ATTACHMENT 2

GOLDER

FINAL REPORT

Cultural Heritage Impact Assessment

John Fleming House, 9151 Huntington Road, Lot 15, Concession 9, City of Vaughan, Regional Municipality of York, Ontario

Submitted to:

Anatolia Capital Corporation
8300 Huntington Road
Vaughan, Ontario
L4L 1A5

Submitted by:

Golder Associates Ltd.
309 Exeter Road, Unit #1 London, Ontario, N6L 1C1 Canada

+1 519 652 0099

18107463-R02-Rev1

13 March 2020

Distribution List

1 e-copy: Anatolia Capital Corporation

1 e-copy: Golder Associates Ltd.

Personnel

Project Director	Bradley Drouin, M.A., Associate, Senior Archaeologist
Project Manager	Henry Cary, Ph.D., CAHP, RPA, Cultural Heritage Specialist
CHIA Lead	Ragavan Nithiyanantham, M.A., CAHP, Cultural Heritage Specialist
Historical Research	Robyn Lacy, M.A., Cultural Heritage Specialist
Field Investigations	Ragavan Nithiyanantham, M.A., CAHP
Report Production	Robyn Lacy, M.A.
	Ragavan Nithiyanantham, M.A., CAHP
	Elizabeth Cushing, M.Pl., Cultural Heritage Specialist
Maps & Illustrations	Andrew Sabourin, CAD/GIS Technician
Technical Review	Henry Cary, Ph.D., CAHP, RPA
Senior Review	Michael Teal, M.A., Associate & Senior Archaeologist

Acknowledgments

Anatolia Capital Corporation	Josh Berry, Land Planner
City of Vaughan	Shelby Blundell, Cultural Heritage Coordinator
	Jill Shaw, Archival Records Analyst

Executive Summary

The Executive Summary highlights key points from the report only, for complete information and findings as well as limitations, the reader should examine the complete report.

In September 2018, Anatolia Capital Corporation (ACC) retained Golder Associates Ltd. (Golder) to conduct a Cultural Heritage Impact Assessment (CHIA) for the property at 9151 Huntington Road, part of the west half of Lot 15, Concession 9, in the City of Vaughan, Regional Municipality of York, Ontario. The 22.5-hectare property includes a two-storey Georgian-style farmhouse known as John Fleming House, one barn, and three outbuildings, and is listed on the City's *Heritage Register*.

ACC is proposing to develop the property for two large industrial structures with associated access roads, parking lots, and landscaping. ACC plans to maintain the John Fleming House in its current location and relocating it to a commercial block at the northwest corner of the property within a five to ten year timeline. An access road associated with the development is to be constructed within 3 m of the house. Since the property is a listed heritage property, the City requested a CHIA be conducted as part of the application for site plan approval.

Following guidelines provided by the Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI), City of Vaughan, and Canada's Historic Places *Standards and Guidelines for the Conservation of Historic Places in Canada* (2010), this CHIA identifies the heritage policies applicable to new development, summarizes the property's geography and history, and provides an inventory and evaluation of the property's built and landscape features. Based on this understanding of the property, the potential impacts resulting from the proposed development are assessed, and future conservation actions recommended based on a rigorous options analysis.

This CHIA concluded that:

- ***The property has cultural heritage value or interest for its representative example of a two-storey vernacular Georgian style farmhouse, for its historical or associative value with Fleming family, and its contextual value with the historic community of Elder Mills.***
- ***Without mitigation John Fleming House will be adversely affected by the proposed development.***

To ensure the long-term sustainability and use of John Fleming House as a valued built heritage resource, Golder recommends to:

- Relocate John Fleming House to a commercial lot at the northwest corner of the property.

The following short-term and long-term conservation actions are recommended:

Short-term Conservation Actions

- Develop a Maintenance and Mothball Plan to stabilize and conserve John Fleming House in its current location for the next 5 to 10 years.

Construction phase

  - Establish site controls and communication;

  - The property and specifically the footprint of the house should be clearly marked on project mapping and communicated to all project personnel for avoidance during design and construction.
- Create a physical barrier;
  - Precast concrete traffic barriers (i.e., concrete Jersey barriers or permanent bollards) should also be placed around the structure to prevent accidental collision with construction vehicles.
- Monitor for vibration impact during all adjacent construction within a 60 m radius of the house;
  - Continuous ground vibration monitoring should be carried out near the foundations of the house using a digital seismograph capable of measuring and recording ground vibration intensities in digital format in each of three (3) orthogonal directions. The instrument should also be equipped with a wireless cellular modem for remote access and transmission of data.
  - The installed instrument should be programmed to record continuously, providing peak ground vibration levels at a specified time interval (e.g. 5 minutes) as well as waveform signatures of any ground vibrations exceeding a threshold level of greater than 12mm/sec peak particle velocity (PPV). The instrument should also be programmed to provide a warning should the peak ground vibration level exceed the guideline limits specified. In the event of either a threshold trigger or exceedance warning, data would be retrieved remotely and forwarded to designated recipients.
- If ground vibrations exceed 12 mm/sec PPV during the construction phase, Golder recommends to:
  - Limit the heavy triaxles on the road by stockpiling in a safe location and moving the material with a skid steer and small dozer;
  - Use smaller construction equipment within proximity to the house; and,

Long-term Conservation Actions

- Prepare a Heritage Conservation Plan detailing the conservation approach (i.e. preservation, rehabilitation or restoration), the required actions and trades depending on approach, and an implementation schedule to conserve John Fleming House prior to, during, and after the relocation effort.
- Designate John Fleming House and its associated new parcel under Part IV of the *Ontario Heritage Act.*

Operational phase

- Establish site controls and communication;
  - The property and specifically the footprint of the house should be clearly marked on project mapping and communicated to all project personnel for avoidance during operation.
- Create a physical barrier;
  - Precast concrete traffic barriers (i.e., concrete Jersey barriers or permanent bollards) should also be placed around the structure to prevent accidental collision with operational vehicles.
- Monitor for vibration impact during operational phase;

  - Continuous ground vibration monitoring should be carried out near the foundations of the house using a digital seismograph capable of measuring and recording ground vibration intensities in digital format in each of three (3) orthogonal directions for the first three (3) months of operation. The instrument should also be equipped with a wireless cellular modem for remote access and transmission of data.
  - The installed instrument should be programmed to record continuously, providing peak ground vibration levels at a specified time interval (e.g. 5 minutes) as well as waveform signatures of any ground vibrations exceeding a threshold level (12 mm/sec PPV). The instrument should also be programmed to provide a warning should the peak ground vibration level exceed the guideline limits specified. In the event of either a threshold trigger or exceedance warning, data would be retrieved remotely and forwarded to designated recipients.
  - Periodic inspections (quarterly to yearly), based on the results of the first three (3) months of operation, should be conducted to determine if the house is being impacted by vibrations caused during operation of the developed. This can employ low cost methods such as periodic visual inspection for cracking in the foundation, then establishing measurement points when cracks are found. If cracking is discovered, the periodic inspections should increase in frequency, and may require further study and interventions.
- Maintain road to avoid surface irregularities (i.e., potholes);
- Install signage indicating maximum speed limits of 20 km/h adjacent John Fleming House; and,
- Install signage indicating no idling adjacent to John Fleming House.

Study Limitations

Golder Associates Ltd. has prepared this report in a manner consistent with the standards and guidelines developed by the Ontario Ministry of Heritage, Sport, Tourism and Culture Industries, subject to the time limits and physical constraints applicable to this report. No other warranty, expressed or implied is made.

This report has been prepared for the specific site, design objective, developments and purpose described to Golder Associates Ltd., by Anatolia Capital Corporation (the Client). The factual data, interpretations and recommendations pertain to a specific project as described in this report and are not applicable to any other project or site location.

The information, recommendations and opinions expressed in this report are for the sole benefit of the Client. No other party may use or rely on this report or any portion thereof without Golder Associates Ltd.'s express written consent. If the report was prepared to be included for a specific permit application process, then upon the reasonable request of the Client, Golder Associates Ltd. may authorize in writing the use of this report by the regulatory agency as an Approved User for the specific and identified purpose of the applicable permit review process. Any other use of this report by others is prohibited and is without responsibility to Golder Associates Ltd. The report, all plans, data, drawings and other documents as well as electronic media prepared by Golder Associates Ltd. are considered its professional work product and shall remain the copyright property of Golder Associates Ltd., who authorizes only the Client and Approved Users to make copies of the report, but only in such quantities as are reasonably necessary for the use of the report by those parties. The Client and Approved Users may not give, lend, sell, or otherwise make available the report or any portion thereof to any other party without the express written permission of Golder Associates Ltd. The Client acknowledges the electronic media is susceptible to unauthorized modification, deterioration and incompatibility and therefore the Client cannot rely upon the electronic media versions of Golder Associates Ltd.'s report or other work products.

Unless otherwise stated, the suggestions, recommendations and opinions given in this report are intended only for the guidance of the Client in the design of the specific project.

Table of Contents

TABLES

FIGURES

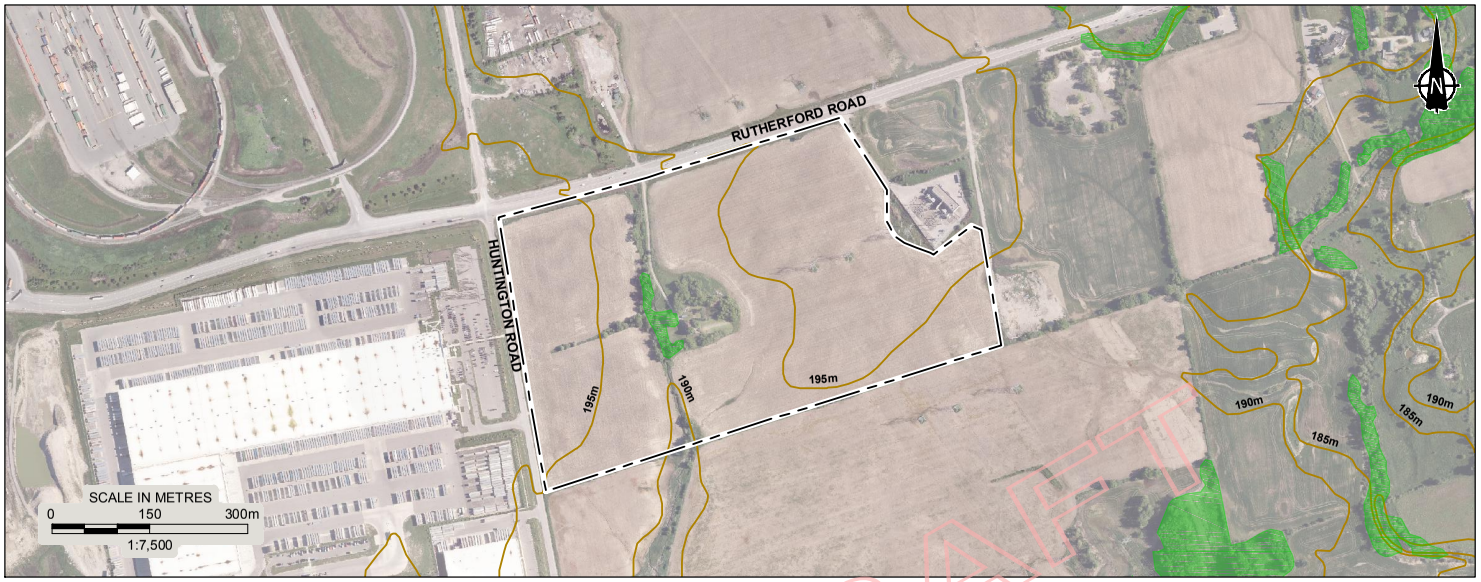
1.0 INTRODUCTION

In September 2018, Anatolia Capital Corporation (ACC) retained Golder Associates Ltd. (Golder) to conduct a Cultural Heritage Impact Assessment (CHIA) for the property at 9151 Huntington Road, part of the west half of Lot 15, Concession 9, in the City of Vaughan, Regional Municipality of York, Ontario. The 22.5-hectare property includes a two-storey Georgian-style farmhouse known as John Fleming House, one barn, and three outbuildings, and is listed on the City's *Heritage Register*.

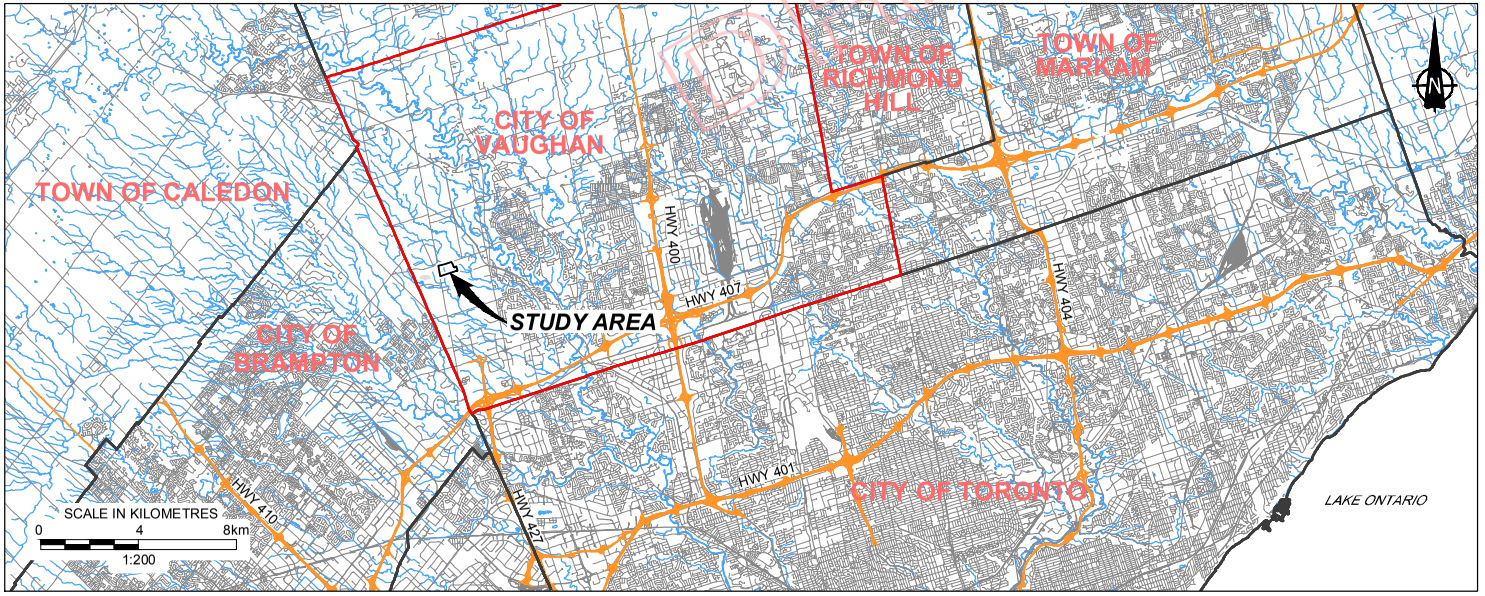
ACC is proposing to develop the property for two large industrial structures with associated access roads, parking lots, and landscaping. ACC plans to maintain the John Fleming House in its current location and relocating it to a commercial block at the northwest corner of the property within a five to ten year timeline. An access road associated with the development is to be constructed within 3.0 metres of the house. Since the property is a listed heritage property, the City requested a CHIA be conducted as part of the application for site plan approval.

Following guidelines provided by the Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI), City of Vaughan, and Canada's Historic Places *Standards and Guidelines for the Conservation of Historic Places in Canada* (2010), this CHIA provides:

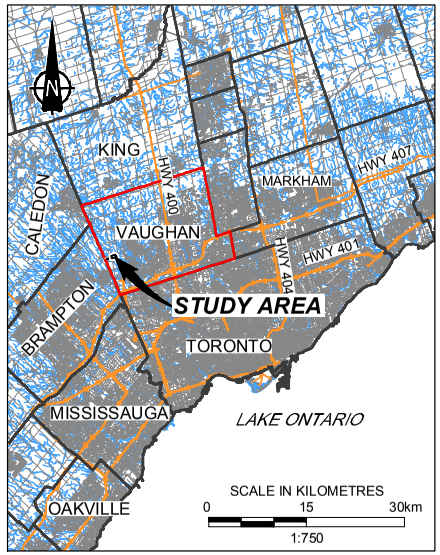
- A background on the purpose and requirements of a CHIA and the methods used to investigate and evaluate cultural heritage resources in the property;
- An overview of the property's geographic and historical context;
- An inventory and evaluation of built heritage elements and landscape features in the property;
- A description of the proposed development and an assessment of potential adverse impacts; and,
- Recommendations for future actions.



2017 IMAGERY and OBM MAPPING



REGIONAL MAP



KEY PLAN

LEGEND

——--——	APPROXIMATE STUDY AREA
———	CITY OF MARKHAM BOUNDARY
———	TOWNSHIP/MUNICIPALITY BOUNDARY
VAUGHAN	TOWNSHIP/MUNICIPALITY

REFERENCE

DRAWING BASED ON MNR LIO, OBTAINED 2017, PRODUCED BY GOLDER ASSOCIATES LTD UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2017;
2017 AERIAL IMAGE PROVIDED BY YORK REGION, CONTAINS PUBLIC SECTOR INFORMATION MADE AVAILABLE UNDER THE REGIONAL MUNICIPALITY OF YORK'S OPEN DATA LICENCE; AND
CANMAP STREETFILES V2008.4.

NOTES

THIS DRAWING IS SCHEMATIC ONLY AND IS TO BE READ IN CONJUNCTION WITH ACCOMPANYING TEXT.

ALL LOCATIONS ARE APPROXIMATE.

