

Report to: Development Services Committee Meeting Date: December 11, 2017

**SUBJECT**: Eligibility of the Alfred Read House for relocation to

Markham Heritage Estates 2780 19<sup>th</sup> Avenue, Ward 2

**PREPARED BY:** Peter Wokral, Heritage Planner, ext. 7955

**REVIEWED BY:** Regan Hutcheson, Manager of Heritage Planning ext. 2080

#### **RECOMMENDATION:**

1) That the report entitled "Eligibility of the Alfred Read House for relocation to Markham Heritage Estates, 2780 19<sup>th</sup> Avenue, Ward 2", dated December 11, 2017, be received;

- That the Alfred Read House not be declared eligible for relocation to Markham Heritage Estates, so that long term preservation of the building on its original site might be achieved through compliance with both the City of Markham's Property Standards, and Keep Markham Beautiful By-laws;
- 3) That as recommended by Heritage Markham, the Alfred Read House be approved for designation under Part IV of the <u>Ontario Heritage Act</u> as a property of cultural heritage value or interest;
- 4) That the Clerk's Department be authorized to publish and serve Council's Notice of Intention to Designate as per the requirements of the Ontario Heritage Act;
- 5) That if there are no objections to the designation in accordance with the provisions of the Ontario Heritage Act, the Clerk be authorized to place a designation by-law before Council for adoption;
- That if there are any objections in accordance with the provisions of the Ontario Heritage Act, the Clerk be directed to refer the proposed designation to the Ontario Conservation Review Board;
- 7) And that Staff be authorized and directed to do all things necessary to give effect to this resolution.

#### **PURPOSE:**

The purpose of this report is to provide the information necessary for Council to consider the appropriateness of relocating the Alfred Read House from 2780 19<sup>th</sup> Avenue to Markham Heritage Estates, and to recommend that it be designated under Part IV of the Ontario Heritage Act. The large piece of property that the Alfred Read House occupies has recently been purchased by the City of Markham. A person interested in relocating the house to Markham Heritage Estates had obtained the permission of the previous owner through a letter of understanding, to pursue the removal of the house from the

property to be relocated to Markham Heritage Estates, and is now seeking similar approval from the City.

#### **BACKGROUND:**

The Alfred Read House is a significant heritage building listed on the Register The Alfred Read House is a one and one half storey, solid brick, Classical Revival Farmhouse constructed for prominent local farmer Alfred Read circa 1855. It is notable for its exceptionally fine brickwork, and classical detailing which reflects the prosperity attained by the original owners during the heyday of wheat farming in Markham Township. (See attached photographs taken in 2008 and Reasons for Designation, Figures 2 and 3)

# The Alfred Read House is worthy of designation under Part IV of the *Ontario Heritage Act*

Using the City's Heritage Building Evaluation System, the Alfred Read House was rated as a "Group 2" building worthy of designation under Part IV of the <u>Ontario Heritage Act</u>. The City was prepared to designate the Alfred Read House in response to a demolition permit application for the house and barn submitted by the owner in 2008. The demolition permit was subsequently amended to exclude the house, and the City did not pursue designation.

#### The Alfred Read House is considered threatened

In 2008, a site inspection of the Alfred Reed House conducted by members of Heritage Section Staff and Heritage Markham revealed that the house was vacant, and in deteriorating condition. Recent photos taken in 2016 by another person interested in relocating the Alfred Read House to Heritage Estates show that damage to the interior is now much more extensive, as there are holes in the roof, extensive water damage, the presence of mould, portions of the second floor ceiling have collapsed, and the main floor has been left open to the elements, vandalism, and salvaging of valuable interior heritage components. (See attached interior photographs, Figure 4).

In late 2016, Heritage Section Staff compiled a list of the top ten most threatened, significant, vacant heritage buildings in the City of Markham. The Alfred Read House was ranked as the third most significant and threatened heritage buildings behind the Reverend Jenkins House at 11022 Kennedy Road, which Council recently approved for relocation to Heritage Estates, and the Joseph Pipher House at 33 Dickson Hill Road, which due to its full two storey solid fieldstone construction is virtually impossible to relocate from its original site. The Alfred Read house was also identified as a threatened building in the Markham Heritage Estates Study of 2004.

### Markham has strengthened its ability to protect vacant Heritage Buildings

In April of 2017, Council supported proposed amendments to both the City's "Property Standards", and the "Keep Markham Beautiful" By-laws. These amendments include proper hoarding and boarding techniques, a requirement to provide adequate security lighting and minimum heating, and the elimination of the ability of owners to remove heritage features instead of repairing them. Given the new requirements, property owners will hopefully view tenanting heritage buildings as a more attractive option to leaving

them vacant. The new by-law provisions will allow the City to require the necessary repairs to the house using proper materials and would include the securing of all openings.

The City's By-law Enforcement Department is preparing to issue several orders under both By-laws requiring compliance from owners of vacant heritage buildings, and is confident that compliance can be achieved with or without the owner's cooperation, as the Keep Markham Beautiful By-law allows the City to hire contractors to perform repair work, and recover costs through taxes, without any right to appeal.

### Heritage Markham supports enforcement to protect the building

Based on the City's Official Plan heritage policies, which support the retention of heritage resources in their original locations, and the hope that changes to the City's Property Standards and Keep Markham Beautiful By-laws might compel the owners of vacant heritage buildings like the Alfred Read House to make necessary repairs, Heritage Markham did not support the proponent's request to relocate the Alfred Read House to Markham Heritage Estates. (See Heritage Markham extract of April 12, 2017, Figure 5) Instead, Heritage Markham recommended that the appropriateness of relocating the Alfred Read House to Heritage Estates, be considered in light of the recent amendments to the City's Property Standards and Keep Markham Beautiful By-laws, which have now been adopted by Council.

### The Alfred Read House is located within the Existing Urban Boundary

The Alfred Read House is regulated by the 404 North Secondary Plan and is within the existing Urban Area. Integration of the house into future redevelopment, will be required of the owner by the City's Planning Department.

The lands that the Alfred Read House occupies are designated for employment uses, and a residential use of the house is not permitted by the City's Official Plan and current Zoning By-law, making the successful integration of a detached dwelling more challenging than if it were located on lands designated for residential uses. However, a number of other heritage dwellings in Markham have been successfully re-adapted for commercial uses compatible with an employment district such as daycares, restaurants, or personal service and office uses.

### The Proponent supports relocation to preserve the building

Based on recent site visits to the Alfred Read House which have revealed significant deterioration to the house since last visited by City Staff, the proponent, William Hsieh believes that relocation to Markham Heritage Estates is warranted, given the historical significance of the building, and until the recent purchase by the City, it may have been the only sure, and realistic chance of preserving the structure. Earlier this year, Mr. Hsieh obtained a letter of intent from the previous owner of the property, Mr. Attilio Lio of Zodiac Developments Inc. giving him permission to pursue removal of the Alfred Read House from the property with the City (see Letter of Intent, Figure 6)

#### **OPTIONS/ DISCUSSION:**

# City policies support retention and conservation of cultural heritage resources on site

Given the City's own Official Plan policies regarding the relocation and preservation of significant heritage buildings, including the policies related to demonstrating leadership and proper stewardship of all municipally-owned cultural heritage resources, and the City's establishment of the recently amended "Property Standards" and "Keep Markham Beautiful" By-laws, the City should lead by example, and immediately commence the process of Designating the Alfred Read House, and commit adequate funds to restore it to habitable condition or at least stabilize the structure so that it may be restored in the future. Failure to address the existing deficiencies of the house will only increase the cost of restoration in the future, or lead to the ultimate loss of the resource.

# The cost of fully restoring the Alfred Read House is conservatively estimated at \$525,000.00

A Property Condition Assessment Report prepared by McIntosh Perry Limited in August of 2017, concludes that approximately \$525,000.00 would need to be spent on restoring the house to make it habitable. (See attached Property Condition Report Appendix 'A') This does not take into account recommended minor improvements costing under \$5,000.00. Just stabilizing the house, so it may be restored in the future, may cost the City as much as \$400,000.00, as the building urgently needs a new roof, repairs to the soffits and eave troughs, repair of the water damaged interior, proper boarding, mould remediation, and the provision of basic services such as electricity, heat and security.

