



**Cultural Heritage Property
Maintenance and Reuse Plan:
5381 Tremaine Road, Milton,
Ontario**

FINAL REPORT

October 15, 2021

File: 160960844

Prepared for:

Canadian National Railway Company
935 de La Gauchetiere Street West
Montreal, Quebec H3B 2M9

Prepared by:

Stantec Consulting Ltd.
600-171 Queens Avenue
London, Ontario N6A 5J7



Executive Summary

In response to *Canadian Environmental Assessment Act* (CEAA) Conditions 11.1 and 11.5 of the Decision Statement issues by the Minister of the Environment on January 27, 2021, Stantec Consulting Ltd. was retained by Canadian National Railway Company (CN) to prepare Cultural Heritage Property Maintenance and Reuse Plans for properties containing a cultural heritage resource (CHR) anticipated to be vacated as part of CN's proposed Milton Logistics Hub (the Project). This Cultural Heritage Property Maintenance and Reuse Plans (Plan) was prepared for the property at 8181 Tremaine Road, Milton, Ontario.

The Plan includes details about how the property is to be secured, inspected, and maintained throughout the duration of the Project. The Plan includes an evaluation of cultural heritage value or interest (CHVI) in accordance with *Ontario Regulation 9/06* (Government of Ontario 2006) to clearly identify the CHVI of the property and its heritage attributes, in order to focus on recommendations relating to securing, repairing, and maintaining heritage attributes of the property. It is anticipated that this report will be made public so that communities and interested parties may prepare proposals for adaptive reuse of the properties in the future, following completion of the Project.

The Plan is to be revisited three years after operations have commenced, and if a feasible adaptive reuse plan has not been identified, a Heritage Impact Assessment will be completed in consultation with the Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI) and the Town of Milton to determine the future of the properties, specifically, continued mothballing, relocation, or demolition with appropriate mitigation. The Plan is to be reviewed every five years, at minimum, upon completion of the Project to determine if any amendments or revisions to the Plan are required.

For the property at 5381 Tremaine Road, the property appears to be in overall good to fair condition. To satisfy conditions of the Decision Statement issues by the Minister of the Environment, CN has committed to the following actions to conserve the heritage value of the property:

- Secure structure from break-ins and vandalism by boarding windows and doors once tenant vacates dwelling
- Maintain heat during the winter months
- Replace wooden support posts in the basement with temporary support posts
- Monitor for evidence of trespassing
- Stabilize south porch with temporary support where posts have been removed

These repairs are to be undertaken in the short-term (within one year) to address the issues identified.

The Executive Summary highlights key points from the report only; for complete information and findings the reader should examine the complete report.



Table of Contents

EXECUTIVE SUMMARY	I
PROJECT PERSONNEL.....	IV
1.0 INTRODUCTION.....	1
1.1 STUDY PURPOSE	1
1.2 METHODOLOGY.....	1
1.2.1 Cultural Heritage Maintenance and Reuse.....	1
1.2.2 Field Program.....	2
1.2.3 Evaluation of Cultural Heritage Value or Interest	2
2.0 HISTORICAL CONTEXT	4
2.1 INTRODUCTION.....	4
2.2 PHYSIOGRAPHY	4
2.3 TOWNSHIP OF TRAFALGAR	4
2.3.1 Survey and Settlement	4
2.3.2 19 th Century Development.....	5
2.3.3 20 th Century Development.....	6
2.4 PROPERTY HISTORY	7
3.0 EXISTING CONDITIONS.....	12
3.1 LANDSCAPE SETTING.....	12
3.2 RESIDENCE	12
3.2.1 Exterior	12
3.2.2 Interior	15
3.3 BARN	17
3.3.1 Exterior	17
3.3.2 Interior	19
3.4 OVERALL CONDITION SUMMARY	20
3.4.1 Residence.....	20
3.4.2 Barn.....	23
4.0 EVALUATION OF CULTURAL HERITAGE VALUE OR INTEREST CRITERIA	25
4.1 INTRODUCTION.....	25
4.2 EVALUATION OF CULTURAL HERITAGE VALUE OR INTEREST	25
4.2.1 Design or Physical Value.....	25
4.2.2 Historical or Associative Value	25
4.2.3 Contextual Value	26
4.2.4 Summary of Evaluation	26
4.3 CONCLUSION	27
4.4 DRAFT STATEMENT OF CULTURAL HERITAGE VALUE OR INTEREST	27
4.4.1 Description of Property	27
4.4.2 Cultural Heritage Value or Interest	27
4.4.3 Heritage Attributes	28



**CULTURAL HERITAGE PROPERTY MAINTENANCE AND REUSE PLAN:
5381 TREMAINE ROAD, MILTON, ONTARIO**

5.0	CONSERVATION MEASURES	29
5.1	SHORT-TERM MEASURES	29
5.1.1	Introduction	29
5.1.2	Security.....	29
5.1.3	Stabilization	29
5.1.4	Repair and Replacement.....	30
5.1.5	Servicing.....	30
5.1.6	Pest Control.....	31
5.2	MEDIUM AND LONG-TERM MEASURES	31
5.2.1	Introduction.....	31
5.2.2	Security.....	31
5.2.3	Pest Control.....	31
5.2.4	Ventilation.....	31
5.2.5	Maintenance	32
5.2.6	Monitoring.....	32
6.0	ACTION PLAN	34
6.1	SUMMARY OF CULTURAL HERITAGE MAINTENANCE	34
6.2	SPECIAL QUALIFICATIONS	34
7.0	ADAPTIVE REUSE CRITERIA	35
8.0	CLOSURE	36
9.0	REFERENCES	37

LIST OF TABLES

Table 1	Evaluation of 5381 Tremaine Road	26
---------	--	----

LIST OF FIGURES

Figure 1	Location of the Property	3
Figure 2	Historical map of Halton County, 1858	9
Figure 3	Historical map of Trafalgar Township, 1877	10
Figure 4	Topographic Mapping, 1909.....	11

LIST OF APPENDICES

APPENDIX A PROJECT PERSONNEL



**CULTURAL HERITAGE PROPERTY MAINTENANCE AND REUSE PLAN:
5381 TREMAINE ROAD, MILTON, ONTARIO**

Project Personnel

Project Manager:	Chris Powell, MA
Heritage Consultants:	Meaghan Rivard, MA, CAHP Lashia Jones, MA, CAHP
Report Writers:	Lashia Jones, MA, CAHP Frank Smith, MA Christian Giansante, B.Eng.
Building Condition Specialist:	Roger Langlois
Field Personnel:	Lashia Jones, MA, CAHP Roger Langlois
Mapping:	Dan Harvey, BES
Administrative Assistant:	Carol Naylor
Quality Reviewer:	Parker Dickson, MA
Independent Reviewer:	Tracie Carmichael, BA, B.Ed.

See Appendix A for further information on Project Personnel.



CULTURAL HERITAGE PROPERTY MAINTENANCE AND REUSE PLAN: 5381 TREMAINE ROAD, MILTON, ONTARIO

Introduction
October 15, 2021

1.0 INTRODUCTION

1.1 STUDY PURPOSE

In response to *Canadian Environmental Assessment Act* (CEAA) Conditions 11.1 and 11.5 of the Decision Statement issued by the Minister of the Environment on January 27, 2021, Stantec Consulting Ltd. (Stantec) was retained by Canadian National Railway Company (CN) to prepare Cultural Heritage Property Maintenance and Reuse Plans for properties containing a cultural heritage resource (CHR) anticipated to be vacated as part of CN's proposed Milton Logistics Hub (the Project). This Cultural Heritage Property Maintenance and Reuse Plan (Plan) was prepared for the property at 5381 Tremaine Road, Milton, Ontario (Figure 1).

The Plan includes details about how the property is to be secured, inspected, and maintained throughout the duration of the Project. The Plan includes an evaluation of cultural heritage value or interest (CHVI) in accordance with *Ontario Regulation (O. Reg.) 9/06* (Government of Ontario 2006) to clearly identify the CHVI of the property and its heritage attributes, in order to focus on recommendations relating to protecting, repairing, and maintaining heritage attributes of the property in advance of the determination of a future use for the property. It is anticipated that this report will be made public so that communities and interested parties may prepare proposals for adaptive reuse of the property in the future, following completion of the Project.

The Plan is to be revisited three years after operations have commenced, and if a feasible adaptive reuse plan has not been identified at that time, a Heritage Impact Assessment (HIA) will be completed in consultation with the Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI) and the Town of Milton to determine the future of the properties, specifically, continued mothballing, relocation, or demolition with appropriate mitigation. MHSTCI and the Town of Milton will have the opportunity to review the terms of reference for the HIA and the subsequent HIA before it is finalized. The Plan is to be reviewed every five years, at minimum, upon completion of the Project to determine if any amendments or revisions to the Plan are required.

1.2 METHODOLOGY

1.2.1 Cultural Heritage Maintenance and Reuse

The preparation of the Cultural Heritage Maintenance and Reuse Plan was guided by the United States National Park Service Preservation Brief 31, *Mothballing Historic Properties* (Park 1993), Parks Canada *Standards and Guidelines for the Conservation of Historic Places in Canada* (Parks Canada 2010), and *Well Preserved: The Ontario Heritage Foundation's Manual of Principles and Practice for Architectural Conservation* (Fram 1998).



CULTURAL HERITAGE PROPERTY MAINTENANCE AND REUSE PLAN: 5381 TREMAINE ROAD, MILTON, ONTARIO

Introduction
October 15, 2021

1.2.2 Field Program

A site assessment was undertaken on August 20, 2020 by Lashia Jones, Cultural Heritage Specialist, and Roger Langlois, Building Condition Specialist, both with Stantec. The weather conditions during the site assessment were sunny and warm. The site visit consisted of a visual inspection of the property including the residence and outbuildings. Interior access was granted to the residence and gable roofed barn. Access to the 1930s gambrel roof barn was not available.

1.2.3 Evaluation of Cultural Heritage Value or Interest

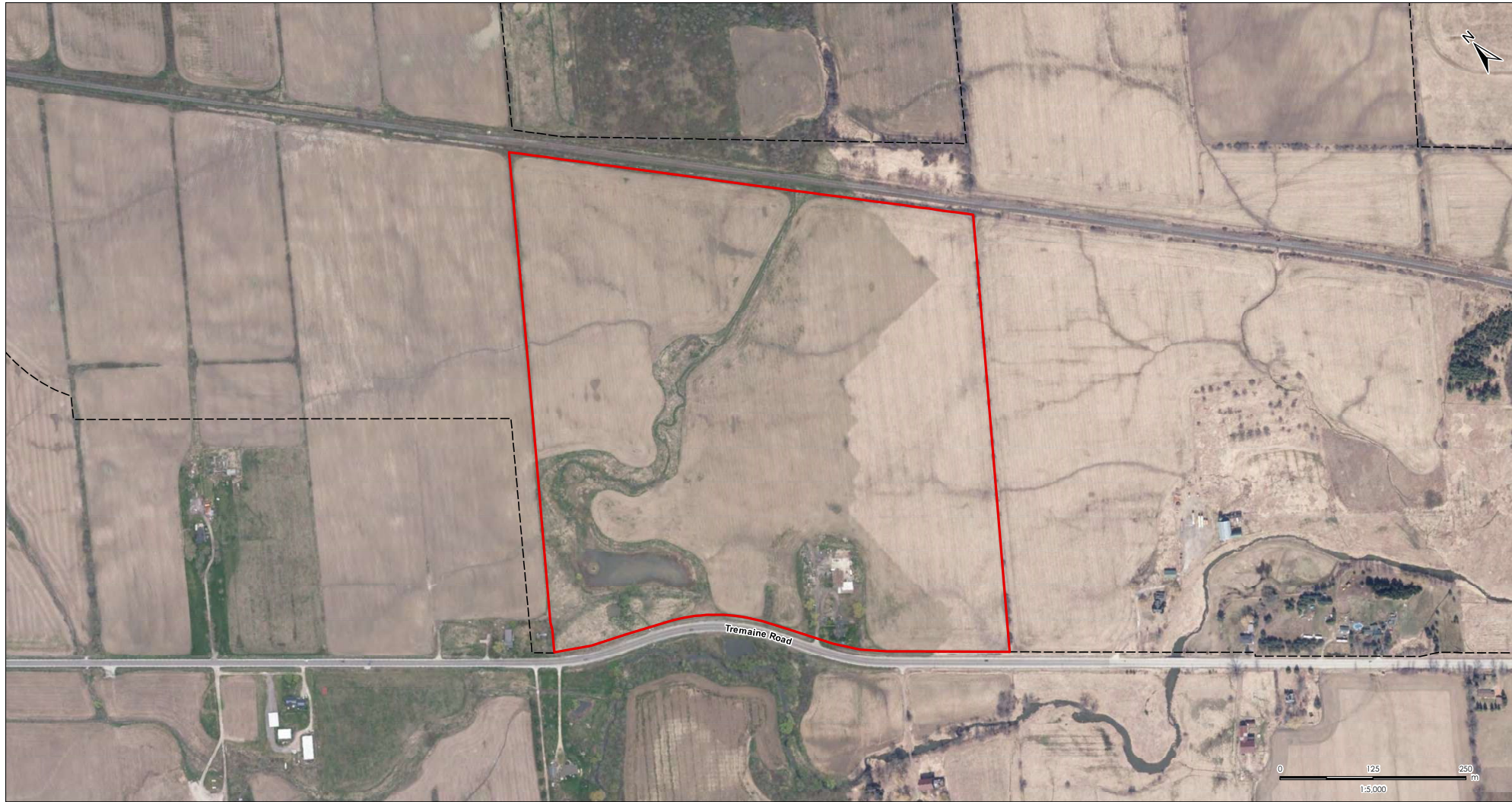
In the absence of federal evaluation criteria, the criteria for determining CHVI were taken from O. Reg. 9/06 (Government of Ontario 2006). To identify CHVI of a property, at least one of the following criteria must be met:

