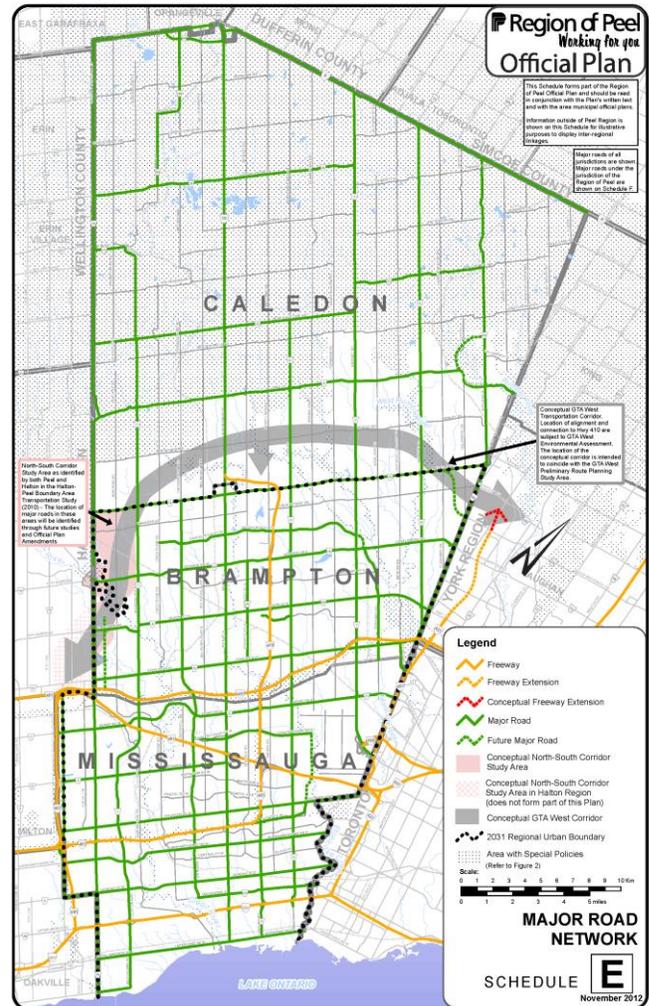


Exhibit 4-2 Schedule E, Major Road Network of the Regional Official Plan

The conceptual GTA West Route Planning Study Area in Peel Region is illustrated on Schedule E, Major Road Network of the Regional Official Plan, **Exhibit 4-2**.

[York Region](#)

Section 7 of the York Region Official Plan provides policies for servicing the population. Subsection 7.2 relates to the movement of people and goods. Sections 7.2.52, 7.2.53 and 7.2.54 provide policies for the protection of the GTA West Route Planning Study Area:

To plan for and protect Provincial corridor and rights-of-way for transportation and transit facilities as determined through the Environmental Assessment process, or identified in Provincial Plans to meet current and projected needs and not permit development in such

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Planned Corridors- Transportation that could preclude or negatively affect the use of the corridor for the purpose(s) for which it was identified or is actively being planned. Transportation and land use considerations shall be integrated and coordinated at all stages of the planning and Environmental Assessment process.

That as an Environmental Assessment Act process progresses, any related Official Plan or Secondary Plan may, in consultation with the proponent, include provisions for the phased release of lands that are appropriate to the environmental assessment process.

To work with the Province and local municipalities to plan for and protect for the following corridors and facilities:

- a. *Highway 427 north to the GTA West Corridor;*
- b. *Highway 404 north beyond Ravenshoe Road to the Highway 48/Highway 12 junction;*
- c. *the Bradford Bypass;*
- d. *the GTA West Corridor; and,*
- e. *interchanges on 400-series highways at Regional and other arterial street crossings as identified in the York Region Transportation Master Plan.*

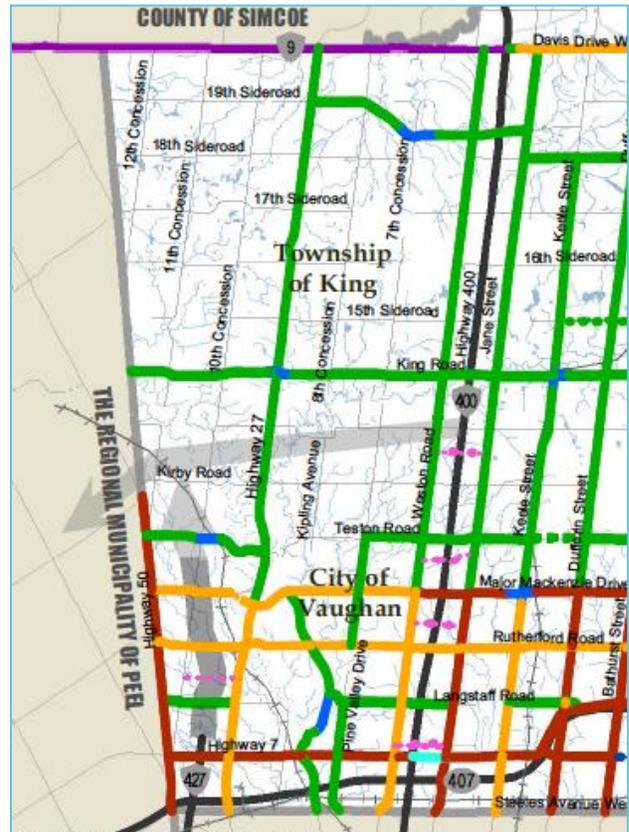


Exhibit 4-3 Map 12, Street Network of the Regional Official Plan

Local municipalities, in consultation with and to the satisfaction of the Province, shall develop official plan policies that provide corridor protection to ensure that development applications will not predetermine or preclude the planning and/or implementation of the above noted transportation facilities.

The conceptual GTA West Route Planning Study Area and extension of Highway 427 in York Region is illustrated as the shaded corridors on Map 12, Street Network of the Regional Official Plan, a portion of which is illustrated in **Exhibit 4-3**.

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4.1.3 Municipal Land Use Planning/Goals/Objectives

City of Vaughan

Transportation is addressed in Section 4 of the City of Vaughan Official Plan. Subsection 4.1.1.7 addresses the protection of transportation corridors:

To implement the long-term transportation and transit networks, as identified on Schedule 9 and Schedule 10 respectively, in coordination with the appropriate agencies and adjacent municipalities and secure land for such purposes through the development approval process. Transportation corridors shall be protected from development that could preclude or negatively affect the use of the corridor(s) for the purpose(s) for which they are identified.

In addition, subsection 4.1.1.9 identifies the City of Vaughan's policies for provincial highway planning as follows:

To work with York Region and the Province to plan for and protect corridors and rights-of way for transportation and transit facilities, as shown on Schedule 9, to meet current and projected needs and not permit development in such planned corridors that could preclude or negatively affect the use of the corridor for the purpose(s) for which it was identified or actively being planned. To this end, secondary plans or official plan amendments shall include more detailed official plan policy and mapping to provide for corridor protection. Such amendments shall be prepared in consultation with the Region of York and the Province. Policies shall ensure that development applications neither preclude nor predetermine the above noted transportation corridors both during the Environmental Assessment process and after a final alignment is determined. Where Environmental Assessments are being undertaken by the Province, these policies and mapping shall be prepared to the satisfaction of the Province.

Schedule 9 of the City of Vaughan Official Plan, **Exhibit 4-4**, illustrates the corridor protection area for the GTA West Route Planning Study Area.

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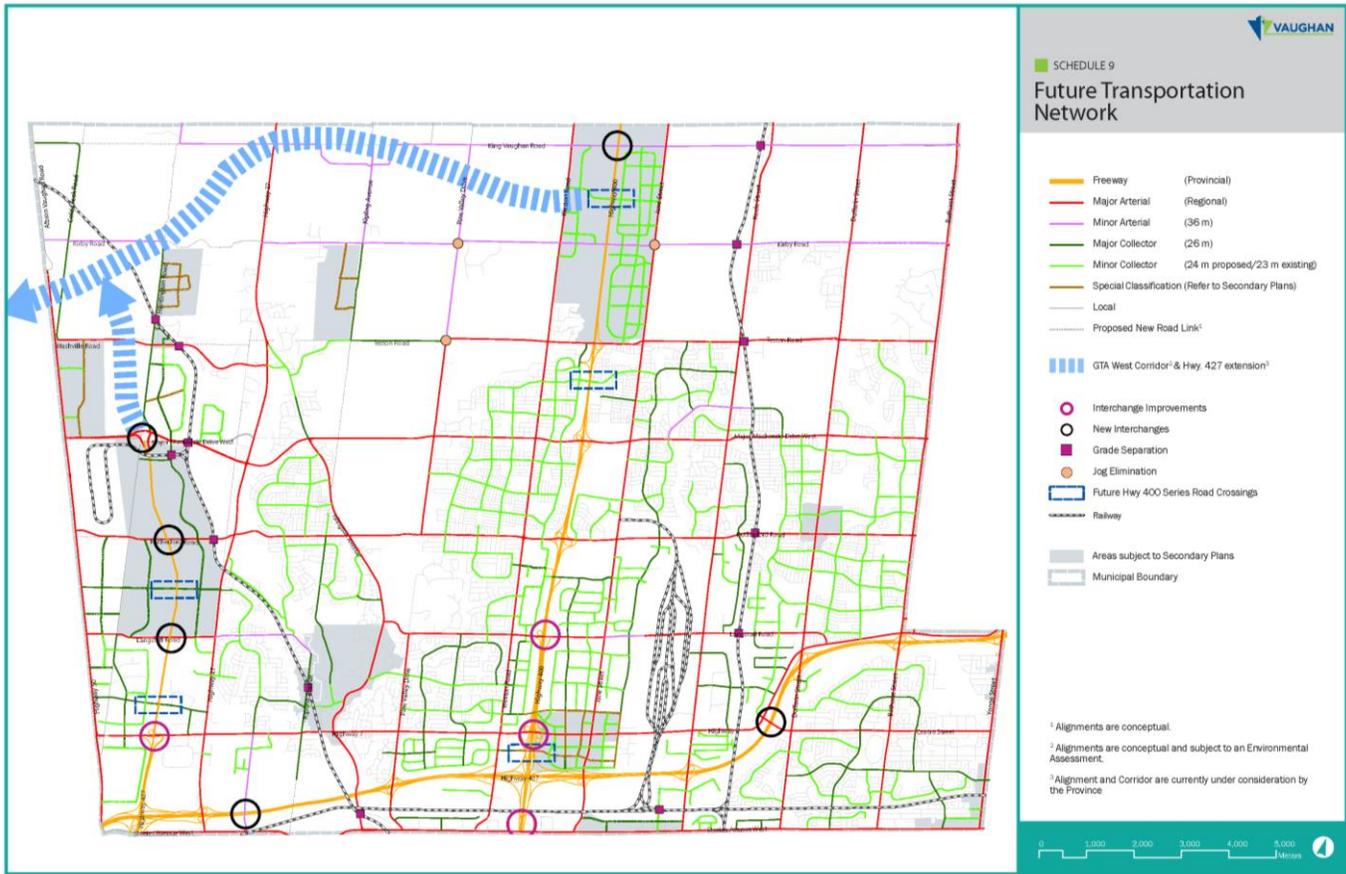


Exhibit 4-4 Schedule 9, City of Vaughan Official Plan

Township of King

The Township of King has not updated its Official Plan to implement the policies of the *Growth Plan* or the *Greenbelt Plan* in the Rural Areas of the Township. At the time of preparing this report the Township had initiated work on updating the Official Plan. A small portion of the Study Area includes the southerly portion of King Township south of the community of Nobleton. It is noted that all of the lands within the Study Area in King Township are designated as part of the Protected Countryside in the *Greenbelt Plan*.

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[Town of Caledon](#)

The Town of Caledon Official Plan has been amended through Official Plan Amendment (OPA) 226 to include recognition of the GTA West corridor conceptually on Schedule A-1, the Town Structure map, a portion of which is shown as the striped band on **Exhibit 4-5**. The province and the Town have settled on policies related to OPA 226 that will ensure that the GTA West Route Planning Study Area is recognized and protected from development in accordance with the policies of the PPS.

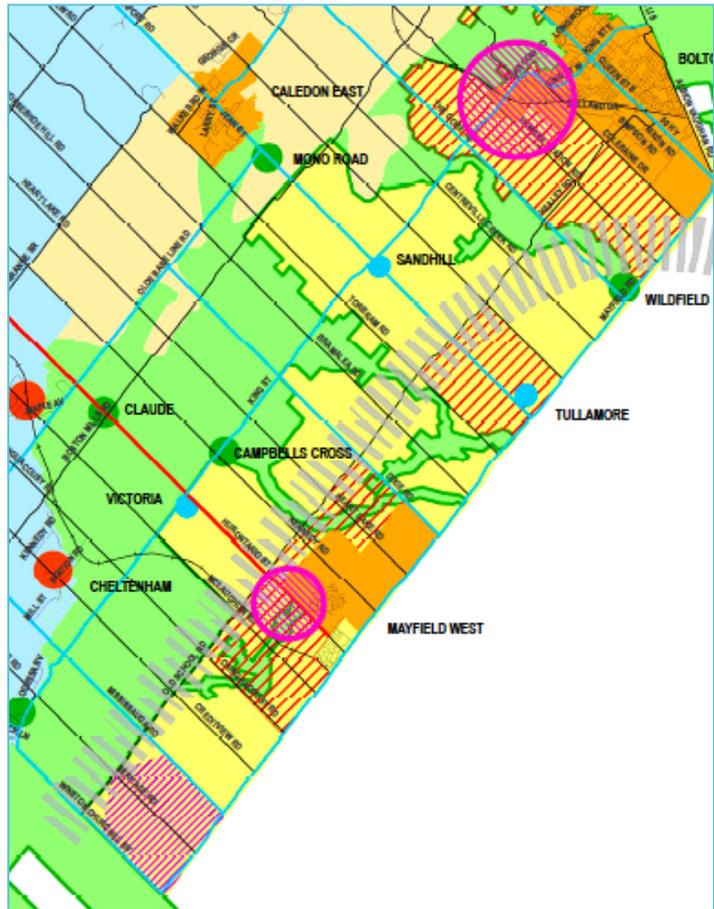


Exhibit 4-5 Schedule A-1, Town Structure Map

[City of Brampton](#)

Section 4.4 of the City of Brampton Official Plan provides direction on the Brampton Transportation System. Subsection 4.4.2.1 provides the policies for implementation and includes the GTA West Route Planning Study Area.

The road network plans assumptions are as follows:

- x. *Support and work with the Province, Region of Peel and other GTA and Golden Horseshoe municipalities in planning and implementing the long-term higher order roadway and transit improvements identified in the Provincial Growth Plan, including the GTA West Transportation Corridor.*

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Schedule B of the City of Brampton Official Plan, **Exhibit 4-6**, illustrates the corridor protection areas for the GTA West Route Planning Study Area in the north-east corner of the City and in the north-west area.