### Redevelopment of the land is considered to be imminent

Because the property is located on lands designated as Employment Lands within the existing Urban Area, redevelopment of the land in the near future is now possible. The City may choose to create a separate parcel of land for the Alfred Reed house and pass on the obligation of its restoration to a new private owner interested in incorporating the house into a future development.

### There are only 6 lots remaining in Markham Heritage Estates

Based on prior Council permissions to relocate homes to Markham Heritage Estates, there are six lots remaining in Heritage Estates. Given the limited number of remaining lots, and the relatively large number of significant heritage buildings that are considered threatened, the eligibility of heritage homes for relocation to Heritage Estates must be carefully considered to ensure that only the most significant and most threatened heritage buildings are permitted to be relocated. Staff is reviewing additional options for relocating heritage homes that cannot be retained on site, and will be reporting to Development Services Committee in the near future, however opportunities are limited.

### Summary of factors to be considered- on-site retention versus relocation

Factors for Consideration	On Site Retention	Relocation to Markham Heritage Estates	
Costs	City would be required to provide	Individual relocating the building would be	
	funding to rehabilitate the building	responsible for all costs associated with	

Page 5

Meeting Date: December 11, 2017

and ongoing maintenance.		relocation and restoration.	
Costs have been estimated as:			
\$400,000-520,000  Revenues Possible revenue to City if building is		Revenue from sale of the lot at the Estates	
kevenues	leased to others once restored or a	Nevertue from sale of the lot at the Estates	
	portion of the land with the heritage		
building is sold to others			
Municipal Policies –	Policy 4.5.1.2	The presumption is that municipally-owned	
<b>City Owned Assets</b>	To demonstrate leadership and proper	heritage resources will be protected and	
	stewardship of all municipally-owned	maintained on site which is in compliance	
It is the policy of	cultural heritage resources by	with the same direction given to owners of	
Council:	designating and managing such	privately-owned heritage resources.	
	resources in accordance with the policies of the Official Plan		
	Policy 4.5.4.3		
	To require the activities of all		
	municipal departments to respect the		
	importance of Markham's cultural		
	heritage resources, and support the		
	objectives and policies, where		
	feasible, through their by-laws,		
	programs and works. Policy 4.5.5.3		
	To use fiscal tools, incentives and		
	financial assistance, where		
	appropriate to facilitate the		
	maintenance and conservation.		
Municipal Policies –	Policy 4.5.3.12	Policy 4.5.3.13	
Retention vs	To retain and conserve cultural	To consider the following options in order of	
Relocation	heritage resources and consider the following options, in order of priority:	priority for relocation of a cultural heritage	
	a) Retention of the resource on	resource in its entirety, where it has been demonstrated that retention in its original	
It is the policy of	its original location and its	location is neither appropriate or viable:	
Council:	original use.	a) Within the area of development or	
	original use.	former property	
	b) Retention of the resource in		
	its original location, but in an	b) To a sympathetic site within	
	adaptive re-use	Markham	
	The activity has a superscript in the forest	It has not been demonstrated that on-site	
	There will be a presumption in favour of retaining the resource in its original	retention is not viable.	
	location.		
This option would comply with this			
	policy.		
Municipal Policies – The City would have to demonstrate		Policy 4.5.3.19	
Markham Heritage	how the building is under serious	Eligibility	
<b>Estates</b> threat of loss and cannot be re		Heritage resources must be determined by	
	on-site under its ownership.	Council to be under serious threat of loss and cannot be retained on their original sites.	
		There are only 6 lots left at the Estates. The	
		Estates is a refuge of last resort.	
Heritage Markham	Recommended that the property	Did not support relocation	

Meeting Date: December 11, 2017

Committee	comply with City Property Standards	
	by-law and be designated under the	
	Ontario Heritage Act	

Page 6

If the building is allowed to be relocated, the City would not be responsible for rehabilitation costs or ongoing maintenance and would obtain revenue from the lot sale at Markham Heritage Estates. The building would be restored and occupied by others. However, allowing the building to be relocated would be contrary to Official Plan polices related to municipal responsibilities for heritage properties in City ownership and contrary to policies indicating that these resources are to be retained on their original site unless there is evidence of serious threat of loss or that on-site retention is not appropriate or viable. The Heritage Estates is supposed to be a refuge of last resort. Relocation would also remove one of the few remaining lots at Markham Heritage Estates and would be contrary to the recommendation of the Heritage Markham Committee.

#### FINANCIAL CONSIDERATIONS

Should Council require the restoration of the Alfred Read house on site, the cost of stabilizing or restoring the building will fall to the City, unless the house can be sold to a new private owner on a smaller parcel of land. Permitting the Alfred Read House to be moved to Heritage Estates will pass on all costs of relocation and restoration to the proponent William Hsieh, and result in revenue from the sale of a lot at Heritage Estates.

### **HUMAN RESOURCES CONSIDERATIONS**

Not applicable.

### ALIGNMENT WITH STRATEGIC PRIORITIES:

Designating and retaining and restoring the Alfred Read House on its original site and foundation would strengthen the City's moral authority by adhering to its own Official Plan policies and By-laws regarding heritage properties.

### **BUSINESS UNITS CONSULTED AND AFFECTED:**

Heritage Markham, the City's heritage advisory committee was consulted regarding the appropriateness of relocating the Alfred Read House to Markham Heritage Estates.

Legal Services and By-law Enforcement staff were consulted, and By-laws will be involved in future property inspection and enforcement through property standard orders.

**RECOMMENDED BY:** 

Biju Karumanchery, M.C.I.P., R Director of Planning & Urban Design

Brian Lee, P Eng.

Acting Commissioner of Development

Services

Meeting Date: December 11, 2017

**ATTACHMENTS:** 

Figure 1	Location Map	
Figure 2	Photographs of the Alfred Read House taken in 2004 and 2008	
Figure 3	Reasons for Designation	
Figure 4	Current Interior Photographs 2016	
Figure 5	Heritage Markham Extract from April 12, 2017	
Figure 6	Letter of Intent from previous owner	
Appendix 'A'	Property Condition Report	

 $File\ Path:\ Q:\ \ Development\ \ \ Heritage\ \ \ PROPERTY\ \ \ NINETNTH\ \ \ \ 2780\ Read\ \ House\ \ \ Report\ to\ DSC\ 2017.doc$ 

**Figure 1- Location Map** 

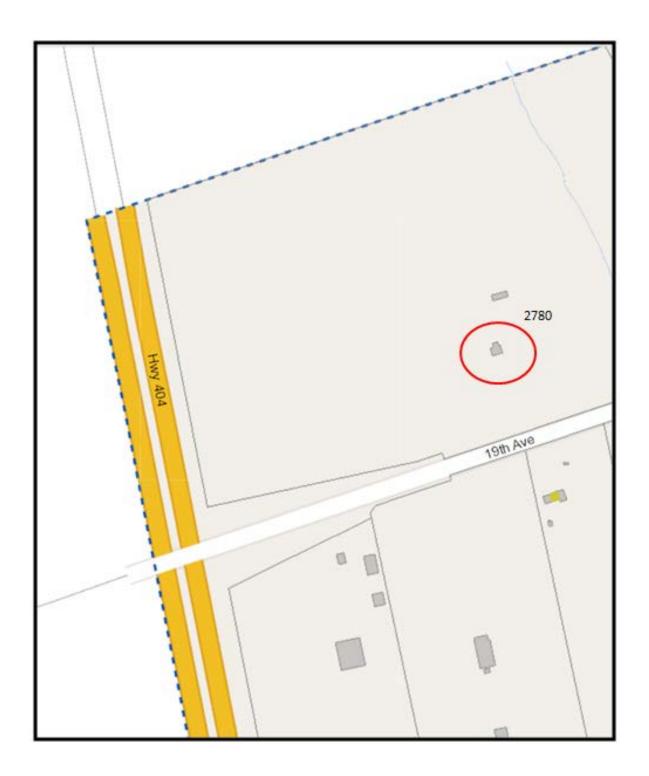


Figure 2- Photographs of the Alfred Read House taken in 2004 and 2008



### **Figure 3- Reasons for Designation**

#### STATEMENT OF SIGNIFICANCE – REASONS FOR DESIGNATION

#### Alfred Read Farmhouse

2780 Nineteenth Avenue East Half Lot 31, Concession 3

#### c.1855

The Alfred Read Farmhouse is recommended for designation under Part IV of the Ontario Heritage Act as a property of cultural heritage value or interest, as described in the following Statement of Significance:

#### Description of Property

The Alfred Read Farmhouse is a one and a half storey brick residence located on the north side of 19th Avenue, roughly half way between highway 404 and Woodbine Avenue. The house faces south, and is set back from the road within a grove of trees. The property is located to the north of the historic community of Victoria Square.