1. The property has design value or physical value because it:
 - a. is a rare, unique, representative or early example of a style, type, expression, material or construction method
 - b. displays a high degree of craftsmanship or artistic merit
 - c. demonstrates a high degree of technical or scientific achievement
2. The property has historical value or associative value because it:
 - a. has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community
 - b. yields, or has the potential to yield, information that contributes to an understanding of a community or culture
 - c. demonstrates or reflects the work or ideas of an architect, artist, builder, designer or theorist who is significant to a community
3. The property has contextual value because it:
 - a. is important in defining, maintaining or supporting the character of an area
 - b. is physically, functionally, visually or historically linked to its surroundings
 - c. is a landmark

(Government of Ontario 2006)



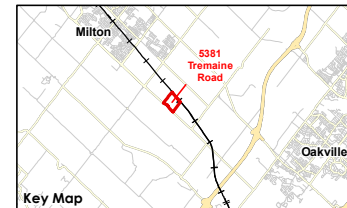
V:\0109\active\6096044\drawing\MXD\Cultural_Heritage\Report_Figures\Property_Maintenance_And_ReUsePlan\16096044_Fig01_Location_of_the_Property.mxd
Revised: 2021-01-28 By: chawrey



- Legend**
- Property Boundary
 - CN-Owned Property

Notes

1. Coordinate System: NAD 1983 UTM Zone 17N
2. Base Features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2015. Site layout: July 10, 2015.
3. Orthomagery © First Base Solutions, 2020. Imagery taken in 2019.



Client/Project
 Canadian National Railway
 Milton Logistics Hub
 Cultural Heritage Property Maintenance and Re-use Plan:
 5381 Tremaine Road

Figure No.
1
 Title
Location of the Property

CULTURAL HERITAGE PROPERTY MAINTENANCE AND REUSE PLAN: 5381 TREMAINE ROAD, MILTON, ONTARIO

Historical Context
October 15, 2021

2.0 HISTORICAL CONTEXT

2.1 INTRODUCTION

The property at 5381 Tremaine Road is located between Lower Base Line and Britannia Road West, in the Town of Milton, part of the Regional Municipality of Halton. Historically, the property is located in the former Township of Trafalgar, on part of Lot 3, Concession 1. The following sections outline the historical development of the property from the period of Euro-Canadian settlement to the present-day.

2.2 PHYSIOGRAPHY

The property is located within the Peel Plain physiographic region (Chapman and Putnam 1984:174-176).

The Peel plain is a level-to-undulating tract of clay soils (Photo 70) covering 300 square miles across the central portions of the Regional Municipalities of York, Peel, and Halton. The general elevation is from 500 to 750 feet a.s.l. and there is a gradual and fairly uniform slope toward Lake Ontario. Across this plain the Credit, Humber, Don, and Rouge Rivers have cut deep valleys, as have other streams such as the Bronte, Oakville, and Etobicoke Creeks.

(Chapman and Putnam 1984:174)

2.3 TOWNSHIP OF TRAFALGAR

2.3.1 Survey and Settlement

The Township of Trafalgar was surveyed in two parts. The first survey was completed in 1806 by Samuel Wilmot following the purchase of land near Lake Ontario from the Mississaugas in 1805. This part of the township, referred to as the Old Survey, was surveyed in the single front system. Prior to the first survey, as early as the 1790s, Euro-Canadian squatters were noted in the township (Case 1970). The township was named Trafalgar in honour of the Battle of Trafalgar. The battle was part of the naval campaign of the Napoleonic Wars and took place on October 21, 1805 when the Royal Navy battled a combined fleet of French and Spanish ships. The battle resulted in a widely celebrated British victory under the leadership of Vice-Admiral Horatio Nelson, who was mortally wounded in battle. The Township of Trafalgar and the adjacent Township of Nelson were named in honour of the victory (Gardiner 1899:243-244). The remainder of the township was purchased from the Mississauga in 1819 and surveyed in the double front system (Plate 1). Land surveyed using the double front system divided lots into 200 acres with allowances for roads located in front of each concession and every fifth or sixth lot (Weaver 1968). The Property is located within this portion of the township surveyed in the double front system (Case 1970).



CULTURAL HERITAGE PROPERTY MAINTENANCE AND REUSE PLAN: 5381 TREMAINE ROAD, MILTON, ONTARIO

Historical Context
October 15, 2021

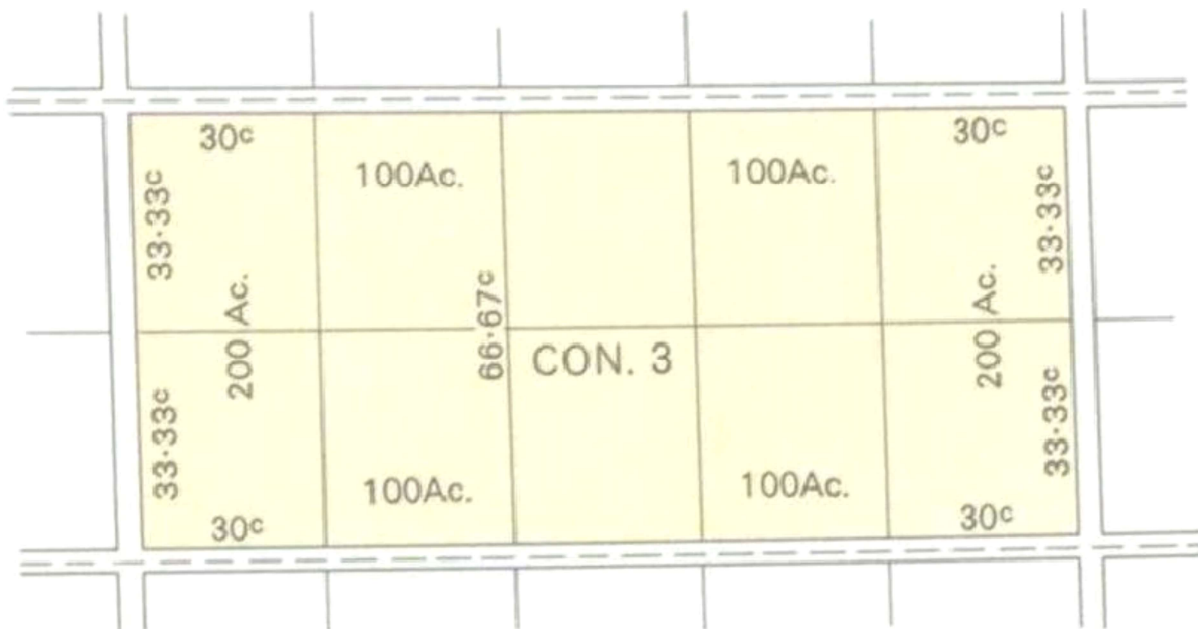


Plate 1: The double front survey system (Dean 1969)

The Township of Trafalgar was rapidly settled and by 1817 had a population of 448 (Case 1970). By 1817, there were four taverns, one grist mill, four sawmills, and three schools, although there were no doctors and no stores (Case 1970). Settlement was the result of favourable positioning near Dundas Street and Lake Ontario, as well as agriculturally fertile clay soils.

2.3.2 19th Century Development

The region became a noted wheat growing area which supplied the City of Toronto and exported grain to the United States from ports located in Oakville, Port Credit, and Whitby. By 1846, growth had accelerated so much so that there were seven grist mills and 23 sawmills within the Township of Trafalgar (McDonald 2011). Further information on the mid-19th century development of the township is contained within the Census of 1851, which was compiled and published in 1855, and from which the following information is derived. The total population of Trafalgar Township in 1851 was recorded as 6,782. This made the township the most populated in Halton County and it contained the highest proportion of people born in Canada, indicating the township had passed the pioneer period of settlement (Census of Canada 1853). The Census of 1851 lists 728 occupiers of land in the township. Of those 728, 93 resided on properties under 10 acres in size, 15 resided on 10 to 20 acres, 141 resided on 20 to 50 acres, 310 resided on 50 to 100 acres, 154 resided on 100 to 200 acres, and 15 resided on 200 acres or more. The township contained a total of 66,732 acres of occupied land, of which 23,550 acres were under crops, 15,627 acres were under pasture, 619 acres were gardens, and 26,936 acres remained wooded or undeveloped. The important role of wheat cultivation in Trafalgar Township was evident as 6,930 acres of land were used to grow wheat. Other significant crops grown in the township included peas and oats (Census of Canada 1855).



CULTURAL HERITAGE PROPERTY MAINTENANCE AND REUSE PLAN: 5381 TREMAINE ROAD, MILTON, ONTARIO

Historical Context
October 15, 2021

In the mid-to-late 19th century, wheat farming shifted to mixed crop and livestock farming with the City of Toronto continuing to be the primary market. A number of orchards, small fruit, vegetable, and poultry farms were also established at this time (Chapman and Putnam 1984). As transportation methods and routes were improved, the area became a part of the Toronto milk shed. The growth of farms was related to the sophistication of transportation networks in and around Trafalgar Township and the abundance of market facilities. As the demand for goods in Toronto and the United States increased so too did the size and scale of transportation networks throughout the township specifically and Halton County more broadly. By 1881, the Grand Trunk, Great Western, Hamilton and North-Western, and Credit Valley Railway intersected Halton County servicing large market facilities in Milton, Oakville, Georgetown, Guelph, Hamilton, and Toronto (Ontario Agricultural Commission (OAC) 1881:179). The population of Trafalgar Township in 1881 was 4,382 (Dominion Bureau of Statistics 1953).

Several hamlets and larger communities developed in Trafalgar Township during the 19th century. The closest hamlet to the Property was Ash. Ash developed just south of the Property around the railway tracks and Ash Railway Station. Ash grew to contain a school and post office by the early 20th century (Halton Images n.d.; Department of Defence 1909). Other hamlets included Palermo, Boyne, Munn's Corner, Trafalgar, Sheridan, Omach, Rumquin, Hornby, and Auburn (Pope 1877). Larger settlements included Bronte, incorporated as a village in 1834, and Milton and Oakville, both incorporated as towns in 1857 (Oakville Images 2013; Milton Historical Society n.d.; Oakville Historical Society n.d.).

2.3.3 20th Century Development

At the start of the 20th century the population of Trafalgar Township had declined to 3,694, the lowest it would reach between confederation and the present-day. The nearby towns of Oakville and Milton also recorded smaller populations (Dominion Bureau of Statistics 1953). The contraction of population in the township was part of a broader trend of urbanization in the late 19th and early 20th centuries. The emergence of industrialization and urbanization increased the number of wage workers required in cities and towns. At the same time, improvements in farm equipment and the mechanization of farming meant that less labour was required on a farm (Sampson 2012). This encouraged out-migration from rural areas to the burgeoning cities of Ontario (Drummond 1987: 30).

However, the downward trend in population in Trafalgar Township and Halton County would be reversed with the widespread adoption of the automobile in the early 20th century. In response to a continued increase of vehicular traffic between Toronto, Hamilton, and Niagara, the paving of Lakeshore Road between Toronto and Hamilton was initiated. Lakeshore Road, located approximately 12.5 kilometres southeast of the property, was an important roadway which connected the cities of the Golden Horseshoe. The paving was completed in 1915 (Buxton 2002). Used as a major thoroughfare for industry and tourists alike, Lakeshore Road was soon at capacity. In 1921, the population of Trafalgar Township had increased to 4,225 (Dominion Bureau of Statistics 1953).



CULTURAL HERITAGE PROPERTY MAINTENANCE AND REUSE PLAN: 5381 TREMAINE ROAD, MILTON, ONTARIO

Historical Context
October 15, 2021

By the 1930s, traffic volume on roads between Toronto and Hamilton had increased to the extent that a new limited access highway was required. Between 1932 and 1937 a limited access highway with Canada's first highway interchanges was built between Toronto and Niagara Falls. The highway was constructed partially through Trafalgar Township between Concession 2 and 3 South of Dundas Street. In 1939, the road was renamed the Queen Elizabeth Way (Bevers 2020).

The opening of the Queen Elizabeth Way facilitated commutes between the communities of Halton County and Toronto, leading to it becoming a bedroom community (Buxton 2002). Between 1941 and 1951 the population of the Township of Trafalgar increased from 4,585 to 8,118; the Town of Milton increased from 1,964 to 2,451; and the Town of Oakville increased from 4,115 to 6,910 (Dominion Bureau of Statistics 1953).

