

Cultural Heritage Property Maintenance and Reuse Plan: 4393 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 issued 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 4393 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 should 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 4393 Tremaine Road, the property appears to be in overall good to fair condition and will be occupied over the next three years. To satisfy conditions of the Decision Statement issued by the Minister of the Environment, CN has committed to the following actions to conserve the heritage value of the property:

- Secure the shifting foundation at the side staircase to the basement
- Replace the basement stair access following securing of the foundation
- Replace wooden support post in basement with metal post on concrete footing

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.



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Project Personnel

Project Manager:	Chris Powell, MA
Heritage Consultants:	Meaghan Rivard, MA, CAHP Lashia Jones, MA, CAHP
Report Writer:	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.



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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 4393 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) should 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's 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).



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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 house and barn. Interior access was granted to the house and barn.



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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)



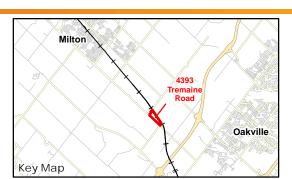




--- CN-Owned Property

Notes

- 1. Coordinate System: NAD 1983 UTM Zone 17N
- 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. Orthoimagery © First Base Solutions, 2020. Imagery taken in 2019.



Client/Project

Canadian National Railway Milton Logistics Hub Cultural Heritage Property Maintenance and Re-use Plan: 4393 Tremaine Road

Location of the Property

Historical Context October 15, 2021

2.0 HISTORICAL CONTEXT

2.1 INTRODUCTION

The property at 4393 Tremaine Road is located between Lower Base Line and Burnhamthorpe 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 35, Concession 2, North of Dundas Street. 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 South Slope physiographic region. The South Slope is the southernmost region between Lake Ontario and the Oak Ridges Moraine. It rises an average of 90 to 120 metres over a nine to eleven kilometre range (Chapman and Putnam 1984:172). It extends from the Niagara Escarpment, in the south, to the Trent River, in the north, covering approximately 1,500 square kilometres. The dramatic rise and fall of the landscape, most of which is characterized by long and narrow drumlins, has required extensive drainage to supplement the naturally sharp valleys cut by rapid flowing streams (Chapman and Putnam 1984:172).

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 (Plate 1). The single front survey system was popular between 1783 and 1818 and used extensively along the north shore of Lake Ontario (Dean 1969). The property at 4393 Tremaine Road is part of the Old Survey. 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 (Case 1970).



Historical Context October 15, 2021

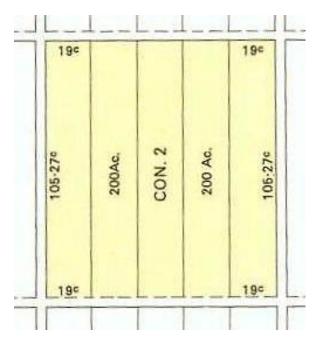


Plate 1: The single front survey system (Dean 1969)

The Township of Trafalgar was settled quickly 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). 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).



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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 as well as 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 Agriculture 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 closet hamlet to the Property was Ash. Ash developed just south of the Study Area 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).



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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 4393 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 35, Concession 2 North of Dundas Street was granted by the Crown to Deborah Reilly (subsequently listed as O'Reilly) in August 1810 (ONLand 2020). Deborah O'Reilly (née Campbell) was the daughter of Robert Douglas Campbell, a Sergeant in Butler's Rangers and a United Empire Loyalist. He was born in 1756 in the Thirteen Colonies (United Empire Loyalists' Association of Canada 2020). Deborah, as the daughter of a United Empire Loyalist, was entitled to a land grant (Archives of Ontario 2019).

Deborah O'Reilly was the wife of Daniel O'Reilly. Daniel was born in Upper Canada and was the son of United Empire Loyalist John Reilly of Stamford Township. Daniel served in the 2nd Regiment of the York Militia during the War of 1812 and was taken as a prisoner of war by American forces in July 1814. He remained a prisoner until the end of the war in 1815. The Surveyor's Office of Upper Canada indicated that O'Reilly had received a grant of land in the adjacent Nelson Township in 1806 and that was likely his farmstead (Library and Archives Canada 1819). The O'Reilly holding in Trafalgar Township was most likely held in speculation. Daniel O'Reilly also leased the Crown Reserve at Lot 35, Concession 3 North of Dundas Street in Trafalgar Township (Library and Archives Canada 1818).

In 1824, Deborah and Daniel O'Reilly sold the north half of the lot, which contains the property, to Matthew Teeple and sold the south half of the lot to William McSowess (ONLand 2020). In 1831, Teeple sold the north half of the lot to Nicholas Winter. The Census of 1851 lists Nicholas Winter as a 56-year-old farmer born in Canada. He lived with his wife Mary, age 45, and born in Ireland (Library and Archives



Historical Context October 15, 2021

Canada 1851). In 1853, Winter sold the north half, encompassing 100 acres, to Peter Campbell (ONLand 2020).