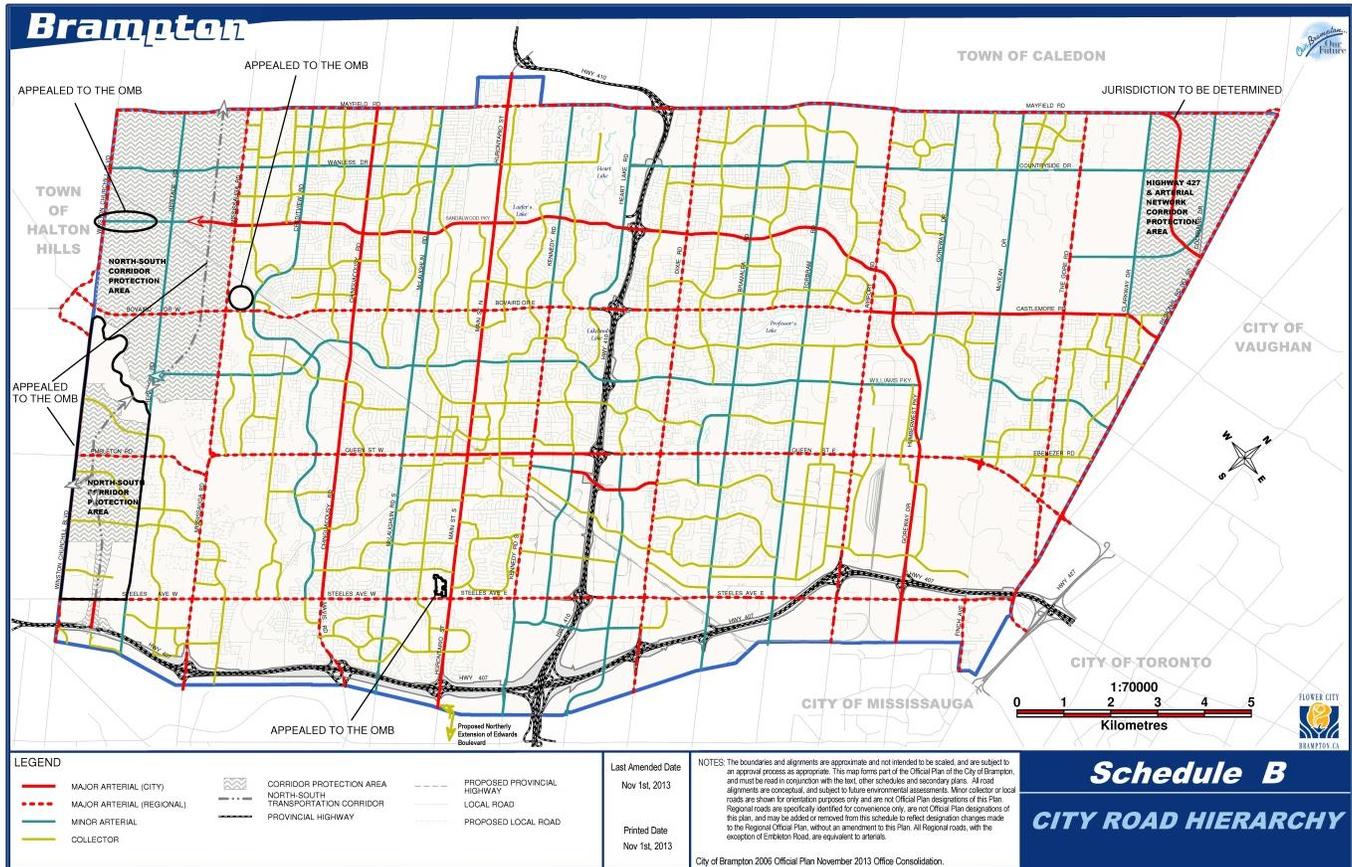


Exhibit 4-6 Schedule B, City of Brampton Official Plan

Town of Halton Hills

Section F of the Halton Hills Official Plan relates to General Development policies. Subsection F6 provides policies for transportation. Policies relating to the GTA West Route Planning Study Area are found in subsection F6.5, Inter-Municipal Transportation Studies. These policies have been approved by Council, but have been appealed to the Ontario Municipal Board.

The Town of Halton Hills shall participate in a study, led by the Regions of Halton and Peel, and the Province where necessary, to identify the long-term transportation and transit network requirements and other transportation solutions along the Halton Hills/ Peel boundary. It is intended that the study be completed on a timely basis, and may lead to amendments to this Plan and other appropriate implementation mechanisms.

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[Town of Milton](#)

A small portion of the Study Area south of Highway 401 includes lands within the Town of Milton. The Official Plan for the Town of Milton was amended by OPA 31 to reflect Regional Official Plan Amendment 38. This amendment designates a portion of the lands south of Highway 401 as a Future Urban Area with an Employment Lands overlay. There is no reference to the GTA West Route Planning Study in the Milton Official Plan.

4.1.3.1 Development Objectives

Given that portions of the Study Area are located on the periphery of the existing urban areas throughout the Study Area, there are a considerable number of development objectives in the form of municipal planning studies and Secondary Plans, as well as private applications for development. **Appendix A** illustrates the municipal development objectives within the Study Area, current as of December 1, 2014. The following is a summary of the municipal planning studies underway.

[North Kleinburg Nashville Secondary Plan – OPA 601 and 699](#)

These Official Plan amendments identify the expansion of the Kleinburg and Nashville urban area in the City of Vaughan. During the preparation of the Secondary Plan, the Province and the City of Vaughan agreed to include provisions that defer development, pending the determination that some of the lands may no longer be required, and/or a preferred corridor has been established.

The West Vaughan Employment Area Secondary Plan was approved as Official Plan Amendment No. 600 to City of Vaughan Official Plan. This Secondary Plan recognizes the location of the lands at the confluence of the Highway 427 extension and GTA West, and provides policies that protect the GTA West Route Planning Study Area. Further, OPA No. 600 agrees to hold individual development applications until the Province has indicated that the lands are no longer required to be considered as potential routes as part of the GTA West Route Planning Study.

[City of Vaughan – OPA 637](#)

The City of Vaughan has approved Official Plan Amendment No. 637; this area is located in the Highway 400 North employment area. The approval recognizes the GTA West Route Planning Study and defers planning for development within the Study Area until the preliminary route selection process or the preferred alignment has been established. Through negotiations between the Province, the City of Vaughan and the land owners, the area identified in **Exhibit 4-7** is subject to Minutes of Settlement, wherein development will be deferred until the GTA West Route Planning Study has advanced to a point of being able to potentially determine that some of the lands may no longer be considered for potential route locations. Until that time the municipality and development group is free to undertake any background studies as they relate to the Secondary Plan. At the time this report was prepared, background studies were underway, and thus the secondary planning process has been initiated.

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Exhibit 4-7 Areas Subject to Minutes of Settlement

[City of Brampton Area 47](#)

The City of Brampton approved the Secondary Plan for Area 47 in September of 2014. While the Secondary Plan includes an area that recognizes the GTA West Route Planning Study Area, the area shown on the adopted Secondary Plan includes considerably less land than what is included in the approved Study Area (**Exhibit 4-8**). As a result, the Ministry of Municipal Affairs and Housing has filed an appeal to the Ontario Municipal Board with respect to the Secondary Plan. The Region of Peel has also filed an appeal on the basis that the Secondary Plan does not reflect the Regional Official Plan policies that provide for protection of the Study Area.

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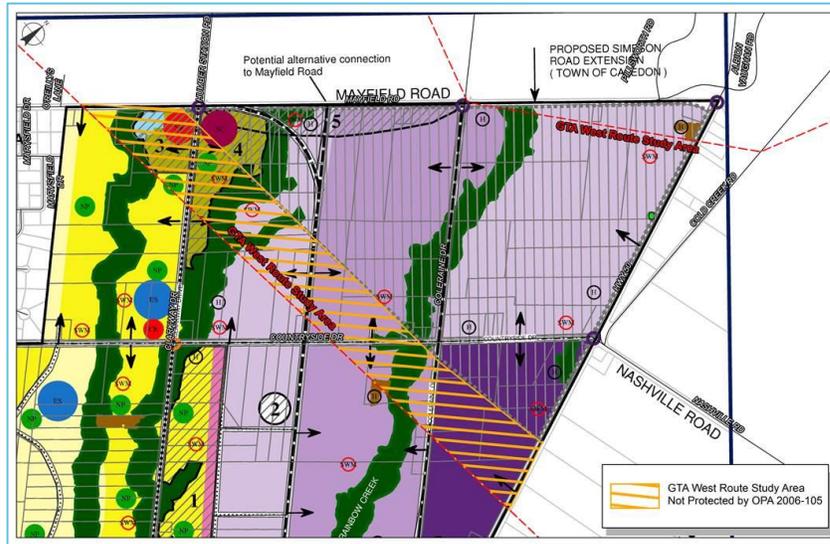


Exhibit 4-8 Approved Corridor Study Area

[Mayfield West Secondary Plan](#)

The Region of Peel identifies a large area centered on the Community of Mayfield in Caledon as a potential future urban area. The Town of Caledon is in the process of developing a Secondary Plan to expand the Mayfield West Secondary Plan area. The proposed expansion would include lands north of the Phase 1 Employment areas and west of Highway 10, north of Mayfield Road. Regional Official Plan Amendment No. 29 was approved by the Region of Peel in September of 2014. The amendment expands the approved Mayfield West Phase 2 Study Area beyond the current designation, including lands within the GTA West Route Planning Study Area, as illustrated in blue on **Exhibit 4-9**. However, the amendment also contains policies to protect the GTA West Route Planning Study Area until such time as it is determined that the lands are no longer considered as potential routes.

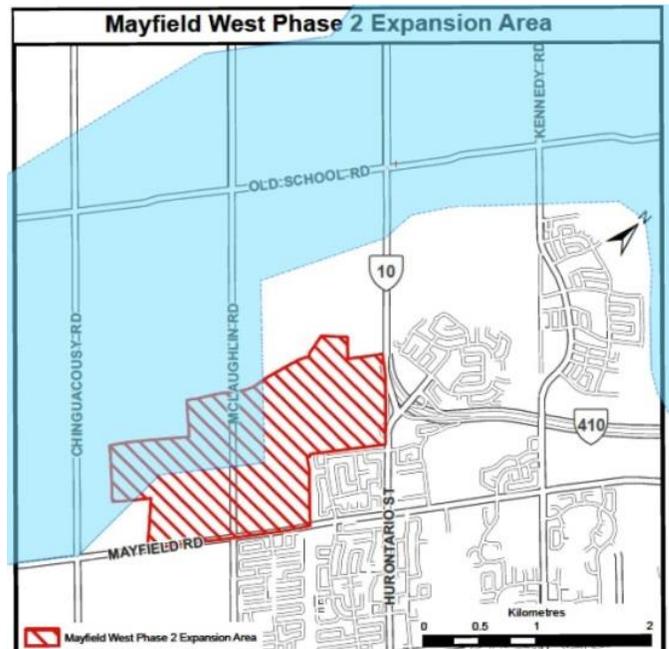


Exhibit 4-9 Mayfield West Phase 2 Study Area

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[Brampton Heritage Heights Secondary Plan](#)

The Heritage Heights Secondary Plan area includes two Secondary Plan areas identified in the City of Brampton’s Official Plan, Area 52 and Area 53. The development of this area is contingent on a major transportation corridor that will provide access for future development of the area to Highway 401 and 407. The terms of reference for the Secondary Plan also recognizes the need to protect a corridor for regional or provincial traffic routes. The areas are shown on the shaded area of part of Schedule A to the City of Brampton Official Plan as illustrated in **Exhibit 4-10**.

The Secondary Planning process has proceeded over recent years and transportation master plan study forming part of the Secondary Plan was provided for public comment in June of 2014. The City of Brampton recognizes that completion of the Secondary Plan is largely contingent on advancement of the GTA West EA process and has deferred further action on the Secondary Plan pending the advancement of this IEA study.

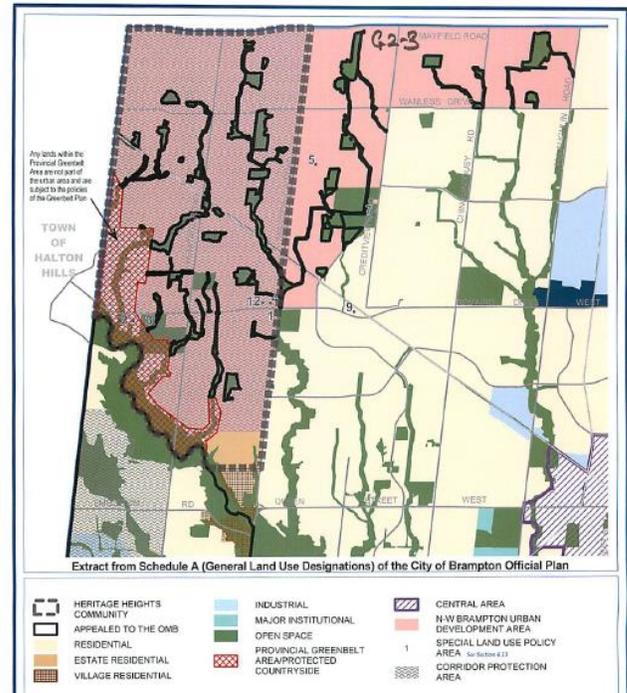


Exhibit 4-10 Schedule A, City of Brampton Official Plan

[Halton Hills ROPA 38](#)

ROPA 38 was the Region’s response to the *Growth Plan* and identified expansions to the urban areas, in particular urban employment areas adjacent to Highway 401 in the Highway 401/ 407 area. As part of the ROPA 38 process, the Region also identifies lands as future strategic employment areas, which considered a large area bordered by Winston Churchill Boulevard to the 10th Line and north from Steeles to 10th Side Road. Though there are still outstanding appeals to ROPA 38, the Ministry of Municipal Affairs and Housing, in consultation with the Ministry of Transportation, and the Region, have agreed that portions of the amendment that expand the urban area and employment lands from Steeles Avenue north for approximately one half a concession, are approved. These lands are located within the western terminus of the Study Area, where the GTA West Transportation Corridor will connect with Highway 401 in Milton.

At the time of preparing this report, the Region and the Town of Halton Hills are undertaking a review of their plans for the employment areas in this area in consideration of the GTA West Route Planning Study.

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4.1.3.2 Private Development Objectives

In addition to the municipal development objectives in the form of Secondary Plans and planning studies, private applications for development also exist within the Study Area. **Appendix A** illustrates the development objectives from private land owners as of December 1, 2014. The following is a summary of the private development applications in the Study Area.

Solmar Holdings

As part of the Official Plan Amendment No. 226 process in the Town of Caledon, Solmar Holdings proposed a major expansion of the Bolton urban area into the GTA West Route Planning Study Area. The Solmar proposal included expanding the urban area as far west as Humber Station Road south to Mayfield Road; from Coleraine Drive westerly. While the Town of Caledon approved the Bolton expansion areas including the lands in the triangle formed by the Study Area, Mayfield Road and Coleraine Drive, the Region did not include these lands as part of the Region's approval of the Town's Official Plan Amendment. Solmar Holdings continues to have an outstanding appeal to the Ontario Municipal Board (Case PL 101408) with respect to their application to expand the Bolton urban settlement area. At the time of writing this report, the appeal had not been finally adjudicated by the OMB.