In 1962, the Town of Oakville annexed the entirety of the Township of Trafalgar. However, most of the land in the newly expanded Town of Oakville remained rural north of the Queen Elizabeth Way (Williams 2011). In 1974, Halton County was replaced with the Regional Municipality of Halton. When the Regional Municipality of Halton was created the borders of the Town of Oakville were reduced to the south. The property at 5381 Tremaine Road and other portions of the former Township of Trafalgar were transferred to the newly enlarged Town of Milton (Town of Oakville n.d.). In 2000, the population of Milton began a rapid period of expansion after a pipe to bring fresh water from Lake Ontario was completed. Milton's population increased from 33,000 in 1999 to 84,000 in 2012 (Friesen 2012).

2.4 PROPERTY HISTORY

Lot 3, Concession 1 was granted by the Crown in two 100-acre halves in 1826. The west half, containing the Property, was granted to Joseph Snyder and the east half was granted to Adair Snyder. That same year both halves of the lot were sold to William Kelly. In 1842, Kelly sold the entire lot to Charles Sutton. That same year Sutton divided the lot in half between his sons Thomas and Charles (ONLand 2020).

In 1846, Thomas Sutton sold the west half of the lot, containing the Property, to William Dorland. The Census of 1851 lists William Dorland as a 49-year-old farmer born in the United States. He lived with his wife Lena, age 40; son Amos, age 22; daughter Mary, age 15; and son William, age 6 (Library and Archives Canada 1851). Historical mapping from 1858 shows the west half of the lot occupied by Amos Dorland and the east half by Mark Tasker (Figure 2). In 1875, William Dorland sold the 100 acres of the west half of the lot to Amos (ONLand 2020).

In 1876, Amos sold about 3.75 acres of his property to the Hamilton and Northwestern Railway Company (ONLand 2020). Historical mapping from 1877 shows the west half of the lot occupied by Amos Dorland and the east half by Richard Tasker. The mapping depicts the railway running through the lot, a bend Tremaine Road that is still existent today, and a structure and orchard on the property, just south of Indian Creek (Figure 3). William Dorland died in 1879 and is buried in a family plot at St. Luke's Anglican Church Cemetery in Oakville (Find-a-Grave 2015).



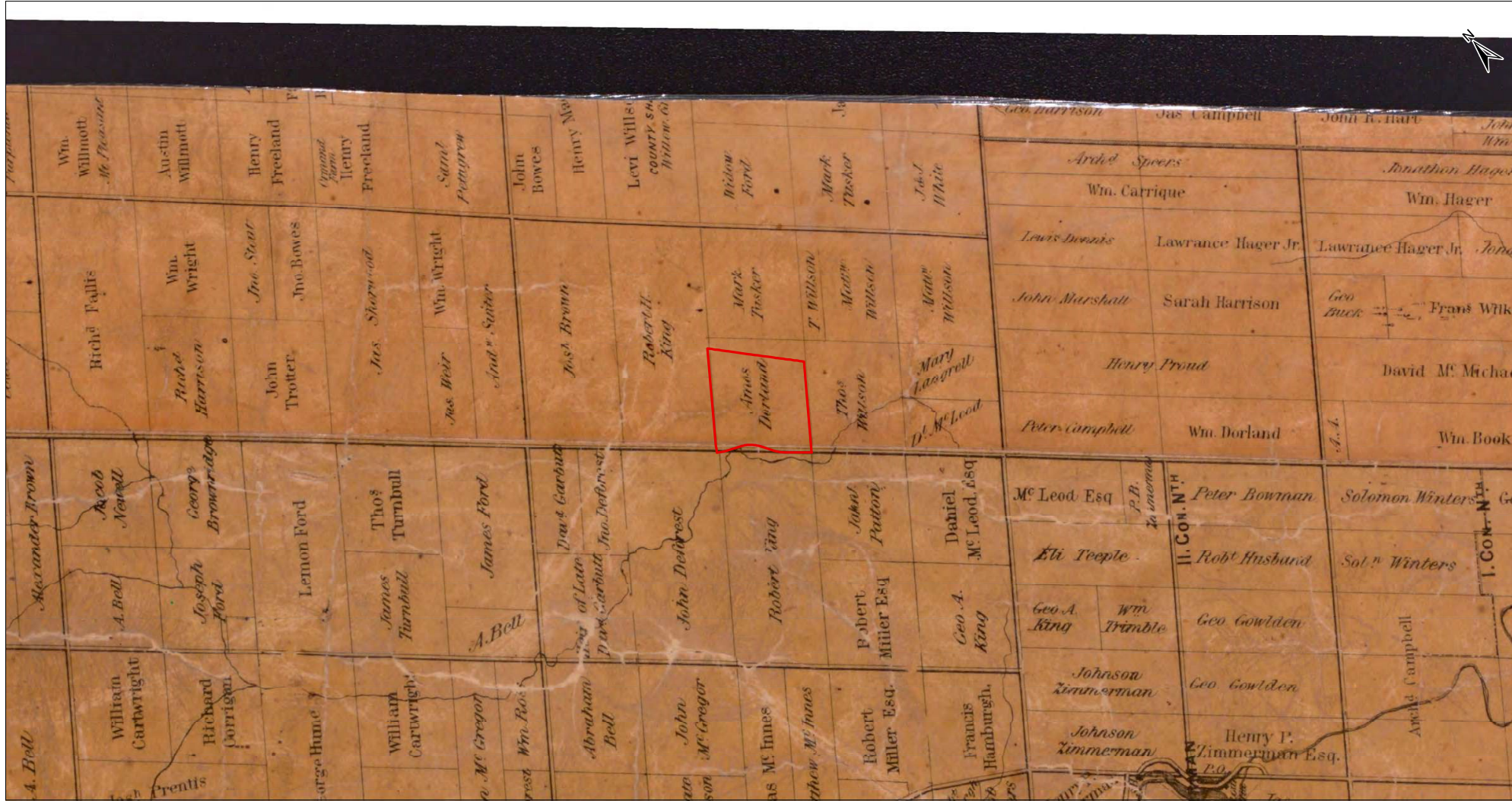
CULTURAL HERITAGE PROPERTY MAINTENANCE AND REUSE PLAN: 5381 TREMAINE ROAD, MILTON, ONTARIO


Historical Context
October 15, 2021

The Census of 1881 lists Amos Dorland as a 57-year-old farmer of German descent born in the United States. He lived with his wife Sarah, age 57; son Walter, a 25-year-old dentist; daughter Ada, age 23; and daughter Celeste, age 21 (Library and Archives Canada 1881). In 1888, Amos Dorland sold the entire 100 acres (excluding land sold to the railway) to his daughter, Celeste Dorland (ONLand 2020). In 1889, Celeste sold the property to John Cudmore (ONLand 2020). The Census of 1891 shows that John Cudmore lived in the adjacent Nelson Township. He was a 52-year-old farmer born in England. He lived with his wife Lizzie, age 52; son George, age 21; daughter Amelia, age 18; son John, age 14; son Chase, age 11; and son Earnest, age 8 (Library and Archives Canada 1891). In 1895, John Cudmore and his wife sold the property to George Cudmore (ONLand 2020).

The Census of 1901 lists George Cudmore as a 31-year-old farmer. He lived with his wife Melvina, age 27; an unnamed infant daughter; and R.C. Sparks, a 21-year-old servant (Library and Archives Canada 1901). Topographic mapping from 1909 depicts a structure just east of the bend in Tremaine Road and shows the area north and south of the structure to be wooded (Figure 4). George Cudmore owned the property until 1950, when he sold it to Henry Arnold Junior. In 1951, Arnold entered into a joint tenancy on the land with Hans Koller. In 1962 the west half of the lot, including the Property, was sold to L.F. Saint Paul Limited (ONLand 2020). The property is currently owned by CN and leased to a tenant.



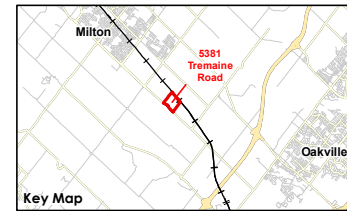


Legend
 Property Boundary

MAP NOT TO SCALE

Notes

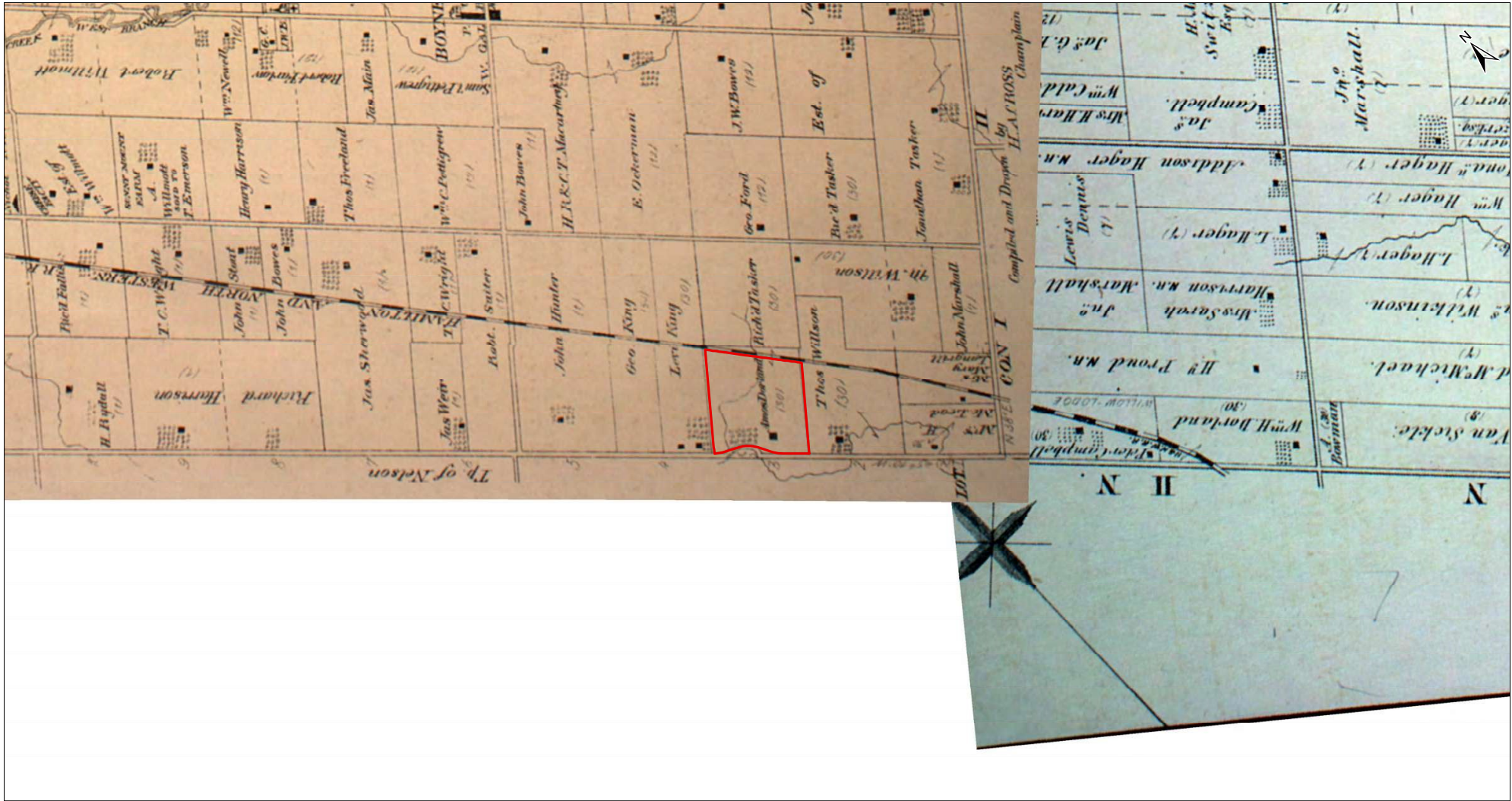
1. Tremaine, George R. 1858. Tremaine's Map of the County of Halton, Canada West. Oakville: George R. Tremaine



Client/Project
 Canadian National Railway
 Milton Logistics Hub
 Cultural Heritage Property Maintenance and Re-use Plan:
 5381 Tremaine Road

