



REPORT

STRUCTURAL REVIEW REPORT

8811 HUNTINGDON ROAD (HENRY BURTON HOUSE), WOODBRIDGE, ON

Submitted to:

Josh Berry, Land Planner

Anatolia Capital Corporation
8300 Huntington Road
Vaughan, ON Canada
L4H 4Z6

Submitted by:

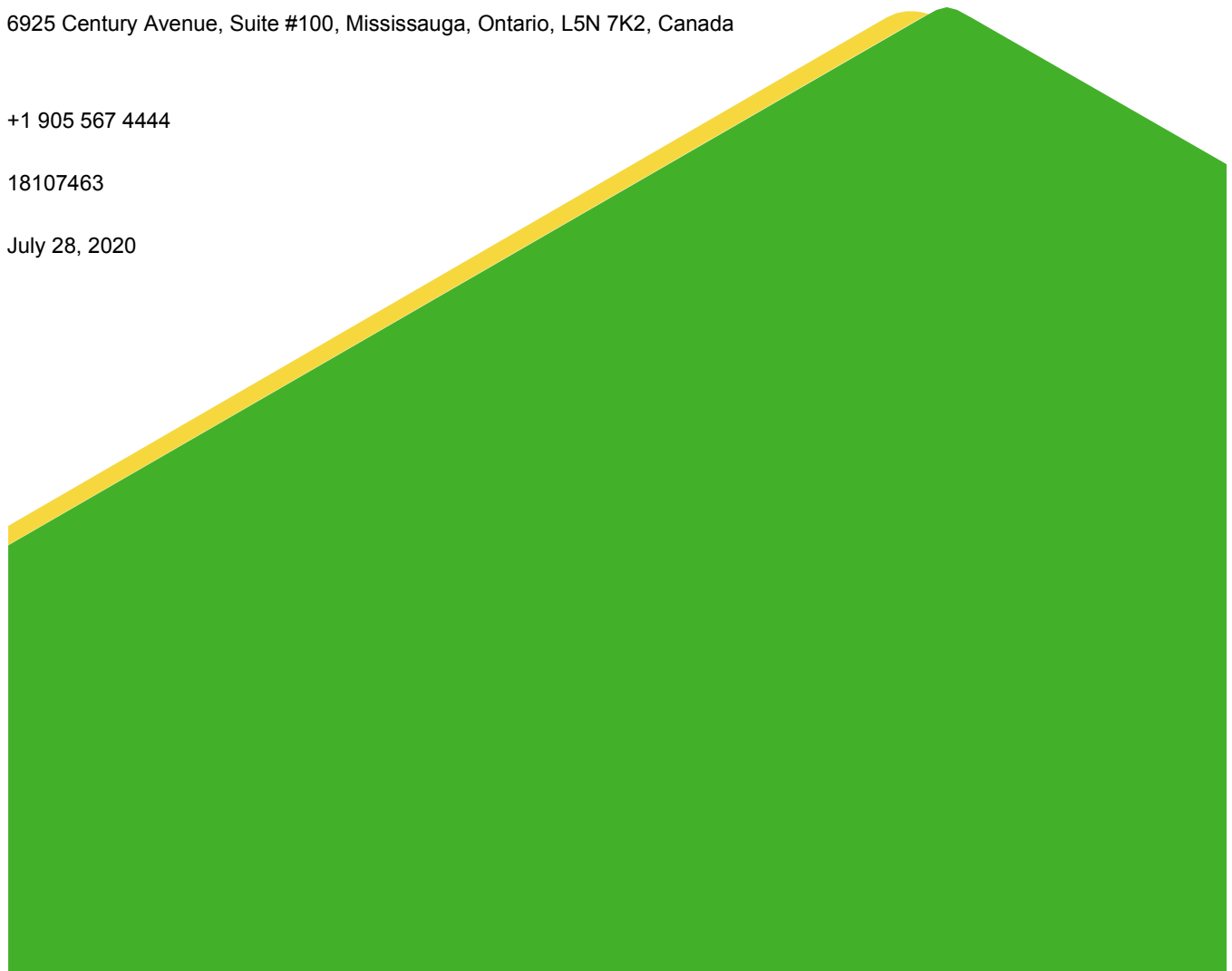
Golder Associates Ltd.