Mayfield West Employment Lands

Exhibit 4-11 shows various applications for plans of subdivision in the Mayfield West area. Many of these subdivisions have been draft plan approved in accordance with the Mayfield West Secondary Plan. However, in light of the potential option of extending Highway 410 directly north of Mayfield Road, the Province requested that the final approval of the Plans and the related Zoning By-laws be held in advance pending further progress of the GTA West Route Planning Study. Through an agreement between the Region, the Town and the Province, the Town of Caledon has held off giving final approval to the plans of subdivision and the related Zoning By-laws pending determination through the EA study, that some or all of the lands in this area are not required. The agreement between the parties indicates that by December 31, 2014, the Province may be able to release its interest in some of the lands in this area allowing development to proceed.

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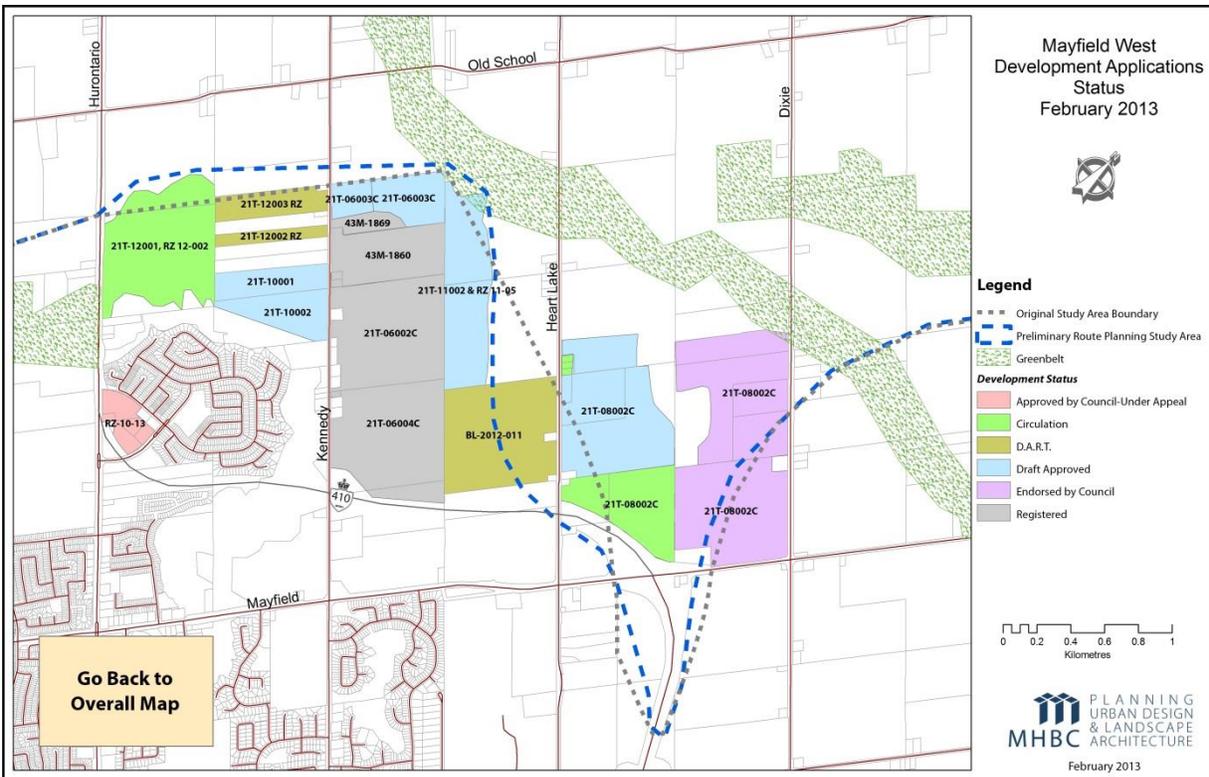


Exhibit 4-11 Mayfield West Development Application Status

[Argo Subdivision](#)

The proposed Argo subdivision contains two (2) phases and is located within the Mayfield West Secondary Plan Area at 12701 Hurontario Street, south of Old School Road. The initial application was submitted as one plan, but the most recent submission in May 2013 divided the original plan into two phases to address comments expressed by the MTO and to allow the applicant to move forward with a portion of the proposed development.

Phase One of the subdivision has been registered and Phase Two, along Highway 10 has been circulated for comments. Phase One includes 489 dwellings, comprised of a mixture of detached, semi-detached and townhouse dwellings. The approval of Phase Two is pending resolution of matters identified by MTO regarding the GTA West Route Planning Study Area. While Phase Two is not located within the GTA West Route Planning Study Area, the lands are adjacent to Highway 10 and could be impacted if the highway were widened as part of a corridor option.

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Osmington

This amendment proposes to remove the subject lands from the Huttonville North Secondary Plan (Area 52), also known as Heritage Heights, and includes the lands within the abutting Mount Pleasant (Area 51) Planning Area. The objective of this OPA would be to expedite the development approval since the Heritage Heights Secondary Plan is likely a few years from being approved. A secondary Official Plan Amendment, part of the same application, would designate the lands as a Regional Commercial Centre.

The Osmington Regional Centre proposal includes a range of retail, restaurant, personal services, office, hotel, open space, residential and community uses. The Osmington OPA, Part 1, has been approved by Brampton Council, however the decision has been appealed to the OMB. The second part of the OPA has not yet been approved by Brampton City Council.

Heathwood Homes

The Heathwood Homes property is also located within the Huttonville North Secondary Plan (Area 52), also known as Heritage Heights. The Heathwood property fronts the southwest quadrant of Mississauga Road and the CNR rail line, north of Bovaird Drive West and comprises an area of approximately 19.4 ha (48 acres).

Heathwood Homes and MCN (Cortel) have also filed applications to add its property to the Mount Pleasant Secondary Plan area as a Special Policy Area. The Heathwood and Cortel properties are proposed to be an extension of the Osmington Regional Centre proposal. **Exhibit 4-12** shows the location of these three applications. City staff has indicated that decisions on these applications are tied to the outcome of the Osmington application as, without Osmington being included in the Mount Pleasant Secondary Plans, inclusion of the Heathwood and MCN lands would not be logical.



Exhibit 4-12 Location of Heathwood, Cortel and Osmington Regional Centre Applications

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[Orlando and Prologis Industrial Park](#)

The property is generally located west of Highway 50 and Coleraine Drive, south of Countryside Drive and approximately 700 m north of Cadetta Road. The site is located within the 427 Industrial Park Area (Brampton Area 47), which is currently under appeal to the Ontario Municipal Board due to inconsistencies with the GTA West Route Planning Study Area boundaries.

As illustrated in **Exhibit 4-13**, a significant portion of the land is located within the GTA West Route Planning Study Area. The proposal is a two-phase development of 11 multi-tenant industrial buildings for office and warehouse distribution uses. The application has been deemed incomplete due to outstanding technical studies.

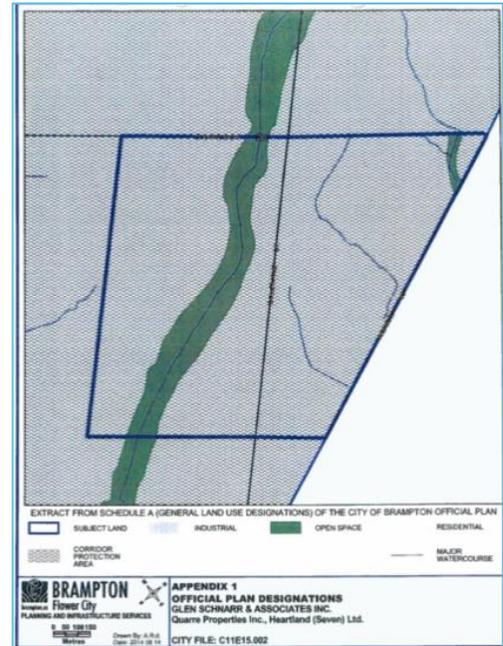


Exhibit 4-13 Orlando and Prologis Industrial Park

4.2 EXISTING LAND USE

The GTA West Route Planning Study Area crosses the fringe of one of the fastest growing areas in North America. Thirty years ago, the lands within the Study Area were part of the rural residential fringe around the GTA and provided a location for persons wishing to live in a rural setting, either on individual lots along country roads, or in estate residential subdivisions. The area also consisted of many rural and recreational uses that were within an easy commute of the GTA. Uses such as riding stables, campgrounds and golf courses were developed in this area given its high quality natural features and proximity to the urbanized areas to the south.

Portions of the Study Area lie within the Greenbelt Planning area, particularly in the City of Vaughan, Region of York. The majority of the Study Area lies within the lands between the existing built-up boundary and the Greenbelt Plan, often referred to as the “White Belt”. While these lands have historically been used for agricultural purposes, there is continued pressure to urbanize these areas and expand the range of uses that provide services to the abutting urban areas. The development objectives within the Study Area are described in the preceding **Section 4.1.3.1**.

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The following is a summary of the existing land use within the Study Area as of December 1, 2014. It is noted that, as a result of the ongoing planning and development activity in the area, land uses are changing rapidly. **Exhibit 4-14** illustrates conceptual land use based on:

- Regional Official Plans – Region of York, Region of Peel, Region of Halton;
- Lower Tier Official Plans – Township of King, City of Vaughan, City of Brampton, Town of Caledon, Town of Halton Hills, Town of Milton and City of Mississauga; and
- The *Greenbelt Plan*.

Areas that are considered Developed Area as of December 1, 2014, are shown in dark grey. These areas include existing developed lands, as well as lands where development has been approved to the stage of draft plan approval according to the *Planning Act*; in many cases, the development of the lands is ongoing. The built-up areas on **Exhibit 4-14** also illustrate clusters of rural residential development outside of the designated urban areas.

Within the three (3) Regions and seven (7) Lower Tier Municipalities, there are a number of terms used to describe the future land use designations in Official Plans. **Exhibit 4-15** generalizes those land use designations based on local planning policy. The generalized designation shown on **Exhibit 4-15** does not match the language used in the Upper or Lower Tier Official Plans completely, however it describes in general terms what the future intent of those land use designations are. For example, in the areas that are shown as designated residential areas, a variety of non-residential uses that support the residential functions, such as schools, local commercial uses and some local employment uses may also be permitted. Areas clearly designated as future employment areas are shown as a separate generalized land use designation on the map. Areas shown as future urban areas are lands where Secondary Plans are currently underway to determine the more specific land use designations in the future.

4.2.1 Urban and Rural Residential

As noted previously, existing urban and rural residential uses are shown as Developed Areas on **Exhibit 4-14**. These areas are either approved and under construction; or existing urban and rural residential uses.

The City of Vaughan, through OPA 637, proposes to urbanize the lands between Jane Street and Weston Road on either side of Highway 400 from the existing urban area at Teston Road north to the King Vaughan Line. Over the next few years, these lands will be urbanized largely for employment purposes. Policies are in place that recognize the future development of the GTA West Route Corridor through this area. Through the north part of Vaughan, there are clusters of rural residential development that are within the Study Area. There are also a number of large residential estates, non-farm uses on large rural properties (as shown in the following photograph).

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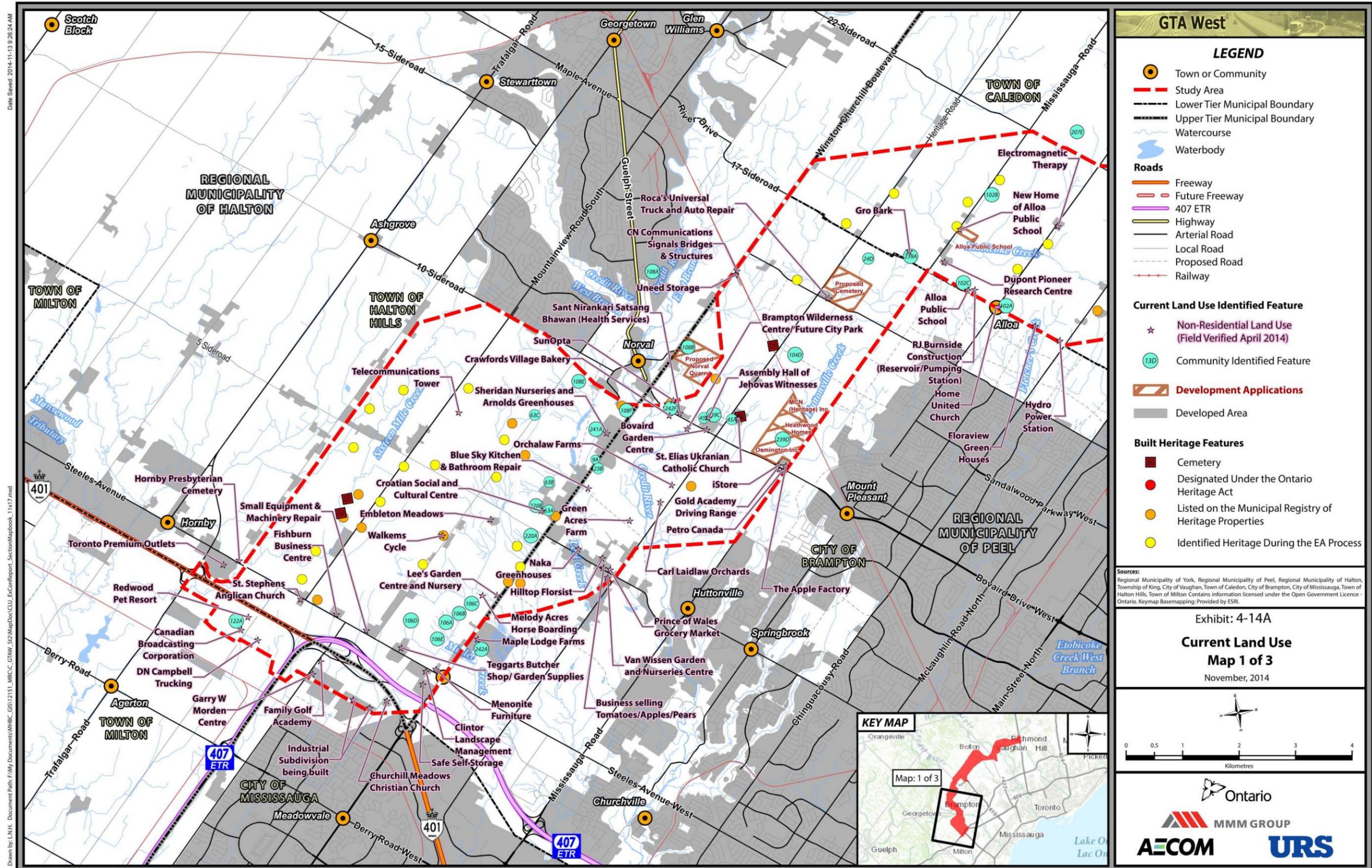
The Study Area is located between the existing Bolton urban area to the north and the existing urban area of Brampton to the south, between Highway 50 and Humber Station Road. While this area is not currently urbanized, the City of Brampton proposes to designate the lands south of Mayfield Road, and west of Highway 50 as a major employment area associated with the confluence of Highway 427 and the proposed GTA West Route Corridor (Area 47).