Figure No.
2

Title
Map of the County of Halton, 1858

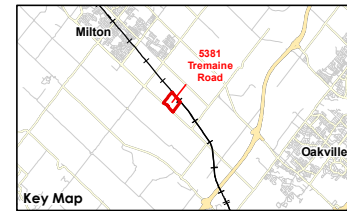


Legend
 Property Boundary

MAP NOT TO SCALE

Notes

1. Pope, J.H. 1877. Illustrated Historical Atlas of the County of Halton, Ont. Toronto: Walker & Miles.

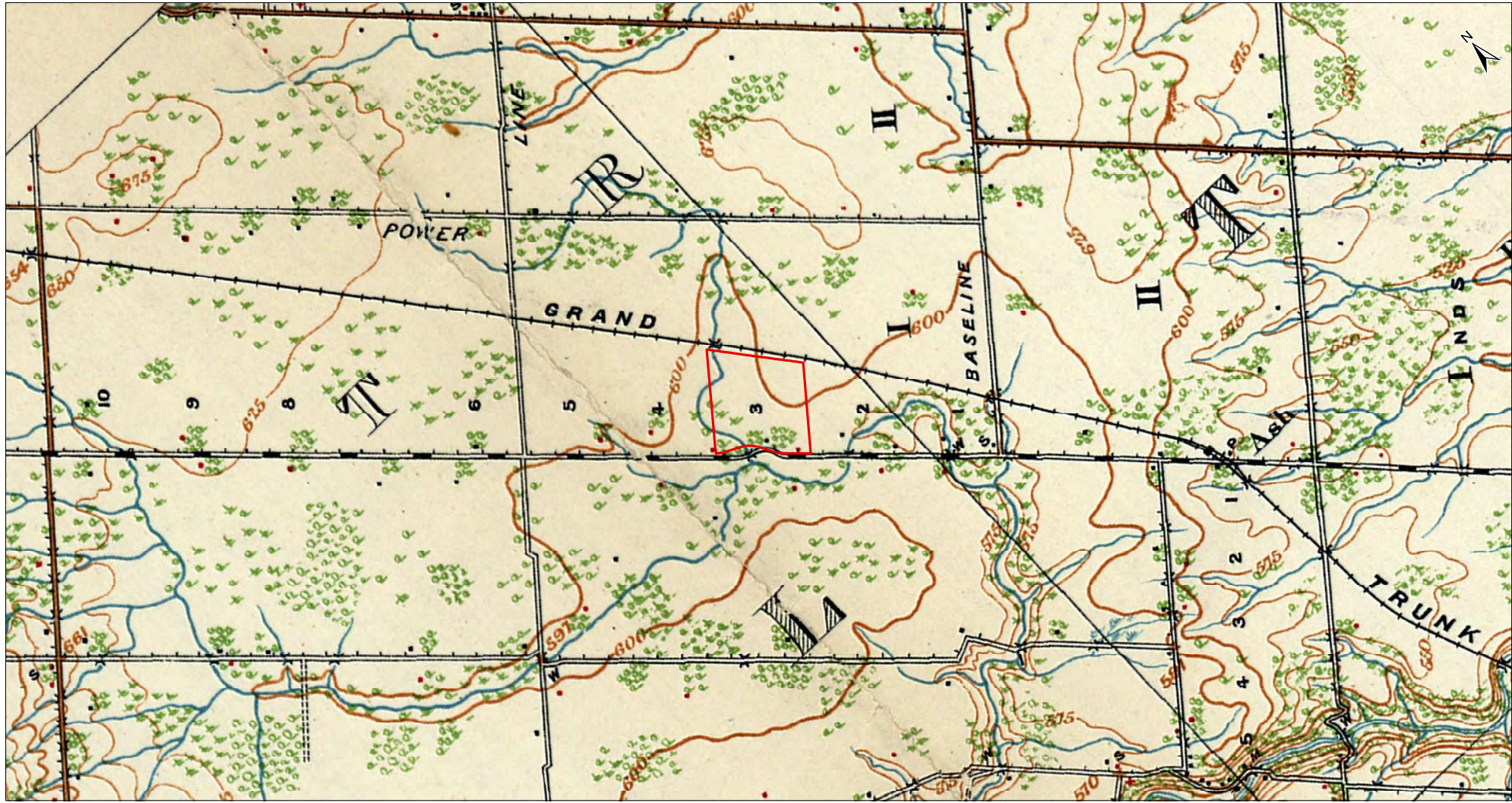


Client/Project
 Canadian National Railway
 Milton Logistics Hub
 Cultural Heritage Property Maintenance and Re-use Plan:
 5381 Tremaine Road

Figure No.
3

Title
**Map of the Township of
 Trafalgar, 1877**

V:\0109\active\6296044\drawing\MXD\Cultural_Heritage\Report_Figures\Property_Maintenance_And_ReUsePlan\16296044_Fig04_topographic_1919.mxd
Revised: 2021-01-28 By: dharvey

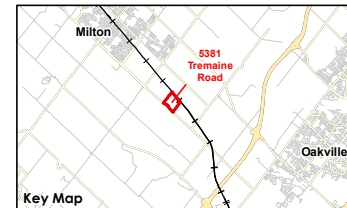


January 2021
16296044



Legend
Property Boundary

MAP NOT TO SCALE



Client/Project
Canadian National Railway
Milton Logistics Hub
Cultural Heritage Property Maintenance and Re-use Plan:
5381 Tremaine Road

Figure No.
4
Title
Topographic Mapping, 1919

Notes

1. Department of Militia and Defence. 1919. Topographic Map, Ontario, Hamilton Sheet.

CULTURAL HERITAGE PROPERTY MAINTENANCE AND REUSE PLAN: 5381 TREMAINE ROAD, MILTON, ONTARIO

Existing Conditions
October 15, 2021

3.0 EXISTING CONDITIONS

3.1 LANDSCAPE SETTING

The property at 5381 Tremaine Road contains a late 19th century Italianate style residence, with a barn containing an early 20th century gambrel roofed section, and 19th century gable roofed section. The residence faces Tremaine Road, but is set back from the road by approximately 20 metres. The two barns are located approximately 35 metres northeast of the residence, connected together at the southeastern and northwestern corners of the structures. A gravel drive with semicircular loop connects the buildings to one another and Tremaine Road.

The residence is screened from the road by a stretch of young, coniferous vegetation, and contains a yard of semi-maintained lawn, mixed shrubs/vegetation, and foundation plantings. The landscape surrounding the residence and outbuildings consists of agricultural fields under cultivation by a tenant.

3.2 RESIDENCE

3.2.1 Exterior

The residence is a two and one half storey structure constructed of red brick with an irregular plan and steeply pitched cross gable roof with paired roof-cornice brackets. The residence is divided into two residential units, generally divided between the front section of the residence and rear section of the residence.

The front section of the residence is a tall, two and one half storey façade with a bay window and covered porch on the first storey, segmental arched windows with wooden sills and red brick voussoirs on the second storey, and round windows in each gable peak. The porch has decorative wooden trim. The front entrance has an arched transom light and sidelights framing the door.

The east façade features a two and one half storey portion at the front of the residence with a bay window and other architectural details that match the front façade. The back portion of the residence is one and one half storeys. It has a covered porch with multiple 10 pane wood frame windows and decorative wood trim. The gable peak on this façade has a rounded arch window with a drip mould. Near the back of the residence there is a one storey gable roof portion with a pair of two over two segmental arched windows with a brick voussoir and a small round window. The chimney has been removed from this portion of the residence.

The north façade features a two storey front gable section between two one storey side gable portions. There are two additional entrances on the first storey with a third door on the second storey, accompanied by a modern wooden staircase. The doors and windows on this façade are modern replacements. The foundation, which is exposed on this façade, is made of stone.



**CULTURAL HERITAGE PROPERTY MAINTENANCE AND REUSE PLAN:
5381 TREMAINE ROAD, MILTON, ONTARIO**

Existing Conditions
October 15, 2021

The east façade features a two and one half storey section near the front of the residence, a one and one half section with a covered porch in the middle, and a one storey section at the rear. Most of the windows in this façade are two over two segmental arched windows. The front and rear segments have round windows in the gable peaks and the middle segment has a rounded arch window with a drip mould in the upper half storey. There is a brick chimney in the peak of the rear facing gable in the central one storey portion of the residence, and a second one on the east façade near the front.



**CULTURAL HERITAGE PROPERTY MAINTENANCE AND REUSE PLAN:
5381 TREMAINE ROAD, MILTON, ONTARIO**

Existing Conditions
October 15, 2021



Plate 2: Front façade of residence, looking northwest



Plate 3: East façade, looking west



Plate 4: East façade, looking west



Plate 5: Covered porch on east façade, looking west



Plate 6: One storey portion of the east façade, facing west



Plate 7: North façade, looking south



CULTURAL HERITAGE PROPERTY MAINTENANCE AND REUSE PLAN: 5381 TREMAINE ROAD, MILTON, ONTARIO

Existing Conditions
October 15, 2021

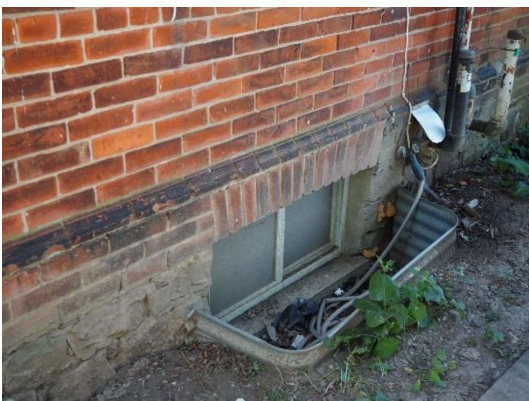


Plate 8: Foundation, north façade, looking south



Plate 9: East facade, looking west

3.2.2 Interior

The interior of the residence has been divided into two living units: one unit in the front of the residence, and the other in the rear. Both units contain the main floor and upper floor access. The front unit contains a rear laundry and mudroom, kitchen, two living room areas, bathroom, and hallway on the main floor. The second floor contains the central hall, three bedrooms, and two bathrooms. The residence contains original wide pine floorboards, original wooden trim, a grand central staircase in the front hall with carved newel post, turned spindles, and wooden trim detailing on the side of the staircase.

The rear unit contains a large kitchen, small office area, living room, pantry, and a 'service' style narrow back staircase leading to the second floor which contains a bedroom, laundry room, and bathroom. The rear unit also contains original wide pine flooring and trim and has a tin ceiling in the kitchen. The origin date of the tin ceiling is unknown.

The basement of the residence is not divided into units as the rest of the residence is. It is accessed via a concrete staircase. It has cobblestone and concrete flooring. The stone foundation of the residence is visible, and insulation is visible in the ceiling. There are a mix of brick and timber support posts some on concrete blocks and others directly on the floor.



**CULTURAL HERITAGE PROPERTY MAINTENANCE AND REUSE PLAN:
5381 TREMAINE ROAD, MILTON, ONTARIO**

Existing Conditions
October 15, 2021

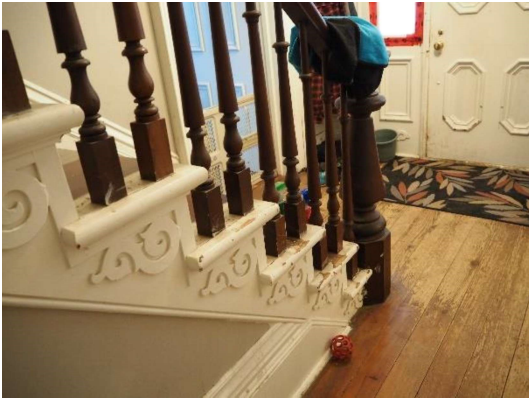


Plate 10: Grand central staircase with turned spindles and wooden trim



Plate 11: Grand central staircase's carved newel post, also shows original pine floors and trim



Plate 12: "Service" style back staircase descending view, also showing original pine floor and trim

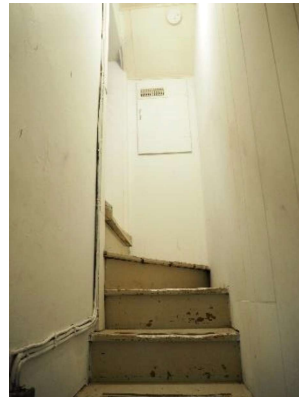


Plate 13: "Service" style back staircase, ascending view

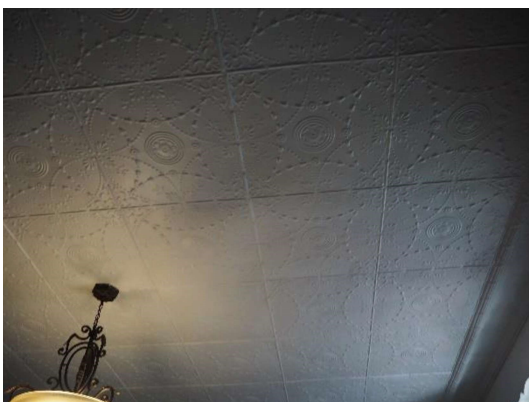


Plate 14: Tin ceiling



Plate 15: Concrete staircase which provides basement access



CULTURAL HERITAGE PROPERTY MAINTENANCE AND REUSE PLAN: 5381 TREMAINE ROAD, MILTON, ONTARIO

Existing Conditions
October 15, 2021

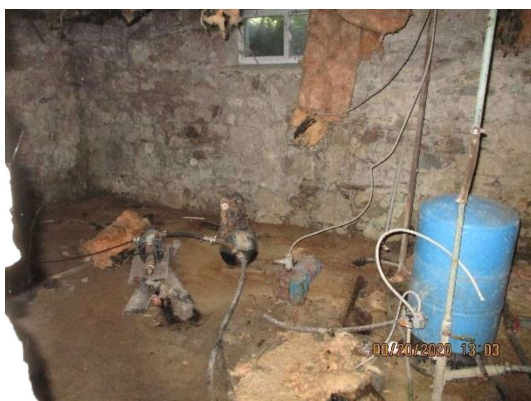


Plate 16: Stone foundation and insulation



Plate 17: Timber support posts

3.3 BARN

3.3.1 Exterior

The barn contains two attached components: a smaller, 19th century gable roofed section attached to a large 1930 gambrel roof barn. Both barns have metal cladding (Plate 18). The north façade features one large sliding door on a track in the centre, two large plywood doors on hinges in the northwest corner, and one modern steel door beside a modern single pane window in the north east corner. There are two hay loft doors, one on top of the other, near the peak of the roof. The barn has four lightning rods.