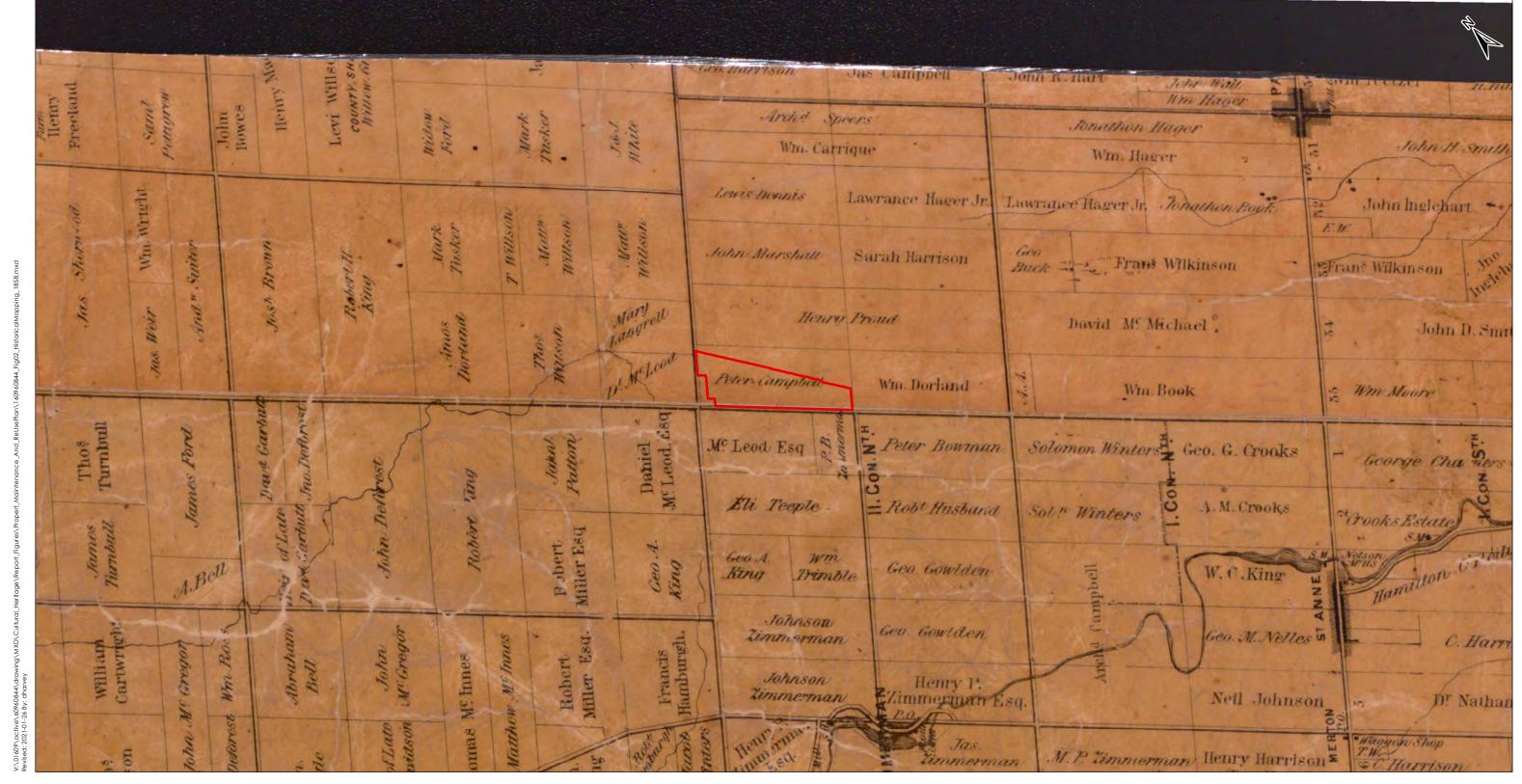
Historical mapping of Halton County from 1858 lists Peter Campbell as the owner of the north half of Lot 35, Concession 2. The south half was owned by William Dorland (Figure 2). The Census of 1871 lists Peter Campbell as a 46-year-old farmer born in Ontario. He lived with his wife Sarah, age 42; daughter, Emily, age 17; daughter, Sarah, age 15; daughter, Mary, age 12; son, Edward, age 10; and son John, age 5 (Library and Archives Canada 1871). In 1877, Campbell and his wife sold approximately 4.5 acres of land in the lot to the Hamilton and Northwestern Railway Company, the present-day CN tracks north of the property. Historical mapping from 1877 lists Peter Campbell as owner of the north half of the lot. The mapping depicts the railway tracks running through the lot and a structure and orchards in approximately the same location as 4393 Tremaine Road. The mapping also depicts the north half of the lot as containing a structure at the corner of present-day Lower Base Line and Tremaine Road and another structure across from the corner of present-day Tremaine Road and Side Road 2. The mapping refers to the north half of the lot as Willow Lodge, which was likely the name of the Campbell farmstead (Figure 3).

