Item: 2

HERITAGE VAUGHAN REPORT

DATE: Wednesday, October 17, 2018 **WARD(S):** 2

TITLE: NEW CONSTRUCTION – SINGLE DETACHED DWELLING 75 VALLEY ROAD, KLEINBURG-NASHVILLE HERITAGE CONSERVATION DISTRICT

FROM:
Jason Schmidt-Shoukri, Deputy City Manager, Planning and Growth Management

ACTION: DECISION

Purpose

To seek approval from the Heritage Vaughan Committee regarding the proposed construction of a second-storey addition to the existing one-storey detached dwelling located at 75 Valley Road, a property located in the Kleinburg-Nashville Heritage Conservation District Plan and designated under Part V of the *Ontario Heritage Act.*

Report Highlights

- The Owner is proposing a new second-storey addition to the existing dwelling.
- The proposal is consistent with the relevant policies of the Kleinburg-Nashville Heritage Conservation District Plan ('KNHCD Plan').
- Heritage Vaughan approval is required under the *Ontario Heritage Act*.
- Staff are recommending approval of the proposal as it conforms with the KNHCD Plan.

Recommendations

1. THAT Heritage Vaughan approve the Heritage Permit application for the proposed addition to the existing dwelling at 75 Valley Road under Section 42 of Ontario Heritage Act, subject to the following conditions:

    a) Any significant changes to the proposal by the Owner, may require reconsideration by the Heritage Vaughan Committee, which shall be determined at the discretion of the Director of Development Planning and Manager of Urban Design and Cultural Heritage;

    b) The applicant obtain final approval of the Site Development File DA.18.032 under the Planning Act;

    c) That Heritage Vaughan Committee's recommendations to Council do not constitute specific support for any Development Application under the Ontario Planning Act or permits currently under review or to be submitted in the future by the Owner as it relates to the subject application; and

    d) That the applicant submit Building Permit stage architectural drawings and building material specifications to the satisfaction of the Vaughan Development Planning Department, Urban Design and Cultural Heritage Division.

Background

The subject property is municipally known as 75 Valley Road and is located on the east side of Valley Road, north of Stegman's Mill Road (attachment #1).

The property previously contained a one-storey dwelling originally designed in the Usonian style. This property is part of a small mid-20th century subdivision of homes known as the Windrush Co-operative. The building was built circa 1949 as a one storey home with an attached two car garage. The original owner was Allan D. Hogg, an engineer with Ontario Hydro and one of the founding directors of the Windrush Co-operative. There are no original construction drawings available and only two photographs that give an idea of the original building design.

The Usonian style was designed with open interior spaces, large windows, flat roofs, and a desire to bring the natural environment into the home. As described in the submitted Cultural Heritage Impact Assessment (CHIA), in late 1984, prior to the creation of the Kleinburg-Nashville Heritage Conservation District, the house was significantly modified with the addition of a peaked roof and skylights. This transformed the house into a style reminiscent of a typical suburban bungalow. Later the two internal garages were converted to living space and small windows installed in place of the garage doors.

The owner proceeded with the construction of a second-storey addition in the original Usonian style of the house without the benefit of Cultural Heritage review or approval, or City of Vaughan and Toronto Region Conservation Authority permits. The owner intended to reverse the earlier unsympathetic alterations and return the house to the original Usonian style, including the addition of the flat roof and the relocation of the garage to the original location. A Stop Work Order was issued by the City of Vaughan on November 10, 2016.

Previous Reports/Authority

Not applicable.

Analysis and Options

The Owner is proposing a second storey addition and alterations to the existing dwelling on the subject property

The Owner has submitted a Site Development Application to facilitate a second storey addition to an existing single-detached dwelling. The proposed work includes the following:

- Removing of the mid-1980's pitched roof and the remnants original flat roof structure; replacement with a new flat roof with generous overhangs and deep fascia to restore the original design
- Re-framing of the original exterior walls up to 9' from their original 8'
- Re-framing of the interior walls up to 9', from their original 8'
- Removing some interior walls to modernize the interior layout with open concept floor plan
- Creating a new second floor
- Re-using the original stone floor finish on the main floor
- Removing the original circa 1949 stone fireplace and building a new fireplace in its location
- Re-introducing the garage in its original location

The applicant has noted that the proposed materials have been selected to respect the original building, in particular:

- Original stone will remain, and new stone has been sourced to match the original stone

- New stone will be laid beside and above the original stone to create a seamless transition between the two materials
- New siding will be Western Red Cedar installed horizontally as per the original building
- New larger windows have been sourced, which retain the same character and proportions of the original windows oriented to maximize views of the river and valley similar to the previous windows

Minor Variances are required to permit the proposed alterations

The applicant has submitted a Minor Variance application (A122-18) for the proposed garage. The Building Standards Department has confirmed that the following minor variances are required to Zoning By-law 1-88:

1. To permit the existing dwelling to encroach into the OS1 Zone, whereas a building or structure is not permitted within the OS1 Zone boundary.
2. To permit an exterior side yard setback of 4.31m and 6.91m, whereas an exterior side yard setback of 7.5m is required.
3. To permit an exterior side yard setback of 3.11m to the canopy projection, whereas an exterior side yard setback of 7.0m is required to the canopy projection.

Cultural Heritage staff can support the above variances as they do not conflict with the applicable policies of the KNHCD Plan.

The proposed alterations are consistent with the following relevant sections of the KNHCD Plan, with justification provided where the proposal does not meet certain polices in their entirety.

<u>Objectives for Heritage Buildings</u>

Section 5.2.2 District Goals and Objectives – Heritage Buildings

"Retain and conserve the buildings identified in the Heritage District Plan as having heritage importance to the District".

- The subject property is not noted as a "contributing property" in Section 2.6.2 of the KNHCD Plan, but the submitted CHIA does note that the property has architectural, contextual and historical value and is a candidate for designation under Part IV of the Ontario Heritage Act. Therefore, the policies for Heritage Buildings in the KNHCD Plan will be applied as the CHIA has determined that the original building has greater cultural heritage significance than the KNHCD Plan identified.

Section 5.2.2 District Goals and Objectives – Heritage Buildings

"Conserve distinguishing original features, qualities and character of heritage buildings and to avoid the removal or alteration of any such features".

- The original distinguishing features of the Usonian-style house were the flat rooflines with varying heights and angles. The proposed addition will reinstate the flat roofline and horizontal banding between the first and second storeys and will therefore provide varying horizontal heights.

Section 5.2.2 District Goals and Objectives – Heritage Buildings

"Encourage the corrections of unsympathetic alterations made over the years to heritage buildings".

- The proposal will relocate the front garage and correct the later alteration of a pitched roof.

Section 5.2.2 District Goals and Objectives – Heritage Buildings

"Encourage restoration of heritage buildings based on historical, archival, and pictorial evidence".

- The garage placement and flat roof are consistent with the original building features as seen in the archival photos provided in the CHIA.