6925 Century Avenue, Suite #100, Mississauga, Ontario, L5N 7K2, Canada

+1 905 567 4444

18107463

July 28, 2020



Distribution List

1 PDF: Anatolia Capital Corp.,

1 PDF: Golder Associates Ltd., Mississauga, ON

Site Review Report Limitations

This report is based on data and information reviewed during the site review conducted by Golder Associates Ltd. (Golder). The information provided is based solely on the conditions of the site at the time of the field review, supplemented by Quality Assurance (QA) and Quality Control (QC) data reviewed by Golder. 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 services performed, as described in this report, were conducted in a manner consistent with that level of care and skill normally exercised by other members of the engineering and science professionals currently practicing under similar conditions and scope agreed in the contract subject to the time limits and financial and physical constraints applicable to the services.

This report provides a professional opinion and therefore no warranty is expressed, implied, or made as to the conclusions, advice and recommendations offered in this report.

Table of Contents

1.0 INTRODUCTION	1
2.0 OBSERVATIONS.....	1
2.1 General Description	1
2.1.1 Main Block of Henry Burton House.....	1
2.1.1.1 Exterior.....	1
2.1.1.2 Interior.....	3
2.1.1.3 Basement.....	9
2.1.2 East Wing.....	12
2.1.2.1 Exterior.....	12
2.1.2.2 Interior.....	15
2.1.3 South Addition.....	17
2.1.3.1 Exterior.....	17
2.1.3.2 Interior.....	18
3.0 COMMENTS.....	20
3.1 East Wing and South Addition	20
3.2 Main block of the House.....	20
4.0 CLOSURE	21

FIGURES

Figure 1: West and north façades.	2
Figure 2: South façade.	2
Figure 3: South and west façades.	3
Figure 4: Coursed rubble foundation of the Main Block.	3
Figure 5: 8811 Huntington Road floorplan (not to scale).....	5
Figure 6: Interior east log wall on the Main Block.....	6
Figure 8: Detail of top of the doorway, showing split log and vertical lath and plaster.....	7
Figure 9: Staircase in Main Block leading to second storey.....	7
Figure 10: Interior of second storey, with large south room and two north bedrooms.	8

Figure 11: Northwest bedroom, second storey.	8
Figure 12: Northeast bedroom, second storey. Note the wide baseboards.	9
Figure 13: Stairs in the southeast corner of the basement, with three support posts.	10
Figure 14: Brick floor in the basement.	10
Figure 15: Fireplace at north end of basement, with wood lintel.	11
Figure 16: Example of overhead sleeper.	11
Figure 17: Crawlspace in east wall of basement. Crawlspace is below the East Wing.	12
Figure 18: North and West façades.	13
Figure 19: North and east façades.	13
Figure 20: Visible join between East Wing and Main Block. Note the small horizontal sliding window.	14
Figure 21: Joint visible in foundation in East Wing and Main Block.	14
Figure 22: Bricks visible behind wallpaper and plaster, southeast corner of the ground floor room.	15
Figure 23: Northeast staircase in East Wing.	16
Figure 24: Northeast corner, second storey of East Wing.	16
Figure 25: Detail of brick wall on east side of the Wing.	17
Figure 26: East façade, with South Addition on the south façade of the East Wing.	17
Figure 27: South façade of South Addition, obscured by bushes.	18
Figure 28: Brick wall on north side of South Addition.	19
Figure 29: East wall of the South Addition, with stove flashing and wood panelled ceiling.	19
Figure 30: Adze marks on wood lintel above the door to the South Addition.	20

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 8811 Huntington Road, part of the west half of Lot 13, Concession 9, in the City of Vaughan, Regional Municipality of York, Ontario. The 32.98-hectare property includes a storey-and-a-half Georgian-style vernacular log house known as Henry Burton House, two barns, the stone foundation of a barn, outbuildings, and agricultural and natural lands, and is listed on the City's Heritage Register. Furthermore, ACC retained Golder to complete a Structural Assessment of 8811 Huntington Road- Main Block and East Wing. The objective of this structural assessment is to find out the possibility of relocation of these structures.