#### Statement of Cultural Heritage Value or Interest

#### Historical and Associative Value

The Alfred Read Farmhouse is of cultural heritage value or interest for its association with a prominent early family of the Markham Township community of Victoria Square.

The Alfred Read farmhouse is located on the east half of Lot 31, Concession 3, Markham Township. The original 200 acre township lot was leased from the Crown by Frederick Nigh, a Pennsylvania German Mennonite immigrant. In 1849, Thomas Read, an English immigrant, received the Crown patent for the east 100 acres of Lot 31. William Nigh, a son of Frederick, receive the Crown patent for the west 100 acres in 1853.

Thomas Read (b. 1806), who settled at Victoria Square, married Ann Clarkson (1806-1884). They had only one child, Alfred (1834-1866). By the mid 19th century, Thomas Read had amassed considerable property, consisting of four 100 acre farms. He was a founding member of the Victoria Square Wesleyan Methodist Church. In the early years of the congregation, meetings were held in the homes of the Stoutenburgh and Read families. Prior to 1854, when the local post office was established and named "Victoria, Square", the community was called Read's Corners.

Alfred Read married Isabelle Pollock, a Scottish immigrant. The family established themselves on one of Thomas Read's farms, the east 100 acres of Lot 31, Concession 3. They had three children: Thomas (b.1857), Charles (b.1859) and Alice (b.1862). According to the 1861 census, the family lived in a 1 ½ storey brick house. Mrs. Charles Pollack (Isabelle's widowed mother) was also in the household. Alfred Read's name appears on the property on Tremaine's map of 1860. Based on census information and architectural style, a construction date of c.1855 is proposed for the existing brick farmhouse on the property.

Meeting Date: December 11, 2017

After Alfred Read's death in 1866, Isabelle continued to reside on the property, which was farmed by a relative, Alexander Pollock (her younger brother?). The oldest son, Thomas Read, eventually took over the farm, and was noted on the property in the township directory of 1892. A directory of 1918 indicates the property as the Read estate.

Page 11

#### Physical Value

The Alfred Read Farmhouse is a good example of a mid-19th century Markham Township farm dwelling constructed by a family that had achieved a significant level of prosperity as farmers and land owners. The one and a half storey house is of solid brick construction, with expensive Flemish bond on the front wall, and common bond on the other walls. Decorative brick accents consist of plinth courses, raised, radiating brick arches above the ground floor windows, a raised pendant frieze across top of the front wall, and quoins shaped to resemble ashlar work. This particular example of quoining is unique in Markham. The decoration is carried out in white (buff coloured) brick on a body of red brick, currently concealed by white paint.

The influence of the Classic Revival architectural style is expressed in the large 6/6 windows, symmetrical form and medium pitched gable roof with robust Classical mouldings and eave returns. The front doorcase, with its wide, multi-paned sidelights and flat lintel, is rendered in a style derived from American pattern books of the early 19th century. In the United States, this style is typically called Greek Revival, based on the predominance of mouldings and other features derived from the architecture of Classical Greece.

#### Contextual Value

The Alfred Read Farmhouse is of contextual value as a link to the agricultural community that historically surrounded the crossroads hamlet of Victoria Square. The quality of design and construction of the building is an indication of the prosperity of both the Read family and this agricultural community in the mid 19th century.

#### Significant Architectural Attributes

Character-defining attributes that embody the cultural heritage value of the Alfred Read House include:

- Overall form of the rectangular, 1 ½ storey brick building;
- Fieldstone foundation;
- Brick walls, including decorative quoins, pendant frieze, plinth courses, and raised radiating arches over window openings;
- 6/6 wood windows, with their associated wood brickmoulds and projecting sills;
- Front doorcase with its multi-paned sidelights with wood panels below, and associated trim:
- Medium-pitched gable roof with wide, overhanging boxed eaves, eave returns, and wood cornice;
- Gable-end, single-stack brick chimneys

Q:\Development\Heritage\PROPERTY\NINETNTH\2780 Read House\Statement of Significance Alfred Read.doc

**Figure 4- Current Interior Photos 2016** 



Figure 5- Heritage Markham Extract from April 12, 2017

### HERITAGE MARKHAM EXTRACT

DATE:

April 24, 2017

TO:

File

R. Hutcheson, Manager of Heritage Planning

P. Wokral, Project Planner

EXTRACT CONTAINING ITEM #13 OF THE FOURTH HERITAGE MARKHAM COMMITTEE MEETING HELD ON APRIL 12, 2017.

13. Request for Feedback,

2780 19th Avenue,

Potential Relocation of Alfred Read House to

Markham Heritage Estates (16.11)

Extracts:

R. Hutcheson, Manager of Heritage Planning

P. Wokral, Project Planner

#### Heritage Markham Recommends:

That Heritage Markham reconsider the appropriateness of relocating the Alfred Read House to Markham Heritage Estates after the proposed amendments to the City's Property Standards and Keep Markham Beautiful By-laws, have been considered by Council in the spring of 2017.

CARRIED

### Figure 6-Letter of Intent from previous owner

Mr William Hsieh 52 Arbour Drive Markham, ON, L6E 0H5

### RE: Heritage House- 2780 19th Avenue, Markham

This email/letter will confirm that the owners, Attilio Lio & Partners, of 404/19<sup>th</sup> Avenue Developments Inc..

of the above referenced property, intends to provide the heritage house located upon our property, to Mr. William Hsieh, subject to the fulfillment of the following conditions:

1. The City of Markham is satisfied that the structure is threatened and cannot be successfully

Retained on site; and,

2. That the house is evaluated by the City of Markham, and is deemed to be of significant merit

To be relocated to Markham heritage Estates; and,

That Mr William Hsieh is approved by the City of Markham to purchase a lot in Markham Heritage

Estates; and,

4. That Mr. William Hsieh has agreed to pay for any and all moving expenses & relocation cost.

This email/letter will also confirm that Mr. William Hsieh is the only interested party that has secured a Letter of Intent from us, the owners of the above noted subject property.

For the purposes of this transaction, your contact will be me, Attilio Lio, I can be reached at (416) 569-6031.

Sincerely, Attilio Lio



## PROPERTY CONDITION ASSESSMENT



at

2780 19th Avenue, Markham, ON

Project No.: T1714362CA

## **Prepared for:**

Weir Foulds LLP

## Prepared by:

McIntosh Perry Limited 7900 Keele Street, Suite 200 Concord, ON L4K 2A3

Medil Gamage, P.Eng. m.gamage@mcintoshperry.com

**Date:** August 29, 2017

## **TABLE OF CONTENTS**

1.0	INTRODUCTION		
2.0	INTERIOR FINISHES	3	
2.1	Description	3	
2.2	Observations	3	
2.3	Recommendations	4	
3.0	ROOF SYSTEMS	5	
3.1	Description	5	
3.2	Observations	5	
3.3	Recommendations	8	
4.0	EXTERIOR WALLS	10	
4.1	Description	10	
4.2	Observations	10	
4.3	Recommendations	15	
5.0	STRUCTURAL FRAMING	17	
5.1	Description	17	
5.2	Observations	17	
5.3	Recommendations	21	
6.0	PAVEMENT AND LANDSCAPING	23	
6.1	Description	23	
6.2	Observations	23	
6.3	Recommendations	26	
7.0	MECHANICAL AND ELECTRICAL INSTALLATIONS	27	
7.1	Description	27	
7.2	Observations	27	
7	7.2.1 Sanitary and Storm Drainage	27	
7	7.2.2 Domestic Hot and Cold Water System	28	
7	7.2.3 Fire Suppression Systems	28	
7	7.2.4 Heating, Ventilation and Air Conditioning	28	
7	7.2.5 Power Supply and Distribution	29	

7	7.2.6	Lighting	30
7	7.2.7	Miscellaneous Fire Safety Systems	30
7.3	Rec	ommendations	. 31
8.0	OPINI	ON OF PROBABLE COSTS	. 33
9.0	LIMIT	ATIONS	. 36

#### 1.0 INTRODUCTION

Personnel with McIntosh Perry Limited visited the property located at 2780 19<sup>th</sup> Avenue in Markham, Ontario on July 11<sup>th</sup> and July 24<sup>th</sup>, 2017 for the purpose of carrying out a condition survey.