Additions to Heritage Buildings

Section 9.4.2 – Contexts

"The Windrush development off of Stegman's Mill Road, the development on Cedar Valley Crescent and Valleyview Court, and the development on Bell Court are predominantly of mid-century one-storey houses, varying in design from strongly modernist to the vernacular "ranch-style" which sprang from that modernist example. These developments each have a definite character, and are part of the history of the re-settlement of the community. In general, the Contemporary Alteration approach is more suitable in these areas".

- Therefore, the policies of Section 9.4.1.2 – Contemporary Alterations, will be reviewed against the development proposal.

Section 9.4.1.2 – Contemporary Alterations

"Additions and alterations using the Contemporary Alteration approach should respect, and be consistent with, the original design of the building".

- The proposed building addition is consistent with the original Usonian style of the building.

Section 9.4.1.2 – Contemporary Alterations

"The Guidelines in Section 9.3.4 [9.3.7] *for additions to heritage buildings apply, in terms of siting, scale and location of additions".*

- Please see the following discussion on Section 9.3.7.

Section 9.4.1.2 – Contemporary Alterations

"Many modern buildings are old enough to have already undergone renovations, which may not be in character with either the original design, or historic precedent. In such cases, the design of further new work should restore the architectural consistency of the whole".

- The existing pitched roof and garage relocation are not consistent with the character of the original design. The proposed addition will reinstate the garage location and introduces a flat roof, which restores the architectural consistency of the whole.

Section 9.4.1.2 – Contemporary Alterations

"In some cases, modern buildings predominantly feature materials that are out of keeping with the local vernacular heritage, such as tile or artificial stone veneer, and tile or simulated tile roofing. Replacement of these materials with more sympathetic ones, when renovations are being undertaken, is encouraged".

- The existing stone veneer and wood panelling are consistent with the local vernacular heritage for the Usonian style. The existing asphalt hipped roof is to be replaced with a flat wood roof, which is consistent with the local vernacular heritage for the Usonian style.

Section 9.3.7 – New Additions to Heritage Buildings

"Design additions to maintain the original Architectural Style of the building. See Section 9.2."

- As previously stated, the proposed building addition is consistent with the original Usonian style of the building.

Section 9.3.7 – New Additions to Heritage Buildings

"Use authentic detail. See Section 9.2.1".

- The proposed Modernist/Usonian style is an “Existing Non-Heritage Style” noted in Section 9.2.2. The proposed addition has been reviewed against the policies of Section 9.2.2 for the “Modern Movement” style to determine that the proposal uses authentic details for the Modernist/Usonian style:

    - Section 9.2.2 – Existing Non-Heritage Styles, states that the Modern Movement style elements are as follows:
        - *One – storey, very informal plan. Each area of the house expressed in plan and elevation.*
        - *Fits into landscape, with floor levels following contours of the lot.*
        - *Main entrance often on the side.*
        - *Strong horizontal emphasis.*
        - *Flat roofs with large overhangs, sometimes extremely so. Roofs overlap and vary in height.*
        - *Very large chimney.*
        - *Natural materials: fieldstone, brick and wood.*
        - *Large glass areas: inside and outside “flow together”.*

- The proposed addition creates a two-storey height and utilizes the existing footprint and layout of the building. Cultural Heritage staff are satisfied that the two-storey addition is complimentary to the character of the original building and the overall District character.
- The horizontal banding between the two storeys provides a variation in floor heights that fits within the context of the subject property.
- The main entrance of the original building is placed off to the side on the main façade and will not be relocated as part of this proposal. Therefore, this detail is being conserved.
- The proposed roof design has a very strong horizontal element through the horizontal banding, as well as the horizontal banding between the first and second storeys.
- The horizontal banding between the two storeys gives a visual appearance of overlapping roof heights reflective of the Usonian style.
- The existing chimney is proposed to be relocated to approximately the same location. Therefore, this detail is being conserved.
- The proposed stone, the wood panelling and wood roof are natural materials consistent with the original building materials.
- The proposed addition includes a variation of windows of different sizes that is consistent with the original building.

Section 9.3.7 – New Additions to Heritage Buildings

“Research the Architectural Style of the original building. See Section 10 for useful research sources”.

- The submitted CHIA provides archival photos (1980's) of the original building, which best shows the original design of the building. These photos are used as the basis for the above comments.

Section 9.3.7 – New Additions to Heritage Buildings

"Follow the relevant guidelines for new construction in Section 9.5".

- Please see the following discussion on relevant policies of Section 9.5.

Section 9.5.4 – Valley Outliers

"As described in Section 1.4, the resettling of Kleinburg as a rural retreat in the postwar years represented a second pioneer era. During the first two decades of this era, the consciously modern ideas of the 'Natural House', as espoused by architects like Frank Lloyd Wright, were quite influential. These ideas lost some of their edge as they filtered down to builders' houses, but many significant aspects were retained: a horizontal emphasis, an open-plan that opened to nature (the patio door became ubiquitous), large lots when affordable, mature trees if present, and a landscaping attitude that sought to place the house in a natural or naturalized setting. Developments using these ideas are no longer produced, and these areas have their own neighbourhood characters, which merit preservation."

- The proposed second-storey addition is in keeping with the style of the original house. The ideas behind the Valley developments i.e. a horizontal emphasis, an open-plan that opened to nature, large lots, mature trees, and a landscaping attitude that sought to place the house in a natural or naturalized setting, are not being negatively impacted by the proposed addition.

Section 9.3.7 – New Additions to Heritage Buildings

"Don't design additions to a greater height or scale than the original building".

- The proposed addition produces a greater height (two storeys) than the original one storey dwelling. Cultural Heritage staff are satisfied that the horizonal banding between the first and second storeys visually breaks up the massing of the two-storey building.
- Additionally, Section 5.2.5 should be considered, which states that an objective of the KNHCD Plan is "to guide new development so it can provide for contemporary needs, and to ensure its design will be compatible with and complementary to the character of the District and the heritage resources within".
- Cultural Heritage staff have determined the proposed addition is complimentary to the District character.

Section 9.3.7 – New Additions to Heritage Buildings

"Don't design additions to predominate over the original building. Usually, additions should be located at the rear of the original building or, if located to the side, be set back from the street frontage of the original building".

- Please see above comments.

Materials

Section 9.3.7 – New Additions to Heritage Buildings

"Use appropriate materials. See Section 9.10.".

- As previously discussed, the proposed stone veneer, wood siding and wood roof are consistent with the natural materials used in Usonian style dwellings and with the original building materials.

Landscaping

Section 9.3.7 – New Additions to Heritage Buildings

"Avoid destruction of existing mature trees. See Section 9.9".

- No trees are required or proposed for removal for the addition. The Arborist Report identified that tree No. 31 is dead and will be removed.

Timeline

This Application is subject to the 90-day review under the *Ontario Heritage Act.* This Application was declared complete on October 3, 2018 and must be deliberated upon by January 1, 2019, to meet the 90-day timeline.

Financial Impact

There are no requirements for new funding associated with this report.

Broader Regional Impacts/Considerations

There are no broader Regional impacts or considerations.