The east façade has three modern horizontal sliding windows with concrete sills and lintels, one additional door, and one doorway that has been filled in. The doorways also have concrete lintels. The east façade also has a metal clad, gable roof section with a metal roof and four lightning rods (Plate 19).

The 1930 barn has a rusticated concrete block foundation and the year '1930' is etched into the door lintel on the south façade. The use of rusticated concrete block as a foundation material is consistent with the year of construction of the barn. Rusticated concrete block was a popular early 20th century building material (Plate 21 and Plate 22). The south façade of the barn also contains a gable roof addition with four lightning rods and one ventilator. The addition is clad in metal and contains horizontal sliding windows (Plate 23 and Plate 24). A shed roof addition is attached to the north façade of the addition and is of concrete block construction (Plate 25).

The west elevation of the barn is clad in corrugated metal, sections of which have been replaced and do not colour match. This elevation contains a plywood sliding door on a metal track, a modern composite door, and a modern window. A hay loft door is located just below the roof line (Plate 26 and Plate 27).



**CULTURAL HERITAGE PROPERTY MAINTENANCE AND REUSE PLAN:
5381 TREMAINE ROAD, MILTON, ONTARIO**

Existing Conditions
October 15, 2021



Plate 18: North façade, looking south



Plate 19: North and east façades showing gambrel roof and metal cladding, looking south

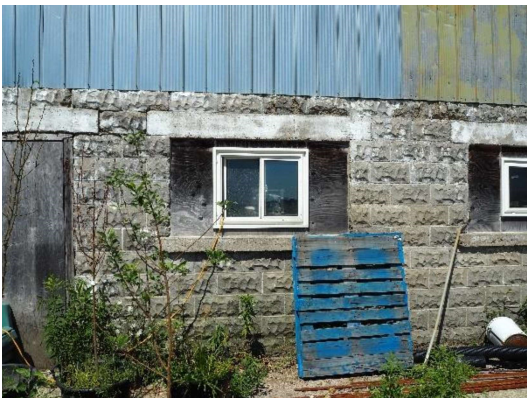


Plate 20: Windows in east façade, looking west



Plate 21: Construction date written in lintel, south façade, looking north



Plate 22: Rusticated concrete foundation, windows, and metal cladding on south façade, looking northwest

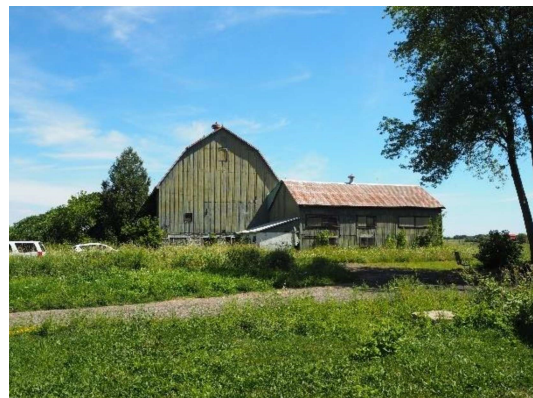


Plate 23: South façade, looking north



**CULTURAL HERITAGE PROPERTY MAINTENANCE AND REUSE PLAN:
5381 TREMAINE ROAD, MILTON, ONTARIO**

Existing Conditions
October 15, 2021



Plate 24: Additions on south façade, looking northeast



Plate 25: Concrete block addition on south façade, looking east



Plate 26: West façade, looking east



Plate 27: west façade, looking southeast

3.3.2 Interior

The gable roofed barn contains two interior levels: a stable/livestock area on the ground floor and a hay loft area on the upper level. Only the east, gable roofed section of the barn was accessible at the time of the site visit. The stable level contains stables, a livestock area, and is presently used for storage (Plate 28). The walls are clad in machine cut wood, while the rafters, beams, and supports are a mixture of machine cut timber and hand-hewn timber with post and mortise construction (Plate 29 and Plate 30). The hay loft section of this part of the barn was not accessible.

The interior of the gambrel roofed barn was not accessible at the time of the site visit.



CULTURAL HERITAGE PROPERTY MAINTENANCE AND REUSE PLAN: 5381 TREMAINE ROAD, MILTON, ONTARIO

Existing Conditions
October 15, 2021



Plate 28: Stable area



Plate 29: Hand hewn and machine cut timber

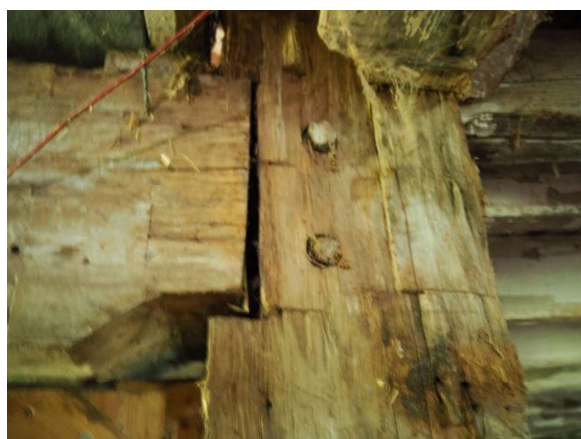


Plate 30: Mortises and pegs

3.4 OVERALL CONDITION SUMMARY

The intent of this section is to identify the overall condition of the property at 4393 Tremaine Road and to satisfy Condition 11.1 of the Decision Statement.

3.4.1 Residence

The residence overall appears to be good visual condition. In the interior, there are localized signs of peeling paint on ceilings and settling cracks in the first floor living rooms and mudroom of the front unit (Plate 31). The second storey bathroom windowsill in the front unit shows evidence of peeled paint (Plate 33), likely due to moisture content in the bathroom, but the remaining interior sills are generally in good repair. In the rear unit there is some evidence of plaster peeling in the bathroom (again, likely due to interior moisture) and some limited evidence of water staining on the walls of the laundry room, along with settling cracks in the plaster (Plate 34). In the basement, there is some evidence of dampness in the



**CULTURAL HERITAGE PROPERTY MAINTENANCE AND REUSE PLAN:
5381 TREMAINE ROAD, MILTON, ONTARIO**

Existing Conditions
October 15, 2021

corner near the furnace, and some wooden support posts rest on the concrete blocks without footings and show evidence of water at the base of the wood (Plate 35).

The exterior of the residence is generally in fair visual condition, however some heritage attributes are experiencing wear and weathering. The paint on exterior windowsills has worn off in multiple locations, showing signs of rot and exposing the bare wood to the elements (Plate 39). Wooden trim on the residence (including brackets and porch detailing) also shows signs of worn paint with bare wood exposed to the elements. The windowsills on the southeast elevation are damaged. Wooden soffits and fascia also show peeling paint. There appear to be support posts missing from the front porch (Plate 37).

There are several localized instances of mortar deterioration in the exterior brick (Plate 38), as well as efflorescence by the bay window on the southeast elevation, and near the east entrance porch (Plate 36). There is evidence of some spalling and minor gaps in brick on the southeast elevation by the side porch and in localized areas throughout.

The roof shingles appear to generally be in good visual condition, though some shingles appear to be lifting in localized areas. Eavestroughs and downspouts appear to direct water away from the building, with the exception of the south façade near the front porch and bay window (Plate 40).

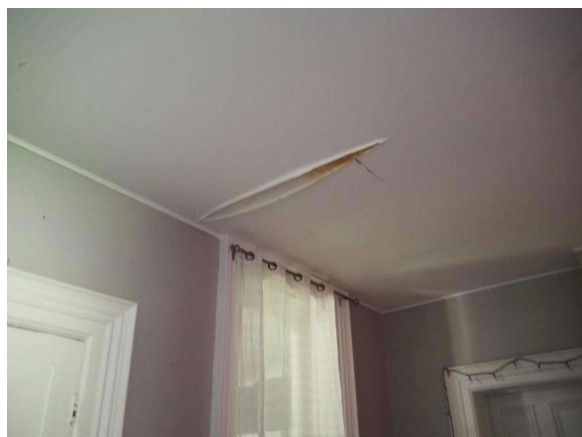


Plate 31: Peeling paint on ceiling of first floor front unit



Plate 32: Patched cracked plaster on second floor bedroom of front unit



**CULTURAL HERITAGE PROPERTY MAINTENANCE AND REUSE PLAN:
5381 TREMAINE ROAD, MILTON, ONTARIO**

Existing Conditions
October 15, 2021



Plate 33: Work paint on windowsill of second floor bathroom, front unit



Plate 34: Patched plaster cracks in second floor laundry room of rear unit

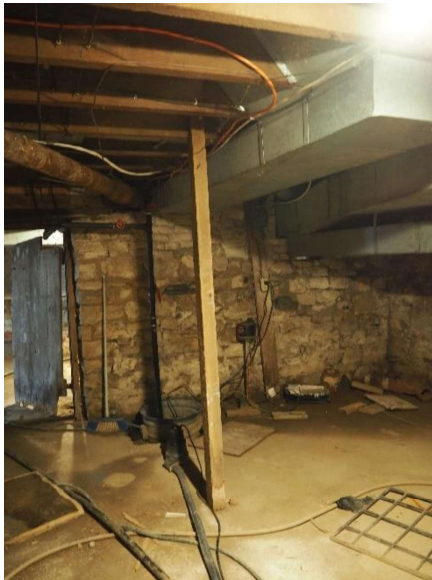


Plate 35: Basement wooden support post sitting on concrete floor, with evidence of nearby damp floor

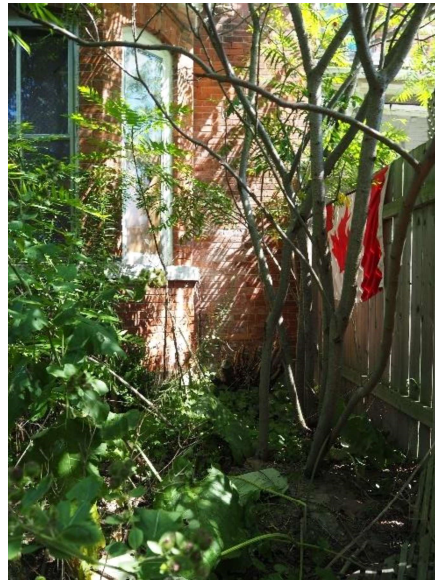


Plate 36: Efflorescence on bricks near south bay window (partially obscured by vegetation)

**CULTURAL HERITAGE PROPERTY MAINTENANCE AND REUSE PLAN:
5381 TREMAINE ROAD, MILTON, ONTARIO**

Existing Conditions
October 15, 2021

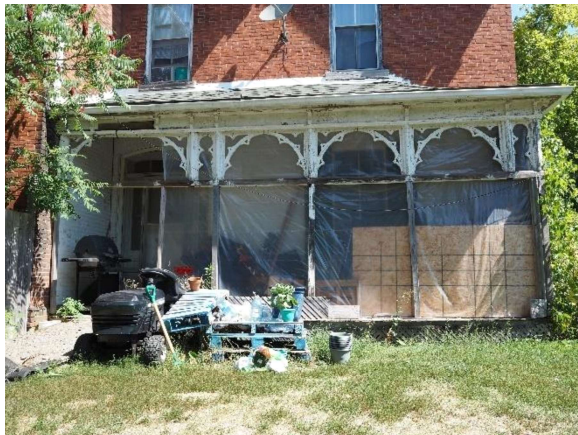


Plate 37: Peeling paint and missing support posts on front entrance porch



Plate 38: Efflorescence and missing mortar on west elevation near entrance porch



Plate 39: Worn paint on trim surrounding windows

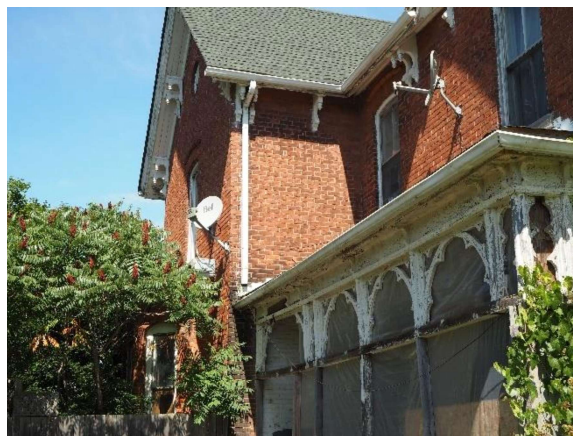


Plate 40: Disconnected downspout near front porch

3.4.2 Barn

The interior of the 1930 gambrel roof barn was not accessible at the time of the site visit. According to the tenant farmer, the beams in the hay loft have been replaced with modern materials. The foundation was not visible in several locations due to vegetation, but appeared to be in generally good visual condition, with limited locations of mortar deterioration (Plate 41), and cracking in the lintel with the construction date (Plate 42).

The gable roof barn contains hewn and sawn beams which appear to be in good visual condition (Plate 43 to Plate 46). The exterior is clad in siding and no foundation is visible.