The purpose of this evaluation was to obtain the information necessary to document the condition of the property, to prepare a report describing its condition and to provide recommendations regarding the repair work that is required within the next ten (10) years. An opinion of the cost of each major item of work is also given. Destructive investigation and testing work was not carried out as part of this assessment. The Property Condition Assessment has been carried out in general compliance with the methods and procedures outlined in the most recent version of ASTM Standard E2018.

The existing development contains two buildings; a 1½ storey detached Farm House and a two level Storage Barn. We understand that the south section of the Farm House was constructed circa 1855 and is therefore approximately 162 years old. For the purpose of this report, 19<sup>th</sup> Avenue is assumed to extend in an east-west direction with the development located along the north side of the street. Vehicle access to the site is provided by an entrance drive way along the south side of the site off of 19<sup>th</sup> Avenue. The original driveway has been abandoned. The site is currently used by an electrical contractor for storage purposes.



The Farm House is known as Alfred Read Farmhouse and is listed on the Markham Register of Properties of Cultural Heritage Value or Interest. It was constructed in 2 distinct sections.

The south section is 1½ storeys in height with a basement level and is formed by solid masonry (in Flemish and Common bond patterns) that is supported by fieldstone foundation walls. The roof of this section is gabled and is covered by conventional 3-tab asphalt shingles. Rainwater from the roof is collected in gutters installed along the eaves and the water is directed to ground level by downpipes. Window units are single glazed with wood frames.

The north addition is 1 storey in height and appears to be located above a crawl space. The north addition appears to be more recent



construction that the south section. The north addition is formed by wood framing that appears to be supported on concrete masonry foundation walls. The exterior walls are covered with wood siding. The roof is covered by conventional 3-tab asphalt shingles. Rainwater from the roof is collected in gutters installed along the eaves and the water is directed to ground level by downpipes. Window units are single glazed with wood frames.

The Storage Barn is constructed using heavy timber construction that is supported by poured concrete foundation walls. The ground floor of the building is formed by a poured concrete slab-on-ground. The exterior walls are covered with corrugated metal panels installed over wood planks. The sloped roof is covered with corrugated metal roof panels.

The audit work addresses the following components of the property:

- Interior finishes
- roof systems
- exterior walls
  - cladding
  - caulking materials
  - windows and doors
- structural framing
- asphalt pavement
- mechanical and electrical installations



The threshold reporting level for this report is \$5,000. Repair and maintenance items with an estimated cost of \$5,000 or less are assumed to be funded from operating budgets and may not be included in this report.

As-built drawings or previous reports were not provided for our review. Our access to the farmhouse was limited to the ground floor due to unsafe conditions within the building.

### 2.0 INTERIOR FINISHES

### 2.1 Description

A visual review was conducted on the ground floor of the Farm House. We did not access the basement and the  $2^{nd}$  floor due to unsafe conditions.

The following components were examined:

- the type and condition of the floor coverings
- the wall construction and finishes
- the ceiling construction and finishes

#### 2.2 Observations

The following observations were made during our visual review of the interior finishes on the ground floor of the farmhouse:

Location	Typical Interior Finishes		
Location	Floor	Walls	Ceiling
Living room	Carpet	Wall paper on plaster with wood substrate	Plaster on wood substrate
Kitchen	Vinyl tile	Wall paper on plaster with wood substrate	Plaster on wood substrate
Stairwells	Hardwood	Gypsum plaster and paint	Plaster on wood substrate/ Gypsum board

.1 General view of the finishes in the living room on the ground floor. Finishes are water damaged and are in very poor condition.



.2 General view of the finishes in the kitchen on the ground floor. Finishes and cabinetry are water damaged and are in very poor condition.



.3 It appears that there is mold growth on the finishes.



#### 2.3 Recommendations

Interior finishes are water damaged due to exposure to prolonged water leaks through the roof and are in very poor condition. Growth of mold was observed in various locations. We did not access the 2<sup>nd</sup> floor and the basement due to unsafe conditions (the suspended floor framing is sagging and appears to be unstable). In our opinion complete removal and replacement of the interior finishes (wall, ceiling and floor coverings, partition doors, millwork, cabinetry and countertops) within the house is currently required. We have provided an allowance of \$115,000 for this repair work. The requirements detailed in the City of Markham's by-laws and the current edition of the Ontario Building Code must be followed when carrying out the repair work.

A designated substance survey is required prior to scheduling any repair or demolition work. We have provided an allowance of **\$10,000** for this survey.

In our opinion, a mold investigation and mold remediation will also be required prior to undertaking renovations. We have provided an allowance of \$25,000 for the investigation and subsequent remediation.

In our opinion, the annual cost of maintaining the finishes in the Farm House (once renovated) is less than the threshold reporting level in any given year.

### 3.0 ROOF SYSTEMS

### 3.1 Description

The roof of the Farm House is sloped and is covered by conventional 3-tab asphalt shingles. Rainwater gutters are located along the eaves of the building and downpipes discharge water onto ground adjacent to the foundation walls. The soffit and the fascia at the eaves are covered by wood boards with a paint finish. We estimate the area of the sloped roof systems of the house to be approximately 1,300 square feet.

The roofs of the barn are sloped and are covered with corrugated steel panels (that appear to have a galvanizing coating) that are secured with nails to underlying wood boards that span between wood rafters. We estimate the area of the roof of the barn to be approximately 1,400 square feet.

Since roof test cuts were not carried out on the roof areas and access to the surface of the roof systems was not available; the type, thickness and condition of the roof components and underlying structural components were not ascertained. Our observations are limited to roof components that were exposed and visible from ground level at the time of our visit.

#### 3.2 Observations

The sloped roof areas of the buildings were not accessible at the time of our site visit and were reviewed from ground level. The following is a summary of conditions that were observed during our visual review:

#### The Farm House

.1 General view of the north side of the sloped roof area. Asphalt shingles covering the roof area are in poor condition with many shingles with curled or missing tabs. The roof system appears to be in excess of 15 years old.



.2 There is a hole at the north side of the roof area that appears to penetrate the roof deck.



.3 The south side of the sloped roof area was obstructed from view by trees adjacent to the building. Tree trimming is required as some of the tree branches are abrading the roof surface.



.4 General view of the roof area above the north section. Asphalt shingles covering the roof area appear to be poor condition.



.5 General view of the canopy at the main entrance along the south side. Wood facia and soffit boards are rotted and the asphalt shingles are in poor condition.



.6 The paint finish on the wood soffits and facia boards is peeled and in generally poor condition. In many locations wood soffits and facia boards are decayed. Metal eaves troughs and downpipes are typically filled with organic debris and corroded. In some locations the corrosion has resulted in perforation of the base metal.



### Storage Barn

.7 General view of the sloped roof areas above the Storage Barn that are covered with steel panels.



.8 Several roof panels are missing, dislodged or torn. The galvanizing coating is typically deteriorated and underlying steel is corroded.



.9 Many of the wood boards below the steel roof panels are water stained, decayed or missing.



.10 The sloped roof of the shed at the east side of the barn has collapsed and is in poor condition. Several steel panels and the underlying wood boards forming the roof deck are missing.



#### 3.3 Recommendations

The asphalt shingles covering the roof of the farmhouse have exceeded their service life and are in poor condition. There is a hole in the roof at the north side and water leakage may have occurred at this location for an extended period of time. Significant water damage to finishes on the ground floor was observed during our review, likely as a result of prolonged water leakage through the roof. Replacement of the asphalt shingles covering the sloped roof areas is currently required.

In our opinion the probable cost of replacing the asphalt shingles is approximately \$8,000.

Furthermore, we are of the opinion that it is likely that some wood decay is present at the wood roof deck and supporting wood framing members (i.e., rafters, collar ties, ceiling joists, etc.). These conditions can only be fully assessed when the asphalt shingles are removed and the underlying framing is exposed for assessment. In our opinion, an allowance of \$25,000 should be provided for potential repairs to the wood roof deck and other concealed roof framing members.