Within the Town of Caledon, there are numerous clusters of rural residential properties that have historically been divided from agricultural parcels. The Study Area includes a portion of the Mayfield West Secondary Plan area in Caledon. This area is designated for future urban uses, including residential and employment lands. Lands located directly north of Highway 410 and Mayfield Road are currently designated as employment lands within the Mayfield West Secondary Plan Phase 1. The proposed Phase 2 Secondary Plan would extend the urban area northerly and westerly from the existing urban area designation. A portion of the Study Area is included within the proposed Phase 2 Secondary Plan area for the expansion of Mayfield West.

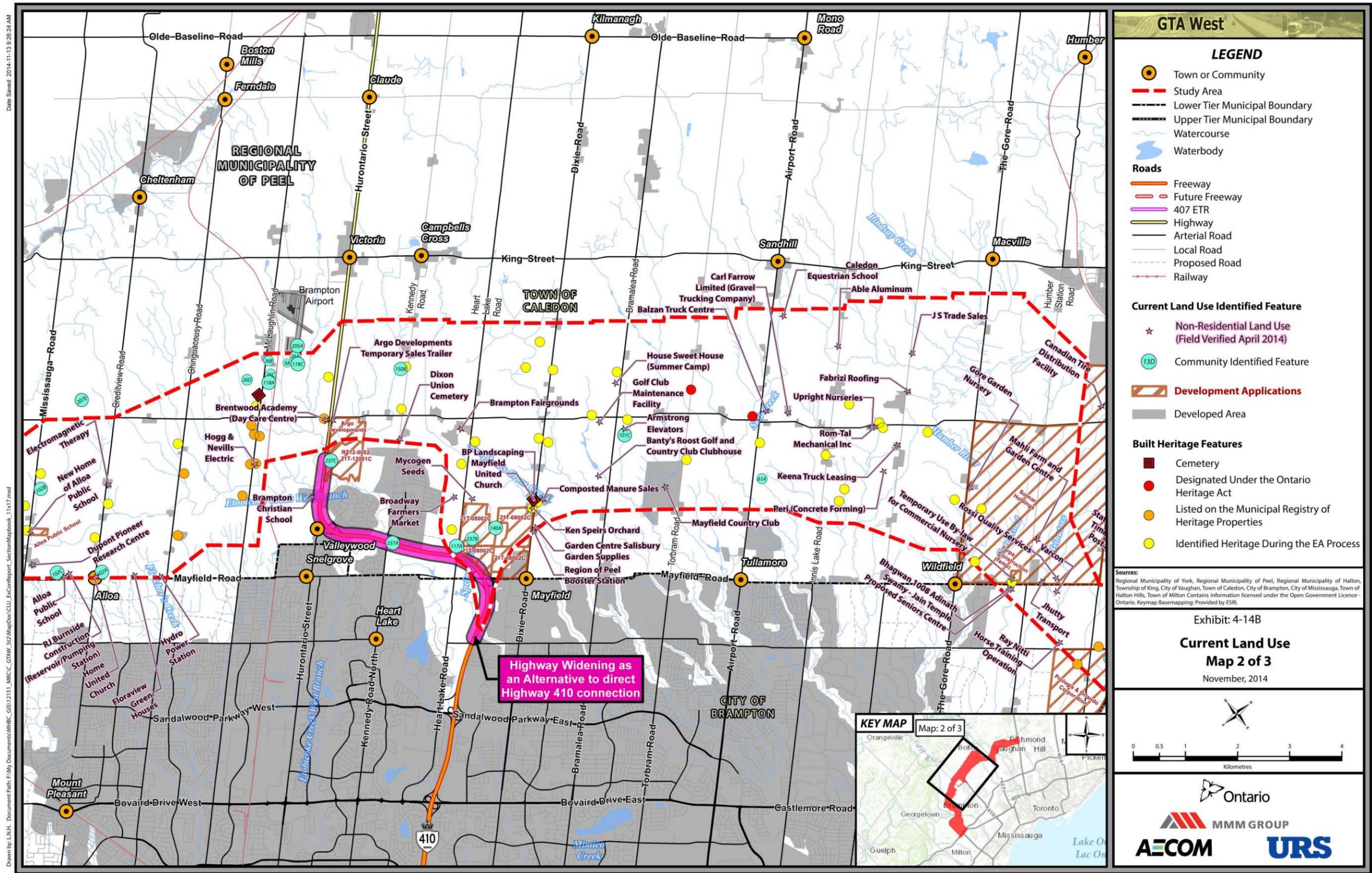
The Study Area also includes an area in the northwest portion of the City of Brampton, known as the Heritage Heights Secondary Plan area. This area is identified as a future urban area on **Exhibit 4-15**. It is anticipated that this area will develop as a full community including residential, employment and commercial uses. South of the Credit River in Brampton, the Study Area also includes lands that are presently designated for future residential purposes within the City of Brampton in the area west of Heritage Road and on either side of Embleton Road. Within this area, there is a large cluster of existing residential and local commercial uses shown as Developed Area on **Exhibit 4-15**.

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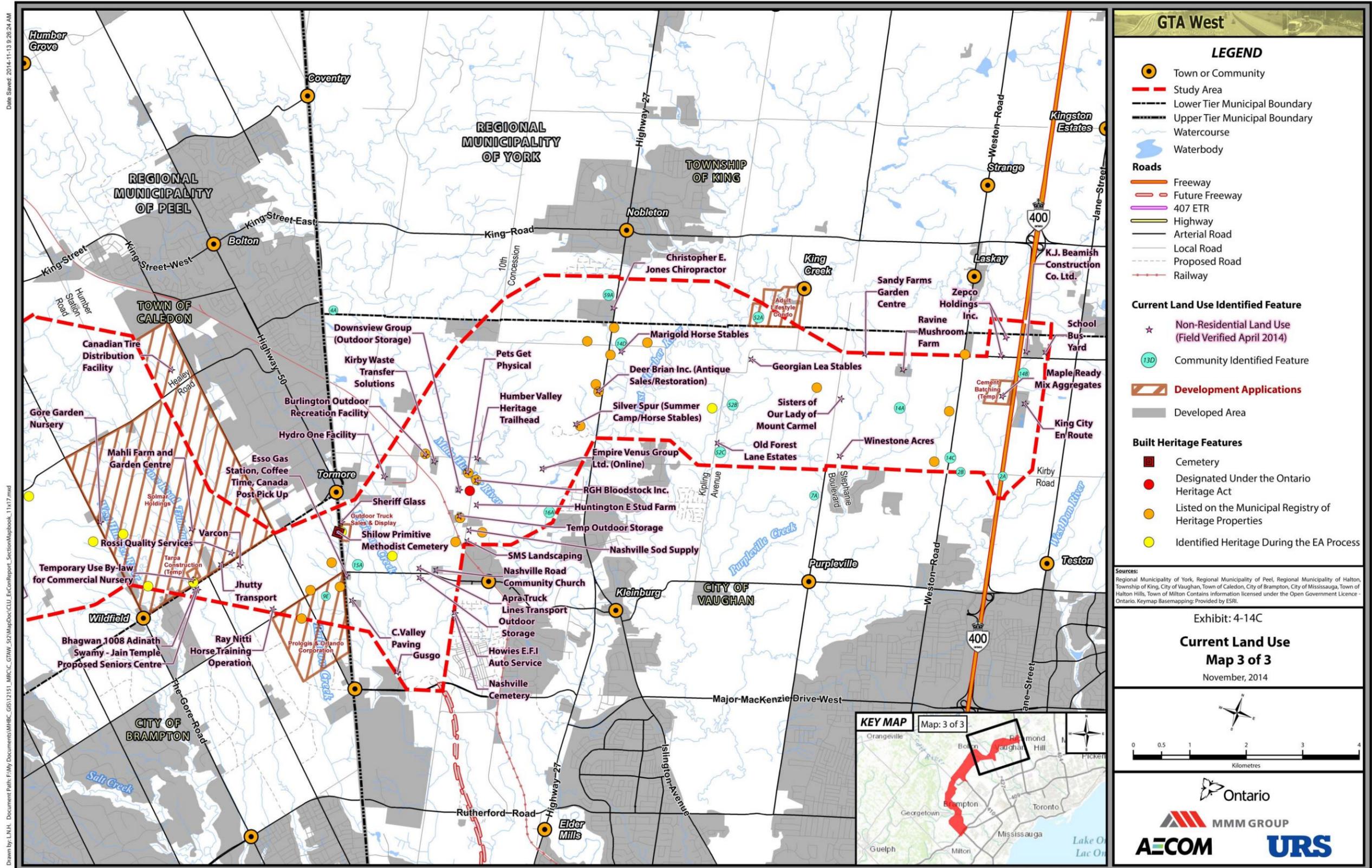
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Within the Town of Halton Hills, there are a considerable number of rural residential uses located along Winston Churchill Boulevard, the 10th Line, the 9th Line and the 5th Side Road. Steeles Avenue demarcates the limit of the existing employment area designation in Halton Hills, north of Highway 401. Within this area, there is a mix of residential and non-residential uses. The lands south of Steeles Avenue to Highway 401 are designated employment lands. South of Highway 401, in the Town of Milton, the lands are also designated as a future urban area. It is anticipated that Secondary Planning will occur in this area and, in accordance with the Regional Official Plan lands, would be designated as some form of employment use.

4.2.2 Commercial/Industrial

It was noted previously that the location of the Study Area on the periphery of the GTA lends itself to the development of commercial and industrial uses that service both the urban areas and the rural community. Throughout the Study Area, there are many agricultural commercial uses such as riding stables, nursery and landscaping supply operations, veterinary and horse and dog breeding operations, as well as commercial recreational uses such as day camps, equestrian centres, outdoor recreation areas and trails. Small-scale industrial uses that service the construction industry such as truck transport centres and repair facilities as well as outdoor storage facilities and small engines/ equipment repair operations are also located within the Study Area (as shown in the adjacent photographs).



There are numerous agriculturally related commercial operations throughout the Study Area (as shown in photograph below). Within the area of the Credit River and in Brampton, there is a concentration of florists, outdoor garden centres and market gardens. Sheridan Nurseries has a significant operation located on Winston Churchill Boulevard, just south of the 10th Side Road in Halton Hills. There is a large area of tree nursery plantations within this general area.



Throughout the area, there are numerous agricultural operations, which also provide for farm gate sales, including orchards and market gardens as well as agriculturally related products such as manure and landscaping materials.

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Exhibit 4-14 shows the locations of the industrial and commercial uses within the Study Area, as identified up to December 1, 2014, through infield reviews and consultation with area municipalities.

4.2.3 Tourist Areas and Attractions

Within the Study Area, there are active and passive tourist areas and attractions. At the headwaters of the Humber River in the City of Vaughan, there are considerable holdings of the Toronto Region Conservation Authority through which there are trails and open space available to the public. It is also noted that given the location and attractiveness of the area, many parts of the Study Area are commonly used by cyclists.

There are two (2) golf courses within the Study Area, both located in the Town of Caledon: Banty’s Roost and the Mayfield Golf Club.

4.2.4 Community Facilities/Institutions

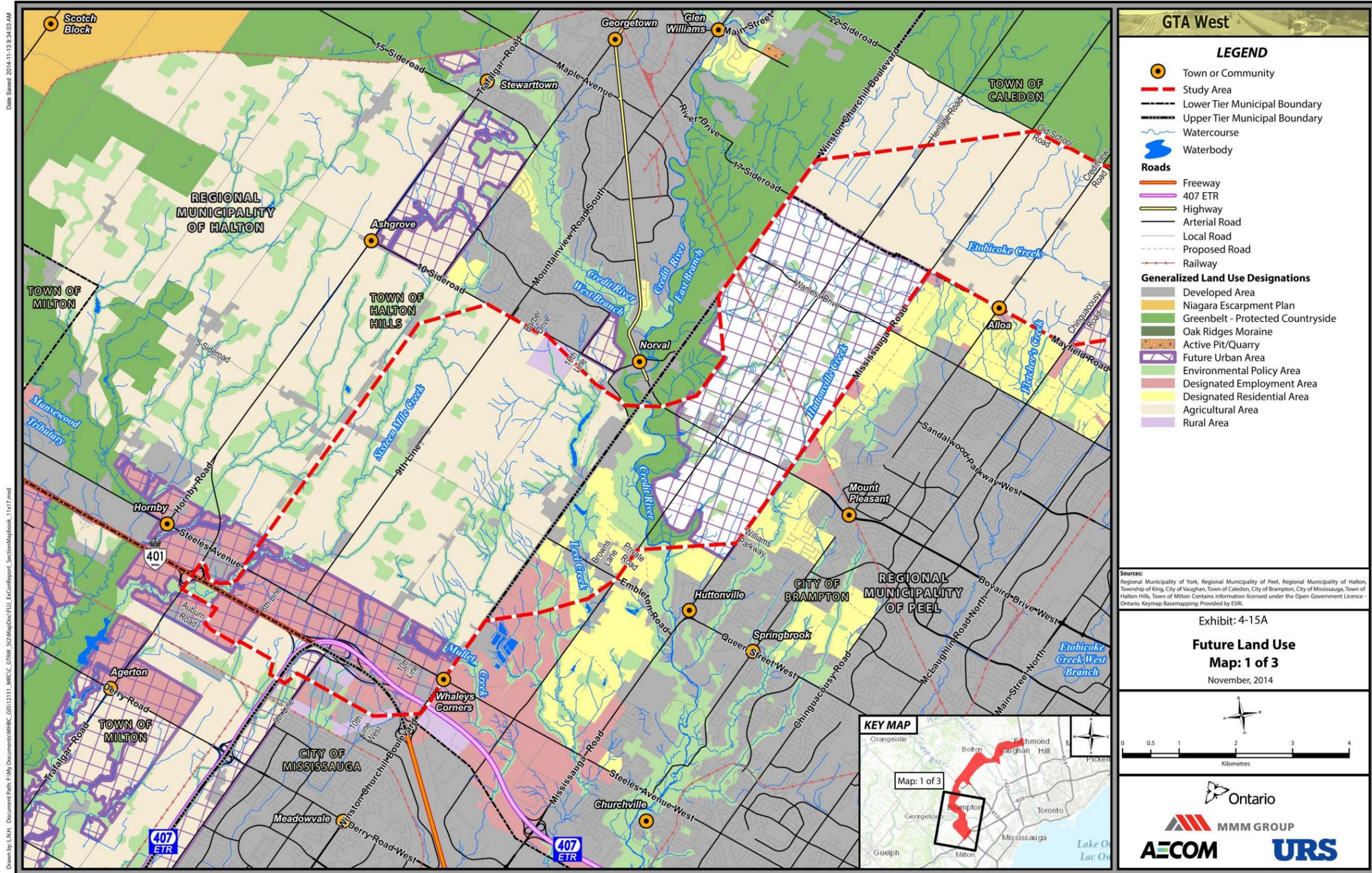
There are community facilities and institutions within the Study Area that service both the rural community and the GTA population. In the City of Vaughan, there is a childcare facility operating out of an old farmhouse on Jane Street (Sisters of Our Lady Mount Carmel). The Nashville Road Community Church is also located in the Study Area within the City of Vaughan.