2.0 OBSERVATIONS

2.1 General Description

The house at 8811 Huntington Road includes a single-detached, three-bay, storey-and-a-half wood building. Four outbuildings are identified, as well as the foundations of an older barn. Henry Burton House is the only built heritage element of the property recognized as a cultural heritage asset, and thus the only building documented in detail. The built environment is described in further detail below.

2.1.1 Main Block of Henry Burton House

2.1.1.1 Exterior

Located on the west half of the property, the Main Block has a rectangular footprint. It is a single-detached, storey-and-a-half, three-bay residence with a rectangular plan oriented north-south. The structure stands on a coursed rubble foundation. Exterior walls are covered by board and batten on the north, south, and west sides, and thin horizontal wood clapboard siding on the main façade (Figure 1 to Figure 4).

Over the Main Block is a low gable-roof with projecting eaves on the west façade of the house, with plain fascia and soffits. The roof is covered with metal sheeting, and an aluminum rainwater system is in place on the west eave of the structure.



Figure 1: West and north façades.



Figure 2: South façade.



Figure 3: South and west façades.



Figure 4: Coursed rubble foundation of the Main Block.

2.1.1.2 Interior

On the ground floor, there are three major room divisions as well as one staircase. Two of room divisions appear to have been used as bedrooms, and one as a bathroom (Figure 5). Upon entering the central doorway, a hallway extends through the centre of the residence, with one doorway on the north side of the hallway, and three on the

south side. Walls are likely lath and plaster and covered in cream wallpaper with a floral border at the top. The paint shows evidence of extended water damage. The floor is covered by a warped laminate which overlays older flooring below, as is evidenced by the lack of alignment with the baseboards. This room, as well as the hallway, has seen extensive damage from moisture and other pests. Doorframes on the ground floor of the main block indicate that the walls are thin, and likely of wood-frame construction.

To the north of the hallway, a large room makes up the north side of the Main Block. It can be entered from the hallway through a two-panel wood door or the adjoining East Wing. There is no evidence of a fireplace in this room, suggesting that the Main Block's ground floor has seen extensive renovations.

The doorway that opens into the East Wing exposes the interior construction of the Main Block walls: partially shaped logs, indicating that a portion of the structure is a log house covered by siding (Figure 6). These logs were felled and cut using a crosscut hand saw, based on the non-parallel straight lines, which suggest hand sawing over a band saw, and are present on the exposed end surfaces of the wood, and did not have the bark removed from the upper and lower sides of the log before shaping and construction of the house (Figure 7). Plaster is visible on both sides of the logs, indicating plastered walls in both the Main Block and the East Wing. The large lintel over the doorway shows evidence of drill or wedge marks and split in order to create the flat beam. Vertical hand-split lath is present on the Main Block side of the doorframe (Figure 8).

The second storey of the Main Block is separated into three rooms. A wall running through the middle of the space sections off two identically sized bedrooms, each with a window at the north wall. Floorboards on the second storey are very wide hardwood planks that likely date to the original construction of the residence (Figure 12).

HENRY BURTON HOUSE
8811 HUNTINGTON ROAD,
CITY OF VAUGHAN,
REGIONAL MUNICIPALITY OF YORK,
ONTARIO

Key

- Stone
- Log
- Brick
- Frame
- Post
- Stairs (up)
- Door (exterior)
- Door (interior)
- Window
- Window (blocked)