Conclusion

The Urban Design and Cultural Heritage Division has reviewed the Application to permit a the proposed second storey addition on the property municipally known as 75 Valley Road and is satisfied that the proposed addition is consistent with the Kleinburg-Nashville Heritage Conservation District Plan. Accordingly, the Urban Design and

Cultural Heritage Division of the Development Planning Department can support the approval of the proposed alteration under Section 42 of the *Ontario Heritage Act,* subject to the recommendations in this report.

For more information, please contact: Shelby Blundell, Cultural Heritage Coordinator, ext. 8813

Attachments

1. Location Map
2. Subject Property
3. Site Photos
4. Architectural Drawings, Fausto Cortese Architects, September 12, 2018
5. Proposed Material Details and Coloured Rendering, September 12, 2018
6. Arborist Report, Heartwood Tree Care, April 15, 2018
7. Tree Protection Plan, Gunnell Engineering Ltd., April 14, 2018
8. Heritage Impact Assessment, Strickland Mateljan Design Associates, April 18, 2018

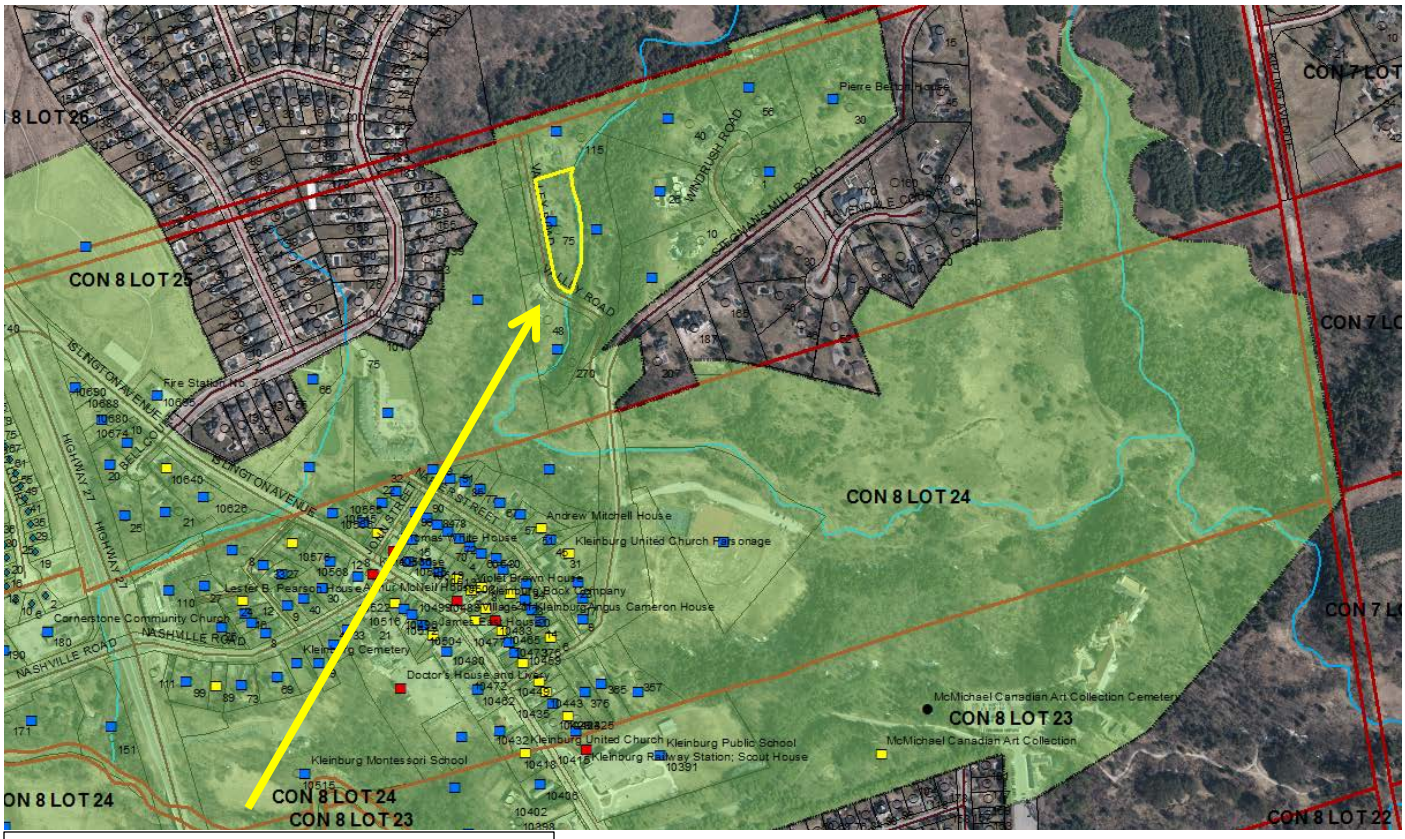
Prepared by

Shelby Blundell, Cultural Heritage Coordinator, ext. 8813
Shahrzad Davoudi-Strike, Senior Urban Designer, ext. 8653
Rob Bayley, Manager of Urban Design & Cultural Heritage, ext. 8254