In the Town of Caledon, in proximity to the Mayfield West Secondary Plan area, the Mayfield United Church is located on Dixie Road between Mayfield Road and Old School Road. Also in the Town of Caledon, the Alloa Public School has received approval for development of a new school located on Mississauga Road, north of Mayfield Road. The existing Alloa Public School and Home United Church are located in this area on Mayfield Road, near the intersection of Mayfield Road and Creditview Road.



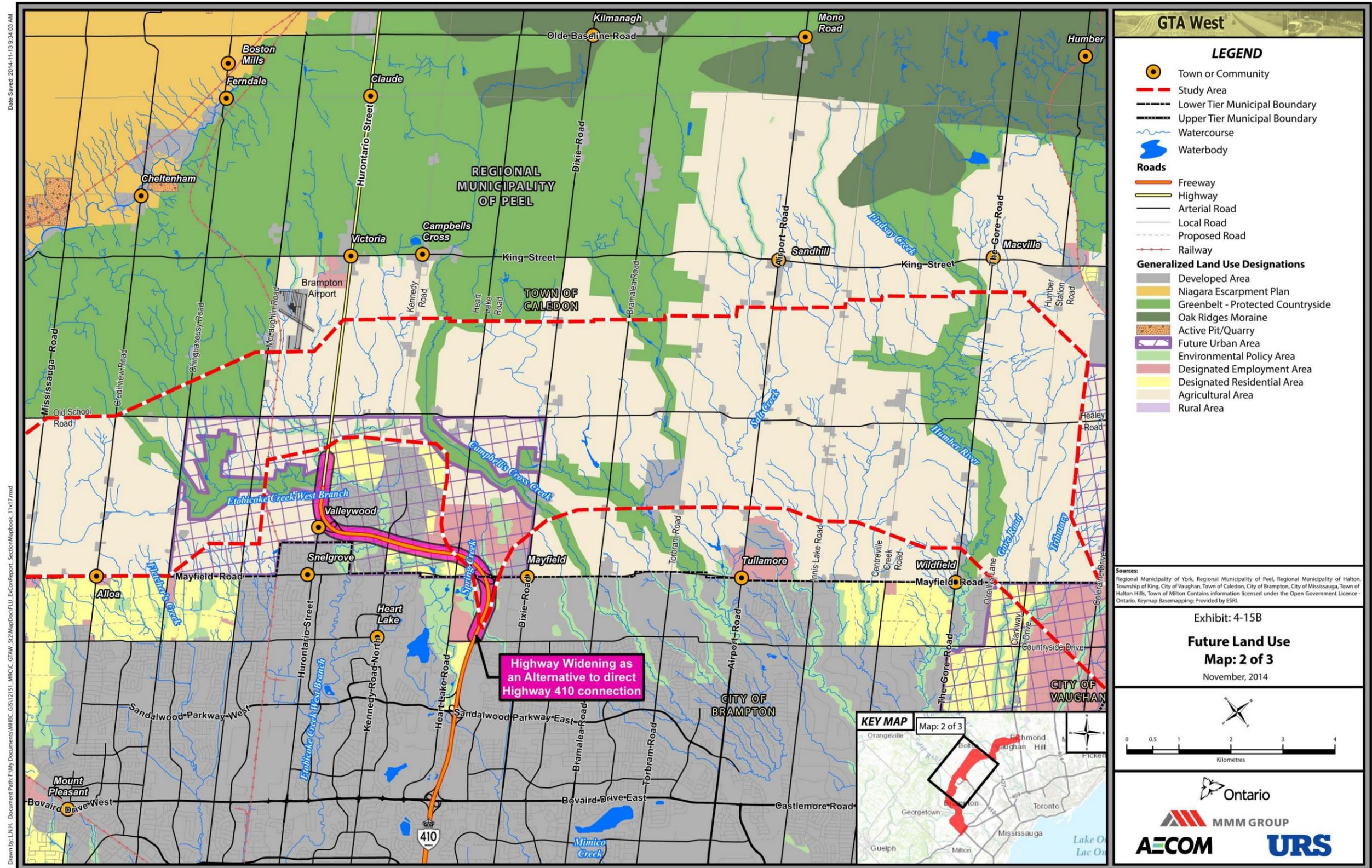
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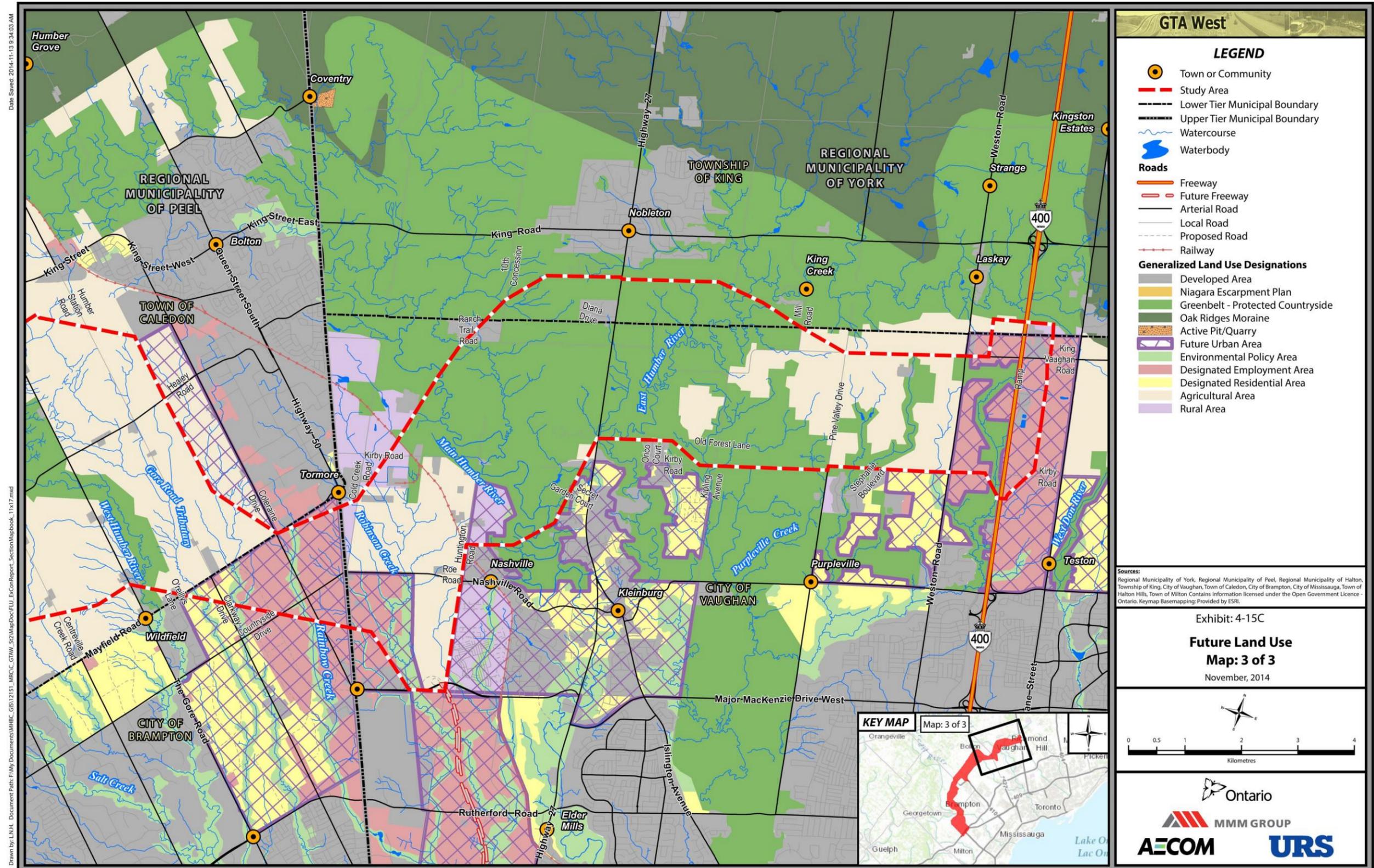
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Sources: Regional Municipality of York, Regional Municipality of Peel, Regional Municipality of Halton, Township of King, City of Vaughan, Town of Caledon, City of Brampton, City of Mississauga, Town of Halton Hills, Town of Milton Contains information licensed under the Open Government Licence - Ontario. Keymap Basemapping: Provided by ESR.

Exhibit: 4-15C
Future Land Use
Map: 3 of 3
 November, 2014

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Within the City of Brampton, the Bhagwan Adinath Swamy Jain Temple has recently been developed south of Mayfield Road and west of Clarkway Drive. Also, a senior centre is proposed adjacent to the temple. The Brampton Fairgrounds, a significant community facility (as shown in photograph above), is located at the southwest corner of Old School Road and Heart Lake Road. This is a major facility used



by residents and municipalities for community and social events. On the west side of Brampton, there is a cluster of community and institutional uses located in the vicinity of Heritage Road and Bovaird Drive. The St. Elias Ukrainian Catholic Church, which was recently destroyed by fire, but is in the process of rebuilding, is located just north of Highway 7. A Jehovah’s Witness Assembly Hall, as well as the Sant Nirankari Mission Health Services facility is located on Bovaird Drive, just west of Heritage Road. A public park, operated by the City of Brampton, and an outdoor education centre is located on the south side of Bovaird Drive, across from these institutional uses.

In Halton Hills, there is a significant Croatian Social and Cultural Centre located on the west side of Winston Churchill Boulevard, just north of Embleton Road. The St. Stephen’s Anglican Church is also within the Study Area on the south side of Steeles Avenue at the 9th Line.

4.2.5 Municipal Infrastructure and Public Service Facilities

There are no major municipal facilities, such as wastewater treatment plants, water treatment plants, storage towers or waste disposal sites within the Study Area. In the City of Vaughan, there is the Kirby Waste Transfer Solutions site, which receives organic waste for composting from municipalities. Further west of the site is the major Hydro One training and substation facility (shown in photograph). The facility includes a large electric substation, which services the 500 kilowatt hydro corridor. The facility runs northerly through the Study Area in the City of Vaughan and then continues further to the north.



There are plans to expand municipal infrastructure in the Study Area, near Highway 410 and the Mayfield Road area. Within the City of Brampton, these lands are designated as employment areas and development approvals are currently in process. Similarly, north of Mayfield Road in the Mayfield West Secondary Plan of the Town of Caledon, there are plans to extend infrastructure and local roads to the planned employment lands between Heart Lake Road and Dixie Road.

The Region of Halton and Town of Halton Hills are in the process of planning infrastructure to service the employment lands north of Highway 401. As a result of the planning process related to the GTA West

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Transportation Corridor, Halton is in the process of reviewing the staging of servicing in this area to coordinate land development.

4.3 NOISE SENSITIVE AREAS

The main types of Noise Sensitive Areas in the GTA West Route Planning Study Area are residential land uses associated with existing built-up communities, as described in previous sections of this report.

The proposed new transportation corridor, under the various alternatives, will be largely in a rural setting, where the existing daytime noise level is likely to be around 45 dBA. For this corridor, a threshold of 50 dBA will be adopted. Noise levels will fluctuate depending on local topography, seasonal traffic volumes, percentage of truck traffic and distance to the receptor.

A preliminary review of transportation noise, based on a qualitative assessment at a broad planning level, will be undertaken given the significant spatial coverage of the Study Area, and the potential range of alternative improvements. The alternatives will be reviewed from the perspective of minimizing the impacts to Noise Sensitive Areas, or communities potentially affected by the alternative(s).

4.4 EXISTING AIR QUALITY CONDITIONS IN THE GTA WEST STUDY AREA

The current air quality in the GTA West Route Planning Study Area can be generally characterized with air quality monitoring data from MOECC and Environment Canada (EC) monitoring stations. The representative air quality monitoring station is located in Brampton at 525 Main Street North. The contaminants summarized from this station include carbon monoxide (CO), nitrogen dioxide (NO₂), respirable particulate matter (PM_{2.5}), benzene, and 1,3-Butadiene. Data for formaldehyde and acetaldehyde are not available at Brampton, and were therefore taken from a station located at Egbert, Ontario. Acrolein data were taken from a station located in Toronto at Ruskin and Perth. These contaminants were selected because they are directly associated with transportation emissions and are those that will be studied in more detail at a later stage in the EA process.

The ambient air quality station information is summarized in **Table 4-1**.

Table 4-1 Ambient Station Information

Contaminant	Station Number	Station Name	Station Location	Most Recent 5 Years with Data Available
CO	MOE 46089	Brampton	525 Main St. North, Peel Manor	2003 – 2004
NO ₂	MOE 46089	Brampton	525 Main St. North, Peel Manor	2009 – 2013
PM _{2.5}	MOE 46089	Brampton	525 Main St. North, Peel Manor	2009 – 2013
PM ₁₀ ^[1]	N/A	N/A	Calculated from PM _{2.5} data ^[1]	N/A
Benzene	NAPS 60428	Brampton	525 Main St. North, Peel Manor	2008 – 2012
1-3 Butadiene	NAPS 60428	Brampton	525 Main St. North, Peel Manor	2008 – 2012
Formaldehyde	NAPS 64401	Egbert	Egbert	2006 – 2010

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Acetaldehyde	NAPS 64401	Egbert	Egbert	2006 – 2010
Acrolein	NAPS 60418	Toronto	Ruskin/Perth St	2002 – 2006

Notes: [1] PM₁₀ data were calculated from PM_{2.5} data by using the equation $PM_{10} = PM_{2.5}/0.54$.
 NA: not available

Table 4-2 presents the 90th percentile 1-hour and 24-hour concentrations and also the annual averages for some pollutants from the selected air quality monitoring stations. The 90th percentile values (value of concentration which is exceeded only 10% of the time) are representative of credible worst-case conditions. In other words, the upper bound of existing concentrations that is likely to coincide with an added contribution from the proposed transportation corridor, once it is in place. Data for the other averaging times of interest (ie., 8-hour CO, 24-hour NO₂, 1-hour acrolein, and 30-minute acetaldehyde concentration) are not readily available from the MOECC publications, but will be calculated based on the most up-to-date monitoring data at the time of the detailed assessment to be completed at a later stage in the GTA West Study. The comprehensive analysis will be undertaken to examine contaminants that are predicted to exceed their thresholds, and the assessment will involve application of hourly or daily monitoring values.

The monitoring data will be applied in the environmental assessment to represent background air quality levels in future scenarios, which implicitly assumes that background contaminant levels will persist into the future at their current levels. This assumption is conservative, and will result in an overestimation of background contaminant concentrations as levels in Ontario have generally been on a declining trend that is likely to continue into the future.