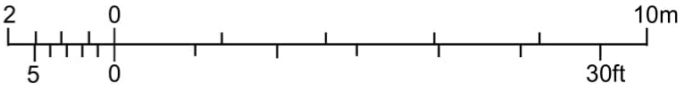
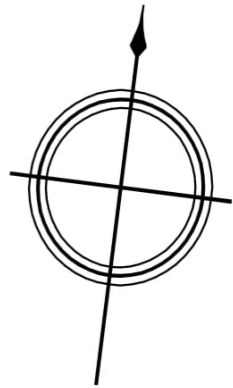
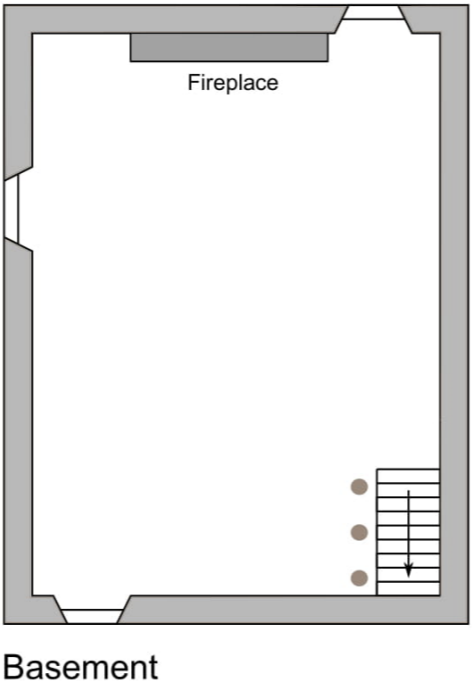
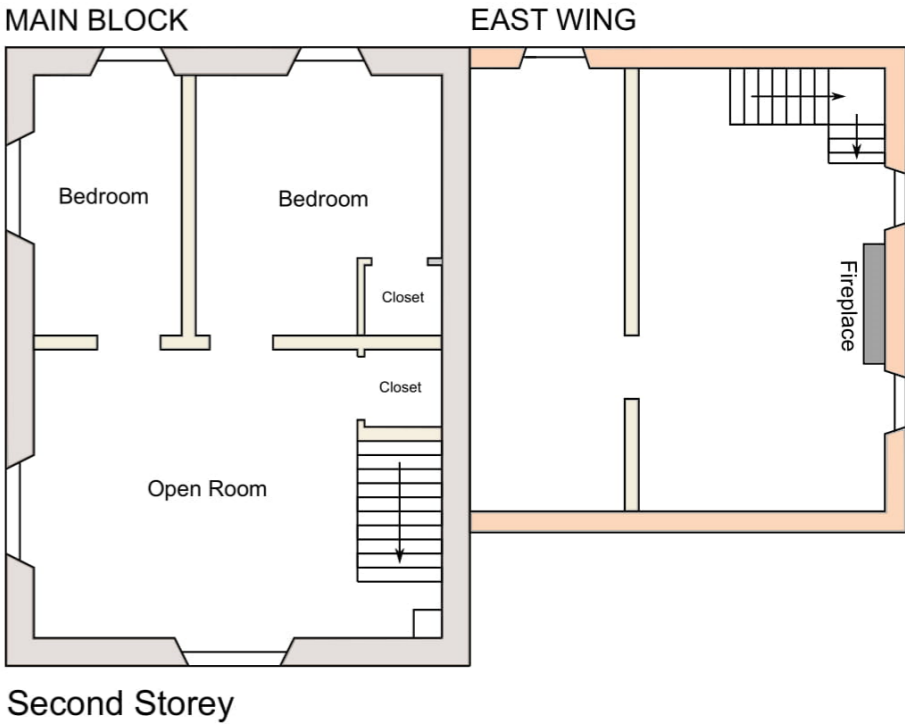
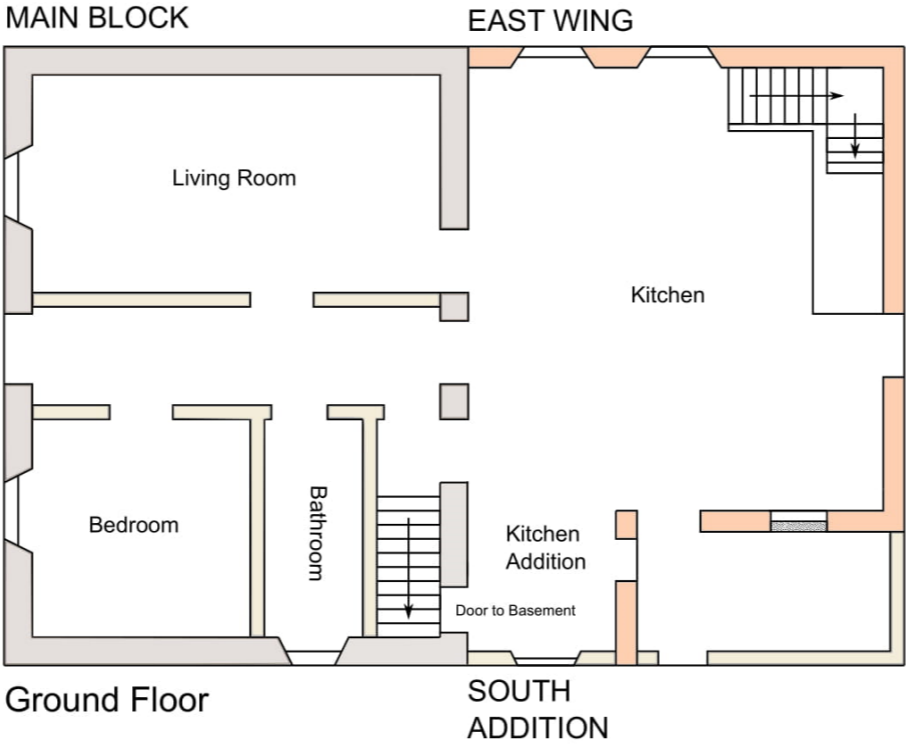