In 1886, Peter Campbell sold the north half of the lot to Neil J. Campbell. Peter Campbell died on April 11, 1891 and is buried in St. Paul's Presbyterian Church Cemetery in Burlington (Find a Grave 2012). In 1889, Neil took out a mortgage on the property from Elizabeth Catherine McCallin. In 1899, McCallin exercised her power of sale to sell the north half of the lot to the widow Sarah Cambbell, and her children Edward Campbell, and John Campbell.

Topographic mapping from 1919 depicts a structure in the middle of the north half of the lot, adjacent to the railway tracks. The mapping also shows the small hamlet named Ash partially located in the south half of the lot adjacent to the railway tracks. The Census of 1921 lists Edward and John Campbell living together. Edward was listed as a 60-year-old farmer and John was listed as a 54-year-old farmer. Also living with them was Hattie, their sister, age 63, Mary Deane; their sister, age 61; and the servant Violet McKaren, age 19 (Library and Archives Canada 1921). In 1924, John A. Campbell sold the 100 acres of the north half of the lot to Edward Campbell who the next year sold it to James Vanfleet (ONLand 2020).

In 1930, Vanfleet quit claim on the property to John A. Campbell and in 1941, the executors of the estate of John Campbell sold the property to Herbert Albertson, ending the association of the Campbell family with the north half of Lot 35, Concession 2 North of Dundas Street. The property changed hands three more times between 1941 and 1964. In 1965, the property was purchased by CN (ONLand 2020).







MAP NOT TO SCALE



January 2021 160960844

Canadian National Railway Milton Logistics Hub Cultural Heritage Property Maintenance and Re-use Plan: 4393 Tremaine Road

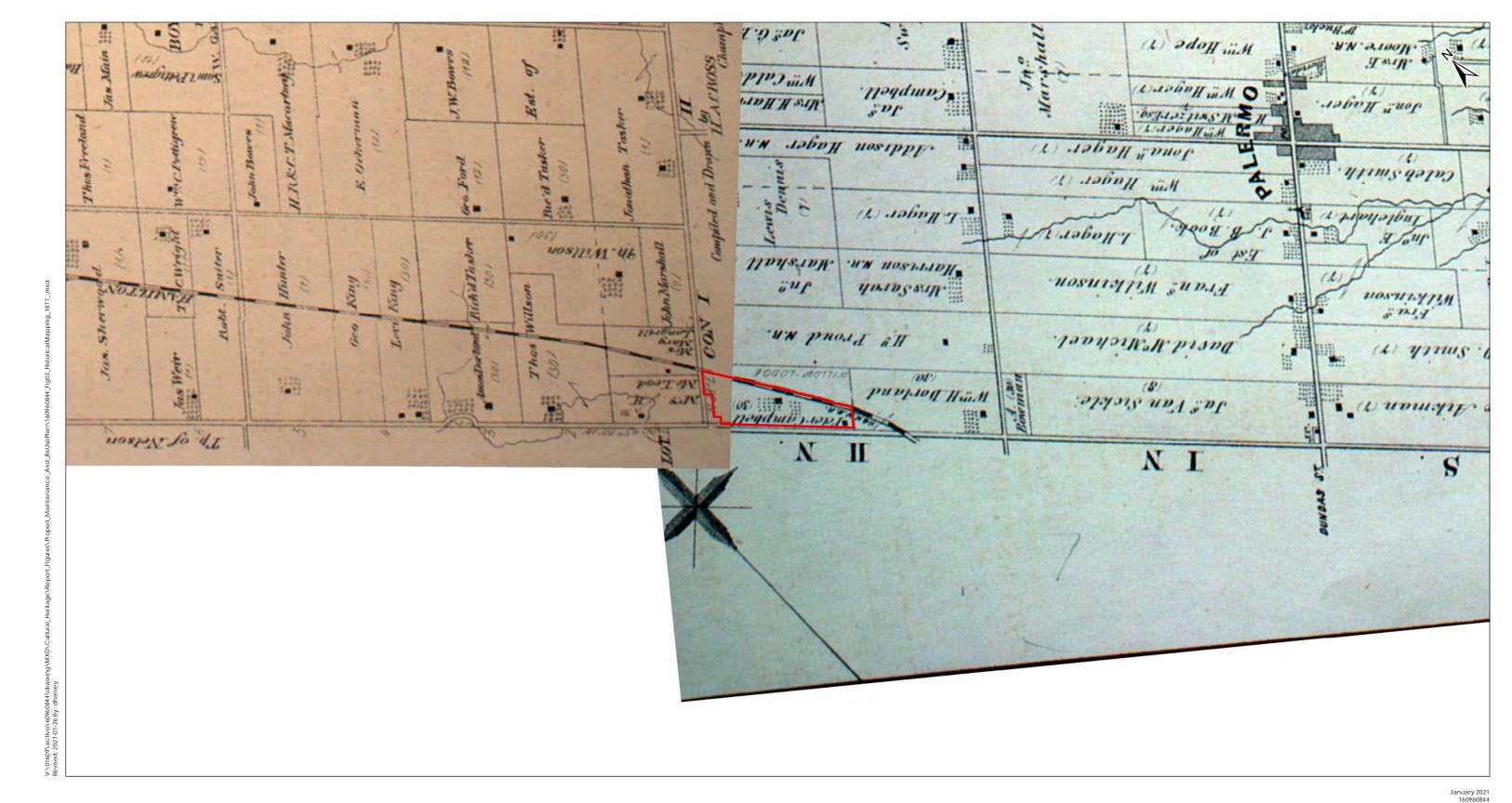
Figure No.