**CULTURAL HERITAGE PROPERTY MAINTENANCE AND REUSE PLAN:
5381 TREMAINE ROAD, MILTON, ONTARIO**

Existing Conditions
October 15, 2021



Plate 41: Rusticated concrete block foundation with limited cracking



Plate 42: Cracked lintel above south entrance door



Plate 43: Hand hewn interior beams showing little damage

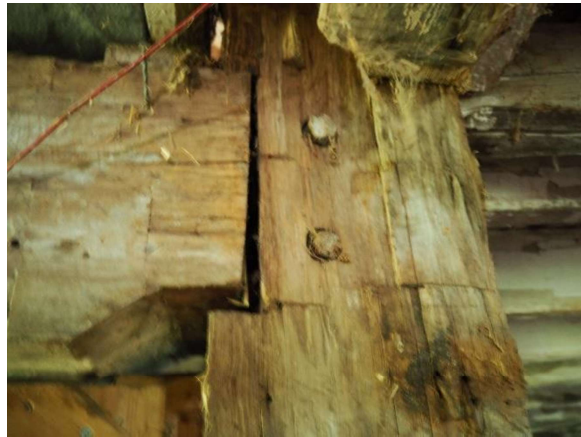


Plate 44: Mortise and tenon construction with some separation

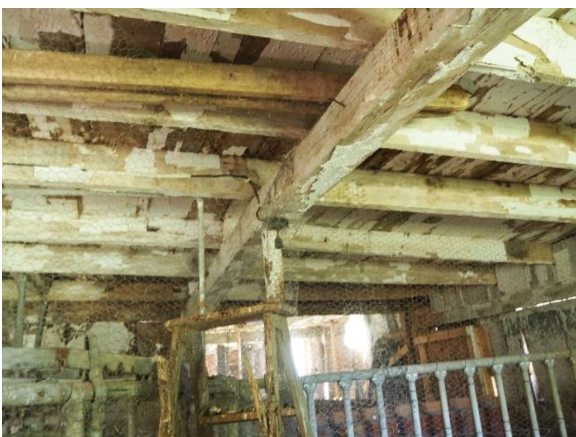


Plate 45: Interior joists and beams

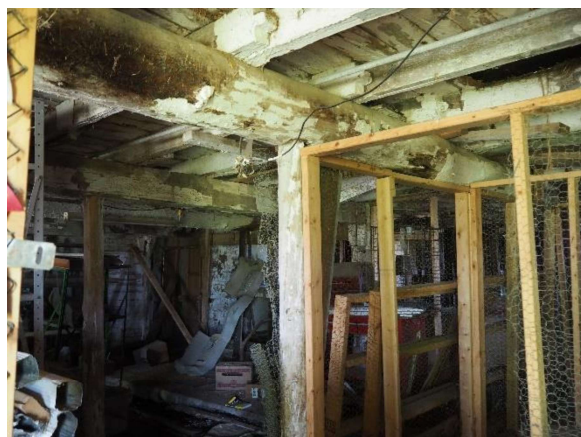


Plate 46: Interior split log and joists



CULTURAL HERITAGE PROPERTY MAINTENANCE AND REUSE PLAN: 5381 TREMAINE ROAD, MILTON, ONTARIO

Evaluation of Cultural Heritage Value or Interest Criteria
October 15, 2021

4.0 EVALUATION OF CULTURAL HERITAGE VALUE OR INTEREST CRITERIA

4.1 INTRODUCTION

In the absence of federal evaluation criteria, the criteria for determining CHVI is taken from by O. Reg. 9/06 (Government of Ontario 2006), see Section 1.2.3. If a property meets one or more of the criteria it is determined to contain, or represent, a cultural heritage resource. A summary statement of cultural heritage value will be prepared, and a list of heritage attributes which define the CHVI identified. The evaluation of the property at 4393 Tremaine Road is provided in subsequent sections below

4.2 EVALUATION OF CULTURAL HERITAGE VALUE OR INTEREST

4.2.1 Design or Physical Value

The residence at 5381 Tremaine Road is a late 19th century Italianate style residence. Based on census and land registry records, the residence was likely built between 1846 and 1877 by William Dorland or his son Amos. The residence is a two and one half storey structure with a fieldstone foundation. It has a steeply pitched cross gable roof with paired wooden brackets, red brick cladding, a symmetrical front façade with a bay window and covered inset porch, and a second bay window on the east façade and simple red brick voussoirs. A vernacular version of Italianate architecture was introduced in *The Canada Farmer* journal in 1865 (Blumenson 1990). Often appearing square and symmetrical with heavy roof-cornice brackets and contrasting coloured materials, the model from *The Canada Farmer* was modified pairing Italianate features with more vernacular ones, allowing rural communities to embrace modern trends while removing the lavishness of the formal Italianate style (Blumenson 1990).

The residence at 5381 Tremaine Road has been modified by the addition of an enclosed sunroom and a modern front gable one storey addition. The historical integrity of the residence remains relatively intact. The Italianate style does not employ a high degree of craftsmanship or artistic merit, but includes elements that were typical for that style during its era of popularity nor does it demonstrate a high degree of technical or scientific achievement.

The property also includes a gambrel roofed barn with metal cladding and a rusticated concrete foundation with '1930' written in the lintel of one of the doors, and 19th century gable roof barn section. There is a mixture of hand hewn and machine cut beams on the gable roof barn's interior.

4.2.2 Historical or Associative Value

The property is historically associated with William Dorland, a farmer born in the United States, and his son Amos. William lived on the property with his wife and three children and a few years before William died, he sold the property to Amos. Amos sold a small piece of the property to the Hamilton and



**CULTURAL HERITAGE PROPERTY MAINTENANCE AND REUSE PLAN:
5381 TREMAINE ROAD, MILTON, ONTARIO**

Evaluation of Cultural Heritage Value or Interest Criteria
October 15, 2021

Northwestern Railway Company. Mapping for 1877 depicts the railway and a bend in Tremaine Road which is still present today as well as a structure and orchard on Amos' property.

Research has not indicated that William or Amos Dorland or their families were directly associated with a theme, event, belief, person, activity, organization, or institution significant to the community. The property does not provide evidence of notable or influential aspects of the history of a particular culture or contribute in a meaningful way to a comparative analysis of similar properties. The property does not yield information that contributes to an understanding of a community or culture. The builder of the residence and barns is unknown.

4.2.3 Contextual Value

The property is set within a rural context, outside the hamlet of Ash in Trafalgar Township. As described in Section 2.3.2, Trafalgar Township has a long-standing agricultural character. Therefore, the property maintains and supports the character of the surrounding area. The railway tracks and connection to Tremaine Road on the property provide a tangible sign connecting the property to neighbouring ones and to the nearby train station and hamlet of Ash. The property remains linked to its surroundings. The property at 5381 Tremaine Road is not considered a landmark.

4.2.4 Summary of Evaluation

Table 1 provides a summary of the findings of CHVI based on an evaluation of heritage criteria.

Table 1 Evaluation of 5381 Tremaine Road

Criteria of O. Reg. 9/06	Yes / No	Comments
Design or Physical Value		
Is a rare, unique, representative, or early example of a style, type, expression, material, or construction method	Yes	The residence is representative of the Italianate style, a popular rural Ontario design during the latter half of the 19 th century. The gable roof section of the barn is representative of 19 th century barn design, and the gambrel roof section of the barn is representative of early 20 th century design.
Displays a high degree of craftsmanship or artistic merit	No	The residence and barn were constructed with widely available materials and exhibit a level of craftsmanship standard at the time of construction.
Demonstrates a high degree of technical or scientific achievement	No	The residence and barn do not demonstrate a high degree of technical or scientific achievement as they are standard structures.
Historical or Associative Value		
Has direct associations with a theme, event, belief, person, activity, organization, or institution that is significant to a community	No	A structure is indicated on 1877 mapping of the property associated with Amos Dorland. No evidence of significance to the community has been noted.
Yields, or has the potential to yield, information that contributes to an understanding of a community or culture	No	The property does not yield information that contributes to an understanding of a community or culture.



**CULTURAL HERITAGE PROPERTY MAINTENANCE AND REUSE PLAN:
5381 TREMAINE ROAD, MILTON, ONTARIO**

Evaluation of Cultural Heritage Value or Interest Criteria
October 15, 2021

Table 1 Evaluation of 5381 Tremaine Road

Criteria of O. Reg. 9/06	Yes / No	Comments
Demonstrates or reflects the work or ideas of an architect, artist, builder, designer, or theorist who is significant to a community	No	The architect, builder, or designer of the residence and barn is not known.
Contextual Value		
Is important in defining, maintaining, or supporting the character of an area	Yes	Popular design and date of construction for both residence and barn support the rural character of the property.
Is physically, functionally, visually, or historically linked to its surroundings	Yes	The location of the buildings on the property in relation to each other, the road, and the surrounding agricultural fields physically and functionally link the structures to their surroundings.
Is a landmark	No	The property is not considered a landmark.

4.3 CONCLUSION

In the absence of federal criteria, and based on the criteria of Ontario Regulation 9/06, the property at 5381 Tremaine Road meets three of the criteria and would be considered to have CHVI as a provincial heritage property of local significance.

4.4 DRAFT STATEMENT OF CULTURAL HERITAGE VALUE OR INTEREST

4.4.1 Description of Property

The farmstead at 5381 Tremaine Road is located in the town of Milton in the Halton Region of the Greater Toronto Area. The property is bound by Tremaine Road to the south and agricultural fields to the west, north and east. The railway tracks are also located to the north of the property.

4.4.2 Cultural Heritage Value or Interest

The property demonstrates CHVI as a representative example of late 19th to early 20th century farmstead including a residence and barn. The residence has value as a representative example of late 19th century Italianate architecture. The residence is a two and one half storey structure with a cross gable roof, red brick cladding, and a stone foundation. The barn, which has a gambrel roof section with a construction date of 1930, is a timber frame structure with a gambrel roof, corrugated metal cladding, and rusticated concrete foundation. The barn also has a 19th century gable roofed section with hand hewn beams and posts. The property also retains contextual value, as it is still set within a rural context and remains physically and visually linked to the surrounding area, the railway, and the nearby hamlet of Ash.



CULTURAL HERITAGE PROPERTY MAINTENANCE AND REUSE PLAN: 5381 TREMAINE ROAD, MILTON, ONTARIO

Evaluation of Cultural Heritage Value or Interest Criteria
October 15, 2021

4.4.3 Heritage Attributes

- Residence
 - Two and one half storey structure
 - Cross gable roof
 - Paired roof-cornice brackets
 - Bay windows and segmental arched and round arched wood frame windows with 2/2 sash
 - Small circular windows in gable peaks
 - Brick voussoirs
 - Brick cladding
 - Multiple porches with decorative wood trim
 - Paneled wooden entrance door with sidelights and transom
 - Stone foundation
- Barn
 - Gambrel roof
 - Rusticated concrete block foundation
 - Concrete lintel with construction date
 - Gable roof section with hand hewn beams and mortise and tenon construction



CULTURAL HERITAGE PROPERTY MAINTENANCE AND REUSE PLAN: 5381 TREMAINE ROAD, MILTON, ONTARIO

Conservation Measures
October 15, 2021

5.0 CONSERVATION MEASURES

5.1 SHORT-TERM MEASURES

5.1.1 Introduction

While this property is currently occupied, it is anticipated that it will become vacant in the near future. As a future use for this property is to be determined at the end of a three-year time period of operations of the Project, but is not yet known, short-term measures are primarily directed to mothballing the structures to avoid or slow the deterioration of the buildings such that decisions for their use can be made in the future. Short-term measures should be implemented before construction on the Project begins.

5.1.2 Security

Doors, windows, and access points should be secured or locked. While boarding up a building can sometimes attract unwanted attention to the vacant structure, given the proximity of other vacant structures in the area, there is a risk that this property could be targeted for trespassing and vandalism. Given that the building is generally in good repair, every effort should be made to avoid allowing trespassers access to the structure to damage it. Doors and windows should be boarded with plywood or metal sheeting to protect windows and doors and prevent entry to the residence and barns, with interior bracing or reinforcements to prevent doors being opened in the event that coverings are removed. When installing plywood or other coverings, care should be taken to avoid damaging the heritage attributes beneath. Security fencing may be erected around the structures during the mothballing stage to prevent break-ins and vandalism, until such time that the building is ready for adaptive reuse.

Since both buildings are currently serviced, the installation of an alarm system would be beneficial to deter trespassers and alert CN if the buildings are broken into.

5.1.3 Stabilization

This scope is to conduct the necessary urgent repairs and stabilization of the vacant structures to prevent them from falling into further disrepair while their future uses are determined. In general, both the house and barn appear to be in good visual condition. It was noted in the basement of the residence that additional timber support columns have been placed throughout, some of which rest directly on the floor and show signs of water damage. These should be replaced with temporary metal supports until such time that adaptive reuse proposals are considered and assessment of further structural needs can be conducted.

It was noted that some wooden support posts were missing from the front (south) porch. Temporary supports should be installed to support the structure during mothballing. Installation should avoid removing or damaging existing heritage attributes of the porch.