Figure 5: 8811 Huntington Road floorplan (not to scale)



Figure 6: Interior east log wall on the Main Block.



Figure 7: Cross-cut saw marks.



Figure 8: Detail of top of the doorway, showing split log and vertical lath and plaster.

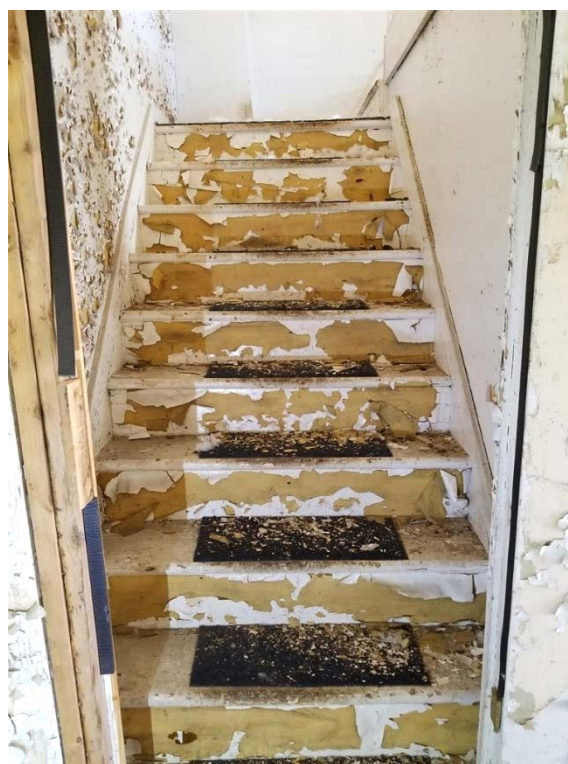


Figure 9: Staircase in Main Block leading to second storey.



Figure 10: Interior of second storey, with large south room and two north bedrooms.



Figure 11: Northwest bedroom, second storey.



Figure 12: Northeast bedroom, second storey. Note the wide baseboards.

2.1.1.3 Basement

The basement is located beneath the Main Block of the residence and consists of a single full-height room with coursed stone rubble walls. A simple wood staircase leads downstairs from the exterior southeast corner, and three tree trunks are braced alongside the stairs, creating support for the floor above (Figure 13). An interesting feature of the basement is its brick floor, which spans the entire room (Figure 14). At the north end of the basement, a large stone fireplace with a wood lintel is built into the foundation and would have extended into the ground and second storey at one point (Figure 15).

Resting on top of the stone foundation are a series of lateral beams running east-west, unsupported in the centre of the room. The beams are also made primarily from unshaped logs, known as sleepers, both with and without the bark removed, which have been cut to a square or flat-bottomed at either end to sit in the wall (Figure 16). At the east end of the room, a small crawl-space is visible extending east beneath the East Wing and South Addition (Figure 17).



Figure 13: Stairs in the southeast corner of the basement, with three support posts.