The wood fascia and soffits at the eaves of the sloped roof areas appear to be in generally poor condition with peeling paint and localized areas of wood decay. We are of the opinion that the wood fascia and soffits will require replacement and painting. The metal eaves troughs and downpipes are severely deteriorated and will require replacement when the asphalt shingles are replaced.

In our opinion an allowance of \$10,000 should be provided for the repair/replacement and painting of the wood fascia and soffits, including the replacement of the eaves trough and downpipes.

In our opinion the current condition of the Farm House roof, soffits, fascia, eaves trough and downspouts do not meet the requirements detailed in the City of Markham's municipal by-law 2017-27.

The sloped roof of the Storage Barn is covered by corrugated steel sheets with a galvanized coating. The galvanized coating is deteriorated in most locations and the underlying base metal is corroded. Additionally, there are several locations where it appears the panels are torn or have blown off the roof areas. In our opinion replacement of the metal roof systems of the barn is currently required.

In our opinion the probable cost of replacing the roof system of the barn is approximately \$35,000 (1,400 square feet @ \$25 per square foot).

The roof replacement work should be coordinated with the structural repair work recommended in Section 5.0 of this report.

All loose metal roof panels should be removed from the roof of the Storage Barn immediately as there is the potential that the panels may fall from the roof area during periods of high winds, posing a life safety hazard to pedestrians and vehicles below. Appropriate safety precautions must be taken prior to any person attempting to remove the roof panels as the supporting structure is in poor condition and in danger of collapse.

In our opinion the probable cost of removing the roof panels covering the barn is approximately \$10,000.

Areas of water stained and deteriorated wood deck were observed at the Storage Barn roof during our site visit. The extent of wood deck deterioration is not known as the wood deck is partially covered by metal panels and located at height and was not accessible during our site visit. Our opinions of probable costs are subject to revision when the roof system of the Storage Barn is removed and the underlying wood deck is fully exposed for assessment.

### 4.0 EXTERIOR WALLS

### 4.1 Description

The exterior walls of the south section of the Farm House are formed by solid brick. The south (front) wall is formed by brickwork installed in a Flemish bond pattern and the remainder of the walls are formed by brickwork installed in a Common bond pattern. Brick walls include plinth courses, decorative quoins and a pendant frieze at the top of the south wall. Exterior walls of the north section (addition) are generally covered with wood siding. All the window units and doors at the house, except the front door, and the majority of the wall of the north section were boarded over with plywood sheets installed from the outside and were not visible for review. Window units are single glazed with wood frames. Main access to the house is provided from the south side.

The exterior walls of the Storage Barn are covered with corrugated steel panels (that appear to have been galvanized) installed over wood boards. The south elevation and some areas of the north and west elevations of the barn were obstructed from view by vegetation. The east side of the barn was inaccessible and therefore was not reviewed.

#### 4.2 Observations

Areas of the exterior walls were visually reviewed from ground level. The following is a summary of conditions that were observed during our visual review:

#### Farm House

.1 General view of the north elevation. The brickwork is painted and the paint coating is peeled or stained in several locations. The wood siding covering the exterior walls of the addition is covered by plywood sheets and was not fully visible for review. Walls of the dormer are covered with asphalt shingles. The asphalt shingles are in very poor condition.



.2 General view of the west elevation. This wall appears to be bowed inwards (minor) and, in our opinion, this condition is likely original to the building. The brickwork is painted and the paint coating is peeled or stained in several locations.



.3 General view of the south elevation. The brickwork is painted and the paint coating is peeled or stained in several locations.



.4 General view of the east elevation. The brickwork is painted and the paint coating is peeled or stained in several locations.



.5 Mortar joints in the brickwork are deteriorated in some locations due to freeze-thaw cycling of the brickwork while in wet condition. Parging material installed over the brickwork at these locations is deteriorated (stained, cracked and spalled).



.6 There are spalled bricks in several locations along the exterior walls.



.7 Many of the bricks forming the chimney at the east side are dislodged or missing.



.8 The brickwork is cracked in several locations, especially at the north-east and north-west corners. These cracks appear to be the result of settlement of the building over time.



.9 Cracks have developed in the foundation walls in many locations. These cracks appear to be the result of settlement of the building over time.



.10 The foundation wall at the north side is bowed outwards near the west end.



.11 The paint finish on the wood soffit, facia boards, trim work and columns at the entrance canopy is peeled and the underlying wood is weathered.



.12 Several wood window sills are decayed.



.13 Bricks appear to have been replaced in one location at the east side above a window.



.14 General view of the main entrance. The entrance door is missing.

The aluminum storm door is in generally poor condition.



### Storage Barn

.15 General view of the exterior walls of the barn. The exterior walls are covered with corrugated steel panels installed over wood boards. Several steel panels are missing.



.16 Where visible, the galvanized coating is typically deteriorated and the underlying steel is corroded.



.17 All the doors and windows at the barn are missing.



#### 4.3 Recommendations

Based on our visual review we are of the opinion that exterior walls of the Farm House appear to be in generally fair condition, with the exception of the deficiencies identified in Section 4.2.

In our opinion, comprehensive restoration of the exterior walls of the Farm House including repair to the cracked brickwork, re-construction of the chimney, replacement of spalled bricks, repair of deteriorated mortar joints, replacement of wood soffit and trim work, etc. is currently required. We recommend that the cracked brickwork at the corners of the building be further investigated prior to scheduling the repair work to determine an appropriate repair strategy. Windows and doors of the Farm House, except the front door, were boarded over and were not visible for review. It is likely that all the doors and windows are in a similarly poor condition and will require full replacement.

Based on our review, we are of the opinion that the following repair work is currently required to the Farm House.

- Repair cracked brickwork,
- Repair cracked and bowed foundation walls,
- Rake out deteriorated mortar joints and tuck point,
- Re-construct the brick chimney,
- Replace deteriorated wood window sills,
- Replace decayed wood columns and trim work of the canopy,
- Restore/replace doors and windows as necessary,
- Repaint wood trim work and soffits,
- Re-paint the brickwork as necessary,
- Replace wood siding at the north addition as necessary and re-paint wood siding,
- Replace windows and doors as necessary, and
- Replace asphalt shingles at the dormer.

In our opinion, the probable cost of the repair work is approximately \$50,000.

In our opinion, the following repair work is currently required to the Storage Barn:

- Replace all corroded steel panels, and
- Install doors and windows.

In our opinion, the probable cost of the repair work is approximately \$30,000.

The recommended repair must be coordinated with the repair work recommended in Section 5.0 of this report

Routine maintenance (i.e., painting of trim work and siding, replacement of caulking material, etc.) will be required on an annual basis. We do not anticipate that the cost of this maintenance work will exceed the threshold reporting level in any single year.

### 5.0 STRUCTURAL FRAMING

### 5.1 Description

We accessed the ground floor of the Farm House during our site visit, however; we did not access the 2<sup>nd</sup> floor or the basement due to unsafe conditions (the ground floor did not appear to be stable in several locations). Structural framing members on the ground floor of the house were concealed by finishes and were not visible for review. Our visual review was limited to the structural framing members of the barn visible at the time of our site visit.

The structure of the south section of the Farm House appears to consist of wood framed roofs (wood plank roof decks supported by wood rafters), floors (wood plank floor decks that span between wood floor joists) and load-bearing masonry exterior walls that bear on fieldstone foundation walls. The north addition of the farmhouse appears to utilize wood "stick" framing.

The structure of the Storage Barn consists of heavy timber construction with hand hewn wood columns and beams (with pegged mortise and tendon connections) supporting wood rafters and wood joists. A wood plank roof deck spans between the rafters. A wood plank floor deck spans between wood floor joists. The wood columns bear on poured concrete foundation walls at the perimeter of the building.

The extent to which the integrity of a structure is evaluated can vary from a simple visual review of those parts of the structure exposed to view to a program of sophisticated non-destructive and destructive testing designed to reveal information concerning "as-built" conditions followed by a structural analysis carried out to determine the extent of compliance of the structure with the requirements detailed in the relevant edition of the Ontario Building Code. The terms of reference governing our review of this structure limited our work to a visual review of those parts of the structure exposed at the time of our visit. For the purpose of this assessment our review was visual in nature and, other than where may be noted otherwise, completed from floor level. As a result of this limitation our review should not be presumed to include confirmation of the presence of welds or fasteners of appropriate size at all connections.