PROJECT

CULTUTAL HERITAGE IMPACT ASSESSMENT
JOHN FLEMING HOUSE, 9151 HUNTINGTON ROAD
CITY OF VAUGHAN, REGIONAL MUNICIPALITY OF YORK, ONTARIO

TITLE

LOCATION MAP

GOLDER

PROJECT No.		18107463	FILE No.	18107463-R02001
			SCALE	AS SHOWN REV.
CADD	AMS/DCH	Nov 30/18		
CHECK				

FIGURE 1

2.0 SCOPE AND METHOD

This CHIA was conducted with the objectives to:

- Determine if the property meets the criteria for cultural heritage value or interest (CHVI) as prescribed in *Ontario Regulation 9/06* (*O. Reg. 9/06*) of the *Ontario Heritage Act*;
- Assess the impact of the proposed development on any identified cultural heritage resources; and,
- Recommend mitigation or conservation actions based on the results of the evaluation and impact assessment.

To meet the study's objectives, Golder:

- Reviewed applicable municipal heritage policies and consulted the City's Cultural Heritage Coordinator;
- Conducted archival research to understand the property's land use history;
- Undertook field investigations to document and identify any heritage attributes of the property, and to understand the wider built and landscape context;
- Evaluated built and landscape elements on the property using the criteria prescribed in *O. Reg. 9/06*;
- Assessed the impact of the proposed development on any identified heritage attributes; and,
- Developed recommendations for future action based on international, federal, provincial, and municipal policies and guidance.

A variety of archival and published sources, including historic maps, municipal government documents, and research articles were compiled from the ONland digitized land registry records, the City of Vaughan Archives, and other sources to compile a land use and structural history for the property.

Field investigations were conducted by Cultural Heritage Specialist Ragavan Nithiyanantham on October 16, 2018 and included accessing and photographing all elements of the property and wider context with a Samsung Galaxy S8, and Bosch laser distance measurer. A *Canadian Inventory of Historic Buildings Recording Form* (Parks Canada Agency 1980) was used to document the structure at 9151 Huntington Road, and physical conditions and landscape characterization were recorded as written notes.

The property was evaluated using the criteria prescribed in *O. Reg 9/06*, and the proposed development was assessed for adverse impacts using the guidance provided in the MHSTCI *Ontario Heritage Tool Kit: Heritage Resources in the Land Use Planning Process*. Also, several widely recognized municipal, provincial, national, and international manuals related to evaluating heritage value, determining impacts, and conservation of cultural heritage resources were also consulted for 'best practice' approaches, including:

- *The Ontario Heritage Tool Kit* (5 volumes, MHSTCI 2006);
- *Standards and Guidelines for the Conservation of Provincial Heritage Properties – Heritage Identification & Evaluation Process* (MHSTCI 2014);
- *Standards and Guidelines for the Conservation of Historic Places in Canada* (Canada's Historic Places 2010);
- *Well-Preserved: The Ontario Heritage Foundation's Manual of Principles and Practice for Architectural Conservation* (Fram 2003);

- *The Evaluation of Historic Buildings and Heritage Planning: Principals and Practice* (Kalman 1979 & 2014); and,
- *Informed Conservation: Understanding Historic Buildings and their Landscapes for Conservation* (Clark 2001)

2.1 Record of Consultation

Table 1 lists the results of consultation conducted for this CHIA. The Cultural Heritage Coordinator and Archival Records Analyst at the City of Vaughan were consulted.

Table 1: Results of consultation.

Contact	Date of Contact	Response
Shelby Blundell, Cultural Heritage Coordinator, City of Vaughan	Oct 24, 2018. Email: Golder requested historic background on property in question, if additional information existed.	Oct 24,2018: Shelby informed us that the book 'Remembering Elder's Mills, which has information relating to the Fleming family and their occupation on the property.
Jill Shaw, Archival Records Analyst, City of Vaughan	Oct 24, 2018. Email: Golder requested historic background on property in question, if additional information existed.	Oct 24, 2018: Jill provided additional information and scans from the book "Remembering Elder's Mills", with information on John Fleming House. She said that she would touch base again after checking a few more sources about the house at 9151 Huntington Road.
Shelby Blundell, Cultural Heritage Coordinator, City of Vaughan	Nov 26, 2018. Email: Golder queried if the municipality had any requirements or concerns regarding the potential development and impact on the property.	Nov 27, 2018: She replied and said there are no specific policies about buffers or vegetation, but depending on the requirements of the CHIA, a conservation plan, heritage easement agreement, or letter or credit may be required.

3.0 POLICY FRAMEWORK

The property is subject to a number of federal, provincial and municipal heritage planning and policy regimes, as well as guidance developed at the federal and international levels. Although these have varying levels of priority, all are considered for decision-making in the cultural heritage environment. The relevant guidance, legislation, and policies are described below.

3.1 Federal and International Heritage Policies

No federal heritage policies apply to the property, but many of the provincial and municipal policies align in approach to the Canada's Historic Places *Standards and Guidelines for the Conservation of Historic Places in Canada* (Canada's Historic Places 2010), which was drafted in response to international and national agreements such as the 1964 *International Charter for the Conservation and Restoration of Monuments and Sites* (*Venice Charter*), 1979 *Australia ICOMOS Charter for Places of Cultural Significance* (*Burra Charter*, updated 2013*),* and 1983 Canadian *Appleton Charter for the Protection and Enhancement of the Built Environment*. The national *Standards and Guidelines* defines the three conservation 'treatments' – preservation, rehabilitation, and restoration – and outlines the process, and required and recommended actions, to meet the objectives for each treatment on a range of cultural heritage resources.

At the international level, the International Council on Monuments and Site (ICOMOS) has developed guidance on heritage impact assessments for world heritage properties, which also provide 'best practice' approaches for all historic assets (ICOMOS 2011).

3.2 Ontario Heritage Policies

3.2.1 Planning Act and Provincial Policy Statement

In Ontario, the *Planning Act* and associated *Provincial Policy Statement, 2014* (PPS 2014) provide the legislative imperative for heritage conservation in land use planning. Both documents identify conservation of resources of significant architectural, cultural, historical, archaeological, or scientific interest as a Provincial interest, and PPS 2014 further recognizes that protecting cultural heritage and archaeological resources has economic, environmental, and social benefits, and contributes to the long-term prosperity, environmental health, and social well-being of Ontarians. The *Planning Act* serves to integrate this interest with planning decisions at the provincial and municipal level, and states that all decisions affecting land use planning 'shall be consistent with' PPS 2014.

Two sections of the PPS 2014 recognize the importance of identifying and evaluating built heritage and cultural heritage landscapes:

- Section 2.6.1 – 'Significant built heritage resources and significant heritage landscapes shall be conserved'; and,
- Section 2.6.3 – 'Planning authorities shall not permit development and site alteration on adjacent lands to protected heritage property except where the proposed development and site alteration has been evaluated and it has been demonstrated that the heritage attributes of the protected heritage property will be conserved.'

PPS 2014 defines *significant* resources as those 'determined to have cultural heritage value or interest for the important contribution they make to our understanding of the history of a place, an event, or a people', and *conserved* as 'the identification, protection, management and use of built heritage resources, cultural heritage landscapes, and archaeological resources in a manner that ensures their cultural heritage value of interest is

retained under the *Ontario Heritage Act*.' Built heritage resources, cultural heritage landscapes, heritage attributes, and protected heritage property are also defined in the PPS:

- ***Built heritage resources*****:** a building, structure, monument, installation or any manufactured remnant that contributes to a property's cultural heritage value or interest as identified by a community, including an Aboriginal [Indigenous] community. Built heritage resources are generally located on property that has been designated under Parts IV or V of the *Ontario Heritage Act*, or included on local, provincial and/or federal registers.
- ***Cultural heritage landscapes:*** a defined geographical area that may have been modified by human activity and is identified as having cultural heritage value or interest by a community, including an Aboriginal [Indigenous] community. The area may involve features such as structures, spaces, archaeological sites or natural elements that are valued together for their interrelationship, meaning or association. Examples may include, but are not limited to, heritage conservation districts designated under the *Ontario Heritage Act*; villages, parks, gardens, battlefields, mainstreets and neighbourhoods, cemeteries, trailways, viewsheds, natural areas and industrial complexes of heritage significance; and areas recognized by federal or international designation authorities (e.g. a National Historic Site or District designation, or a UNESCO World Heritage Site).
- ***Heritage attribute:*** the principal features or elements that contribute to a *protected heritage property*'s cultural heritage value or interest, and may include the property's built or manufactured elements, as well as natural landforms, vegetation, water features, and its visual setting (including significant views or vistas to or from a *protected heritage property*).
- ***Protected heritage property:*** property designated under Parts IV, V or VI of the *Ontario Heritage Act*; property subject to a heritage conservation easement under Parts II or IV of the *Ontario Heritage Act*; property identified by the Province and prescribed public bodies as provincial heritage property under the *Standards and Guidelines for Conservation of Provincial Heritage Properties*; property protected under federal legislation, and UNESCO World Heritage Sites.

For municipalities, PPS 2014 is implemented through an 'official plan', which may outline further heritage policies (see Section 3.3).

3.2.2 The Ontario Heritage Act and Ontario Regulation 9/06

The Province and municipalities are enabled to conserve significant individual properties and areas through the *Ontario Heritage Act* (*OHA*). Under Part III of the *OHA*, compliance with the *Standards and Guidelines for the Conservation of Provincial Heritage Properties* is mandatory for Provincially-owned and administered heritage properties and holds the same authority for ministries and prescribed public bodies as a Management Board or Cabinet directive.

For municipalities, Part IV and Part V of the *OHA* enables councils to 'designate' individual properties (Part IV), or properties within a heritage conservation district (HCD) (Part V), as being of 'cultural heritage value or interest' (CHVI). Evaluation for CHVI under the *OHA* is guided by *Ontario Regulation 9/06*, which prescribes the *criteria for determining cultural heritage value or interest*. The criteria are as follows:

1) The property has ***design value or physical value*** because it:
    i) Is a rare, unique, representative or early example of a style, type, expression, material or construction method;
    ii) Displays a high degree of craftsmanship or artistic merit; or
    iii) Demonstrates a high degree of technical or scientific achievement.
2) The property has ***historical value or associative value*** because it:
    i) Has direct associations with a theme, event, belief, person, activity, organization, or institution that is significant to a community;
    ii) Yields, or has the potential to yield information that contributes to an understanding of a community or culture; or
    iii) 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:
    i) Is important in defining, maintaining or supporting the character of an area;
    ii) Is physically, functionally, visually or historically linked to its surroundings; or
    iii) Is a landmark.

If a property meets one or more of these criteria, it may be eligible for designation under Part IV, Section 29 of the *OHA*.

Designated properties, which are formally described[1] and recognized through by-law, must then be included on a 'Register' maintained by the municipal clerk. At a secondary level, a municipality may 'list' a property on the register to indicate its potential CHVI. Importantly, designation or listing in most cases applies to the entire property, not only individual structures or features.

The City maintains a single, inclusive *Heritage Inventory* (n.d.), which includes:

- Individual buildings or structures designated under Part IV of the *Ontario Heritage Act*;
- Buildings or structures within a HCD designated under Part V of the *Ontario Heritage Act*;
- Properties of cultural heritage value listed in the *Listing of Buildings of Architectural and Historical Value* as per Part IV, Subsection 27 of the *Ontario Heritage Act;* and,
- Properties of interest to the City of Vaughan's Cultural Services Division.

[1] The *OHA* defines 'heritage attributes' slightly differently than PPS 2014; in the former, heritage attributes 'means, in relation to real property, and to the buildings and structures on the real property, the attributes of the property, buildings and structures that contribute to their cultural heritage value or interest'.

3.2.3 Provincial Heritage Conservation Guidance

As mentioned above, heritage conservation on provincial properties must comply with the MHSTCI *Standards and Guidelines for the Conservation of Provincial Heritage Properties*, but this document also provides 'best practice' approaches for evaluating cultural heritage resources, not under provincial jurisdiction. For example, the *Standards and Guidelines for the Conservation of Provincial Heritage Properties – Heritage Identification & Evaluation Process* (MHSTCI 2014) provides detailed explanations of the *O. Reg. 9/06* criteria and its application.

To advise municipalities, organizations, and individuals on heritage protection and conservation, the MHSTCI developed a series of products called the *Ontario Heritage Tool Kit*. Of these, *Heritage Resources in the Land Use Planning Process* (MHSTCI 2005) defines a CHIA as:

- 'a study to determine if any cultural resources (including those previously identified and those found as part of the site assessment) are impacted by a specific proposed development or site alteration. It can also demonstrate how the cultural resource will be conserved in the context of redevelopment or site alteration. Mitigative or avoidance measures or alternative development or site alteration approaches may be recommended.'

Advice on how to organize the sections of a CHIA is provided in the MHSTCI document, although municipalities may also draft their own terms of reference, such as the City's *Guidelines for Cultural Heritage Impact Assessments,* also outlines a number of direct and indirect adverse impacts to be considered when assessing the effects of a proposed development on a cultural heritage resource, as well as mitigation options (see Section 7.0).

Determining the optimal conservation or mitigation strategy is further guided by the MHSTCI *Eight guiding principles in the conservation of historic properties* (2012), which encourage respect for:

1) Documentary evidence (restoration should not be based on conjecture);
2) The original location (do not move buildings unless there are no other means to save them since any change in site diminishes heritage value considerably);
3) Historic material (follow 'minimal intervention' and repair or conserve building materials rather than replace them);
4) Original fabric (repair with like materials);
5) Building history (do not destroy later additions to reproduce a single period);
6) Reversibility (any alterations should be reversible);
7) Legibility (new work should be distinguishable from old); and,
8) Maintenance (historic places should be continually maintained).

3.3 City of Vaughan Heritage Policies

3.3.1 Official Plan and Secondary Plans

The City's *Official Plan* (2010) informs decisions on issues such as land use, built form, transportation, and the environment until its expiry in 2031. Section 6.1 in Volume 1 of the *Official Plan* addresses cultural heritage resources, which include built heritage, cultural heritage landscapes, HCDs, areas with cultural heritage character, heritage cemeteries, and archaeological resources.

The planning requirement and policies for CHIAs are listed under Sections 6.2.2.5, 6.2.3.1, 6.2.3.2, and 6.2.4, and are supplemented by the City's *Guidelines for Cultural Heritage Impact Assessments* (2016).

Under Section 6.2.2.9, all development applications, demolition control applications and infrastructure project *adjacent* to a designated property are to be compatible by:

a) respecting the massing, profile and character of adjacent heritage buildings;

b) maintaining a building width along the street frontage that is consistent with the width of adjacent heritage buildings;

c) maintaining the established setback pattern on the street;

d) being physically oriented to the street in a similar fashion to existing heritage buildings;

e) minimizing shadowing on adjacent heritage properties, particularly on landscaped open spaces and outdoor amenity areas;

f) having minimal impact on the heritage qualities of the street as a public place;

g) minimizing the loss of landscaped open space;

h) designing any permitted above-grade parking facilities, so that they are integrated into the development in a manner that is compatible with the heritage surroundings; and,

i) requiring local utility companies to place metering equipment, transformer boxes, power lines, conduit equipment boxes and other utility equipment and devices in locations that do not detract from the visual character or architectural integrity of the heritage resource.

The proposed development has been assessed for compliance with these *Official Plan* policies in Section 7.0 of this CHIA.

3.3.2 Cultural Heritage Impact Assessments

After establishing the provincial and municipal policy context, the City's *Guidelines for Cultural Heritage Impact Assessments* outlines the minimum requirements of a CHIA, then defines three 'conservation/mitigation options' to be considered as part of a heritage impact study. These are:

- *Avoidance mitigation*: measures to retain heritage resources 'in situ and intact' while allowing development to proceed.
  - This can include, 'where conservation of the entire structure is not possible, consideration may be given to the conservation of the heritage structure/ resource in part, such as the main portion of a building without its rear, wing or ell addition'.
- *Salvage Mitigation*: preservation through relocation or salvaging architectural elements.
- *Historical Commemoration*: use of historic plaques, monuments, or reproduced architectural heritage features as a means to preserve the knowledge of a heritage place.

Overall, the City's CHIA guidance aligns with the MHSTCI *Heritage Resources in the Land Use Planning Process* except that the City also requires a 'condition assessment' as part of the analysis. All City CHIA requirements have been followed in the preparation of this report.

4.0 GEOGRAPHICAL & HISTORICAL CONTEXT

4.1 Geographic Context

The property is located in southwest Ontario, approximately 25 km north-northwest of Lake Ontario and within the Peel Plain physiographic zone, an area of level rolling terrain with fertile clay soils (formed on till or lacustrine sediments) covering approximately 483 square km of the central portions of the Regional Municipalities of York, Peel, and Halton. When properly drained, these soils can support grain agriculture, stock raising and dairying (Chapman & Putnam 1984:174-176). The Peel Plain is described by Chapman and Putnam (1984: 174) as:

> *Level-to-undulating tract of clay soils 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 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.*

Soils in the area are predominantly imperfectly drained and stone-free clay loam, and generally the topography is flat (235 to 237m). Relative to political boundaries, the property is within the Regional Municipality of York and the central west portion of the City of Vaughan. It is bounded by Rutherford Road to the north and Huntington Road to the east and is located within the west portion of Lots 13 W and 15, Concession 9, approximately 12 km west of the centre of the City of Vaughan.

4.2 York County

Following the Toronto Purchase of 1787, today's southern Ontario was within the old Province of Quebec and divided into four political districts: Lunenburg, Mechlenburg, Nassau, and Hesse. These became part of the Province of Upper Canada in 1791 and renamed the Eastern, Midland, Home, and Western Districts, respectively. The property was within the former Nassau District, then later the Home District, which originally included all lands between an arbitrary line on the west running north from Long Point on Lake Erie to Georgian Bay, and a line on the east running north from Presqu'ile Point on Lake Ontario to the Ottawa River. Each district was further subdivided into counties and townships; the property was originally part of the County of York and Vaughan Township.