Figure 14: Brick floor in the basement.



Figure 15: Fireplace at north end of basement, with wood lintel.



Figure 16: Example of overhead sleeper.



Figure 17: Crawlspace in east wall of basement. Crawlspace is below the East Wing.

2.1.2 East Wing

2.1.2.1 Exterior

The East Wing has a rectangular footprint and is oriented east-west (Figure 18 to Figure 18). It is a storey-and-one-half structure with a low gable roof, attached to the east façade of the Main Block. The walls are covered with a combination of board-and-batten siding and horizontal wood siding. As with the Main Block, the metal roof has projecting eaves but not verges, and plain soffits and fascia. There is a small, unused chimney present at the east end of the roof, between the second storey windows.

Sitting on a coursed rubble foundation similar to that of the Main Block, there is a visible joint between the two structures (Figure 20 and Figure 21). Only the north and east walls of the structure are visible from the exterior, due to its connections to the Main Block to the west and the South Addition to the south.



Figure 18: North and West façades.



Figure 19: North and east façades.



Figure 20: Visible joint between East Wing and Main Block. Note the small horizontal sliding window.



Figure 21: Joint visible in foundation in East Wing and Main Block.

2.1.2.2 Interior

The East Wing can be entered from the exterior door on the east façade, or through the adjoining Main Block door on the west interior wall. The ground floor itself has only one, large room, and it was likely added as an extension for kitchen space to the structure. While the exterior walls of the Wing are covered by wood siding, brick is exposed around a blind window on the south interior wall, suggesting that the entire wing is likely constructed from brick (Figure 22).

At the top of the north staircase (Figure 23), the East Wing's second storey does not connect to that of the Main Block. This level is divided into two rooms, an east and a west, that comprise the entire floor. Directly adjacent to the staircase on the east wall is a large brick chimney with a stove flashing near the roof, which has been covered over in stones and cement, but has since been decommissioned (Figure 24). Brick is visible beneath the plaster on the exterior walls as well, confirming the brick construction of the Wing (Figure 25).



Figure 22: Bricks visible behind wallpaper and plaster, southeast corner of the ground floor room.



Figure 23: Northeast staircase in East Wing.



Figure 24: Northeast corner, second storey of East Wing.

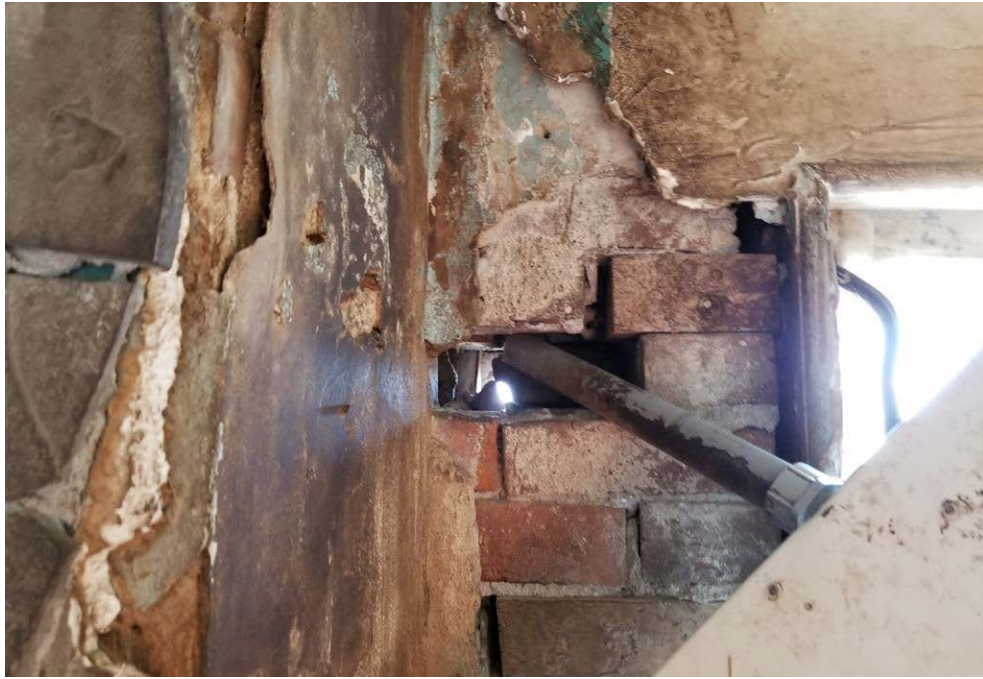


Figure 25: Detail of brick wall on east side of the Wing.

