

ATTACHMENT 2

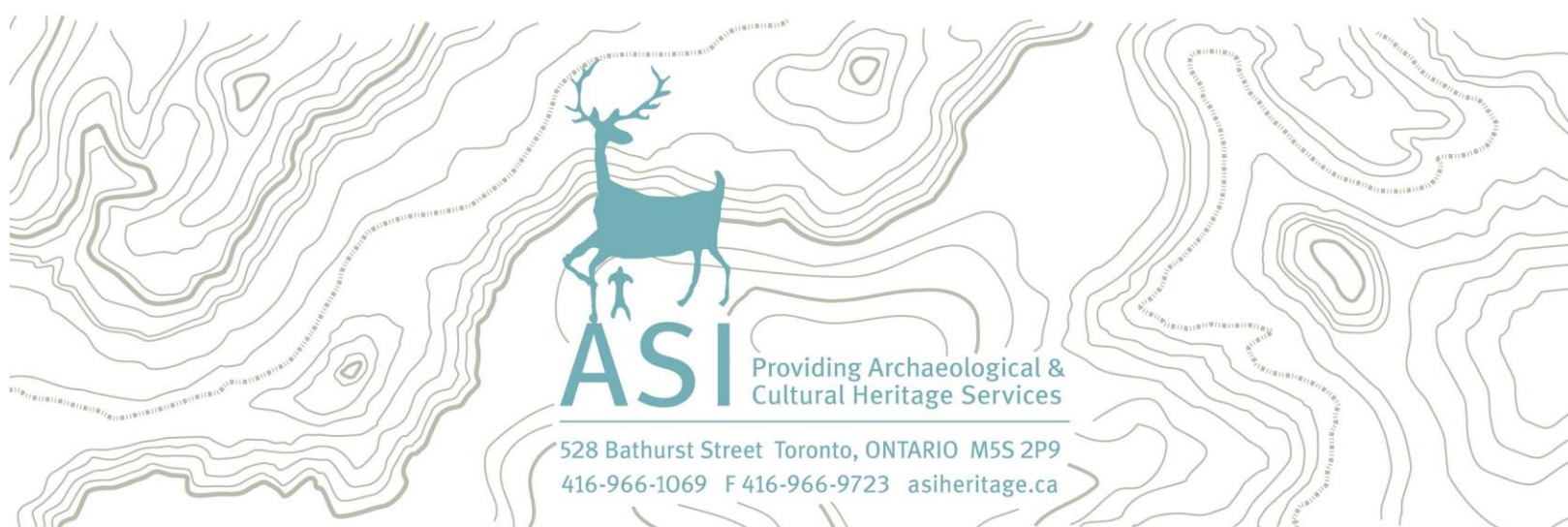
**CULTURAL HERITAGE IMPACT ASSESSMENT
GEORGE BAILEY PUBLIC SCHOOL
COMMUNITY OF MAPLE, CITY OF VAUGHAN, ONTARIO**

Prepared for:

York Region District School Board
Facilities Management Centre
1260 Gorham Street
Newmarket Ontario L3Y 8W4

ASI File: 20CH-118

September 2020 (updated May 2021)



CULTURAL HERITAGE IMPACT ASSESSMENT

GEORGE BAILEY PUBLIC SCHOOL COMMUNITY OF MAPLE, CITY OF VAUGHAN, ONTARIO

EXECUTIVE SUMMARY

ASI was contracted by York Region District School Board to prepare a Cultural Heritage Impact Assessment (CHIA) for the proposed demolition of the George Bailey Public School at 9600 Keele Street in the community of Maple in the City of Vaughan, Ontario. The property is located within the Village of Maple Heritage Conservation District, and as such the CHIA is required to determine the impacts of the proposed demolition and replacement with a green open space on the cultural heritage value of the heritage conservation district. As the property is not recognized on the City of Vaughan's Heritage Register, the CHIA will provide an evaluation of the cultural heritage value of the property under Ontario Regulation 9/06. In addition, As the property is a non-heritage building within the heritage conservation district, the CHIA will provide an assessment of the impacts of the proposed demolition and resulting open green space against the policies and guidelines of the *Village of Maple Heritage Conservation District Plan* and to any adjacent contributing heritage properties.

The George Bailey Public School is a one-storey Modernist era education facility constructed in 1955. The building is the third generation of school buildings on the property. An evaluation of the property's cultural heritage value was conducted using the criteria outlined in Ontario Regulation 9/06. It was determined that though the property has physical, historical and contextual value. In addition, the proposed removal of the building was measured against its consistency with the policies and guidelines of the Village of Maple Heritage Conservation District Plan. This report found that the proposed removal of the George Bailey Public School is not anticipated to have a negative impact on the cultural heritage value of the Village of Maple Heritage Conservation District. The proposed green space that will replace the school is consistent with the character of the district and the adjacent Frank Robson Park and Woodlot, which is a contributing heritage property within the district.

Currently, there are no proposals or need for a replacement structure as the York Region District School Board does not need a replacement structure at this time, and the cost to maintain the building is documented to be prohibitive, the removal of the building and replacement with a green space rather than its mothballing must be consistent with the City of Vaughan's Official Plan policies. As such, as part of pre-consultation for the proposed removal of the George Bailey Public School, City of Vaughan heritage staff have advised that the official plan requires an approved redevelopment application before a demolition permit will be issued as it is not consistent with the City of Vaughan's Official Plan policy 6.3.2.5, which states,

“that a demolition permit for a building or part of a building within a Heritage Conservation District shall not be issued until plans for a replacement structure have been submitted to the City and Council has approved the replacement structure and any related proposed landscaping features in accordance with the relevant Heritage Conservation District Plan, the Vaughan Heritage Conservation Guidelines and the policies of this Plan.”



However, the concept and definition of a “structure” in the heritage field has evolved with recent decisions at the Local Planning Appeal Tribunal¹. As such, the notion that a replacement “structure” for the George Bailey Public School must be a building should be reconsidered. Given that the proposed green space is consistent with the surrounding heritage context and the character of the heritage conservation district, the green space (or a more enhanced green space) should be viewed as a positive contribution to the heritage conservation district in lieu of a mothballed building that does not contribute to the cultural heritage value of the district.

The following recommendations are proposed for consideration. These recommendations include:

1. This report should be submitted to Heritage Staff at the City of Vaughan for review, and upon approval, filed and archived with the Vaughan Public Library and the City of Vaughan Archives;
2. The proposed green space could be enhanced to create a more vibrant space that will contribute positively to the heritage conservation district. Though this space will be temporary, small interventions in the form of pathways, benches, vegetation and recreational space should be considered. A designed green space would be consistent with the evolving definition of “structure” and would satisfy the Official Plan policy 6.3.2.5. The existing trees associated with the southern perimeter of the c.1896 schoolhouse property should be retained.
3. Prior to the demolition of the George Bailey Public School, the City of Vaughan should consider that a documentation report be completed and submitted to the City of Vaughan for review. The report should be filed and archives with the Vaughan Public Library and the City of Vaughan Archives.
4. An Interpretation Strategy has been developed to tell the story of the school property and its historical role within the Village of Maple. Along with providing interpretation for the George Bailey Public School, the Interpretation Strategy could interpret the location of the c.1896 schoolhouse through the use of landscape strategies, such as vegetation, open space, and the integration of interpretive signage, and naming of the space. The Interpretation Strategy should be submitted to Heritage Staff at the City of Vaughan for review and approval.

¹ Clublink Corporation ULC v. Oakville (Town)



PROJECT PERSONNEL

<i>Senior Project Manager:</i>	Rebecca Sciarra, MA, CAHP <i>Partner / Director, Cultural Heritage Division</i>
<i>Cultural Heritage Specialist:</i>	James Neilson, MES (Planning) <i>Cultural Heritage Specialist / Project Manager</i> <i>Cultural Heritage Division</i>
<i>Project Coordinator</i>	Ella Boswell, BSc (Hon) <i>Archaeologist / Junior Administrative Assistant -</i> <i>Laboratory and Fieldwork Services, Operations</i> <i>Division</i>
<i>Report Preparation:</i>	James Neilson
<i>Historical Research:</i>	James Neilson
<i>Fieldwork</i>	James Neilson Rebecca Sciarra
<i>Graphics Preparation:</i>	Jonas Fernandez, MA <i>Manager – Geomatics, Operations Division</i> James Neilson
<i>Report Reviewer:</i>	Kristina Martens, BA, Dip. Heritage Conservation <i>Cultural Heritage Specialist / Project Manager</i> <i>Cultural Heritage Division</i> Rebecca Sciarra



TABLE OF CONTENTS

EXECUTIVE SUMMARY	ii
PROJECT PERSONNEL	ii
TABLE OF CONTENTS.....	iii
1.0 INTRODUCTION	1
1.1 Location and Study Area Description	2
1.2 Property Ownership	4
1.3 Policy Framework	4
1.3.1 Ontario Heritage Act, Planning Act and Provincial Policy Statement (PPS).....	4
1.3.2 City of Vaughan Official Plan (2019 Consolidation)	5
1.3.3 The Growth Plan for the Greater Golden Horseshoe (2019)	7
1.4 Project Consultation	8
1.5 Village of Maple Heritage Conservation District (2007)	9
2.0 HISTORICAL RESEARCH	12
2.1 Township and Settlement History	12
2.1.1 Overview of Indigenous Land Use.....	12
2.1.2 Vaughan Township.....	13
2.1.3 Village of Maple	14
2.2 Land Use History: George Bailey Public School	14
2.3 Architects – Hanks, Irwin & Pearson	23
3.0 EXISTING CONDITIONS	27
3.1 Introduction.....	27
3.2 Existing Conditions	27
3.2.1 George Bailey Public School - Exterior	27
3.2.2 George Bailey Public School - Interior.....	34
3.2.2 George Bailey Public School – Landscape and Surrounding Area.....	43
4.0 CULTURAL HERITAGE VALUE	49
4.1 Design Context and Comparative Analysis	49
4.2 Ontario Regulation 9/06 Evaluation	57
4.3 Proposed Statement of Significance.....	60
5.0 PROPOSED DEVELOPMENT	61
5.1 Description of Proposed Development	61
5.2 Impact Assessment – George Bailey Public School	62
5.3 Impact Assessment –Village of Maple Heritage Conservation District Plan	63
5.4 Impact Assessment – City of Vaughan Official Plan (2019 Consolidation).....	67
6.0 ALTERNATIVES, MITIGATION AND RECOMMENDATIONS.....	68
6.1 Alternatives.....	69
6.2 Mitigation	70
6.2.1 Designed Green Space	70
6.2.2 Building and Landscape Documentation and Historical Commemoration and Interpretation	70
7.0 INTERPRETATION STRATEGY	71
8.0 CONCLUSION	72
9.0 REFERENCES	74
APPENDIX A: CITY OF VAUGHAN’S GUIDELINES FOR CULTURAL HERITAGE IMPACT ASSESSMENT.....	78



APPENDIX B: Existing Site Plan and Demolition Plan	79
APPENDIX C: Proposed Site Plan.....	80
APPENDIX D: Proposed Commemoration Strategy	81
APPENDIX E: Condition Assessment	82
APPENDIX F: Arborist's Report.....	83

LIST OF FIGURES

Figure 1: Location of the subject property (Open Street Maps).....	1
Figure 2: George Bailey Public School (ASI 2020)	3
Figure 3: Aerial Photograph of the Subject Property (former building locations are approximate) (Google)	3
Figure 4: Boundary of the Village of Maple Heritage Conservation District. The George Bailey School is noted in yellow, while the Frank Robson Park and Woodlot is noted in blue adjacent to the school (Carter 2007)	11
Figure 5: 1860 Tremaine Map of the County of York (Tremaine 1860)	15
Figure 6: 1878 Illustrated County Atlas of the County of York (Caniff 1878)	16
Figure 7: 1914 NTS Map (Ministry of Defence and Militia 1914)	16
Figure 8: 1954 aerial photograph (Hunting Survey Corporation Limited 1954)	17
Figure 9: Detail view of the 1954 aerial photograph (York Region 1954).....	18
Figure 10: Site plan for the 1958 addition to the George Bailey Public School (York Region District School Board)	19
Figure 11: Site plan for the 1960 addition to the c.1896 schoolhouse and parking (York Region District School Board).....	20
Figure 12: Site plan of the 1968 addition and hatching for a future addition (York Region District School Board)	21
Figure 13: 1970 aerial photograph (York Region 1970)	22
Figure 14: 1988 aerial photo showing new development around the George Bailey Public School (York Region).....	23
Figure 15: Crosby Heights Public School (Google 2018)	24
Figure 16: Joseph A. Gibson Public School (Google 2019).....	24
Figure 17: Roselawn Public School (Google 2019).....	25
Figure 18: Charles Howitt Public School (Google 2018)	25
Figure 19: Highfield Public School, west elevation (Google 2019)	25
Figure 20: Allan A. Martin Public School (Google 2019)	26
Figure 21: George Bailey Public School evolution (ASI 2020)	27
Figure 22: East elevation (ASI 2020)	28
Figure 23: Example of the window bays on the east elevation (ASI 2020).....	29
Figure 24: Detail of the precast concrete sills clad in metal (ASI 2020).....	29
Figure 25: Detail of the roof overhang and wooden plank soffit supported by tapered wooden beams clad in plywood (ASI 2020)	30
Figure 26: Recessed entrance with double-doors surrounded by a 3-pane transom window, and large side-lights, flanked by an articulated tapered brick on the south side, built of progressively corbelled bricks, and a brick pier on the north side. (ASI 2020)	30
Figure 27: Secondary Entrance of the 1958 addition (ASI 2020)	31



Figure 28: Elevation drawing of the east elevation of the 1958 addition (York Region District School Board)	31
Figure 29: East elevation of the 1958 addition (ASI 2020)	32
Figure 30: South Elevation of the 1958 addition (ASI 2020)	32
Figure 31: West Elevation (ASI 2020)	33
Figure 32: West elevation (ASI 2020)	33
Figure 33: North elevation (ASI 2020)	34
Figure 34: Entrance (ASI 2020)	35
Figure 35: Main corridor (ASI 2020)	35
Figure 36: Main corridor (ASI 2020)	36
Figure 37: Typical classroom condition with windows along the length of the outside wall (ASI 2020) ...	36
Figure 38: Typical classroom condition with windows along the length of the outside wall (ASI 2020) ...	37
Figure 39: Window example (ASI 2020)	37
Figure 40: Typical classroom entrance (ASI 2020)	38
Figure 41: Typical classroom (ASI 2020)	38
Figure 42: Typical classroom (ASI 2020)	39
Figure 43: Wooden plank ceilings and beams (ASI 2020)	39
Figure 44: Staircase leading to the basement (ASI 2020)	40
Figure 45: Basement space (ASI 2020)	40
Figure 46: Basement space (ASI 2020)	40
Figure 47: Recessed pattern within the staircase wall where coloured glass blocks were once located (ASI 2020)	41
Figure 48: Gymnasium (ASI 2020)	41
Figure 49: Gymnasium (ASI 2020)	42
Figure 50: Gymnasium stage (ASI 2020)	42
Figure 51: Evolution of the landscape of the George Bailey Public School property (ASI 2020)	43
Figure 52: Landscaping along Knightswood Avenue (ASI 2020)	44
Figure 53: Driveway (ASI 2020)	45
Figure 54: Asphalt along the west elevation (ASI 2020)	45
Figure 55: Portion of the 1960 driveway incorporated into the existing parking layout (ASI 2020)	46
Figure 56: 1960 driveway connection, which today provides access to the schoolyard. The location of the c.1946 residence on the property is identified in the photograph (ASI 2020)	46
Figure 57: Trees demarcating the southern perimeter of the original demolished schoolhouse (ASI 2020)	47
Figure 58: Trees along Keele Street (ASI 2020)	47
Figure 59: Asphalt and grass schoolyard (ASI 2020)	48
Figure 60: Path connection to Frank Robson Park (ASI 2020)	48
Figure 61: Schoolyard and Frank Robson Park baseball diamond (ASI 2020)	49
Figure 62: Crow Island School (Ogata 2008)	50
Figure 63: Crow Island School (Ogata 2008)	50
Figure 64: Sunnylea Public School (Coon 1944)	52
Figure 65: Sunnylea Public School site plan (Parkin 1943)	52
Figure 66: Prince Charles Public School, built in 1949 (Google 2014)	54
Figure 67: Charles Howitt Public School (Google 2019)	54
Figure 68: Kettleby Public School, built in 1953 (Google 2009)	55
Figure 69: O.M. Mackillip Public School, built in 1954 (Google 2017)	55

Figure 70: Lord Lansdowne Junior and Senior Public School (ACO Toronto)	56
Figure 71: Davisville Junior Public School (Robert Moffatt)	56

LIST OF TABLES

Table 1: Outline of Southern Ontario Prehistory	12
Table 2: Evaluation of the George Bailey Public School under Ontario Regulation 9/06 Criteria	57
Table 3: Impact Assessment – George Bailey Public School	62
Table 4: Impact Assessment – Village of Maple Heritage Conservation District.....	63



1.0 INTRODUCTION

ASI was contracted by York Region District School Board to prepare a Cultural Heritage Impact Assessment (CHIA) for the proposed demolition of the George Bailey Public School at 9600 Keele Street in the community of Maple in the City of Vaughan, Ontario (Figure 1). The property is located within the Village of Maple Heritage Conservation District, and as such the CHIA is required to determine the impacts of the proposed demolition and replacement with a green open space on the cultural heritage value of the heritage conservation district. As the property is not recognized on the City of Vaughan's Heritage Register, the CHIA will provide an evaluation of the cultural heritage value of the property under Ontario Regulation 9/06. In addition, as the property is a non-heritage building within the heritage conservation district, the CHIA will provide an assessment of the impacts of the proposed demolition and resulting open green space against the policies and guidelines of the *Village of Maple Heritage Conservation District Plan* and to any adjacent contributing heritage properties.

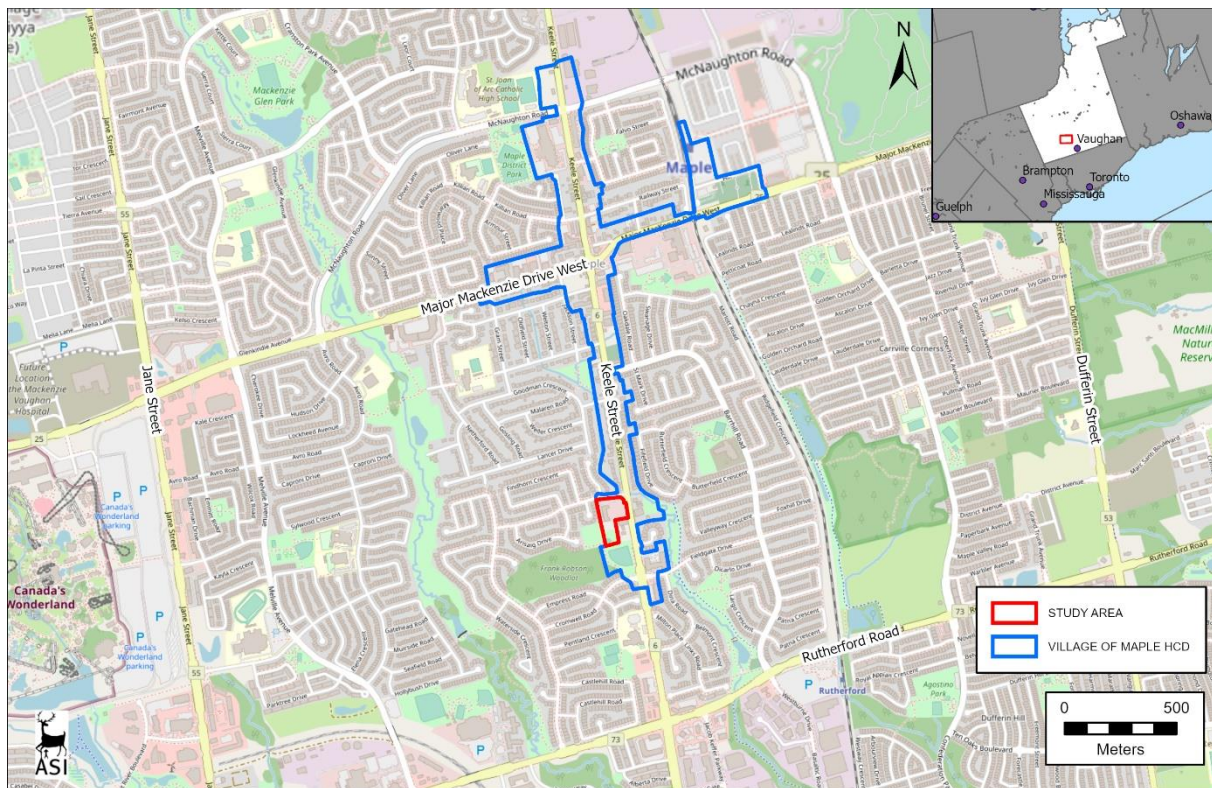


Figure 1: Location of the subject property (Open Street Maps)

The analysis, research, and site visit were led by James Neilson, Cultural Heritage Specialist and under the senior project direction of Rebecca Sciarra, Partner and Director, Cultural Heritage Division, ASI. This CHIA follows the Ministry of Tourism, Culture and Sports' *Ontario Heritage Toolkit* (MHSTCI 2006), the City of Vaughan's *Guidelines for Heritage Impact Assessments* (City of Vaughan 2016); and the *Standards and Guidelines for the Conservation of Historic Places in Canada* (Parks Canada 2010).

This Cultural Heritage Impact Assessment will include the following components:

- A description of the property;
- A history of the property;
- A heritage evaluation of the property using Ontario Regulation 9/06;
- A description of the proposed work;
- An assessment of impacts of the proposed work against the policies and guidelines of the Village of Maple Heritage Conservation District, and on the adjacent contributing heritage property;
- An assessment of appropriate mitigation measures to ensure that any impacts on the Village of Maple Heritage Conservation District and on the adjacent contributing heritage property are minimized; and
- A list of recommendations for the City of Vaughan to review and approve with regards to this project.

1.1 Location and Study Area Description

The subject property consists of the George Bailey Public School, located at 9600 Keele Street in the community of Maple in the City of Vaughan (Figure 2 and Figure 3). The property is located on the southwest corner of the intersection of Keele Street and Knightswood Avenue. The existing building was constructed in 1955 in the Modernist style with additions made to it in 1957 and 1967. The school has an L-shaped footprint that is oriented parallel to Keele Street, and access to the property is via two vehicular driveways on Knightswood Avenue. Coniferous and deciduous trees have been planted within the green spaces created by the configuration of the parking lot. A row of maple trees are present along Keele Street, while there is a second row of trees running perpendicular to Keele Street near the boundary of an adjacent residential building. The school is immediately surrounded by asphalt for surface parking and recreational use, while the rest of the property consists of green space that seamlessly transitions to the adjacent Frank Robson Park and is connected to the park via a pathway.

Historically, two other schools and a residential building have been located on the property but have since been removed. These include the original Maple School S.S. #6 which was on the site from 1861 to 1896, a second school, which was on the property from 1896 to c.2002 and a residential building at the corner of Keele Street and Knightswood Avenue that was on the site from c.1946 to c.1995. The exact site of the first schoolhouse is not known, though the historical location of the other two structures is noted in Figure 3.

The surrounding area largely consists of residential subdivisions constructed in the 1980s, though the historic village of Maple is located to the north. Frank Robson Park and Woodlot are found immediately to the south and are connected to the school property via a pathway through the green space. The pathway also provides a pedestrian connection to Arisaig Drive.





Figure 2: George Bailey Public School (ASI 2020)



Figure 3: Aerial Photograph of the Subject Property (former building locations are approximate) (Google)

1.2 Property Ownership

The subject property is currently owned by the York Region District School Board.

York Region District School Board
Facilities Management Centre
1260 Gorham Street
Newmarket, Ontario L3Y 8W4

1.3 Policy Framework

The authority to request this heritage assessment arises from the *Ontario Heritage Act*, Section 2(d) of the *Planning Act*, the *Provincial Policy Statement* (2014), and the City of Vaughan's *Official Plan* (2010) (MHSTCI 1990; PPS 1990; Government of Ontario 2020; City of Vaughan 2017).

1.3.1 Ontario Heritage Act, Planning Act and Provincial Policy Statement (PPS)

The authority to request this heritage assessment arises from the Ontario Heritage Act, Section 2(d) of the Planning Act, the Provincial Policy Statement (2020), and City of Vaughan's Official Plan (City of Vaughan 2017).

The *Ontario Heritage Act* (OHA) enables designation of properties and districts under Part IV and Part V, Sections 26 through 46 and provides the legislative bases for applying heritage easements to real property (MHSTCI 1990).

The *Planning Act* (1990) and related *Provincial Policy Statement* (PPS 2020) make a number of provisions relating to heritage conservation (Ministry of Municipal Affairs and Housing 1990; Government of Ontario 2020). One of the general purposes of the *Planning Act* is to integrate matters of provincial interest in provincial and municipal planning decisions. To inform all those involved in planning activities of the scope of these matters of provincial interest, Section 2 of the *Planning Act* provides an extensive listing. These matters of provincial interest shall be regarded when certain authorities, including the council of a municipality, carry out their responsibilities under the *Act*. One of these provincial interests is directly concerned with:

- 2 (i) the conservation of features of significant architectural, cultural, historical, archaeological or scientific interest.

The *PPS* indicates in Section 4 - Implementation/Interpretation, that:

- 4.6 The official plan is the most important vehicle for implementation of this Provincial Policy Statement. Comprehensive, integrated and long-term planning is best achieved through official plans.



Official plans shall identify provincial interests and set out appropriate land use designations and policies. To determine the significance of some natural heritage features and other resources, evaluation may be required.

In order to protect provincial interests, planning authorities shall keep their official plans up-to-date with this Provincial Policy Statement. The policies of this Provincial Policy Statement continue to apply after adoption and approval of an official plan.

Those policies of particular relevance for the conservation of cultural heritage are contained in Section 2.0, *Wise Use and Management of Resources*, in which the preamble states that “Ontario's long-term prosperity, environmental health, and social well-being depend on conserving biodiversity, protecting the health of the Great Lakes, and protecting natural heritage, water, agricultural, mineral and cultural heritage and archaeological resources for their economic, environmental and social benefits.”

Accordingly, in subsection 2.6, *Cultural Heritage and Archaeology* makes the following provisions relevant to this assessment:

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

Italicized terms in the foregoing policy statements are defined in Section 6.0 Definitions of the PPS and have been considered as part of the present assessment.

This provides the context not only for discrete planning activities detailed in the *Planning Act* but also for the foundation of policy statements issued under Section 3 of the *Planning Act*.

1.3.2 City of Vaughan Official Plan (2019 Consolidation)

The City of Vaughan's guidelines for CHIAs are outlined in the City's *Guidelines for Cultural Heritage Impact Assessments* (2016) (Appendix A). This document draws on provincial policies, as well as those policies outlined in Chapter 6, Volume 1, of the City of Vaughan's *Official Plan* (2019 Consolidation), which states the following:

- 6.1.1.1 To recognize and conserve cultural heritage resources, including heritage buildings and structures, cultural heritage landscapes, and other cultural heritage resources, and to promote the maintenance and development of an appropriate setting within, around and adjacent to all such resources.



6.1.2.3. To require that identified heritage resources not yet listed in the Heritage Register are evaluated and conserved, as appropriate, through any legislated planning or assessment processes, including the *Planning Act*, the *Environmental Assessment Act*, the *Ontario Heritage Act* and the *Cemeteries Act*.

6.1.2.4. That the identification of cultural heritage resources is an on-going process of inventorying, surveying and evaluation. There may be cultural heritage resources that have not yet been identified and listed in the Heritage Register. Such properties may be identified through the development approvals process and evaluated through the submission of a Cultural Heritage Survey to be undertaken by proponents for development approvals. The Cultural Heritage Survey shall be reviewed by the City for that property's potential inclusion in the Heritage Register.

6.1.2.7. Any property worthy of designation under Part IV of the *Ontario Heritage Act* that fulfills one or more of the criteria identified in policy 6.1.2.6 will be considered to possess cultural heritage value.

6.2.2.1. That, pursuant to the *Ontario Heritage Act*, the City may, through a by-law, protect cultural heritage resources by entering into heritage easement agreements or by designating:

- a. Individual properties;
- b. Heritage Conservation Districts where there is a concentration of cultural heritage resources in accordance with Policy 6.3.2.1;
- c. Cultural heritage landscapes; and
- d. Archaeological sites.

6.2.2.2. That if development is proposed on any property listed in the Heritage Register, that the property, or portions of the property, may be considered for heritage designation or entering into a heritage easement agreement to secure conservation of significant heritage resources.

6.2.3.1. That when development is proposed on a property that is not designated under the *Ontario Heritage Act* but is listed on the Heritage Register, recognized as a Cultural heritage character area or identified as having potential cultural heritage value, the applicant shall submit a Cultural Heritage Impact Assessment when: a. the proposal requires an Official Plan amendment, a zoning by-law amendment, a plan of subdivision, a plan of condominium, a minor variance or a site plan application; b. the proposal involves the demolition of a building or the removal of a building or part thereof or a heritage landscape feature; or c. there is potential for adverse impact to a cultural heritage resource from the proposed development activities.

6.2.3.2. That when development is proposed on a property adjacent to a property that is not designated under the *Ontario Heritage Act* but is listed on the Heritage Register, recognized as Cultural heritage character area, or identified as having potential cultural heritage value:

- a. the proposal is compatible with the conservation of the adjacent cultural heritage resource and its streetscape context; and
- b. the applicant shall submit a Cultural Heritage Impact Assessment if through the development approval process it is determined that there is the potential for adverse impact on the adjacent heritage resource from the proposed development.



6.2.4.1. That Cultural Heritage Impact Assessments shall be prepared by a professional with expertise in cultural heritage resources and in accordance with the requirements of this Plan, and that:

- a. the assessment must demonstrate whether the heritage values and character of cultural heritage resources, as identified by the City, are being retained, improved, adversely impacted or lost by the proposed development;
- b. the assessment may not substitute alternate heritage values or character for those that have been approved or endorsed by the City; and
- c. where there is no designation by-law, approved heritage character statement or approved conservation plan, the assessment must document, to the City's satisfaction, the cultural heritage values of the property.

6.2.4.2. That Cultural Heritage Impact Assessments are subject to City review. In review of Cultural Heritage Impact Assessments, the City:

- a. will be guided by Good heritage conservation practices and heritage conservation principles as identified in policy 6.2.2.6 of this Plan, by priorities for on-site retention as identified in policy 6.2.2.7 of this Plan, and by any other relevant policies of this Plan; and
- b. may impose conditions of approval to secure the long-term conservation of the resource.

6.2.4.4. That, in the event a cultural heritage resource is to be demolished and this has been demonstrated to the City's satisfaction, the Cultural Heritage Impact Assessment must recommend, to the City's satisfaction, mitigation measures (such as the reuse of materials or building elements in the development or in other developments) and archival documentation, as may be defined in the Vaughan Heritage Conservation Guidelines (City of Vaughan 2017).

1.3.3 The Growth Plan for the Greater Golden Horseshoe (2019)

The 2019 *Growth Plan for the Greater Golden Horseshoe (Growth Plan)* identifies several policies relating to the conservation of cultural heritage resources within the Province. Section 1.1 of the Growth Plan speaks to the challenges faced by increased growth in the Greater Golden Horseshoe, and that "[u]nmanaged growth can degrade the region's air quality; water resources; natural heritage resources, such as rivers, lakes, woodlands, and wetlands; and cultural heritage resources."

Section 4 of the *Growth Plan* speaks to the protection of valuable resources, including cultural heritage resources, in Section 4.1:

The *GGH* contains a broad array of important hydrologic and *natural heritage features and areas*, a vibrant and diverse agricultural land base, irreplaceable *cultural heritage resources*, and valuable renewable and non-renewable resources. These lands, features and resources are essential for the long-term quality of life, economic prosperity, environmental health, and *ecological integrity* of the region. They collectively provide essential ecosystem services,



including water storage and filtration, cleaner air and habitats, and support pollinators, carbon storage, adaptation and resilience to climate change.

Through their historic relationship with the lands and resources in this region, Indigenous communities have gained traditional knowledge that is of value to the planning decisions being made today. A balanced approach to the wise use and management of all resources, including those related to water, natural heritage, agriculture, cultural heritage, and mineral aggregates, will be implemented in the *GGH*

The *GGH* also contains important *cultural heritage resources* that contribute to a sense of identity, support a vibrant tourism industry, and attract investment based on cultural amenities. Accommodating growth can put pressure on these resources through *development* and *site alteration*. It is necessary to plan in a way that protects and maximizes the benefits of these resources that make our communities unique and attractive places to live.

Section 4.27 of the *Growth Plan* provides specific policy guidance relating to cultural heritage resources:

4.2.7 Cultural Heritage Resources

Cultural heritage resources will be *conserved* in order to foster a sense of place and benefit communities, particularly in *strategic growth areas*.

Municipalities will work with stakeholders, as well as First Nations and Métis communities, in developing and implementing official plan policies and strategies for the identification, wise use and management of *cultural heritage resources*.

Municipalities are encouraged to prepare archaeological management plans and municipal cultural plans and consider them in their decision-making (Ministry of Municipal Affairs and Housing 2019).