It should be noted that we did not remove or lift any ceiling tile, gypsum board (plaster) or fireproofing or any other material that concealed the structural framing members from view during our cursory visual review.

#### 5.2 Observations

#### Farm House

.1 Structural framing members on the ground floor of the house were concealed by finishes and were not visible for review.



.2 Wood floor deck in the kitchen appears to be decayed in some locations by prolonged exposure to water leakage.



### Storage Barn

.3 General view of the underside of gable roof framing. There are water stains at the underside of the wood plank roof deck and several wood planks are decayed due to exposure to prolonged water leakage through the roof. Some wood roof planks are missing.



.4 The sloped roof of the shed at the east side of the barn is collapsed and the framing members appear to be in very poor condition. Several wood boards, purlins and rafters are decayed/damaged due to prolonged water leakage through the roof.



.5 General view of the underside of the second floor framing of the barn. The wood floor deck is supported by wood joists that span between wood beams that frame into wood columns.



.6 Several wood planks at the second floor are decayed due to exposure to prolonged water leakage through the roof. We did not access the 2<sup>nd</sup> floor level at the time of our site visit due to unsafe conditions (wood floor boards are decayed).



.7 Several wood columns are dislodged and are out of plumb.



.8 Some wood beams are dislodged at the joints. Some wood beams appear to be decayed due to prolonged water leakage through the roof and walls.



.9 There is a dislodged wood beam on the ground floor.



.10 The poured concrete foundation walls are out of plumb and appear to have rotated outwards.



.11 There are several large cracks in the poured concrete foundation walls.



.12 Some sections of the foundation wall have collapsed.



.13 The poured concrete slab-on-ground forming the ground floor is cracked and settled and in poor condition.



#### 5.3 Recommendations

Based on our visual review of the exposed structural framing members, we are of the opinion that the following repair work is currently required:

#### **Farm House**

We observe damage to the ground floor framing in some locations due to prolonged exposure to water leakage through the roof. We anticipate that the roof framing and the 2<sup>nd</sup> floor farming is also damaged by water leakage through the roof. Cracks are present in the foundation walls and we assume that water leakage into the basement is also occurring. We anticipate that some sections of the foundation walls will require excavation, waterproofing and the installation of drainage tile. As the house has been abandoned without heat during the sub-zero temperatures for an extended period of time, we anticipate some damage to the foundation walls as a result of frost heaving. It will be necessary to retain a structural engineer to carry out a detailed structural assessment of the Farm House and to develop an appropriate repair strategy. We have provided an allowance of \$95,000 for the recommended structural assessment and potential repair work. Our opinion of probable cost is subject to revision upon completion of the recommended structural assessment.

## **Storage Barn**

A similar scope of repair work will be required at the Storage Barn.

In our opinion, the probable cost of the recommended repair work at the Storage Barn is approximately \$85,000. Our opinion of probable cost is subject to revision upon completion of the recommended structural assessment.

Based on our visual review we are of the opinion that all access to and around the Storage Barn and the Farm House should be restricted until the structural assessments are completed and repair work is carried out. In our opinion the current condition the Storage Barn and the Farm House pose potential life safety hazards to the public as the buildings, or sections of the buildings, may collapse without warning.

In our opinion, the annual cost of maintaining the building structures is less than threshold reporting level in any given year.

Alternatively, and if permitted by the City of Markham, the buildings on the site could be demolished. In our opinion, the cost of demolition of the buildings is approximately \$75,000.

# 6.0 PAVEMENT AND LANDSCAPING

# 6.1 Description

The ground adjacent to the house and the entrance driveway are formed by crushed stone. There are trees and shrubs around the house.

## 6.2 Observations

The following is a summary of the conditions that were observed during our visual review.

## Farm House

.1 General view of the east side of the house that is covered with weeds, shrubs, bushes and trees that are not maintained. The site is not maintained.



.2 General view of the east side of the house that is covered with weeds, shrubs, bushes and trees that are not maintained.



.3 Same comment as above.



.4 General view of the south side of the house that is covered with weeds, shrubs, bushes and trees that are not maintained.



.5 General view of the original entrance driveway to the house from the street that is covered with weeds, shrubs, bushes and trees.



.6 General view of the abandoned well at the east side.



.7 The retaining wall adjacent to the north section of the house that is formed by precast concrete units has collapsed in several locations.



.8 There are tree trunks adjacent to the house at the west side.



.9 Steps at the main entrance that are formed by precast concrete units and natural stone slabs are settled/collapsed and this condition poses a potential safety hazard.



## Barn

- .10 There is a pile of construction debris adjacent to the barn.
- .11 Ground adjacent to the barn is covered with weeds, shrubs, bushes, trees, etc. and is not maintained.



## 6.3 Recommendations

The ground area adjacent to the house and entrance driveway is maintained. Based on our review, we are of the opinion that the following repair/maintenance work is currently required.

- Remove the accumulation of construction debris from the site,
- Repair collapsed/settled retaining wall and steps,
- Remove weeds, shrubs, bushes, tree trunks, etc.,
- Trim trees as necessary, and
- Install sod as necessary.

In our opinion, the probable cost of the repair work is approximately \$ 40,000.

In our opinion, the annual cost of maintaining the site is less than threshold reporting level in any given year.

## 7.0 MECHANICAL AND ELECTRICAL INSTALLATIONS

# 7.1 Description

The building's mechanical and electrical systems were visually reviewed during our site visit. Our review was limited to accessible equipment, without review of any drawings or schematics.

Tests were not performed nor was dismantling of systems carried out to verify the condition of the interior components of HVAC equipment. Unit heaters and other equipment suspended from high ceilings were reviewed from floor level. Seasonal use should be considered with regards to any comments made about the condition of any HVAC equipment.

Calculations were not made to verify the adequacy of the electrical supply, domestic hot water, or HVAC performance.

Tests were not performed on life safety systems such as fire alarm and suppression systems including sprinklers, standpipe, and smoke control systems.

#### 7.2 Observations

## 7.2.1 Sanitary and Storm Drainage

During our visit we were unable to access the 1 ½ storey residential dwelling's second floor or basement due to unsafe conditions. We understand that the residential dwelling bathroom consists of a water closet, lavatory and bathtub that are connected to the sanitary sewer. Most of the drainage piping serving the plumbing fixtures is concealed in wall cavities. The sanitary main appears to collect and discharge effluent to a septic system.

The plumbing fixtures have an expected useful service life of 25 years. We are of the opinion that since the residential dwelling has been abandoned for several years and the plumbing fixtures have exceeded their useful service life, replacement of the existing plumbing fixtures is required.

In our opinion the probable cost to install new plumbing fixtures is below the threshold reporting level.

We understand that the drainage piping serving the plumbing fixtures was installed during the initial dwelling construction circa the mid-1800's. The drainage pipes are concealed in wall cavities.

In our opinion an allowance of \$10,000 should be anticipated for the replacement of the original drainage piping serving the plumbing fixtures.

During our visit we were unable to locate the existing septic system on the site. In our opinion an allowance of \$30,000 should be anticipated for the installation of a new septic system (settling tank and field bed).

Drainage for the 1½ storey residential dwelling pitched/sloped roof area is provided by aluminium eaves troughs and downspouts that discharge storm water onto grade level. The eaves trough are in poor condition.

#### 7.2.2 Domestic Hot and Cold Water System

During our visit we were unable to access the 1½ storey residential dwelling basement level due to unsafe conditions. We understand that domestic hot water for the residential dwelling bathroom and kitchen is generated by an existing electric domestic hot water storage tank heater located in the basement level.

The electric domestic hot water storage tank heater has an expected useful service life of 15 years. We are of the opinion that it is likely the existing electric domestic hot water storage tank heater will require replacement.

In our opinion the probable cost to replace the water heater is below the threshold report level.

.1 The domestic water supply to the 1½ storey residential dwelling is fed from an existing well. We did not sample the water or confirm that water is present in the well



In our opinion an allowance of \$25,000 should be anticipated for the provision of a new well.

We understand that the domestic hot and cold water distribution pipes are original pipes installed during the initial dwelling construction circa the mid-1800's. The pipes are concealed in wall cavities.

In our opinion an allowance of \$10,000 should be anticipated for the replacement of the cold and domestic hot water supply pipes.

### 7.2.3 Fire Suppression Systems

At locations observed there are no fire extinguishers provided for the 1½ storey residential dwelling. We recommend installing fire extinguishers.