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Map of the County of Halton, 1858

Note

1. Tremaine, George R. 1858. Tremaine's Map of the County of





MAP NOT TO SCALE

Milton 4393 Tremaine Road Oakville

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Canadian National Railway Milton Logistics Hub Cultural Heritage Property Maintenance and Re-use Plan: 4393 Tremaine Road

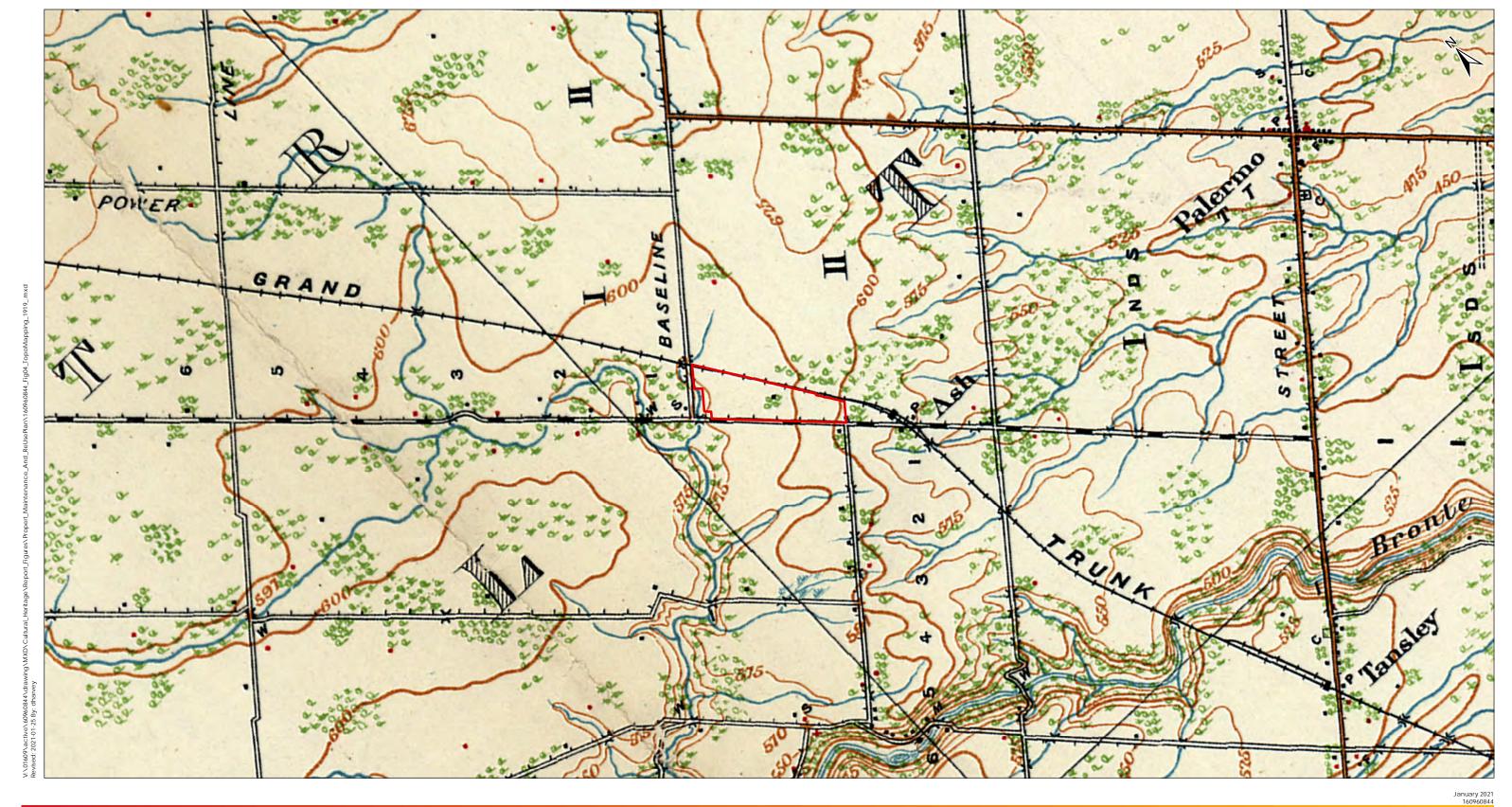
Figure No.