1.4 Project Consultation

The following websites, online heritage documents, and online heritage mapping tools were consulted to confirm the level of heritage significance of the property and to request additional information generally:

- City of Vaughan *Village of Maple Heritage Conservation District Plan* (2007);
 - The property is considered a non-heritage property within the Village of Maple Heritage Conservation District
 - The adjacent Frank Robson Park and Woodlot is considered a heritage property within the Village of Maple Heritage Conservation District
- Parks Canada's *Canada's Historic Places* website²
 - The property is not in Parks Canada's *Canada's Historic Places* database.

² Available at <http://www.historicplaces.ca/en/pages/about-apropos.aspx> [accessed 12 August 2020]



- Parks Canada's *Directory of Federal Heritage Designation*³
 - The property is not in Parks Canada's *Directory of Federal Heritage Designations*.
- Ontario Heritage Trust's *Ontario Heritage Act Register*⁴
 - The property is not included on the Ontario Heritage Trust's *Ontario Heritage Act Register*.
- Ontario Heritage Trust's *Ontario Heritage Plaque Guide*⁵
 - There are no plaques on the property.
- *Ontario's Historical Plaques*⁶
 - There are no plaques on the property.
- Ontario Land Property Records at onland.ca

In addition, ASI was in contact with the following individuals and organizations to receive further information about the property.

- The City of Vaughan Archives was contacted for more information about the history of the property (email sent August 12, 2020; response received August 18, 2020)
 - Carrie Logtenberg provided ASI with historical photographs of the original schoolhouse. The photos have not been included within this report as City of Vaughan Archives policy states that the images are strictly for reference purposes only and cannot be reproduced in a heritage report.
- The York Region District School Board provided architectural drawings for the school from 1958, 1960, 1967 and 2001.

1.5 Village of Maple Heritage Conservation District (2007)

The Village of Maple Heritage Conservation District consists largely of the lands within the established "Police Village of Maple" that was created in 1928. The District is largely focused around the intersection of Major Mackenzie Drive and Keele Street, though the boundary extends southward along Keele Street. The District consists of detached residential and commercial heritage buildings surrounded by infill commercial and residential development. The District is divided into heritage and non-heritage properties based on their presence on the City's Heritage Register. The George Bailey Public School is classified as a non-heritage property within the Village of Maple Heritage Conservation District (2007) located in the southern portion of the district. This area is mostly devoid of contributing heritage properties apart from the Frank Robson Park and Woodlot, which is adjacent to the George Bailey Public School (Figure 4).

³ Available at http://www.pc.gc.ca/apps/dfhd/default_eng.aspx [accessed 12 August 2020]

⁴ Available at <https://www.heritagetrust.on.ca/en/pages/tools/ontario-heritage-act-Register> [accessed 12 August 2020]

⁵ Available at <http://www.heritagetrust.on.ca/Resources-and-Learning/Online-Plaque-Guide.aspx> [accessed 12 August 2020]

⁶ Available at <http://www.ontarioplaques.com/> [accessed 12 August 2020]



The *Village of Maple Heritage Conservation District Inventory* notes of the George Bailey Public School:

“Building is a classic c. 1960 school building and is virtually unaltered. Glazed blue brick at LH side of front elevation are an unusual touch. Large site has three (somewhat broken) rows of large sugar maples at SE corner of Keele Street frontage, and row of more recently planted maples on ridge parallel to along street frontage. A park and walkway extends south from southern edge of schoolyard, and at rear (to west) of this is an extensive and heavily forested woodlot (Frank Robson Woodlot), a site which has perhaps never been cleared. Building and site effectively complete north end of this block and are, as a whole, an effective representative of both early suburban architecture and un-cleared rural land.” (Holman 2005:118)



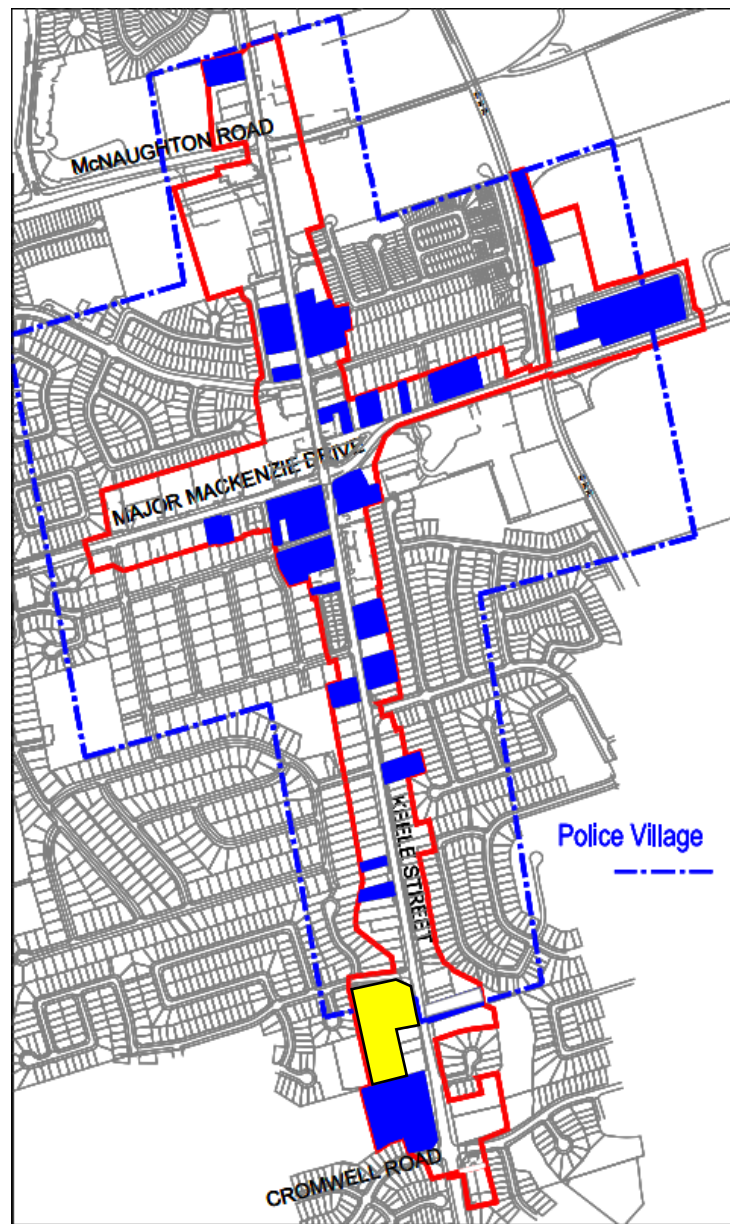


Figure 4: Boundary of the Village of Maple Heritage Conservation District. The George Bailey School is noted in yellow, while the Frank Robson Park and Woodlot is noted in blue adjacent to the school (Carter 2007)

2.0 HISTORICAL RESEARCH

A review of available primary and secondary source material was undertaken to produce a contextual overview of the study area, including a general description of Euro-Canadian settlement and land-use. The following section provides the results of this research.

2.1 Township and Settlement History

2.1.1 Overview of Indigenous Land Use

Southern Ontario has a cultural history that begins approximately 11,000 years ago. The land now encompassed by the former Township of Vaughan has a cultural history which begins approximately 10,000 years ago and continues to the present. Table 1 provides a general summary of the history of Indigenous land use and settlement of the area.⁷

Table 1: Outline of Southern Ontario Prehistory

Period	Archaeological/ Material Culture	Date Range	Lifeways/ Attributes
PALEO-INDIAN PERIOD			
Early	Gaineey, Barnes, Crowfield	9000-8500 BCE	Big game hunters
Late	Holcombe, Hi-Lo, lanceolate	8500-7500 BCE	Small nomadic groups
ARCHAIC			
Early	Nettling, Bifurcate-base	7800-6000 BCE	Nomadic hunters and gatherers
Middle	Kirk, Stanley, Brewerton, Laurentian	6000-2000 BCE	Transition to territorial settlements
Late	Lamoka, Genesee, Crawford Knoll, Innes	2500-500 BCE	Polished/ground stone tools (small stemmed)
WOODLAND PERIOD			
Early	Meadowood	800-400 BCE	Introduction of pottery
Middle	Point Peninsula, Saugeen	400 BCE-CE 800	Incipient horticulture
Late	Algonkian, Iroquoian	CE 800-1300	Transition to village life and agriculture
	Algonkian, Iroquoian	CE 1300-1400	Establishment of large palisaded villages
	Algonkian, Iroquoian	CE 1400-1600	Tribal differentiation and warfare
POST-CONTACT PERIOD			
Early	Huron, Neutral, Petun, Odawa, Ojibwa	CE 1600-1650	Tribal displacements
Late	Six Nations Iroquois, Ojibwa	CE 1650-1800's	
	Euro-Canadian	CE 1800-present	European settlement

⁷ While many types of information can inform the precontact settlement of the City of Vaughan, this summary table provides information drawn from archaeological research conducted in southern Ontario over the last century. As such, the terminology used in this review related to standard archaeological terminology for the province rather than relating to specific historical events within the region. The chronological ordering of this summary is made with respect to two temporal referents: BCE – before Common Era and CE – Common Era.



The land in which the subject property is located was included in the Toronto Purchase, Treaty No. 13, signed on August 2, 1805 by the Mississaugas and the British Crown in Port Credit at the Government Inn. A provisional agreement was reached with the Crown on August 2, 1805, in which the Mississaugas ceded 70,784 acres of land bounded by the Toronto Purchase of 1787 in the east, the Brant Tract in the west, and a northern boundary that ran six miles back from the shoreline of Lake Ontario (Mississaugas of the Credit First Nation 2017).

2.1.2 Vaughan Township

The land within Vaughan Township was alienated by the British from the Mississaugas in 1787. The first township survey was undertaken in 1793, and the first legal settlers occupied their land holdings in 1796. The township was named in honour of Benjamin Vaughan, who was one of the negotiators for the Treaty of Paris which ended the American Revolutionary War in 1783. In 1805, Boulton noted that the soil in Vaughan was “much improved,” and due to its proximity to York “may be expected to form an early and flourishing settlement.” Vaughan was initially settled by Loyalists, the children of Loyalists, disbanded soldiers, and by Americans including the Pennsylvania Dutch, French Huguenots, and Quakers (Boulton 1805:89; Smith 1846:199; Reaman 1971:19; Armstrong 1985:148; Rayburn 1997:355).

Although there was some immigration from Britain following the War of 1812, the township population grew slowly until the 1820s when Crown and Clergy Reserve land became available for purchase. The late 1820s and early 1830s saw a substantial increase in British immigration. In the period between 1814 and 1860, the lots and concessions that had been previously surveyed formed the basis for the clearing of land for future agricultural development. The farms were often basic in the beginning, with the 200-acre properties later evolving to include a more substantial residence either built of frame, brick or stone masonry complemented with agricultural outbuildings such as a barn, driveshed, silo, and storage sheds. The Township of Vaughan was incorporated in 1850 as a municipal government. Construction for the Ontario Simcoe and Huron Railway began in 1852 and the line was opened through Vaughan Township in 1853 with a station in Concord. It was renamed the Northern Railway Company in 1858, and later became part of the Grand Trunk Railway and then Canadian National Railway *ca.* 1920. The Toronto, Grey and Bruce Railway (T.G.&B.R) was opened through the west part of the Township in 1871.

Tremaine’s *Map of the County of York* (Tremaine 1860) shows a developed agricultural landscape within the township, traversed by the Humber River and its tributaries, with small hamlets, a local road system and churches and schoolhouses. Vaughan Township continued to develop economically in the 1860s and 1870s. The *Illustrated Historical Atlas of the County of York* (Miles & Co. 1878) shows a well-established and prosperous agricultural township dotted with farmsteads, small hamlets, and villages. Although Yonge Street on the east side of the township was the principal route to the markets in York to the south, the construction of the two railways through the township greatly increased market access for the farmers and contributed to the overall prosperity.

In the period from 1850 to 1950, Vaughan witnessed the introduction of railways, improved rural-urban roadways, larger villages and towns, and industrialization. This facilitated growth in population of both rural and urban communities in the Township of Vaughan. The result during this period was more established commercial-industrial centres with residential housing and institutional amenities. Improvements to water and sewage infrastructure aided development.



2.1.3 Village of Maple

The subject property is located within the Village of Maple in the former Township of Vaughan.

The village of Maple was first established around the intersection of Major Mackenzie Drive and Keele Street in the early 1800s. The first settlers were mainly German Lutherans from Pennsylvania, followed by British immigrants in the mid 1820s. It was first known as Noble's Corner, after the first Postmaster, Joseph Noble. It was later renamed Rupertsville after a highly respected local doctor, Dr. Rupert. In 1855 it was renamed Maple after the numerous Maple trees once located along Keele Street, according to local folklore. The first church was Presbyterian, established in the 1830s. Methodist meetings were held as early as 1835 but a church was not built until 1870. St. Stephen's Anglican Church was established in 1838.

The boggy terrain surrounding the road south from the community (now Keele Street) meant that travelers often avoided the route and so the village was overshadowed by the more prosperous settlements of Teston and Sherwood. This changed when the Ontario, Huron and Simcoe Railway was constructed to run parallel to Keele Street on its east side. A hotel was built during the 1850s to accommodate travelers through the area.

By the late nineteenth century, Maple boasted a sawmill, rope factory, funeral parlour, hotel, hardware store, pump factory and harness shop. Maple became a Police Village in 1928 after reaching a population of 2,000. Soon after the number of businesses decreased but the village remained fairly large, with a population of over 1,000 when it became part of the Town of Vaughan in 1971 (City of Vaughan 2015; Mika and Mika 1981:610-611; Rayburn 1997:216)

2.2 Land Use History: George Bailey Public School

The following land use history is based on a combination of land registry records, historical mapping, census records, assessment/collector rolls, newspapers, and secondary sources. The subject property consists of the George Bailey Public School at 9600 Keele Street, which is historically located within Lot 18, Concession 4 within the community of Maple in the City of Vaughan, Ontario.

The lot was granted by the Crown to Captain Daniel Cozens in 1798. Soon after, Phillip Peck took ownership of the lot, owning it for a decade before selling it to John Line in 1815. The Line family would own much of the lot for the next century. In 1851, Henry Line granted a small portion of his lot to the School Section 6 Trustees. The original one-room Maple School S.S. #6 was constructed c.1861, though its precise location on the subject property could not be determined. The school acquired additional land from the Line family in 1873, 1879 and 1899. Both the 1860 *Tremaine Map of the County of York* and the 1878 *Illustrated County Atlas of the County of York* depict the schoolhouse, though the 1860 map notes that it was located north of the nearby creek, while the 1878 map notes that it was located south of the creek in a location that is more consistent with the modern-day location of the school property (Figure 5 and Figure 6). Given the school trustees purchased land in 1851, it is certainly possible that an earlier schoolhouse was constructed to the north of the creek, and later replaced with a schoolhouse on the south side of the creek when additional land was purchased. When the one-room school building became overcrowded, part of an old Presbyterian Church was moved to the property



and served as a second school room. In 1896, the two buildings were demolished, and a two-room brick school was constructed on the property. The 1914 NTS Map depicts this brick school to the south of the Village of Maple (Figure 7).

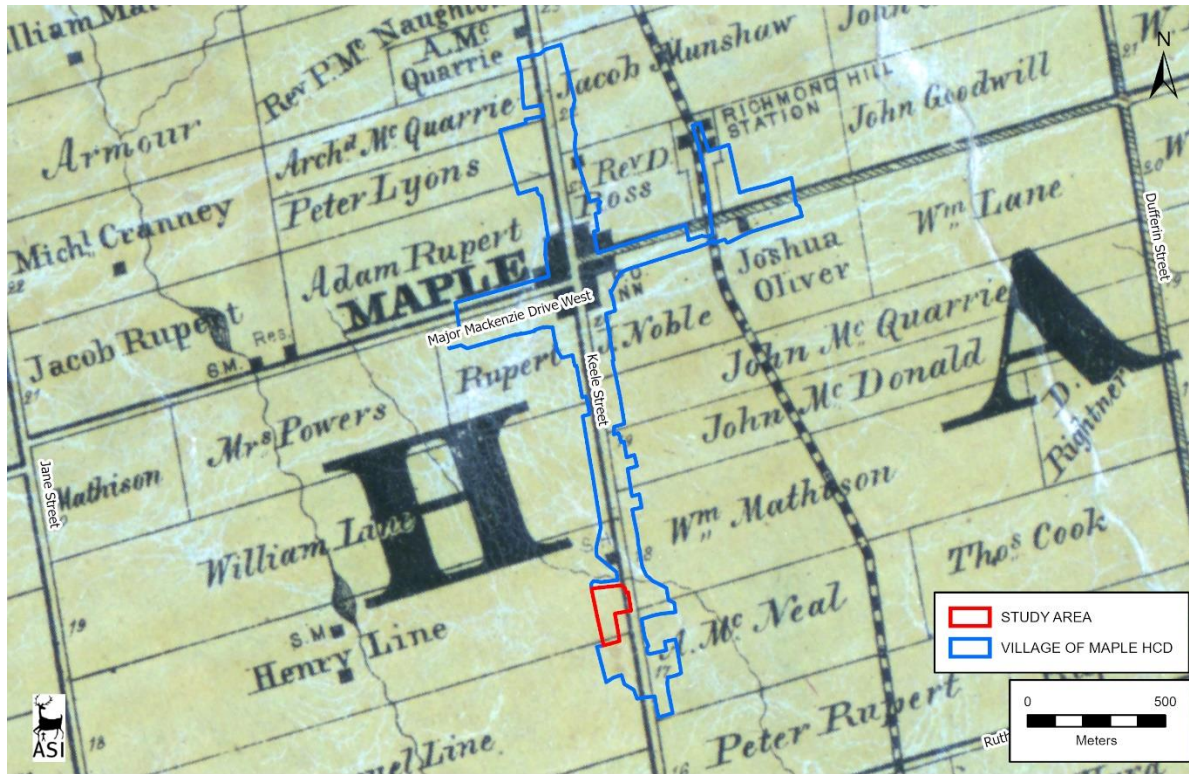


Figure 5: 1860 Tremaine Map of the County of York (Tremaine 1860)

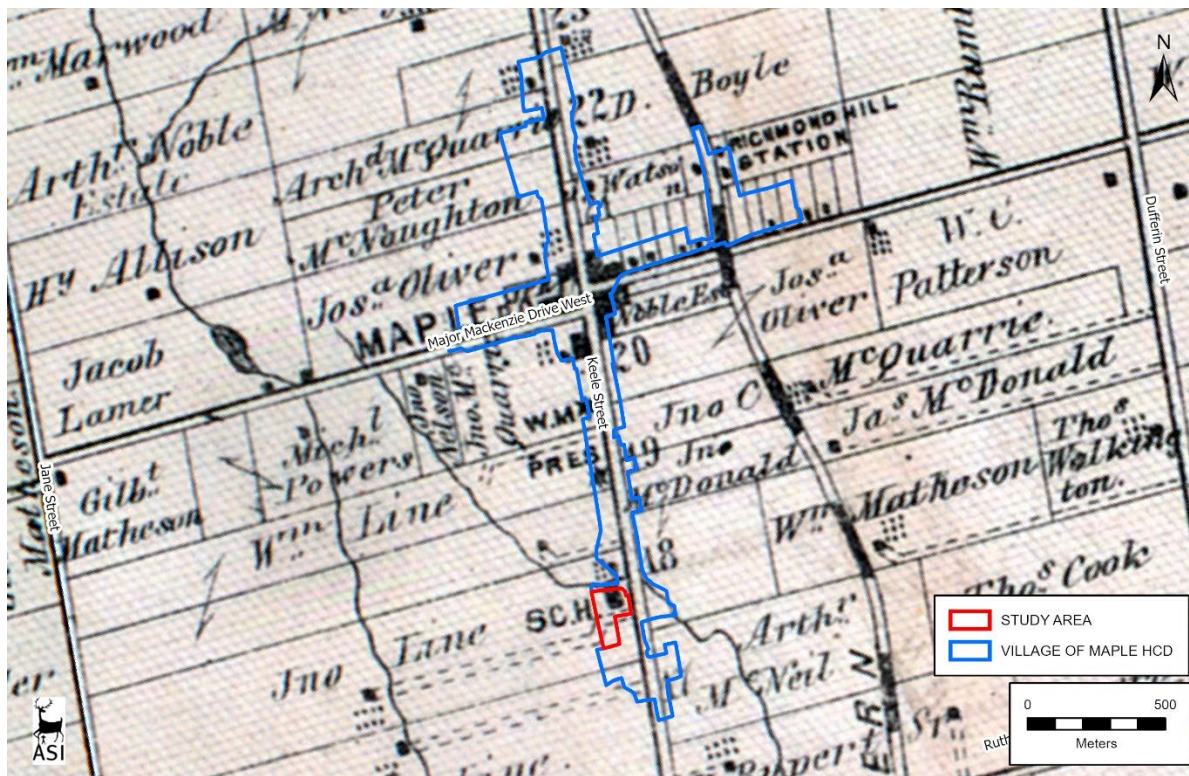


Figure 6: 1878 Illustrated County Atlas of the County of York (Caniff 1878)

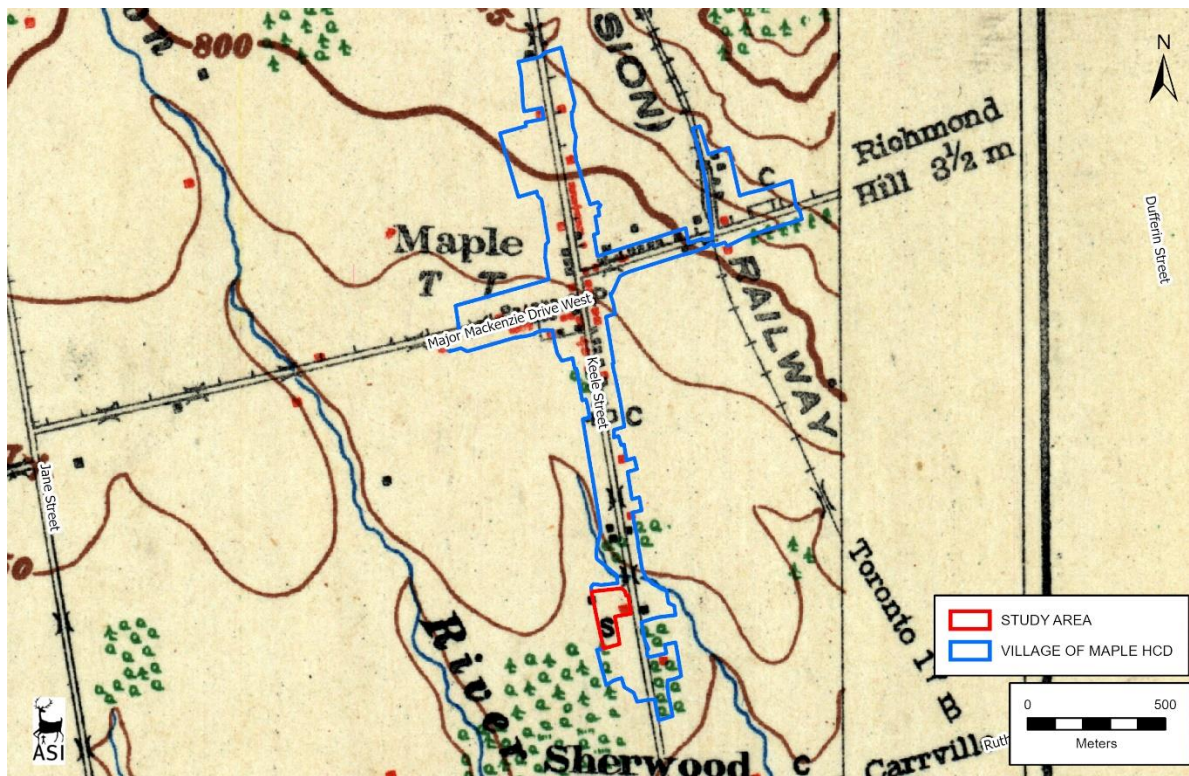


Figure 7: 1914 NTS Map (Ministry of Defence and Militia 1914)

The 1954 aerial photograph depicts the Village of Maple just prior to the start of an era of residential expansion (Figure 8). The photograph depicts the c. 1896 schoolhouse within a rural area consisting of farm fields. The c.1896 schoolhouse is set back from the roadway, surrounded by trees on all four sides (Figure 9). In addition, there is a residential building to the north of the c.1896 schoolhouse at the corner of present-day Keele Street and Knightswood Avenue that was constructed c.1946, along with three houses to the south of the schoolhouse that are not part of the present-day school property. This photo would have been taken just prior to construction of the current George Bailey Public School, which was built in an empty field behind the school that was purchased at this time. The George Bailey Public School was constructed the following year and originally consisted of a four-room building with a rectangular footprint. The school was designed by Hanks and Irwin who were the school board's architects. The school was named after George Bailey who passed away in 1955. Bailey was dedicated to public service as a former Assistant Clerk Chief of Vaughan Township Fire Brigade, part-time police officer, and secretary for the Maple Village Trustees and Maple Public School Board (The Liberal 1955a, 1955b).



Figure 8: 1954 aerial photograph (Hunting Survey Corporation Limited 1954)



Figure 9: Detail view of the 1954 aerial photograph (York Region 1954)

In 1958, the architecture firm now known as Hanks, Irwin & Pearson designed an L-shaped addition to the south end of the George Bailey Public School, which doubled the size of the school (Figure 10). The new addition continued the central corridor, and consisted of four new classrooms, washrooms and a basement space identified as a playroom, with access to the exterior via an external staircase. A new entrance and foyer was constructed along with an internal staircase to the basement as well. Within this staircase, glass blocks were specified to be inset into the wall, though these have since been removed or were never fully implemented. The design of the new addition continued the design of the original building, using brick on the exterior with nine-pane window bays, a roof overhang and wooden plank soffits supported by tapered wooden beams clad in plywood and concrete block walls on the interior. One departure from the original design was a glazed brick wall on the east elevation of the new addition, which has since been altered. The site plan for the 1958 addition shows that the George Bailey Public School was separated from the c.1896 school by a chain link fence, while a parking area was set aside to the north of the school and accessed via a right-of-way for an adjacent rural property that corresponds to present-day Knightsbridge Avenue. From the parking area, it appears that a staircase was constructed on the embankment at the north end of the school, leading to a pathway that ran parallel to the school on its east side, connecting to the entrance of the new addition. A 90-foot long paved area was built on the east side of the new addition, while the rest of the property is noted as sodded.

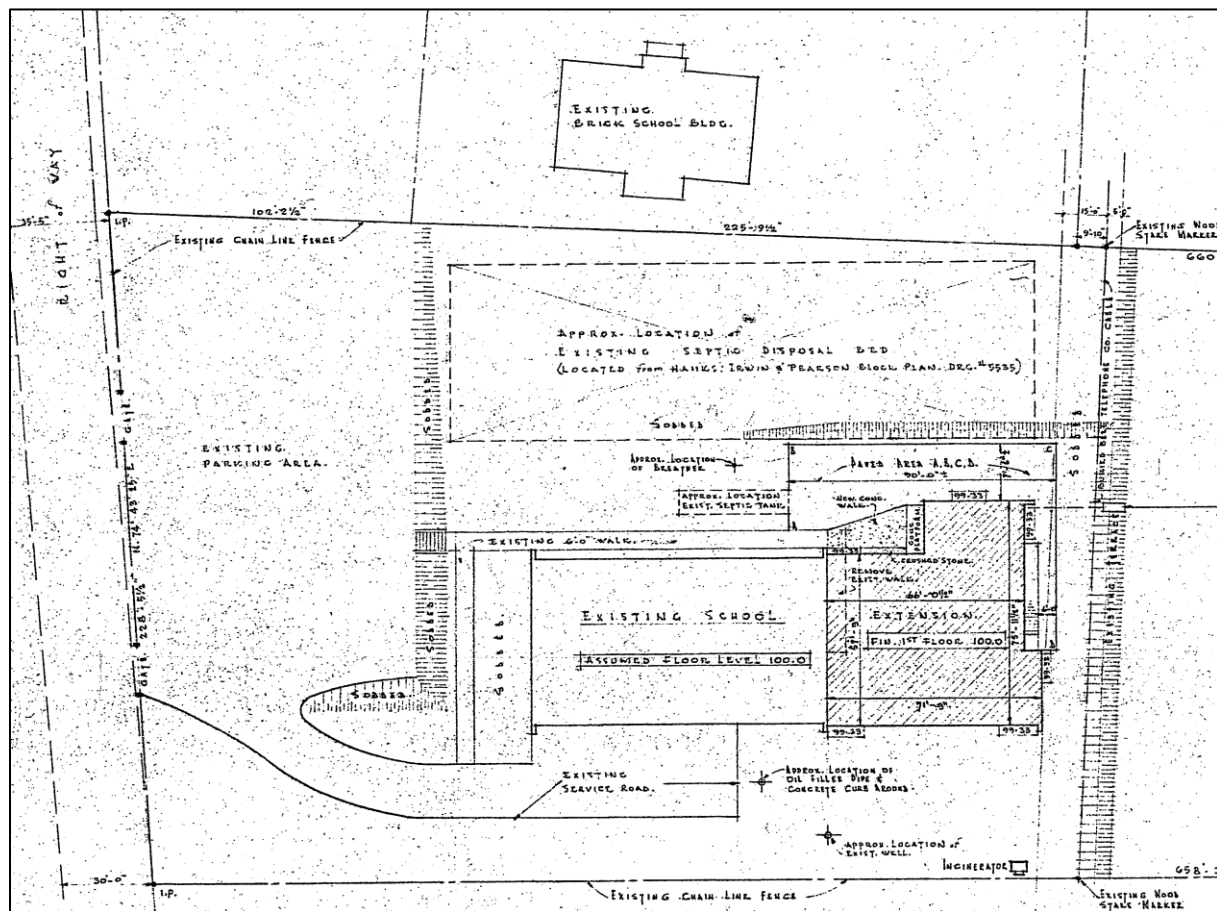
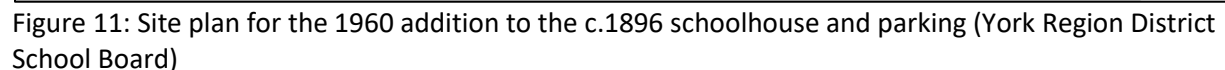


Figure 10: Site plan for the 1958 addition to the George Bailey Public School (York Region District School Board)

In 1960, an addition was proposed to the c.1896 schoolhouse and a gravel driveway to the north of the c.1896 schoolhouse was expanded to provide for parking at the c.1896 schoolhouse (Figure 11). This driveway was pre-existing and likely had been constructed sometime between 1954 and 1960, though it is not shown on the 1958 site plan. The expanded parking area created a new terrace in front of the c.1896 schoolhouse. A 15-foot wide gravel lane was added to connect the driveway to the existing parking area for the George Bailey School. The site plan also depicts the trees on the south side of the c.1896 schoolhouse property, some of which remain today.



for future expansion of the school, with a large addition to be created on the school's east side. However, this expansion never came to fruition. The site plan also shows how pedestrian circulation changed on site. The original walkway and embankment staircase that provided access from the parking area to the school's entrances was relocated to accommodate the new addition. Apart from the construction of two new staircases in the embankment, no new pathways had been formally planned in the site plan (perhaps because it was assumed that the aforementioned future addition would be constructed in the near future). Part of the original parking lot had to be used for the new addition and a new embankment was constructed.