/CM

Attachment 1

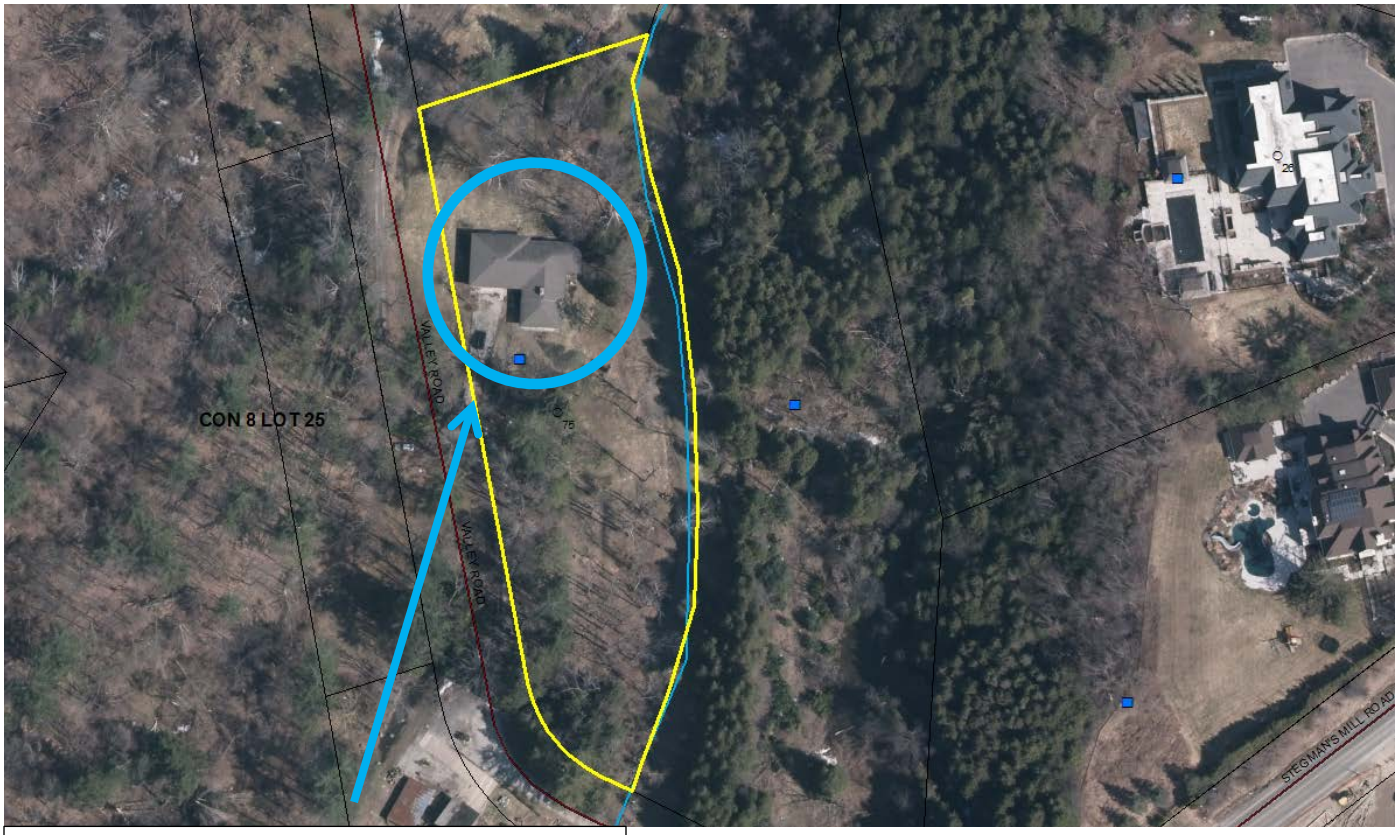
Location Map



75 Valley Road

Attachment 2

Subject Property



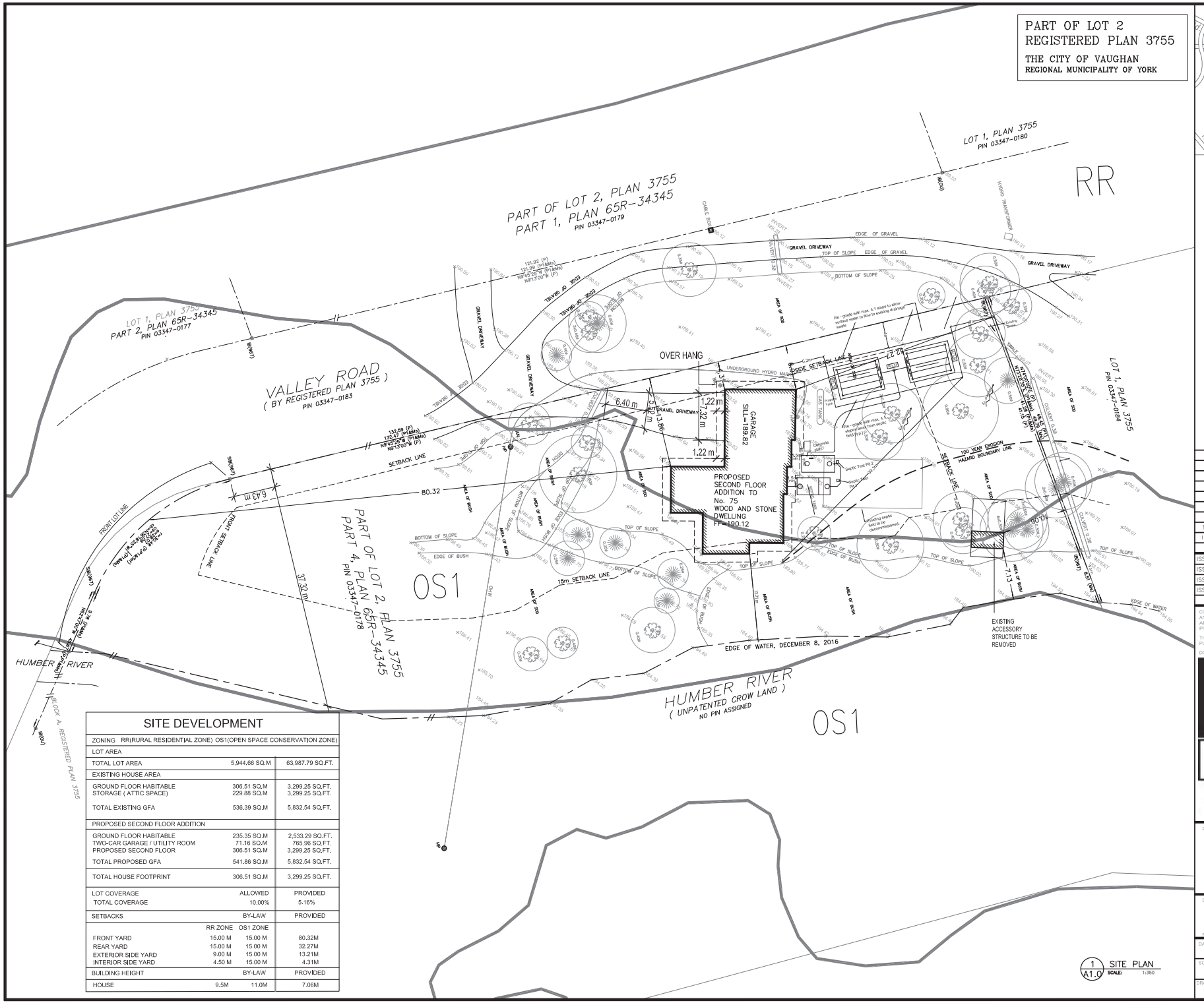
Existing one-storey dwelling

Attachment 3


Tyvek
RONA


Tyvek
RONA

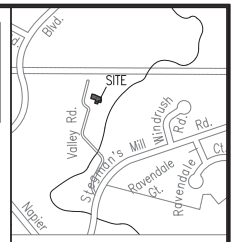

RONA
Tyvek



SITE DEVELOPMENT

ZONING RR(RURAL RESIDENTIAL ZONE) OS1(OPEN SPACE CONSERVATION ZONE)		
LOT AREA		
TOTAL LOT AREA	5,944.66 SQ.M	63,987.79 SQ.FT.
EXISTING HOUSE AREA		
GROUND FLOOR HABITABLE	306.51 SQ.M	3,299.25 SQ.FT.
STORAGE (ATTIC SPACE)	229.88 SQ.M	3,299.25 SQ.FT.
TOTAL EXISTING GFA	536.39 SQ.M	5,832.54 SQ.FT.
PROPOSED SECOND FLOOR ADDITION		
GROUND FLOOR HABITABLE	235.35 SQ.M	2,533.29 SQ.FT.
TWO-CAR GARAGE / UTILITY ROOM	71.16 SQ.M	765.96 SQ.FT.
PROPOSED SECOND FLOOR	306.51 SQ.M	3,299.25 SQ.FT.
TOTAL PROPOSED GFA	541.86 SQ.M	5,832.54 SQ.FT.
TOTAL HOUSE FOOTPRINT	306.51 SQ.M	3,299.25 SQ.FT.
LOT COVERAGE	ALLOWED	PROVIDED
TOTAL COVERAGE	10.00%	5.16%
SETBACKS	BY-LAW	PROVIDED
	RR ZONE OS1 ZONE	
FRONT YARD	15.00 M 15.00 M	80.32M
REAR YARD	15.00 M 15.00 M	32.27M
EXTERIOR SIDE YARD	9.00 M 15.00 M	13.21M
INTERIOR SIDE YARD	4.50 M 15.00 M	4.31M
BUILDING HEIGHT	BY-LAW	PROVIDED
HOUSE	9.5M 11.0M	7.06M