As was the case with most counties along the north shore of Lake Ontario, initial European settlement was by discharged soldiers and refugees displaced by the American War of Independence. The influx of new settlers created a high demand for land in the County of York, but measures were taken to acknowledge service and loyalty to the Crown. Military men and United Empire Loyalists (UEL) received title to land with little or no stipulation that it be cleared or improved, and those who received land grants were referred to as 'official' or non-resident patentees. Lots in the County of York were typically granted in 200-acre parcels but less or more could be received based on social status.

Settlers who had not served in the military or were UEL were referred to as 'unofficial' and had to meet strict conditions to attain title to lands. This included requirements to clear, fence and make fit for cultivation 10 acres of an awarded lot, cut down and remove all timber at the lot front to a width of 33 feet, and erect a house with a shingled roof and a minimum dimension of 16 by 20 feet. All of this had to be accomplished within two years. The 33-foot clearance specification was half a chain (66 feet), or the distance set aside for roads between concessions. It was further required that this 33-foot area is rendered smooth. Due to these strict regulations, and

the fees incurred for clerks and officials, many were unable to receive full title to their lands and abandoned their lots (Johnson 1973:43).

The combined effect of official settlers failing to clear land, and the restrictions on unofficial settlers, resulted in large tracks of inaccessible and unimproved land being owned either by absentee landlords residing in York, or by early land holding companies who received title to additional lands for every settler they recruited to the area (Johnson 1973:43). Both carried out a form of indentured servitude that exploited new immigrants, a practice Governor Sir John Graves Simcoe attempted to end in 1796 (Johnson 1973:40-41).

Not surprisingly, the system hampered population growth. In many cases, immigrants chose to move to counties where land was being freely granted. For example, in 1805 the population of Whitby Township was just 104 and Pickering Township only 96, while the population in the Township of Markham numbered 889 (Johnson 1973: 45).

Following the War of 1812, a new set of land grants was offered to discharge veterans. Unlike the early military grants, these new grants were limited to 100 acres and each family was provided with provisions for a year and farm implements. Unofficial settlers, however, were still subject to improvement conditions, which included clearing farmland and building county roads (Johnson 1973). Nevertheless, settlement in York County grew slowly.

In 1849 the County of York was subdivided to form the counties of York, Ontario, and Peel, although these continued to be governed as a single unit until January 1, 1854 (Miles and Co. 1878). York County was to include ten townships —Georgina, North Gwillimbury, East Gwillimbury, King, Whitchurch, Vaughan, Markham, Etobicoke, North York, and Scarborough. In 1971, the County of York was replaced by the Regional Municipality of York, and in 2016 boasted a population of 1,109,90 residents (Statistics Canada 2016).

4.3 Vaughan Township & Elder Mills

The property is located within the City of Vaughan, formerly Vaughan Township. Vaughan was named in 1792 for Benjamin Vaughan, a British commissioner who negotiated the 1793 Treaty of Paris between Great Britain and the United States (Rayburn 1997:335). Abraham Iredell surveyed the Township in 1795 according to the ‘single front survey system’, a method used from 1783 onward were only the concessions were surveyed and lots of 120 to 200 acres were delineated to be five times as long as they were wide (Schott 1981; see Figure 2).

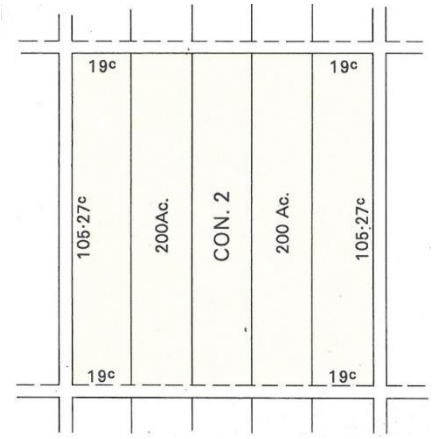


Figure 2: The single front survey system, used from 1783 to 1818. As depicted, each lot is 200 acres created from surveying 19 chains by 105.27 chains (1 chain = 66 feet/20.12 metres; from Gentilcore & Head 1984:99)

In Vaughan Township, the concession lines were oriented south to north, with the side roads crossing the township from east to west. Yonge Street, a military road surveyed in 1794, formed the baseline of the township, dividing it from Markham Township to the east (Miles & Co. 1878).

Settlement of Vaughan Township began in 1796 when United Empire Loyalists from the United States settled primarily along Yonge Street (Miles & Co. 1878; Adam and Mulvany 1885; Reaman 1971). In addition to the Loyalists, many of the first European arrivals were Pennsylvania Dutch, encouraged through Philadelphia newspaper advertisements to travel north for the opportunity to acquire land for cultivation. The population of the Township was initially small, with only 103 individuals reportedly living in the area in 1797. After the War of 1812, however, emigrants from the British Isles began establishing the interior portions of the Township. By 1832, the population had grown to 2,141 and ten years later the population had more than doubled, reaching 4,300. The Township also boasted six grist mills and twenty-five sawmills (Smith 1846).

In 1855, the Northern Railway from Collingwood to Toronto was completed through the eastern half of the Township. This combined with the construction of the Toronto, Grey and Bruce Railway in the western half of the Township in 1871, triggered additional growth in Vaughan Township so that by 1871 the population was 7,657 (Miles & Co. 1878; Adam and Mulvany 1885; Reaman 1971). In 1872, the community of Richmond Hill in the east-central portion of the Township was incorporated as a village. Richmond Hill had a population of 1,000 by 1886, while the remaining portion of Vaughan Township numbered 6,828 (Ontario Department of Agriculture 1880).

Throughout the 19th century, several communities developed in Vaughan Township: Nashville, Kleinburg, Woodbridge, Elder Mills, Maple, Edgeley, Thornhill, Brownsville, Teston, Purpleville, and Vellore. The property was located to the west of Elder Mills, which falls within the centre west portion of Vaughan.

At the beginning of the 20th century, economic development of Vaughan Township was similar to adjacent counties and townships in that it relied on the prosperity of nearby Toronto and exports to the United States and Britain. Following World War II, the widespread use of motor vehicles began to change urban and rural development; as vehicular traffic increased, the network of roadways throughout the region improved providing Vaughan and the surrounding communities with better connections to the growing metropolis of Toronto.

Elder Mills was a small milling community within the Vaughan Township, established in the 1840s along the main branch of the Humber River where the river crosses Rutherford Road, straddling present day Highway 27. A Scottish carpenter named James Gibb Thomson built three lumber mills to supply the farming community, which covered Lots 15 and 16, Concessions 8 and 9.

Significant new growth and development have occurred in the past four decades. Vaughan was amalgamated with the Village of Woodbridge in 1971, creating the Town of Vaughan within the Regional Municipality of York. On January 1, 1991, the Town was officially recognized as the City of Vaughan, and by 2016 it boasted a population of 306,233 residents (Statistics Canada 2016).

4.4 9151 Huntington Road

Lot 15, Concession 9 was a ‘Crown’ reserve property until it was taken over by the Canada Company, an organization which bought up farmland formerly reserved for the crown to sell to prospective settlers in the area, in 1831, according to the abstract index to deed records. The Patent Plan labelled ‘Act 1851’ lists ‘Crown’ written over ‘Canada Company’ and is likely a copy of an earlier record (Ontario Government Record ND). Land Registry records (abstract index to deed records) are available online through the ONland System, however discussion

with the City of Vaughan Archival Records Analyst indicated that surviving assessment rolls and documents prior to 1897 do not have a high survival rate and assessment rolls prior to 1850 are not present for the City and surrounding area.

The abstract index to deed records the indicates that the lot was subdivided into east and west halves prior to purchase by the Canada Company, and in 1835 Archibald Patterson bought the west half of the lot from the Honourable William Allan et al, the director of the Canada Company. Patterson transferred the property to his son William Patterson, and in 1844 William sold the entire 100 acres to John Fleming.

As recent immigrants from Scotland, John and his wife Mary Fleming were members of the newly organized Presbyterian congregation and when the lands for the church building were purchased in 1854, immediately north of their property (on Lot 16, Concession 9), the Flemings gave ¼ acre of their own land on which to build a manse (Elder's Mills W.I. Tweedsmuir Committee 2000). Prior to the manse being built in 1854, the minister of the congregation boarded with the Fleming family in their farmhouse (Goldsmith Borgal & Company Ltd. Architects 2017). Therefore, it is likely that the Fleming house was constructed prior to 1854. The 1861 Canada Census list the Fleming family as living in a 'two-storey brick home'. Fleming's name appears on the 1860 map of the Township of Vaughan (Tremaine 1860) (Figure 3) and his name is still present by the time of the 1878 map of the Township (Miles & Co. 1878), as 'Jno Fleming's Est' (Figure 4). This map shows a farmhouse marked towards the west side of the 100-acre property in the approximately same location as it stands today. The lot is directly west of the plot where the schoolhouse of Elder Mills was constructed, and the family was directly tied to the development of the community of Elder Mills. The family remained on the property until 1882, when the entire property was willed to Mary Goodfellow, his wife, for a short period of time (Elder's Mills W.I. Tweedsmuir Committee 2000:77, Land Registry Records). By 1889, the property had been transferred to one of his sons, William Fleming, sometime after John's death.

The Fleming family continued to own the property until April of 1909 when abstract index to deed records show that William Fleming sold the 100 acres to James H. and George T. Wood (Figure 5). At this point, the Fleming Family had owned the property for a significant 65 years and aided in the development of the community. The 1914 topographic map of the region shows a brick house present on the west half of the property with no outbuildings (Department of Militia and Defence 1914) (Figure 6). By the 1940s, members of the Elder family obtained portions of the property, which has since been subdivided into lots. Members of the Elder family owned portions of the lot through the 1950s, as is evident throughout the abstract index to deed records.

An aerial photo from 1954 shows the property surrounded by a checkerboard of fields, with only one other house on the northeast corner of the lot (University of Toronto Library 1954) (Figure 7). Topographic maps of the area do not show any alteration to the property until 1963, where an additional outbuilding and a barn are visible within the vicinity (Department of Energy, Mines and Resources 1963) (Figure 8). In 1972, the topographic map of the area shows the three structures still present on the property (Department of Energy, Mines and Resources 1972) (Figure 9), however the landscape appears to have seen little change since the construction of the Fleming House in the mid-1850s.

Figure 3: Portion of 1860 Tremaine map of the region, with the west half of Lot 15, Concession 9 highlighted (Tremaine 1860).

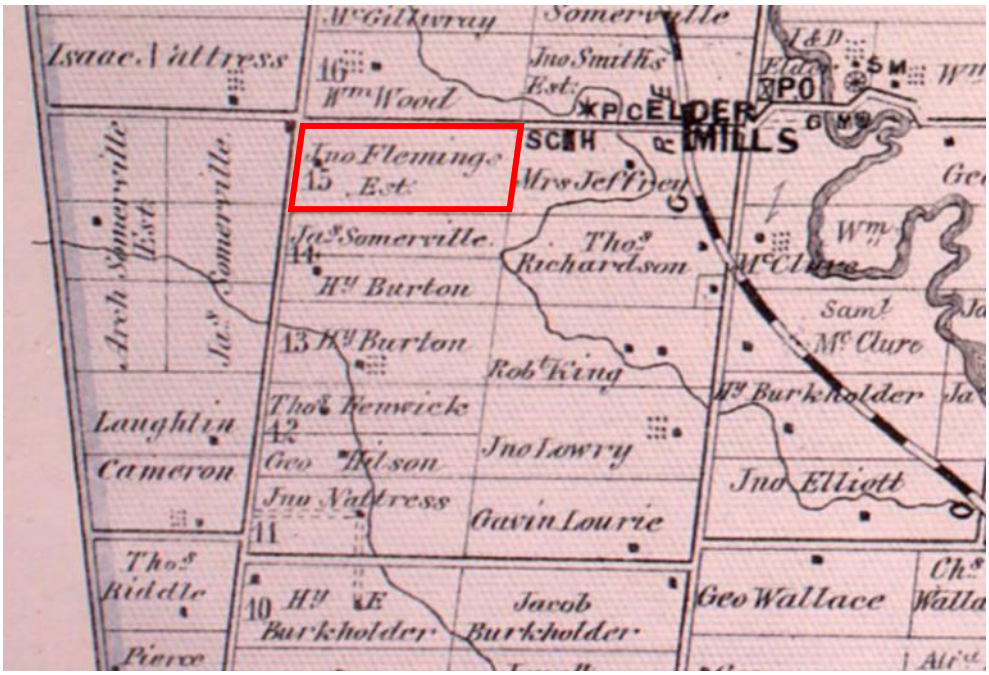


Figure 4: Portion of the 1878 map of the region, with the west half of Lot 15, Concession 9 highlighted (Miles & Co. 1878).

Figure 5: The farmhouse in 1909, as inhabited by the Wood family (image from City of Vaughan Archives).

Figure 6: Portion of the 1914 topographic map of the region, with the west half of Lot 15, Concession 9 highlighted (Department of Militia and Defence 1914)

Figure 7: Portion of a 1954 aerial photo of the area, with the west half of Lot 15, Concession 9 highlighted (University of Toronto Archives 1954).

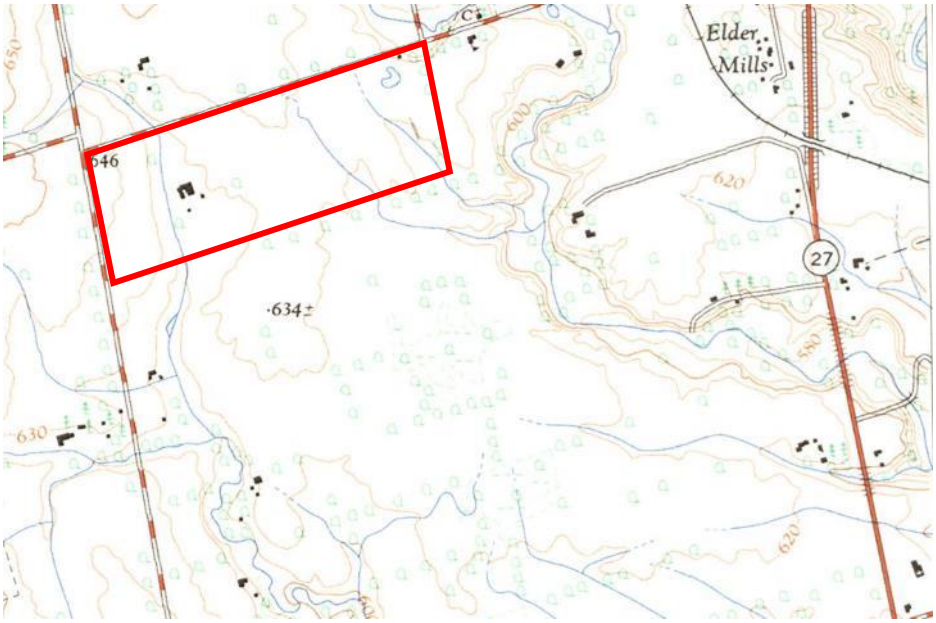


Figure 8: Portion of the 1963 topographic map of the region with the west half of Lot 15, Concession 9 highlighted (Department of Energy, Mines and Resources 1963).

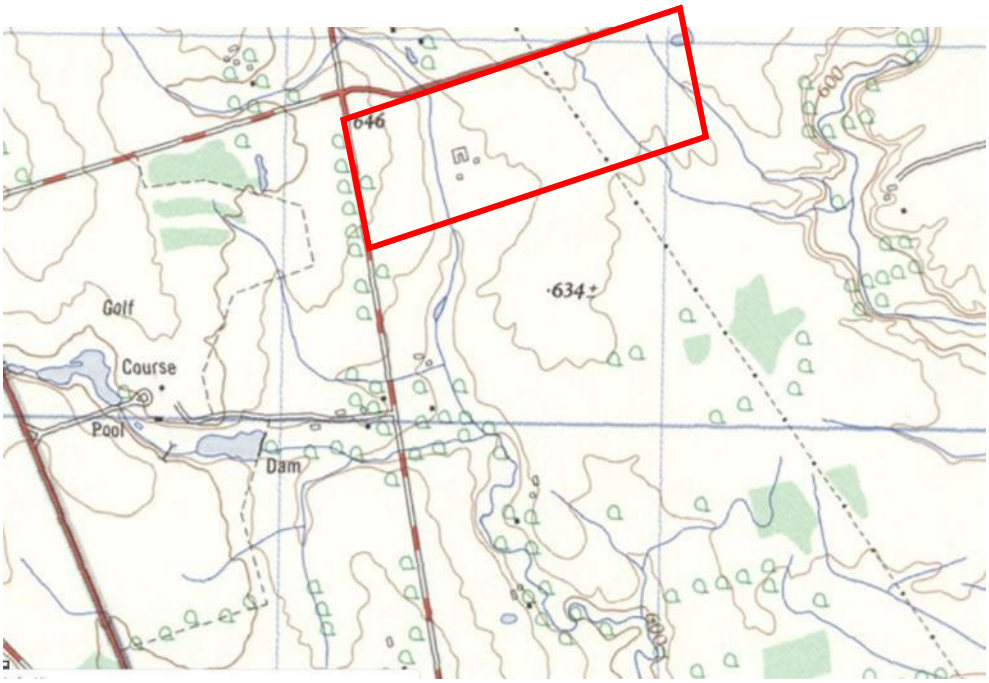


Figure 9: Portion of the 1972 topographic map of the region, with the west half of Lot 15, Concession 9 highlighted (Department of Energy, Mines and Resources 1972).