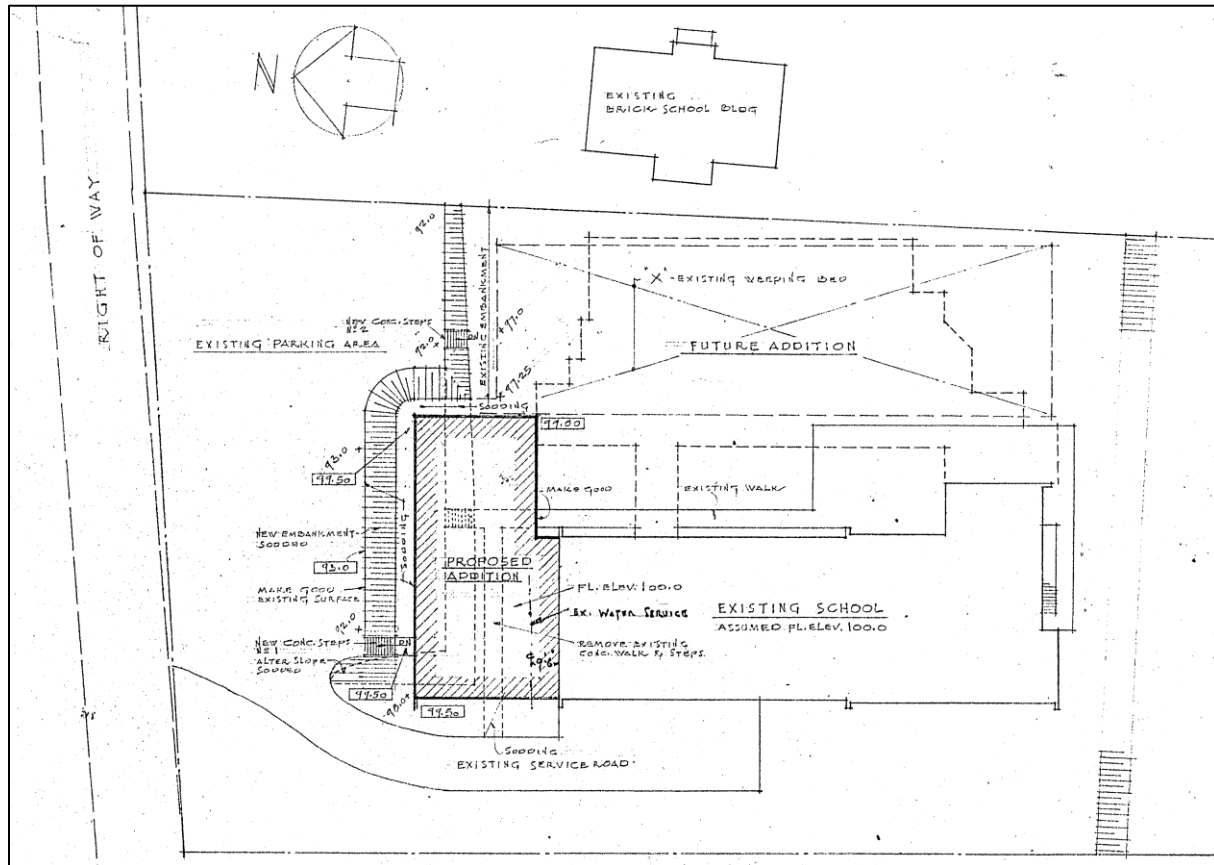


Figure 12: Site plan of the 1968 addition and hatching for a future addition (York Region District School Board)

The original portion of the George Bailey Public School building and each of the additions are visible in the 1970 aerial photo of the property along with the c.1896 schoolhouse (Figure 13). The property is shown as being accessed via Keele Street using the driveway and parking lot depicted in the 1960 plans. The aerial shows a number of cars parked on the west side of the building and none in the original parking lot. It is possible that this is because the new gymnasium addition lengthened the distance that one would walk from the original parking lot to the front of the school, and the parking area on the west side (which is noted as a “service road” on previous plans) was closer to teacher’s classrooms and the school’s secondary entrances. Nevertheless, it appears that the pathway to the main entrance of the school was reconstructed in a new location after the gymnasium addition was built. The school yard appears to consist of asphalt around the 1958 addition, while the rest of the school yard is green space.

The character of the immediate surrounding area remained in its historical rural form and as depicted in the 1954 aerial. This character remained until the mid-to-late 1980s when the residential subdivisions to the north, south east and west were constructed (Figure 14). The adjacent Frank Robson Park was created sometime between 1988 and 1995, likely to support these new residential subdivisions and was connected to the schoolyard via a pathway. The c.1946 residential building that was located in the northeast corner of the present-day school property was demolished c.1995. Information related to the house and how the property became part of the school property could not be determined, though the house was replaced with parking for the school. According to aerial photographs, the c.1896 schoolhouse was demolished c.2002, and today that space consists of a lawn between the George Bailey Public School and Keele Street. Many of the trees shown in the 1954 aerial have been removed, though it appears that some remain along Keele Street and to the south of the location of the c.1896 schoolhouse.



Figure 13: 1970 aerial photograph (York Region 1970)



Figure 14: 1988 aerial photo showing new development around the George Bailey Public School (York Region)

2.3 Architects – Hanks, Irwin & Pearson

The architect of the George Bailey Public School was the Toronto architecture firm Hanks & Irwin, with each of its additions designed by Hanks, Irwin & Pearson. The firm was led by Robert S. Hanks, Norman L. Irwin and C. Clark Pearson.

Hanks and Irwin started their partnership in 1941 after working with Robert Home Smith at Home Smith & Co. Robert Home Smith was a prominent developer in Etobicoke who was responsible for the creation and development of the Humber Valley Surveys area, with a particular focus on creating housing for affluent members of the Toronto community. Hanks and Irwin were influenced by their time at Home Smith & Co. and started their own firm where they were well known for their Tudor Revival and American Colonial style residential designs within the Kingsway area of the city (Hill 2020; *The Globe and Mail* 1957). Other prominent work by the duo include the Town of Leaside Municipal Building and the City of Oshawa's City Hall (Hill 2020). According to the City of Toronto Directories, in 1957, C. Clark Pearson was promoted from designer to partner, and the firm became known as Hanks, Irwin & Pearson.

According to the Richmond Hill's newspaper *The Liberal*, the firm of Hanks, Irwin & Pearson was considered the official architects for the school board in 1960 (*The Liberal* 1960). Prior to becoming the board's official architect, the firm designed the George Bailey Public School and the Crosby Heights Public School in Richmond Hill in 1958 (Figure 15). After 1960, the firm designed a number of schools in Vaughan including Joseph A. Gibson Public School in Maple in 1962 (Figure 16) and Pine Grove Public School in Pine Grove in 1964 (since replaced). Additionally, the firm was responsible for the design of

schools in nearby Richmond Hill, such as Roselawn Public School in 1962 (Figure 17) and Charles Howitt Public School in 1965 (Figure 18). The firm also designed Highfield Public School in Etobicoke in 1955 (Figure 19) and the Allan A. Martin Public School in Mississauga in 1959 (Figure 20). Along with these schools the firm designed a number of churches in the Greater Toronto Area including the Church of the Atonement in Etobicoke in 1953, Richmond Hill's Emmanuel Anglican Church in 1964 and St. Stephen's Church in North York 1964.



Figure 15: Crosby Heights Public School (Google 2018)



Figure 16: Joseph A. Gibson Public School (Google 2019)



Figure 17: Roselawn Public School (Google 2019)



Figure 18: Charles Howitt Public School (Google 2018)



Figure 19: Highfield Public School, west elevation (Google 2019)



Figure 20: Allan A. Martin Public School (Google 2019)

3.0 EXISTING CONDITIONS

3.1 Introduction

A field review was conducted by James Neilson and Rebecca Sciarra of ASI on 17 August 2020 to survey and document the study area and its environs. As the school was unoccupied, the building's exterior and interior were both reviewed.

3.2 Existing Conditions

3.2.1 *George Bailey Public School - Exterior*



Figure 21: George Bailey Public School evolution (ASI 2020)

The George Bailey Public School is a one-storey institutional building with an L-shaped footprint, clad primarily in buff brick with a flat roof. The original building dates to 1955, with additions in 1958 and 1967 (Figure 21). The building is set back approximately 80 metres from Keele Street. The east elevation runs parallel to Keele Street and consists of twelve bays, with each bay consisting of a set of nine-pane metal framed windows with concrete sills clad with metal (Figure 22 to Figure 24). The roof overhang and wooden plank soffit is supported by tapered wooden beams clad in plywood (Figure 25). The fourth bay from the north end contains the building's main entrance which is recessed with double-doors surrounded by a 3-pane transom window, and large side-lights (Figure 26). This entrance is flanked by an articulated tapered brick on the south side, built of progressively corbelled bricks, and a brick pier on the north side. The brick piers are structural elements that are exposed and which extend to within the

building. Similarly, brick piers are found at the very north end of the bays and between the third and fourth bay from the south.

The south wing of the building was constructed in 1958 on an L-shape plan. A secondary entrance consisting of metal doors with glass transoms and sidelights is present on the north elevation (Figure 27). The east elevation of this addition used to consist of an entire wall of glazed brick, with a pattern of glass block inserts on a portion of the wall (Figure 28). The glazed brick remains except for the portion of the wall where the glass blocks were located has since been replaced with buff brick. The south elevation consists of three bays of windows similar to those found on the east elevation of the school (Figure 30). A basement entrance is present along with a row of windows. The concrete block foundation is also visible.

The school's west elevation consists of sets of three and six bays of nine-pane windows sitting on top of concrete sills clad with metal, that are identical to the windows found on the south and east elevation of the school (Figure 31). This elevation also features the same roof overhang and wooden plank soffits which are supported by tapered wooden beams clad in plywood. Along the north wing of this elevation are a series of smaller fixed windows and a secondary entrance (Figure 32).

The north wing of the school sits atop a berm and consists of the gymnasium. Apart from secondary entrances, and overhanging eaves, this portion of the building consists of flat exterior brick walls and is devoid of architectural details (Figure 33).



Figure 22: East elevation (ASI 2020)



Figure 23: Example of the window bays on the east elevation (ASI 2020)



Figure 24: Detail of the precast concrete sills clad in metal (ASI 2020)



Figure 25: Detail of the roof overhang and wooden plank soffit supported by tapered wooden beams clad in plywood (ASI 2020)



Figure 26: Recessed entrance with double-doors surrounded by a 3-pane transom window, and large side-lights, flanked by an articulated tapered brick on the south side, built of progressively corbelled bricks, and a brick pier on the north side. (ASI 2020)



Figure 27: Secondary Entrance of the 1958 addition (ASI 2020)

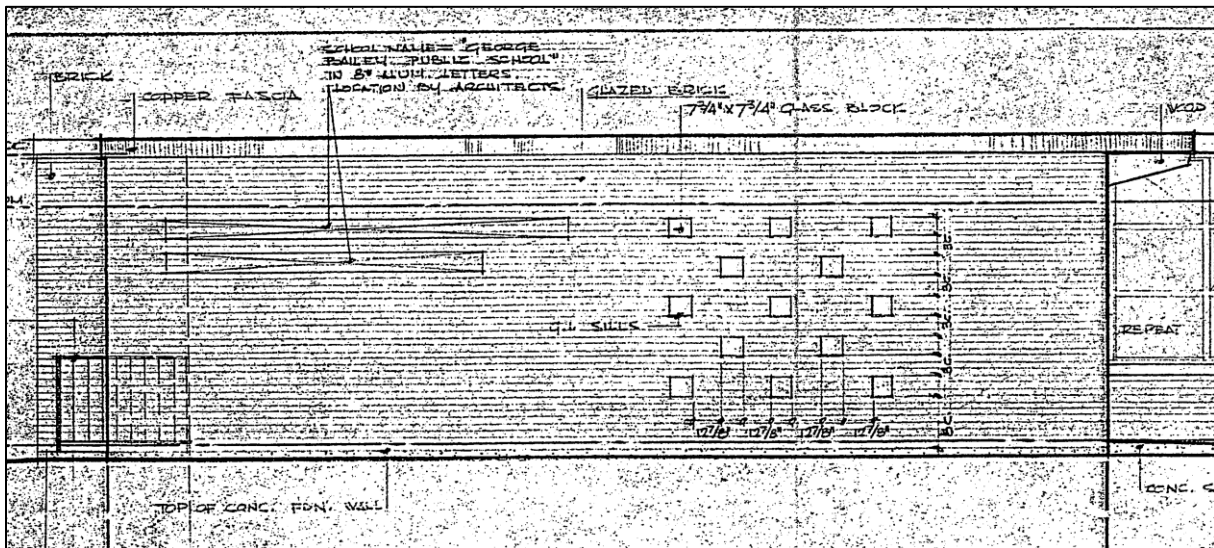


Figure 28: Elevation drawing of the east elevation of the 1958 addition (York Region District School Board)



Figure 29: East elevation of the 1958 addition (ASI 2020)



Figure 30: South Elevation of the 1958 addition (ASI 2020)



Figure 31: West Elevation (ASI 2020)



Figure 32: West elevation (ASI 2020)



Figure 33: North elevation (ASI 2020)

3.2.2 George Bailey Public School - Interior

The George Bailey Public School is accessed via a primary entrance with two sets of double doors surrounded by glass sidelights and transoms (Figure 34). The foyer leads to a single corridor with classrooms and servicing/storage rooms on either side. The corridor consists primarily of concrete block walls, terrazzo flooring and paneled drop ceilings (Figure 35 and Figure 36). Classrooms are arranged with the large nine-pane windows forming the entirety of one wall, while concrete block walls are used to divide spaces internally (Figure 37 to Figure 41). Some classrooms have built in cabinetry and storage space (Figure 42). Tile flooring is found within the classrooms, while the beams and wooden plank soffits that are found outside, are continued inside to form the ceiling support (Figure 43). Along with classrooms, there is a staffroom with a kitchen, storage closets, bathroom facilities and change rooms. In the south wing, there is a staircase leading to the basement. A number of recessed openings are present in the wall adjacent to the staircase, which according to the 1958 architectural drawings, were at one time were fitted with coloured glass blocks (Figure 47). The staircase leads to the basement where a large room with tile floors, drywall and concrete block walls and paneled drop ceiling is present (Figure 44 to Figure 46). This room also has two storage spaces, a padded “seclusion” room, and a staircase to access the outdoors. The north wing largely consists of the gymnasium, which has a high ceiling, concrete block walls, a corrugated metal roof with metal support beams, and a stage (Figure 48 to Figure 49). The stage is made of wood and is raised above the floor of the gymnasium. On either side of the stage is a storage room with access to the stage (Figure 50).



Figure 34: Entrance (ASI 2020)



Figure 35: Main corridor (ASI 2020)



Figure 36: Main corridor (ASI 2020)



Figure 37: Typical classroom condition with windows along the length of the outside wall (ASI 2020)



Figure 38: Typical classroom condition with windows along the length of the outside wall (ASI 2020)



Figure 39: Window example (ASI 2020)



Figure 40: Typical classroom entrance (ASI 2020)

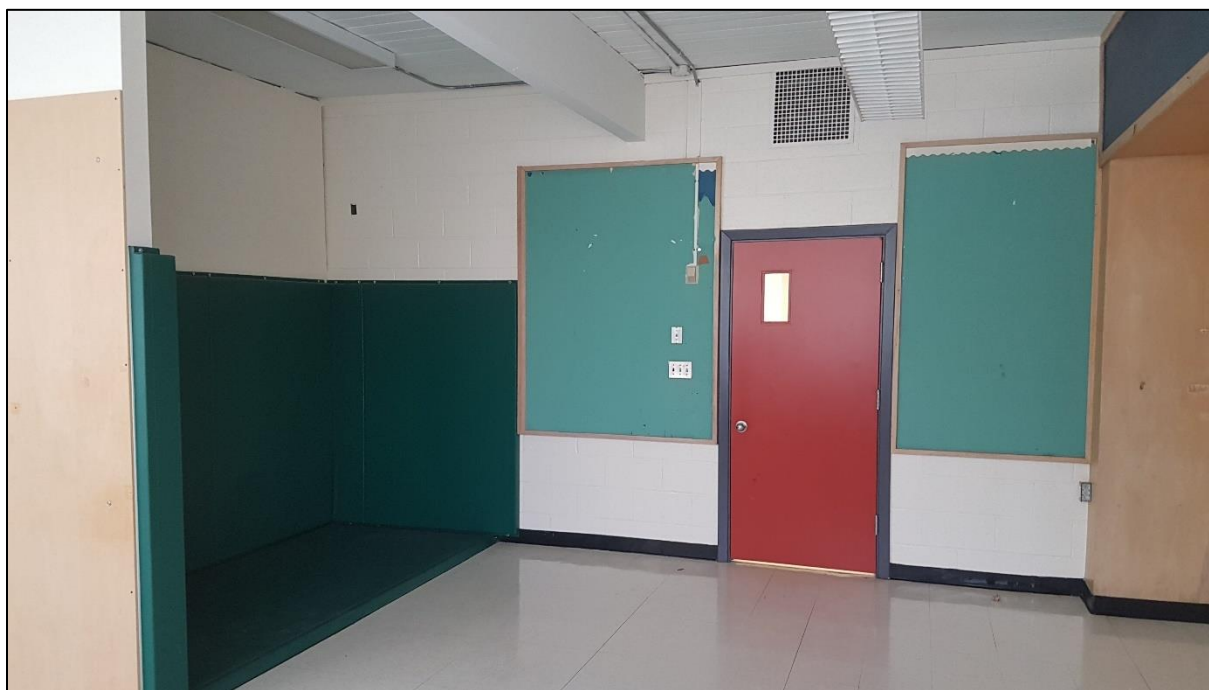


Figure 41: Typical classroom (ASI 2020)



Figure 42: Typical classroom (ASI 2020)



Figure 43: Wooden plank ceilings and beams (ASI 2020)

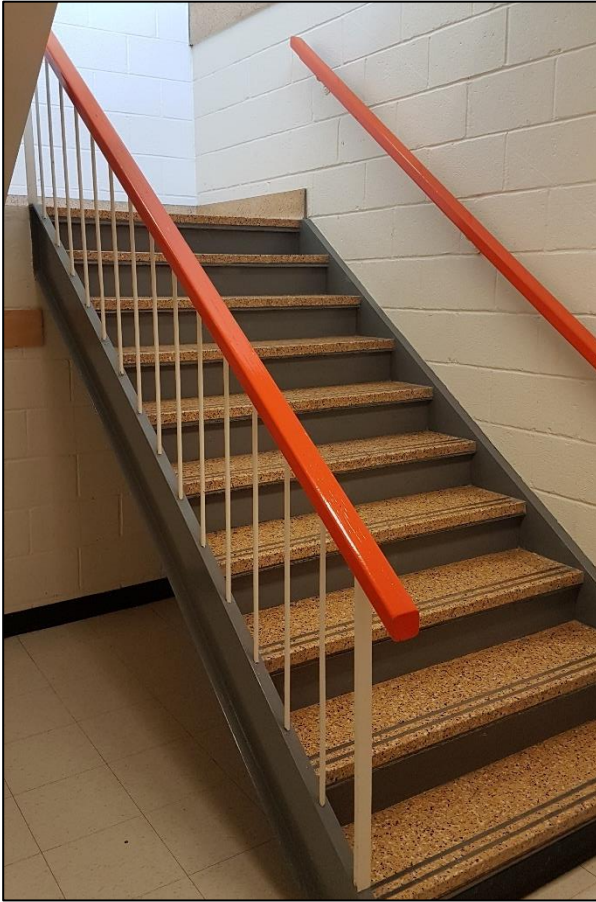


Figure 44: Staircase leading to the basement (ASI 2020)



Figure 45: Basement space (ASI 2020)



Figure 46: Basement space (ASI 2020)

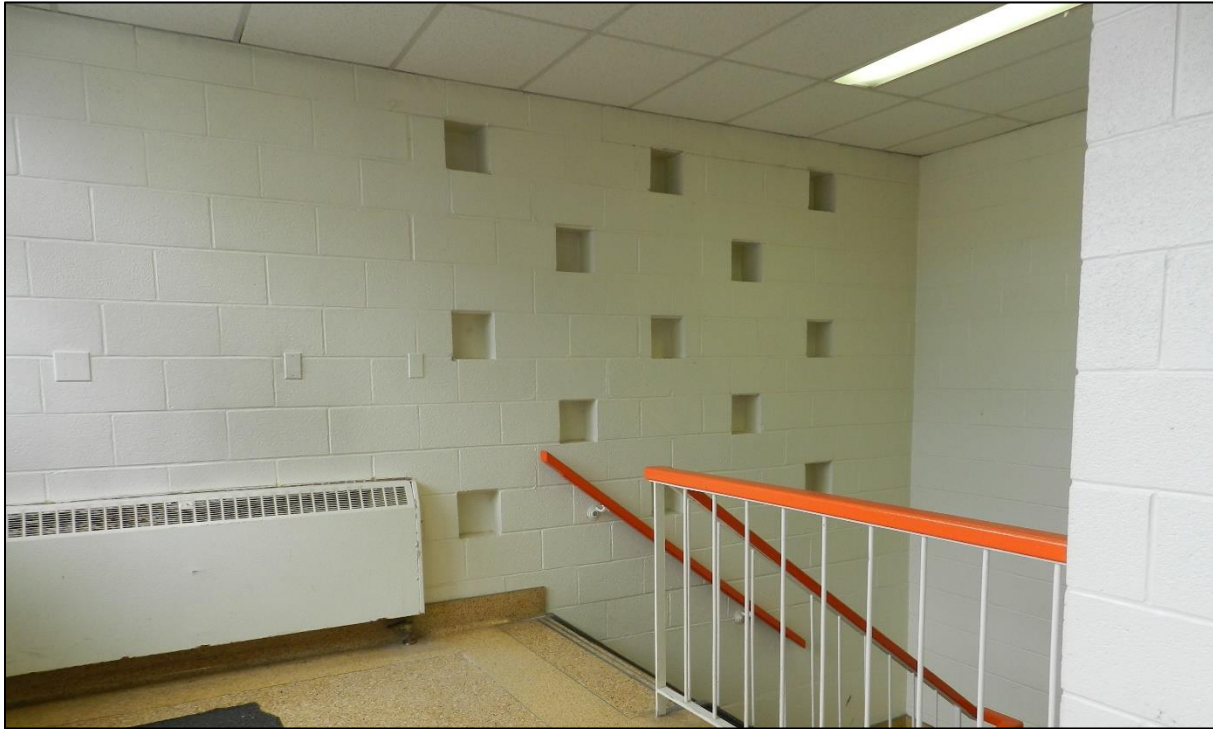


Figure 47: Recessed pattern within the staircase wall where coloured glass blocks were once located (ASI 2020)



Figure 48: Gymnasium (ASI 2020)



Figure 49: Gymnasium (ASI 2020)



Figure 50: Gymnasium stage (ASI 2020)

3.2.2 George Bailey Public School – Landscape and Surrounding Area

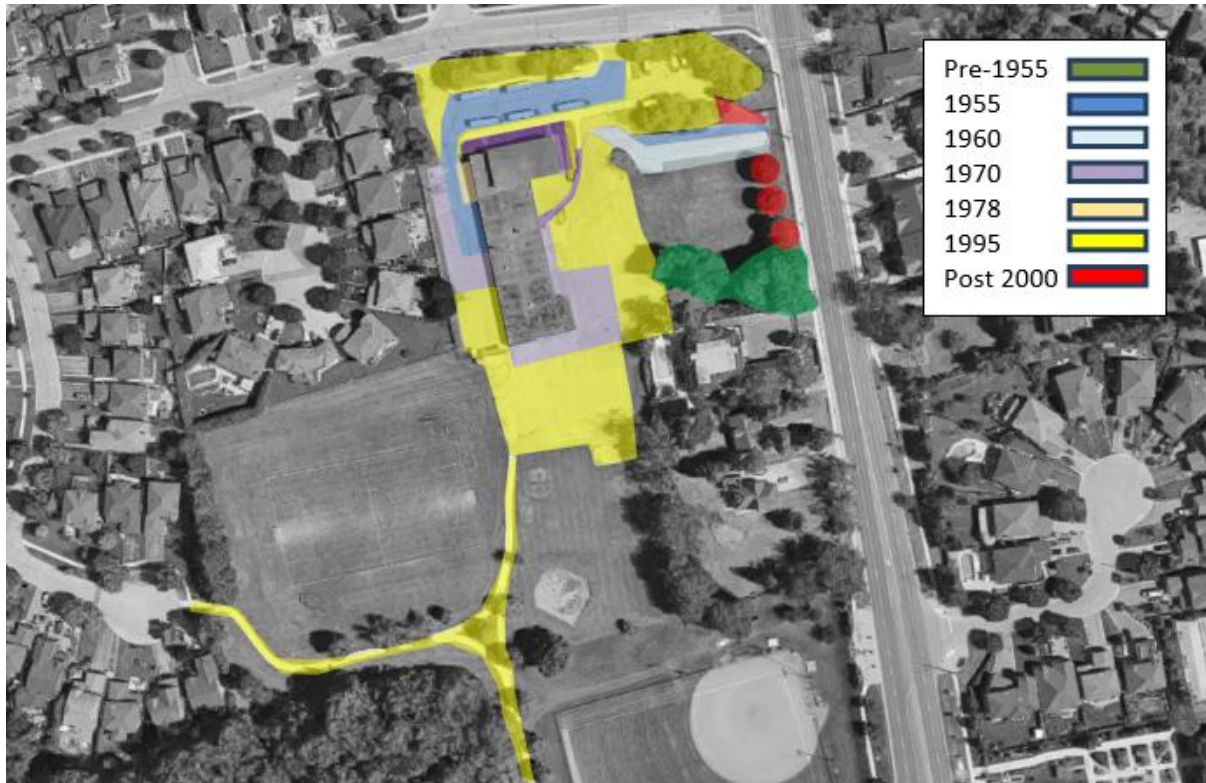


Figure 51: Evolution of the landscape of the George Bailey Public School property (ASI 2020)

The George Bailey Public School property has evolved throughout its history, with landscaping and circulation routes changing over time to accommodate new additions to the school and access to the c.1896 schoolhouse and former portable classroom spaces (Figure 51). The George Bailey Public School is set back approximately 80 metres from Keele Street. The property is accessed via two driveway entrances on Knightswood Avenue that create a landscaped island that was created between 1988 and 1995 (Figure 52). The driveways lead to the George Bailey Public School original parking lot, which is present to the north and west sides of the school (Figure 53 and Figure 54). The driveway extends towards Keele Street and back towards the asphalt surrounding the school and includes a portion of the driveway that provided a connection to Keele Street between 1960 and 2002 (Figure 55). The school is surrounded by asphalt. The location of the former c. 1896 schoolhouse is slightly raised within the lawn to the east of the school and this area has a row of large deciduous trees (Maple species) along the east and south side (Figure 57 to Figure 58). Based on aerial photography, the trees that are parallel to Keele Street were planted in the 1990s, while some of the trees that formed the southern perimeter of the c.1896 schoolhouse property likely remain today. The rest of the schoolyard consists of asphalt and a grassed open space with a few deciduous trees and a pathway connection to the neighbouring Frank Robson Park and the neighbouring subdivision at Arsaig Drive (Figure 59 to Figure 61).

The school property is surrounded by post-1980s residential subdivision development. In the immediate vicinity, the block between Knightswood Avenue and Fieldgate Drive along Keele Street consists of the

George Bailey Public School, three residential buildings fronting on to Keele Street and the Frank Robson park.



Figure 52: Landscaping along Knightswood Avenue (ASI 2020)



Figure 53: Driveway (ASI 2020)



Figure 54: Asphalt along the west elevation (ASI 2020)



Figure 55: Portion of the 1960 driveway incorporated into the existing parking layout (ASI 2020)



Figure 56: 1960 driveway connection, which today provides access to the schoolyard. The location of the c.1946 residence on the property is identified in the photograph (ASI 2020)



Figure 57: Trees demarcating the southern perimeter of the original demolished schoolhouse (ASI 2020)



Figure 58: Trees along Keele Street (ASI 2020)



Figure 59: Asphalt and grass schoolyard (ASI 2020)



Figure 60: Path connection to Frank Robson Park (ASI 2020)



Figure 61: Schoolyard and Frank Robson Park baseball diamond (ASI 2020)

4.0 CULTURAL HERITAGE VALUE

4.1 Design Context and Comparative Analysis

In the early-1900s, school design often consisted of multi-storey rectangular structures that incorporated Greek, Gothic and Colonial revival elements (Ogata 2008). Their layouts typically consisted of “blackboards on one or two walls, a bank of windows on one long side, desks in rows, and the teacher’s desk located in the front, these classrooms emphasized order, desk work, and the teacher’s authority” (Ogata 2008:563). These designs coincided with architectural styles and prevalent ideas around education at the time. After World War I, the Modernist style began to emerge in Europe, and would take shape in the United States in the 1930s. The term “Modernism” refers to a broad set of design approaches and principles applied within other specific architectural styles that were derived and classified at this time (e.g. International, Brutalism, Prairie style, etc.) (Blumenson 1990:205). Some principles of Modernism included a focus on function, open space planning, incorporating new materials and forms and a strict avoidance of historicism and ornamentation.

These principles resulted in a new type of design for educational buildings that involved one-story buildings with expansive windows intended to bring light into the classroom and access to outdoor space just beyond the classroom (Ogata 2008). These architectural details gave a formal and spatial identity to the evolving nature of education where children became the focus and moved freely around the class and could explore the physical world through hands-on projects rather than textbooks (Ogata 2008). These ideals are evident in the 1939 design of the Crow Island School in Winnetka, Illinois, which was widely known throughout North America and became the post-war model for education architecture (Figure 62 and Figure 63).



Figure 62: Crow Island School (Ogata 2008)



Figure 63: Crow Island School (Ogata 2008)

The Crow Island School and similar educational buildings constructed around the same time, were the inspiration for many design ideas that became ubiquitous throughout North America. These ideas were

rooted in the International Style, which highlighted the importance of designing interiors and exteriors based on a structure's function with materials like steel and concrete exposed rather than hidden within the structure of the building as they had been in previous periods. In education, this style was evident with "single or double-loaded corridors and bilaterally lit, self-contained classrooms with lowered ceilings [which] was the result of ongoing critical praise, as well as the availability of inexpensive building technology and new ideas about lighting and furnishing" (Ogata 2008:567). As was common with the International Style, the schools were a result of changes in the methods of building at this time. Poured-concrete slabs for lowrise structures, lightweight steel frames with exposed trusses and joists, radiant heat floors, and expanses of glass became commonplace. The expansive glass was seen as an opportunity to increase morale and combat fatigue, which was an idea derived from the recently ended War. Flexibility also became a key concern and manifested with "open corridors, non-load-bearing partitions, and zoned ventilation and heating systems, along with folding walls for small groups, moveable cabinets, and lightweight furniture deemed vital to new methods of instruction" (Ogata 2008:568). The relationship between the interior and exterior was blurred with classrooms opening onto sheltered gardens or spaces that allowed for indoor/outdoor learning and increasing children's proximity to nature (Ogata 2008). This blurring of indoor and outdoor space also manifested itself in the use of materials, where exterior appearances and internal layouts were determined by the structure's function and materials like steel and concrete were exposed rather than concealed within the structure of the building as they had been in previous periods. The prominence of one-storey schools with long "finger" corridors also allowed for greater flexibility by enabling designs that provided for easy expansion and the elimination of structural barriers like staircases. Ultimately, in addition to improvements with flexibility, the new design's child-centric approach was intended to be friendly rather than authoritative like its prewar predecessor (Ogata 2008).

Modernism emerged from Europe and the United States, and as discussed above, ideas linked to the movement began to be applied to educational buildings designed and constructed in the US context beginning in the 1930s. However, in Ontario, the 1930s and 1940s saw the rise of the Collegiate Gothic as a specific style appropriate for educational buildings designed and constructed at this time. The Collegiate Gothic style emphasized medieval forms of craftsmanship linked with the nostalgia for early monasteries and their emphasis on research, science and the feeling of history and permanence (Kyles 2016). However, near the end of World War II, tastes in Canada started to shift. Leading the way was John B. Parkin, an architect recognized as an early adopter of the American and European Modernism. In 1942 and 1943, Parkin wrote about the future of school architecture and outlined the values reflected in the Crow Island School. In his 1942 article "Post-War Planning of Schools", Parkin noted a number of fundamentals of design that he felt should be emphasized as part of the evolution of the education system. These included:

- Site – Spacious sites are viewed as a great asset.
- Orientation – Classrooms oriented on the north and south axis to best take advantage of natural light
- Class-Unit – "Activity" rather than "listening" requires space, including the linking of classrooms with the outdoors and a focus on more area per student and less students in the classroom.
- Disposition of Units – Single-storey buildings are preferred for elementary schools, and small numbers of students will ensure that children are not overwhelmed.



- Lighting – Natural and artificial light based on scientific study was preferred, along with large window areas.
- Ventilation – Mechanical ventilation allows for lower classroom ceilings which are more to scale with children.
- Freedom of Plan – Allows for expansions and flexibility to accommodate changes in the curriculum.
- Elevational Treatment – Minimizing functional inconveniences that are difficult to adjust to.
- General – Improvements to sound insulation, acoustics, sound and visual education all need to be considered as part of modern school design (Parkin 1942)

The following year, in 1943, Parkin designed the first educational building in Ontario to be designed in a distinct style associated with the Modernism movement in Sunnylea in the west end of Toronto (Figure 64 and Figure 65). Incorporating his ideas that were laid out in his 1942 essay, the school was based on the design of Crow Island (Gamarra 2018). Parkin wrote about the Sunnylea school in his “Tomorrow’s Schools” essay in 1943. In the essay he noted the importance of student health, sunlight, access to exterior spaces from every classroom, the flexibility of open plans and the need for building at a “child’s scale” (Parkin 1943). Parkin would design similar schools in Whitby and Oshawa in the late 1940s (Royal Architectural Institute of Canada 1947).



Figure 64: Sunnylea Public School (Coon 1944)

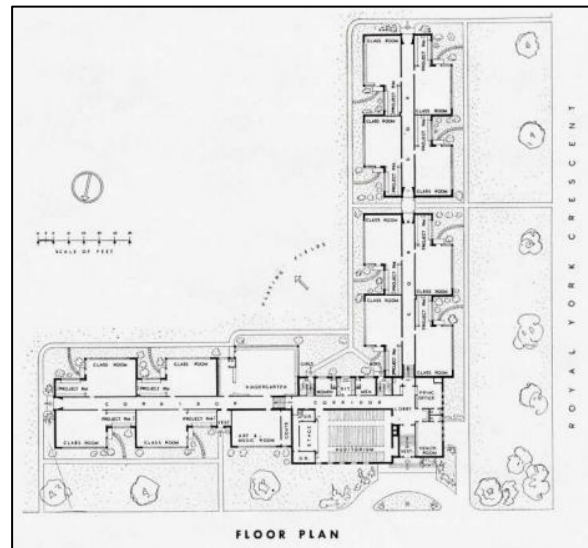


Figure 65: Sunnylea Public School site plan (Parkin 1943)

By the late-1940s, schools were being designed to reflect the ideas of the Modernist movement and many reflected a clear expression of the International style. Some examples of this trend included buildings designed by architects in the Greater Toronto Area including the Centennial Road School in Scarborough by Murray, Brown and Elton, the Glenwood School in Burlington by Murton and Evans and the Bennington Heights Elementary School in East York (Royal Architectural Institute of Canada 1947).