CULTURAL HERITAGE PROPERTY MAINTENANCE AND REUSE PLAN: 5381 TREMAINE ROAD, MILTON, ONTARIO

Conservation Measures
October 15, 2021

As one of the lintels in the barn shows signs of cracking, a qualified engineer should be consulted to determine if the cracks compromise the structure of the lintel and whether repair or replacement is required.

5.1.4 Repair and Replacement

The residence is generally in good condition, though there are some elements of the residence are showing wear and deterioration and may benefit from repair prior to mothballing to avoid or slow further damage. This includes Painting wooden trim to protect wood from the elements, such as window frames, wooden soffit and fascia, wooden porches and trim, and wooden roof cornice brackets.

Interior areas where paint or plaster is peeling may be repaired to avoid further damage during the mothballing stage.

In several locations around the residence there were signs of brickwork needing repair, showing wear or damage through efflorescence, spalling or mortar loss. Typically, these indicate signs of water intrusion over an extended period of time. Missing mortar may be repointed with compatible lime-based mortar, but to avoid continued or additional damage, it is important to find the source of water intrusion. As the wear and damage happens over time, it is possible that the issues of water intrusion have already been remedied. A thorough review of gutters and downspouts may be conducted to determine if there are clogs or leaks that permit water to overflow or stream and run down the bricks. Additional downspouts may be beneficial to avoid an overload in a single area. All downspouts should have extensions that drain water away from the residence and foundation.

The foundation appeared to be in generally good visual condition, but much of it was obscured by vegetation at the time of the site visit. The basement showed minimal signs of water on the floor, but some wooden support posts indicated water penetration, suggesting that some moisture has been entering the basement over time. Where mortar may be wearing or missing between foundation stones it may be replaced with compatible lime-based mortar. Vegetation surrounding the residence may be removed to avoid plants rooting at the foundation or retaining water.

The roof generally appears to be in good visual condition, but there appear to be localized areas where shingles are lifting. Spot repair or replacements may be made to avoid water entrance through the roof.

On the barn repointing and repairs may be made where mortar is missing from the concrete block foundation.

5.1.5 Servicing

The residence and barn are currently serviced. It is recommended that servicing be maintained, particularly in the residence so that minimal heat (at least 7 degrees Celsius) can be maintained over colder months to prevent rapid deterioration. The use of a central forced air fan system to circulate air in the summer can also prevent deterioration and is recommended.



CULTURAL HERITAGE PROPERTY MAINTENANCE AND REUSE PLAN: 5381 TREMAINE ROAD, MILTON, ONTARIO

Conservation Measures
October 15, 2021

5.1.6 Pest Control

Pests can become a problem for any building, as they can destroy natural materials and can be a health hazard for future workers or occupants. As the building was occupied at the time of the site assessment, occupied there is currently no evidence of pests. When securing the building for mothballing during vacancy, special attention can be paid to preventing pest entry through vents and chimneys.

5.2 MEDIUM AND LONG-TERM MEASURES

5.2.1 Introduction

Medium and long-term conservation measures for the residence and barns at 5381 Tremaine Road will largely build on maintaining those that were put in place in the short-term stage to address minor concerns and prevent damage. Ongoing attention to mothballing measures will be essential to ensuring that conditions do not continue to deteriorate once measures are put in place to repair and secure the buildings. Medium and long-term measures should be implemented on an ongoing basis throughout the Project so that the integrity of the property is not at risk.

5.2.2 Security

Security fencing may be erected around the residence during the mothballing stage to prevent break-ins and vandalism, until such time that the building is ready for adaptive reuse. Boarding to doors, windows and access points should be replaced if damaged or broken.

5.2.3 Pest Control

Ongoing pest control measures may be implemented during the mothballing phase if pests are identified. Once roof and exterior repairs have been made that will prevent the entrance of larger pests (i.e., raccoons, squirrels, birds) monitoring may note whether any additional entrance points have been created by pests. Interior pest control for small rodents, bats, and bugs may be undertaken as required to keep the building as clean as possible for future use and to deter damage from pests to the structural elements.

5.2.4 Ventilation

Ventilation or servicing to the residence to allow for sufficient air exchanges and combat freeze-thaw cycles should be implemented. Determining and arranging for adaptive reuse of the structures may take some time and improving mothballing efforts at the buildings should help preserve the structures while their future uses are determined. If services to the residence are to be maintained after vacancy, minimal levels of servicing to heat the building (7 degrees Celsius) and allow for air exchange in the summer are beneficial during the mothballing period.



CULTURAL HERITAGE PROPERTY MAINTENANCE AND REUSE PLAN: 5381 TREMAINE ROAD, MILTON, ONTARIO

Conservation Measures
October 15, 2021

If the services must be disconnected, alternate ventilation measures should be installed to avoid condensation, mold, and mildew that can accelerate damage to buildings and make future use less feasible. Typically, one to four air exchanges per hour is considered a minimum for mothballed buildings. One or two air exchanges per hour is usually sufficient in winter, whereas twice that may be needed in the summer. Basement and attic grilles may be enough to provide one air exchange per hour in winter conditions, but louvred ventilation may be required on windows to allow for sufficient air exchange during summer months. According to the National Parks Service briefing on Mothballing, *“Small pre-formed louvers set into a plywood panel or small slit-type registers at the base of inset panels generally cannot provide enough ventilation in most moist climates to offset condensation, but this approach is certainly better than no louvers at all. Louvers should be located to give cross ventilation, interior doors should be fixed ajar at least 4" (10 cm) to allow air to circulate, and hatches to the attic should be left open”* (Park 1993). Louvred openings should be added to plywood window/door coverings to permit natural ventilation. This should account for approximately 150 square feet (sq. ft.) total of ventilation area. Louvres are to be equipped with wire mesh to control any wildlife (e.g., birds, small animals, etc.) from entering.

5.2.5 Maintenance

Over the long term, mid-year maintenance in the spring and fall may occur as applicable. These activities may include:

- Site clean-up; pruning and trimming around foundations
- Gutter and downspout check to direct water away from foundation
- Check basement and attic for pests
- Clean out storm drains, if applicable
- Remove invasive vegetation at foundations (if applicable)
- A review of maintenance contract inspects for equipment/utilities (if applicable)
- Check the roof for loose or missing shingles
- Termite and pest inspection/treatment (if applicable)
- Exterior material spot repair

5.2.6 Monitoring

Monitoring of the buildings is required. Monitoring provides a known presence on the site that can help deter break-ins and vandalism. Monitoring can also provide a review of the buildings' components to note if there are major sources of water or moisture, particularly following repairs, roofing and stabilization, mould, or other sources of damage and deterioration. Monitoring activities may include the following:

- Regular Monitoring (weekly or bi-weekly)
 - Check property for any potential damage following a weather event
 - Check for any attempts of vandalism or entry into the property (damaged windows and doors, graffiti, etc.)



**CULTURAL HERITAGE PROPERTY MAINTENANCE AND REUSE PLAN:
5381 TREMAINE ROAD, MILTON, ONTARIO**

Conservation Measures
October 15, 2021

- Seasonal monitoring (once per spring and fall)
 - Pruning and trimming of foundation plantings and visual inspection of foundation for gaps or cracks
 - Gutter and downspout cleaning and checks
 - Assess for evidence of pests
- Annual monitoring (conducted only once per year, as part of either spring or fall monitoring)
 - Check roof for loose or missing shingles
 - Check painted trim for patching or repainting needs



CULTURAL HERITAGE PROPERTY MAINTENANCE AND REUSE PLAN: 5381 TREMAINE ROAD, MILTON, ONTARIO

Action Plan
October 15, 2021

6.0 ACTION PLAN

6.1 SUMMARY OF CULTURAL HERITAGE MAINTENANCE

Through the reporting process, Stantec provided a range of conservation measures suitable for the short, medium, and long-term conservation of the structure based on the existing conditions outlined in Section 3.0. To satisfy conditions of the Decision Statement issues by the Minister of the Environment, CN has committed to the following actions to conserve the heritage value of the property:

- Secure structure from break-ins and vandalism by boarding windows and doors once tenant vacates dwelling
- Maintain heat during the winter months
- Replace wooden support posts in the basement with temporary support posts
- Monitor for evidence of trespassing
- Stabilize south porch with temporary support where posts have been removed

These repairs are to be undertaken in the short-term (within one year) to address the issues identified.

6.2 SPECIAL QUALIFICATIONS

Regular maintenance of heritage buildings, such as painting, gentle exterior cleaning, and minor repairs, may be conducted by CN staff or tenants (where applicable). When repairs are required for masonry (e.g. repointing, cleaning, replacement, etc.) they should be conducted by a practitioner who experienced with historical masonry or is a member of the Canadian Association of Heritage Professionals (CAHP) who can guide the masonry work. Similarly, where major repairs are considered to rehabilitate, restore, or reconstruct vacant heritage buildings, proposed plans should be prepared or reviewed by a CAHP qualified heritage specialist or architect. When HIAs are to be conducted, they should also be prepared by a CAHP professional with experience in preparing similar reports. CN staff should provide advice, review scopes of work, and confirm requirements for specific and appropriate qualified persons based on the nature of the project or study being undertaken.



CULTURAL HERITAGE PROPERTY MAINTENANCE AND REUSE PLAN: 5381 TREMAINE ROAD, MILTON, ONTARIO

Adaptive Reuse Criteria
October 15, 2021

7.0 ADAPTIVE REUSE CRITERIA

To meet Condition 11.5.3, this report includes an overview of the criteria by which adaptive reuse proposals for the property should be considered, if adaptive reuse is proposed.

The primary consideration for any adaptive reuse is one that avoids alteration or destruction of the heritage attributes identified in Section 4.4.3 of this report. Adaptive reuse plans that maintain and allow opportunities for repair or restoration of heritage attributes are preferred.

If adaptive reuse proposals cannot retain, repair, or restore original heritage attributes, sympathetic replacement should be considered as the next best option.

The following criteria have been adapted from the *Standards and Guidelines for the Conservation of Historic Places in Canada* (Parks Canada 2010). to provide an overview of how adaptive reuse proposals should be assessed. A proposed adaptive reuse of these structures would:

- Conform with surrounding land uses; this could include respecting the rural nature of the area, utilizing the existing structures rather than new construction on the property, and if new construction is required, keeping it subordinate to but compatible with the existing structures.
- Preserve the cultural heritage value and heritage attributes of the existing structures, in line with the standards for Rehabilitation from the *Standards and Guidelines for the Conservation of Historic Places in Canada*.
- Preserve the heritage context of the use relative to surrounding areas.
- Avoid structural changes that would adversely affect the heritage attributes of the resource.
- Be economically viable to support the long-term adaptive reuse of the structure and retain its heritage attributes.
- Avoid conflicting or impacting supporting species at risk habitat for buildings that have been identified for supporting species at risk that adaptive reuse.

Adaptive reuse proposals are encouraged to meet as many of the applicable criteria as possible, with proposals that meet a higher number of criteria preferred over those that meet fewer. The owner of the property, CN, will make the determination as to whether adaptive reuse is economically viable for the site. If adaptive reuse is the selected approach, it will be overseen by a CAHP member in good standing and will be sent for review to all relevant regulatory bodies. In this case specifically, CN has determined that adaptive reuse during the length of the project is not viable for any of the CHRs on the project site. Future adaptive reuse of the building may require relocation to a new site.



**CULTURAL HERITAGE PROPERTY MAINTENANCE AND REUSE PLAN:
5381 TREMAINE ROAD, MILTON, ONTARIO**

Closure
October 15, 2021

8.0 CLOSURE

This report has been prepared for the sole benefit of CN and may not be used by any third party without the express written consent of Stantec. Any use which a third party makes of this report is the responsibility of such third party.

We trust this report meets your current requirements. Please do not hesitate to contact us should you require further information or have additional questions about any facet of this report.

Yours truly,

Stantec Consulting Ltd.