5.0 EXISTING CONDITIONS

5.1 Setting

The property at 9151 Huntington Road covers 22.5-hectares, in a rectangular lot oriented east-west, and bounded by Rutherford Road to the north, Huntington Road to the west, and farmland to the east and south (Figure 10 to Figure 14). The property's topography is relatively flat, sloping gently towards Rainbow Creek.

The structural components of the property are situated directly east of the Rainbow Creek. The 22.5-hectare property includes, a two-storey brick Georgian-style farmhouse (John Fleming House), the ruins of a barn, and three outbuildings, which are surrounded by lawns, bushes, and trees, with a long driveway extending north from the farmhouse to Rutherford Road. A low wire fence runs along the northeast extent of the property, but much of the property remains unbounded.

The farmhouse is situated on a low rise, partially surrounded by trees, with the landform sloping towards Rainbow Creek to the west, which runs north-south through the property. Views of the property from and of the farmhouse are obscured by trees and bushes, which create a windbreak for the structures. The farmhouse and outbuildings are situated west of centre in the property, surrounded by agricultural fields. To the east, two sets of powerlines run northwest-southeast through the property. Page wire with wood posts fencing runs along the north extent of the property but the field is only bounded by a shallow ditch to the west.

Figure 10: Facing northeast from east of the creek, showing a rise in landform with John Fleming House.

Figure 11: Facing southwest with the farmhouse in the left-hand side.

Figure 12: View facing north with outbuilding in the centre.

Figure 13: View facing south from the east side of the farmhouse.

Figure 14: View looking north along the driveway towards property on north side of Rutherford Road.

5.2 Built Environment: General Description

The property's built environment includes the house (John Fleming House), the foundation of a barn, and three outbuildings (Figure 15). The house is a single-detached, two-storey and three-bay farmhouse with a rectangular plan (the 'Main Block'), a storey-and-a-half addition extending from the east wall of the Main Block (the 'East Wing'), a one-story addition extending from the south wall of the East Wing (the 'South Addition'), and two porches (Figure 16 to Figure 21). The barn is in a state of ruin, and all three outbuildings are dilapidated. The built environment is described in further details below.

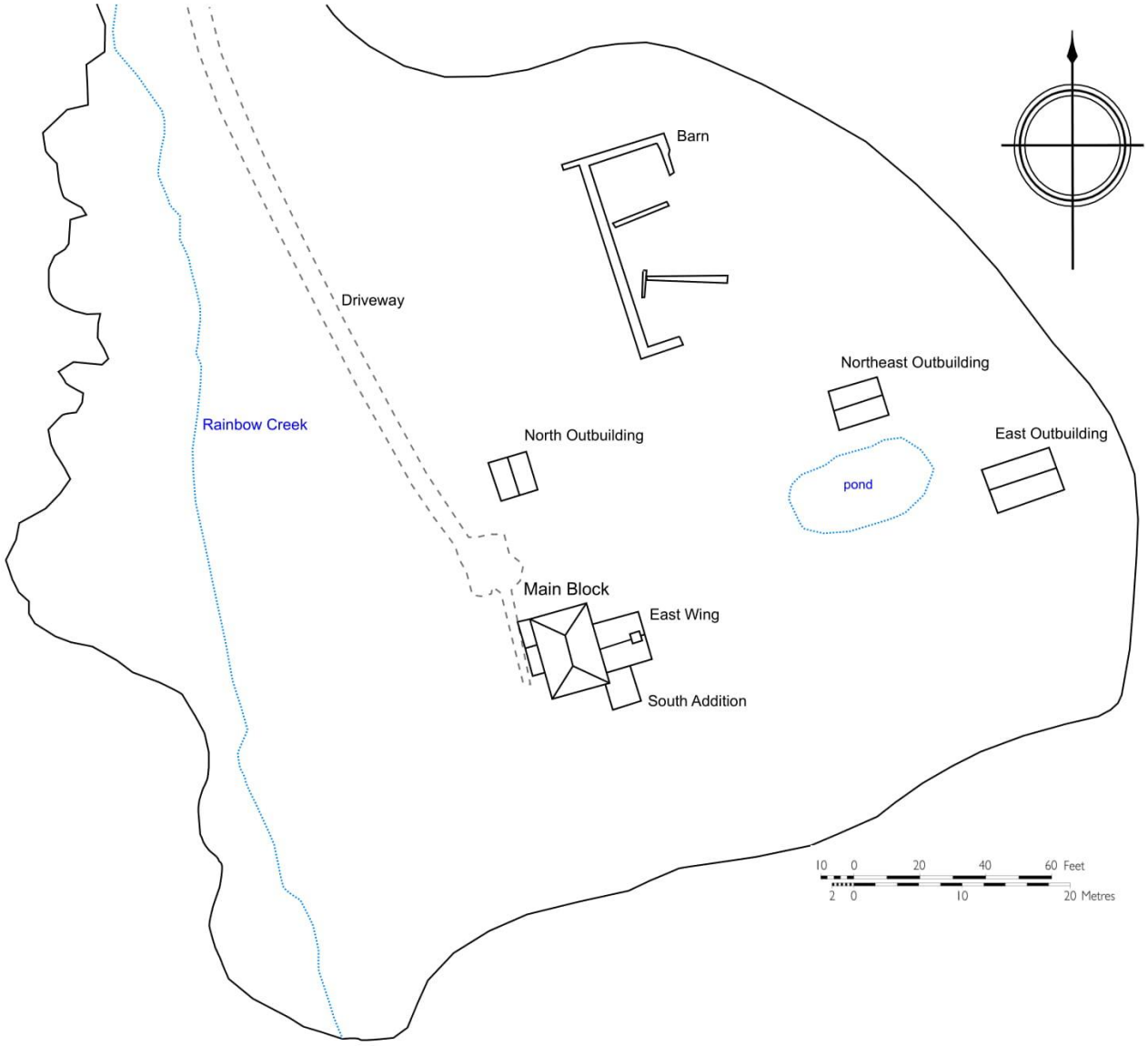


Figure 15: Schematic key plan for built elements in the central-west portion of the property.

Figure 16: West façade of John Fleming House.

Figure 17: West and north façades.

Figure 18: North façade of the Main Block and East Wing.

Figure 19: South and east façades.

Figure 20: South façade.

Figure 21: South and west façade.

5.2.1 Main Block

5.2.1.1 Exterior

The Main Block is rectangular, measuring 11.3 m north-south and 7.3 m east-west. It is a single-detached, two-storey, three-bay brick farmhouse with a rectangular plan. It sits above a fieldstone foundation and full basement. Constructed from red brick, the main façade is built with Flemish Bond (Figure 22), while the other three sides of the building are 1:5 Common Bond (Figure 23).

Over the Main Block is a low hip roof with projecting eaves on all sides and covered by asphalt shingles. A contemporary aluminum rain catchment system runs along all sides of the roof, with a gutter at the northwest corner. A truncated chimney is visible on the exterior side right, on the south wall, which was reconstructed in the past in slightly different bricks than the rest of the façade, and the base and top of the chimney is covered by cement (Figure 24). Evidence of brick placement in the south wall indicates the chimney was altered during its life.

Fenestration is symmetrical on the main façade of the structure, with a central door. Typical windows on the ground floor are characterized as 6-over-2 windows with a segmental arch with a wood frame and plain wood lug sill, covered on the exterior by aluminum frame storm windows (Figure 25). The windows have plain exterior frames and wood lug sills. Each window has red-brick voussoirs above the frame. A blind window is visible in the basement at the southwest corner of the foundation. The front door to the Main Block is a rectangular wood door with a plain moulded wood frame, and two window panels on the top half of the door, and a flat single light transom above the door (Figure 26). The main entrance is in the centre of an enclosed wood-frame porch with a shed roof, which opens north onto an unenclosed wood porch with a wooden balustrade (Figure 27).

The enclosed wood-frame porch on the west façade consists of two one-over-one rectangular wood-frame windows, which open using hinges on one side of the frame. Each window has a flat single light transom above it, and there are two windows on the north and south side of the porch, and five on the west side. The interior of the porch is sided with vertical wood strips and the exterior with horizontal overlapping clapboard (Figure 28).

Figure 22: Detail of Flemish Bond and coursed rubble foundation on the west façade of the Main Block.

Figure 23: Detail of Common Bond on the north façade.

Figure 24: Chimney on the south façade of the Main Block.

Figure 25: Typical window on the Main Block, with Flemish bond brickwork.

Figure 26: Front door on the west façade of the Main Block.

Figure 27: Enclosed porch.

Figure 28: Interior of the covered front porch, west façade of Main block.

5.2.1.2 Interior

The front door opens directly into the central hall that extends the width of the Main Block and into the East Wing (Figure 29). On the north of the central hall are the straight stairs to the second story (Figure 30). All door and window trims, baseboards, stair banister and newel appear to be consistent with the mid-nineteenth century date of construction (Figure 31). The floors are generally finished pine planks, probably 5/4, and appear to be butted (Figure 31). Walls appear to be painted plaster. All doors within the house had flat head openings.

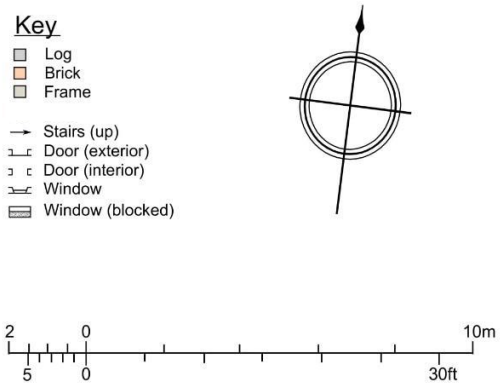
On the south half of the first level, is a single room with a large fieldstone fireplace centred on the south wall (Figure 32). The fireplace veneer consists of machine cut stone, covering the original fieldstone. There is a window on the south and west walls, with wide moulded wood frames and thin wood sills (Figure 32). A door at the east end of the room leads into the East Wing. The wood frame around the door is similar to the moulded wood frame as the windows in the room (Figure 33).

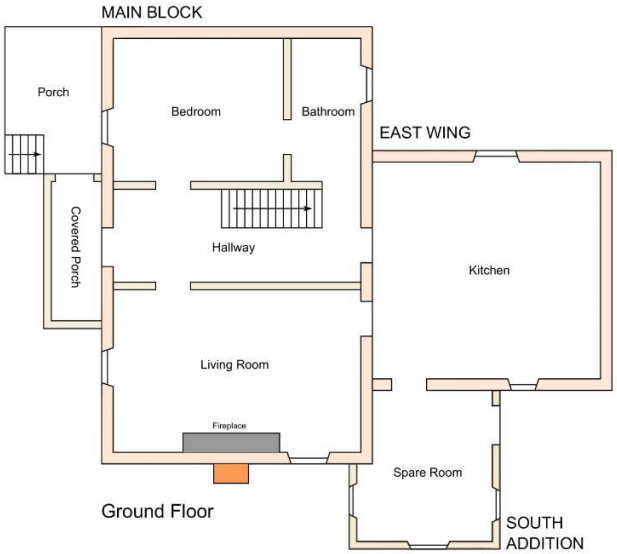
On the north half of the first level, is room and bathroom (Figure 34). The bathroom encompasses the western 1/3 of the north half, with the room encompassing the remainder of the north half. There is a window on the west wall of the room, and a small metal decorative grate is present in the baseboard of the south wall of the room (Figure 35). A doorway on the east wall connects to the adjoining bathroom, which can also be entered from the central hallway. The bathroom is narrow and undecorated, with a rectangular window on the east wall (Figure 36).

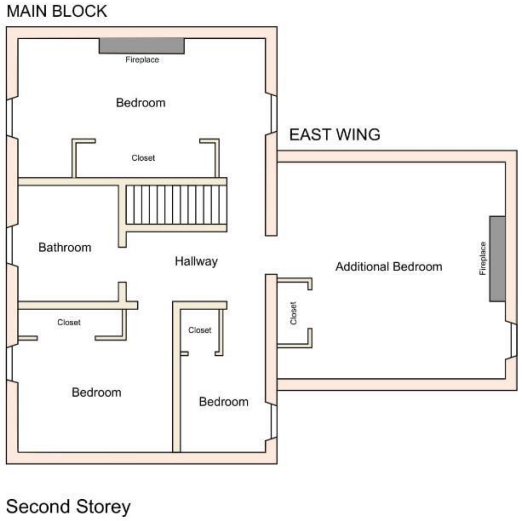
The stairs to the second storey lead to an upper hall directly above the first level hall, with doors to four rooms, as well as an opening to the East Wing on the east wall. On the north of the landing is a large bedroom with a large fireplace centred on the north wall (Figure 37). The fireplace is finished with a brick veneer (Figure 38). There is window on the east and west wall, as well as large closet centred of the south wall.

The east side of the second level has two bedrooms, each with its own window (Figure 39 to Figure 42). There is a bathroom at the west end of the central hallway with a central window (Figure 43).

JOHN FLEMING HOUSE
9151 HUNTINGTON ROAD,
CITY OF VAUGHAN,
REGIONAL MUNICIPALITY OF YORK,
ONTARIO







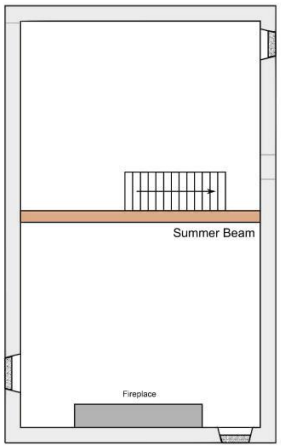


Figure 29: 9151 Floorplan (not to scale)

Figure 30: Central hall of Main Block.

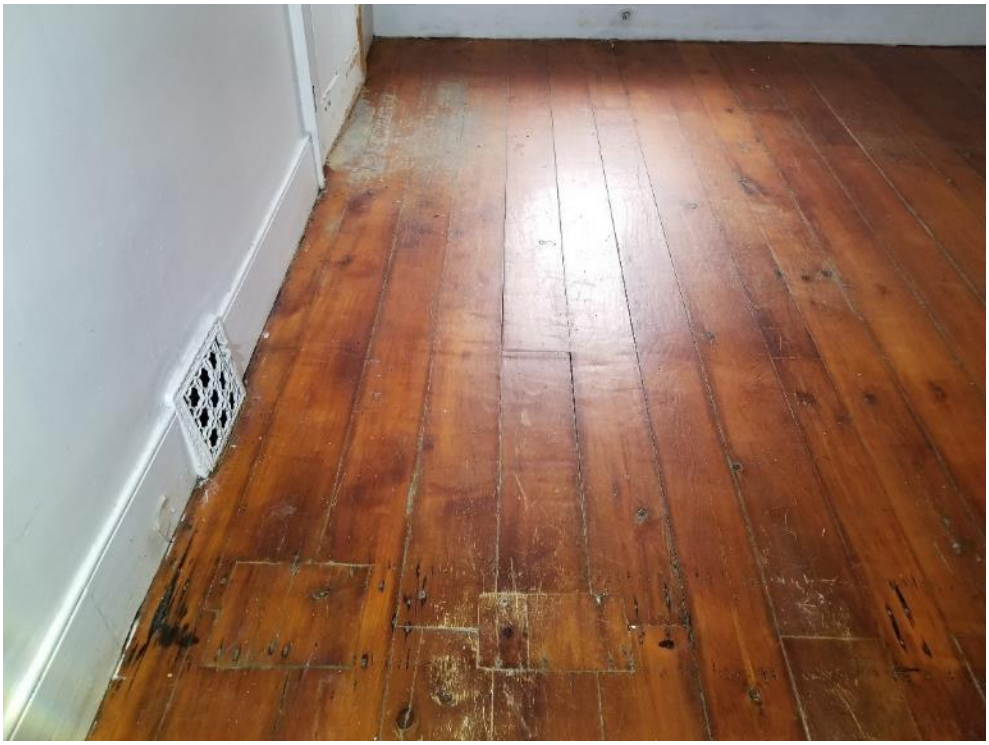


Figure 31: Detail of floorboards and baseboards on first level of Main Block.

Figure 32: Facing south in the south room on the ground floor, Main Block.

Figure 33: Detail in the south room of the wood panelled door.

Figure 34: The northwest room on the ground floor.

Figure 35: Decorative grate in the south wall of the northwest room.

Figure 36: Northeast bathroom on the ground floor.

Figure 37: North room on the second storey. A closet was added when the function of the room changed.

Figure 38: Relic fireplace in the north room.

Figure 39: Southwest bedroom on the second storey

Figure 40: Window on the west side of the southwest bedroom.

Figure 41: Southeast bedroom on the second storey.

Figure 42: Window on the east side of the southeast bedroom.

Figure 43: Bathroom at west end of the hallway.

5.2.1.3 Basement

The Main Block has a full basement that is accessible from the first level hall (Figure 44). The basement is comprised of a single rectangular room with coursed rubble walls and a cement floor. A large central fieldstone fireplace is on the south wall with a wood mantel beam to function as part of the winter kitchen (Figure 45).

There are two windows on the west wall and one window on the east and south walls (Figure 46). All the basement windows were small and rectangular, likely one or two panes, although no frames have survived. Running east-west through the centre of the basement's ceiling is a large summer beam, as a central support for the floor above (Figure 47).

Figure 44: Opening to the basement stairs, below the main stairs in the Main Block.

Figure 45: Stone fireplace in the basement below the Main Block, on the south wall of the foundation.

Figure 46: Basement window on south wall.