1 SITE PLAN
A1.0 SCALE: 1:350



KEY PLAN

ONTARIO ASSOCIATION OF ARCHITECTS
FAUSTO CORTESE
LICENCE
7774

1	ISSUED FOR REVIEW	09/12/18

ISSUED FOR CONSTRUCTION
ISSUED FOR BID
ISSUED FOR BUILDING PERMIT
ISSUED FOR SITE PLAN APPROVAL
SUBMITTALS

CONTRACTORS MUST CHECK AND VERIFY ALL DIMENSIONS AND CONDITIONS ON THE PROJECT AND MUST REPORT ANY DISCREPANCIES TO THE DESIGNER BEFORE PROCEEDING WITH CONSTRUCTION.

THIS DRAWING MUST NOT BE USED FOR CONSTRUCTION PURPOSES UNTIL SEALED AND SIGNED BY THE DESIGNER.

DO NOT SCALE DRAWINGS.

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PROJECT:
EXISTING TWO
STOREY DWELLING
ON
75 VALLEY ROAD
KLEINBERG

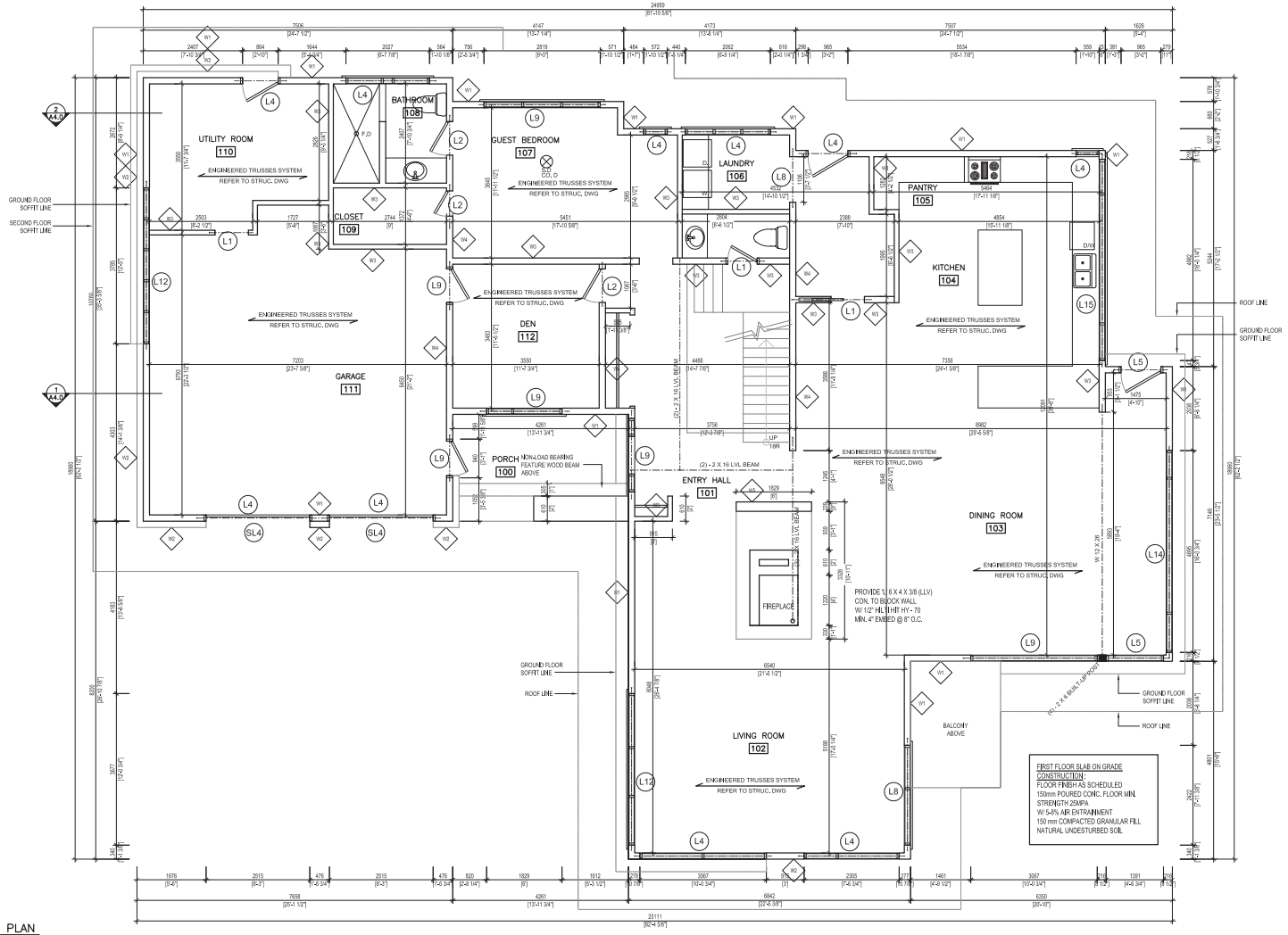
DRAWING:
SITE PLAN

PLOTTER:

DATE: DECEMBER 2016	PROJECT No.: 2016-34
SCALE: AS NOTED	DRAWING No.: A1.0
DRAWN BY:	REVIEWED BY:

PLOT SCALE: 1=
PLOT STYLE TABLE:
LINE WEIGHTS:
SHEETS:

Attachment 4



1 FIRST FLOOR PLAN
A2.0 SCALE: 1:75

WALL TYPES

W1 EXTERIOR CEDAR WOOD SIDING
LAYERS TO OVERLAP EACH OTHER
TYVEK AIR BARRIER
13mm PLYWOOD SHEATHING
38X140 STUDS @ 406mm O.C.
R 24 BATT INSULATION
6 MIL POLY VAPOUR BARRIER
13mm GYPSUM BOARD

W1A 13mm DRYWALL
38X140 STUDS @ 406mm O.C.
13mm DRYWALL

W2 STONE VENNER/BRICK
METAL TIES SPACED MAX.400mm O.C.
VERT. & 600mm O.C. HORIZ.
25mm AIR SPACE
TYVEK AIR BARRIER
13mm PLYWOOD SHEATHING
38X140 STUDS @ 406mm O.C.
R 24 BATT INSULATION
6 MIL POLY VAPOUR BARRIER
13mm DRYWALL