Table 4-2 90th Percentile 1-hour and 24 hour Concentrations and Annual Average Concentrations of Transportation Related Contaminants

Contaminant	Averaging Period	Units	Year					Average
			1	2	3	4	5	
NO ₂	1-hour	ppb	29	24	25	25	21	25
PM _{2.5} ^{[1][3]}	1-hour	µg/m ³	12	14	13	13	17	14
	Annual	µg/m ³	5.6	5.8	6.0	5.7	8.5	6.3
PM ₁₀ ^[2]	1-hour	µg/m ³	22	26	24	24	31	26
CO	1-hour	Ppm	0.94	0.91	N/A	N/A	N/A	0.93
Benzene	24-hour	µg/m ³	0.93	0.94	1.01	INS	1.00	0.97
	Annual average	µg/m ³	0.58	0.55	0.55	INS	0.54	0.56
1-3 Butadiene	24-hour	µg/m ³	0.094	0.101	0.114	INS	0.110	0.104
	annual	µg/m ³	0.057	0.053	0.052	INS	0.053	0.054
Formaldehyde	24-hour	µg/m ³	4.99	3.48	4.83	2.53	5.24	4.21
Acetaldehyde	24-hour	µg/m ³	2.06	1.44	1.96	1.02	1.27	1.55
Acrolein	24-hour	µg/m ³	0.20	INS	0.14	0.57	INS	0.30

Notes: ppm, ppb, and (g/m³) stand for parts per million, parts per billion, and microgram per cubic metre, respectively.
 INS – insufficient data
 N/A – Not available

[1] The 24-hour Canada Ambient Air Quality Standard (CAAQS) for PM_{2.5} is based on the 98th percentile ambient measurements taken annually, averaged over three consecutive years.

[2] The value for PM₁₀ is an interim Ambient Air Quality Criteria (AAQC) for Ontario.

[3] The annual CAAQS for PM_{2.5} is based on the three-year average of the annual average concentrations. This standard applies as of 2020.

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Transportation is not the only cause of regional air pollution. For example, in the case of PM_{2.5}, elevated levels are commonly related to regional photochemical processes. According to the MOECC (2013) *Air Quality in Ontario – 2011 Report*, EC (2004) *Transboundary Air Quality in Ontario – 2005 Report*, and previous studies done by EC and by RWDI, transboundary air pollution (mainly from United States) is one of the largest contributions to Ontario’s smog events in the summer. Lake breeze convergence (from Lake Huron and Lake Erie) building up in the Study Area in the summer can also cause an increase in PM_{2.5} levels under southwesterly wind conditions. Therefore, the data shown in **Table 4-2** are a combination of local and transboundary effects.

The ambient air quality thresholds (i.e. criteria and standards) for the contaminants of interest are presented in **Table 4-3**.

Table 4-3 Ambient Air Quality Thresholds

Contaminant	Averaging Period	Current Threshold	Threshold Type
CO	1 hour	30 ppm	AAQC
	8 hour	13 ppm	
NO ₂	1 hour	200 ppb	AAQC
	24 hour	100 ppb	
PM ₁₀ ^[1]	24 hours	50 µg/m ³	CAAQS
PM _{2.5} ^[2]	24 hours	27 µg/m ³	
	Annual	8.8 µg/m ³ ^[3]	
Benzene	24-hour	2.3 µg/m ³	AAQC
	Annual	0.45 µg/m ³	
1,3-Butadiene	24-hour	10 µg/m ³	AAQC
	Annual	2 µg/m ³	
Acrolein	1-hour	4.5 µg/m ³	AAQC
	24-hour	0.4 µg/m ³	
Acetaldehyde	30-minute	500 µg/m ³	AAQC
	24-hour	500 µg/m ³	
Formaldehyde	24-hour	65 µg/m ³	AAQC

Notes: ppm, ppb, and (g/m³) stand for parts per million, parts per billion, and microgram per cubic metre, respectively.

[1] The value for PM₁₀ is an interim Ambient Air Quality Criteria (AAQC) for Ontario.

[2] The 24-hour Canada Ambient Air Quality Standard (CAAQS) for PM_{2.5} is based on the 98th percentile ambient measurements taken annually, averaged over three consecutive years. This standard applies as of 2020.

[3] The annual CAAQS for PM_{2.5} is based on the three-year average of the annual average concentrations. This standard applies as of 2020.

The contaminant concentrations are less than their corresponding criteria for all of the contaminants, and all averaging periods with the exception of the annual average benzene concentrations, which are higher than its corresponding criterion. The annual average benzene concentrations are shown to decrease over the 5-year period.

The detailed assessment to be completed at a later stage in the GTA West Study will include cumulative contaminant concentrations (background plus proposed transportation corridor) for the all of the contaminants and corresponding averaging times listed above.

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4.5 LAND RESOURCES

The Study Area is comprised of a mix of land uses within the Region of York, the Region of Peel, and Halton Region. Some specialty crops and cropland occur within the study limits, with additional market gardening associated with small pockets of organic soils.

4.5.1 Agriculture Lands and Soil Capability for Agriculture

Physiography (as it relates to soil capability for agriculture)

The southern Ontario Physiographic Unit Map (MNRF, 1983) indicates that the GTA West Transportation Route Planning Study Area is located within the South Slope and the Peel Plain physiographic regions. The majority of the Study Area is within the South Slope physiographic region with smaller areas of the Study Area (southern West Section, eastern Central Section, and western portion of the Eastern Section) being located in the Peel Plain Physiographic region.

The South Slope physiographic region is described as the southern slope of the Oak Ridges Moraine. The South Slope contains a variety of soils that were developed on till materials. The Peel Plain physiographic region is described as a 'level to undulating tract of clay soils' located between the South Slope and Lake Ontario.

Climate (as it relates to agriculture)

The Study Area is located within the 2900 to 3300 average accumulated Crop Heat Units (CH-M1) available for Corn Production in Ontario. The Crop Heat Units (CHU) index was originally developed for field corn and has been in use in Ontario for 30 years. The CHU ratings are based on the total accumulated crop heat units for the frost free growing season in each area of the province. CHU averages range between <2500 near North Bay to over 3500 near Windsor. The higher the CHU value, the longer the growing season and greater are the opportunities for growing value crops.

Canada Land Inventory (CLI)

Basic information about the soils of Ontario is made more useful by providing an interpretation of the agricultural capability of the soil for various crops. The Canada Land Inventory (CLI) system combines attributes of the soil to place the soils into a seven-class system of land use capabilities. The CLI soil capability classification system groups mineral soils according to their potential and limitations for agricultural use. The first three (3) classes are considered capable of sustained production of common field crops; the fourth is marginal for sustained agriculture; the fifth is capable for use of permanent pasture and hay; the sixth for wild pasture; and the seventh class is for soils or landforms incapable for use for arable culture or permanent pasture. Organic or Muck soils are not classified under this system.

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Agricultural CLI soil classifications in the Study Area are shown on **Exhibit 4-16**. As illustrated, large portions of the Study Area are comprised of CLI Class 1-3 lands. There are many contiguous areas of Prime Agricultural Areas (as defined by Section 2.3 of the PPS), but no one single contiguous unit across the Study Area.

The Western Section of the Study Area comprises large expanses of CLI Class 1 – 3 lands separated by thin bands of poorer quality land (CLI Class 5 – 7) associated with incised watercourses and river valleys.

The Central Section of the Study Area comprises large expanses of CLI Class 1 – 3 lands separated by thin bands of poorer quality land (CLI Class 5 – 7) associated with incised watercourses. A larger polygon of CLI Class 4 land was noted in the eastern extent of the Central Section.

The Eastern Section of the Study Area comprises large extents of CLI Class 1, Class 2 and Class 4 lands, separated by thin bands of poorer quality land (CLI Class 5 – 7) associated with incised watercourses and river valleys.

4.5.2 Specialty Crop Areas

The PPS (2014) defines Specialty Crop Areas as:

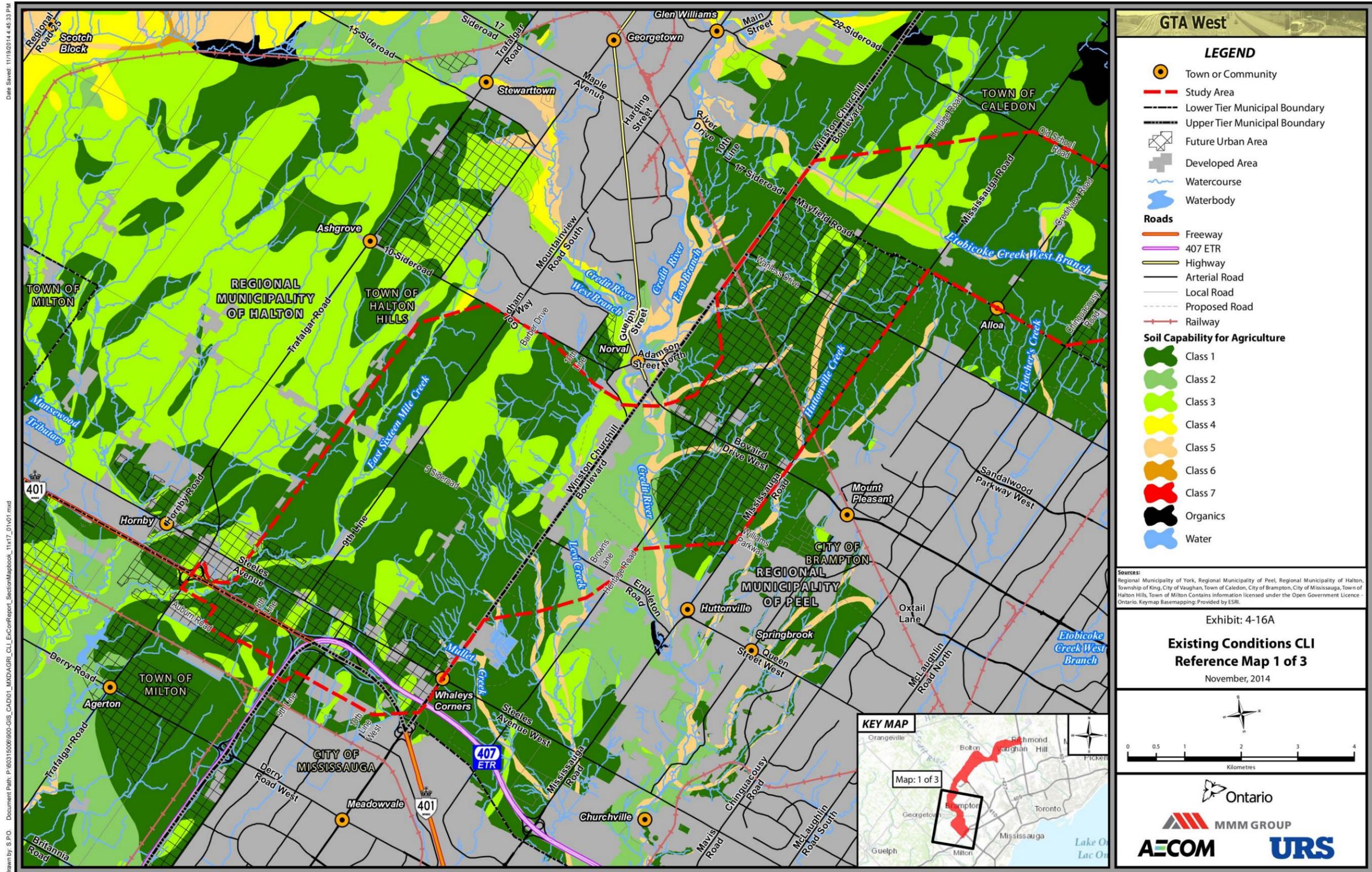
“areas designated using guidelines developed by the Province, as amended from time to time. In these areas, specialty crops are predominantly grown such as tender fruits (peaches, cherries, plums), grapes, other fruit crops, vegetable crops, greenhouse crops, and crops from agriculturally developed organic 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.”*

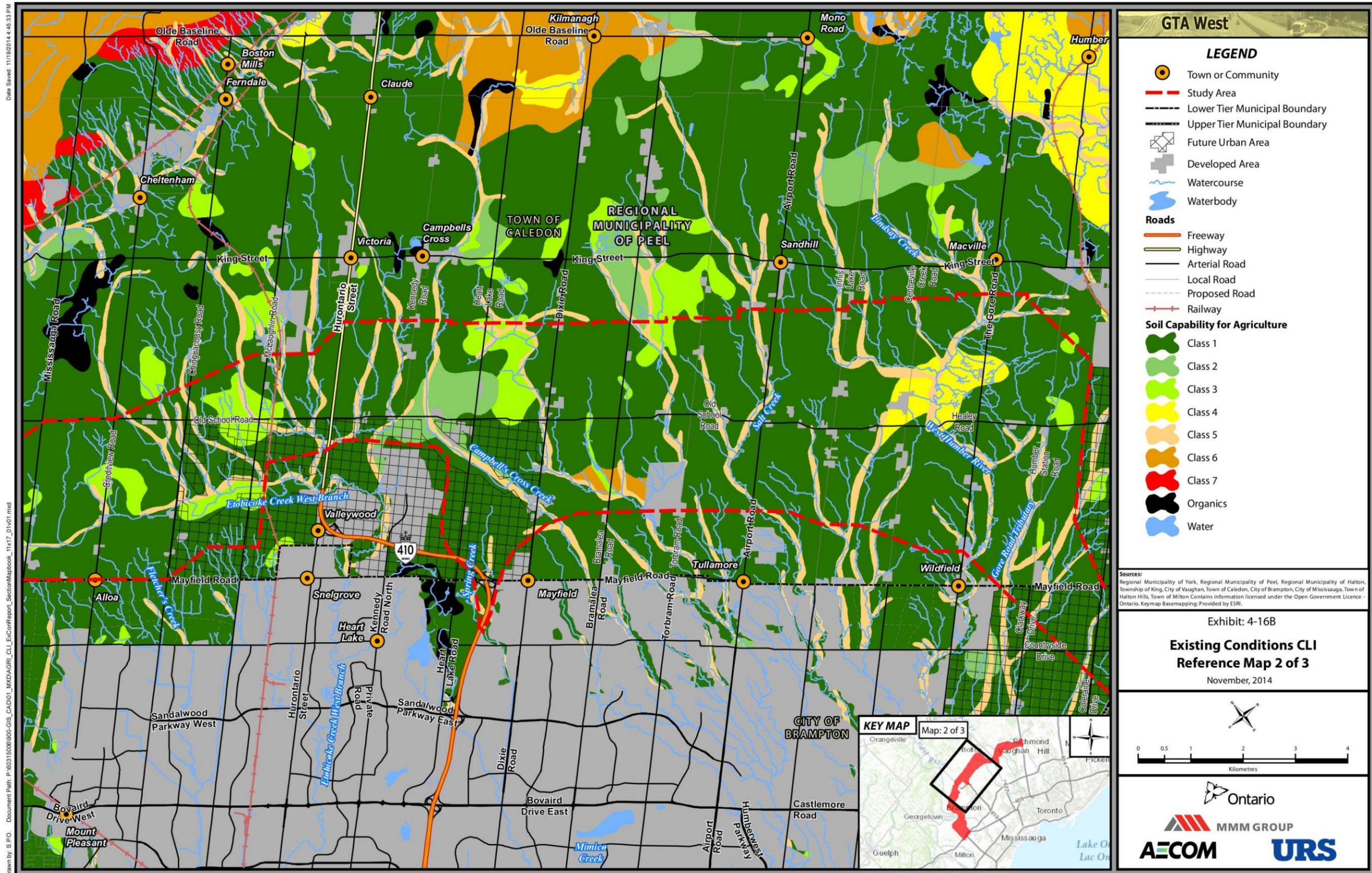
Specialty Crop Areas are identified as zones of unique soil and climate characteristics where a variety of fruit and/or vegetable nursery stock crops are produced that cannot be produced elsewhere. In addition to the production of these unique crops, these areas also comprise the infrastructure for the storage, packaging, and transportation of the crop.