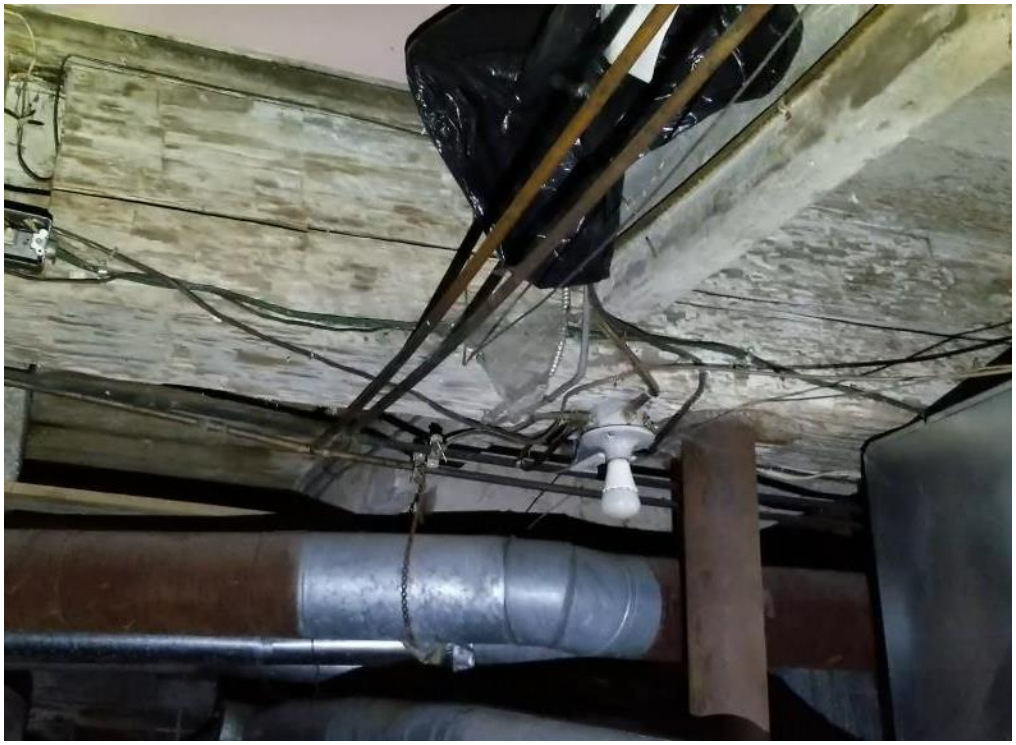


Figure 47: Close up of the summer beam running east-west across the basement ceiling.

5.2.2 East Wing

5.2.2.1 Exterior

The story-and-a-half East Wing extends 6.2 m east from the east wall of the Main Block, and has a square plan with a medium gable roof (Figure 18 to Figure 20). Similar to the Main Block, the East Wing was built on a coursed rubble foundation, but there is only a crawl space under the floor.

The walls are constructed from red brick laid in 1:5 Common Bond. There is a window on the north and south walls. Windows are 1-over-1 segmental head with a wood frame and wood lug sill, with aluminum external storm windows, and each window has a straight brick voussoir above the frame (Figure 48). The gable roof has projecting eaves and verges, with plain metal soffits and fascia, and a metal rainwater catchment system on the eaves. The gable end of the roof has metal return eaves, and a large chimney extending from the east wall of the East Wing (Figure 49). The size of the chimney is indicative of its early age and would have originally been fed by a large cooking hearth rather than a stove (Goldsmith Borgal & Company Ltd. Architects 2017)

The north, east and west walls of the East Wing have experienced significant structural damage, as evidenced by the presence of tie rods, repaired cracking and patchy color of large brick areas (Figure 50). Thus, relocation of the East Wing may be difficult.

Figure 48: Typical window on the East Wing, north façade.

Figure 49: North and east façades of the East Wing. Note, extensive damage and repair to the east wall (red)

Figure 50: Extensive damage and repair to the north wall (red). Note the metal rods to secure the wall (yellow).

5.2.2.2 Interior

The interior of the east wing consists of a single room on the first floor, which was used as a kitchen (Figure 51). The first level of the East Wing is accessible through the central hallway of the Main Block, the south room of the Main Block, and through the South Addition. The first level of the East Wing is slightly lower than the first level of the Main Block, as is evidenced by the step between the East Wing and the Main Block. There is a large hearth centred on the east wall that has been covered by drywall.

Both door frames on the west wall have moulded trim, and the door frame on the south wall has plain trim. There is a window on the north and south walls. The room has some of its cabinetry, however, none of the surviving elements appear to be contemporaneous to the original construction (Figure 52). Laminate flooring covers the room, and the baseboards are shorter than those found in the Main Block. A portion of the kitchen walls is faced with white and blue tiles. A doorway on the south wall opens into the South Addition.

The second storey of the East Wing is accessible through the second level central hallway of Main Block (Figure 53). The second storey of the East Wing is a single room with a low sloped ceiling and a built-in closet on the west wall (Figure 54 to Figure 55). There is only one window, on the east wall, and the floor is covered with wide hardwood planks. There is no interior decoration in the space, nor interior window or door frames. Like the ground floor, the floor of the second level is one step lower than that in the Main Block.

Figure 51: Interior of the East Wing facing west. Doorways to the Main Block to the west and South Addition to the south.

Figure 52: Interior of the East wing facing the east wall. Covered hearth in the centre of the wall.

Figure 53: Entrance to the second storey of the East Wing, from the Main Block.

Figure 54: Second storey of the East Wing, west façade.

Figure 55: Second storey of the East Wing, east façade.

5.2.3 South Addition

5.2.3.1 Exterior

The South Addition is a mid-20th century addition. The South Addition is a single-storey structure which covers a rectangular floor plan and is orientated north-south, connecting to the south wall of the East Wing and overlapping slightly with the southeast corner of the Main Block (Figure 19 to Figure 21). It has a single exterior doorway and one window on the east wall, as well as two windows on the south wall and one on the west wall.

Fenestrations are symmetrical, with one door and window on the south façade, one on the west, and on the east side of the addition, with a door on the east side as well. Windows are wood-frame one-over-one single hung flat head and covered by external aluminum storm windows. The wood panel door has also been covered by a storm door, and the entire structure was covered by vinyl siding (Figure 56). The metal shed room extends south from the East Wing, and displays projecting eaves and verges, with a metal rainwater catchment system on the south edge of the roof and a gutter running to the ground from the southwest corner.

Figure 56: South façade of East Wing and east façade of the South Addition.

5.2.3.2 Interior

The South Addition is comprised of a single room with built-in cupboards along the west fall, and laminate checkered flooring throughout (Figure 57 and Figure 58). There is no internal decoration, and a baseboard is only present along the west wall. A doorway in the north wall leads into the East Wing, and each window has a plain window frame and thin wood sill. Below the east window, an electric radiator is affixed to the wall.

Figure 57: Facing northeast inside the South Addition with the exterior door on the east wall.

Figure 58: Facing southwest in the South Addition.

5.2.4 North Outbuilding

This mid-20th century outbuilding is a small wooden shed with a gable roof. It is located north of the farmhouse on the east side of the current driveway and is currently in a state of collapse. It has a medium gable roof and vertical wood panelling on the exterior walls.

Figure 59: View of the North Outbuilding, looking north.

5.2.5 Barn

All that remains of the barn is a portion of the stone foundation. The coursed stone foundation presents asymmetrical fenestration with 10-pane fixed wood windows with flat head openings and no exterior decoration (Figure 60 and Figure 61). Exterior doors on the surviving west wall are plain wood. Interior beams which would have supported the floor above have decayed and cracked, and there is not much left inside the barn (Figure 62 to Figure 64).

Figure 60: West façade of the stone barn foundation.

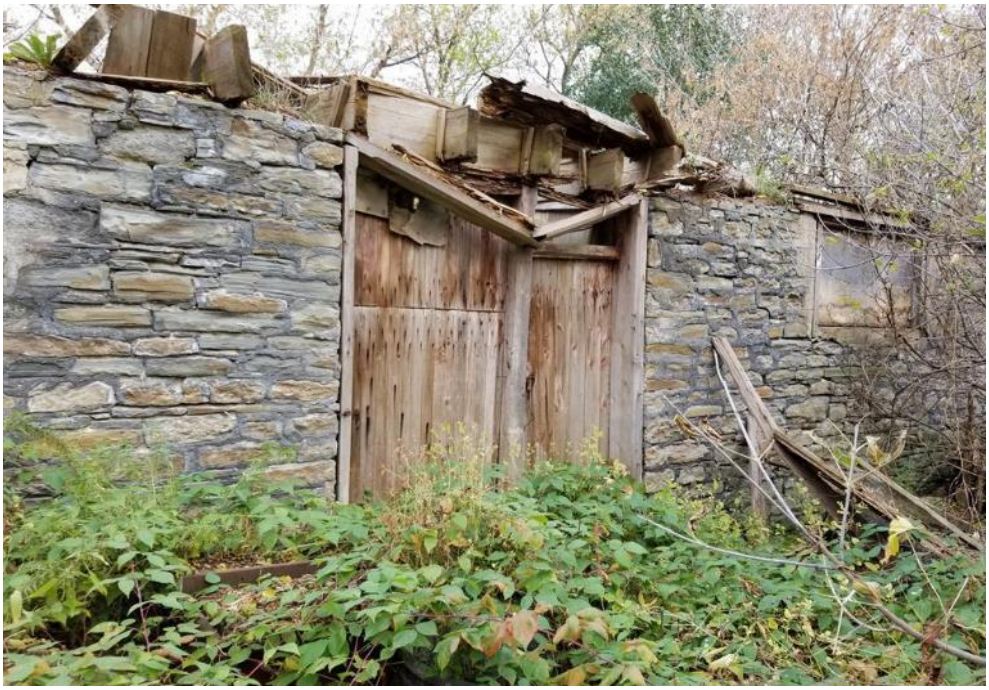


Figure 61: West façade and doors of the stone barn foundation.

Figure 62: Interior of the collapsed barn.

Figure 63: Interior southeast corner of the barn.

Figure 64: Panorama of the collapsed barn in relation to the farmhouse visible to the southwest.

5.2.6 Northeast Outbuilding

This 20th-century structure has a medium gable roof with a wood frame, currently in a state of collapse. Much of the wall material has rotted away, leaving the support posts in place (Figure 65). It was sided with vertical wood planks and is currently leaning to the east (Figure 66).

Figure 65: Northeast outbuilding, looking north.

Figure 66: The west façade of the northeast outbuilding.

5.2.7 East Outbuilding

The mid-20th century East Outbuilding is a one-storey, wood frame structure with a low gable roof (Figure 67). It is currently surrounded by trees on the east side of the residential area and is barely visible within the trees and bushes that are growing through the structure.

Figure 67: East outbuilding.

5.3 Physical Condition

The condition assessment presented in Table 2 summarizes an extensive checklist developed by Historic England (Watt 2010: 356-361). Please note that these observations are based solely on visual inspection during field investigation. This assessment is limited to John Fleming house

Table 2: Physical Condition Assessment for John Fleming House

Element	Observed Conditions
General structure	■ Overall, the house appears to be in good condition
Roof	■ Overall the roof appears to be in good condition. ▪ No visible slumping or sections of missing shingles
Rainwater disposal	■ Overall good condition. Metal gutters do not appear to be cracked or broken. ■ Metal gutters present on eaves of the Main Block and East Wing, with a downpipe on the southwest corner of the Main Block
Walls, foundations & chimneys, exterior features	■ Coursed rubble foundation appears to be in good condition ■ Brick walls on Main Block are in good condition, but East Wing has severe cracking and damage. ■ Original chimneys on Main Block removed and replaced with one chimney on exterior south façade.
Windows & doors	■ Exterior wood frames appear in good condition, some peeling paint. ■ Windows have been covered by metal-frame storm windows. ■ All windows and doors are intact and in good condition.
Internal roof structure/ceilings	■ Internal ceilings are in good condition ■ The internal roof structure was not accessible.
Floors	■ The general condition of the floors is good with no noticeable defections
Stairways, galleries, balconies	■ Interior stairs are in good condition, with wood balustrade ■ Painted steps are scuffed and very worn.

Element	Observed Conditions
Interior decorations/finishes	■ Overall interior decoration and features are in fair to good condition. ■ Fixtures in the East Wing have been updated and obscured.
Fixtures & fittings	■ Many fixtures throughout the house have been replaced with updated versions. ■ Bathroom on the second storey remodelled
Building services	■ Services have been disconnected from the farmhouse
Site & environment	■ Gravel driveway ■ Small pond on the property, otherwise no standing water ■ Overgrown, surrounded by agricultural land
General environment	■ Overall stable condition with associations to agricultural land.

5.4 Structural History

Three development phases of the property could be identified from the structural evidence and historical record. Phase 1 is represented by the initial construction and occupation of the Main Block, East Wing and stone foundation barn by the Fleming family (Mid-1850s to 1909). Phase 2 includes the construction of the South Addition, alterations to the Main Block, barn extensions, and occupation of the Wood, Shortell, and Neal families (1909 to 1960s). Phase 3 involving the abandoning and deterioration of the barn (1970s to Present).

5.4.1 Phase 1: Mid-1850s - 1909

Phase 1 includes construction of:

- Main Block,
  - Original driveway ran east-west to present-day Huntington Road
- East Wing; and,
- Stone foundation barn.

The first phase of the property was the construction of the Main Block of the farmhouse pre-1854, which included digging the basement and constructing the coursed rubble foundation with the basement fireplace. According to the historic photo of the house (Figure 5), the East Wing was constructed prior to 1909. The stone foundation barn was likely constructed prior to 1909 based on the construction style of the beams and stone foundation.

5.4.2 Phase 2: 1909 – 1960s

Phase 2 includes construction of:

- South Addition before 1954;
- Front porch between 1909 and 1954;
- West and central extensions to the original barn between 1909 and 1954;
- Small wood outbuildings east and north of the pond;
- Small shed north of the farmhouse;
- Chimneys removed/replaced by 1968; and

The first half of the 20th century saw many changes to the farmhouse, with the construction of the South Addition and the enclosed front porch. While the house originally had symmetrical buried central chimneys on the north and south walls of the Main Block, by 1968 the chimneys had been removed and replaced with the single chimney on the exterior south wall of the Main Block. Several changes were made to the agricultural side of the property, with several additional outbuildings and extensions to the barn being constructed.

5.4.3 Phase 3: 1970s – Present

Phase 3 includes construction of:

- North-south driveway to Rutherford by 1973;
  - Disuse of east-west driveway by 1988;
- Removal of the west and central extensions of the barn by 1978;
- Abandoning and collapse of the stone foundation barn by 1999;
- Extension of the porch on the west side of the Main Block by 2002.

By 1973 the driveway from the property was relocated to run north-south to Rutherford Road and the use of the east-west driveway was discontinued by 1988. The west and central extensions of the barn were removed by 1978, following the sale of the property by the Neal family in 1965. The original stone foundation barn eventually collapsed in 1999. Lastly, by 2002 the porch on the west side of the Main Block was extended to include an open porch.

5.5 Interpretation

Estimating the period in which John Fleming House at 9151 Huntington Road was constructed can be determined based on its construction, its architectural style, and historical evidence of the property.

The Main Block's Georgian architecture style was typical of the early-mid 19th century, as the style was popular between 1784-1860 (Blumenson 1990). The style was named for the successive reigns of King George I through King George IV (1714-1811 and 1820-1837) (Humphrey & Sykes 1980; Maitland 1984). The Georgian style predominately in the 18th and early 19th century colonial context and continued to influence rural and urban residential architecture into the second half of the 19th century. The interior floorplan further exemplified the style and date of the structure, with a central hallway running from the front door to the back of the house and into the

East Wing, with rooms to the north and south. The typical Georgian floorplan is fairly symmetrical, such as this example from Blumenson (1990:6) of the William Dickson House, built in 1794. John Fleming house is nearly symmetrical, with one large room on either side of the central hallway, but a smaller room behind the staircase on the north side of the house which is currently used as a small bathroom.

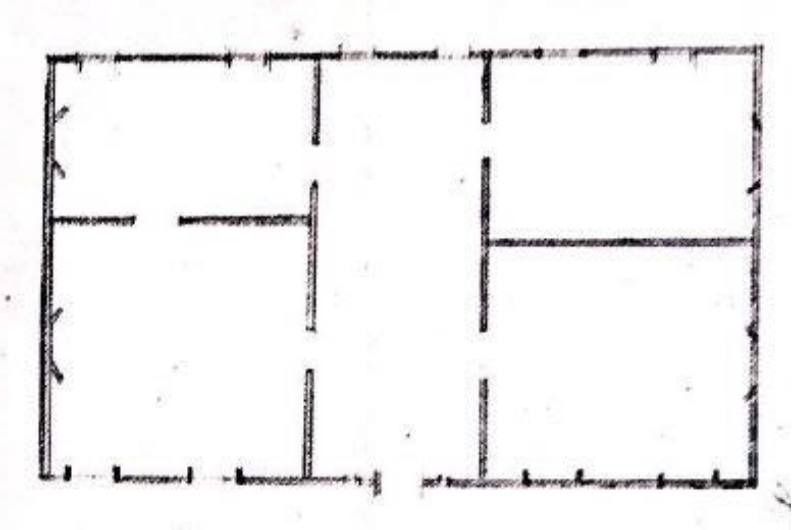


Figure 68: Georgian floorplan, William Dickson house (Blumenson 1990:6).

The main front wall (west wall) is constructed of red pressed brick laid up in the Flemish bond fashion. This is a high-strength method of construction which, when used in Ontario, created a solid front to the public face of the building (Goldsmith Borgal & Company Ltd. Architect 2017). It is important to note, the original driveway to the property ran east-west from present-day Huntington Road to the west wall of the Main Block, thus, providing direct visual relationship of the main wall to the roadway. The remainder of the walls of the Main Block as well as the East Wing are construct of red pressed brick laid up in the Common Bond, which is common form in Ontario.