W3 13mm DRYWALL
38X89 STUDS @ 406mm O.C.
13mm DRYWALL

W3A 19mm INTERIOR STONE TILE
13mm PLYWOOD SHEATHING
38X184 STUDS @ 406mm O.C.
13mm GYPSUM BOARD

SMOKE DETECTOR
CARBON MONOXIDE DETECTOR
INTERLINKED

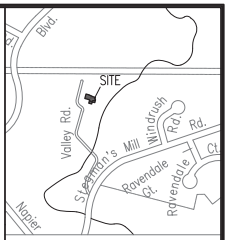
LINTEL SCHEDULE

L1= (2) - 2 X 6
L2= (3) - 2 X 6
L3= (2) - 2 X 8
L4= (3) - 2 X 8
L5= (3) - 2 X 10
L6= (1) - 2 X 10
(2) - 2 X 10 LVL
L7= (2) - 2 X 10
(2) - 2 X 10 LVL
L8= (2) - 2 X 10 LVL
L9= (3) - 2 X 10 LVL
L10= (2) - 2 X 12 LVL
L11= (3) - 2 X 12 LVL
L12= (3) - 2 X 14 LVL 1.9E
L13= (3) - 2 X 16 LVL 1.9E
L14= (3) - 2 X 16 LVL 1.9E
L15= (3) - 2 X 20 LVL 1.9E

LOOSE STEEL LINTELS(NON-LOAD BEARING WALLS)

NO.	DESCRIPTION	CLEAR SPAN
SL1	3 1/2"X 3 1/2"X 1/4" L	UP TO 4'-0"
SL2	3 1/2"X 3 1/2"X 5/16" L	4'-0" - 6'-0"
SL3	4"X 3 1/2"X 1/4" L	6'-0" - 8'-0"
SL4	5"X 3 1/2"X 3/8" L	8'-0" - 9'-0"
SL5	6"X 4"X 3/8" L	9'-0" - 10'-0"
SL6	6"X 4"X 1/2" L	10'-0" - 12'-0"

GENERAL NOTE
*ALL DIMENSIONS FOR REFERENCE ONLY
NEED TO BE CONFIRMED ON SITE



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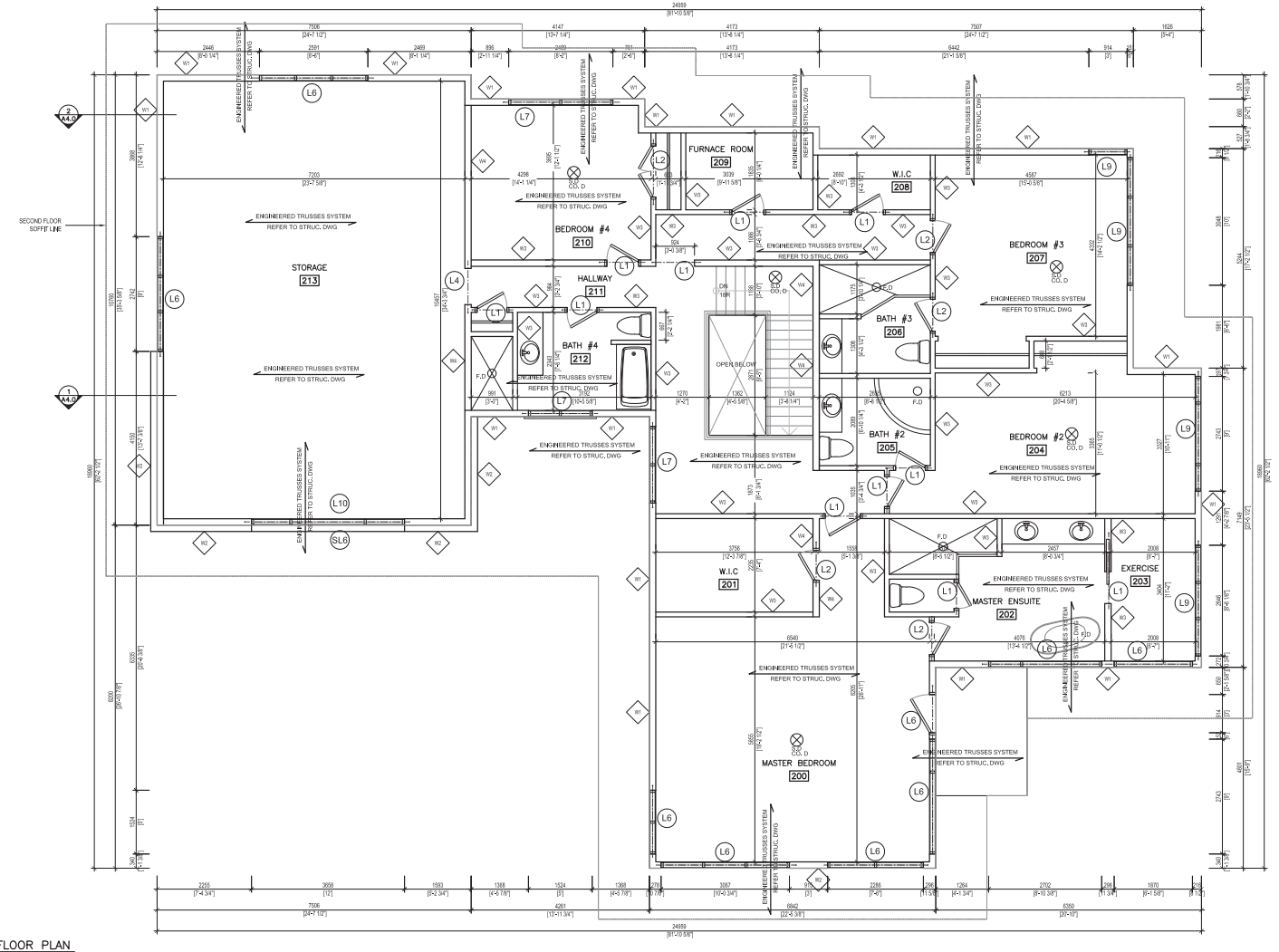
PROJECT:
PROPOSED TWO STOREY DWELLING
ON
75 VALLEY ROAD
KLEINBERG

DRAWING:
FIRST FLOOR PLAN

PLOTTER:

DATE:	PROJECT No.
DECEMBER 2016	2016-34
SCALE: AS NOTED	DRAWING No. A2.0
DRAWN BY:	REVIEWED BY:

PLOT SCALE: 1=
FILE NAME:
SHEETS



1 A2.1 SECOND FLOOR PLAN
SCALE: 1:75

WALL TYPES

W1 — EXTERIOR CEDAR WOOD SIDING LAYERS TO OVERLAP EACH OTHER TYVEK AIR BARRIER 13mm PLYWOOD SHEATHING 38X140 STUDS @ 406mm O.C. R 24 BATT INSULATION 6 MIL POLY VAPOUR BARRIER 13mm GYPSUM BOARD	W3 — 13mm DRYWALL 38X89 STUDS @ 406mm O.C. 13mm DRYWALL	W3 — 19mm INTERIOR STONE TILE 13mm PLYWOOD SHEATHING 38X184 STUDS @ 406mm O.C. 13mm GYPSUM BOARD
W2 — STONE VENNER/BRICK METAL TIES SPACED MAX.400mm O.C. VERT. & 600mm O.C. HORIZ. 25mm AIR SPACE TYVEK AIR BARRIER 13mm PLYWOOD SHEATHING 38X140 STUDS @ 406mm O.C. R 24 BATT INSULATION 6 MIL POLY VAPOUR BARRIER 13mm DRYWALL	W4 — 13mm DRYWALL 38X140 STUDS @ 406mm O.C. 13mm DRYWALL	SMOKE DETECTOR CARBON MONOXIDE DETECTOR INTERLINKED