2.1.3 South Addition

2.1.3.1 Exterior

The South Addition covers a rectangular floor plan and is oriented east-west, aligned with the East Wing of the structure. It has one exterior doorway, and only one window, now boarded over, on the south façade (Figure 26 and Figure 27). The metal shed roof extends from the South Wing. A brick chimney is present on the east side of the Addition.



Figure 26: East façade, with South Addition on the south façade of the East Wing.



Figure 27: South façade of South Addition, obscured by bushes.

2.1.3.2 Interior

The South Addition has an east and a west room. Within the east room, a blind window and exposed brick wall suggest that the Addition was constructed as an extension of the East Wing (Figure 28). The east wall is covered with plaster and paint, and a stove flashing with a brick flue extends upwards from the centre of the wall (Figure 29). Rotten wood-panels on the ceiling have fallen away at the east end of the room, exposing wood framing above. A large wood beam extends between the East Wing and the South Addition with adze marks (Figure 30). This beam is likely part of the frame of the East Wing. Stretcher bond makes up the visible brick wall, which used to be an exterior wall.



Figure 28: Brick wall on north side of South Addition.



Figure 29: East wall of the South Addition, with stove flashing and wood panelled ceiling.



Figure 30: Adze marks on wood lintel above the door to the South Addition.

Please refer to Sections 5.0 and 6.0 of the HIA report for the detailed figures of above noted areas of the House.

3.0 COMMENTS

3.1 East Wing and South Addition

- The floor and roofing system appeared to be compromised and require significant structural repair.
- The exterior brick wall in several locations appears to be in poor condition.
- The connection between the perimeter exterior walls to the main floor wooden members (joists) were not visible and we could not confirm the connection details.
- The east wing and south addition of the house have gone through several renovations over the years and have utilised various construction materials and methodology. They do not appear to be feasible for relocation due to its current condition and compromised structural integrity.

3.2 Main block of the House

- Considering the overall condition of the House and condition of the perimeter wall, existing floor and roofing system based on visual evidence, it visually appeared that it would be possible to relocate the main block of House from the main floor and above. The main block of the house could be placed on new foundation walls

at the desired location. However, the floor and roofing system may require structural repair, upgrade, and reinforcement to withstand lateral loads during relocation, as well as new loading condition due to change of occupancy.

- The built-up roof rafters may require additional bracing/ties to withstand lateral loads during relocation.
- Further detailed structural analysis are recommended to verify the structural integrity and stability as per current the Ontario Building Code for the intended conversion to another residence or change of use and use for the public.
- The connection between the perimeter exterior walls to the main floor wooden members (joists) were not visible and we could not confirm the connection details. It is recommended that the connection to be reviewed and verified in detail prior to any structural modifications for relocation. An experienced building moving company shall be consulted, that specialises in moving of historic buildings for a feasible moving plan.
- In the meantime, the site should be secured to avoid illegal access by the intruders. Also, the site should be weather proofed.

4.0 CLOSURE

We trust that this report meets your current needs. If you have any questions, or if we may be of further assistance, please contact the undersigned.

Golder Associates Ltd.



Anuj Modi, PEng, PMP
Structural Engineer



Max Abtahi, PEng, PMP
Associate, Structural Group Lead

AM/MA/mc

Golder and the G logo are trademarks of Golder Associates Corporation

<https://golderassociates.sharepoint.com/sites/31683g/Deliverables/Forms/AllItems.aspx?csf=1&web=1&e=OkPpnN&cid=24ab252e%2D745a%2D4942%2D859d%2D2e4835745d9e&RootFolder=%2Fsites%2F31683g%2FDeliverables%2FStructural&FolderCTID=0x012000579AA231D0EB1442BAAEF90DF7FF9D0F>



golder.com