<Original signed by>

<Original signed by>

Meaghan Rivard MA, CAHP
Senior Heritage Consultant
Cell: (226) 268-9025
meaghan.rivard@stantec.com

Tracie Carmichael BA, B.Ed.
Managing Principal
Cell: (226) 927-3586
tracie.carmichael@stantec.com



**CULTURAL HERITAGE PROPERTY MAINTENANCE AND REUSE PLAN:
5381 TREMAINE ROAD, MILTON, ONTARIO**

References
October 15, 2021

9.0 REFERENCES

- Bevers, Cameron. 2020. *Queen Elizabeth Way*. Electronic Document: https://www.thekingshighway.ca/Queen_Elizabeth_Way.htm. Last Accessed: January 21, 2021
- Blumenson, John. 1990. *Ontario Architecture: A Guide to Styles and Building Terms 1784 to the Present*. Canada: Fitzhenry & Whiteside.
- Buxton, Harry. 2002. *Oakville and Trafalgar Township History*. <http://www.oakvillehistory.org/oakville-history.html>. Electronic Document: Last Accessed January 21, 2021
- Case, Benson. 1970. *A History and Atlas of the County of Halton*. Georgetown: Halton District Women's Institute.
- Census of Canada. 1853. *Census of the Canadas, 1851-2, Volume I*. Quebec: Lovell and Lamoreux.
- Census of Canada. 1855. *Census of the Canadas, 1851-2, Volume II*. Quebec: Lovell and Lamoreux.
- Chapman, L.J. and D.F. Putnam. 1984. *The Physiography of Southern Ontario*. Third Edition. Ontario Geological Survey. Special Volume 2. Toronto: Ministry of Natural Resources.
- Dean, William G. 1969. *Economic Atlas of Ontario*. Toronto: University of Toronto Press.
- Department of Defence. 1909. *Topographic Map Ontario, Hamilton Sheet*.
- Department of Militia and Defence. 1919. *Topographic Map, Ontario, Hamilton Sheet*.
- Dominion Bureau of Statistics. 1953. *Ninth Census of Canada, 1951, Volume I, Population*. Ottawa: Edmond Cloutier, Queen's Printer and Controller of Stationery.
- Drummond, Ian M. 1987. *Progress without Planning: The Economic History of Ontario from Confederation to the Second World War*. Toronto: University of Toronto Press.
- Fram, Mark. 1998. *Well Preserved: The Ontario Heritage Foundation's Manual of Principles and Practice for Architectural Conservation*. Toronto: Boston Mills Press.
- Friesen, Joe. December 27, 2012. *Fast-rising Milton's battle of the bulge*. Globe and Mail. Page A13.
- Find-a-Grave. 2015. *William Dorland*. Electronic Document: <https://www.findagrave.com/memorial/149639945/william-dorland>. Last Accessed: January 21, 2021
- Friesen, Joe. December 27, 2012. *Fast-rising Milton's battle of the bulge*. Globe and Mail. Page A13.
- Gardiner, Herbert F. 1899. *Nothing But Names, An Inquiry Into the Origins of the Names of the Counties and Townships of Ontario*. Toronto: George N. Morang and Company Limited.



**CULTURAL HERITAGE PROPERTY MAINTENANCE AND REUSE PLAN:
5381 TREMAINE ROAD, MILTON, ONTARIO**

References

October 15, 2021

Government of Ontario. 2006a. *Ontario Regulation 9/06, Criteria for Determining Cultural Heritage Value or Interest, Under the Ontario Heritage Act*. Electronic document:

<https://www.ontario.ca/laws/regulation/060009>. Last accessed: January 21, 2021

Halton Images. No Date. *Geographic Location Trafalgar*. Electronic Document:

<https://images.halinet.on.ca/results?fsu=Schools&fz=0&gid=6168312&itype=Photographs&rows=20&sort=score+desc&v=t>. Last Accessed: January 20, 2021.

Library and Archives Canada. 1851. Census of 1851 (Canada East, Canada West, New Brunswick and Nova Scotia). District 14, Subdistrict 117, Reel C-11726.

Library and Archives Canada. 1881. Census of Canada, 1881. District 150, Subdistrict C, Reel C-13257.

Library and Archives Canada. 1901. Census of Canada, 1901. District 68, Subdistrict I, Reel T-6471.

McDonald, John. 2011. *Halton's Heritage: William Halton and Halton County*. Milton: Halton Sketches Publishing.

Milton Historical Society [no date n.d.]. *A Brief History of Milton*. Electronic Document:

<http://www.miltonhistoricalsociety.ca/about-us/the-town-of-milton/>. Last Accessed: January 21, 2021

Oakville Historical Society. n.d. *150 Years of Oakville*. Electronic Document:

[http://images.oakville.halinet.on.ca/15/exhibit/6#:~:text=Incorporation%20as%20a%20Town%3A%201857,Years%20of%20Oakville%3A%20Oakville%20Images&text=George%20King%20Chisholm%20\(1814%2D1874,its%20incorporation%20in%20May%201857](http://images.oakville.halinet.on.ca/15/exhibit/6#:~:text=Incorporation%20as%20a%20Town%3A%201857,Years%20of%20Oakville%3A%20Oakville%20Images&text=George%20King%20Chisholm%20(1814%2D1874,its%20incorporation%20in%20May%201857). Last Accessed: January 21, 2021

Oakville Images. 2013. *The Village of Bronte: Preserving the Past*. Electronic Document:

<http://images.oakville.halinet.on.ca/262/Exhibit/2>. Last Accessed: July 10, 2020.

ONLand. 2020. *Abstract/Parcel Register Book, Halton County (20), Trafalgar, Book 37; Concession 1; New Survey*. Electronic Document: <https://www.onland.ca/ui/20/books/23290/>. Last Accessed: January 21, 2021

Ontario Agricultural Commission. 1881. *Appendix B*. Vol. II. Toronto: C. Blackett Robinson.

Park, Sharon C. 1993. "Mothballing Historic Buildings" Preservation Briefs. Technical Preservation Services, National Parks Service U.S. Department of the Interior. Electronic Document:

<https://www.nps.gov/tps/how-to-preserve/briefs/31-mothballing.htm#stable>. Last accessed: January 21, 2021

Parks Canada. 2010. *Standards and Guidelines for the Conservation of Historic Places in Canada*. Canada: Her Majesty the Queen.

Pope, J.H. 1877. *Illustrated Historical Atlas of the County of Halton, Ont.* Toronto: Walker and Miles.



**CULTURAL HERITAGE PROPERTY MAINTENANCE AND REUSE PLAN:
5381 TREMAINE ROAD, MILTON, ONTARIO**

References

October 15, 2021

Sampson, Daniel. 2012. Rural Canada in an Urban Century. In *Canadian History: Post-Confederation*.
Electronic Document: <https://opentextbc.ca/postconfederation/chapter/9-14-rural-canada-in-an-urban-century/>. Last Accessed: January 21, 2021

Town of Oakville. ND. *Historical Boundaries*. Electronic Document:
<https://www.oakville.ca/assets/general%20-%20culture%20recreation/twm-map.pdf>. Last
Accessed: January 21, 2021

Tremaine, George R. 1858. *Tremaine's Map of the County of Halton, Canada West*. Oakville: George R.
Tremaine

Weaver, W.F. 1968. *Crown Surveys in Ontario*. Ontario: Department of Lands and Forests.

Williams, Robert J. 2011. *Town of Oakville Ward Boundary Review 2011-2012*. Electronic Document:
<https://www.oakville.ca/townhall/ward-boundary-review-history.html>. Last Accessed: January
21,2021



APPENDIX A

Project Personnel



CULTURAL HERITAGE PROPERTY MAINTENANCE AND REUSE PLAN: 5381 TREMAINE ROAD, MILTON, ONTARIO

Appendix A Project Personnel
October 15, 2021

Appendix A PROJECT PERSONNEL

Meaghan Rivard, MA, CAHP: Meaghan Rivard is Stantec's Senior Heritage Consultant with over 12 years of experience in the identification, research, evaluation, and documentation of heritage resources as well as expertise in the environmental assessment process as it pertains to heritage resources. Ms. Rivard attained her Bachelor of Arts degree with honours and distinction in history from Brock University in St. Catharines, Ontario and her Master of Arts degree in history (public history stream) from Western University in London, Ontario. Ms. Rivard is a member of the Canadian Association of Heritage Professionals.

Ms. Rivard has experience managing and executing all aspects of Cultural Heritage Evaluation Reports, Heritage Impact Assessments, Photographic Documentations, and Heritage Conservation Plans. She has assessed more than 2,500 properties as part of windshield surveys and worked under various classed environmental assessments. In addition to environmental assessment related work, Meaghan continues to be actively involved in the assessment of individual properties. Here she utilizes knowledge in the identification, evaluation, and documentation of heritage resources alongside expertise in the assessment of proposed change and preparation of options to mitigate negative impacts on heritage resources. Meaghan is focused on regulatory satisfaction balanced with an admiration for the heritage of our province.

In addition to her role as task manager, Ms. Rivard has been the quality reviewer for cultural heritage reporting for this project, reviewing reporting for compliance with applicable municipal, provincial, and federal guidelines where applicable. Through her specialization in the Environmental Assessment process, over the past 12 years Meaghan has reviewed, authored, and contributed in various capacities to hundreds of cultural heritage reports under a wide variety of reporting requirements for municipal, provincial, and federal clients. Meaghan has completed work directly for Ontario's Ministry of Transportation, Hydro One Networks Inc., Metrolinx, Ontario Power Generation, and Infrastructure Ontario. She has also been listed as the lead heritage consultant on retainer assignments for the Ministry of Transportation and Infrastructure Ontario.

Lashia Jones, MA, CAHP: Lashia Jones is a Cultural Heritage Specialist and member of Stantec's Environmental Services Team, with experience in identifying, evaluating and planning for cultural heritage resources. Ms. Jones is a member of the Canadian Association of Heritage Professionals, and has a Master's Degree in Canadian Studies from Carleton University, specializing in Heritage Conservation. Ms. Jones has worked for both public and private sector clients, providing a variety of cultural heritage services including heritage impact assessments, cultural heritage evaluations, inventories of cultural heritage resources, heritage conservation districts, heritage master plans, conservation plans and cultural heritage bridge evaluations. Ms. Jones is well versed with local, provincial and national tools for the identification, evaluation and planning best practices for cultural heritage resources, including the *Ontario Heritage Act*, *Provincial Policy Statement*, *Planning Act*, *Environmental Assessment Act*, *Ontario Heritage Tool Kit*, *Standards and Guidelines for the Conservation of Provincial Heritage Properties*, and the *Standards and Guidelines for the Conservation of Historic Places in Canada*. Lashia's role on various



CULTURAL HERITAGE PROPERTY MAINTENANCE AND REUSE PLAN: 5381 TREMAINE ROAD, MILTON, ONTARIO

Appendix A Project Personnel
October 15, 2021

project types has given her experience in public engagement and consultation, constructive dialogue with clients, heritage committees, local councils and multi-disciplinary project teams.

Frank Smith, MA: Frank Smith is a Cultural Heritage Specialist with over seven years of experience in detailed historical research, interpretation, and conservation of cultural heritage resources. Frank attained his Bachelor of Arts degree *magna cum laude* in history from Adelphi University in Garden City, New York and his Master of Arts degree in history (public history stream) from Western University in London, Ontario. Before joining Stantec, he was the Curator of the John P. Metras Sports Museum and Research Assistant for the Census of Canada 1891 project. Since joining Stantec, Frank has assisted in the completion of dozens of environmental assessment reports, including reports for Metrolinx, Canadian National Railways, and Canadian Pacific Railways. Frank has evaluated dozens of railway corridors and evaluated thousands of properties adjacent to railway corridors.

Christian Giansante, B.Eng.: Christian Giansante is a Cultural Heritage Consultant who has gathered significant experience working with federal heritage buildings across Canada through a variety of complex projects ranging from restoration to rehabilitation. Christian has regularly participated in design workshops for proposed projects at federal heritage buildings; conducted thorough reviews of proposed designs & provided recommendations for how to best implement the project into the historic building. Christian was also the liaison between his heritage conservation group and the FHBRO (Federal Heritage Buildings Review Office), departmental custodians and tenants, and various consultants engaged on projects. Internally, Christian has managed and created heritage guidance documents and technical conservation briefs for facilities management teams at heritage buildings; he has completed archival research on historic buildings including gathering historic photos, plans, specifications; and he has also created and managed an inventory of cultural properties. Christian appreciates taking the time to understand a place and its story to try and preserve its character while making it viable for contemporary use. Christian received his Bachelor of Engineering in Architectural Conservation and Sustainability from Carleton University. The program was based in civil engineering studies with additional focus placed on design, heritage conservation, adaptability and sustainable construction.

Tracie Carmichael, BA, B.Ed., is a Principal at Stantec and the managing leader for the Cultural and Social Sciences team based in Ontario. She has over 20 years of experience with Ontario archaeological and cultural heritage projects and has been responsible for the management and coordination of Stantec's Ontario Cultural and Social Sciences team for six years. She responsible for the oversight of archaeological and heritage projects across all sectors. She has managed and produced deliverables for such clients as Enbridge Pipelines Inc., Metrolinx, NextEra Energy Canada, ULC, Samsung Renewable Energy Inc., and Suncor Energy Inc. She has worked with key clients to meet regulatory requirements and maintained a relationship with the Ontario Ministry of Heritage, Sport, Tourism and Culture Industries which is responsible for overseeing the compliance of all archaeology and heritage consulting projects in Ontario. She also has extensive experience in the quality and independent review of deliverables for archaeological and heritage projects throughout Ontario for aggregate, community development, linear corridor, mining, renewable energy, and other sectors.

Roger Langlois: Roger has first-hand experience working in environments where he's assigned and managed on-site staff to multi-sized projects in multiple locations while maintaining project budgets.



**CULTURAL HERITAGE PROPERTY MAINTENANCE AND REUSE PLAN:
5381 TREMAINE ROAD, MILTON, ONTARIO**

Appendix A Project Personnel
October 15, 2021

Bringing significant experience in the day-to-day operations and mechanical/electrical design of facilities, he has led the coordination of design teams including process equipment selection, packaging line layouts, and complete facility upgrades. A subject matter expert (SME) in code compliance, Roger remains current on evolving process and equipment innovation. A process specialist for more than 40 years, Roger brings deep understanding on a variety of topics including hazardous operability studies (HAZOPs), hazardous area classifications, and risk assessments. He provides the necessary technical advice by conducting training programs across Stantec as well as at client locations. Roger is also a licensed interprovincial electrician and millwright.