LINTEL SCHEDULE

L1 = (2) - 2 X 6	L8 = (2) - 2 X 10 LVL
L2 = (3) - 2 X 6	L9 = (3) - 2 X 10 LVL
L3 = (2) - 2 X 8	L10 = (2) - 2 X 12 LVL
L4 = (3) - 2 X 8	L11 = (3) - 2 X 12 LVL
L5 = (3) - 2 X 10	L12 = (3) - 2 X 14 LVL 1.9E
L6 = (1) - 2 X 10 (2) - 2 X 10 LVL	L13 = (3) - 2 X 16 LVL 1.9E L14 = (3) - 2 X 16 LVL 1.9E
L7 = (2) - 2 X 10 (2) - 2 X 10 LVL	L15 = (3) - 2 X 20 LVL 1.9E

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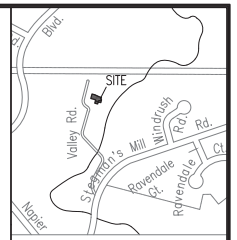

KEY PLAN

ONTARIO ASSOCIATION OF ARCHITECTS
FAUSTO CORTESE
LICENCE 7774

1	ISSUED FOR REVIEW	09/12/18

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416-806-7000
FCORTESE@FCARCHITECTS.CA

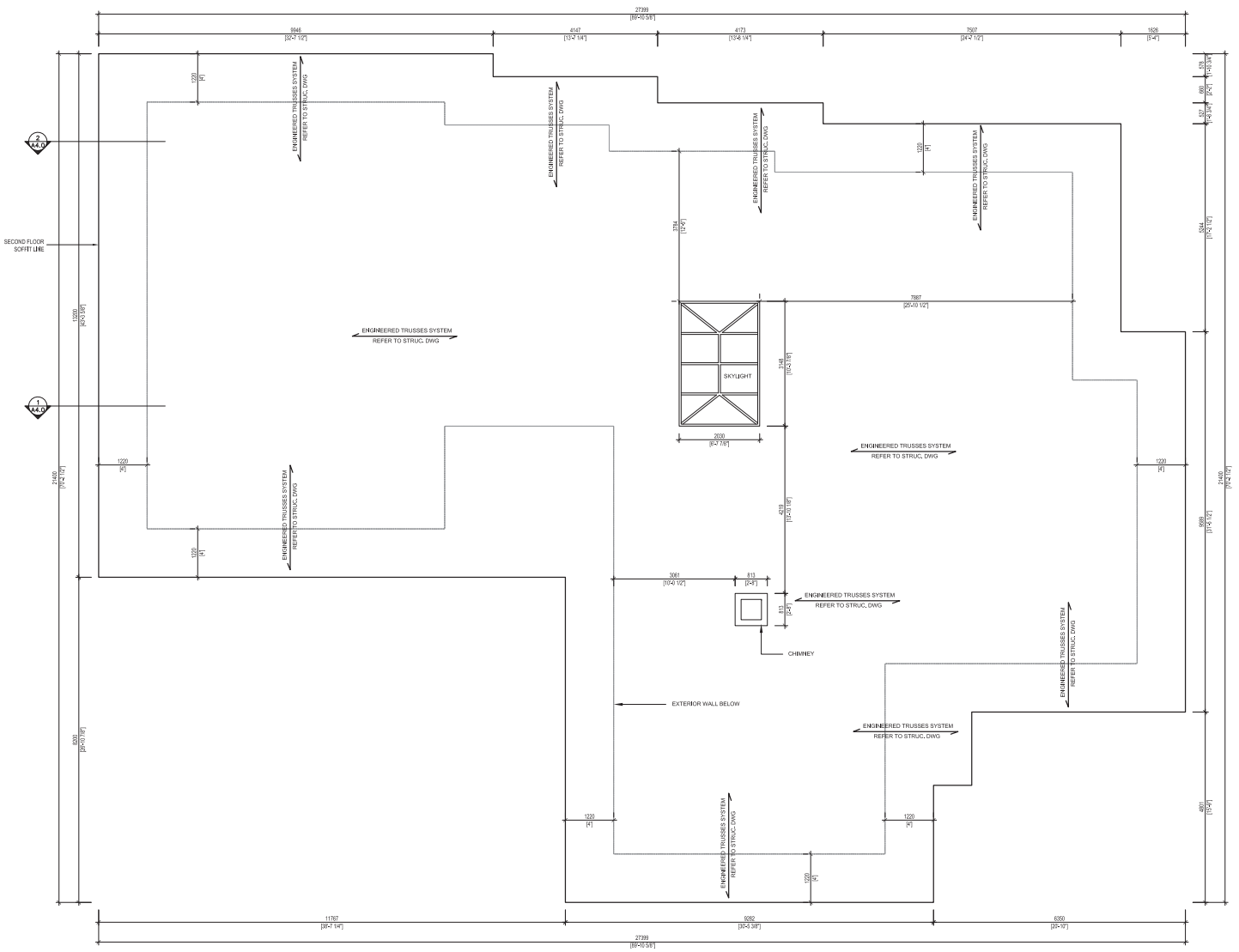
PROJECT:
PROPOSED TWO STOREY DWELLING
ON
75 VALLEY ROAD
KLEINBERG

DRAWING:
SECOND FLOOR PLAN

PLOTTER:

DATE:	PROJECT No.
DECEMBER 2016	2016-34
SCALE: AS NOTED	DRAWING No. A2.1
DRAWN BY:	REVIEWED BY:

PLOT SCALE: 1=
FILE NAME:
SHEETS



WALL TYPES

W1 — EXTERIOR CEDAR WOOD SIDING LAYERS TO OVERLAP EACH OTHER TYVEK AIR BARRIER 13mm PLYWOOD SHEATHING 38X140 STUDS @ 406mm O.C. R 24 BATT INSULATION 6 MIL POLY VAPOUR BARRIER 13mm GYPSUM BOARD	W3 — 13mm DRYWALL 38X89 STUDS @ 406mm O.C. 13mm DRYWALL	W5 — 19mm INTERIOR STONE TILE 13mm PLYWOOD SHEATHING 38X184 STUDS @ 406mm O.C. 13mm GYPSUM BOARD
W2 — STONE VENNER/BRICK METAL TIES SPACED MAX.400mm O.C. VERT. & 600mm O.C. HORIZ. 25mm AIR SPACE TYVEK AIR BARRIER 13mm PLYWOOD SHEATHING 38X140 STUDS @ 406mm O.C. R 24 BATT INSULATION 6 MIL POLY VAPOUR BARRIER 13mm DRYWALL	W4 — 13mm DRYWALL 38X140 STUDS @ 406mm O.C. 13mm DRYWALL	SMOKE DETECTOR CARBON MONOXIDE DETECTOR INTERLINKED