Like in America, the post-war boom in Ontario ushered in the need for more public schools to service the growing population. The growth in enrolment during the 1950s and 60s resulted in a funding

scheme whereby the Federal government contributed 75% of funds for new schools, with the province covering the rest. The government's focus on education with ample funding, coinciding with the emergence of new ways of thinking about education and the emergence of this new architectural style, meant that much of Ontario's post-war education infrastructure was influenced by the Modernist movement and its derivative architectural styles. Throughout Ontario's post-war boom communities, it was common to find long and low school buildings built with cinder block or concrete foundations, and standard designs incorporating a lot of light, a large auditorium and gym, and ample fields for physical education (Kyles 2016). The more unique varieties incorporated unique fanciful and fun elements (Kyles 2016). Robert D. Ferguson, Director of Publications for the Toronto Board of Education noted in 1964 that,

"In recent years education has been shaking itself loose from [its] traditional role and more and more responding to the continuing changes of the second half of the twentieth century. The visible signs of education's responses are the new schools being designed with an architectural flair unknown or impossible a decade ago. These schools may have imposing outward shells, but they are chiefly remarkable for their utility in meeting the pressing educational needs in the 1960s." (Ferguson 1964:4)

Unlike other parts of the Greater Toronto Area, the population of Vaughan did not start to boom until the population doubled from 16,000 people to 30,000 people in the 1970s. As such, the need for new schools was limited immediately following World War Two. According to the York Region District School Board, school additions to Thornhill Public School and Langstaff School were constructed in Vaughan in 1953. The Langstaff School addition was constructed in a Modernist style. The first new elementary school building was the George Bailey Public School in 1955, while the first high school was the Woodbridge High School (now known as Woodbridge College) built in 1957. The only other public school to be built in Vaughan before 1980 was the Joseph A. Gordon Public School constructed in 1963, also built in a Modernist style. As there are few examples of Modernist education buildings in Vaughan, looking at the wider York Region and the City of Toronto helps to provide some greater context for the George Bailey Public School in comparison to others of its age, type and style. In York Region, eight elementary schools were constructed between 1949 and 1955 (examples of these schools are shown in Figure 66 to Figure 69), and additions were made to nine other schools. According to the Canadian Architectural Periodicals Index, none of these schools were featured in any architectural journals.





Figure 66: Prince Charles Public School, built in 1949 (Google 2014)



Figure 67: Charles Howitt Public School (Google 2019)



Figure 68: Kettleby Public School, built in 1953 (Google 2009)



Figure 69: O.M. Mackillop Public School, built in 1954 (Google 2017)

As none of the schools in York Region constructed around this period were publicly recognized for their architectural qualities, a broader look at Modernist schools in the Greater Toronto Area is instructive. The City of Toronto constructed a number of schools that have been recognized for their architectural significance. In the 1950s and early 1960s, the Toronto District School Board undertook an ambitious program of school building construction. At this time, school boards such as the Toronto District School Board and the York Region District School Board hired architects as in-house designers (Contreras and Ferrara 1994). In Toronto, the goal was to “create fresh, lively and inventive school buildings that focused upon the experience of the child and supported the progressive classroom pedagogies of the postwar period” (Moffatt 2016:24). As a result, exemplary designs based on Modernist principles with exceptional practical design flourishes were found in schools such as the Lord Lansdowne Junior and Senior Public School (built in 1961) and Davisville Junior Public School (built in 1962) (Figure 70 and Figure 71). At the Lansdowne Public School, a 9-sided “circular” layout was constructed with buttress-like piers designed to support lifts to hoist up the concrete roof and accommodate a second floor (Contreras and Ferrara 1994). Meanwhile at the Davisville Public School, winged hyperbolic paraboloid

roofs and small rectangular windows arranged vertically and horizontally were defining features (Contreras and Ferrara 1994).



Figure 70: Lord Lansdowne Junior and Senior Public School (ACO Toronto)



Figure 71: Davisville Junior Public School (Robert Moffatt)

Though the George Bailey Public School, built in 1955, was not part of the early wave of Modernist school buildings exhibiting the International Style that emerged in the Greater Toronto Area in the 1940s, the school has elements that are reflective of the shift in architectural style that occurred within the design of educational buildings in the post World War Two period. Its low and long building form and horizontal massing, single corridor design, use of concrete block in the interior, buff and red brick on the exterior, ample use of glazing on the exterior within a grid pattern; and use of interior/exterior elements (such as tapered wooden beams clad in plywood that create an overhanging eaves, and the asymmetrical interior/exterior brick piers in the front entrance) are all evidence of the example set nearly two decades prior by the Crow Island School. Though a number of Modernist era schools were constructed throughout York Region before the George Bailey Public School, within the City of Vaughan, the lack of post-World War II growth meant that the George Bailey Public School was the only new elementary school constructed in the 1950s and one of just two new schools built before 1981. As such and in this context, the building is considered an early expression of the Modernist educational building typology in the City of Vaughan. Looking beyond Vaughan, compared to the rare and unique highlights of Modernist school building construction in Toronto, the George Bailey Public School is simple and functional, with few elements that express greater ambition, suggesting that the school is more of a representative example of the International Style rather than one that exhibits unique or exceptional attributes that one might associate with the best or most iconic examples of the Modernist era.

4.2 Ontario Regulation 9/06 Evaluation

The following table provides an evaluation of the George Bailey Public School under the Ontario Regulation 9/06 criteria.

Table 2: Evaluation of the George Bailey Public School under Ontario Regulation 9/06 Criteria

1. The property has design value or physical value because it:		
<i>Ontario Heritage Act Criteria</i>	Yes/No	Analysis
i. is a rare, unique, representative or early example of a style, type, expression, material or construction method;	Yes	Though the George Bailey Public School, built in 1955, was not part of the early wave of Modernist school buildings exhibiting the International Style that emerged in the Greater Toronto Area in the 1940s, the school has elements that are reflective of the shift in architectural style that occurred within the design of educational buildings, which makes it a representative example of an International Style school building. Its low and long building form and horizontal massing, single corridor design, use of concrete block in the interior, buff and red brick on the exterior, ample use of glazing on the exterior within a grid pattern and use of interior/exterior elements (such as tapered wooden beams clad in plywood that create an overhanging eaves, and the asymmetrical interior/exterior brick piers in the front entrance) are all evidence of the example set by schools built early in the Modernist era. Based on examples found throughout the Greater Toronto Area, the George Bailey Public School is designed in a simple and functional manner, with few elements that express greater ambition, suggesting that the school is more of a representative example of the International Style rather than one that exhibits unique or exceptional attributes that one might associate with the best or most iconic examples of the Modernist era. Finally, though a number of Modernist era schools were constructed throughout York Region before the George Bailey Public School, within the City of Vaughan, the lack of post-World War II growth in the City meant that the George Bailey Public School was the only new elementary school constructed in the 1950s and one of just two new schools built before 1981. As such, the building is considered an early example of Modernist school building architecture in the City of Vaughan context.
ii. displays a high degree of craftsmanship or artistic merit, or;	No	The George Bailey Public School does not feature elements that would suggest a high degree of craftsmanship or artistic merit. The building was not recognized at its time of construction by contemporary architectural journals such as



		the Royal Architectural Institute of Canada and Canadian Architecture as noted by the Canadian Architectural Periodicals Index 1940-1980. The building is not known to retain features that demonstrate higher than industry standards that would have been in place at its time of original design and construction.
iii. demonstrates a high degree of technical or scientific achievement.	No	The George Bailey Public School is not known to demonstrate a high degree of technical or scientific achievement.

2. The property has historical value or associative value because it:

<i>Ontario Heritage Act Criteria</i>	<i>Yes/No</i>	<i>Analysis</i>
i. has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community;	Yes	The George Bailey Public School property is associated with the theme of education in the Village of Maple. Though the existing school is the third generation of school buildings on the property, the property has been used for educational purposes since the mid-1800s. In addition, the existing remnant trees on the southern perimeter of the c.1896 schoolhouse property serve to identify the nineteenth-century educational uses of the property and trace the approximate location of the c. 1896 school building within the subject property.
ii. yields, or has the potential to yield, information that contributes to an understanding of a community or culture, or;	No	Though it is possible that the foundations of the c.1861 and c.1896 schoolhouses may remain in situ, it is not anticipated or known if these would yield or have the potential to yield more information about the community.
iii. demonstrates or reflects the work or ideas of an architect, artist, builder, designer or theorist who is significant to a community.	N/A	The George Bailey Public School is designed by Hanks and Irwin, with later additions by Hanks, Irwin & Pearson. Hanks and Irwin were a well-known residential Toronto-based architecture firm that were best known for designing numerous houses in the Kingsway area of Toronto. Later in their career, when joined by C. Clark Pearson, the firm designed a number of educational buildings throughout the Greater Toronto Area, and designed three schools in Vaughan, where they were the Board of Education's architect. Though no evidence was uncovered to suggest that the firm is regarded as significant to the Vaughan community, it is possible that the firm would be of interest given their role in designing three of Vaughan's schools.

3. The property has contextual value because it:

<i>Ontario Heritage Act Criteria</i>	<i>Yes/No</i>	<i>Analysis</i>
--------------------------------------	---------------	-----------------



i. is important in defining, maintaining or supporting the character of an area;	No	The George Bailey Public School is not important in defining, maintaining or supporting the character of the area. The property is located within the Village of Maple Heritage Conservation District and is not recognized as a contributing part of the nineteenth-century character that is identified as significant in the area. In addition, to lacking a connection to the historical fabric of the Village of Maple, the school is located within a predominantly residential neighbourhood constructed more than thirty years after the school was constructed. As such, there is no historical connection between the existing school and its immediate surroundings.
ii. is physically, functionally, visually or historically linked to its surroundings, or;	Yes	The George Bailey Public School is functionally and historically linked to its surroundings in relation to the Village of Maple. Though the existing school is the third generation of school buildings on the property, the property has been used for educational purposes since the mid-1800s. Known as School House No. 6, the first two educational buildings would have served the Village of Maple and served as the primary educational institution in the broader area during the latter half of the nineteenth century and first half of the twentieth century. Children would have walked to this site from the Village of Maple and surrounding areas during this period. Construction of the George Bailey school (original known as School House No. 6) continued this pattern, continuing to serve the growing Village of Maple in the post-World War II period and until approximately the mid 1960s when another school was built closer to the Village of Maple. Education buildings are intrinsic and fundamental institutions that support and sustain community growth and permanent settlement patterns. As such, this property and its over 150 year old history of educational service, including the extant mid-twentieth-century building and the site of the former c. 1896 building, partially demarcated by open green space and Maple plantings, is an important site that is inextricably linked, both functionally and historically, with the Village of Maple.
iii. is a landmark.	No	The George Bailey Public School is not known to be a landmark.

Based on the criteria in Ontario Regulation 9/06, the George Bailey Public School contains cultural heritage value for physical, historical and contextual reasons.



4.3 Proposed Statement of Significance

The property at 9600 Keele Street in the community of Maple in the City of Vaughan consists of the George Bailey Public School, which is a one storey public school located on the west side of Keele Street, south of the former Village of Maple. The school is the third generation of school buildings on the property and was constructed in 1955 (with additions in 1958 and 1968) in the International Style. Earlier school buildings on the property existed from c.1861-1896 and 1896 to 2002.

The George Bailey Public School has physical value as a representative example of the International Style of architecture, a prominent design expression of the Modernist movement, and as applied to educational building types and complexes in the twentieth century in the North American context. Modernist era schools began to emerge in the Greater Toronto Area in the 1940s, bringing with them a new form of school building typology that became ubiquitous throughout North America. The George Bailey Public School is designed in a simple yet functional manner that is consistent with the International style and the principles of Modernism that were applied to the design of educational buildings during this time. The building's representative elements include its low and long building form and horizontal massing, single corridor design, use of concrete block in the interior, buff and red brick on the exterior, ample use of glazing on the exterior within a grid pattern and use of interior/exterior elements (such as tapered wooden beams clad in plywood that create an overhanging eaves, and the asymmetrical interior/exterior brick piers in the front entrance). Due to the lack of post-World War II growth within the City of Vaughan, the George Bailey Public School was the only new elementary school constructed in the 1950s and one of just two new schools built before 1981. As such, the building is considered an early example of Modernist school building architecture in the City of Vaughan context.

Historically, the George Bailey Public School property is associated with the theme of education in the Village of Maple. Though the existing school is the third generation of school buildings on the property, the property has been used for educational purposes since the mid-1800s. In addition, the existing remnant trees on the southern perimeter of the c.1896 schoolhouse property serve to identify the nineteenth-century educational uses of the property and trace the approximate location of the c. 1896 school building within the subject property.

Contextually, the George Bailey Public School is functionally and historically linked to its surroundings. Though the existing school is the third generation of school buildings on the property, the property has been used for educational purposes since the mid-1800s. Known as School House No. 6, the first two educational buildings would have served the Village of Maple and served as the primary educational institution in the broader area during the latter half of the nineteenth century and first half of the twentieth century. Children would have walked to this site from the Village of Maple and surrounding areas during this period. Construction of the George Bailey school (original known as School House No. 6) continued this pattern, continuing to serve the growing Village of Maple in the post-World War II period and until approximately the mid 1960s when another school was built closer to the Village of Maple. Educational buildings are intrinsic and fundamental institutions that support and sustain community growth and permanent settlement patterns. As such, this property and its over 150 year old history of educational service, including the extant mid-twentieth-century building and the site of the former c. 1896 building, partially demarcated by open green space and Maple plantings, is an important site that is inextricably linked, both functionally and historically, with the Village of Maple.



Heritage Attributes

- The George Bailey Public School
 - Exterior
 - The building's low and long building form and horizontal massing
 - The buff and red brick on the exterior and the glazed brick on the 1958 addition
 - The use of bays with nine-pane grid glazing pattern
 - The use of interior/exterior elements, including:
 - Tapered wooden beams clad in plywood that create the overhanging eaves,
 - The interior/exterior brick piers in the front entrance.
 - The main entrance with its double doors, transom and sidelights and tapered brick south pier
 - Interior
 - The single corridor design with classrooms on either side
 - The use of concrete block,
 - Landscape
 - The trees that mark the southern perimeter of the c.1896 schoolhouse property

5.0 PROPOSED DEVELOPMENT

5.1 Description of Proposed Development

The proposed development consists of the demolition of the George Bailey Public School and the replacement of the building with a green space (see proposed site plan by MC Architects dated May 10, 2021 in Appendix C). The location of the George Bailey Public School and the existing asphalt will be replaced with sod to create a large green space that will provide a continuous green space with the adjacent green space at Frank Robson Park. A pathway will be created to connect the existing pathway at Frank Robson Park to Knightswood Ave.

The school is proposed for demolition for two reasons. First, the building has not been utilized for regular student accommodation since the 2001-2002 school year when it assisted Joseph A. Gibson Public School in holding students until the opening of Maple Creek Public School in September 2002. Since that time, Maple High School Alternative Education classes and the Access program have utilized the George Bailey Public School until it was determined that the condition of the building required it to be vacated. These programs were relocated to new locations over the summer of 2018. As such, the building has been unused for two years. According to the York Region District School Board, the building requires \$4,000,000 in renewal over the next 5 years, of which \$1,500,000 will be required immediately if the facility is maintained to a standard so that it can accommodate students. A survey for designated substances and hazardous materials was completed by ECOH (dated October 20, 2018, see Appendix E) and found that much of the building had non-friable and friable asbestos-containing materials. Given that the building is not required for regular long-term student accommodation at this time or in the foreseeable future, this type of investment has been deemed unnecessary by the school board. In addition, as there is no need for a new school at the present time, and the building may not meet the



school board's future requirements the ongoing cost of mothballing and maintenance may be unnecessary.

It should be noted that the proposed green space is temporary as the York Region District School Board intends to maintain the land for a school in the future. The timeframe is dependent on demographics and need.

5.2 Impact Assessment – George Bailey Public School

To assess the potential impacts of the undertaking, the proposed removal of the George Bailey Public School was considered against a range of possible impacts as outlined in the *Ontario Heritage Toolkit*, which include:

- Destruction of any, or part of any, significant heritage attributes or features
- Alteration that is not sympathetic, or is incompatible, with the historic fabric and appearance
- Shadows created that alter the appearance of a heritage attribute or change the viability of an associated natural feature or plantings, such as a garden
- Isolation of a heritage attribute from its surrounding environment, context or a significant relationship
- Direct or indirect obstruction of significant views or vistas within, from, or of built and natural features
- A change in land use (such as rezoning a church to a multi-unit residence) where the change in use negates the property's cultural heritage value
- Land disturbances such as change in grade that alter soils, and drainage patterns that adversely affect cultural heritage resources.

Table 3: Impact Assessment – George Bailey Public School

Impact	Analysis
Destruction, removal or relocation	The removal of the George Bailey Public School will involve the removal of a building containing cultural heritage value. The existing trees associated with the southern perimeter of the c.1896 schoolhouse property will remain (see Arborist's Report by Kuntz Forestry Consulting Inc. dated April 16 2021 in Appendix F). The removal of the building will change the character of the property, creating a green space that will function as a de facto extension of the adjacent Frank Robson Park.
Alteration	The alterations to the property involve the removal of the George Bailey Public School, which is a building containing cultural heritage value. The existing trees associated with the southern perimeter of the c.1896 schoolhouse property will remain. The alteration will change the character of the property, creating a green space that will function as a de facto extension of the adjacent Frank Robson Park.
Shadows	The proposed removal of the George Bailey Public School will not result in any shadow impacts.

Table 3: Impact Assessment – George Bailey Public School

Impact	Analysis
Isolation	The proposed removal of the George Bailey Public School will leave the existing trees associated with the southern perimeter of the c.1896 schoolhouse property as the only heritage attribute remaining on the property. However, their association with the c.1896 schoolhouse property will not change.
Direct or indirect obstruction of significant views	No significant views to, from, or within the subject property have been identified, and it is anticipated that the removal of the George Bailey School will not affect any direct or indirect views.
A change in land use	The proposed removal of the George Bailey Public School will temporarily remove the educational/institutional use of the property and convert it to a green space. Though the property is currently not in use for educational purposes, the property had been continually used for educational purposes since the mid-1800s.
Land disturbance	The proposed development will result in land disturbances through the removal of the George Bailey Public School. The land disturbances are not anticipated to have a direct impact on the property's cultural heritage value.

5.3 Impact Assessment –Village of Maple Heritage Conservation District Plan

The George Bailey Public School is located within the Village of Maple Heritage Conservation District and as such, the proposed removal of the building and replacement with a green space must be consistent with the policies and guidelines contained within the *Village of Maple Heritage Conservation District Plan*. The following table measures the proposal against relevant policies and guidelines found within the Plan.

Table 4: Impact Assessment – Village of Maple Heritage Conservation District

Policy	Analysis
2.4.3 Objectives for Non-Heritage Buildings	The George Bailey school is designated as a non-heritage building in the Village of Maple Heritage Conservation District. The building is identified in the Village of Maple Heritage Conservation District Inventory as representative of an early suburban architecture and un-cleared rural land, though neither of these characteristics are recognized as significant within the District's Statement of Heritage Value.
To retain and enhance complementary characteristics of nonheritage buildings.	
To encourage improvements to non-complementary buildings so that they further enhance the heritage character of the District.	The redevelopment of the property as a temporary green space is consistent with other uses on this block, given the neighbouring Frank Robson Park and Woodlot. Green space would rarely be viewed as a detracting feature within a heritage context, and the



Policy	Analysis
	District Plan acknowledges this by stating in Policy 4.5 that “Landscapes and Landscaping helps to define the character of the District” and in Policy 4.5.1 that “The introduction of complementary landscapes to the heritage environment will be encouraged.” The retention of trees associated with the perimeter of the original George Bailey Public School will help to contribute to the heritage environment
<p>2.4.4 Objectives for Landscape/Streetscape</p> <p>To facilitate the introduction of, as well as conservation of, historic landscape treatments in both the public and private realm.</p> <p>To preserve trees and mature vegetation, and encourage the planting of species characteristic of the District, where possible. Native urban-tolerant trees are preferred; however, non-indigenous species with compatible forms and characteristics should be allowed in recognition of the harsher urban conditions that now exist.</p> <p>To introduce landscape, streetscape, and infrastructure improvements that will enhance the heritage character of the District.</p>	<p>The proposed green space on the property will preserve trees and mature vegetation, including rows of trees along and near Keele Street that are associated with the late-nineteenth century schoolhouse that was demolished in the 1990s. Maintaining these trees will contribute to the conservation of historical landscape treatments along Keele Street.</p> <p>No new trees are proposed for the property at this time.</p>
<p>2.4.5 Objectives for New Development</p> <p>To ensure compatible infill construction that will enhance the District’s heritage character and complement the area’s village-like, human scale of development, while promoting densities sufficient to secure the District’s future economic viability.</p> <p>To guide the design of new development to be sympathetic and compatible with the heritage resources and character of the District while providing for contemporary needs.</p>	<p>The proposed green space will compliment the existing Frank Robson Park, which is viewed as a contributing feature within the heritage conservation district. The green space is essentially human-scale development that is compatible with the surrounding area and the character of the district. In addition, the green space will not detract from the economic viability of the district, especially compared to the alternative of a mothballed school building. The design of the proposed green space has not been developed, though recommendations have been proposed as a mitigation measure in Section 6.2.</p>
<p>4.3.3 Demolition of Non-Heritage Buildings</p> <p>Generally, the demolition of a Non-Heritage building is not supported, if the building is supportive of the overall heritage character of the District.</p>	<p>The existing non-heritage building consisting of the George Bailey Public School does not exhibit qualities that are complementary to the characteristics of the Village of Maple Heritage Conservation District. The building is identified in the Village of Maple Heritage Conservation District Inventory as representative of an early suburban architecture and un-cleared rural land, though neither of these characteristics are recognized as significant within the District’s Statement of Heritage Value.</p>

Policy	Analysis
<p>4.5 Landscapes</p> <p>Landscapes and Landscaping helps to define the character of the District, and to provide an appropriate setting for its historic buildings. The Ontario Heritage Act extends alteration controls to cover property features, in addition to the exterior of buildings and structures. Property features can include trees, vegetation, pathways, fences, and other landscape elements that are of cultural heritage value or interest.</p> <p>4.5.1 Landscape Treatment Existing historical landscapes will be conserved. The introduction of complementary landscapes to the heritage environment will be encouraged. Landscape Guidelines are provided in Section 9.7.</p>	<p>The redevelopment of the property as a temporary green space is consistent with other uses on this block, given the neighbouring Frank Robson Park and Woodlot. Green space would rarely be viewed as a detracting feature within a heritage context. The proposed green space is consistent with the notion that “Landscapes and Landscaping helps to define the character of the District” and that “the introduction of complementary landscapes to the heritage environment will be encouraged.” In addition, the proposed green space on the property will preserve trees and mature vegetation, including rows of trees along and near Keele Street that are associated with the late-nineteenth century schoolhouse that was demolished in the 1990s. Maintaining these trees will contribute to the conservation of historic landscape treatments along Keele Street.</p>
<p>4.5.2 Trees and Shrubs</p> <p>a) Mature trees will be preserved except where removal is necessary due to disease or damage, or to ensure public health and safety, as certified by a professional arborist. Lost trees should be replaced.</p> <p>b) New trees and shrubs should be hardy, urban tolerant in recognition of harsher environmental conditions, but that express form, canopy, leaf and colour characteristics of native, indigenous trees, where possible. Large, urban-tolerant and long-living character trees are to form the framework of street tree plantings in the area and become a defining characteristic of the area. Where sufficient space does not exist for large trees, smaller ornamentals are preferred to induce a pedestrian scale while providing seasonal interest and colour.</p> <p>c) Planting should not obscure heritage buildings, but can frame important features. Planting should screen less attractive sites and prospects in the District.</p>	<p>No mature trees are proposed for removal as part of the proposed green space. No new trees are proposed for the property at this time.</p>
<p>5.7 Vegetation</p> <p>The vegetative cover in the public realm of the District significantly contributes to the area’s human-scale, village-like character. Street trees, flowers in baskets, shrubs, and vegetation found in the open spaces and along watercourses all contribute to the area’s distinctiveness. In addition to their scenic beauty, trees and other vegetation are equally important for</p>	<p>The proposed green space on the property will preserve trees and mature vegetation, including rows of trees along and near Keele Street that are associated with the late-nineteenth century schoolhouse that was demolished in the 1990s. Maintaining these trees will contribute to the conservation of historic landscape treatments along Keele Street.</p>

Policy	Analysis
<p>controlling the effects of climate by reducing wind velocity, providing shelter from sun, rain, and snow, and creating a moderated microclimate.</p> <p>a) Plant material introduced to the public realm should be should be hardy, urban tolerant in recognition of harsher environmental conditions, but that express form, canopy, leaf and colour characteristics compatible with native, indigenous trees, where possible.</p> <p>b) Existing mature trees and other vegetative amenities in the public realm should be retained and preserved except where removal is necessary due to disease or damage, or to ensure public health and safety.</p> <p>c) The shaping of street tree canopies for utility wires will be undertaken in a sensitive manner so as not to disfigure the tree. The impact of this process on existing trees may be a factor when burial of utility wires is being considered.</p> <p>d) An appraisal of the health of tree cover in the public realm will be undertaken with the result being a replanting policy or plan to replace unhealthy trees and coordinate new plantings.</p> <p>e) The placement of new tree-plantings should enhance the streetscape and frame buildings of cultural and heritage value and minimize the screening or blocking of significant features.</p> <p>f) Plantings will contribute to screening less attractive sites in the District, including above-ground utilities, where practical from an operation and maintenance perspective.</p> <p>g) Guidelines for appropriate vegetation are located in Section 9.7.</p>	<p>No new trees are proposed for the property at this time.</p>
<p>7.3 Land Use in the District</p> <p>The general use of land in the District is identified in the Official Plan and its amendments, and is further refined in specific zoning by-laws for the area. Prominent land uses in the District include residential, commercial, institutional and open space, and a deviation from these uses is not recommended. However, some of the existing development standards</p>	<p>Though the zoning on the property will not change, the proposed open space use is consistent with the prominent land use of open space within the District.</p>



Policy	Analysis
associated with zoning by-laws do not reflect the traditional built form and streetscape character found in the District.	
<p>9.5 New Development</p> <p>9.5.1 Overview</p> <p>The overall heritage character of the District is composed of buildings, streetscapes, landscapes, and vistas. This overall character has more significance than any individual building, even if it is one of the finest. Within the design of any individual building, architectural elements contribute to the character of the public realm of the street. Massing, materials, scale, proportions, rhythm, composition, texture, and siting all contribute to the perception of whether or not a building fits its context. Different settings within the district have different characters of siting, landscaping and streetscaping.</p> <p>New development within the District should conform to qualities established by neighbouring heritage buildings, and the overall character of the setting. Designs should reflect a suitable local heritage precedent style. Research should be conducted so that the style chosen is executed properly, with suitable proportions, decoration, and detail.</p>	<p>Section 9.5 of the District Plan implies that new development will involve new construction. However, the City of Vaughan's Official Plan defines "development" as "The creation of a new lot, a change in land use, or the construction of buildings and structure, requiring approval under the Planning Act, but does not include: a) activities that create or maintain infrastructure authorized under an environmental assessment, Planning Act, or Condominium Act process; or b) works subject to the Drainage Act". Though a formal change of land use under the Planning Act is not being sought, the proposed development is seeking an informal change of land use that does not involve new construction of buildings or structures. As such, the redevelopment of the property as a green space should ensure that it is consistent with the overall character of the District.</p> <p>Given the presence of the adjacent Frank Robson Park, the green space would conform to the qualities established by the landscape of the neighbouring heritage property.</p>

5.4 Impact Assessment – City of Vaughan Official Plan (2019 Consolidation)

The City of Vaughan's Official Plan (2019 Consolidation) contains the following policies related to the proposed removal of the George Bailey Public School.

Policy	Analysis
<p>6.2.2.6 That in reviewing heritage permit applications, the City be guided by the following heritage conservation principles:</p> <p>e) new development on vacant lots or lots currently occupied by non-heritage structures in Heritage Conservation Districts designated under Part V of the Ontario Heritage Act be designed to fit harmoniously with the immediate physical or broader district context and streetscapes, and be consistent with the existing heritage architectural style through such means as:</p>	<p>The proposed green space is anticipated to fit harmoniously with the adjacent Frank Robson Park. Though this policy assumes that all properties in the heritage conservation districts are buildings or structures, the proposed green space will have similar characteristics as the adjacent park space. The proposed green space in concert with the adjacent park space would contribute to the character of the district and the streetscape.</p>



<ul style="list-style-type: none"> i. being similar in height, width, mass, bulk and disposition; ii. providing similar setbacks; iii. using like materials and colours; iv. using similarly proportioned windows, doors and roof shape. 	
<p>6.3.2.3. To conserve Heritage Conservation Districts by approving only those alterations, additions, new developments, demolitions, removals and public works in accordance with the respective Heritage Conservation District Plans and the policies of this Plan. When there is a conflict between the policies of the Heritage Conservation District Plan and the policies of this Plan, the Heritage Conservation District Plan shall prevail.</p>	<p>As described in Section 5.3 of this report, the proposed removal of the George Bailey Public School and replacement with a green space is consistent with the policies of the heritage conservation district plan.</p>
<p>6.3.2.4. That any proposed private or public development within or adjacent to a Heritage Conservation District will be designed to respect and complement the identified heritage character of the district as described in the Heritage Conservation District Plan.</p>	<p>As described in Section 5.3 of this report, the proposed removal of the George Bailey Public School and replacement with a green space is consistent with the character of the neighbouring contributing cultural heritage resource and the character of the heritage conservation district.</p>
<p>6.3.2.5. That a demolition permit for a building or part of a building within a Heritage Conservation District shall not be issued until plans for a replacement structure have been submitted to the City and Council has approved the replacement structure and any related proposed landscaping features in accordance with the relevant Heritage Conservation District Plan, the Vaughan Heritage Conservation Guidelines and the policies of this Plan.</p>	<p>A recent decision at the Local Planning Appeal Tribunal related to the definition of “structures” note that heritage conservation in Ontario is shifting away from an early “building-centric” approach to heritage properties.⁸ The term “structure” is particularly problematic as landscapes (both natural and artificial) without buildings have become a more prominent focus and have been identified as important contributors to cultural heritage. Though at this time no formal plans have been designed or proposed for the proposed green space on the property, the notion that a replacement “structure” for the George Bailey Public School must be a building should be reconsidered. Given that the proposed green space is consistent with the surrounding heritage context and the character of the heritage conservation district, the broader definition of what is considered a “structure” within heritage parlance should be considered. Additional mitigation measures to satisfy this policy are proposed in Section 6.2.</p>

6.0 ALTERNATIVES, MITIGATION AND RECOMMENDATIONS

The following section identifies alternatives to the proposed development, along with proposed measures for mitigation and recommendations as part of the approval of the proposed development.

⁸ Clublink Corporation ULC v. Oakville (Town)



6.1 Alternatives

There are a vast range of alternatives that could be put forward as part of the future of the subject property. Three options are put forward as part of this exercise:

1. A “Do Nothing” approach
 - A “Do Nothing” approach retains the existing George Bailey Public School building, though the building will be mothballed, and would either require unnecessary reinvestment due to no planned use or the property will deteriorate over time. Vandalism and deterioration may occur. As the building does not contribute to the cultural heritage value of the Heritage Conservation District, the mothballing of the building would not contribute positively to the character of the district. Mothballing may require boarding up windows and erecting fencing to keep the building secure, along with prohibitive costs for maintenance and monitoring for a building with no intention for reuse.
2. Removal of the George Bailey Public School without heritage considerations
 - The removal of the George Bailey Public School without heritage considerations would consider the removal of the building and all vegetation associated with the c.1896 schoolhouse. Other hypothetical uses in lieu of the creation of a green space or the construction of a new school would not reflect the existing character of the area, and in particular, the character of the neighbouring Frank Robson Park, which contributes to the character of the heritage district. Additionally, removal of the George Bailey Public School without implementation of any further mitigation or conservation measures, such as documentation in advance of removal, retention of historical landscape features such as vegetation, and implementation of an interpretation strategy documenting and communicating the site’s contribution to educational instruction in the Village of Maple, would result in a significant disturbance to and loss of physical material that is important to understanding the history and evolution of the local area.
3. Creation of a green space with mitigation measures
 - As currently proposed the removal of the George Bailey Public School and the replacement of the structure with a green space will not have a negative impact on the cultural heritage value of the heritage conservation district. The proposed green space could be enhanced to contribute to the heritage conservation district through a more robust landscaping plan that incorporates the policies and guidelines of the District Plan. At the very least, retention of the existing vegetation is complementary to the character of the district, the neighbouring Frank Robson Park and in the case of the trees lining Keele Street, the history of the former c. 1896 schoolhouse. An interpretation strategy may be considered for the site as well, commemorating and communicating the property’s continued use for education purposes for over 150 years. Finally, removal of the George Bailey Public School will represent loss of a building determined to have individual cultural heritage value following application of Ontario Regulation 9/06 of the *Ontario Heritage Act*. This assessment has evaluated the significance of that impact in



consideration of: the building's overall design rarity; the proposed interventions at the site which include temporary green space and potential continued educational use in the future; retention of historical landscape features that evidence and demarcate the c. 1896 school house previously extant on the property; and the potential for implementing an interpretation strategy that would seek to enhance communication of the site's contribution to educational instruction and settlement and village growth activities in the Village of Maple. Accordingly, in consideration of these factors and following evaluation of impacts of the proposal on the Heritage Conservation District, this assessment determines that negative impacts of the demolition can be appropriately reduced through application of a mitigation strategy as outlined below.