In our opinion the probable cost to install fire extinguishers is below the threshold report level.

#### 7.2.4 Heating, Ventilation and Air Conditioning

During our visit we were unable to access the 1½ storey residential dwelling basement level due to unsafe conditions. We understand that heating to the residential dwelling is provided by an existing oil fired furnace located in the basement level.

An oil fired furnace has an expected useful service life of 20 years. We are of the opinion that since the residential dwelling has been abandoned for several years and the oil fired furnace has likely exceeded its useful service life replacement should be anticipated. Since there is natural gas provided at the street we recommend replacing the existing oil fired furnace with a new gas fired forced air furnace.

.1 We observed an oil fill pipe and vent pipe located along the southwest residential dwelling exterior wall. We understand that an existing oil storage tank is located in the basement level. We recommend removing the existing oil storage tank.



In our opinion an allowance of \$15,000 should be anticipated for installing a natural gas supply to the residential dwelling.

## 7.2.5 Power Supply and Distribution

The electrical power supply is provided by the local utility company via transformers mounted on street poles.

.1 We observed that the electrical power supply and meter to the 1½ storey residential dwelling has been disconnected.



We recommend retaining a licensed electrician to restore the electrical power supply and re-connect the electrical meter to the residential dwelling.

.2 We observed no electrical power supply to the barn. We recommend retaining a licensed electrician to install an electrical power supply and disconnect switch to the barn.



During our visit we were unable to access the 1½ storey residential dwelling basement level due to unsafe conditions. We understand that the residential dwelling electrical panel is located in the basement level.

We understand that the 1½ storey residential dwelling was constructed circa the mid-1800's. Most of the electrical wiring serving the receptacles, lighting and appliance circuits is concealed in wall and/or ceiling cavities, however; it may consist of knob and tubing wiring. Historically, wiring installation requirements were less demanding in the age of knob and tube wiring than they are today. Additionally, it will be necessary to remove the existing electrical distribution system to carry out repairs to the structural framing (refer to Section 5.0 of this report).

We recommend retaining a licensed electrician to disconnect all existing knob and tube wiring and install new wiring upon completion of all structural repair work.

#### 7.2.6 Lighting

Incandescent lamp fixtures provide lighting to the residential dwelling. Since there is no electrical power supply to the residential dwelling, we recommend retaining a licensed electrician to replace the existing abandoned light fixtures and install new light fixtures where required.

There are no light fixtures provided to the barn. We recommend installing new light fixtures where required.

An incandescent lamp wall mounted lantern type fixture illuminates the residential dwelling main entrance area.

We did not measure lighting levels during our visit.

## 7.2.7 Miscellaneous Fire Safety Systems

Municipal by-laws require that carbon monoxide detectors be installed in residential dwellings located near the bedrooms in a building containing a fuel burning appliance. Since there is a fuel burning appliance (oil furnace) located in the basement level carbon monoxide detectors are required.

In our opinion the probable cost to install carbon monoxide detectors is below the threshold report level.

.1 We observed the 1½ storey residential dwelling main floor ceiling is equipped with a battery operated smoke alarm.



During our visit we were unable to access the 1½ storey residential dwelling's basement level or second floor due to unsafe conditions. We understand that the basement level and second floor are equipped with battery operated smoke alarms.

The battery operated smoke alarms have an expected useful service life of 10 years. We are of the opinion since the residential dwelling has been abandoned for several years and the smoke alarms have exceeded their useful service life, replacement of the existing battery operated smoke alarms is required.

In our opinion the probable cost to install smoke alarms is below the threshold report level.

#### 7.3 Recommendations

Based on our visual review we have identified the following items that currently require attention:

- Retain a licensed electrician to restore the electrical power supply and reconnect the electrical meter to the residential dwelling.
- Retain a licensed electrician to install an electrical power supply (including a disconnect switch) to the barn.
- Retain a licensed electrician to disconnect all existing knob and tube wiring and install new wiring upon completion of structural repairs.
- Retain a licensed electrician to replace the existing abandoned light fixtures and install new light fixtures where required.
- Install new light fixtures to the barn where required.

In our opinion, the probable cost to correct these deficiencies is approximately \$65,000.

- Replace the existing oil fired furnace with a new gas fired forced air furnace.
- Remove existing oil storage tank.

In our opinion, the probable cost to install a new heating system is approximately \$10,000.

- In our opinion an allowance of **\$10,000** should be anticipated for the replacement of the original drainage piping serving the plumbing fixtures.
- In our opinion an allowance of \$30,000 should be anticipated the anticipated installation of a new septic system.
- In our opinion an allowance of \$25,000 should be anticipated for the installation of a new well.
- In our opinion an allowance of **\$10,000** should be anticipated for the replacement of the original cold and domestic hot water pipes.
- In our opinion an allowance of \$15,000 should be anticipated to install a natural gas supply to the residential dwelling.

# 8.0 OPINION OF PROBABLE COSTS

The following is a summary of our opinion of the probable costs associated with our recommended and anticipated repair and replacement work. The opinions of probable cost are based on 2017 unit rates and our experience. They should be considered only as order of magnitude costs and are subject to confirmation or review when tenders are called for the work. The extent of the work may also be subject to revision, as further information concerning existing conditions becomes available. The opinions of probable cost do not include permit fees or inflation.

		Year									Total Cost		
Para. #	Description	Immediate	2017 (1)	2018 (2)	2019 (3)	2020 (4)	2021 (5)	2022 (6)	2023 (7)	2024 (8)	2025 (9)	2026 (10)	
2.0	Interior Finishes	u <u> </u>			L	<u> </u>	•		<u> </u>		<del>-</del>		
	Farm House		\$115,000										\$115,000
	Removal and replacement of the interior finishes, including partition doors, millwork and cabinetry.												
	Farm House		\$10,000										\$10,000
	Allowance to carry out a designated substance survey.												
	Farm House		\$25,000										\$25,000
	Allowance to carry out mold investigation and subsequent remediation.												
	Farm House Interior Finishes Sub-Total		\$150,000										\$150,000
3.0	Roof Systems												
	Farm House												
	Replacement of asphalt shingles covering the sloped roof areas.		\$8,000										\$8,000
	Farm House												
	Allowance to carryout repairs to wood roof deck and associated wood roof framing members at the sloped roof areas.		\$25,000										\$25,000
	Farm House												
	<ul> <li>Allowance for repair/replacement and painting of the wood fascia and soffits, including the replacement of the eaves trough and downpipes.</li> </ul>		\$10,000										\$10,000
	Farm House Roof Systems Sub-Total		\$43,000										\$43,000
	Storage Barn												
	Replacement of the metal roof system.		\$35,000										\$35,000
	Storage Barn												
	Removal of all loose metal roof panels.	\$10,000											\$10,000
	Storage Barn Roof Systems Sub-Total	\$10,000	\$35,000										\$45,000
4.0	Exterior Walls					•							
	Farm House												
	Repair cracked brickwork,												
	<ul> <li>Repair cracked and bowed foundation walls,</li> <li>Rake out deteriorated mortar joints and tuck point,</li> </ul>												
	- Nake out deteriorated mortal joints and tuck point,												

							Year						Total Cost
Para.#	Description	Immediate	2017 (1)	2018 (2)	2019 (3)	2020 (4)	2021 (5)	2022 (6)	2023 (7)	2024 (8)	2025 (9)	2026 (10)	
	Re-construct the brick chimney,												
	Replace deteriorated wood window sills,												
	Replace decayed wood columns and trim work of the canopy,		\$50,000										\$50,000
	Restore/replace doors and windows as necessary,		730,000										\$30,000
	Repaint wood trim work and soffits,												
	Re-paint the brickwork as necessary,												
	Replace wood siding at the north addition as necessary and re-paint wood siding,												
	Replace windows and doors as necessary, and												
	Replace asphalt shingles at the dormer.												
	Farm House Exterior Walls Sub-Total		\$50,000										\$50,000
	Storage Barn												
	Replace all corroded steel panels, and		\$30,000										\$30,000
	Install doors and windows.												
	Storage Barn Exterior Walls Sub-Total		\$30,000										\$30,000
5.0	Structural System												
	Farm House												
		\$95,000											\$95,000
	Allowance to retain a Structural Engineer to carry out a detailed structural assessment and carry out repair work.												
	Farm House Structural System Sub-Total	\$95,000											\$95,000
	Storage Barn												
	Allowance to Carry out a detailed structural assessment of the building and develop a strategy to restore the building to a sound												
	condition.	\$85,000											\$85,000
	Allowance Carry out structural repairs based on the results of the structural assessment.												
	Storage Barn Structural System Sub-Total	\$85,000											\$85,000
.0	Pavement	<u> </u>									I.		
	Farm House												
	Remove the accumulation of construction debris from the site,												
	Repair collapsed/settled retaining wall and steps,		\$40,000										\$40,000
	Remove weeds, shrubs, bushes, tree trumps, etc., and		¥ 12,222										7 .0,000
	Trim trees as necessary, and												
	Install sod as necessary.												
	Farm House		Less than	Minimal									
	Annual maintenance (lawn cutting, tree trimming, etc.)		Threshold										
	Farm House Pavement Sub-Total		\$40,000										\$40,000