Historical evidence suggests that the house was built around the same time that Fleming sold ¼ acre of the land for the construction of a manse, and by the 1861 census, the family was listed as living in a 2-storey brick house. The house itself, in typical Georgian fashion, was adorned with shutters and a large chimney at the north and south sides of the hipped roof of the Main Block, neither of which still stand today.

Dating the construction of the East Wing is trickier, but the historic photo from 1909 indicates that by that time, the wing had already been added to the farmhouse, suggesting that it was constructed sometime after the 1854 and before 1909.

Details within the house are generally plain but give a further idea as to the date of the structure. Wide baseboards within much of the Main Block, combined with moulded wood window and door frames reflect the styles of the mid-late 1800s. The floors of the Main Block are generally finished pine floorboards, probably 5/4, and appear to be butted. By the front door, a large ornate metal grate is still present by the door. All of these details are commonly found in houses from the mid-late 1800s and confirm that the structure was constructed in the 1850s.

5.6 Integrity

In The concept of 'integrity' is closely linked to ideas about preservation and authenticity, rather than a structural condition. In this context integrity refers to the literal definition of 'wholeness' or 'honesty' of a historic place and is measured by understanding how much of the asset is 'complete' or changed from its original or 'valued subsequent configuration' (English Heritage 2008:45; Kalman 2014:203).

Unlike structural integrity, heritage integrity can prove difficult to quantify, in part because there is no widely accepted criteria. The MHSTCI *Ontario Heritage Tool Kit: Heritage Property Evaluation* (MHSTCI 2006) stresses the importance of assessing the heritage integrity and physical condition of a structure in conjunction with evaluation under *O. Reg. 9/06* yet does not provide specific guidelines for how this should be carried out. Similarly, Kalman's *Evaluation of Historic Buildings* includes 'integrity' as a criteria yet offers only general statements to determine overall integrity under the sub-elements of 'Site', 'Alterations', and 'Condition'. However, research commissioned by Historic England (The Conservation Studio 2004), proposed a method for determining levels of change in conservation areas that also has utility for evaluating the integrity of individual structures.

The results for John Fleming House are presented in Table 3, and s considered when determined the CHVI of the property (see Section 6.0).

Table 3: Heritage Integrity Analysis for John Fleming House

Element	Original Material/Type	Alteration	Survival (%)	Rating	Comment
Setting	Surrounded by similar mid to late 19th century farmhouses of modest size and significant setback	Industrial development (2013) to the west and residential development to the east. Some of the agricultural lands within the lot have been subdivided	85	Very good	No major changes have been made to the original 100-acre property (west half of Lot 15, Concession 9).
Site location	Original.	No change.	100	Very good.	The property retains its original siting and setback.
Footprint	Rectangular	East Wing (Phase 1) and South Addition (Phase 2) added	85	Very good	No additional comment
Wall	Brick	Brick East Wing (Phase 1) and vinyl sided South Addition (Phase 2)	90	Very good	No additional comment

Element	Original Material/Type	Alteration	Survival (%)	Rating	Comment
Foundation	Coursed rubble foundation	Foundation appears intact	100	Very good	There appears to have been some re-pointing with cement to places of the foundation. Note this rating refers to heritage integrity, not structural integrity.
Exterior doors	Wood panel	Front door appears intact	100	Very good	While the front door is likely original to the house, the rear door in the South Addition was added much later.
Windows	Wood frame six-over-six	Windows have been covered by storm windows. While wood frame windows are present, likely not original	50	Good	While wood frame windows are retained in both the Main Block and the East Wing, the 1909 photo shows that the Main Block at 6-over-6 windows, while present windows on the west wall of the Main Block are 6-over-1. Although all original windows have been replaced, no new openings have been made.
Roof	Hip roof, projecting eaves, plain wood fascia and soffits, and likely cedar shingles	Asphalt shingle, plain metal fascia and soffits	55	Good	The roof was re-shingled with asphalt shingles during its life, however, appears to have its original design. The Fascia and soffit have been replaced with metal.
Chimneys	Two brick chimneys	Both original chimnies were removed. Addition of East Wing with chinmey (Phase 1), and addition of chinmeny to south wall of Main Block	0	Poor	No further comment.

Element	Original Material/Type	Alteration	Survival (%)	Rating	Comment
Water systems	Gutters and downspouts on west wall (based on the presence of a paint band and abandoned forged iron hook)	Gutters and downspouts updated. Downspouts moved to north and south walls of Main Block.	0	Poor	The present gutters and downspouts are contemporary.
Exterior decoration	The house was decorated with shutters and front steps, as well as Flemish and Common bond brickwork. Wood window sills and windows are capped by flat arches (voussoirs) with the bricks gauged	Steps have been replaced with an enclosed porch, and shutters have been removed	65	Good	Flemish and Common bond brickworks remain. As well, the wood window sills and voussoirs remain intact.
Porch/ exterior additions	None	The East Wing (Phase 1) and South Addition (Phase 2) added after the original construction, as well as the west façade's covered and open porches.	60	Good	While there were additions added to the house, at least the East Wing has had a long history with the property. The South Additional can be reversed.
Interior plan	Symmetrical Georgian with basement	Additions to Main Block	100	Very good	The original floor plan appears to be intact, with the addition of extra rooms in the East Wing and South Addition.
Interior walls and floors	Wood floors, plaster walls	The original floor on the first level south room is covered in vinyl.	80	Very good	Minimum alteration to the original wood floors of the Main Block. The original flooring within the first level

Element	Original Material/Type	Alteration	Survival (%)	Rating	Comment
		Also, the second-floor bathroom of the Main Block has ceramic tiles. The East Wing and South Addition have laminate and ceramic tiles, respectively. Walls are in good condition and appear not to have had many alterations.			south room appears to be covered by vinyl floor, which may be reservable.
Interior trim	Wood	Interior trim appears to be primarily intact	90	Very good	Interior of the East Wing has been altered significantly, so some window frames and baseboards have been removed or altered. The Main Block appears to retain its original interior trim.
Interior features (e.g., hearth, stairs, doors)	Wood stairs, fireplaces, wood doors, hearth	Stairs are in original position; several fireplaces were removed. All doors are present, but some may have been updated. The East Wing hearth is now covered by drywall.	45	Fair	In the Main Block, one fireplace has been removed from the ground floor and one from the second floor, leaving two in place, which appears to have been refaced with machine cut stones and brick, respectively. The hearth in the East Wing has been covered by drywall with a potential hearth still present. The winter fireplace in the basement is present.

Element	Original Material/Type	Alteration	Survival (%)	Rating	Comment
Landscape features	Agricultural	Remains on agricultural land.	90	Very good	The property has retained its connection to agricultural land and operations.
AVERAGE RATE OF CHANGE/HERITAGE INTEGRITY			**70.29%**	**Good.**	**Rating of Good is based on the original element survival rating of 50 – 75%.**

5.6.1.1 Results

Overall, the Main Block and East Wing have a Good level of heritage integrity.

6.0 EVALUATION OF CULTURAL HERITAGE VALUE OR INTEREST

From the results of the historical research, municipal consultation and field investigations, 9151 Huntington Road was evaluated to determine if it met the criteria for cultural heritage value or interest (CHVI) as prescribed in *O. Reg. 9/06.* The results of this evaluation are provided in the following subsections.

6.1.1 Design or Physical Value

Criteria	Meets Criteria (Yes/No)	Site Specific Evaluation
Is a rare, unique, representative or early example of a style, type, expression, material or construction method;	Yes	The house is a representative example of an 1850s farmhouse built in the vernacular Georgian, an architectural style commonly selected for farmhouse. The house two-storey and many characteristics of the Georgian form including a rectangular plan, a plain brick building with generous proportions, large chimneys and minimal, if any, classical detailing. The façade is organized into three bays of regularly placed windows and the roof is hipped.
Displays a high degree of craftsmanship or artistic merit; or	Yes	The west façade of the house is faced with Flemish Bond brickwork, a style which is considered to require a high degree of masonry craftsmanship, and therefore demonstrates a high degree of craftsmanship in its construction.
Demonstrates a high degree of technical or scientific achievement.	No	The house, nor its associated outbuildings, nor agricultural land use of the property demonstrate a high degree of technical or scientific achievement.

6.1.2 Historical or Associative Value

Criteria	Meets Criteria (Yes/No)	Site Specific Evaluation
Has direct associations with a theme, event, belief, person, activity, organization, or institution that is significant to a community;	Yes	The subject property is directly associated with the founding of the early community of Elder's Mills, which was founded in the 1840s and is a rare surviving example of one of the many farms that developed as a direct result of the founding of the community of Elder's Mills in the 1850s – most of which no longer exist. The original owner, John Fleming, was a significant figure in the community and was instrumental in the well-being of the settlement's Presbyterian Church (Knox) –

Criteria	Meets Criteria (Yes/No)	Site Specific Evaluation
		providing accommodation in his farmhouse for the minister and later donating lands for the construction of a Manse.
Yields, or has the potential to yield information that contributes to an understanding of a community or culture; or	No	Further study of the property and its built elements is unlikely to reveal any further information which would lead to a greater understanding of the community or the culture of the area.
Demonstrates or reflects the work or ideas of an architect, artist, builder, designer, or theorist who is significant to a community.	No	The property does not reflect the work ideas of any significant architect, builder, or designer in the community.

6.1.3 Contextual Value

Criteria	Meets Criteria (Yes/No)	Site Specific Evaluation
Is important in defining, maintaining or supporting the character of an area;	Yes	The property is important in maintaining and supporting the rural character of the early community of Elder Mills through its open fields, and dispersed farmhouse set back a distance from the road (Section 5.1). The east side of Huntington Road between Rutherford Road and Langstaff Road has overall maintained its ties to agricultural land and practices which helped to develop the region during the colonial period of the 1800s. Elder's Mills developed as a rural farming community, and the property's buildings, fences, field divisions, and artificially planted vegetation continue the rural agricultural character of the area which is being slowly erased through new developments.
Is physical, functionally, visually or historically linked to its surroundings; or	Yes	The house is physically and visually linked to the nearby watercourse through its prominent location overlooking Rainbow Creek (Section 5.1). Additionally, the property is also visually linked to farms in the surrounding landscape and may also have historical links with these farms as part of a widely dispersed agricultural community.

Criteria	Meets Criteria (Yes/No)	Site Specific Evaluation
		Furthermore, the subject property is physically, visually, and historically linked with the founding of the early community of Elder's Mills, which was founded in the 1840s and is a rare surviving example of one of the many farms that developed as a direct result of the founding of the community of Elder's Mills in the 1850s – most of which no longer exist.
Is a landmark.	No	The property and its built elements are not considered a local landmark.

6.2 Evaluation Results

The preceding evaluation has determined that John Fleming House is of cultural heritage value or interest, for its design or physical value, historical or associative value, and contextual value, meeting five criteria of *O. Reg. 9/06.* As a result, a Statement of Cultural Heritage Value or Interest is proposed below. The barn and outbuildings, while being over 40 years old, were determined not to have CHVI due to their unremarkable construction and style, lack of tangible association with the Fleming family, and lack of overall contextual value.

6.3 Proposed Statement of Cultural Heritage Value or Interest

6.3.1 Description of Property

John Fleming House and property are located on the east side of Huntington Road, at the civic address 9151 Huntington Road, part of the west half of Lot 15, Concession 9, in the City of Vaughan, Regional Municipality of York, Ontario. The rural agricultural property includes a two-storey brick home, the stone foundation of a barn, three outbuildings, and agricultural fields.

6.3.2 Statement of CHVI

John Fleming House and property is of cultural heritage value or interest for its design or physical value, its historical or associative value, and its contextual value. Constructed in the 1850s, the two-storey, three-bay Main Block of the house was constructed in the Georgian style from brick and displays Flemish Bond on the main façade and Common Bond on the remaining walls. It was later extended to the east with a story-and-a-half brick addition by the Fleming family, and later extended again to the south with a shed-roof one storey wood frame addition. The house is associated with a barn and a series of outbuildings including a barn likely associated with the original house, and several outbuildings constructed before 1978. It is unique as a representative example of a brick Georgian farmhouse with a Flemish Bond façade in a rural agricultural setting. The property belonged to John Fleming, who was instrumental in the development of the church and community of Elder's Mills. His family owned the lot for 65 years.

The property's contextual value lies in its physical and visual connections to the rural agricultural landscape between Langstaff Road and Rutherford Road.

6.3.3 Description of Heritage Attributes

Key attributes that reflect the design or physical value of the property include its:

- Three-bay, two-storey Main Block with;
  - Flemish Bond on the principal façade and Common Bond on the rest of the structure;
  - Low hip roof and symmetrical fenestration characteristic of the Georgian style;
  - Fieldstone foundation with full-height basement;
  - Stone basement fireplace with a wood lintel.

Key attributes that reflect the property's contextual value are its:

- Clear physical, visual, and contextual association with Rainbow Creek and wider agricultural landscape of the area;
- Its roll in defining, maintaining, and supporting the rural agricultural nature of the area; and,
- Its physically, visually, and historically association with the founding of the early community of Elder's Mills and is a rare surviving example of one of the many farms that developed as a direct result of the founding of the community of Elder's Mills in the 1850s.

7.0 IMPACT ASSESSMENT

7.1 Development Description

ACC is proposing the construction of an industrial development involving the construction of two industrial structures with parking areas and associated access roads (Figure 69) and APPENDIX A).

Two large industrial buildings are proposed to be constructed east and west of Rainbow Creek, respectively, within the west half of Lot 15, Concession 9, in the City of Vaughan. Both buildings have a rectangular floor plan that is oriented north-to-south. The industrial building west of Rainbow Creek measures 20,313.3 m^2 in size and 10.97 m in height. The industrial building east of Rainbow Creek measures 21,838.37 m^2 in size and 10.97 m. Both industrial buildings include access roads and parking. An access road associated with the industrial development east of Rainbow Creek is proposed to be located approximately 3.0 m east of John Fleming House. Both new buildings will be faced with limestone in ‘random ashlar pattern’, precast concrete and precast concrete with a limestone finish at the top of the buildings.

A two-lane road oriented north-to-south extending south from Rutherford Road and east of easternmost industrial building. John Fleming House is partially located within the 10.0 metre buffer from the natural heritage system. According to the City of Vaughan Development Approval Planning Application for this development, the structures on the property, including John Fleming House are proposed to be demolished. Therefore, although the John Fleming House falls within the protected open space, given the development application proposes to demolish this structure, this impact assessment will assess the property based on its demolition.

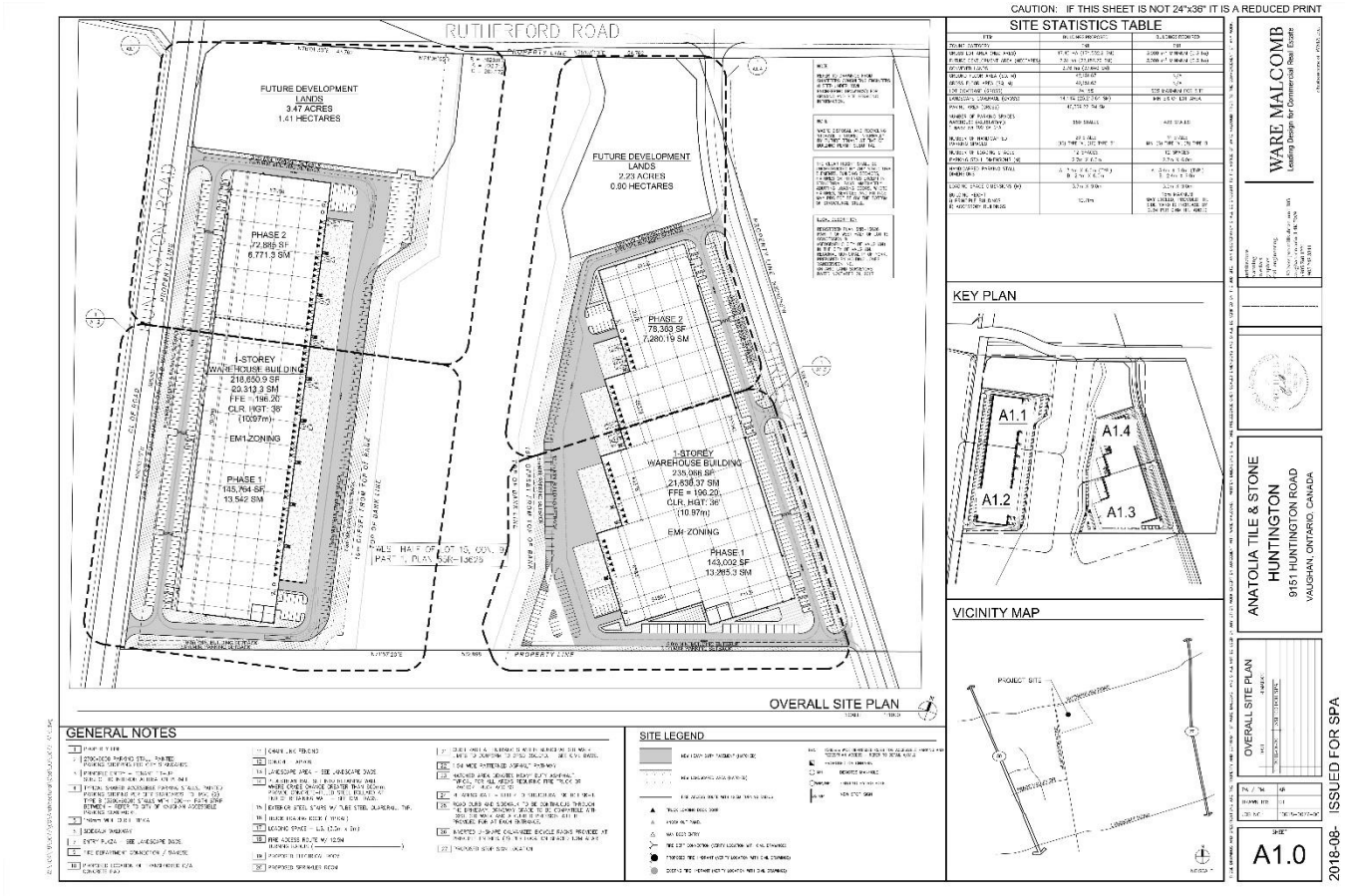


Figure 69: Proposed site plan from ACC

7.2 Impact Assessment

When determining the effects, a development or site alteration may have on known or identified built heritage resources or cultural heritage landscapes, the MHSTCI *Heritage Resources in the Land Use Planning Process* advises that the following direct and indirect adverse impacts be considered:

- Direct impacts
  - *Destruction* of any, or part of any, significant heritage attributes, or features; and
  - *Alteration* that is not sympathetic or is incompatible, with the historic fabric and appearance.
- Indirect Impacts
  - *Shadows* created that alter the appearance of a heritage attribute or change the viability of a natural feature or plantings, such as a garden;
  - *Isolation* of a heritage attribute from its surrounding environment, context or a significant relationship;
  - *Direct or indirect obstruction* of significant views or vistas within, from, or of built and natural features; or
  - *A change in land use* such as rezoning a battlefield from open space to residential use, allowing new development or site alteration to fill in the formerly open spaces.