6.2 Mitigation

Though the proposed removal of the George Bailey Public School and the replacement of the building with a green space will not have a negative impact on the cultural heritage value of the heritage conservation district, the following mitigation measures have been proposed to further enhance the property's contribution to the heritage conservation district and to mitigate impacts of the proposal on the property's cultural heritage value, as established following application of Ontario Regulation 9/06 of the *Ontario Heritage Act*.

6.2.1 Designed Green Space

The proposed removal of the George Bailey Public School will result in the creation of a new green space. As currently proposed, the location of the George Bailey Public School and the existing asphalt will be replaced with sod to create a large green space with the existing pathway from Frank Robson Park continued through the property towards Knightswood Avenue. This green space will not detract from the park's cultural heritage value or the cultural heritage value of the heritage conservation district. Though this space is intended to be temporary, further interventions in the form of pathways, benches, vegetation and recreational space would also contribute positively. If any new trees are planted, they should follow the guidelines in Section 9.7 of the District Plan, while the existing trees associated with the southern perimeter of the c.1896 schoolhouse property should be retained.

6.2.2 Building and Landscape Documentation and Historical Commemoration and Interpretation

Though commemoration of the history of the property as an educational complex will not replace the loss of the George Bailey Public School building, commemoration would help to tell the story of the property and explain the property's role within the greater community. The commemoration would enhance the character of the Heritage Conservation District and allow the property to contribute in a way that it previously had not. The property also has a prominent location on Keele Street where trees that previously demarcated the boundary of the c.1896 schoolhouse property are visible from the street. The opportunity to commemorate this history is consistent with the City of Vaughan's *Guidelines for Preparing a Cultural Heritage Impact Assessment*:



While this option does not conserve the cultural heritage of a property/structure, historical commemoration by way of interpretive plaques, the incorporation of reproduced heritage architectural features in new development, or erecting a monument-like structure commemorating the history of the property, may be considered. This option may be accompanied by the recording of the structure through photographs and measured drawings (City of Vaughan 2016).

Moreover, implementation of a building and landscape documentation report, to be filed with local archives and the City of Vaughan, would serve to provide a record of an early example of Modernist educational building architecture. While many of this building type were constructed, many earlier in the broader Greater Toronto Area, it is early within the local City of Vaughan context.

7.0 INTERPRETATION STRATEGY

As part of the green space strategy for the property, an interpretation strategy has been proposed to commemorate the George Bailey Public School and the history of education on the property (see Appendix D). The strategy involves the construction of a small structure that will provide historical information about the property. The structure has been designed to reference the design of one bay of the George Bailey Public School and will utilize salvaged brick from the school. The location of the proposed structure will be along Keele Street as coordinated with City of Vaughan Heritage Planner Katrina Guy. In addition, ASI has consulted with the City of Vaughan Archives regarding historical photographs of the c.1896 schoolhouse. Unfortunately due to donor restrictions, the photographs available on file are not permitted to be reused as part of a public display. As such, contemporary photographs of the George Bailey Public School could be included on the information board along with aerial photos or maps as appropriate.

The following consists of some sample text that may be included on the information board. The final text should be coordinated with City of Vaughan heritage staff and the Heritage Vaughan Committee.

This property has been the site of three generations of school buildings that have provided education to the Village of Maple since the mid-nineteenth century. The first school building was constructed c.1861 and was a one-room building known as Maple School S.S. #6. This school was replaced in 1896 with a two-room brick schoolhouse, which stood on this site until 2002. In 1955, George Bailey Public School was constructed to service the growing population of the area. Additions were made to the school in 1958 and 1967. The school was named after George Bailey who passed away in 1955. Bailey was dedicated to public service as a former Assistant Clerk Chief of Vaughan Township Fire Brigade, part-time police officer, and secretary for the Maple Village Trustees and Maple Public School Board. Designed by the Toronto-based architecture firm Hanks & Irwin, the George Bailey Public School was designed in a simple yet functional manner, consistent with the International style and the principles of Modernism that were applied to the design of educational buildings in the post-war era. Hanks & Irwin designed numerous schools in Vaughan including the nearby Joseph A. Gibson Public School. The George Bailey Public School was removed from the property in 2021 after serving the community for over half a century.



8.0 CONCLUSION

As part of this report, the George Bailey Public School and the property at 9600 Keele Street was found to have physical, historical and contextual value. The removal of the building from the property will remove attributes that contribute to the property's cultural heritage value. Mitigation measures have been outlined in Section 6.2.

With regards to the impact on the policies and guidelines of the *Village of Maple Heritage Conservation District Plan*, this report found that the proposed removal of the George Bailey Public School is not anticipated to have a significant adverse impact on the cultural heritage value of the Village of Maple Heritage Conservation District. The proposed green space that will replace the school is consistent with the character of the district and the adjacent Frank Robson Park, which is a contributing property within the district.

Currently, there are no proposals or need for a replacement structure as the York Region District School Board does not need a replacement structure at this time, and the cost to maintain the building is documented to be prohibitive, the removal of the building and replacement with a green space rather than its mothballing must be consistent with the City of Vaughan's Official Plan policies. As such, as part of pre-consultation for the proposed removal of the George Bailey Public School, City of Vaughan heritage staff have advised that the official plan requires an approved redevelopment application before a demolition permit will be issued as it is not consistent with the City of Vaughan's Official Plan policy 6.3.2.5, which states,

“that a demolition permit for a building or part of a building within a Heritage Conservation District shall not be issued until plans for a replacement structure have been submitted to the City and Council has approved the replacement structure and any related proposed landscaping features in accordance with the relevant Heritage Conservation District Plan, the Vaughan Heritage Conservation Guidelines and the policies of this Plan.”

However, the concept and definition of a “structure” in the heritage field has evolved with a recent decision at the Local Planning Appeal Tribunal⁹. As such, the notion that a replacement “structure” for the George Bailey Public School must be a building should be reconsidered. Given that the proposed green space is consistent with the surrounding heritage context and the character of the heritage conservation district, the green space (or a more enhanced green space) should be viewed as a positive contribution to the heritage conservation district in lieu of a mothballed building that does not contribute to the cultural heritage value of the district.

The following recommendations are proposed for consideration. These recommendations include:

1. This report should be submitted to Heritage Staff at the City of Vaughan for review, and upon approval, filed and archived with the Vaughan Public Library and the City of Vaughan Archives;
2. The proposed green space could be enhanced to create a more vibrant space that will contribute positively to the heritage conservation district. Though this space will be temporary,

⁹ Clublink Corporation ULC v. Oakville (Town)



small interventions in the form of pathways, benches, vegetation and recreational space should be considered. A designed green space would be consistent with the evolving definition of “structure” and would satisfy the Official Plan policy 6.3.2.5. The existing trees associated with the southern perimeter of the c.1896 schoolhouse property should be retained.

3. Prior to the demolition of the George Bailey Public School, the City of Vaughan should consider that a documentation report be completed and submitted to the City of Vaughan for review. The report should be filed and archives with the Vaughan Public Library and the City of Vaughan Archives.
4. An Interpretation Strategy has been developed to tell the story of the school property and its historical role within the Village of Maple. Along with providing interpretation for the George Bailey Public School, the Interpretation Strategy could also address interpretation of the location of the c.1896 schoolhouse through the use of landscape strategies, such as vegetation, open space, and the integration of interpretive signage, and naming of the space. The Interpretation Strategy should be submitted to Heritage Staff at the City of Vaughan for review and approval.



9.0 REFERENCES

Armstrong, F. H.

1985 *Handbook of Upper Canadian Chronology*. Dundurn Press, Toronto.

Blumenson, J.G.

1990 *Ontario Architecture: A Guide to Styles and Building Terms, 1784 to the Present*. Fitzhenry & Whiteside, Canada.

Boulton, D.

1805 *Sketch of His Majesty's Province of Upper Canada*. Reprinted in Toronto by the Baxter Publishing Company, 1961. C. Rickaby, London.

Caniff, W.

1878 *An Historical Sketch of the County of York*. Illustrated Historical Atlas of York County. Toronto: Miles & Co. Toronto.

Carter, P.H.

2007 *Village of Maple Heritage Conservation District Plan*.

City of Vaughan

2015 *A Brief History of Vaughan*.

<https://www.vaughan.ca/services/vaughan_archives/historyofvaughan/VaughanDocuments/A%20Brief%20History%20of%20Maple.pdf>.

2016 *Guidelines for Cultural Heritage Impact Assessments*. February.

2017 *Vaughan Official Plan*.

Contreras, Monica, and Luigi Ferrara

1994 *Ontario Places*. *Ontario Association of Architects*.

Ferguson, Robert D.

1964 *What's New in Education*. *Board of Trade Journal* 54(9): 4–8.

Gamarra, Jessie

2018 *Building Citizens for Tomorrow: Postwar School Design in Ontario*. *Render: The Carleton University*



Graduate Journal of Art and Culture 6.

Government of Ontario
2020 *Provincial Policy Statement*. Toronto, Ontario.

Hill, Robert G.
2020 Robert Seymour Hanks. *Biographical Dictionary of Architects in Canada 1800-1950*.

Holman, Nicholas A
2005 Village of Maple Heritage Conservation District Volume 1- Inventory. City of Vaughan, November.

Hunting Survey Corporation Limited
1954 Digital Aerial Photographs, Southern Ontario 1954.
<http://maps.library.utoronto.ca/data/on/AP_1954/index.html>.

Kyles, Shannon
2016 Test of Time: Trends in Ontario School Architecture. *ACORN* 41(2): 4–6.

MHSTCI, (Ministry of Heritage, Sport, Tourism and Culture Industries)
1990 Ontario Heritage Act, R.S.O. c. O.18.

M.H.S.T.C.I., (Ministry of Heritage, Sport, Tourism and Culture Industries)
2006 Ontario Heritage Tool Kit.

Mika, N., and H. Mika
1981 *Places In Ontario: Their Name Origins and History, Part II, F-M*. Vol. 2. Encyclopedia of Ontario.
Mika Publishing Company, Belleville.

Miles & Co.
1878 Illustrated Historical Atlas of the County of York and the Township of West Gwillimbury & Town of Bradford in the County of Simcoe Ontario. Miles & Co., Toronto.

Ministry of Defence and Militia
1914 NTS Sheet Markham. Toronto.



Ministry of Municipal Affairs and Housing
1990 Planning Act, R.S.O. 1990, c. P.13.

2016 Growth Plan for the Greater Golden Horseshoe.

Mississaugas of the Credit First Nation
2017 The Toronto Purchase Treaty No. 13 (1805). *Mississaugas of the Credit First Nation*.
<<http://mncfn.ca/torontopurchase/>>.

Moffatt, Robert
2016 Building a Better Tomorrow: The Schools of the Toronto Board of Education, 1950-1963. *ACORN*
41(2): 24–25.

Ogata, Amy F.
2008 Building for Learning in Postwar American Elementary Schools. *Journal of the Society of Architectural Historians* 67(4): 562–591.

Parkin, John B.
1942 Post-War Planning of Schools. *RAIC Journal* 19(9): 188–189.

1943 Tomorrow's Schools. *RAIC Journal* 20(7): 99–14.

Parks Canada
2010 Standards and Guidelines for the Conservation of Historic Places in Canada. Canada's Historic Places.

PPS
1990 Planning Act, R.O.O {as amended in 2019}. Government of Ontario.

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

Reaman, G.E.
1971 *A History of Vaughan Township: Two Centuries of Life in the Township*. University of Toronto Press, Toronto, Ontario.



Royal Architectural Institute of Canada
1947 Schools 24(10).

Smith, W.H.
1846 Smith's Canadian Gazetteer.

The Globe and Mail
1957 2 Architects Maintain Quality of Kingsway. *The Globe and Mail*, April 27.

The Liberal
1955a Tragic Crash Take The Life Of George Bailey. *The Liberal*, August 25.

1955b Board Ask Maple School Be Named After George Bailey. *The Liberal*, December 29.

1960 Patterson School Has Highest Enrollment. *The Liberal*, September 15.

Tremaine, G.C.
1860 Tremaine's Map of the County of York, Canada West. George C. Tremaine, Toronto.



APPENDIX A: CITY OF VAUGHAN'S GUIDELINES FOR CULTURAL HERITAGE IMPACT ASSESSMENT



GUIDELINES FOR PREPARING A CULTURAL HERITAGE IMPACT ASSESSMENT

PURPOSE

The purpose of a **Cultural Heritage Impact Assessment (CHIA)** report is to identify and evaluate heritage resources and cultural landscapes in a given area (i.e. “subject property”), and to assess the impacts on the cultural heritage attributes that may result from a proposed development or alteration on the subject property. The CHIA report assists staff in the evaluation of development and heritage permit applications, including the determination of compliance with all applicable cultural heritage policies.

GOOD HERITAGE CONSERVATION PRACTICE

The CHIA report shall be conducted and based on good heritage conservation practice aligned with international, federal, provincial, and municipal statutes and guidelines. This includes (but is not limited to):

- Venice Charter 1964
- Appleton Charter 1983
- Burra Charter 1999
- ICOMOS Charter 2003
- UNESCO’s Recommendation on the Historic Urban Landscape 2011
- Park Canada’s Standards and Guidelines for the Conservation of Historic Places in Canada 2nd Edition
- Ministry of Tourism, Culture and Sport’s Ontario Heritage Toolkit - Heritage Property Evaluation section
- Ministry of Tourism, Culture and Sport’s Eight Guiding Principles in the Conservation of Built Heritage Properties 2007
- Applicable Heritage Conservation District Guidelines

CULTURAL HERITAGE LANDSCAPES

Cultural heritage landscapes include neighbourhoods, landforms, roadways, waterways and other landscapes. These cultural heritage resources are often included on or adjacent to properties identified on the City’s built heritage inventory. Should the proposed alteration or development be deemed to impact the known or potential cultural heritage landscape, as determined by Cultural Heritage staff, the CHIA report requirements for the landscape component shall include the following:

- A site plan drawing/survey of existing conditions (reviewed by a licensed Landscape Architect), including buildings, structures, roadways, driveways, drainage features, trees and tree canopy, fencing, and topographical features of the subject property.
- A written and visual inventory of all elements of the subject property that contribute to its cultural heritage value, including overall site views. For buildings, internal and external photographs and measured floor plans to scale are also required.
- For cultural heritage landscapes or features that transcend a single property, a tree inventory and streetscape measured drawing is required, in addition to photographs of the adjacent properties.

a. Addressing the Cultural Heritage Landscape or Feature Criteria

The CHIA report for a potential cultural heritage landscape must demonstrate how the proposed development will preserve/conservate the criteria that render the landscape a cultural heritage landscape and/or feature. Each cultural heritage landscape and feature includes a checklist of criteria. The CHIA report need only address the checked criteria for the pertinent cultural heritage landscapes or features. Please note, some properties constitute more than one cultural heritage landscape. Criteria include the following:

b. Landscape Environment

1. Scenic and visual quality
2. Natural environment
3. Horticultural interest
4. Cemeteries
5. Landscape design, type and technological interest

c. Built Environment

1. Aesthetic/visual quality
2. Consistent scale of built features
3. Unique architectural features/buildings
4. Designated structures

d. Historical Associations

1. Illustrates a style, trend or pattern
2. Direct association with important person or event
3. Illustrates an important phase of social or physical development
4. Illustrates the work of an important designer

e. Other

1. Historical or archaeological interest and/or value
2. Outstanding features/interest and/or value
3. Significant ecological interest and/or value
4. Landmark value

REQUIREMENTS OF A CULTURAL HERITAGE IMPACT ASSESSMENT

The requirement to submit a CHIA report will be identified by Cultural Heritage staff during the Pre-Application Consultation (PAC) meeting for the proposed development. Cultural Heritage staff will identify the known cultural heritage resources on a subject property that are of interest or concern (based on criteria listed in O.Reg. 9/06). Where there are the potential archaeological resources noted by Cultural Heritage staff (based on available GIS information), an Archaeological Resources Assessment must also be undertaken as an additional study.

The following items are considered the required components of a CHIA report. Additional information may be required by Cultural Heritage staff based on their initial review of the CHIA report.

1. The CHIA report must be prepared by a **qualified heritage specialist**. Refer to the Canadian Association of Heritage Professionals (CAHP) which lists members by their specialization. (<https://cahp-acecp.ca/>)

2. Applicant and owner **contact information**.
3. A **description of the subject property**, both built form and landscape features, and its context including nearby cultural heritage resources. If the requirement for the CHIA is to evaluate potential a cultural heritage landscape, a topographic map will be required within this report.
4. A chronological description of the **history of the subject property** to date and past owners, supported by archival and historical material.
5. A **development history** and **architectural evaluation** of the built cultural heritage resources found on the subject property, the site's physical features, and their heritage significance within the local context.
6. A **condition assessment** of the cultural heritage resources found on the subject property.
7. The **documentation** of all cultural heritage resources on the subject property by way of photographs (interior and exterior) and /or measured drawings, and by mapping the context and setting of the cultural heritage resource. For properties located within Heritage Conservation Districts, include documentation of contributing character attributes regarding massing, mature landscaping and trees and how it contributes the heritage streetscape within the Heritage Conservation District.
8. A **statement of cultural heritage value** if one does not already exist.
 - a. Part IV individually designated properties will have statements provided in the existing City by-law. For older designation statements, a new statement may be requested.
 - b. Part V properties will have an inventory entry that identifies features of interest on the property. Also identify the property's contributing status in the applicable HCD Plan. An updated statement of cultural heritage value that reflects any new information about the property may be requested.
 - c. For non-designated built heritage resources, this statement shall be based on *Ontario Regulation 9/06 – Criteria for Determining Cultural Heritage Value or Interest*.
 - d. For, Cultural Heritage Landscapes and Character Areas, this evaluation should analyze the findings of the possible heritage resource against the policy criteria outlined above in the "Provincial and Municipal Heritage Policies" section.
9. An **summary of the development proposal** for the subject property and the potential impact, both adverse and beneficial, the proposed development will have on identified cultural heritage resources and/or the surrounding heritage conservation district. The proposed alteration and/or development should be assessed to determine how closely it follows the heritage conservation principles as outlined in Sections 6.2.2.6-6.2.2.9 of the Vaughan Official Plan 2010. A site plan and tree inventory/arborist report are required for this section.

Adverse impacts on a cultural heritage resource(s) as stated in the Ontario Heritage Tool Kit include, but are not limited to:

- Destruction of any, or part of any, significant heritage attributes or features;
- Removal of natural heritage features, including trees;
- Alteration that is not sympathetic, or is incompatible, with the historic fabric and appearance;
- Shadows created that alter the appearance of a heritage attribute or change the viability of an associated natural feature, or plantings, such as a garden;
- Isolation of a heritage attribute from its surrounding environment, context or a significant relationship;
- Direct or indirect obstruction of significant views or vistas within, from, or of built and natural features;
- A change in land use where the change in use negates the subject property's cultural heritage value, and
- Land disturbances such as change in grade that alter soils, and drainage patterns that adversely affect cultural heritage resources.

10. An **assessment of alternative options, mitigation measures, and conservation methods** that may be considered to avoid or limit the negative impact on the cultural heritage resource(s). Methods of minimizing or avoiding a negative impact on a cultural heritage resource(s) as stated in the *Ontario Heritage Tool Kit* include, but are not limited to:

- Alternative development approaches
- Isolating development and site alteration from significant built and natural features and vistas
- Design guidelines that harmonize mass, setback, setting, and materials
- Limiting height and density
- Allowing only compatible infill and additions
- Reversible alterations

The preferred strategy would be directed at conservation should any impact be discerned. Conservation strategies may include the following:

- A mitigation strategy including the proposed methods
- A conservation scope of work including the proposed methods
- An implementation and monitoring plan

Recommendations for additional studies/plans related to, but not limited to conservation, site specific design guidelines, interpretation/commemoration, lighting, signage, landscape, stabilization, additional record and documentation prior to demolition, and long-term maintenance.

Avoidance Mitigation

Avoidance mitigation may allow the alterations or proposed development to proceed while retaining the cultural heritage resources in situ and intact. Avoidance strategies for heritage resources typically would require provisions for maintaining the integrity of the cultural heritage resource and to ensure it does not become structurally unsound or otherwise compromised. Feasible options for the adaptive re-use of built heritage structure or cultural heritage resources should be clearly outlined.

Where conservation of the entire structure is not feasible, consideration may be given to the conservation of the heritage structure/resource in part, such as the main portion of a building without its rear, wing or lateral addition.

Salvage Mitigation

In situations where cultural heritage resources are evaluated as being of minor significance or the conservation of the heritage resource in its original location is not considered feasible on reasonable and justifiable grounds, the relocation of a structure or (as a last resort) the salvaging of its architectural components may be considered. This option is often accompanied by the recording of the structure through photographs and measured drawings.

Historical Commemoration

While this option is not encouraged and does not conserve the cultural heritage of the subject property or structure, historical commemoration by way of interpretive plaques, the incorporation of reproduced heritage architectural features in new development, or erecting a monument-like structure commemorating the history of the subject property may be considered as a final mitigating solution. This option may be accompanied by the recording of the structure through photographs and measured drawings.

REVIEW / APPROVAL PROCESS

CHIA reports must be completed to the satisfaction of the City. Cultural Heritage staff will review the submitted documentation and determine whether the minimum requirements of the CHIA report have been met and to review the conclusions and recommendations outlined in the CHIA report. Revisions and amendments to the CHIA report will be required if the guidelines are not met. Cultural Heritage staff may meet with the owner/applicant to discuss the CHIA report and recommendations contained therein. CHIA reports that are not completed to the satisfaction of the Cultural Heritage staff will be subject to revision and resubmission and may be subject to critique by peer review (at the expense of the owner/applicant) or a similar process to determine if the report meets recognized standards and practices.

The preparation and submission of a CHIA report may be a required as a condition of approval for Site Development and Draft Plan of Subdivision applications.

Two hard copies plus two digital copies of the CHIA report shall be distributed to the City of Vaughan:

- one hard copy plus one digital copy to the Development Planning Department, and
- one hard copy plus one digital copy to the Urban Design and Cultural Heritage Division

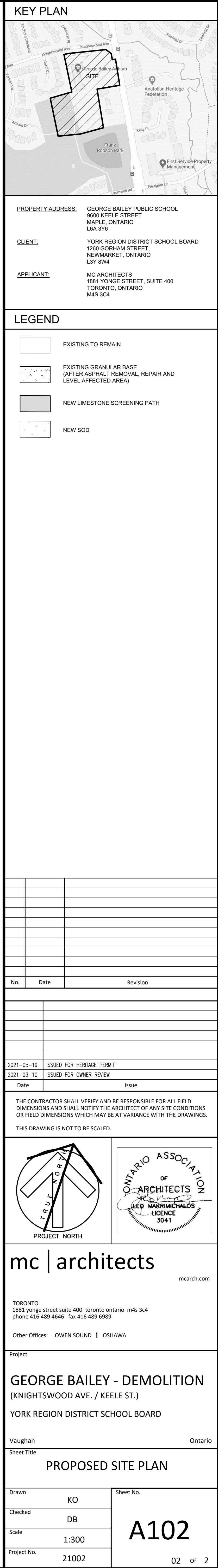
Any questions or comments relating to these guidelines may be directed to the Urban Design and Cultural Heritage Division, Development Planning Department, City of Vaughan.

APPENDIX B: Existing Site Plan and Demolition Plan



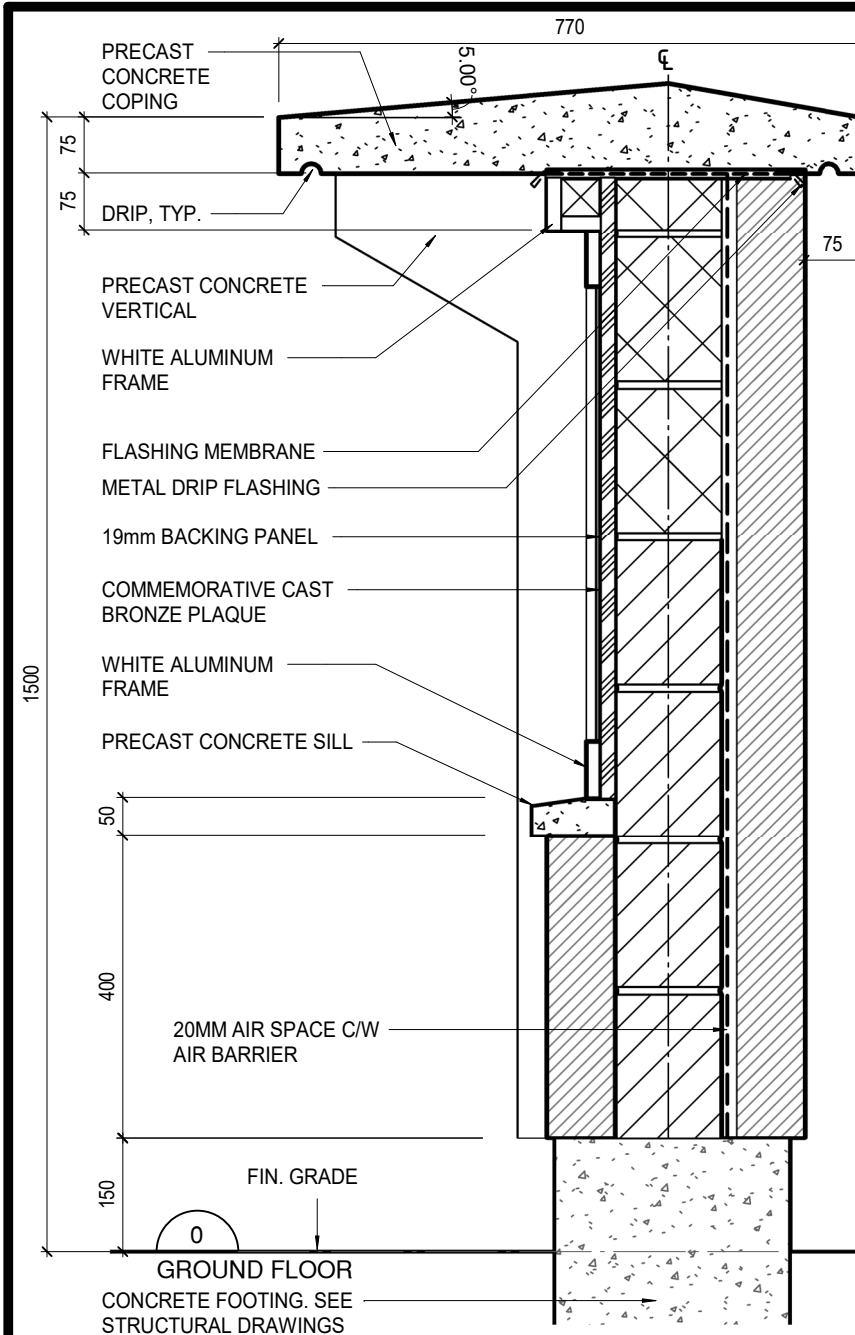
APPENDIX C: Proposed Site Plan



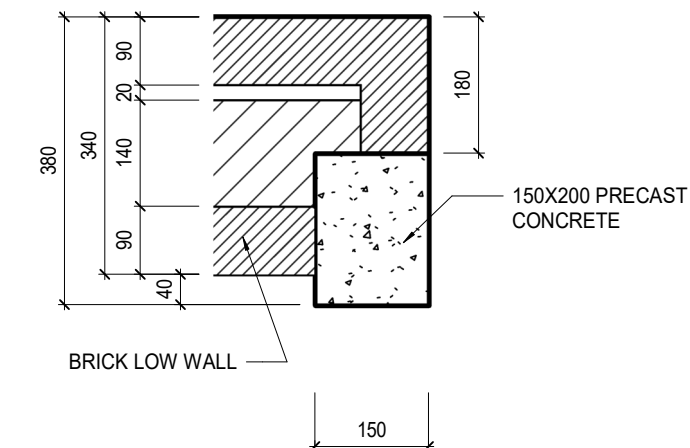


APPENDIX D: Proposed Commemoration Strategy

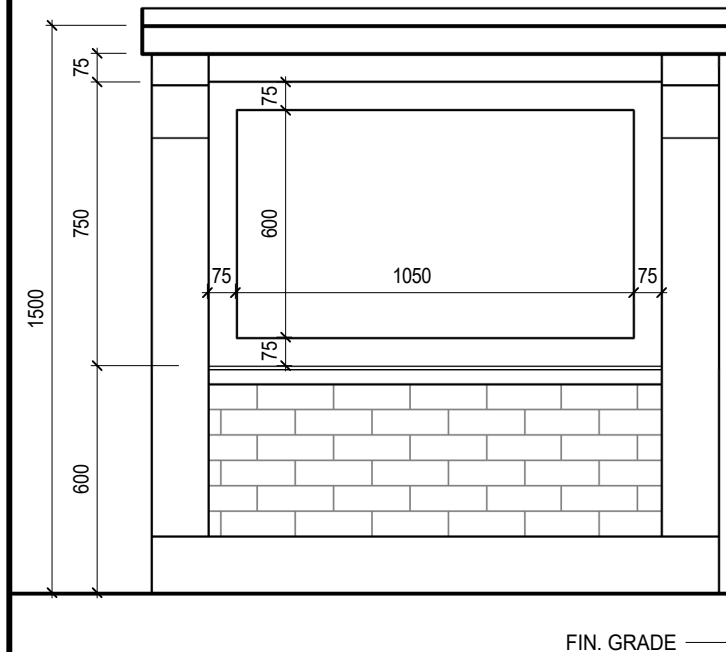




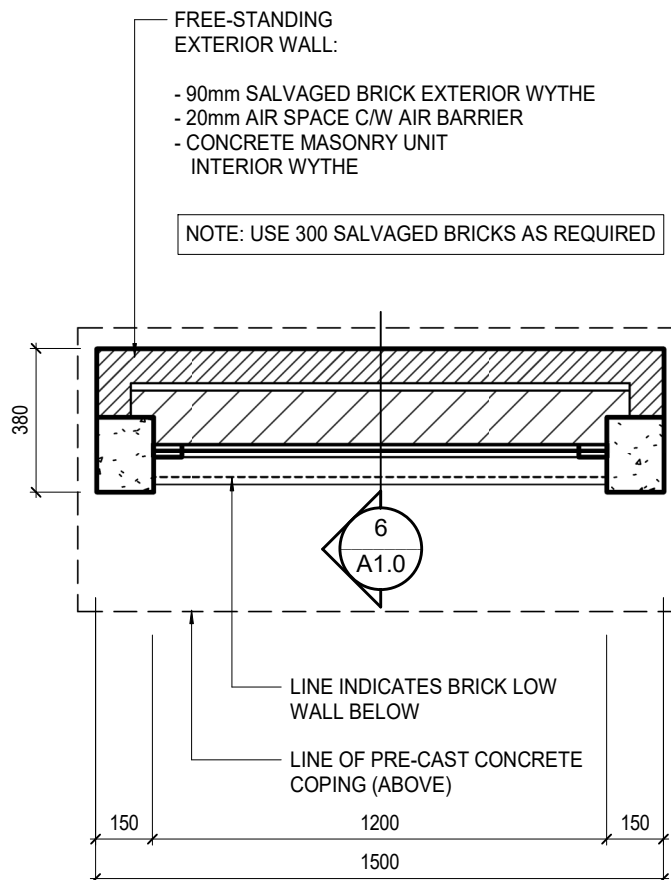
⑥ SECTION DETAIL
1 : 10



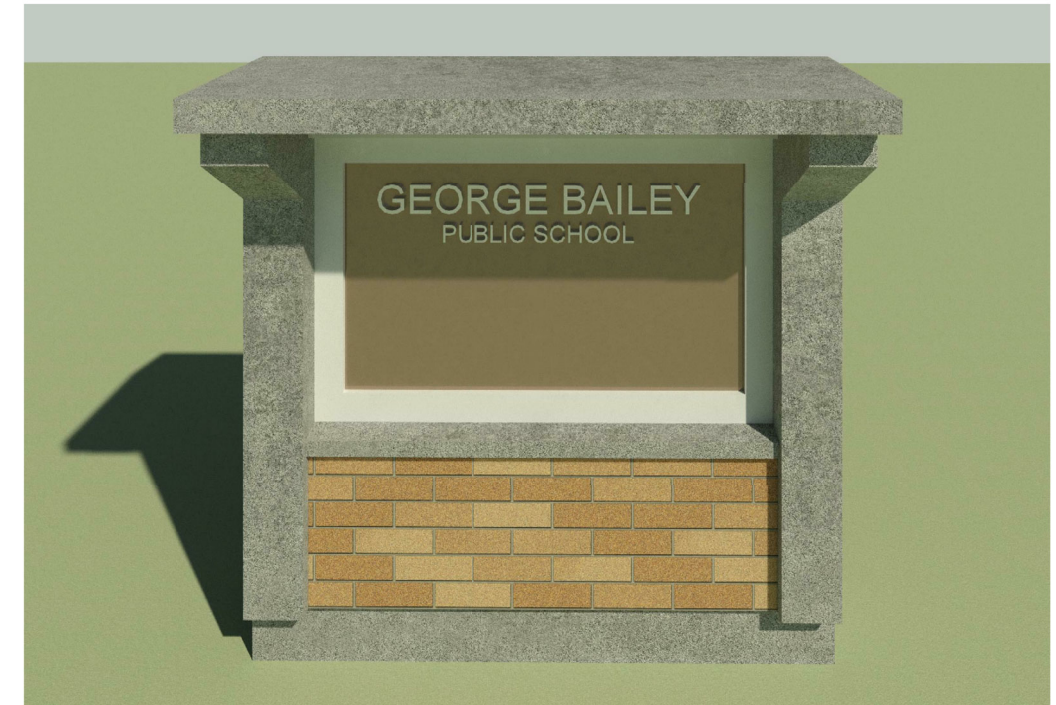
⑤ PLAN DETAIL
1 : 10



④ ELEVATION DETAIL
1 : 20



③ MONUMENT PLAN
1 : 20



① PERSPECTIVE VIEW - 1



② PERSPECTIVE VIEW - 2

mc | architects

mcarch.com

Toronto office:
1881 yonge street suite 400 toronto ontario m4s 3c4
phone 416 489 4646 fax 416 489 6989
Offices: TORONTO - OWEN SOUND

Project GEORGE BAILEY P.S. DEMOLITION

YORK REGION DISTRICT SCHOOL BOARD
Vaughan Ontario

Dwg Title COMMEMORATIVE
MONUMENT

Date of Issue
2021/05/19
Scale:
As indicated
Ref. No.
-
Job No.
21002

A1.0





APPENDIX E: Condition Assessment



PRE-DEMOLITION SURVEY FOR DESIGNATED SUBSTANCES & HAZARDOUS MATERIALS

**George Bailey Building
(Building ID 335)
9600 Keele Street
Maple, Ontario
L6A 3Y6**

Presented to:

York Region District School Board
60 Wellington Street West
P.O. Box 40
Aurora, Ontario
L4G 3H2

Prepared by:

ECOH Management Inc.
75 Courtneypark Drive West, Unit 1
Mississauga, Ontario
L5W 0E3

ECOH Project Number: 19661

October 30, 2018

EXECUTIVE SUMMARY

ECOH Management Inc. (ECOH) was retained by the York Region District School Board (the Client) to conduct a pre-demolition designated substance survey at the George Bailey Building, located at 9600 Keele Street, Maple, Ontario (hereafter referred to as the “Facility”). ECOH understands that this survey was requested in preparation for the demolition of the entire structure.