		Year To									Total Cost		
Para. #	Description	Immediate	2017 (1)	2018 (2)	2019 (3)	2020 (4)	2021 (5)	2022 (6)	2023 (7)	2024 (8)	2025 (9)	2026 (10)	
7.0	Mechanical and Electrical Installations	<del>!</del>		<del>-</del>	<del>-</del>	<del>'</del>	<u> </u>	<del>'</del>	<del>'</del>	<del>-</del>	<del>'</del>	<del>-</del>	
	<ul> <li>Retain a licensed electrician to restore the electrical power supply and re-connect the electrical meter to the residential dwelling.</li> <li>Retain a licensed electrician to disconnect all existing knob and tube wiring and install new wiring upon completion of structural repairs.</li> <li>Retain a licensed electrician to replace the existing abandoned light fixtures and install new light fixtures where required.</li> </ul>		\$45,000										\$45,000
	<ul> <li>Replace the existing oil fired furnace with a new gas fired forced air furnace.</li> <li>Remove existing oil storage tank.</li> </ul>		\$10,000										\$10,000
	Allowance for replacement of the original drainage piping serving the plumbing fixtures.		\$10,000										\$10,000
	Allowance for the installation of a new septic system.		\$30,000										\$30,000
	Allowance for the installation of a new well.		\$25,000										\$25,000
	Allowance for replacement of the original cold and domestic hot water pipes.		\$10,000										\$10,000
	Allowance for installation of a natural gas supply to the residential dwelling.		\$15,000										\$15,000
	Farm House Mechanical and Electrical Installations Sub-Total		\$145,000										\$145,000
	<ul> <li>Storage Barn</li> <li>Retain a licensed electrician to install an electrical power supply (including a disconnect switch) to the barn.</li> <li>Install new light fixtures to the barn where required.</li> </ul>		\$20,000										\$20,000
	Storage Barn Mechanical and Electrical Installations Sub-Total		\$20,000										\$20,000
	Sub-Total Farm House Opinion of Probable Cost:	\$95,000	\$428,000										\$523,000
	Sub-Total Storage Barn Opinion of Probable Cost:	\$95,000	\$85,000										\$180,000
	Total Opinion of Probable Cost:	\$190,000	\$513,000										\$703,000

In our opinion the probable cost of demolishing the Farm House is approximately \$45,000 and the probable cost of demolishing the Storage Barn is approximately \$30,000.

# 9.0 LIMITATIONS

The opinions of probable cost provided in this report are estimations only and are subject to confirmation and adjustment when tenders from suitably qualified contractors are obtained.

Any opinions of probable cost and any maintenance, repair or replacement schedules contained in this report are based on the assumption that the recommendations contained in this report will be carried out, that the property will be maintained on a regular and routine basis by skilled and qualified tradesmen and that a program of periodic professional review will be carried out throughout the life of the property. Failure to undertake any of these tasks in an expeditious manner may result in unanticipated failure of any of the systems and components that form the property and its improvements and lead to issues of public safety.

The information presented in this report is based on direct visual observation made by personnel with McIntosh Perry Limited and in some instances as noted within the report on information provided by others. Recommendations contained within our report reflect our informed opinion based on the information gathered during our investigation. The findings cannot be extended to components of the building or portions of the site that were not reviewed or that were concealed or unavailable for direct observation at the time of our visit. There is a possibility for additional deficiencies being present in the building which have not been identified during our visit, given the limited nature of this review.

Our mandate is to complete a visual walk-through survey of items, components and systems that are conspicuous, patent and which may be observed visually during the walk-through survey without intrusion, removal of material, exploratory probing or the use of special equipment. Therefore, concealed or inaccessible physical deficiencies are specifically excluded from our mandate. Our interviews of building personnel attempt to uncover known concerns in the building, but we cannot attest to the integrity or knowledge of the interviewees, nor can this process, or the proposed scope of work in its entirety, be considered technically exhaustive or be considered to eliminate all risks related to owning or having a financial interest in this property.

No legal survey, soil test, detailed structural engineering investigation, or quantity survey compilation have been made. Our scope of services for this assignment did not include a design review or engineering analysis of any of the building's systems or components. No responsibility, therefore, is assumed concerning these matters, or for any failure to carry out those technical or engineering procedures required to discover any inherent or hidden condition of this property since such investigation work was not included in the terms of reference governing this study.

The conclusions and recommendations detailed in this report are based upon the information available at the time of preparation of the report. No investigative method eliminates the possibility of obtaining imprecise or incomplete information. Professional judgement was exercised in gathering and analyzing the information obtained and in the formulation of our conclusions and recommendations. The recommendations are not intended to be utilized as a detailed specification for any remedial work that may be required. McIntosh Perry Limited accepts no responsibility for interpretation of our recommendations, or actions taken based on them without our consultation and supervision.

The mechanical and electrical equipment and the fire safety systems were visually inspected where accessible. The systems were not dismantled to verify the condition of the internal components.

We did not carry out a review to check compliance with all Building or Fire Code requirements which may have been applied at the time of construction, or which may be retroactively applied to this building. Our review assumes that the design professionals and building permit process have created a design (and subsequent construction) that is code compliant.

Information provided by McIntosh Perry Limited is intended for the exclusive use of **Weir Foulds LLP.** McIntosh Perry Limited will not provide results or information to any party other than the client, unless the client, in writing, requests that information be provided to a third party or unless disclosure by McIntosh Perry Limited is required by law. Any use by a third party, of reports or documents authored by McIntosh Perry Limited, or any reliance by a third party, or decisions made by a third party, on the findings described in reports or documents authored by McIntosh Perry Limited, is the sole responsibility of such third parties. McIntosh Perry Limited accepts no responsibility for damages suffered by any third party as a result of decisions made or work carried out based on reports or documents authored by McIntosh Perry Limited.

McIntosh Perry Limited makes no representations concerning the legal and medical significance of our findings. With respect to regulatory compliance requirements, regulations change from time to time, and interpretation of their meaning and intent may also change. McIntosh Perry Limited accepts no responsibility for any legal interpretation of the Regulations, or the consequent financial effect on transactions, property values, or requirements for follow-up actions and costs.

The liability of McIntosh Perry Limited or its staff is limited to the fees paid or actual damages incurred by the client, whichever is less. McIntosh Perry Limited is not responsible for consequential or indirect damages. All claims by the client shall be deemed relinquished if not made within two years after last date of services provided.

The client expressly agrees that it has entered into this agreement with McIntosh Perry Limited, both on its own behalf and as agent on behalf of its employees, principals and co-owners.

The client expressly agrees that McIntosh Perry Limited's employees and principals shall have no personal liability to the client in respect of a claim, whether in contract, or tort, or in any other cause of action in law. Accordingly, the client expressly agrees that it will bring no proceedings and will take no action in any court of law against any of McIntosh Perry Limited's employees or principals.

We trust that the foregoing information is sufficient for your present needs and will be pleased to review the contents of this report in greater detail should you so require.

Yours truly,

McIntosh Perry Limited

Medil Gamage, P. Eng.

Project Manager,

**Building Assessment Group** 

Reviewed by:

Mari Subero, P.Eng.

Project Manager,

**Building Assessment Group** 

Frank Fragnelli, €.Tech.

Senior Project Manager (Electrical and Mechanical)

**Building Assessment Group** 

- Firagnelli

Mechanical and Electrical reviewed by:

Irina Yablonovsky, P.Eng.

Senior Mechanical Engineer