The Regions of Halton, Peel and York Official Plans do not identify unique areas for specialty crop production, however, areas of specialty crop production have been observed in each Region in small isolated locations. These areas are often isolated from other specialty crop areas, and may not contain the associated specialty crop infrastructure.

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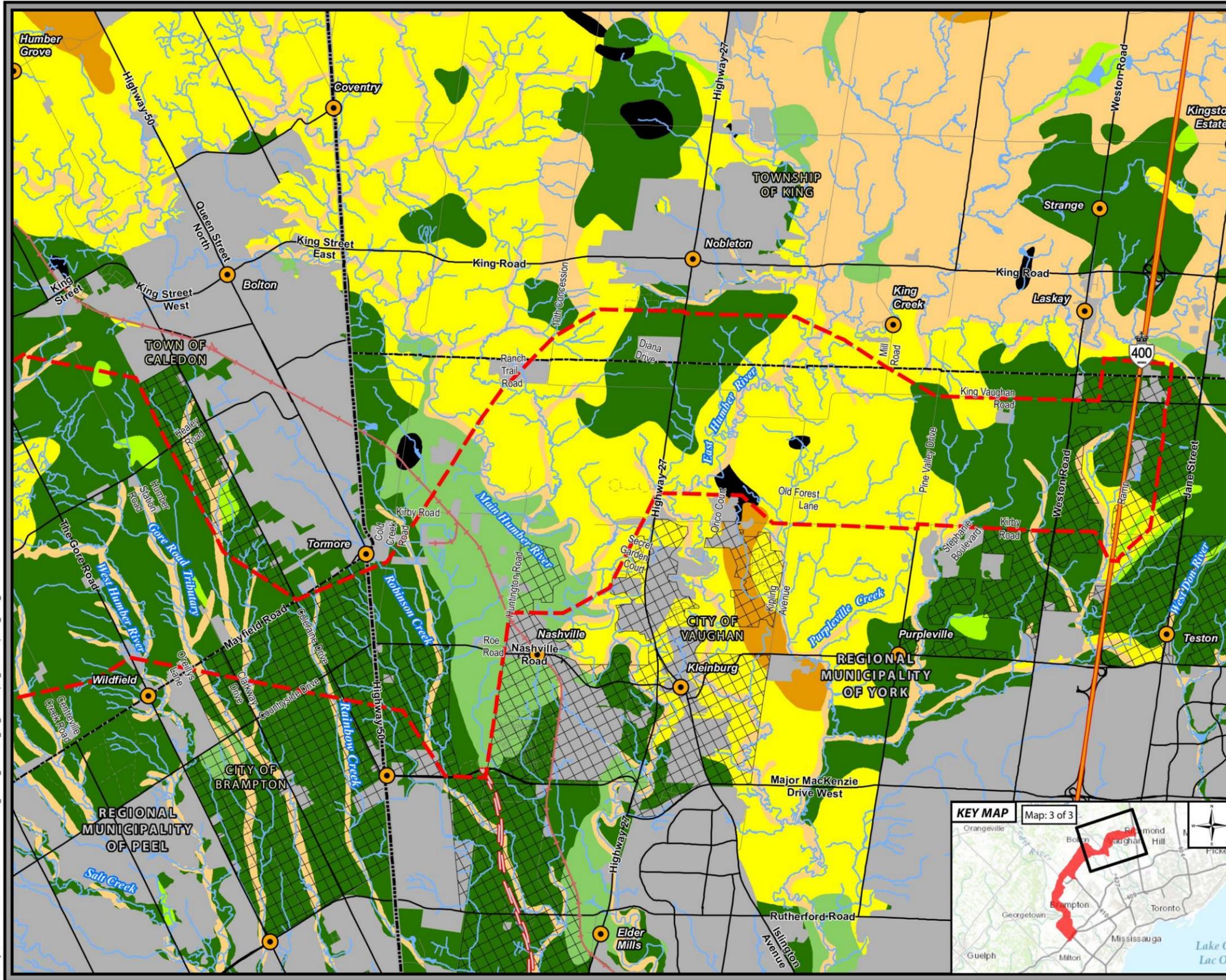


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GTA West

LEGEND

- Town or Community
- Study Area
- Lower Tier Municipal Boundary
- Upper Tier Municipal Boundary
- Future Urban Area
- Developed Area
- Watercourse
- Waterbody

Roads

- Freeway
- Future Freeway
- Arterial Road
- Local Road
- Proposed Road
- Railway

Soil Capability for Agriculture

- Class 1
- Class 2
- Class 3
- Class 4
- Class 5
- Class 6
- Organics

Sources:
 Regional Municipality of York, Regional Municipality of Peel, Regional Municipality of Halton, Township of King, City of Vaughan, Town of Caledon, City of Brampton, City of Mississauga, Town of Halton Hills, Town of Milton. Contains information licensed under the Open Government Licence - Ontario. Keymap Basemapping: Provided by ESRI.

Exhibit: 4-16C
Existing Conditions CLI Reference Map 3 of 3
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KEY MAP Map: 3 of 3



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 Kilometres

Ontario
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4.5.3 Parks and Recreational/Trails Areas

Within the Study Area there are many parks and recreational areas, including several popular trail systems. The Study Area is well known for various outdoor activities that take place in these unique environments. There are numerous parks, conservation areas, hiking, biking and skiing trails, picnic areas, as well as the many swimming and off-road locations. A brief description of some of the more popular areas of recreation is listed below. Major trails in the Study Area were previously illustrated on **Exhibit 3-5**.

Humber Valley Heritage Trail

The portion of the Humber Valley Heritage Trail system that is located within the GTA West Route Planning Study Area begins just north of Bolton, at the intersection of Highway 50 and Columbia Way. The Trail is approximately 26 km in length with a total ascent of 575 m, giving this hilly and long series of climbs, a rating of intermediate to advanced. The rolling topography is typical of the Oak Ridges Moraine.

Carrying Place Trail

The Carrying Place Trail follows the Humber River from Georgian Bay to Lake Ontario. There are marked crossings along the river which commemorate its use as a significant former First Nations portage route.

4.5.4 Aggregate and Mineral Resources

The planning responsibility for mineral aggregate resources is shared between the Province, upper and lower tier governments. There is a strong interest held by all levels of government to protect the resources as close to market as possible given that as distance from market increases, associated construction costs and potential environmental impacts also increase. As such, it is an integral part of the environmental assessment process to identify where significant aggregate resources are located in relation to the Study Area.

Provincial Policy Statement (2014)

In Section 2.5 of the PPS, the Province has expressed an interest in the protection of mineral aggregate resources for long-term use. Protection is accomplished by restricting development in known deposits of mineral aggregate resources and on adjacent lands. The PPS indicates that development and activities which would preclude or hinder the establishment of new operations or access to the resources shall only be permitted if:

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- resource use would not be feasible; or
- the proposed land use or development serves a greater long-term public interest; and
- issues of public health, public safety and environmental impact are addressed.

Provincial policies regarding aggregate resources extend through the *Greenbelt Plan* and have been implemented into Regional and local Official Plan policies.

[Greenbelt Plan \(as it relates to Aggregate Resources\)](#)

Section 4.3.2 of the Greenbelt Plan, Non-Renewable Resource Policies permits aggregate extraction in lands within the Protected Countryside, subject to all other applicable legislation, regulations and municipal Official Plan policies and by-laws.

The *Greenbelt Plan* policies are in accordance with the PPS. Accordingly, Section 4.3.2.2 recognizes “that aggregates, in particular, provide significant building materials for our communities and *infrastructure*, and the availability of aggregates close to market is important both for economic and environmental reasons”.

[Mineral Aggregates Resources in the Study Area](#)

[Region of York](#)

The Region of York has limited sand and gravel resources remaining, and therefore the protection of these resources is important. The Region of York identifies the importance of the availability of aggregates close to market as they provide local building materials for communities and infrastructure. Map 9 of the Regional Official Plan, identifies York Region’s Mineral Aggregate Resources for protection. Within the Study Area there are no lands that have been identified as having significant aggregate resources.

[Region of Peel](#)

Peel’s mineral aggregate resource base consists of sands and gravel as well as shale, sandstone and dolostone. The Region identifies mineral aggregate resources as an important component of the economic development and employment opportunities in the Region.

The Region of Peel illustrates High Potential Mineral Aggregate Resource Areas (HPMARA) on Schedule C of the Regional Official Plan (**Exhibit 4-17**). The HPMARA designation identifies sand and gravel, and shale resources in the Region. The majority of the HPMARA designated areas are located in Caledon, with an area also identified in northwest Brampton.

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The Regional Official Plan states that Lower Tier Official Plans shall reflect HPMARA designation and may be refined for local considerations. Lower Tier Official Plans and their respective refinements shall respect the general intent of the Regional Official Plan in ensuring the long-term protection of aggregate resources.

There is a significant shale resource area identified near the westerly limit of the City of Brampton. This area is identified as a High Potential Mineral Resource Area in the Peel Region Official Plan. It is also within an area designated for urban development. Under the provisions of the Peel Region Official Plan, the shale resource area is to be protected for potential extraction until at least September 2016. At that time the City can determine if the extraction of the resources serves a greater public interest than the urbanization of the lands. Shale is the critical component of brick. Studies completed for the City indicated that these lands represent one of the last areas where there is a significant shale deposit close to the Greater Toronto market. Secondary Plans for the

development of the area are currently underway.

There is a current application for a quarry (Norval Quarry) located just west of the Study Area, within the shale resource area. The application filed by Brampton Brick to rezone a 34.9 ha section of land at Old Pinecrest Road and Winston Churchill Boulevard along the Brampton-Halton Hills border, was not approved by Peel Region Planning and Development Committee in September 2014 and is likely to be appealed to the Ontario Municipal Board.

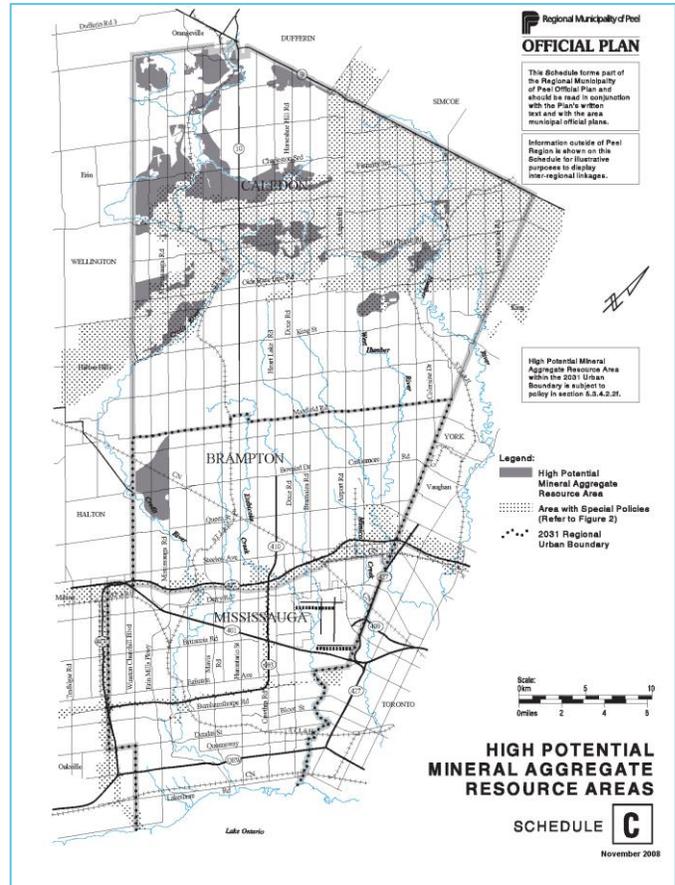


Exhibit 4-17 High Potential Mineral Aggregate Resource Areas

[Region of Halton](#)

Section 107(1) of the Region of Halton Official Plan identifies Mineral Resource Extraction Areas. At the time of preparation of this report, the majority of the section is under appeal to the OMB including Map 1F which outlines the Mineral Resource Areas (**Exhibit 4-18**).

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Approved portions of the section recognize the importance of protecting aggregate resources from incompatible uses. Mineral aggregates in Halton provide sand, gravel and bedrock, the majority of aggregates are located along the Niagara Escarpment. There are identified mineral aggregate resources within the Study Area. These resources include the shale deposit west of Winston Churchill Boulevard that extends into Brampton.

4.5.5 Major Utility Transmission Corridors

Major hydro transmission facilities, as well as gas utilities and pumping stations, are scattered throughout the Study Area. The most significant corridors in the Study Area are shown on the Municipal Official Plan Exhibits presented previously.

The TransCanada Pipeline, major hydro corridors and rail lines through the Study Area have also been identified. The TransCanada Pipeline crosses the Credit River in the Study Area west of Mississauga Road, just north of Steeles Avenue. There is also a high-voltage hydro corridor that runs in a north/south direction just west of the future Highway 427 Extension, in the City of Vaughan. There is a major hydro transformer station and training centre in the City of Vaughan near the northern limit of the Study Area, west of the Humber River.

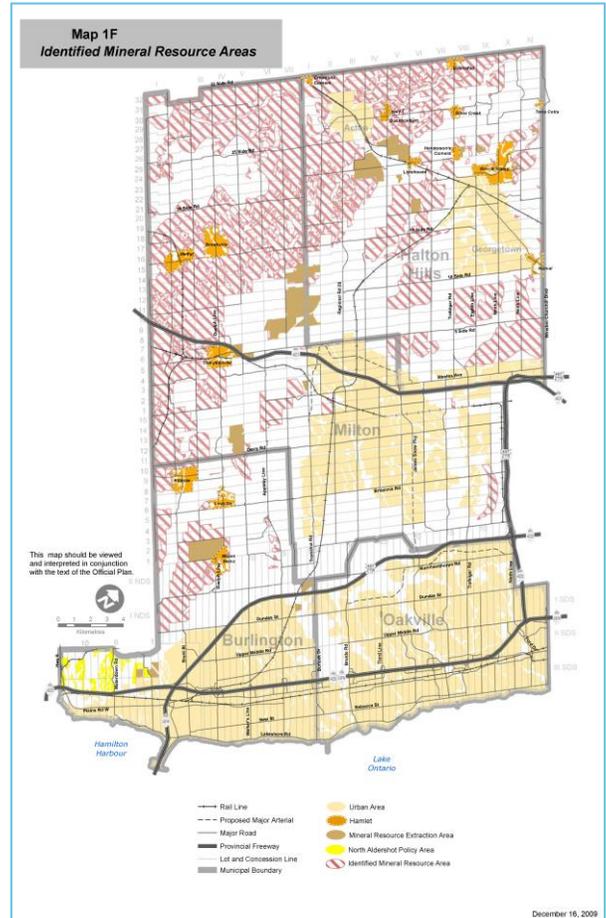


Exhibit 4-18 Map 1F, Identified Minerals Resource Areas

4.5.6 Contaminated Property

An assessment of potentially significant contaminated property and waste management facilities was initiated during Stage 1 and is being completed during Stage 2 of the project. The assessment involves a review of secondary source data, including a review of the MOECC Waste Disposal Site Inventory, Brownfield Site Registry, Coal Gasification Plant Inventory, the Federal Contaminated Sites and Solid Waste Landfills Inventory and EcoLog Environmental Risk Information Services (ERIS) data. The ERIS system provides information from federal, provincial and private source databases for a defined search area. Each database is divided into records that present information, such as company names, addresses, descriptions, status and other pertinent information.