Other potential impacts associated with the undertaking may also be considered. Historic structures, particularly those built in masonry, are susceptible to damage from vibration caused by pavement breakers, plate compactors, utility excavations, and increased heavy vehicle travel in the immediate vicinity. Like any structure, they are also threatened by collisions with heavy machinery or subsidence from utility line failures (Randl 2001:3-6).

Although the MHSTCI *Heritage Resources in the Land Use Planning Process* identifies types of impact, it does not advise on how to describe its nature or extent. For this, the MHSTCI *Guideline for Preparing the Cultural Heritage Resource Component of Environmental Assessments* (1990:8) provides criteria of:

- Magnitude (amount of physical alteration or destruction that can be expected)
- Severity (the irreversibility or reversibility of an impact)
- Duration (the length of time an adverse impact persists)
- Frequency (the number of times an impact can be expected)
- Range (the spatial distribution, widespread or site-specific, of an adverse impact)
- Diversity (the number of different kinds of activities to affect a heritage resource)

Since the MHSTCI *Guideline* guidance, nor any other Canadian source of guidance, does not include advice to describe magnitude, the ranking provided in the UK Highways Agency *Design Manual for Roads and Bridges* [DMRB]*: Volume 11*, HA 208/07 (2007:A6/11) is used here. Despite its title, the DMRB provides a general methodology for measuring the nature and extent of impact to cultural resources in urban and rural contexts and is the only assessment method to be published by a UK government department (Bond & Worthing 2016:167). Similar ranking systems have been adopted by agencies across the world, such as the International Council on Monuments and Sites (ICOMOS 2011), the Irish Environmental Protection Agency (reproduced in Kalman 2014:286), and New Zealand Transport Agency (2015).

The DMRB impact assessment ranking is:

- Major
  - Change to key historic building elements, such that the resource is totally altered. Comprehensive changes to the setting.
- Moderate
  - Change to many key historic building elements, such that the resource is significantly modified.
  - Changes to the setting of a historic building, such that it is significantly modified.
- Minor
  - Change to key historic building elements, such that the asset is slightly different.
  - Change to the setting of a historic building, such that it is noticeably changed.
- Negligible
  - Slight changes to historic building elements or setting that hardly affect it.
- No impact
  - No change to fabric or setting.

An assessment of impacts resulting from the proposed development on the property's heritage attributes (Main Block and East Wing) is presented in Table 4.

Table 4: Assessment of Direct & Indirect Adverse Impacts.

Potential Adverse Impact	Analysis of impact	Summary of Impact
Destruction *of any, or part of any, significant heritage attributes, or features.*	As currently proposed, the development of the existing property at 9151 Huntington Road will involve the destruction of the two-storey brick Main Block and East Wing of John Fleming House, identified as heritage attributes. This will result in a major direct impact that is irreversible, permanent, and will occur once over a site-specific range. Since the proposed development is limited to the lot boundaries of the subject property as well as have already proposed a buffer zone on either side of Rainbow Creek which runs through the property, it will not impact the waterway, which has a visually association with John Fleming House.	Major adverse impact to the subject property.
Alteration *that is not sympathetic or is incompatible, with the historic fabric and appearance.*	In addition to the destruction of the heritage attributes described above, the proposed development will result in major adverse impact to the setting of structures on the property that is irreversible, permanent, and will occur once over a site-specific range.	Major adverse impact on the subject property

Potential Adverse Impact	Analysis of impact	Summary of Impact
Isolation *of a heritage attribute from its surrounding environment, context or a significant relationship.*	Since John Fleming House has a visual, physical, and contextual connection to the surrounding rural agricultural landscape, demolishing the building would result in further isolation of the context of properties within a close vicinity to the subject property.	Major adverse impact to subject property
Shadows *created that alter the appearance of a heritage attribute or change the viability of a natural feature or plantings, such as a garden.*	The buildings are proposed to be constructed well beyond the distance to achieve a 45^{o} angular plane from the height of John Fleming House. Therefore, there are no significant impacts associated with shadows.	No impact
Direct or indirect obstruction *of significant views or vistas within, from, or of built and natural features.*	John Fleming House is physically and visually linked to the nearby watercourse through its prominent location overlooking Rainbow Creek. Demolition of John Fleming House will result in the direct impact to the relationship between Henry Burton House and the natural environment.	Major adverse impact to subject property.
A change in land use *such as rezoning a battlefield from open space to residential use, allowing new development or site alteration to fill in the formerly open spaces.*	The land is proposed to be changed from agricultural to industrial that is overall reversible, impermanent, will occur once, and is site-specific. This will have minor adverse effects to the subject property.	Minor adverse impact to subject property
Land disturbances *such as a change in grade that alters soils, and drainage patterns that may affect a cultural heritage resource.*	Subsequent land disturbance will adversely affect the heritage attributes of the property. There is the potential for construction to cause drainage issues at the house through removal of nearby soils to retain rainwater, and construction of the proposed roadway could cause vibration damage to the structure. A road is also proposed within 3 m of the house. This adverse disturbance will be ongoing, reversible, and will occur once, with moderate adverse impact on the subject property.	Moderate impact to subject property

7.2.1 Results of Impact Assessment

The preceding assessment has determined that without conservation or mitigation measures, the proposed retention of the property in situ:

- **Will have major adverse direct impacts to the heritage attributes of John Fleming House, that are irreversible, permanent, will occur once, and are site specific.**

7.3 Consideration of Alternatives, Mitigation and Conservation Options

Since the property's heritage attributes were determined to be indirectly impacted by the proposed development, mitigation measures are required. Discussed below are the conservation and mitigation options identified in the City's *Official Plan* and MHSTCI's *Heritage Tool Kit: Heritage Resources in the Land Use Planning Process*. In order of preference, these are:

1) *Avoid and preserve or retain in situ:* do not proceed with the proposed roadwork and retain the property in its current state;
2) *Avoid and conserve*: incorporate John Fleming House into new construction and rehabilitate the Main Block and East Wing for new compatible uses.
3) *Relocate and rehabilitate*: relocate the Main Block and based on the structural stability the East Wing to another part of the property or another property and rehabilitate it for a new compatible use;
4) *Preserve by record and commemorate:* document the property's heritage attributes through written notes, measured drawings and photographic records prior to demolition, then commemorate in some form.

The advantages and disadvantages of each option are presented in the following subsections by order of preference, then analyzed for its feasibility. It is only after an option is determined to be impractical that the next preferred approach is considered.

7.3.1 Option 1: Avoid and Preserve or Retain I*n Situ*

This option involves retaining all structures, features, and boundaries of the property in their current state and not proceeding with the proposed development.

Advantages: Under this option, all the property's heritage attributes will remain intact, as will its setting.

Disadvantages: Preservation is not a 'do nothing' approach. To ensure John Fleming House does not rapidly deteriorate will require widespread and expensive measures to stabilize the structures, to be followed by more extensive repairs to bring the Main Block, East Wing, and South Addition to a standard where it can be weather-proofed and later restored for a compatible purpose.

Feasibility: This option is not feasible because of the:

- High expense to stabilize, preserve, and maintain the property's structures, particularly the East Wing which has low levels of structural integrity; and,
- Low viability of the property for profitable commercial farming.

The property retains a high level of CHVI, meeting four criteria under *O. Reg. 9/06,* and its overall significance against other properties in the area is high, especially when considering the original owner of the house constructed other houses in the area. While John Fleming House was found to have a sufficient level of CHVI to warrant retention, the barn and outbuildings, and the wider landscape were not found to have particular significance beyond the association with the house.

7.3.2 Option 2: Avoid and Conserve

This option involves incorporating John Fleming House into the new construction and rehabilitating the building for new uses. This option proposes that the house be stabilized, then the South Addition be removed, as well as the

East Wing if it is in a state of disrepair due to structural issues, and the Main Block be rehabilitated for a compatible new. As part of this option, the house would require monitoring for vibration for a 60 m buffer from the footprint of the house during construction. The house will be monitored during construction with digital seismographs to reduce the potential for vibration damage resulting from excavation, compacting, or associated heavy vehicle traffic during construction. There is no standard approach or threshold for assessing constriction or traffic vibration impact to historic buildings but works within 60 m of a historic building is generally accepted to require precondition surveys, regular monitoring of the structure for visible signs of vibration damage, and traffic or construction separation (Carman *et al.* 2012:31). It is also assumed that although a cultural heritage resource may be avoided, it may still be within a 60 m area where it is at risk of indirect impact from construction vibration.

A Heritage Conservation Plan will be required to guide the conservation and restoration of the house, in order to ensure the retention of its heritage attributes.

Advantages: Under this option, the property's cultural heritage attributes can be retained within their original setting. As stated above, this can include a demolition of portions of a structure which are not needed possible to undergo conservation, as preference is given to portions of the structure with higher CHVI. In the case of John Fleming House, that could mean retention of the Main Block, and potentially the East Wing. The South Addition could be demolished, and the exterior brickwork repaired to be sympathetic with the original design of the structure.

As outlined in the Canada's Historic Places *Standards & Guidelines* rehabilitation and adaptive re-use can 'revitalize' a historic place and would ensure that the Main Block —the heritage attribute with the highest level of importance— is retained and conserved, as well as the other two sections of the house. Rehabilitation projects are generally more cost-effective, socially beneficial, and environmentally sustainable than new builds, even though they may require more specialized planning and trades to undertake.

Once stabilized and restored, John Fleming House could be recommended for designation under Part IV of the Ontario Heritage Act.

Disadvantages: Rehabilitation can be an expensive undertaking but allows the structure to retain its context within the landscape, and with proximity to Rainbow Creek. A conservation plan will need to be drafted in order to ensure the conservation and rehabilitation of the structure. If the South Addition and/or East Wing were to be demolished prior to restoration, a Heritage Documentation Report may be required by the City in order to record the portion of the listed historic building prior to demolition. Additionally, the John Fleming House is partially located within the 10m buffer from the natural heritage system and would be reviewed to the Toronto and Region Conservation Authority. The current location of the house is located within the General Employment designation which would restrict the ability to adaptively reuse the building for an active use. This zone disallows the building from being rehabilitated for residential purposes.

While the house will be easily accessible from the proposed roadway construction, the likelihood that an individual would seek to purchase a residence between two industrial lots is low. The structure would likely be more feasibly reused as an office building.

Feasibility: The feasibility of this option is less feasible because of the:

- Location within the 10 m buffer from the natural heritage system; and,
- Limitations to the adaptive reuse options at its current location.

7.3.3 Option 3: Relocate and Rehabilitate

Undertaking this option requires actions to stabilize the Main Block, and potentially the East Wing, then move the structure to the Prestige Employment block (Block 2) portion of the property, thus retaining its context in the landscape (Figure 70). Once relocated the house would need to be stabilized and rehabilitated for a compatible new use, which may include as a residence or as an office. As the Main Block has the most heritage and structural integrity, it is possible to relocate only the Main Block and rebuilt the foundation and winter kitchen in a new location. The East Wing has heritage integrity but poor structural stability and may be further damaged by relocation.

Advantages: As described in Option 2, this would retain and conserve John Fleming House (in a new context, but still within the property) and would encourage sustainability through retention of its 'embodied energy'. Ideally the house would be relocated within the property to retain its context in the landscape, but if it had to be moved to a different property, this new location should be rural reflecting the building's history as a farmhouse, although if moved to an urban or town lot there would be an opportunity for it to retain a 'progressive authenticity' or 'successive adaptation of historic places over time' (Jerome 2008:4). It is possible to document and then demolish the East Wing and South Addition, retaining only the Main Block as the portion of the house with good heritage integrity and structural stability. Once stabilized and restored, John Fleming House could be recommended for designation under Part IV of the Ontario Heritage Act.

Disadvantages: Planning and execution of this option would entail high costs in time and resources as it would require drafting a conservation plan, careful demolition of the South Addition and likely the East Wing due to structural problems, then extensive stabilization of the house to ensure it would not be critically damaged during lifting and moving. The relocation effort could require temporarily removing hydro lines and arranging a police escort, and once moved to the new location an extensive program of rehabilitation, including adding a new concrete foundation, would be necessary. It is also not certain if the building could be moved intact; if dismantling is necessary, the heritage integrity of the Main Block would be further reduced. Additionally, moving the house would cause it to lose its original foundation and basement, complete with a mid-19th century intact winter kitchen.

Overall feasibility: This option is most desirable because of the:

- Ability to retain connection between the property and John Fleming House, placed elsewhere on the lot; and,
- Good physical condition of the Main Block of John Fleming House.

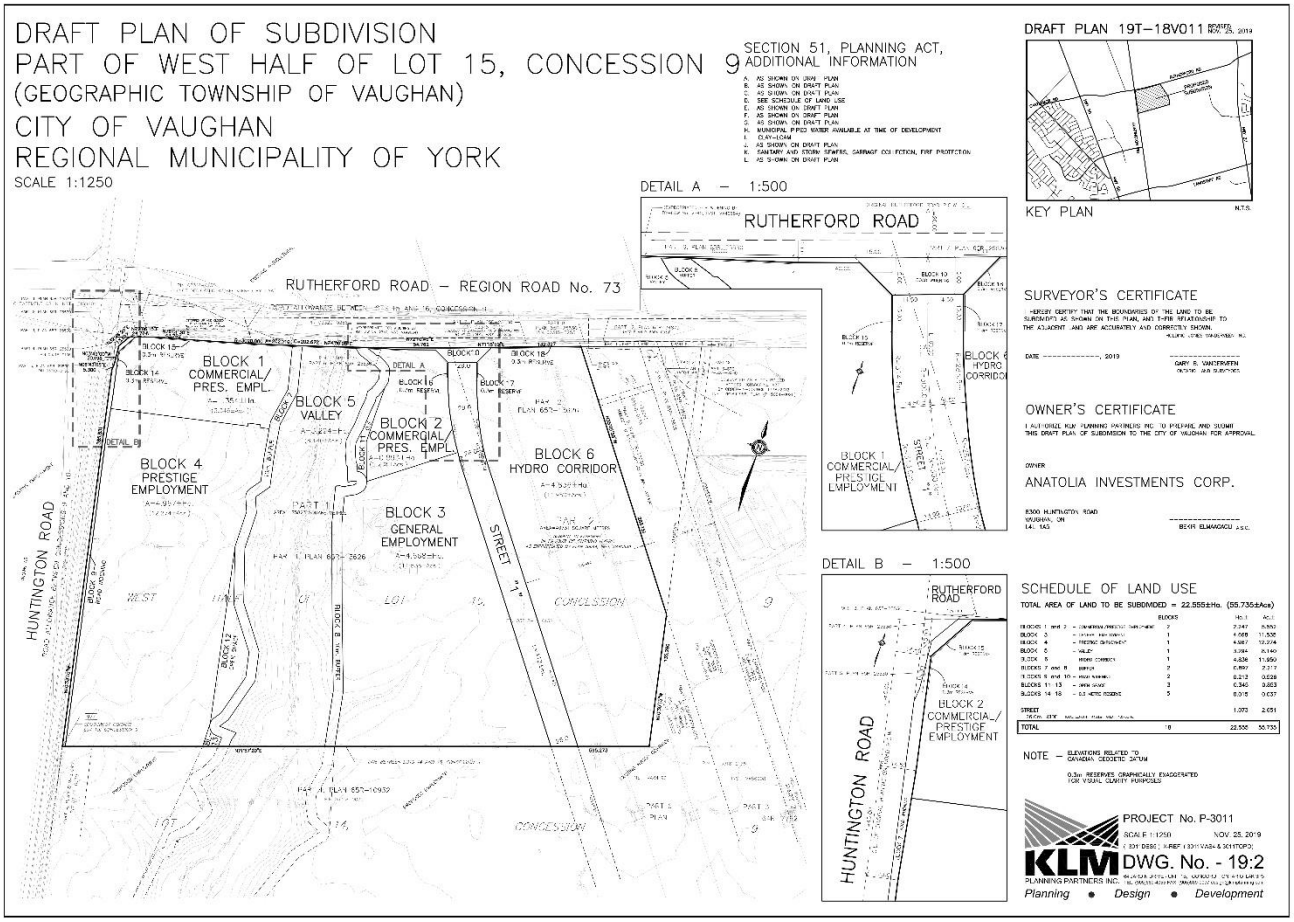


Figure 70: Draft Plan of Subdivision.

7.3.4 Option 4: Preserve by record and commemorate

Under this option, all the property's heritage attributes would be documented through photographs, measured drawings and written notes prior to demolition.