Mr. Taylor Morgan completed an assessment of the Facility on October 5, 18 and 25, 2018. The assessment included a visual inspection and testing for the presence of Designated Substances (asbestos, lead, mercury, etc.) and other potentially hazardous materials (such as mould, Urea Formaldehyde Foam Insulation (UFFI), Polychlorinated Biphenyls (PCBs), etc.).

The following documents were reviewed prior to the survey to determine the presence of known asbestos and designated substances in the Facility;

- a) *Asbestos Re-Assessment Survey 2017 Update Report*, dated December 11, 2017, by Abacon Environmental Consultants Inc. (Abacon 2017 Re-Assessment Report);
- b) York Region District School Board Floor Plans, dated July 2006;
- c) Architectural Renovation Drawings, dated September 25, 2001, by Whitney Bailey Associates Inc.;
- d) Architectural Addition Drawings, dated July 1967, by Hanks, Irwin & Pearson Architects; and
- e) Architectural Addition Drawings, dated July 1958, by Hanks, Irwin & Pearson Architects.

It should be noted an additional set of architectural addition drawings dated September 1960 by Hanks, Irwin & Pearson Architects were provided. These drawings were noted to be for a building to the east of the Facility. Upon visiting the Facility, this building was not observed to be present. In addition, the Abacon 2017 Re-Assessment Report referenced an existing report on which the re-assessment was based on. The existing report was not provided to ECOH.

This survey report fulfils requirements set forth within Ministry of Labour (MOL) codes and the Ontario Occupational Health and Safety Act (OHSA) to inform workers of the presence of Designated Substances and other hazardous materials prior to renovation or demolition.

KEY FINDINGS

The following presents a brief outline of ECOH’s findings within the Facility. Refer to Appendices I-II for analytical results of sampling. Refer to the main body of the report for complete details and locations of Designated Substances and Hazardous Materials in the Facility.

Table 1 – Summary of Findings	
Material	Findings
Asbestos	<p>Confirmed asbestos-containing materials (ACM) were identified in the Facility as follows:</p> <ul style="list-style-type: none">• Mastic under vinyl floor tiles is confirmed (0.5 – 1% Chrysotile asbestos) in Location 05, 06 and 42 (mastic under vinyl floor tiles in Locations 07, 17, 19, 21, 22, 23, 24, 26, 27, 28, 29 and 30 is presumed to contain asbestos, based on vinyl floor tiles observed);• Insulation paper (25 - 50% Chrysotile asbestos) in Location 44 (assumed to still be present as ECOH did not have access to this room);• Parging cement (25 - 50% Chrysotile asbestos) in Locations 06, 08, 14, 15, 16, 17, 23, 25, 26, 28, 29, 34, 36, 37, 39, 40 and 44;• Mastic under vinyl sheet flooring (0.5 - 5% Chrysotile asbestos) in Locations 03 and 04;• Vinyl floor tiles (0.5 - 5% Chrysotile asbestos) in Locations 12, 14, 16 and 42;

EXECUTIVE SUMMARY

	<ul style="list-style-type: none"> • Drywall joint compound (5 - 10% Chrysotile asbestos) in Locations 13, 14 and 15; • Transite piping in Location 01; and • Transite panels in Locations 08 to 11. <p>Presumed ACMs are present in the Facility as follows:</p> <ul style="list-style-type: none"> • Roofing materials are presumed to be asbestos-containing until laboratory analysis can determine otherwise. <p>It should be noted various caulking's containing between 0.5 - 5% Chrysotile asbestos were previously identified (and stated as removed) as part of a window replacement project in 2014 (in addition, windows where observed, were marked as manufactured in 2014). Also, asbestos-containing vinyl floor tiles in the staff washrooms were reportedly replaced in 2011. However, abatement reports were not provided to ECOH.</p>
Lead	<p>"Lead-based" and "lead-containing" paints were identified in the Facility as follows:</p> <ul style="list-style-type: none"> • Light blue paint on floors (1,200 ppm), • Grey paint on the boiler (1,200 ppm), • Black paint on piping (1,800 ppm), • Orange paint on piping (280,000 ppm), • Yellow paint on natural gas line (20,000 ppm), • Light blue paint on valves (47,000 ppm), • Light green paint on walls (5,400 ppm), and • Orange paint on railings (1,300 ppm). <p>No other major sources of lead or lead-containing products were identified during the survey; however, lead may be present in:</p> <ul style="list-style-type: none"> • Trace concentrations of lead found in other paints and mortar; • Ceramic tiles; • Internal batteries associated with emergency lighting; • Wiring connectors and electric cable sheathing; • Piping and solder joints on piping; and • Cast iron pipe joint packing.
Silica	Present in all concrete and masonry products.
PCBs	Lamp ballasts present within the Facility are assumed to contain PCBs.
Mercury	<p>Mercury may be present in minor quantities within the Facility in the following forms:</p> <ul style="list-style-type: none"> • As a vapour within fluorescent tubes lights and • As a possible constituent of paints and adhesives. <p>Items suspected to contain mercury were noted to be in good condition.</p>
Mould	Visible mould growth was not observed.

EXECUTIVE SUMMARY

Other Designated Substances and Hazardous Materials	Acrylonitrile, Arsenic, Benzene, Coke Oven Emissions, Ethylene Oxide, Ozone Depleting Substances, Isocyanates, UFFI and Vinyl Chloride Monomer were not noted in significant quantities or forms, if at all.
---	--

RECOMMENDATIONS

The following recommendations meet the requirements of the OHSA. Asbestos recommendations meet the requirements of the Designated Substance – *Regulation respecting Asbestos on Construction Projects and in Buildings and Repair Operations*, Ontario Regulation (O. Reg.) 278/05. Based upon review of historical reports, as well as analytical results and observations of this assessment, ECOH offers the following for your consideration:

- **Asbestos**

Based on survey results and review of existing environmental reports for the Facility, the following conclusions are made with regards to ACM within the Facility:

- As ACM are present within the Facility, ECOH recommends that all workers have asbestos awareness and respirator training before commencing work. Asbestos awareness training will provide on-site workers with: the understanding of asbestos-related health and safety issues, the ability to recognize ACM and any situation that may present a potential asbestos exposure, and the ability to respond appropriately to an inadvertent disturbance of ACM in the Facility.
- A minimum of **Type 1 Asbestos Safety Precautions** must be utilized for the disturbance or removal of non-friable ACM (i.e. vinyl floor tiles, mastics, transite, roofing materials, etc.), or for the removal of less than 1 square metre of asbestos-containing drywall containing joint compound, provided the material is wetted to control the spread of dust or fibres, and the work is done only by means of non-powered hand-held tools.
- A minimum of **Type 2 Asbestos Safety Precautions** must be utilized for the disturbance or removal of non-friable ACM (i.e. vinyl floor tiles, mastics, transite, roofing materials, etc.), provided the work is done by power tools that are attached to dust-collecting devices equipped with HEPA filters.
- A minimum of **Type 2 Asbestos Safety Precautions** must be utilized for the disturbance or removal of 1 square metre or more of asbestos-containing drywall containing joint compound, provided the work is done by means of hand-held, non-powered tools, or power tools that are attached to dust-collecting devices equipped with HEPA filters.
- A minimum of **Type 2 Asbestos Safety Precautions** must be utilized for the disturbance or removal of 1 square metre or less of friable ACM, provided the work is done by means of hand-held, non-powered tools.
- **Type 3 Asbestos Safety Precautions** must be utilized for the disturbance or removal of more than 1 square metre of friable-ACM.
- Removal or disturbance of determined non-ACM does not require asbestos safety procedures, however, general health and safety precautions, which may include dust suppression methods, should be employed.
- During the project, if additional materials are found beyond those which are described in this report, or described in the existing inventory of ACM (i.e. materials not previously identified, or materials that are not homogenous to those previously identified, or materials that become revealed during the work), additional testing for asbestos-content should be completed immediately and prior to disturbance of the material. Alternatively, these materials can be assumed to be ACM, and the appropriate level of asbestos safety precautions must be implemented.

EXECUTIVE SUMMARY

- **Lead**

Renovation, demolition or general construction work involving the removal of Lead-Based (> 5,000 ppm) or Lead-Containing materials (< 5,000 ppm but > 1,000 ppm) shall be conducted in accordance with the MOL document “Guideline - Lead on Construction Projects”, dated April 2011 and the Environmental Abatement Council of Ontario (EACO) *Lead Guideline - for Construction, Renovation, Maintenance or Repair*.

The operation of construction or demolition equipment (e.g. excavator, bulldozer), during demolition of building materials containing minor quantities of lead-containing materials, can follow Type 1 lead safety procedures. As much as possible, the materials to be demolished should be kept wetted to minimize the spread of lead-containing dust. Any workers working outside the equipment during the demolition should follow personal hygiene practices (e.g. washing of face and hands), and wear personal protective equipment that meets the requirement for Type 3 lead safety procedures. When handling or disturbing resultant debris (containing lead-containing materials), workers should again keep the material wetted as much as possible, and should follow appropriate personal hygiene practices and wear personal protective equipment that meets the requirements of Type 2a lead safety procedures.

Any work on paints containing low (< 1,000 ppm) concentrations or trace amounts of lead can be completed without lead specific safety precautions provided that:

- Work does not include 'fume generating activities' (heat producing) such as welding, torching, burning, high temperature cutting, etc.,
- Work does not include dust-generating activities such as grinding, cutting or chemical stripping,
- Dust levels are maintained below 3 mg/m³, and
- General health and safety construction procedures are implemented, which would include dust suppression methods, proper respiratory protection (minimum of a 1/2-face respirator) and protective clothing, as is appropriate for the work being completed.

Additionally, workers should employ general safety precautions such as appropriate dust suppression methods and proper personal protective equipment.

- **Mercury**

Mercury (vapour) is still present in many fluorescent light tubes manufactured today. Even when replacing existing fluorescent light tubes with new energy efficient ones, mercury vapour is still present. The presence of mercury within assembled units (i.e. thermostats, compact fluorescent light bulbs), paints and adhesives should not be considered a hazard provided that the assembled units remain sealed and intact. Dispose of mercury following requirements of the Canada Environmental Protection Act (CEPA), the Transportation of Dangerous Goods Act (TDGA) and provincial legislative requirements that may be applicable.

- **Polychlorinated Biphenyls (PCBs)**

Fluorescent light ballasts should be removed and disassembled to observe serial codes which should be compared to standard PCB Identify Code literature. Ballasts with unidentifiable serial codes, or from manufacturers who are not included in the standard PCB Identifier Code literature or are not clearly labelled as “PCB Free”, or no date is clearly visible (ballasts dated 1981 or later do not contain PCBs), must be assumed to contain PCBs. Ballasts confirmed or assumed to contain PCBs must be disposed of following applicable legislative requirements (e.g. CEPA, TDGA and provincial legislative requirements as may be applicable).

- **Silica**

Cutting, grinding, or demolition of materials containing silica should be completed using general health and safety precautions including the use of dust suppression techniques and appropriate respiratory protection.

EXECUTIVE SUMMARY

Silica containing materials are to be managed in place and proper dust control measures must be implemented when disturbing these materials if affected during renovation/construction activities.

During major renovations, removal of materials containing silica should be removed following recommendations detailed within the MOL, “*Guideline - Silica on Construction Projects*”, dated April 2011.

Silica is inherent in various building materials (i.e. concrete, cement, tile, brick, masonry, mortar, etc.) and cannot be removed and/or replaced with non-silica containing products.

- **Additional Materials**

During work, if materials are revealed beyond what are described in the existing report or in this report (i.e. materials that are not identified, or that are not homogenous to those identified, or that become revealed during the work), additional testing and investigations should be completed immediately and prior to disturbance of the material.

This executive summary provides a brief overview of the study findings. It is not intended to substitute for reading the complete report, nor does it discuss specific issues documented in the report.

TABLE OF CONTENTS

EXECUTIVE SUMMARY.....	<i>i</i>
1. INTRODUCTION AND REGULATORY REQUIREMENTS	1
1.1 INTRODUCTION AND SCOPE	1
1.2 REGULATORY REQUIREMENTS.....	1
2. SURVEY METHODOLOGY	1
2.1 GENERAL APPROACH.....	1
2.2 RECORDS REVIEW.....	2
2.3 ASBESTOS SURVEY METHODOLOGY	2
2.3.1 <i>Asbestos Sampling Strategy and Analytical Methods</i>	2
2.3.2 <i>Asbestos Survey Omissions from Scope</i>	3
2.4 LEAD METHODOLOGY	3
2.5 MOULD ASSESSMENT.....	3
2.6 SURVEY OF OTHER HAZARDOUS MATERIALS	4
3. FINDINGS AND DISCUSSION	4
3.1 ASBESTOS	4
3.2 LEAD.....	8
3.3 POLYCHLORINATED BIPHENYLS (PCBs).....	9
3.4 MERCURY	9
3.5 MOULD	9
3.6 SILICA	9
3.7 OTHER ENVIRONMENTAL CONSIDERATIONS.....	10
4. RECOMMENDATIONS	10
4.1 ASBESTOS	10
4.2 LEAD.....	11
4.3 POLYCHLORINATED BIPHENYLS (PCBs).....	11
4.4 MERCURY	11
4.5 SILICA	12
4.6 ADDITIONAL MATERIALS.....	12
5. STATEMENT OF LIMITATIONS.....	12
APPENDIX I	RESULTS OF BULK SAMPLE ANALYSIS FOR ASBESTOS
APPENDIX II	RESULTS OF BULK SAMPLE ANALYSIS FOR LEAD
APPENDIX III	PROJECT DRAWINGS
APPENDIX IV	SITE PHOTOGRAPHS

1. INTRODUCTION AND REGULATORY REQUIREMENTS

1.1 Introduction and Scope

ECOH Management Inc. (ECOH) was retained by the York Region District School Board (the Client) to conduct a pre-demolition designated substance survey at the George Bailey Building, located at 9600 Keele Street, Maple, Ontario (hereafter referred to as the "Facility"). ECOH understands that this survey was requested in preparation for the demolition of the entire structure.

Mr. Taylor Morgan completed an assessment of the Facility on October 5, 18 and 25, 2018. The assessment included a visual inspection and testing for the presence of Designated Substances (asbestos, lead, mercury, etc.) and other potentially hazardous materials (such as mould, Urea Formaldehyde Foam Insulation (UFFI), Polychlorinated Biphenyls (PCBs), etc.).

This survey report fulfils requirements set forth within Ministry of Labour (MOL) codes and the Ontario Occupational Health and Safety Act (OHSA) to inform workers of the presence of Designated Substances and other hazardous materials prior to renovation or demolition.

The survey included an investigation for the presence of designated substances, namely:

<i>Acrylonitrile</i>	<i>Arsenic</i>	<i>Asbestos</i>	<i>Benzene</i>
<i>Coke Oven Emissions</i>	<i>Ethylene Oxide</i>	<i>Isocyanates</i>	<i>Lead</i>
<i>Mercury</i>	<i>Silica</i>	<i>Vinyl Chloride Monomer</i>	

And for Hazardous Materials including;

<i>Mould</i>	<i>PCBs</i>	<i>Ozone Depleting Substances (ODS)</i>	<i>Other Hazardous Materials</i>
--------------	-------------	---	----------------------------------

The following report details the project scope of work, regulatory requirements, survey and analytical methodologies, survey statement of limitations, and findings and recommendations.

1.2 Regulatory Requirements

A Designated Substances and Hazardous Materials Report were completed to fulfil the Owner's requirements under Section 30 of the Ontario OHSA. Prior to tendering project work in a building, the building owner must provide this report to contractors tendering on the work.

Ontario Regulation (O. Reg.) 278/05, *Regulation respecting Asbestos on Construction Projects and in Buildings and Repair Operations*, controls the disturbance of asbestos materials on construction projects. O. Reg. 347/90, controls the disposal of asbestos waste. The MOL has also issued guidelines for the control of Lead and Silica on construction projects, these entitled, *Guideline - Lead on Construction Projects* and *Guideline - Silica on Construction Projects*.

There are no specific MOL regulations for control of the remaining Designated Substances on construction projects. However, the MOL actively enforces the general duty clause of the OHSA which protects workers and provides guidance on exposure monitoring, permissible exposure levels, medical monitoring, etc., for all Designated Substances in an occupational setting.

2. SURVEY METHODOLOGY

2.1 General Approach

During the survey, the surveyor looked for the most common applications of building materials made with Designated Substances based on historical applications. The investigation performed was generally non-intrusive in nature (i.e. did not include demolition of building systems to verify concealed conditions), with the exception of three (3) test cuts made into the concrete block wall to confirm the presence/absence of insulation inside the concrete block. The cuts were made inside the girls change room, boiler room and classroom 7A.

2.2 Records Review

As part of this survey, ECOH reviewed the following report and drawings provided by the Client:

- a) *Asbestos Re-Assessment Survey 2017 Update Report*, dated December 11, 2017, by Abacon Environmental Consultants Inc. (Abacon 2017 Re-Assessment Report);
- b) Floor Plans, dated July 2006;
- c) Architectural Renovation Drawings, dated September 25, 2001, by Whitney Bailey Associates Inc.;
- d) Architectural Addition Drawings, dated July 1967, by Hanks, Irwin & Pearson Architects; and
- e) Architectural Addition Drawings, dated July 1958, by Hanks, Irwin & Pearson Architects.

It should be noted an additional set of architectural addition drawings dated September 1960 by Hanks, Irwin & Pearson Architects were provided. These drawings were noted to be for a building to the east of the Facility. Upon visiting the Facility, this building was not observed to be present. In addition, the Abacon 2017 Re-Assessment Report referenced the report on which the re-assessment was based on. The existing report was not provided to ECOH.

In summary, the Facility was constructed in 1955 and had additions added in 1958 and 1967. The original building area was reportedly 524 m² in size and the 1958 and 1967 additions were each reportedly 424 m². In addition, the basement was constructed in 1958 and was reportedly 162 m² in area.

Confirmed ACM was identified in the Facility in the form of vinyl floor tiles, mastic, drywall joint compound, parging cement, insulation paper and transite.

2.3 Asbestos Survey Methodology

2.3.1 Asbestos Sampling Strategy and Analytical Methods

Where sampling was required, bulk samples of potential asbestos containing materials (ACM) collected for analysis during the designated substances and hazardous materials survey were collected as per the requirements of O. Reg. 278/05; multiple samples (ranging from 1 to 7 depending on quantity and type of material) are required to confirm the absence of asbestos. Only one positive result (i.e. confirming the presence of asbestos) is required to classify an ACM. Therefore, ECOH's sampling strategy involves the collection of sufficient numbers of samples to meet regulatory requirements, followed by instructions to the laboratory to cease analysis when one sample within a series has already proven positive for asbestos.

Sampling required a small volume of material to be removed either from a damaged section of suspect material or cut from intact material and then repaired by sealing with tape to prevent fibre release. The collected samples were placed in plastic bags and sealed during shipment to an independent laboratory. A formal chain of custody procedure was maintained between ECOH and the sub-contract laboratory during sample transport. Samples were then analysed following the analytical procedure prescribed by the U.S. Environmental Protection Agency (EPA) Test Method EPA/600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials, June 1993. Although not required by provincial regulation, all laboratories used by ECOH are accredited under the U.S. National Voluntary Laboratory Accreditation Program (NVLAP) to ensure consistent, accurate and defensible results.

The Chain of Custody and the Certificate of Analysis, which details analytical results referenced in the findings section, for all asbestos bulk sampling is presented within Appendix I.

2.3.2 Asbestos Survey Omissions from Scope

When conducting an asbestos survey, it is standard practice to assume that certain building materials are potentially ACM. Depending on the material, this assumption is undertaken for one or more of the following reasons:

- The material is inaccessible (i.e., underground piping);
- There is an inherent danger in sampling the material (i.e., high voltage wires);
- Sampling will compromise the integrity of the building structure or envelope (i.e., roofing felts).

Therefore, for the purpose of this survey, ECOH has assumed that the following, if present, are ACM:

- Transite Cement Piping;
- Fire doors;
- High voltage wiring;
- Mechanical packing and gaskets; and
- Underground services or piping.

In addition, no identification was made of asbestos products used in manufacturing processes or operations (i.e. manufacturing equipment, laboratories, etc.).

2.4 Lead Methodology

Although no regulations exist in Ontario, guidelines indicate that paints and surface coatings that contain 0.5% lead concentration by dry weight (i.e. concentrations of lead at or above 0.5%, or 5,000 parts per million (ppm), which is comparable to 1 milligram per square centimetre (mg/cm²) when using an XRF analyzer) are considered to be “lead-based paints or surface coatings”.

Paints or surface coatings that contain concentrations of lead greater than 0.1% by dry weight (1,000 ppm), and less than 0.5% by dry weight (5,000 ppm), are considered to be “lead-containing paints or surface coatings”.

Paints or surface coatings that contain concentrations of lead at, or below, 0.1% by dry weight (1,000 ppm) are considered to be a “low-level lead paints or surface coatings”.

The presence of lead in paint was assessed by the collection and submission of bulk material samples to a professional laboratory for analysis by flame atomic absorption spectroscopy. The Chain of Custody and the Certificate of Analysis, which details analytical results referenced in the findings section, for all lead bulk sampling is presented within Appendix II.

2.5 Mould Assessment

Visual mould assessment of the Facility was conducted in accordance with industry-accepted protocols, specifically:

- Canadian Construction Association (CCA), Standard Construction Document CCA 82-2004; “*Mould Guidelines for the Canadian Construction Industry*”, 2004;
- ASTM D7338 – 10; *Standard Guide for Assessment of Fungal Growth in Buildings*;
- New York City Department of Health and Mental Hygiene: Bureau of Environmental & Occupational Disease Epidemiology; “*Guidelines on Assessment and Remediation of Fungi in Indoor Environments*”, 2008; and
- Institute of Inspection Cleaning and Restoration (IICRC): S520, “*Standard and Reference Guide for Professional Mold Remediation*”, December 2003.

Please note that the mould assessment carried out during this survey included visual assessment and sampling, if required, but did not include intrusive investigation (i.e. test-cuts).

2.6 Survey of Other Hazardous Materials

Materials or equipment suspected of containing ODS, UFFI and other Designated Substances are identified by appearance, age and knowledge of historic applications.

3. FINDINGS AND DISCUSSION

The following outlines the materials identified within the Facility. Additional materials may be found on the Facility concealed behind fixed building components which were not visually identified previously or during this survey. Refer to Section 4.0 for recommendation details.

3.1 Asbestos

The following outlines the extent to which ACM was identified in the Facility. Certificates of Analysis and Chains of Custody are presented in Appendix I.

TABLE 2: Summary of Analysis of Asbestos Bulk Samples			
Sample #	Description of Material	Location	Result
19661-ASB-01A	Gasket on boiler	Location 01	None Detected
19661-ASB-01B	Gasket on boiler	Location 01	None Detected
19661-ASB-01C	Gasket on boiler	Location 01	None Detected
19661-ASB-02A	Duct seal on pipe penetration	Location 01	None Detected
19661-ASB-02B	Duct seal on pipe penetration	Location 01	None Detected
19661-ASB-02C	Duct seal on pipe penetration	Location 01	None Detected
19661-ASB-03A	Counter veneer 1 - Tan	Location 06	None Detected
19661-ASB-03B	Counter veneer 1 - Tan	Location 06	None Detected
19661-ASB-03C	Counter veneer 1 - Tan	Location 05	None Detected
19661-ASB-04A	Baseboard mastic	Location 06	None Detected
19661-ASB-04B	Baseboard mastic	Location 06	None Detected
19661-ASB-04C	Baseboard mastic	Location 18	None Detected
19661-ASB-05A	Counter veneer 2 - Beige with grey streaks	Location 24	None Detected
19661-ASB-05B	Counter veneer 2 - Beige with grey streaks	Location 28	None Detected
19661-ASB-05C	Counter veneer 2 - Beige with grey streaks	Location 26	None Detected
19661-ASB-06A	Cream caulking on countertop	Location 37	None Detected
19661-ASB-06B	Cream caulking on countertop	Location 37	None Detected
19661-ASB-06C	Cream caulking on countertop	Location 37	None Detected
19661-ASB-07A	Grey caulking on doorframe	Location 41	None Detected
19661-ASB-07B	Grey caulking on doorframe	Location 41	None Detected
19661-ASB-07C	Grey caulking on doorframe	Location 41	None Detected
19661-ASB-08A	Mortar (1955 building)	Location 34	None Detected

TABLE 2: Summary of Analysis of Asbestos Bulk Samples			
Sample #	Description of Material	Location	Result
19661-ASB-08B	Mortar (1955 building)	Location 34	None Detected
19661-ASB-08C	Mortar (1955 building)	Location 41	None Detected
19661-ASB-09A	Mortar (1958 building)	Location 41	None Detected
19661-ASB-09B	Mortar (1958 building)	Location 41	None Detected
19661-ASB-09C	Mortar (1958 building)	Location 41	None Detected
19661-ASB-10A	Mortar (1967 building)	Location 41	None Detected
19661-ASB-10B	Mortar (1967 building)	Location 41	None Detected
19661-ASB-10C	Mortar (1967 building)	Location 41	None Detected
19661-ASB-11A	Mastic under vinyl floor tile (VFT) 1	Location 05	0.5% Chrysotile
19661-ASB-11B	Mastic under VFT1	Location 06	Stop Positive (Not Analyzed)
19661-ASB-12A	Mastic under VFT	Location 12	None Detected
19661-ASB-13A	Mastic under VFT	Location 18	None Detected
19661-ASB-13B	Mastic under VFT	Location 18	None Detected
19661-ASB-14A	Mastic under VFT	Location 20	None Detected
19661-ASB-15A	Ivory caulking on doorframe	Location 41	None Detected
19661-ASB-16A	Transparent caulking on doorframe	Location 40	None Detected
19661-ASB-17A	Soft white caulking on lamina board	Location 28	None Detected
19661-ASB-17B	Soft white caulking on lamina board	Location 28	None Detected
19661-ASB-18A	Drywall Joint Compound (DJC) (1955 building)	Location 21	None Detected
19661-ASB-18B	DJC (1955 building)	Location 34	None Detected
19661-ASB-18C	DJC (1955 building)	Location 34	None Detected
19661-ASB-18D	DJC (1955 building)	Location 06	None Detected
19661-ASB-19A	DJC (1958 building)	Location 27	None Detected
19661-ASB-19B	DJC (1958 building)	Location 26	None Detected
19661-ASB-19C	DJC (1958 building)	Location 37	None Detected
19661-ASB-19D	DJC (1958 building)	Location 40	None Detected
19661-ASB-19E	DJC (1958 building)	Location 40	None Detected
19661-ASB-19F	DJC (1958 building)	Location 31	None Detected
19661-ASB-19G	DJC (1958 building)	Location 37	None Detected

TABLE 2: Summary of Analysis of Asbestos Bulk Samples			
Sample #	Description of Material	Location	Result
19661-ASB-20A	Vinyl Floor Tile (VFT) 4 – 12” x 12” tan with brown streaks (VFT4)	Location 42	2% Chrysotile
19661-ASB-20B	VFT4	Location 42	Stop Positive (Not Analyzed)
19661-ASB-20C	VFT4	Location 42	Stop Positive (Not Analyzed)
19661-ASB-21A	Mastic under VFT4	Location 42	1% Chrysotile
19661-ASB-21B	Mastic under VFT4	Location 42	Stop Positive (Not Analyzed)
19661-ASB-21C	Mastic under VFT4	Location 42	Stop Positive (Not Analyzed)
	Indicates Positive Sample		

Currently, general site conditions and asbestos-related information, as it pertains to the project scope of work, includes the following:

a. Ceilings in the Facility are composed of the following materials:

- Plaster. This material was previously sampled and was determined by laboratory analysis to be non-asbestos.
- Acoustic Tile 1 (AT1 – 2’x4’ large and medium holes on square grid). This material was not sampled as it was noted to be gypsum (not suspected to contain asbestos);
- AT2 – 2’x4’ medium fissures and pinholes, random, dense. This material was previously sampled and determined by laboratory analysis to be non-asbestos;
- AT3 – 2’x4’ small random fissures and pinholes. This material was previously sampled and determined by laboratory analysis to be non-asbestos;
- AT4 – 2’x4’ small and medium pinholes. This material was previously sampled and determined by laboratory analysis to be non-asbestos;
- Drywall with joint compound. This material was previously sampled and determined by laboratory analysis to be **asbestos-containing** in the 1967 addition and non-asbestos containing in the 1955 and 1958 additions.

b. Flooring in the Facility are composed of the following materials:

- Poured concrete – non-asbestos;
- Wood – non-asbestos;
- Terrazzo – non-asbestos;
- Ceramic tile – non-asbestos;
- Vinyl sheet flooring (and associated mastic). The flooring was not sampled as it was installed in 2011. Mastic under sheet flooring was previously sampled and determined by laboratory analysis to be **asbestos-containing**;
- Vinyl floor tiles (VFT) (and associated mastic), which are described as follows:

- i. VFT1 – 9”x9” beige. This material was previously sampled and determined by laboratory analysis to be **asbestos-containing**. Mastic under VFT1 was previously sampled and determined to be non-asbestos. As the number of mastic samples previously collected were below the current minimum as per O. Reg. 278/05, ECOH collected one (1) additional sample of the material during this survey (19661-ASB-12A), and was determined by laboratory analysis to be non-asbestos;
 - ii. VFT2 – 12”x12” beige with grey flecks. This material was previously sampled and determined by laboratory analysis to be non-asbestos. Mastic underneath VFT2 was previously sampled and determined to be non-asbestos. As the number of mastic samples previously collected were below the current minimum as per O. Reg. 278/05, ECOH collected two (2) additional samples of the material during this survey (19661-ASB-11A-B), and was determined by laboratory analysis to be **asbestos-containing**;
 - iii. VFT3 – 12”x12” cream. This material was previously sampled and determined by laboratory analysis to be non-asbestos. Mastic underneath VFT3 was previously sampled and determined to be non-asbestos. As the number of mastic samples previously collected were below the current minimum as per O. Reg. 278/05, ECOH collected two (2) additional samples of the material during this survey (19661-ASB-13A-B), and was determined by laboratory analysis to be non-asbestos;
 - iv. VFT4 – 12”x12” tan with brown streaks. This material was sampled by ECOH during the survey (19661-ASB-20A-C) and determined by laboratory analysis to be **asbestos-containing**. Mastic under VFT4 was sampled by ECOH during this survey (19661-ASB-21A-C), and was determined by laboratory analysis to be **asbestos-containing**; and
 - v. VFT5 -12”x12” blue with dark blue flecks. This material was not sampled as it was reportedly installed in 2014. Mastic underneath is either new or assumed to be non-asbestos as the mastic of the previous floor tiles (VFT1 based on the south stair landing) was determined to be non-asbestos.
- c. Walls in the Facility are composed of the following materials:
- Concrete block – non-asbestos;
 - Brick – non-asbestos;
 - Wood – non-asbestos;
 - Ceramic tile – non-asbestos;
 - Transite panels – **asbestos-containing**;
 - Drywall with joint compound. This material was previously sampled and determined by laboratory analysis to be **asbestos-containing** in the 1967 addition and non-asbestos in the 1955 and 1958 additions. As the number of mastic samples previously collected were below the current minimum as per O. Reg. 278/05, ECOH collected eleven additional samples of the material during this survey (19661-ASB-18A-D and 19A-G), and was determined by laboratory analysis to be non-asbestos; and
 - Mortar. This material was sampled by ECOH during the survey (19661-ASB-08A-C, -09A-C and -10A-C) and was determined by laboratory analysis to be non-asbestos.
- d. Structural components (deck, beams, joists, etc.) in the Facility are composed of the following materials:
- Steel – non-asbestos;

- Wood – non-asbestos;
 - Drywall with joint compound. This material was previously sampled and determined by laboratory analysis to be non-asbestos; and
 - Plaster. This material was previously sampled and was determined by laboratory analysis to be non-asbestos.
- e. Pipe fittings and straights (which may include elbows, valves, tees, hangers, etc.) in the Facility are composed of the following materials:
- Uninsulated;
 - Transite piping – **asbestos-containing**;
 - Fiberglass – non-asbestos; and
 - Parging cement. This material was previously sampled and determined by laboratory analysis to be **asbestos-containing**.
- f. Duct systems in the Facility are composed of the following materials:
- Uninsulated;
 - Fiberglass – non-asbestos;
 - Insulation paper. This material was previously sampled and determined by laboratory analysis to be **asbestos-containing**.
- g. Mechanical equipment in the Facility is uninsulated.
- h. Other materials (i.e. caulking's) were sampled as required and determined by laboratory analysis to be non-asbestos.
- i. Roofing materials are presumed to be **asbestos-containing** until laboratory analysis can determine otherwise.