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The Stage 1 Study Area was examined to determine the presence of any potential environmental issues. Small waste dumps, private (or unregistered) waste disposal sites, and automotive wrecking facilities were not identified at this stage of the project. These features will be evaluated in more detail at a later stage of the study process.

4.5.6.1 Waste Disposal Site Inventory

The MOECC Waste Disposal Sites Inventory provides the locations of all active and inactive waste disposal sites in Ontario. This inventory was compiled in 1991 by the MOECC. “Class A” sites are those that are deemed to have the potential to impact human health because of the proximity to human development. “Class B” sites are those that are deemed to have the potential to impact mainly the environment. Further subdivisions of each class reflect site-specific waste characteristics as specified in the MOECC *Waste Disposal Site Inventory* (1991).

During Stage 1 of the study, 43 waste disposal sites were identified as present within the Study Area using MOECC Waste Disposal Site Inventory (1991). Based on the data reviewed, 30 of these sites were classified as closed waste disposal facilities and the remaining 13 facilities were still active. The locations of these sites are scattered throughout the Study Area, as shown on **Exhibit 4-19**.

ERIS data were relied on for identification of MOECC Waste Disposal Sites present within the Stage 2 Study Area. As can be seen from **Exhibit 4-20**, only three (3) waste disposal sites are present within the east section of the study area and none of the waste disposal sites appear to be present within the west and central sections of the study area.

4.5.6.2 Brownfield Site Registry

The Environmental Site Registry (ESR) is a publicly accessible database documenting any Record of Site Condition (RSC) that has been filed with the MOECC since the inception of the ESR in October 2004. The RSC documents any environmental site assessment (i.e., Phase I and Phase II ESAs), site clean-up, and/or site specific risk-assessment completed at a particular property. This legal instrument is pursuant to Ontario Regulation (O.Reg.) 153/04 of Part XV.1 of the Ontario *Environmental Protection Act*.

According to the MOECC Brownfield ESR, 77 sites were identified to be located within the Stage 1 Study Area. Based on EcoLog ERIS data, 18 Brownfield ESR sites are present within the Stage 2 Study Area and, as can be seen from **Exhibit 4-20**, an additional eleven (11) sites are present within close proximity of the Stage 2 study area.

4.5.7 Federal Contaminated Sites and Solid Waste Landfills Inventory

This inventory is a publicly accessible database which documents all known Federal Contaminated Sites and Solid Waste Landfills. A contaminated site is defined by the Federal Government as, “one at which

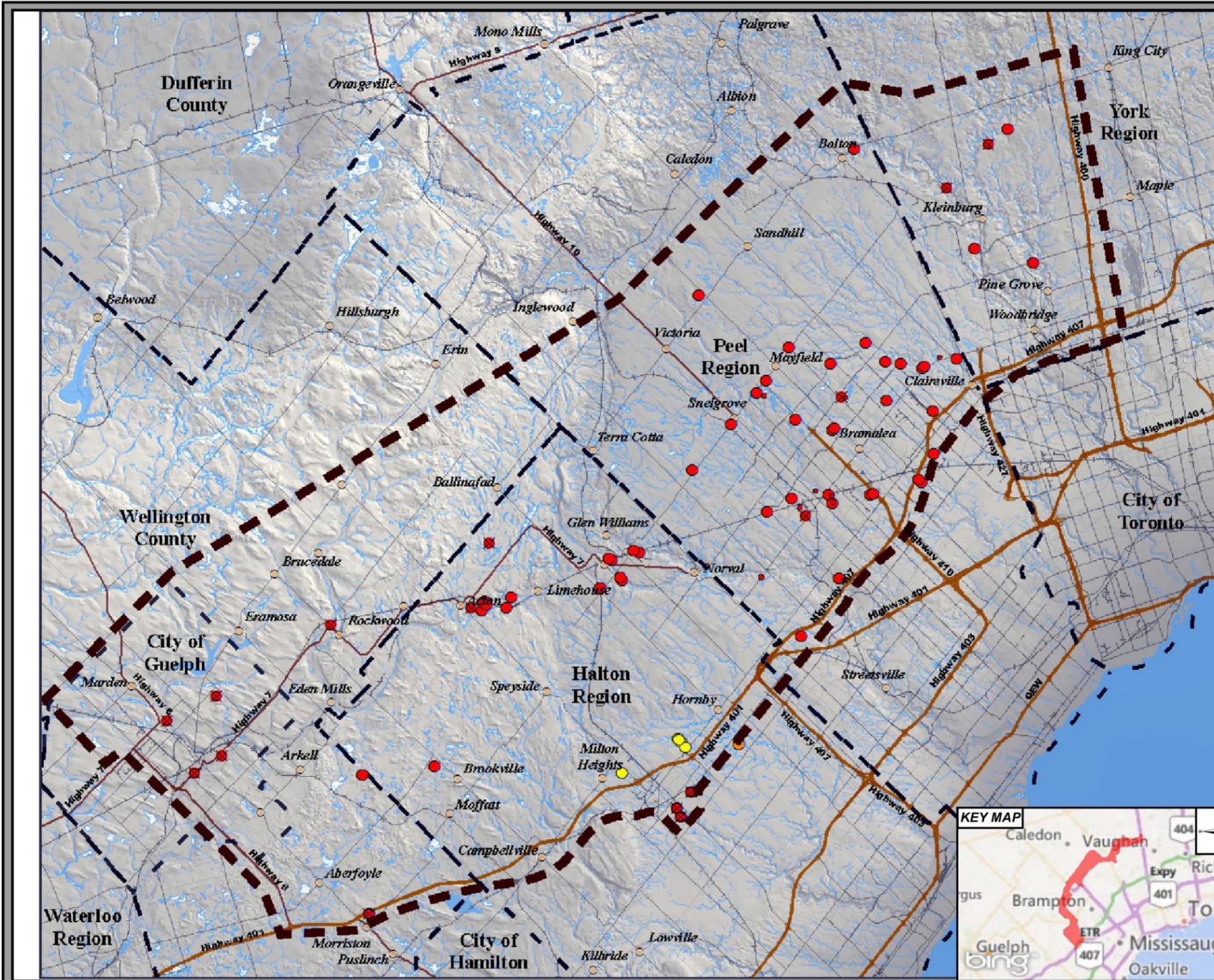
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substances occur at concentrations above background levels and pose, or are likely to pose, an immediate or long-term hazard to human health or the environment, or exceeding levels specified in policies and regulations”.

Based on the review of the inventory, seven (7) federal contaminated sites or solid waste landfills were identified within the Stage 1 Study Area (see **Exhibit 4-19**). There are no federal contaminated sites present within the Stage 2 Study Area. Detailed contaminant investigations for the preferred route will confirm if any of the waste disposal sites described in **Section 4.5.6.1** are solid waste landfills

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Document Path: I:\EngSoftware\2014\32321402018\Env Mgmt\ARC\MXD\Exhibit 4-19 Potential Presence of Waste Disposal Stage 1.mxd



GTA West

LEGEND

-  GTA West Stage 1 Study Area
-  Municipal Boundary
-  400 Series Highways
-  Highways

Waste Sites

-  Waste Disposal Site (Active/Unknown)
-  Brownfield Site
-  Waste Disposal Site (Closed)
-  Coal Gasification Plant
-  Federal Contaminated Site

Sources:

ERIS EcoLog Report. Basemapping provided by Bing Maps.
Keymap Basemapping: Provided by Bing Maps.

Exhibit 4-19
**Potential Waste Disposal Sites
(Stage 1)**
April 2015



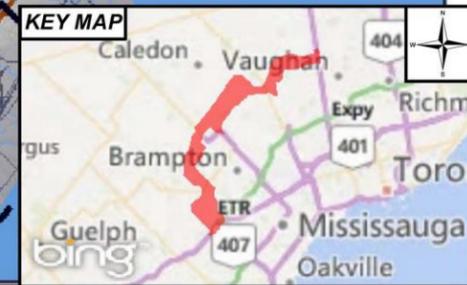


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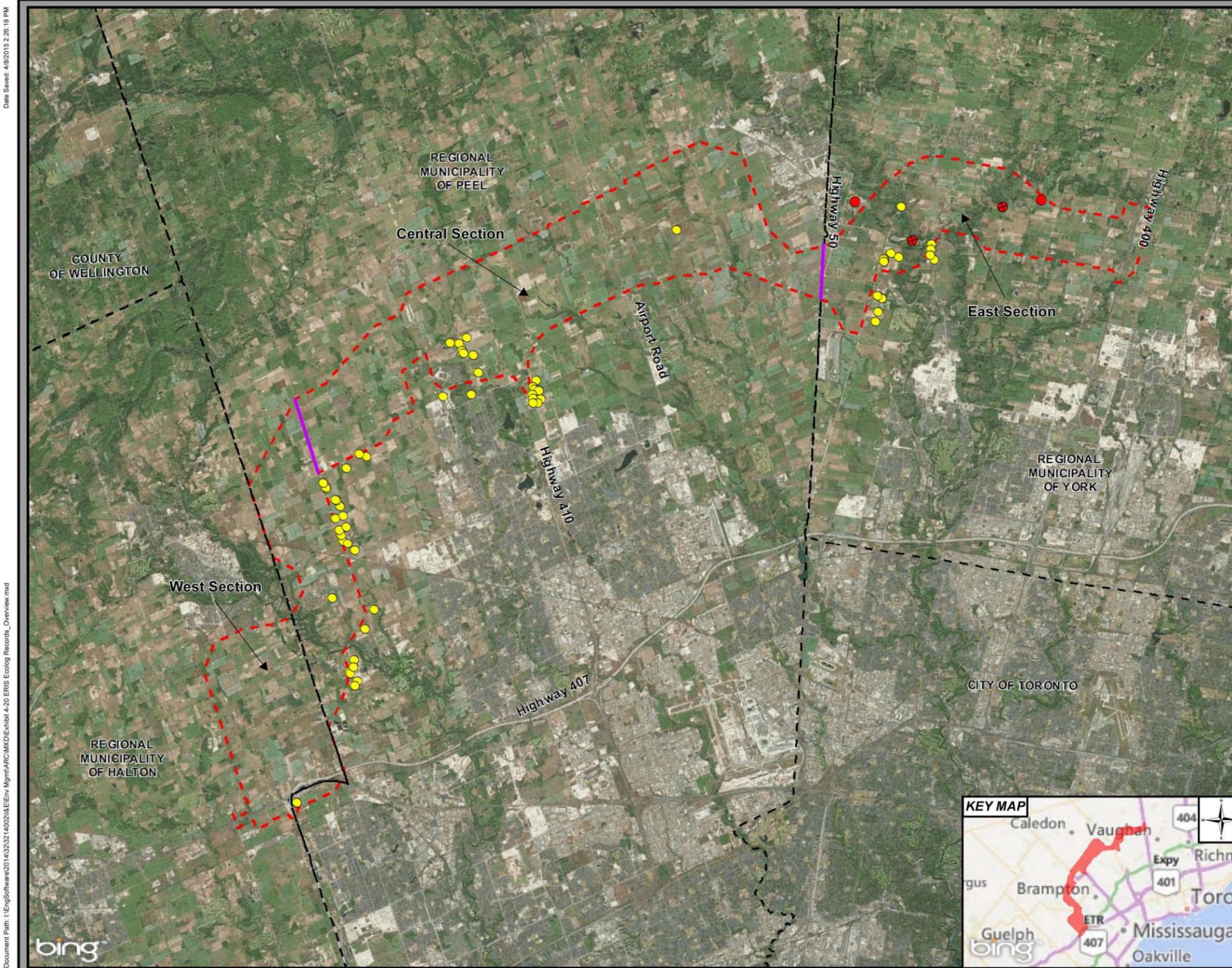




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Document Path: I:\EngSoftware\01432323\14002\14Env\Map\ARC\MXD\Exhibit 4-20 ERS EcoLog Records_Overview.mxd

GTA West
<p>LEGEND</p> <ul style="list-style-type: none"> GTA West Stage 2 Study Area Municipal Boundary <p>Waste Sites</p> <ul style="list-style-type: none"> ● Waste Disposal Site (Active/Unknown) ⊗ Waste Disposal Site (Closed) ● Brownfield Site ● Coal Gasification Plant ● Federal Contaminated Site — Section Limits
<p><small>Sources:</small></p> <p>ERIS EcoLog Report: Basemapping provided by Bing Maps. Keymap Basemapping: Provided by Bing Maps.</p>
<p>Exhibit 4-20 Potential Waste Disposal Sites (Stage 2)</p> <p>April 2015</p>

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4.1 SUMMARY OF SIGNIFICANT/SENSITIVITY OF SOCIO-ECONOMIC ENVIRONMENT

The Project Team and MTO are continuing consultation with all of the First Nations and Métis communities identified in **Section 4.1.1** throughout the duration of Stage 2 of this project and recognize a high potential for lands within the Study Area to be of interest to specific First Nations for traditional uses, and also for having potential for the presence of archaeological resources related to the ancestral or cultural-historical land use of the Study Area.

At this stage of the study process, general and preliminary land use constraints have been identified. Potential displacement of existing residences, businesses or institutional uses is recognized as a high land use constraint to transportation corridor development. Consequently, existing developed urbanized areas pose land use constraints, as do developed areas of villages and hamlets, clustered rural residential development and existing community institutional features. Isolated residences, industrial development, recreational uses and other special area uses are also recognized as land use constraints.

The next level of land use impact is undeveloped, but fully serviced areas and approved Plans of Subdivision. Investment in infrastructure and the anticipated development potential of these areas is recognized.

The identification and protection of Specialty Crop Areas and Prime Agricultural Lands are important in the Study Area, as supported by the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) policies regarding agriculture. Consistent with provincial policy, the following priority will be given to agricultural lands:

- Specialty crop areas;
- CLI Class 1 soils;
- CLI Class 2 soils;
- CLI Class 3 soils; and

Other soils.

Recreational trails pose a moderate constraint to corridor expansion/development. Further investigation will be required should an alternative impact existing or planned trails. Mitigation measures may be available to eliminate or minimize adverse impacts.

Areas containing significant aggregate resources within the Study Area present a moderate constraint in terms of the potential disruption/displacement of an active extraction activity, as well as the need to protect identified areas containing this non-renewable resource. As a mitigative measure, the resource can be extracted prior to implementation, if required. Potential adverse impacts on active aggregate business operations will be considered.

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