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Map of the Township of Trafalgar, 1877

Noto

1. Pope, J.H. 1877. Illustrated Historical Atlas of the County of





MAP NOT TO SCALE

Milton 4393 Tremaine Road Oakville Key Map

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Canadian National Railway Milton Logistics Hub Cultural Heritage Property Maintenance and Re-use Plan: 4393 Tremaine Road

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4

Topographic Mapping, 1919

Noto

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

Existing Conditions October 15, 2021

3.0 EXISTING CONDITIONS

3.1 LANDSCAPE SETTING

The property is located along Tremaine Road in the Town of Milton, Ontario. Tremaine Road is a two-lane asphalt paved roadway. The property at 4393 Tremaine is accessed via a gravel driveway. The property contains a residence, barn, and modern outbuildings, with associated agricultural fields and pastures.

3.2 RESIDENCE EXTERIOR

The residence at 4393 Tremaine road is a one and one half storey structure with a side gable medium pitched roof. The front (southwest) façade of the residence has a large covered porch that runs the length of the structure, with six over six sash windows (Plate 2). There is a buff brick chimney on the west end of the side façade (Plate 3) and another chimney on the opposite site of the residence. The main entrance has a wooden framed transom window and side lights (Plate 4) and the flared shape of the awning is supported by curved rafters (Plate 5). The southeast façade shows a one storey gable roof addition at the rear of the house, with a second, smaller gabled addition on its southeast side (Plate 6). The southeast façade of the original house features a concrete block chimney (Plate 8). The residence's stone foundation is also visible on this façade (Plate 9). The structure is covered in board and batten siding, with decorative wooden trim and window surrounds on the original portion of the house (Plate 10). The northwest façade of the addition can be seen in (Plate 11).



Existing Conditions October 15, 2021



Plate 2: Southwest façade, looking northwest



Plate 4: Wood frame transom and side lights, southwest façade, looking north



Plate 6: Southeast façade, looking northwest



Plate 3: Buff brick chimney, looking northwest



Plate 5: Rafters under covered porch on southwest façade, looking west



Plate 7: Southeast façade, looking northwest



Existing Conditions October 15, 2021



Plate 8: Concrete block chimney on southeast façade, looking northwest



Plate 10: Board and batten siding and decorative wooden trim and window surrounds, southeast façade, looking west



Plate 9: Stone foundation, southeast façade, looking west



Plate 11: Northwest facade, looking northeast

3.3 RESIDENCE INTERIOR

The basement of the house is accessed by a small wooden staircase on the west side of the building in a separate entryway). It has a dirt floor and contains the disconnected furnace, old oil tank, and existing electrical panel. The stone foundation walls and concrete block fireplace foundation are visible (Plate 12). There are timber support beams on concrete footings (Plate 13). The floor joists are machine cut joists.

The residence contains a side hallway to the front entrance, and main living area with mid-20th century fireplace (Plate 14) (Plate 15). The residence has a rear frame addition with an entrance/mudroom, living room, kitchen and dining area (Plate 16). The house contains wide pine flooring in the front sections of the house, and original trim (Plate 17). The upper storey contains the hallway, side hall staircase, a bathroom, and three bedrooms.