3.2 Lead

Although no regulations exist in Ontario to define a lead-based paint or lead-containing material, guidelines indicate that paint containing 0.5% lead concentration by dry weight (i.e. concentrations of lead at or above 0.5 %, or 5,000 ppm) are considered to be lead-based paints or lead-containing materials.

Paints or surface coatings that contain concentrations of lead greater than 0.1% by dry weight (1,000 ppm), and less than 0.5% by dry weight (5,000 ppm), are considered to be "lead-containing paints or surface coatings".

Paints or surface coatings that contain concentrations of lead at, or below, 0.1% by dry weight (1,000 ppm) are considered to be "low-level lead paints or surface coatings".

The presence of lead in paint was assessed by the collection and submission of bulk material samples to a professional laboratory for analysis by flame atomic absorption spectroscopy.

Laboratory results for bulk samples collected during this assessment are attached to this report in Attachment 2. Please refer to Table 3 below for a summary of the results.

TABLE 3: Summary of Analysis of Bulk Paint Chip Samples for Lead			
Sample #	Description of Material	Location	Results (PPM)
19661-Pb-01	Light blue paint on floor	Location 01	1,200

TABLE 3: Summary of Analysis of Bulk Paint Chip Samples for Lead			
Sample #	Description of Material	Location	Results (PPM)
19661-Pb-02	Grey paint on boiler	Location 01	1,200
19661-Pb-03	White paint on walls	Location 01	110
19661-Pb-04	Black paint on pipes	Location 01	1,800
19661-Pb-05	Red paint on door	Location 01	<83
19661-Pb-06	Orange paint on piping	Location 01	280,000
19661-Pb-07	Yellow paint on natural gas line	Location 01	20,000
19661-Pb-08	Light blue paint on valves	Location 01	47,000
19661-Pb-09	Pink paint on walls	Location 09	<81
19661-Pb-10	Light green paint on walls	Location 15	5,400
19661-Pb-11	Orange paint on railings	Location 37	1,300
19661-Pb-12	Blue paint on stalls	Location 33	210
19661-Pb-13	Light pink paint on railings	Location 41	<84
	Indicates Positive Sample		

No other major sources of lead or lead-containing products were observed during this survey. However, lead is assumed to be present in:

- Trace concentrations of lead found in other paints;
- Ceramic tiles;
- Internal batteries associated with emergency lighting;
- Wiring connectors and electric cable sheathing;
- Piping and solder joints on piping; and
- Cast iron pipe joint packing.

3.3 Polychlorinated Biphenyls (PCBs)

Fluorescent lamp ballasts present within the Facility are assumed to contain PCBs.

3.4 Mercury

Mercury may be present in minor quantities within the Facility in the following forms:

- As a vapour within fluorescent tubes lights and
- As a possible constituent of paints and adhesives.

3.5 Mould

Mould growth was not observed during the assessment.

3.6 Silica

Free crystalline silica, in the form of common construction sand, is present in all concrete and masonry products within the Facility.

3.7 Other Environmental Considerations

The following Designated Substances and Hazardous Materials were not noted in significant quantities or forms, if at all, during this survey; Acrylonitrile, Arsenic, Benzene, Coke Oven Emissions, Ethylene Oxide, Isocyanates, UFFI, and Vinyl Chloride Monomer.

If present on site in insignificant quantities or forms, these Designated Substances and Hazardous Materials would not be expected to pose an immediate or potential risk to human health. Adequate worker protection should be achieved when implementing general health and safety precautions during general demolition or renovation activities.

4. RECOMMENDATIONS

4.1 Asbestos

The following recommendations meet requirements of the OHSA. Asbestos recommendations meet the requirements of the Designated Substance – Regulation respecting *Asbestos on Construction Projects and in Buildings and Repair Operations*, O. Reg. 278/05. Based on survey results and review of existing environmental reports, the following conclusions are made with regards to ACM within the Facility:

- As ACM are present within the Facility, ECOH recommends that all workers have asbestos awareness and respirator training before commencing work. Asbestos awareness training will provide on-site workers with: the understanding of asbestos-related health and safety issues, the ability to recognize ACM and any situation that may present a potential asbestos exposure, and the ability to respond appropriately to an inadvertent disturbance of ACM in the Facility.
- A minimum of **Type 1 Asbestos Safety Precautions** must be utilized for the disturbance or removal of non-friable ACM (i.e. vinyl floor tiles, mastics, transite, roofing materials, etc.), or for the removal of less than 1 square metre of asbestos-containing drywall containing joint compound, provided the material is wetted to control the spread of dust or fibres, and the work is done only by means of non-powered hand-held tools.
- A minimum of **Type 2 Asbestos Safety Precautions** must be utilized for the disturbance or removal of non-friable ACM (i.e. vinyl floor tiles, mastics, transite, roofing materials, etc.), provided the work is done by power tools that are attached to dust-collecting devices equipped with HEPA filters.
- A minimum of **Type 2 Asbestos Safety Precautions** must be utilized for the disturbance or removal of 1 square metre or more of asbestos-containing drywall containing joint compound, provided the work is done by means of hand-held, non-powered tools, or power tools that are attached to dust-collecting devices equipped with HEPA filters.
- A minimum of **Type 2 Asbestos Safety Precautions** must be utilized for the disturbance or removal of 1 square metre or less of friable ACM, provided the work is done by means of hand-held, non-powered tools.
- **Type 3 Asbestos Safety Precautions** must be utilized for the disturbance or removal of more than 1 square metre of friable-ACM.
- Removal or disturbance of determined non-ACM does not require asbestos safety procedures, however, general health and safety precautions, which may include dust suppression methods, should be employed.
- During the project, if additional materials are found beyond those which are described in this report, or described in the existing inventory of ACM (i.e. materials not previously identified, or materials that are not homogenous to those previously identified, or materials that become revealed during the work), additional testing for asbestos-content should be completed immediately and

prior to disturbance of the material. Alternatively, these materials can be assumed to be ACM, and the appropriate level of asbestos safety precautions must be implemented.

4.2 Lead

Renovation, demolition or general construction work involving the removal of Lead-Based (> 5,000 ppm) or Lead-Containing materials (< 5,000 ppm but > 1,000 ppm) shall be conducted in accordance with the MOL document "Guideline - Lead on Construction Projects", dated April 2011 and the Environmental Abatement Council of Ontario (EACO) *Lead Guideline - for Construction, Renovation, Maintenance or Repair*.

The operation of construction or demolition equipment (e.g. excavator, bulldozer), during demolition of building materials containing minor quantities of lead-containing materials, can follow Type 1 lead safety procedures. As much as possible, the materials to be demolished should be kept wetted to minimize the spread of lead-containing dust. Any workers working outside the equipment during the demolition should follow personal hygiene practices (e.g. washing of face and hands), and wear personal protective equipment that meets the requirement for Type 3 lead safety procedures. When handling or disturbing resultant debris (containing lead-containing materials), workers should again keep the material wetted as much as possible, and should follow appropriate personal hygiene practices and wear personal protective equipment that meets the requirements of Type 2a lead safety procedures.

Any work on paints containing low (< 1,000 ppm) concentrations or trace amounts of lead can be completed without lead specific safety precautions provided that:

- Work does not include 'fume generating activities' (heat producing) such as welding, torching, burning, high temperature cutting, etc.,
- Work does not include dust-generating activities such as grinding, cutting or chemical stripping,
- Dust levels are maintained below 3 mg/m³, and
- General health and safety construction procedures are implemented, which would include dust suppression methods, proper respiratory protection (minimum of a 1/2-face respirator) and protective clothing, as is appropriate for the work being completed.

Additionally, workers should employ general safety precautions such as appropriate dust suppression methods and proper personal protective equipment.

4.3 Polychlorinated Biphenyls (PCBs)

Florescent light ballasts should be disassembled to observe serial codes and compared to standard PCB Identifier Code literature. Ballasts with unidentifiable serial codes, from manufactures who are not included in the standard PCB Identifier Code literature, are not clearly labeled as "PCB Free", or no date is clearly visible (ballasts dated 1981 or later do not contain PCBs), must be assumed to contain PCBs. Ballasts and transformers confirmed or assumed to contain PCBs must be disposed of following O. Reg. 362/90, O. Reg 347/90 and Transportation of Dangerous Goods Act (TDGA) requirements.

4.4 Mercury

The presence of mercury within assembled units (e.g. fluorescent light bulbs) should not be considered a hazard provided that the assembled units remain sealed and intact. Avoid direct skin contact with mercury and avoid inhalation of mercury vapour. Dispose of mercury following applicable legislative requirements.

4.5 Silica

Any work involving the disturbance of materials that may contain silica should be conducted following recommendations detailed in the MOL document “*Guideline - Silica on Construction Projects*”, dated April 2011.

4.6 Additional Materials

During work, if materials are revealed beyond what are described in the existing asbestos survey report or in this report (i.e. materials that are not identified, or that are not homogenous to those identified, or that become revealed during the work), additional testing and investigations should be completed immediately and prior to disturbance of the material.

5. STATEMENT OF LIMITATIONS

Due to the nature of building construction, some limitations exist as to the possible thoroughness of the pre-renovation survey. The field observations, measurements and analysis are considered sufficient in detail and scope to form a reasonable basis for the findings and conclusions presented in this report. The findings and conclusions drawn by ECOH, concerning the designated substance survey, are limited to the specific scope of work for which ECOH was retained and are based solely on information generated as a result of the specific scope of work authorized by the Client. The results of the designated substance survey are limited to visual inspection of areas made accessible to ECOH personnel and information obtained from Facility personnel, when obtained.

ECOH warrants that the findings and conclusions contained herein have been made in accordance with generally accepted evaluation methods in the industry and applicable regulations at the time of the performance of the designated substance survey. However, there is no warranty, expressed or implied, that this building survey has uncovered all environmental considerations on the subject site. In addition, ECOH cannot guarantee the completeness or accuracy of information supplied by a third party.

This report was prepared by ECOH for the Client. The material in it reflects ECOH’s professional interpretation of information available at the time of report preparation. Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties.

ECOH

Environmental Consulting
Occupational Health

Prepared By:



Taylor Morgan, C.E.T., B.Sc., EPT
Senior Environmental Scientist

Reviewed By:



Mahir Bholat, B.Sc.
Project Manager

APPENDIX I

RESULTS OF BULK SAMPLE ANALYSIS FOR ASBESTOS



EMSL Canada Inc.

2756 Slough Street Mississauga, ON L4T 1G3

Tel/Fax: (289) 997-4602 / (289) 997-4607

<http://www.EMSL.com> / torontolab@emsl.com

EMSL Canada Order: 551811995

Customer ID: 55ECOH45

Customer PO: 19661

Project ID:

Attention: Mahir Bholat
ECOH Management, Inc.
75 Courtneypark Drive West
Unit 1
Mississauga, ON L5W 0E3

Project: 19661

Phone: (416) 318-4909

Fax: (905) 795-2870

Received Date: 10/10/2018 5:00 PM

Analysis Date: 10/15/2018 - 10/16/2018

Collected Date: 10/05/2018

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
19661-ASB-01A 551811995-0001	Gasket on boiler - Loc.01	Clear Fibrous Homogeneous	95% Glass	5% Non-fibrous (Other)	None Detected
19661-ASB-01B 551811995-0002	Gasket on boiler - Loc.01	Clear Fibrous Homogeneous	95% Glass	5% Non-fibrous (Other)	None Detected
19661-ASB-01C 551811995-0003	Gasket on boiler - Loc.01	Clear Fibrous Homogeneous	95% Glass	5% Non-fibrous (Other)	None Detected
19661-ASB-02A 551811995-0004	Duct Seal on pipe penetration - Loc.01	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19661-ASB-02B 551811995-0005	Duct Seal on pipe penetration - Loc.01	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19661-ASB-02C 551811995-0006	Duct Seal on pipe penetration - Loc.01	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19661-ASB-03A 551811995-0007	Counter Veneer 1 (tan) - Loc.06	Brown Fibrous Homogeneous	50% Cellulose	50% Non-fibrous (Other)	None Detected
19661-ASB-03B 551811995-0008	Counter Veneer 1 (tan) - Loc.06	Brown Fibrous Homogeneous	50% Cellulose	50% Non-fibrous (Other)	None Detected
19661-ASB-03C 551811995-0009	Counter Veneer 1 (tan) - Loc.05	Brown Fibrous Homogeneous	50% Cellulose	50% Non-fibrous (Other)	None Detected
19661-ASB-04A 551811995-0010	Baseboard Mastic - Loc.06	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19661-ASB-04B 551811995-0011	Baseboard Mastic - Loc.05	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19661-ASB-04C 551811995-0012	Baseboard Mastic - Loc.18	Brown/Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19661-ASB-05A 551811995-0013	Counter Veneer 2 (beige with grey streaks) - Loc.24	Brown Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
19661-ASB-05B 551811995-0014	Counter Veneer 2 (beige with grey streaks) - Loc.28	Brown Fibrous Homogeneous	50% Cellulose	50% Non-fibrous (Other)	None Detected
19661-ASB-05C 551811995-0015	Counter Veneer 2 (beige with grey streaks) - Loc.26	White/Black Non-Fibrous Homogeneous	50% Cellulose	50% Non-fibrous (Other)	None Detected
19661-ASB-06A 551811995-0016	Cream Caulking on Countertop - Loc.37	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Initial report from: 10/16/2018 13:40:40



EMSL Canada Inc.

2756 Slough Street Mississauga, ON L4T 1G3

Tel/Fax: (289) 997-4602 / (289) 997-4607

<http://www.EMSL.com / torontolab@emsl.com>

EMSL Canada Order: 551811995

Customer ID: 55ECOH45

Customer PO: 19661

Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
19661-ASB-06B 551811995-0017	Cream Caulking on Countertop - Loc.37	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19661-ASB-06C 551811995-0018	Cream Caulking on Countertop - Loc.37	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19661-ASB-07A 551811995-0019	Grey Caulking on Doorframe - Loc.41	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19661-ASB-07B 551811995-0020	Grey Caulking on Doorframe - Loc.41	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19661-ASB-07C 551811995-0021	Grey Caulking on Doorframe - Loc.41	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19661-ASB-08A 551811995-0022	Mortar (1955 building) - Loc. 34	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19661-ASB-08B 551811995-0023	Mortar (1955 building) - Loc. 34	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19661-ASB-08C 551811995-0024	Mortar (1958 building) - Loc. 41	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19661-ASB-09A 551811995-0025	Mortar (1958 building) - Loc. 41	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19661-ASB-09B 551811995-0026	Mortar (1958 building) - Loc. 41	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19661-ASB-09C 551811995-0027	Mortar (1958 building) - Loc. 41	Gray/Beige Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19661-ASB-10A 551811995-0028	Mortar (1967 building) - Loc. 41	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19661-ASB-10B 551811995-0029	Mortar (1967 building) - Loc. 41	Beige Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19661-ASB-10C 551811995-0030	Mortar (1967 building) - Loc. 41	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Analyst(s)

Harman Sohi (26)

Kira Ramphal (4)

Matthew Davis or other approved signatory
or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 "Interim Method"), but augmented with procedures outlined in the 1993 ("final") version of the method. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. All samples received in acceptable condition unless otherwise noted. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. EMSL recommends gravimetric reduction for all non-friable organically bound materials prior to analysis. Estimation of uncertainty is available on request.

Samples analyzed by EMSL Canada Inc. Mississauga, ON NVLAP Lab Code 200877-0

Initial report from: 10/16/2018 13:40:40

Laboratory Analysis Report

To:

Mahir Bohlat
ECOH Management Inc.
75 Courtneypark Drive West
Unit 1
Mississauga, Ontario
L5W 0E3

EMC LAB REPORT NUMBER: A43922

Job/Project Name:

Analysis Method: Polarized Light Microscopy – EPA 600

Date Received: Oct 18/18

Date Analyzed: Oct 23/18

Analyst: Jayoda Perera, *Analyst*

Reviewed By: Malgorzata Sybydlo, *Laboratory Manager*

Job No: 19661

Number of Samples: 10

Date Reported: Oct 23/18

Client's Sample ID	Lab Sample No.	Description/Location	Sample Appearance	SAMPLE COMPONENTS (%)			
				Asbestos Fibres		Non-asbestos Fibres	Non-fibrous Material
19661-ASB-11A	A43922-1	Mastic under VFT – Loc. 5	Black, mastic	Chrysotile	0.5		99.5
19661-ASB-11B	A43922-2	Mastic under VFT – Loc. 6	NA	NA			
19661-ASB-12A	A43922-3	Mastic under VFT – Loc. 12	Black, mastic	ND			100
19661-ASB-13A	A43922-4	Mastic under VFT – Loc. 18	Black, mastic	ND			100
19661-ASB-13B	A43922-5	Mastic under VFT – Loc. 18	Black, mastic	ND			100
19661-ASB-14A	A43922-6	Mastic under VFT – Loc. 20	Black, mastic	ND			100
19661-ASB-15A	A43922-7	Ivory caulking on doorframe – Loc. 41	White, caulking	ND			100
19661-ASB-16A	A43922-8	Transparent caulking on door frame – Loc. 40	White, caulking	ND			100
19661-ASB-17A	A43922-9	Soft white caulking on lamina board – Loc. 28	White, caulking	ND			100
19661-ASB-17B	A43922-10	Soft white caulking on lamina board – Loc. 28	White, caulking	ND			100

Note:

1. Bulk samples are analyzed using Polarized Light Microscopy (PLM) and dispersion staining techniques. The analytical procedures are in accordance with EPA 600/R-93/116 method.
2. The results are only related to the samples analyzed. **ND** = None Detected (no asbestos fibres were observed), **NA** = Not Analyzed (analysis stopped due to a previous positive result).
3. This report may not be reproduced, except in full without the written approval of EMC Scientific Inc. This report may not be used by the client to claim product endorsement by NVLAP or any other agency

EMC LAB REPORT NUMBER: A43922

Client's Job/Project No.: 19661

Analyst: Jayoda Perera, *Analyst*

of the U.S. Government.

4. The Ontario Regulatory Threshold for asbestos is 0.5%. The limit of quantification (LOQ) is 0.5%.

Laboratory Analysis Report

To:

Mahir Bholat
ECOH Management Inc.
75 Courtneypark Drive West
Unit 1
Mississauga, Ontario
L5W 0E3

EMC LAB REPORT NUMBER: A44093

Job/Project Name:

Analysis Method: Polarized Light Microscopy – EPA 600

Date Received: Oct 25/18

Date Analyzed: Oct 26/18

Analyst: Thasan Kandasamy, *Analyst*

Reviewed By: Malgorzata Sybydlo, *Laboratory Manager*

Job No: 19661

Number of Samples: 17

Date Reported: Oct 26/18

Client's Sample ID	Lab Sample No.	Description/Location	Sample Appearance	SAMPLE COMPONENTS (%)			
				Asbestos Fibres		Non-asbestos Fibres	Non-fibrous Material
19661-ASB-18A	A44093-1	Drywall joint compound – loc. 21	Off white, joint compound	ND			100
19661-ASB-18B	A44093-2	Drywall joint compound – loc. 34	White, joint compound	ND			100
19661-ASB-18C	A44093-3	Drywall joint compound – loc. 34	Off white, joint compound	ND			100
19661-ASB-18D	A44093-4	Drywall joint compound – loc. 6	White, joint compound	ND			100
19661-ASB-19A	A44093-5	Drywall joint compound – loc.27	White, joint compound	ND			100
19661-ASB-19B	A44093-6	Drywall joint compound – loc. 26	Off white, joint compound	ND			100
19661-ASB-19C	A44093-7	Drywall joint compound – loc. 37	Off white, joint compound	ND			100
19661-ASB-19D	A44093-8	Drywall joint compound – loc. 40	Off white, joint compound	ND			100
19661-ASB-19E	A44093-9	Drywall joint compound – loc. 40	White, joint compound	ND			100
19661-ASB-19F	A44093-10	Drywall joint compound – loc. 31	White, joint compound	ND			100
19661-ASB-19G	A44093-11	Drywall joint compound – loc. 37	Off white, joint compound	ND			100
19661-ASB-20A	A44093-12	Vinyl floor tile 4 – 12"x12" tan with brown streaks	Brown, vinyl floor tile	Chrysotile	2		98

EMC Scientific Inc. 5800 Ambler Drive • Suite 100 • Mississauga • Ontario • L4W 4J4 • T. 905 629 9247 • F. 905 629 2607

EMC Scientific Inc. is Accredited by NVLAP (NVLAP Code 201020-0) for Bulk Asbestos Analysis

EMC LAB REPORT NUMBER: A44093

Client's Job/Project No.: 19661

Analyst: Thasan Kandasamy, *Analyst*

Client's Sample ID	Lab Sample No.	Description/Location	Sample Appearance	SAMPLE COMPONENTS (%)			
				Asbestos Fibres		Non-asbestos Fibres	Non-fibrous Material
19661-ASB-20B	A44093-13	Vinyl floor tile 4 – 12"x12" tan with brown streaks	NA	NA			
19661-ASB-20C	A44093-14	Vinyl floor tile 4 – 12"x12" tan with brown streaks	NA	NA			
19661-ASB-21A	A44093-15	Mastic under VFT4	Black, mastic	Chrysotile	1		99
19661-ASB-21B	A44093-16	Mastic under VFT4	NA	NA			
19661-ASB-21C	A44093-17	Mastic under VFT4	NA	NA			

Note:

1. Bulk samples are analyzed using Polarized Light Microscopy (PLM) and dispersion staining techniques. The analytical procedures are in accordance with EPA 600/R-93/116 method.
2. The results are only related to the samples analyzed. **ND** = None Detected (no asbestos fibres were observed), **NA** = Not Analyzed (analysis stopped due to a previous positive result).
3. This report may not be reproduced, except in full without the written approval of EMC Scientific Inc. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. Government.
4. The Ontario Regulatory Threshold for asbestos is 0.5%. The limit of quantification (LOQ) is 0.5%.

APPENDIX II

RESULTS OF BULK SAMPLE ANALYSIS FOR LEAD

**EMSL Canada Inc.**

2756 Slough Street, Mississauga, ON L4T 1G3

Phone/Fax: (289) 997-4602 / (289) 997-4607

<http://www.EMSL.com>torontolab@emsl.com

EMSL Canada Or 551811980

CustomerID: 55ECOH45

CustomerPO:

ProjectID:

Attn: **Mahir Bholat**
ECOH Management, Inc.
75 Courtneypark Drive West
Unit 1
Mississauga, ON L5W 0E3

Phone: (905) 795-2800
Fax: (905) 795-2870
Received: 10/09/18 5:12 PM
Collected:

Project: **19661****Test Report: Lead in Paint Chips by Flame AAS (SW 846 3050B/7000B)***

<i>Client Sample</i>	<i>Description</i>	<i>Collected</i>	<i>Analyzed</i>	<i>Weight</i>	<i>RDL</i>	<i>Lead Concentration</i>
19661-Pb 01 551811980-0001	Site: Light Blue Paint on Floor - Loc.01		10/10/2018	0.2441 g	82 ppm	1200 ppm
19661-Pb 02 551811980-0002	Site: Grey Paint on Boiler - Loc. 01		10/10/2018	0.2475 g	81 ppm	1200 ppm
19661-Pb 03 551811980-0003	Site: White Paint on Walls - Loc.01		10/10/2018	0.2414 g	83 ppm	110 ppm
19661-Pb 04 551811980-0004	Site: Black Paint on Pipes - Loc. 01		10/10/2018	0.2421 g	83 ppm	1800 ppm
19661-Pb 05 551811980-0005	Site: Red Paint on Door - Loc. 01		10/10/2018	0.2409 g	83 ppm	<83 ppm
19661-Pb 06 551811980-0006	Site: Orange Paint on Piping - Loc. 01		10/10/2018	0.2426 g	16000 ppm	280000 ppm
19661-Pb 07 551811980-0007	Site: Yellow Paint on Natural Gas Line - Loc. 01		10/10/2018	0.2435 g	820 ppm	20000 ppm
19661-Pb 08 551811980-0008	Site: Light Blue Paint on Valves - Loc. 01		10/10/2018	0.2414 g	1700 ppm	47000 ppm
19661-Pb 09 551811980-0009	Site: Pink Paint on Walls - Loc. 08		10/10/2018	0.2470 g	81 ppm	<81 ppm
19661-Pb 10 551811980-0010	Site: Light Green Paint on Walls - Loc. 15		10/10/2018	0.2460 g	410 ppm	5400 ppm
19661-Pb 11 551811980-0011	Site: Orange Paint on Railings - Loc. 37		10/10/2018	0.2422 g	83 ppm	1300 ppm

Rowena Fanto, Lead Supervisor
or other approved signatory

*Analysis following Lead in Paint by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 0.010 % wt based on the minimum sample weight per our SOP. Unless noted, results in this report are not blank corrected. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities. Samples received in good condition unless otherwise noted. "<" (less than) result signifies that the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. The QC data associated with the sample results included in this report meet the recovery and precision requirements unless specifically indicated otherwise. Definitions of modifications are available upon request.

Samples analyzed by EMSL Canada Inc. Mississauga, ON A2LA Accredited Environmental Testing Cert #2845.08

Initial report from 10/16/2018 09:36:11

**EMSL Canada Inc.**

2756 Slough Street, Mississauga, ON L4T 1G3

Phone/Fax: (289) 997-4602 / (289) 997-4607

<http://www.EMSL.com>torontolab@emsl.com

EMSL Canada Or 551811980

CustomerID: 55ECOH45

CustomerPO:

ProjectID:

Attn: **Mahir Bholat**
ECOH Management, Inc.
75 Courtneypark Drive West
Unit 1
Mississauga, ON L5W 0E3

Phone: (905) 795-2800
Fax: (905) 795-2870
Received: 10/09/18 5:12 PM
Collected:

Project: **19661****Test Report: Lead in Paint Chips by Flame AAS (SW 846 3050B/7000B)***

<i>Client Sample</i>	<i>Description</i>	<i>Collected</i>	<i>Analyzed</i>	<i>Weight</i>	<i>RDL</i>	<i>Lead Concentration</i>
19661-Pb 12			10/10/2018	0.1282 g	160 ppm	210 ppm
551811980-0012	Site: Blue Paint on Stalls - Loc. 33					
19661-Pb 13			10/10/2018	0.2395 g	84 ppm	<84 ppm
551811980-0013	Site: Light Pink Paint on Railings - Loc. 41					

Rowena Fanto, Lead Supervisor
or other approved signatory

*Analysis following Lead in Paint by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 0.010 % wt based on the minimum sample weight per our SOP. Unless noted, results in this report are not blank corrected. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities. Samples received in good condition unless otherwise noted. "<" (less than) result signifies that the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. The QC data associated with the sample results included in this report meet the recovery and precision requirements unless specifically indicated otherwise. Definitions of modifications are available upon request.

Samples analyzed by EMSL Canada Inc. Mississauga, ON A2LA Accredited Environmental Testing Cert #2845.08

Initial report from 10/16/2018 09:36:11



Lead (Pb) Chain of Custody

EMSL Order Number (Lab Use Only):

551811980

EMSL CANADA, INC.
2756 SLOUGH STREET
MISSISSAUGA, ON L4T 1G3
PHONE: (289) 997-4602
FAX: (289) 997-4609

Company: ECOH		EMSL-Bill to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different If Bill to is Different note instructions in Comments**	
Street: 75 Courtneypark Dr. W., Unit 1		Third Party Billing requires written authorization from third party	
City: Mississauga	State/Province: Ontario	Zip/Postal Code: L5W 0E3	Country: Canada
Report To (Name): Mahir Bohlat		Telephone #: 905-795-2800	
Email Address: mbohlat@ecoh.ca, tmorgan@ecoh.ca		Fax #: 905-795-2870	Purchase Order:
Project Name/Number: 19661		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email	
U.S. State Samples Taken:		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	
Turnaround Time (TAT) Options* - Please Check			
<input type="checkbox"/> 3 Hour <input type="checkbox"/> 6 Hour <input type="checkbox"/> 24 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 72 Hour <input type="checkbox"/> 96 Hour <input checked="" type="checkbox"/> 1 Week <input type="checkbox"/> 2 Week			
*Analysis completed in accordance with EMSL's Terms and Conditions located in the Price Guide			
Matrix	Method	Instrument	Reporting Limit
Chips <input type="checkbox"/> % by wt. <input type="checkbox"/> mg/cm ² <input checked="" type="checkbox"/> ppm	SW846-7000B	Flame Atomic Absorption	0.01%
Air	NIOSH 7082	Flame Atomic Absorption	4 µg/filter
	NIOSH 7105	Graphite Furnace AA	0.03 µg/filter
	NIOSH 7300 modified	ICP-AES/ICP-MS	0.5 µg/filter
Wipe* ASTM <input type="checkbox"/> non-ASTM <input type="checkbox"/> *if no box is checked, non-ASTM Wipe is assumed	SW846-7000B	Flame Atomic Absorption	10 µg/wipe
	SW846-6010B or C	ICP-AES	1.0 µg/wipe
TCLP	SW846-1311/7000B/SM 3111B	Flame Atomic Absorption	0.4 mg/L (ppm)
	SW846-1131/SW846-6010B or C	ICP-AES	0.1 mg/L (ppm)
Soil	SW846-7000B	Flame Atomic Absorption	40 mg/kg (ppm)
	SW846-6010B or C	ICP-AES	2 mg/kg (ppm)
Wastewater Unpreserved <input type="checkbox"/> Preserved with HNO ₃ pH <2 <input type="checkbox"/>	SM3111B/SW846-7000B	Flame Atomic Absorption	0.4 mg/L (ppm)
	EPA 200.9	Graphite Furnace AA	0.003 mg/L (ppm)
	EPA200.7	ICP-AES	0.020 mg/L (ppm)
Drinking Water Unpreserved <input type="checkbox"/> Preserved with HNO ₃ pH <2 <input type="checkbox"/>	EPA 200.9	Graphite Furnace AA	0.003 mg/L (ppm)
	EPA 200.8	ICP-MS	0.0031mg/L (ppm)
TSP/SPM Filter	40 CFR Part 50 (2013)	ICP-MS	1.2 µg/filter
Other:			
Name of Sampler: Taylor Morgan		Signature of Sampler:	
Sample #	Location	Volume/Area	Date/Time Sampled
19661-Pb 01	Light blue paint on floor - Loc.01		October 5-18
19661-Pb 02	Grey paint on boiler - Loc. 01		October 5-18
19661-Pb 03	White paint on walls - Loc.01		October 5-18
Client Sample # (s):	19661-Pb 01 - 13	Total # of Samples:	13
Relinquished (Client):	Taylor Morgan	Date: October 9, 2018	Time:
Received (Lab):		Date:	Time:
Comments/Special Instructions:			

10/9/2018 5:12 PM
W/I SK

08P118127

EMSL CANADA, INC.
2756 SLOUGH STREET
MISSISSAUGA, ON L4T 1G3
PHONE: (289) 997-4602
FAX: (289) 997-4609

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

[illegible]

MASS. 60-100000-100000

DRAFT

APPENDIX III

PROJECT DRAWINGS



Legend

- 01 HMIS Location Number
- 01a Asbestos Bulk Sample Location
- Pb01 Lead Bulk Sample Location
- Non-Friable Asbestos-Containing Material
- Friable Asbestos-Containing Material
- NAR No Access to Room
- 1955 Construction
- 1958 Construction
- 1967 Construction

All information relating to room size and location is approximate and for visual aid only. ECOH does not guarantee the drawing to be complete, absolute, accurate or current. The drawing should not be used by any party in lieu of obtaining architectural drawings.