Advantages: Preservation by record is appropriate in cases where the structural or heritage integrity of the building is poor, and it is prohibitively expensive or impractical to stabilize. It may also be an option when there is a large stock of other surviving or more representative examples. Through detailed investigations, the construction, architecture, and history of the property would become an example for comparative studies and inform both future heritage assessments and academic study of the area.

Disadvantages: Preservation by record is the least desirable conservation option. Through demolition, a tangible reminder of mid 19th century architecture would be lost, resulting in further attrition of heritage property building stock in the City and Ontario.

Feasibility: The feasibility of this option is low because of the:

- CHVI of John Fleming House as a representative example of a two-storey vernacular Georgian style farmhouse, for its historical or associative value with the Fleming family, and its contextual value with the historic community of Elder Mills; and,

- Good physical condition of the Main Block of John Fleming House.

7.4 Recommendations

From this consideration of alternatives, Golder, therefore, recommends carrying out:

- **Option 3: Relocate and rehabilitate**

To ensure the long-term sustainability and use of John Fleming House as a valued built heritage resource, Golder recommends to:

- Relocate John Fleming House to a commercial lot at the northwest corner of the property.

This operation will require the following short-term and long-term actions during the construction and operational phase to meet the objectives of: avoiding accidental vehicle collision; ensuring vibration is less than 12 mm/sec peak particle velocity (PPV) for the historic home; and, avoiding potential contamination.

Short-term Conservation Actions During the Operational Phase

- Develop a Maintenance and Mothball Plan to stabilize and conserve John Fleming House
- Establish site controls and communication
  - The property and specifically the footprint of the house should be clearly marked on project mapping and communicated to all project personnel for avoidance during design, construction and subsequent operation.
- Create a physical barrier
  - Precast concrete traffic barriers (i.e., concrete Jersey barriers or permanent bollards) should also be placed around the structure to prevent accidental collision with construction and operational vehicles.

Long-term Conservation Actions During the Construction Phase

- Prepare a Heritage Conservation Plan detailing the conservation approach (i.e. preservation, rehabilitation or restoration), the required actions and trades depending on approach, and an implementation schedule to conserve John Fleming House prior to, during, and after the relocation effort.
- Monitor for vibration impact during all adjacent construction within a 60 m radius of the house;
  - Continuous ground vibration monitoring should be carried out near the foundations of the house using a digital seismograph capable of measuring and recording ground vibration intensities in digital format in each of three (3) orthogonal directions. The instrument should also be equipped with a wireless cellular modem for remote access and transmission of data.
  - The installed instrument should be programmed to record continuously, providing peak ground vibration levels at a specified time interval (e.g. 5 minutes) as well as waveform signatures of any ground vibrations exceeding a threshold level of greater than 12 mm/sec peak particle velocity (PPV). The instrument should also be programmed to provide a warning should the peak ground vibration

level exceed the guideline limits specified. In the event of either a threshold trigger or exceedance warning, data would be retrieved remotely and forwarded to designated recipients.

- If ground vibrations exceed 12 mm/sec PPV during the construction phase, Golder recommends to:
  - Limit the heavy triaxles on the road by stockpiling in a safe location and moving the material with a skid steer and small dozer;
  - Use smaller construction equipment within proximity to the house; and,

- Designate John Fleming House and its associated new parcel under Part IV of the *Ontario Heritage Act.*

8.0 SUMMARY STATEMENT

In September 2018, Anatolia Capital Corporation (ACC) retained Golder Associates Ltd. (Golder) to conduct a Cultural Heritage Impact Assessment (CHIA) for the property at 9151 Huntington Road, part of the west half of Lot 15, Concession 9, in the City of Vaughan, Regional Municipality of York, Ontario. The 22.5-hectare property includes a two-storey Georgian-style farmhouse known as John Fleming House, one barn, and three outbuildings.

ACC is proposing to develop the property for two large industrial structures with associated access, parking lots, and landscaping. ACC plans to maintain the John Fleming House in its current location and relocating it to a commercial block at the northwest corner of the property within a five to ten-year timeline. A road is to be constructed within 3 m of the house. Since the property is a listed heritage property, the City requested a CHIA be conducted as part of the application for site plan approval.

Following guidelines provided by the Ministry of Tourism, Culture and Sport, City of Vaughan, and Canada's Historic Places *Standards and Guidelines for the Conservation of Historic Places in Canada* (2010), this CHIA identifies the heritage policies applicable to new development, summarizes the property's geography and history, and provides an inventory and evaluation of the property's built and landscape features. Based on this understanding of the property, the potential impacts resulting from the proposed development are assessed, and future conservation actions recommended based on a rigorous options analysis.

This CHIA concluded that:

- ***The property has cultural heritage value or interest for its*** representative example of a two-storey vernacular Georgian style farmhouse***, for its historical or associative value with Fleming family, and its contextual value with the historic community of Elder Mills.***
- ***Without mitigation John Fleming House will be adversely affected by the proposed development.***

To ensure the long-term sustainability and use of John Fleming House as a valued built heritage resource, Golder recommends to:

- Relocate John Fleming House to a commercial lot at the northwest corner of the property.

The following short-term and long-term conservation actions are recommended:

Short-term Conservation Actions

- Develop a Maintenance and Mothball Plan to stabilize and conserve John Fleming House in its current location for the next 5 to 10 years.

Construction phase

- Establish site controls and communication;
  - The property and specifically the footprint of the house should be clearly marked on project mapping and communicated to all project personnel for avoidance during design and construction.
- Create a physical barrier;
  - Precast concrete traffic barriers (i.e., concrete Jersey barriers or permanent bollards) should also be placed around the structure to prevent accidental collision with construction vehicles.

- Monitor for vibration impact during all adjacent construction within a 60 m radius of the house;
  - Continuous ground vibration monitoring should be carried out near the foundations of the house using a digital seismograph capable of measuring and recording ground vibration intensities in digital format in each of three (3) orthogonal directions. The instrument should also be equipped with a wireless cellular modem for remote access and transmission of data.
  - The installed instrument should be programmed to record continuously, providing peak ground vibration levels at a specified time interval (e.g. 5 minutes) as well as waveform signatures of any ground vibrations exceeding a threshold level of greater than 12 mm/sec PPV. The instrument should also be programmed to provide a warning should the peak ground vibration level exceed the guideline limits specified. In the event of either a threshold trigger or exceedance warning, data would be retrieved remotely and forwarded to designated recipients.
- If ground vibrations exceed 12 mm/sec PPV during the construction phase, Golder recommends to:
  - Limit the heavy triaxles on the road by stockpiling in a safe location and moving the material with a skid steer and small dozer;
  - Use smaller construction equipment within proximity to the house; and,

Long-term Conservation Actions

- Prepare a Heritage Conservation Plan detailing the conservation approach (i.e. preservation, rehabilitation or restoration), the required actions and trades depending on approach, and an implementation schedule to conserve John Fleming House prior to, during, and after the relocation effort.
- Designate John Fleming House and its associated new parcel under Part IV of the *Ontario Heritage Act.*

Operational phase

- Establish site controls and communication;
  - The property and specifically the footprint of the house should be clearly marked on project mapping and communicated to all project personnel for avoidance during operation.
- Create a physical barrier;
  - Precast concrete traffic barriers (i.e., concrete Jersey barriers or permanent bollards) should also be placed around the structure to prevent accidental collision with operational vehicles.
- Monitor for vibration impact during operational phase;
  - Continuous ground vibration monitoring should be carried out near the foundations of the house using a digital seismograph capable of measuring and recording ground vibration intensities in digital format in each of three (3) orthogonal directions for the first three (3) months of operation. The instrument should also be equipped with a wireless cellular modem for remote access and transmission of data.
  - The installed instrument should be programmed to record continuously, providing peak ground vibration levels at a specified time interval (e.g. 5 minutes) as well as waveform signatures of any ground vibrations exceeding a threshold level (12 mm/sec PPV). The instrument should also be

programmed to provide a warning should the peak ground vibration level exceed the guideline limits specified. In the event of either a threshold trigger or exceedance warning, data would be retrieved remotely and forwarded to designated recipients.

  - Periodic inspections (quarterly to yearly), based on the results of the first three (3) months of operation, should be conducted to determine if the house is being impacted by vibrations caused during operation of the developed. This can employ low cost methods such as periodic visual inspection for cracking in the foundation, then establishing measurement points when cracks are found. If cracking is discovered, the periodic inspections should increase in frequency, and may require further study and interventions.

- Maintain road to avoid surface irregularities (i.e., potholes);
- Install signage indicating maximum speed limits of 20 km/h adjacent John Fleming House; and,
- Install signage indicating no idling adjacent to John Fleming House.

9.0 REFERENCES

Adam, Graeme Mercer and Charles Pelham Mulvany
1885 *History of Toronto and the County of York, Ontario*. C. Blackett Robinson, Toronto.

Blumenson, John
1990 *Ontario Architecture: A Guide to Styles and Building Terms, 1784 to Present*. Fitzhenry & Whiteside, Toronto.

Canada's Historic Places
2010 *Standards and Guidelines for the Conservation of Historic Places in Canada.* Second Edition. Canada's Historic Places, Ottawa.

Carman, Richard A., Buehler, David, Mikesell, Stephen, and Carolyn L. Searls
2012 Current Practices to Address Construction Vibration and Potential Effects to Historic Buildings Adjacent to Transportation Projects. Wilson, Ihrig and Associates, ICF International, and Simpson, Gumpertz and Heger, Incorporated for the American Association of State Highway and Transportation Officials (AASHTO), Washington, DC.

City of Vaughan
1988 The Town of Vaughan By-Law Number 133-88. City of Vaughan, Vaughan, Ontario.

2010 City of Vaughan Official Plan. Electronic resource: https://www.vaughan.ca/projects/policy_planning_projects/Pages/Vaughan-Official-Plan---Volume-1-and-2.aspx. Last accessed April 2016.

n.d. City of Vaughan Heritage Inventory. Electronic resource: https://www.vaughan.ca/services/business/heritage_preservation/General%20Documents/Vaughan%20Heritage%20Inventory.pdf. Last accessed April 2016.

Clark, Kate
2001 *Informed Conservation: Understanding Historic Buildings and their Landscapes for Conservation.* English Heritage, London.

Department of Militia and Defence
1914 *Bolton, Ontario. 1:63,360. Map Sheet 030M13, [ed.1], 1914.* Survey Division. Electronic resource: http://geo.scholarsportal.info/#r/details/_uri@=HTDP63360K030M13_1914TIFF&_add:true_nozoom:true

Department of Energy, Mines and Resources
1963 *Wildfield, Ontario. 1:25,000. Map sheet 030M13D, ed.1, 1963.* Surveys and Mapping Branch. Electronic resource: http://geo.scholarsportal.info/#r/details/_uri@=HTDP25K030M13b_1963TIFF&_add:true_nozoom:true

1972 *Wildfield, Ontario. 1:25,000. Map Sheet 030M13B, ed. 2, 1972.* Surveys and Mapping Branch. Electronic resource: http://geo.scholarsportal.info/#r/details/_uri@=HTDP25K030M13b_1972TIF&_add:true_nozoom:true

English Heritage
2008 *Conservation Principles*. English Heritage, London.

Fram, Mark
2003 *Well-Preserved: The Ontario Heritage Foundation's Manual of Principles and Practice for Architectural Conservation.* Third edition. Boston Mills Press, Erin, Ontario.

Garvin, James L.
2001 *A Building History of Northern New England.* University Press of New England: Lebanon, NH.

Government of Ontario
2014 *Provincial Planning Statement 2014.* Electronic document: http://www.mah.gov.on.ca/Page215.aspx

2014 *Standards and Guidelines for the Conservation of Provincial Heritage Properties – Heritage Identification & Evaluation Process.* Ministry of Heritage, Sport, Tourism and Culture Industries, Toronto.

2006 *Ontario Heritage Tool Kit: Heritage Property Evaluation – A Guide to Listing, Researching, and Evaluating Cultural Heritage Property in Ontario Communities*. Ministry of Heritage, Sport, Tourism and Culture Industries, Toronto.

Ontario Heritage Tool Kit: Heritage Resources in the Land Use Planning Process. Ministry of Heritage, Sport, Tourism and Culture Industries, Toronto.

Ontario Heritage Tool Kit: Designating Heritage Properties: A Guide to Municipal Designation of Individual Properties Under the Ontario Heritage Act. Ministry of Heritage, Sport, Tourism and Culture Industries, Toronto.

Ontario Heritage Tool Kit: Heritage Conservation Districts: A Guide to Designation Under the Ontario Heritage Act Ministry of Heritage, Sport, Tourism and Culture Industries, Toronto.

1990 *The Planning Act*. Electronic document: https://www.ontario.ca/laws/statute/90p13?search=planning+act

1990b *Ontario Heritage Act.* Electronic document: https://www.ontario.ca/laws/statute/90o18?search=heritage+act

International Council on Monuments and Sites (ICOMOS)
2013 *Australia ICOMOS Charter for Places of Cultural Significance (Burra Charter).* ICOMOS Australia, Burwood, Victoria.
2011 *Guidance on Heritage Impact Assessments for Cultural World Heritage Properties.* ICOMOS, Paris.
1983 *Appleton Charter for the Protection and Enhancement of the Built Environment.* ICOMOS Canada, Ottawa.
1965 *International Charter for the Conservation and Restoration of Monuments and Sites (The Venice Charter 1964).* ICOMOS, Charenton-le-Point, France.

Kalman, Harold
2014 *Heritage Planning: Principles and Process.* Routledge, New York.
1980 *The Evaluation of Historic Buildings*. Parks Canada, Ottawa.

Mercer, Graeme, Mulvany, Charles Pelham, and Christopher Blackett Robinson
1885 *History of Toronto and County of York: Containing an Houtline of the History of the Dominion of Canada; a history of the City of Toronto and the county of York, with the Townships, Towns, Villages, Churches, Schools; General and Local Statistics.* C. Blackett Robinson, Publisher: Toronto. Electronic resource: https://books.google.ca/books?id=ttEOAAAAYAAJ&printsec=frontcover#v=onepage&q&f=false

Miles & Co.
1878 *York County: Illustrated historical atlas of the county of York and the township of West Gwillimbury & town of Bradford in the country of Simcoe, Ontario.* Toronto: Miles & Co.

New Zealand Transport Agency
2015 *Historic Heritage Impact Assessment Guide for State Highway Projects*. NZ Transport Agency, Wellington.

Office for Urbanism: Goldsmith Borgal and Company Architects (GBCA)
2009 *Woodbridge Heritage Conservation District Study and Plan.* Prepared for the City of Vaughan.

Ontario Department of Agriculture
1880 *Ontario Agricultural Commission, Appendix A: Proceedings of the Ontario Agricultural Commission*. Department of Agriculture, Toronto.

Ontario Government Record
ND Vaughan Township. *I0051494.jpg. RG 1-100-0-0-4095, Ontario Archives.* Electronic resource: http://ao.minisisinc.com/scripts/mwimain.dll/1540444779/1/1/44196?RECORD&DATABASE=IMAGES_WEB

Parks Canada Agency
1980 *Canadian Inventory of Historic Building Exterior Recording Training Manual*. Parks Canada, Ottawa.

Randl, Chad
2001 Temporary Protection No. 3: Protecting a Historic Structure during Adjacent Construction. *U.S. Department of the Interior National Parks Service Cultural Resources Tech Notes*. http://www.nps.gov/tps/how-to-preserve/tech-notes/Tech-Notes-Protection03.pdf. Last Accessed: 20 November 2015.

Rayburn, Alan
1997 *Place Names of Ontario*. University of Toronto Press, Toronto.

Reaman, George Elmore
1971 *A History of Vaughan Township*. Vaughan Township Historical Society, Vaughan.

Elder's Mills W.I. Tweedsmuir Committee
2000 *Remembering Elder's Mills.* The Women's Institute Book Committee.

Scarlett Janusas Archaeology Inc.
2014 *Cultural Heritage Landscape & Built Heritage Study: Block 59, West Vaughan Employment Area.*

Schott, Carl
1981 The Survey Methods. Translated by Andrew Burghardt. *Canadian Geographer* 25(1): 77-93.

Smith, Wm. H.
1846 *Smith's Canadian Gazetteer*. H. & W. Rowsell, Toronto.

Statistics Canada
2011 Census Profile, City of Vaughan. Electronic resource: www.statscan.gc.ca. Accessed April 2016.

The Conservation Studio
2004 Measuring change in conservation areas: A research report for English Heritage. The Conservation Studio, Cirencester, UK. Available online: https://goo.gl/MXTqaK.

Tremaine, George R.
1860 *York County Map.* Ontario historical County Maps Projects. Available online: http://maps.library.utoronto.ca/hgis/countymaps/york/index.html

UK Highways Agency
2007 *Design Manual for Roads and Bridges: Volume 11*, HA 208/07. The Stationary Office, London.

University of Toronto Library
1954 *1954 Air Photos of Southern Ontario.* Map and Data Library. Electronic resource: https://mdl.library.utoronto.ca/collections/air-photos/1954-air-photos-southern-ontario/index

York Region
2017 York Maps. Online Resource: https://ww6.yorkmaps.ca/Html5Viewer24/Index.html?configBase=https://ww6.yorkmaps.ca/Geocortex/Essentials/Essentials43/REST/sites/CommunityServices/viewers/YorkMaps/virtualdirectory/Resources/Config/Default

Signature Page

Golder Associates Ltd.

Ragavan Nithiyanantham, M.A., CAHP
Cultural Heritage Specialist

Michael Teal, M.A.
Associate, Senior Archaeologist

RN/MT/ly

https://golderassociates.sharepoint.com/sites/31683g/deliverables/9151 huntington road/18107463-r02-rev1 13mar2020_9151huntingtonroad_chia_final.docx