Existing Conditions October 15, 2021



Plate 12: Stone foundation and concrete block walls in basement



Plate 13: Timber support beams on concrete footing



Plate 14: Front living room and fireplace, looking east



Plate 15: Side staircase looking up from the first floor



Plate 16: Corridor leading between front section of residence and rear addition



Plate 17: Original floor moulding on first storey landing



Existing Conditions October 15, 2021

3.4 BARN EXTERIOR

The barn is a raised timber frame barn with a gambrel roof (Plate 18). The roof contains three lightning rods. The southwest façade has a decorative diamond shaped, multi-pane window near the roof peak and a large sliding door on a metal track (Plate 19). The barn is covered in vertical timber cladding which has been painted green on some of the façades. The northwest façade features large rectangular window openings on the first storey and boarded up arched openings on the upper storey (Plate 20). The foundation is rusticated concrete block. A section of the rusticated concrete block has been replaced with modern concrete blocks. The barn has a small metal clad shed roof addition on the southwest corner of the structure (Plate 21). There is also an uncapped poured-in-place concrete silo on the northeast corner of the building (Plate 22).



Existing Conditions October 15, 2021



Plate 18: Southwest façade, looking north



Plate 20: Northwest façade, looking northeast

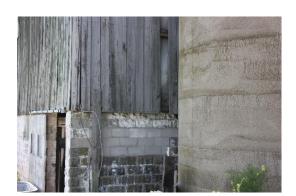


Plate 22: Poured-in-place concrete silo on northeast façade, looking southwest



Plate 19: Sliding door and vertical timber cladding, southwest façade, looking north



Plate 21: Rusticated concrete foundation and shed roof addition, looking east



Existing Conditions October 15, 2021

3.5 BARN INTERIOR

The barn interior consists of an upper level and lower level. The hayloft has been removed, leaving the upper portion of the barn open, though some of the ladders remain. The structural beams are hand hewn (Plate 23). The lower level of the barn comprises stables with the structural beams and joists whitewashed (Plate 24 and Plate 25). Plate 26 shows the lower level of the barn, just inside the entrance in the northeast corner.



Plate 23: Hay loft ladder and hand-hewn beams, looking southeast

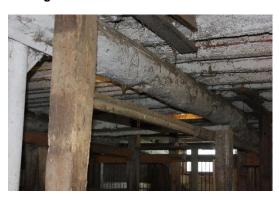


Plate 25: Beams and joists, looking northeast



Plate 24: Stables in lower level, facing east



Plate 26: View through entrance in northeast corner of structure, looking west



Existing Conditions October 15, 2021

3.6 OVERALL CONDITIONS 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.

3.6.1 Residence

The residence is in fair visual condition, with noticeable wear on the exterior siding in the rear addition., The residence has a mix of roofing materials, some of which have been recently replaced and shingled, while other sections of the roof that are in poor repair (Plate 27). Some of the wood frame windows have aluminum storm frames added while others do not, and there is evidence of exterior paint peeling on some windows. The house does not have gutters but does have a single downspout draining to a rain barrel. There is a gap in the southwest corner of the porch roof (Plate 28).

The interior shows evidence of water staining in the kitchen prior to the roof and ceiling repairs (Plate 29). There is localized evidence of plaster cracking and paint peeling on various walls and on the living room ceiling (Plate 30) and plaster cracking on the ceilings on the second floor (Plate 31). Interior windowsills are in good visual repair.

In the stairway to the basement, there is cracking plaster and a foundation shift where several stones are missing, and the stairway is partially obstructed (Plate 32). In the basement itself, there is little evidence of moisture along the foundation, but a wooden support post which sits on a concrete footing exhibits signs of previous water intrusion (Plate 33). The furnace and oil tank in the basement are not in use.



Existing Conditions October 15, 2021



Plate 27: Shingled portions of roof in poor condition, looking southwest



Plate 28: Gap in southwest corner of porch roof



Plate 29: Water staining on kitchen ceiling from damage prior to roof repair



Plate 30: Localized plaster cracks and peeling paint in living room



Plate 31: Cracking plaster on upstairs ceiling



Plate 32: Cracking plaster, foundation shift and stairway obstruction on the basement staircase



Existing Conditions October 15, 2021



Plate 33: Support post on concrete footing in the basement showing signs of water intrusion

3.6.2 Barn

The barn is in fair visual condition, with some localized areas of cracking in the concrete foundation (Plate 34) and broken blocks supporting rotting wooden lintels (Plate 35). Parts of the barn are used to stable horses, as part of the tenant's equine business. The barn is currently serviced but with outdated wiring (Plate 36).



Existing Conditions October 15, 2021



Plate 34: Localized cracking in the concrete foundation of the barn, looking west



Plate 35: Broken blocks supporting rotting wooden lintels



Plate 36: Electrical service equipment in the barn



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 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 4393 Tremaine Road is a representative example of a mid-19th century Ontario vernacular residence. Based on census and land registry records, the residence was likely constructed between 1853 and 1877 by Peter Campbell. The residence is a one and one half storey timber frame structure with a stone foundation. Vernacular architecture draws on local needs, traditions, and materials, rather than adhering to formal styles. The designs of these structures may be based on photographs, drawings, or other buildings in the vicinity, allowing select elements from formal designs to be blended with more regional characteristics (Heritage Manitoba n.d.).