Figure 1

Ground Floor & Basement Floor Plan

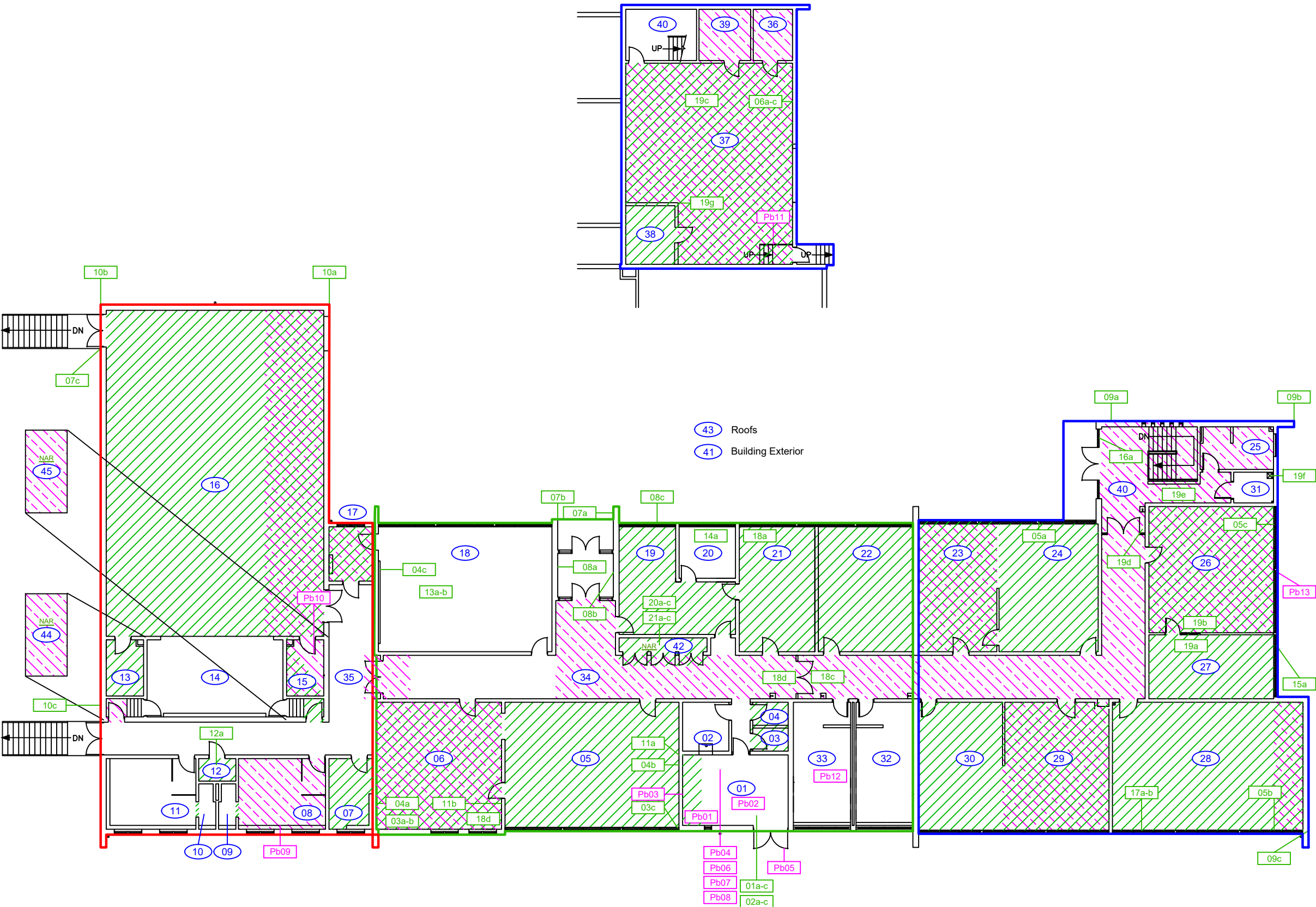
LOCATION: George Bailey Building
9600 Keele Street,
Maple, Ontario

PROJECT: HMIS and Bulk Sample Locations

CLIENT: York Region District School Board

PROJECT NUMBER: 19661 DATE: October 2018 DRW BY: PP

CAD FILE: FIG1 P19661 DSS SCALE: Not to Scale CHK BY: TM



APPENDIX IV
SITE PHOTOGRAPHS



Client Name:

York Region District School Board

Site Location:

9600 Keele Street, Maple, Ontario

Project No.:

19661

Photo No. 1.

Date: October 5, 2018

Description:

Example of asbestos-containing transite piping in the boiler room (Location 01).



Photo No. 2.

Date: October 5, 2018

Description:

Example of asbestos-containing transite panel in the girls change room (Location 08).





Client Name:

York Region District School Board

Site Location:

9600 Keele Street, Maple, Ontario

Project No.:

19661

Photo No. 3.

Date: October 5, 2018

Description:

Example of asbestos-containing parging cement on piping in the work room (Location 17).



Photo No. 4.

Date: October 1, 2018

Description:

Example of asbestos-containing drywall joint compound on the wall in the gym storage room (Location 15).





Client Name:

York Region District School Board

Site Location:

9600 Keele Street, Maple, Ontario

Project No.:

19661

Photo No. 5.

Date: October 5, 2018

Description:

Example of asbestos-containing vinyl floor tiles in the gym (Location 16).



Photo No. 6.

Date: October 5, 2018

Description:

Example of lead-containing light blue paint on the floor of the boiler room (Location 01).





Client Name:

York Region District School Board

Site Location:

9600 Keele Street, Maple, Ontario

Project No.:

19661

Photo No. 7.

Date: October 5, 2018

Description:

Example of lead-containing grey paint on the boiler and black paint on piping in the boiler room (Location 01).



Photo No. 8.

Date: October 5, 2018

Description:

Example of lead-based orange paint on piping and yellow paint on natural gas line in the boiler room (Location 01).





Client Name:

York Region District School Board

Site Location:

9600 Keele Street, Maple, Ontario

Project No.:

19661

Photo No. 9.

Date: October 5, 2018

Description:

Example of lead-based light blue paint on valves in the boiler room (Location 01).



Photo No. 10.

Date: October 5, 2018

Description:

Example of lead-based light green paint on the walls in the storage room (Location 15).





Client Name:

York Region District School Board

Site Location:

9600 Keele Street, Maple, Ontario

Project No.:

19661

Photo No. 11.

Date: October 5, 2018

Description:

Example of lead-containing orange paint on railing in the conference room (Location 37).



Photo No. 12.

Date: October 5, 2018

Description:

Example of presumed PCB-containing light ballasts in the gym (location 16).





Client Name:

York Region District School Board

Site Location:

9600 Keele Street, Maple, Ontario

Project No.:

19661

Photo No. 13.

Date: October 18, 2018

Description:

Example of asbestos-containing mastic under vinyl floor tiles in the computer lab (Location 06).



Photo No. 14.

Date: October 25, 2018

Description:

Example of asbestos-containing vinyl floor tiles and asbestos-containing mastic under vinyl floor tiles in the storage closet (Location 42).



APPENDIX F: Arborist's Report



**Tree Inventory and Preservation Plan Report
9600 Keele Street
Vaughan, Ontario**

prepared for

**York Region District School Board
60 Wellington Street West
Aurora, Ontario L4G 3H2**

prepared by



PO Box 1267 Lakeshore W PO
146 Lakeshore Road West
Oakville ON L6K 0B3
289.837.1871
www.kuntzforestry.ca
consult@kuntzforestry.ca

16 April 2021

KUNTZ FORESTRY CONSULTING Inc. Project P2729

Introduction

Kuntz Forestry Consulting Inc. was retained by York Region District School Board to complete a Tree Inventory and Preservation Plan for the proposed demolition at 9600 Keele Street in the City of Vaughan, Ontario. The subject property is located on the southwest corner of Keele Street and Knightswood Avenue, within a residential area.

The work plan for this tree preservation study included the following:

- Prepare inventory of the tree resources greater than 15cm DBH on and within six metres of the subject property;
- Evaluate potential tree saving opportunities based on proposed work plans; and
- Document the findings in a Tree Inventory and Preservation Plan Report.

Tree resources were assessed utilizing the following parameters:

Tree # - number assigned to tree that corresponds to Figure 1.

Species - common and botanical names provided in the inventory table.

DBH - diameter (centimeters) at breast height, measured at 1.4 m above the ground.

Condition - condition of tree considering trunk integrity, crown structure and crown vigor. Condition ratings include poor (P), fair (F) and good (G).

Comments - additional relevant detail.

The results of the evaluation are provided below.

Methodology

Trees greater than 15cm DBH on and within six metres of the subject property were included in the tree inventory. Trees were located using topographic survey provided for the subject property. Trees included in the tree inventory were tagged with numbers 901-936 and 943-962. Trees located on the neighbouring properties are identified with letters A-G. Tree locations are shown on Figure 1. See Table 1 for the results of the inventory.

Existing Site Conditions

The subject property is currently comprised of a school building with associated parking and amenities. Tree resources exist in the form of landscaping trees and naturally-occurring trees. Refer to Figure 1 for the existing site conditions.

Tree Resources

The tree inventory was conducted on 13 April 2021. The inventory documented 63 trees on and within six metres of the subject property. Refer to Table 1 for the full tree inventory, Figure 1 for the location of trees reported in the tree inventory, and Appendix A for the photographs of the trees.

Tree resources were comprised of Manitoba Maple (*Acer negundo*), Norway Maple (*Acer platanoides*), Sugar Maple (*Acer saccharum*), Hawthorn (*Crataegus spp.*), Black Walnut (*Juglans nigra*), Blue Spruce (*Picea pungens*), Austrian Pine (*Pinus nigra*), and Siberian Elm (*Ulmus pumila*).

Proposed Work

The proposed work includes the demolition of the existing building and parking lot. The area will be amended with a concrete path connecting from Knightswood Avenue to the existing concrete path in Frank Robson Park. Refer to Figure 1 for the proposed work plan.

Discussion

The following sections provide a discussion and analysis of tree impacts and tree preservation relative to the approved work and existing conditions.

Proposed Impacts/Tree Removal

The removal of nine trees is required to accommodate the proposed work. Trees required removal include Trees 901-909. Trees 903-906 and 909 (5 trees) are greater than 20cm DBH located on the private property; a permit from the City of Vaughan is required prior to their removal.

The removal of additional four trees is recommended due to dead or hazardous condition.

- Tree 924 has a large vertical crack at the union and has a risk of stem failure. The tree is located beside the future concrete path; therefore, its removal is recommended for the safety to public.
- Tree 933 has a large seam and a cavity and has a risk of stem failure. The tree is located close to Knightswood Avenue and its sidewalk, its removal is recommended for the safety to public.
- Tree 946 has a large stem wound near base with rot and has a risk of stem failure at the base. The tree is located beside the concrete path, its removal is recommended for the safety to public.
- Tree 947 is completely dead and hazard. As the tree is located beside the concrete path, its removal is recommended for the safety to public.

Refer to Figure 1 for the locations of the proposed tree removals.

Tree Preservation

The preservation of the remaining 50 trees will be possible with the use of appropriate tree protection measures as indicated on Figure 1. Tree protection measures are required to be implemented prior to any grading or construction activity on site to ensure tree resources designated for retention are not impacted. Refer to Figure 1 for the location of required tree preservation fencing, general Tree Protection Plan Notes and the tree preservation fence detail.

Tree preservation fence for Trees 910, 912-916, 921-923, 926, 928, and 936 should be installed along the edge of the existing asphalt parking or concrete walkway to demolish the existing structures. Given that no root pruning is required, long-term adverse impacts are not anticipated to the trees.

Tree Compensation

The City of Vaughan requires replacement for any by-law protected tree removal. The number of replacement trees is determined by the size of the tree for removal.

DBH (cm) of Tree to be Removed	Replacement Ratio
20-30cm	1:1
31-40cm	2:1
41-50cm	3:1
>50cm	4:1

In total, 6 replacement trees are required as compensation of the proposed tree removals. Refer to Table 1 for the individual compensation calculations.

Summary and Recommendations

Kuntz Forestry Consulting Inc. was retained York Region District School Board to complete a Tree Inventory and Preservation Plan for the proposed demolition at 9600 Keele Street in the City of Vaughan, Ontario. A tree inventory was conducted and reviewed in the context of the proposed site plan.

The findings of the study indicate a total of 63 trees on and within six metres of the subject property. The removal of 9 trees is required to accommodate the proposed work. The removal of additional 4 trees is recommended due to dead and/or hazardous condition. The remaining 50 trees can be saved provided appropriate tree protection measures are installed prior to the proposed work.

The following recommendations are suggested to minimize impacts to trees identified for preservation. Refer to Figure 1 for the location of required tree preservation fencing, general Tree Protection Plan Notes, and the tree preservation fence detail.

- Tree protection barriers and fencing should be erected at locations as prescribed on Figure 1. All tree protection measures should follow the guidelines as set out in the tree preservation plan notes and the tree preservation fencing detail.
- No construction activity including surface treatments, excavations of any kind, storage of materials or vehicles, unless specifically outlined above, is permitted within the area identified on Figure 1 as a tree protection zone (TPZ) at any time during or after construction.
- Branches and roots that extend beyond prescribed tree protection zones that require pruning must be pruned by a qualified Arborist or other tree professional. All pruning of tree roots and branches must be in accordance with Good Arboricultural Standards.
- Site visits, pre, during and post construction is recommended by either a certified consulting arborist (I.S.A.) or registered professional forester (R.P.F.) to ensure proper utilization of tree protection barriers. Trees should also be inspected for damage incurred during construction to ensure appropriate pruning or other measures are implemented.

Respectfully Submitted,
Kuntz Forestry Consulting Inc.

Kaho Hayashi

Kaho Hayashi, B.Sc., M.Sc.F.
Associate Forest Ecologist
ISA Certified Arborist #ON-2153A

Limitations of Assessment

Only the tree(s) identified in this report were included in the inventory. The assessment of the trees presented in this report has been made using accepted arboricultural techniques. These may include a visual examination taken from the ground of all the above-ground parts of the tree for structural defects, scars, external indications of decay such as fungal fruiting bodies, evidence of attack by insects, discoloured foliage, the condition of any visible root structures, the degree of lean (if any), the general condition of the trees and the identification of potentially hazardous trees or recommendations for removal (if applicable). Where trees could not be directly accessed (ie. due to obstructions, and/or on neighbouring properties), trees were assessed as accurately as possible from nearby vantage points.

Locations of trees provided in the report are determined as accurately as possible based on the best information available. If official survey information is not provided, tree location in the report may not be exact. In this case, if trees occur on or near property boundaries, an official site survey may be required to determine ownership utilizing specialized survey protocol to gain precise location.

Furthermore, recommendations made in this report are based on the site plans that have been provided at the time of reporting. These recommendations may no longer be applicable should changes be made to the site plan and/or grading, servicing, or landscaping plans following report submission.

Notwithstanding the recommendations and conclusions made in this report, it must be recognized that trees are living organisms, and their health and vigor constantly change over time. They are not immune to changes in site conditions or seasonal variations in the weather conditions. Any tree will fail if the forces applied to the tree exceed the strength of the tree or its parts.

Although every effort has been made to ensure that this assessment is reasonably accurate, the trees should be re-assessed periodically. The assessment presented in this report is valid at the time of inspection.

Table 1. Tree Inventory

Location: 9600 Keele Street, Vaughan

Date: 13 April 2021

Surveyors: KH

Tag #	Common Name	Scientific Name	DBH	TI	CS	CV	CDB	DL	mTPZ	Comments	Protected by City By-law	Action	Comp.
901	Norway Maple	<i>Acer platanoides</i>	19	FG	G	G		2.5	1.8	Co-dominance at 2m, lean (VL) to west	No	Remove	0
902	Manitoba Maple	<i>Acer negundo</i>	17	F	FG	FG		2.5	1.8	Lean (M) to southwest, co-dominance at 2m	No	Remove	0
903	Norway Maple	<i>Acer platanoides</i>	25	FG	G	FG		3	1.8	Sweep (L), co-dominance at 2.5m	Yes	Remove	1
904	Manitoba Maple	<i>Acer negundo</i>	10, 8.5, 7.5	FG	FG	FG		2.5	1.8	Union at base, bow (L)	Yes	Remove	0
905	Manitoba Maple	<i>Acer negundo</i>	21	FG	F	F		2.5	1.8	Lean (L) to south, co-dominance at 4m, epicormic branches (H)	Yes	Remove	1
906	Manitoba Maple	<i>Acer negundo</i>	28	FG	G	F	20	3.5	1.8	Co-dominance at 3m, dead branches (L)	Yes	Remove	1
907	Manitoba Maple	<i>Acer negundo</i>	17	P	F	F		1.5	1.8	Bow (L) to north, lost leader at 3m, epicormic branches (M)	No	Remove	0
908	Manitoba Maple	<i>Acer negundo</i>	17.5	F	F	F	15	2	1.8	Lean (L) to south, co-dominance at 2.5m, bow (L)	No	Remove	0
909	Manitoba Maple	<i>Acer negundo</i>	41, 33	PF	F	PF	30	4	3.6	Union at base with sap oozing, pruning wounds (M) with rot, crook (M), stem wound (M), broken branches (M), dead branches (M), epicormic branches (H)	Yes	Remove	3
910	Norway Maple	<i>Acer platanoides</i>	28	F	G	FG		3.5	1.8	Union at 2m, stem wound (L)	Yes	Preserve	
911	Norway Maple	<i>Acer platanoides</i>	38.5	G	G	FG		4	2.4		Yes	Preserve	
912	Manitoba Maple	<i>Acer negundo</i>	12.5, 10.5, 7.5	F	F	F	20	3	1.8	Union at base, smallest stem dead, crook (L)	Yes	Preserve	
913	Manitoba Maple	<i>Acer negundo</i>	18.5, 14, 14	F	F	F		3.5	1.8	Union at base, crook (L)	Yes	Preserve	
914	Manitoba Maple	<i>Acer negundo</i>	17	F	F	F	15	3	1.8	Co-dominance at 1.8m, lean (L) to south	No	Preserve	
915	Manitoba Maple	<i>Acer negundo</i>	17.5	F	F	F		5	1.8	Lean (M) to south	No	Preserve	
916	Manitoba Maple	<i>Acer negundo</i>	16, 14, 12.5	F	F	F		2.5	1.8	Union at base, lean (L) to north, broken branches (M), epicormic branches (M)	Yes	Preserve	
917	Manitoba Maple	<i>Acer negundo</i>	14.5, 12.5, 12, 11, 5	F	F	F		3	1.8	Union at base with 7 stems but 2 stems dead	Yes	Preserve	
918	Manitoba Maple	<i>Acer negundo</i>	13, 12.5, 12, 12	F	F	F	15	2.5	1.8	Union at 0.3m with included bark (M), dead branches (L), lean (L) to north	Yes	Preserve	
919	Manitoba Maple	<i>Acer negundo</i>	17, 16, 13.5	F	F	F		3	1.8	Union at base, lean (L-M) to south	Yes	Preserve	
920	Norway Maple	<i>Acer platanoides</i>	34	FG	F	F	15	4	2.4	Co-dominance at 2m, stem wound (L), dead branches (L)	Yes	Preserve	
921	Manitoba Maple	<i>Acer negundo</i>	9.5, 7.5, 7	F	F	F		2.5	1.8	Union at 0.1m, epicormic branches (M)	Yes	Preserve	
922	Manitoba Maple	<i>Acer negundo</i>	12.5, 11.5, 10.5	FG	FG	FG		2	1.8	Union at 0.1m, epicormic branches (M)	Yes	Preserve	
923	Manitoba Maple	<i>Acer negundo</i>	8, 8.5, 7.5, 7, <5	F	F	F		3	1.8	Union at base with 9 stems, lean (L) to south	Yes	Preserve	
924	Norway Maple	<i>Acer platanoides</i>	29.5	PF	F	PF	20	3.5	1.8	Vertical crack from union to 0.3m from ground, co-dominance at 2m, dead leader ==> removal recommended	Yes	Remove (condition)	0
925	Norway Maple	<i>Acer platanoides</i>	31.5	FG	FG	F		3	2.4	Seam (L), co-dominance at 2m, epicormic branches (M)	Yes	Preserve	
926	Austrian Pine	<i>Pinus nigra</i>	46	FG	FG	FG		4.5	3.0	Diplodia (L), sweep (L)	Yes	Preserve	
927	Austrian Pine	<i>Pinus nigra</i>	32.5	G	G	FG		3	2.4		Yes	Preserve	
928	Austrian Pine	<i>Pinus nigra</i>	44	G	G	FG		4	3.0		Yes	Preserve	
929	Austrian Pine	<i>Pinus nigra</i>	43.5	G	G	FG		3.5	3.0	Diplodia (L)	Yes	Preserve	
930	Austrian Pine	<i>Pinus nigra</i>	38	FG	G	FG		3.5	2.4	Union at 1.8m, diplodia (L)	Yes	Preserve	
931	Norway Maple	<i>Acer platanoides</i>	23	FG	FG	FG		3.5	1.8	Co-dominance at 1.8m, bow 9L to north, exposed roots (M), asymmetrical crown (M)	Yes	Preserve	
932	Norway Maple	<i>Acer platanoides</i>	37	FG	G	FG		4	2.4	Union at 2m, girdling roots, exposed roots (L) with wounds	Yes	Preserve	
933	Norway Maple	<i>Acer platanoides</i>	65	PF	PF	F	20	5	4.2	Seam (M) with sap oozing, co-dominance at 2.5m, crook (M), pruning wounds (M) with cavity at 2m, broken branches (H), epicormic branches (H) ==> removal recommended	Yes	Remove (condition)	0
934	Black Walnut	<i>Juglans nigra</i>	27	G	G	G		3.5	1.8		Yes	Preserve	
935	Manitoba Maple	<i>Acer negundo</i>	42	F	FG	FG		5	3.0	Lean (M) to east, union at 2m, coppice growth (H) at base, epicormic branches (H), included fence (M) at base	Yes	Preserve	
936	Blue Spruce	<i>Picea pungens</i>	39.5	G	G	G		3	2.4		Yes	Preserve	
943	Sugar Maple	<i>Acer saccharum</i>	28.5	G	G	G		4	1.8		Yes	Preserve	
944	Sugar Maple	<i>Acer saccharum</i>	32.5	G	G	G		4	2.4		Yes	Preserve	
945	Sugar Maple	<i>Acer saccharum</i>	92.5	FG	FG	FG	10	6	6.0	Co-dominance at 3m with 3 stems, broken branches (M)	Yes	Preserve	
946	Sugar Maple	<i>Acer saccharum</i>	32.5	P	F	PF	25	3.5	2.4	Stem wound (H) near base with rot, dead leader ==> removal recommended	Yes	Remove (condition)	0
947	Sugar Maple	<i>Acer saccharum</i>	27	-	-	-	100	-	-	Dead ==> removal recommended	Yes	Remove (condition)	0
948	Hawthorn	<i>Crataegus spp.</i>	15.5, 11, 8.5, 8	F	F	F		2	1.8	4 trees in cluster, crook (M), pruning wounds (L)	No	Preserve	
949	Norway Maple	<i>Acer platanoides</i>	~13, 12, 10, 8	F	F	FG		2	1.8	Union at base, included fence (H)	Yes	Preserve	

Tree Inventory and Preservation Plan Report, 9600 Keele Street, Vaughan, ON

950	Sugar Maple	<i>Acer saccharum</i>	66.5	F	F	F	20	4	4.2	Pruning wounds (M) with rot, lost leader, broken branches (M), (M)	Yes	Preserve	
951	Sugar Maple	<i>Acer saccharum</i>	89	FG	FG	F		6	5.4	Pruning wounds (L), exposed roots (L) with wounds, sparse crown (L), asymmetrical crown (M)	Yes	Preserve	
952	Siberian Elm	<i>Ulmus pumila</i>	22.5	FG	G	G		2.5	1.8	Union at 2.5m	Yes	Preserve	
953	Sugar Maple	<i>Acer saccharum</i>	51	G	G	G		4.5	3.6		Yes	Preserve	
954	Sugar Maple	<i>Acer saccharum</i>	48	FG	G	FG		4.5	3.0	Co-dominance in crown	Yes	Preserve	
955	Sugar Maple	<i>Acer saccharum</i>	53.5	G	G	G		4.5	3.6		Yes	Preserve	
956	Sugar Maple	<i>Acer saccharum</i>	46	FG	G	G		4	3.0	Co-dominance in crown	Yes	Preserve	
957	Sugar Maple	<i>Acer saccharum</i>	~95	P	P	P	50	5	6.0	Co-dominance at 3m, main leader lost at 3m with cavity, coal fungus near base	Yes	Preserve	
958	Sugar Maple	<i>Acer saccharum</i>	63	FG	G	G		5	4.2	Co-dominance in crown	Yes	Preserve	
959	Norway Maple	<i>Acer platanoides</i>	30.5	G	G	G		4	2.4		Yes	Preserve	
960	Norway Maple	<i>Acer platanoides</i>	36	FG	G	G		4	2.4	Co-dominance at 3.5m	Yes	Preserve	
961	Norway Maple	<i>Acer platanoides</i>	37.5	G	G	G		4	2.4		Yes	Preserve	
962	Norway Maple	<i>Acer platanoides</i>	49.5	F	G	G		5	3.0	Co-dominance at 2m with 5 stems and included bark (M)	Yes	Preserve	
A	Norway Maple	<i>Acer platanoides</i>	~45	G	G	G		5	3.0		Yes	Preserve	
B	Norway Maple	<i>Acer platanoides</i>	~45	FG	G	FG		4	3.0	Co-dominance at 4m	Yes	Preserve	
C	Black Walnut	<i>Juglans nigra</i>	~65	F	FG	FG		6	4.2	Co-dominance at 1.6m with included bark (M), asymmetrical crown (M)	Yes	Preserve	
D	Black Walnut	<i>Juglans nigra</i>	~28	FG	F	FG		4	1.8	Co-dominance at 2m, included fence (L), 1 stem lean (M) to west, asymmetrical crown (H)	Yes	Preserve	
E	Black Walnut	<i>Juglans nigra</i>	~65	F	FG	FG		5	4.2	Co-dominance at 3m, seam (L), asymmetrical crown (M)	Yes	Preserve	
F	Black Walnut	<i>Juglans nigra</i>	~65	FG	FG	FG		6	4.2	Union at 4m, asymmetrical crown (M)	Yes	Preserve	
G	Norway Maple	<i>Acer platanoides</i>	~20	G	G	G		2.5	1.8		Yes	Preserve	
												TOTAL	6

Codes		
DBH	Diameter at Breast Height	(cm)
TI	Trunk Integrity	(G, F, P)
CS	Crown Structure	(G, F, P)
CV	Crown Vigor	(G, F, P)
CDB	Crown Die Back	(%)
DL	Dripline in radius	(m)
mTPZ	minimum Tree Protection Zone	(m)
Owner	Private, Neighbour, City, Region	
~ = estimate; (VL) = very light; (L) = light; (M) = moderate; (H) = heavy		

Appendix A. Photographs of trees



Image 1. Trees 901-909 (from left)



Image 2. Trees 911-920 (from left)



Image 3. Tree 909 – base



Image 4. Tree 910



Image 5. Tree 911



Image 6. Tree 920



Image 7. Tree 924



Image 8. Tree 925



Image 9. Tree 921-923 (from left)



Image 10. Tree 926 (front) and 927



Image 11. Tree 927 (left) and 928



Image 12. Tree 929 (left) and 930



Image 13. Tree 931 (left) and 932



Image 14. Tree 933



Image 15. Tree 933 – lower stem on south side



Image 16. Tree 933 – lower stem on east side



Image 17. Trees 934 (right) and 935



Image 18. Tree 936



Image 19. Tree 943



Image 20. Tree 944



Image 21. Tree 945



Image 22. Tree 946



Image 23. Tree 946 – base on west side

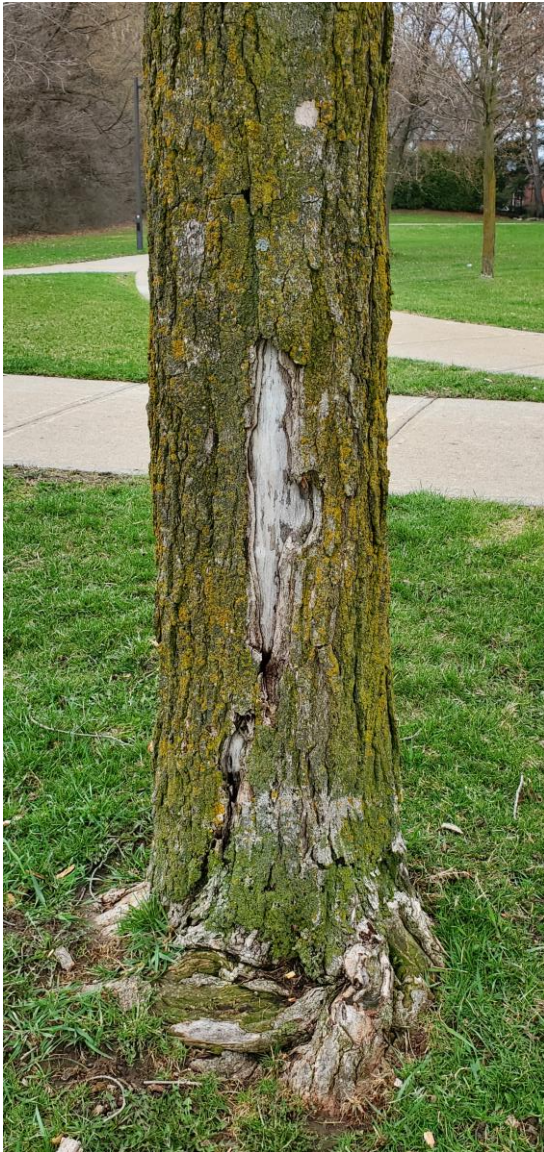


Image 24. Tree 946 – base on east side



Image 25. Tree 947



Image 26. Tree 948



Image 27. Tree 949



Image 28. Tree 950



Image 29. Tree 951



Image 30. Tree 952



Image 31. Trees 953-956 (from left) and 958 (back)



Image 32. Tree 957



Image 33. Tree 957 – lower stem



Image 34. Tree 958



Image 35. Trees A (right) and B



Image 36. Trees 959 (right) and 960



Image 37. Trees 961 (right) and 962



Image 38. Trees C-F (from right)

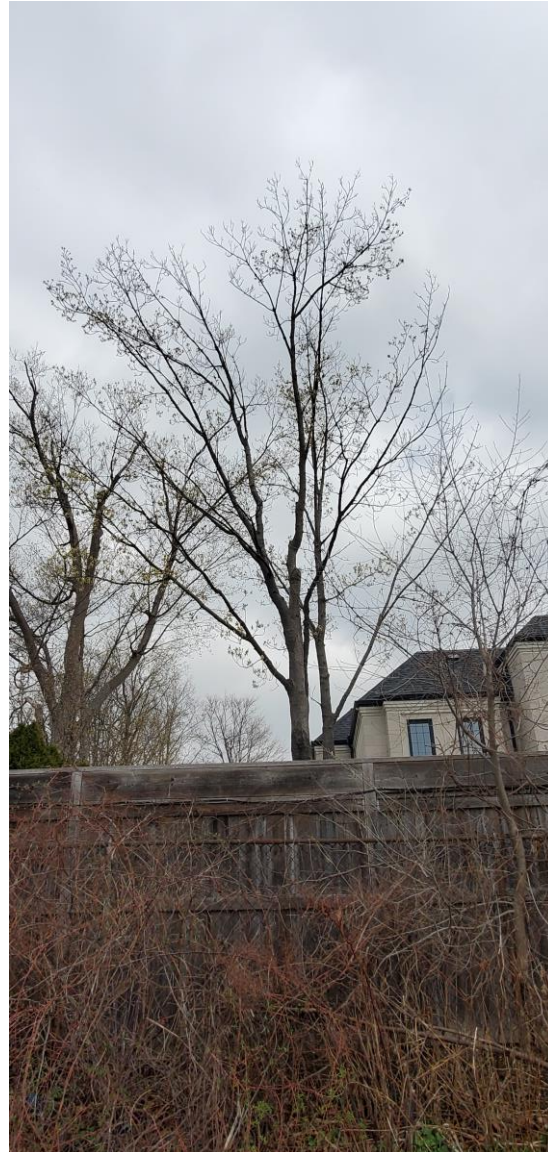


Image 39. Tree G