The residence at 4393 Tremaine Road has retained a high level of historical integrity. It still possesses an elevated porch that wraps around the entire front façade of the structure, six-over-six windows, and paired chimneys. The vernacular style does not employ a high degree of craftsmanship or artistic merit, nor does it demonstrate a high degree or technical or scientific achievement.

The barn at 4393 Tremaine Road is a 19th century raised timber frame barn with a gambrel roof and a rusticated concrete foundation. It is a representative example of a 19th century barn. Its large size, wooden structure, and gambrel roof are all typical characteristics from the 19th century (Ennals 1972:256). The barn does not display a high degree of craftsmanship or artistic merit, nor does it demonstrate a high degree of technical or scientific achievement given its common design and construction materials.

4.2.2 Historical or Associative Value

The property is historically associated with Peter Campbell. Peter was a farmer, born in Ontario, who had a wife and five children at the time of the 1871 Census. He and his wife sold approximately 4.5 acres of their land to the Hamilton and Northwestern Railway Company, which led to the present-day CN tracks that are adjacent to the property. Research has not indicated that Peter Campbell or his family were



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

directly associated with a theme, event, belief, person, activity, organization, or institution significant to the community.

The property does not provide evidence of notable of influential aspects of a particular culture or contribute in a meaningful way to a comparative analysis of similar properties. The property does not yield information that contribute to an understanding of a community or culture. The builder of the residence and corresponding barn are not known.

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 property remains linked to its surroundings. The railway tracks 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 at 4393 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 4393 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 mid-to-late 19 th century vernacular design, and the barn design and materials are representative of 19 th century barn construction.				
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 Peter Campbell, but 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.				



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

Table 1 Evaluation of 4393 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	The property remains within a rural and agricultural landscape and is important in supporting the rural character of the area.		
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 4393 Tremaine Road meets three of the criteria and thus 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 4393 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, railway tracks to the north, and agricultural fields to the west and east. The property constitutes a cultural heritage landscape as a farmstead containing a mid-to-late 19th century residence and late 19th century barn.

4.4.2 Cultural Heritage Value or Interest

The property demonstrates CHVI as a representative example of a mid-to-late 19th century Ontario vernacular residence and late 19th century barn. The residence is a one and one half storey timber frame structure with board and batten siding and a stone foundation. The barn is a timber frame structure with a gambrel roof, vertical barnboard siding, and a rusticated concrete foundation. The structural beams, posts, and secondary beams are hand hewn. There are two additional modern outbuildings on the property, one to the north of the residence and barn and one to the south. The residence and barn have design value as representative examples of 19th century vernacular architecture. 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, Tremaine Road, and the nearby hamlet of Ash.



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

4.4.3 Heritage Attributes

Residence

- o One and one half storey structure
- Side gabled roof with decorative wooden trim
- Covered front porch
- o Board and batten siding
- o Wooden windowsills and window surrounds
- o 6/6 sash and 2/2 sash wood frame windows
- o Paneled wooden front entrance door with transom window and sidelights
- o Stone foundation

Barn

- o Gambrel roof
- o Timber frame construction, including hand hewn beams
- Vertical barnboard siding
- o Rusticated concrete block foundation



Conservation Measures October 15, 2021

5.0 CONSERVATION MEASURES

5.1 SHORT-TERM CONSERVATION MEASURES

5.1.1 Introduction

The residence at 4393 Tremaine Road is currently inhabited and in good to fair condition. Continued habitation is the best way to keep a structure maintained, monitored, and in good repair. The following preventative measures address issues noted at the time of the site visit and set a framework for the continued monitoring and maintenance of identified heritage attributes. Short-term measures should be implemented before construction on the Project begins.

5.1.2 Security

Security is not a concern for 4393 Tremaine Road, as habitation is the best form of security. If the house were to become vacant in the future, then steps should be taken to put security measures in place (see Section 5.2.7 for mothballing guidelines).

5.1.3 Stabilization

Stabilization of the foundation at the side basement staircase should be inspected by a qualified engineer or building condition specialist to determine if the shifting has caused damage that may require other stabilization requirements. The foundation should be repaired, and the stairway reconstructed to provide safe access and egress to the basement. The wooden support post in the basement should be replaced with a steel support post on concrete footing.

Areas of cracking in the barn may be stabilized and repaired. A qualified engineer or building condition specialist may assess lintels at doors and windows to determine if they have become structurally compromised.

5.1.4 Repair and Replacement

The residence is in fair to good condition and through continued occupation, is anticipated to remain in this condition in the short term. However, the roof is currently a mix of metal cladding and shingles and may benefit from a consistent material to minimize possible entry points for water created by the existence of multiple rooflines. While a full roof replacement is not required, it may be appropriate to conduct spot treatments to prevent entry points for water if water penetration is noted in the future. In addition, the house may benefit from the installation of gutters and downspouts to direct water away from the residence.



Conservation Measures October 15, 2021

The shiplap siding on the residence's northwest elevation and the exterior window trim are in need of repainting to prevent further weathering or rot. Windowsills and wood frame windows may also be painted to prevent water damage to the wood. The gap in the porch roof may be repaired to prevent water damage.

Suggested interior repairs are minimal. There is water staining evident in the kitchen ceiling, resulting from the current mixed material roofing. Replacing the roof with a consistent material, as noted above, may address this problem in the future, should water continue to be identified as an issue. There is plaster cracking and peeling on the living room walls and ceilings and in the ceilings of the upstairs bedrooms. Repairs would be beneficial to prevent further damage.

The barn is in overall fair visual condition, with the exception of some areas in the rusticated concrete foundation which are beginning to show cracking. Replacement is currently being undertaken at the northeast elevation below the bank with new concrete blocks. Repointing may be considered for areas where the mortar is beginning to deteriorate.

5.1.5 Servicing

The electrical wiring in the house has been recently updated and the water heater is new. The electrical systems in the barn could be upgraded to comply with the Ontario Electrical Safety Code Section 22 – Rule 22-04, *Wiring methods in buildings housing livestock or poultry* given that the barn is used to stable horses.

5.1.6 Pest Control

Pest control is not a concern at this time, given that the house is inhabited. Should a pest problem be identified or if the house becomes vacant, then appropriate measures for the implementation of pest control should be taken (see Section 5.2.7 for mothballing guidelines).

5.2 MEDIUM AND LONG-TERM CONSERVATION MEASURES

5.2.1 Introduction

Medium and long-term conservation measures for the residence and barn at 4393 Tremaine Road should largely build on maintaining the repairs implemented in the short-term stage and continued monitoring to prevent deterioration of identified heritage attributes. 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

So long as the house remains inhabited, security should not be a concern at 4393 Tremaine Road. If the house were to become vacant in the future, then steps should be taken to put security measures in place (see Section 5.2.7 for mothballing guidelines).



Conservation Measures October 15, 2021

5.2.3 Pest Control

As with security, pest control is not considered a concern so long as the house is inhabited. Should a pest problem be identified or if the house becomes vacant, then appropriate measures for the implementation of pest control may be taken (see Section 5.2.7 for mothballing guidelines).

5.2.4 Ventilation

Given that the house is inhabited, ventilation is not considered a concern at this time.

5.2.5 Maintenance

The occupants' current maintenance activities may be continued and any new problems that develop may be addressed in a timely manner.

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.)
- Seasonal monitoring (once per spring and fall)
 - Pruning and trimming of foundation plantings and visual inspection of foundation for gaps or cracks
 - o 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

5.2.7 Mothballing

Should the property become vacant at some point in the future before a decision is reached regarding its adaptive reuse, the implementation of mothballing measures is recommended. Mothballing may include consideration of the following:

Install security measures to prevent intrusion to the building, such as boarding up windows and doors
using plywood to cover the openings.



Conservation Measures October 15, 2021

- Provide minimal level of servicing, if possible. Minimal levels of servicing to heat the building or allow for air exchange in the summer are beneficial during the mothballing period, particularly if it is to be long term. If services must be disconnected, ventilation as outlined below should be installed.
- Install ventilation measures in the structures 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 (Park 1993). 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" (10cm) 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 could 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.
- Conduct regular monitoring. Monitoring provides a known presence on the site that can help deter break-ins and vandalism. Monitoring can also provide a review of the building's components to note if there are major sources of water or moisture, particularly following repairs, roofing and stabilization, mold, or other sources of damage and deterioration.
- Establish pest control measures. Ongoing pest control measures may be implemented during the
 mothballing phase. Monitoring may occur to note whether entrance points to the building have been
 created by pests. Interior pest control for smaller rodents, bats and bugs may be undertaken to keep
 the building as clean as possible to deter damage from pests to the structural elements.



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 issued by the Minister of the Environment, CN has committed to the following actions to conserve the heritage value of the property:

- Secure the shifting foundation at the side staircase to the basement
- Replace the basement stair access following securing of the foundation
- Replace wooden support post in basement with metal post on concrete footing.

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 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 is 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.



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.



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.

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



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APPENDIX AProject Personnel

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



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Standards and Guidelines for the Conservation of Historic Places in Canada. Lashia's role on various 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.



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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. 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.