LINTEL SCHEDULE

L1 = (2) - 2 X 6	L8 = (2) - 2 X 10 LVL
L2 = (3) - 2 X 6	L9 = (3) - 2 X 10 LVL
L3 = (2) - 2 X 8	L10 = (2) - 2 X 12 LVL
L4 = (3) - 2 X 8	L11 = (3) - 2 X 12 LVL
L5 = (3) - 2 X 10	L12 = (3) - 2 X 14 LVL 1.9E
L6 = (1) - 2 X 10 (2) - 2 X 10 LVL	L13 = (3) - 2 X 16 LVL 1.9E L14 = (3) - 2 X 16 LVL 1.9E
L7 = (2) - 2 X 10 (2) - 2 X 10 LVL	L15 = (3) - 2 X 20 LVL 1.9E

LOOSE STEEL LINTELS(NON-LOAD BEARING WALLS)

NO.	DESCRIPTION	CLEAR SPAN
SL1	3 1/2"X 3 1/2"X 1/4" L	*UP TO 4'-0"*
SL2	3 1/2"X 3 1/2"X 5/16" L	*4'-0" - 6'-0"*
SL3	4"X 3 1/2"X 1/4" L	*6'-0" - 8'-0"*
SL4	5"X 3 1/2"X 3/8" L	*8'-0" - 9'-0"*
SL5	6"X 4"X 3/8" L	*9'-0" - 10'-0"*
SL6	6"X 4"X 1/2" L	*10'-0" - 12'-0"*

GENERAL NOTE
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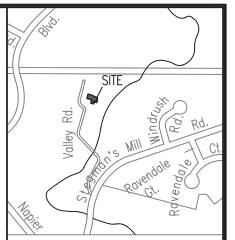

KEY PLAN

ONTARIO ASSOCIATION OF ARCHITECTS
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LICENCE
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416-806-7000
FCORTESE@FCARCHITECTS.CA

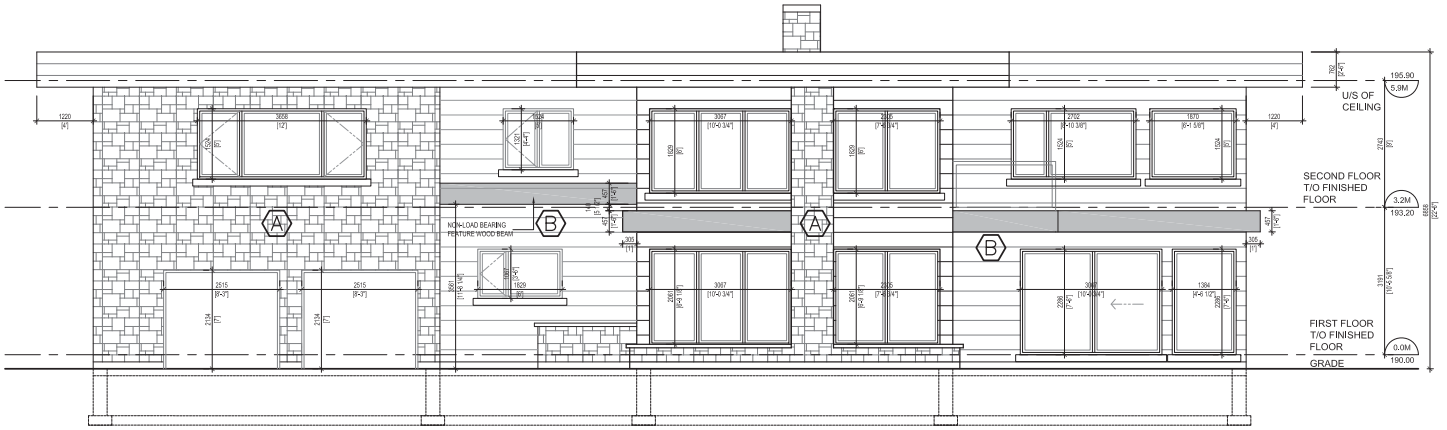
PROJECT:
PROPOSED TWO STOREY DWELLING
ON
75 VALLEY ROAD
KLEINBERG

DRAWING:
ROOF PLAN

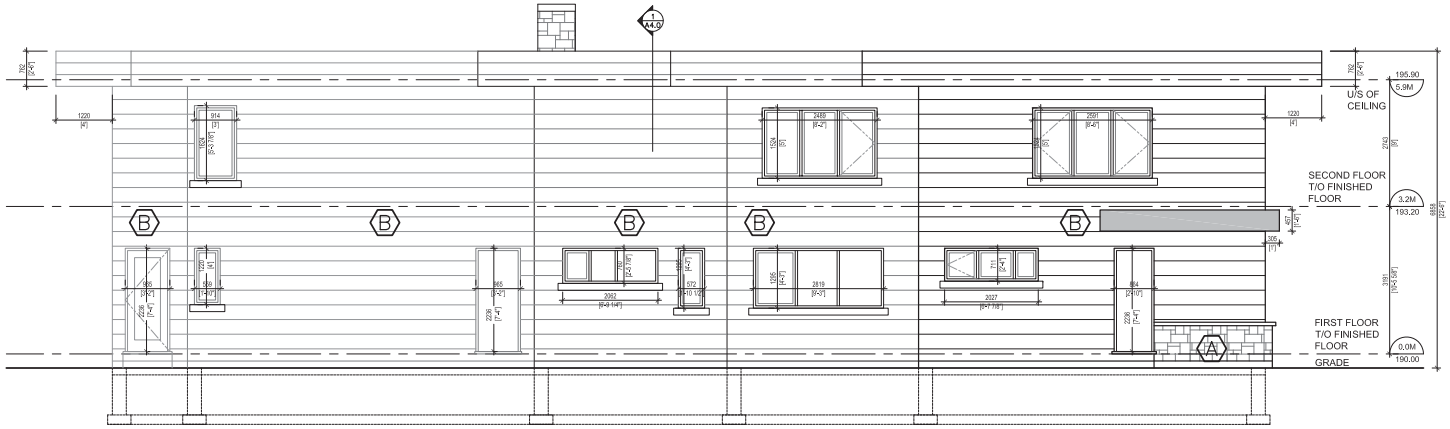
PLOTTER:

DATE: DECEMBER 2016
PROJECT No.: 2016-34
SCALE: AS NOTED
DRAWING No.: A2.2
DRAWN BY:
REVIEWED BY:

PLOT SCALE: 1=
FILE NAME:
SHEETS



1 A3.0 SOUTH ELEVATION
SCALE: 1:75



2 A3.0 NORTH ELEVATION
SCALE: 1:75

FENESTRATION BREAKDOWN					
	DISTANCE TO PROPERTY LINE	ALLOWABLE UNPROTECTED OPENINGS	TOTAL SM (SQ/FT) OF FENESTRATION	TOTAL SM (SQ/FT) OF WALL AREA	PERCENTAGE OF FENESTRATION
NORTH ELEV.	34.46 m	100 %	20.90 (224.97)	42.69 (459.51)	48.96 %
SOUTH ELEV.	57.84 m	100 %	23.55 (253.49)	45.76 (492.56)	51.46 %
EAST ELEV.	13.21 m	93 %	19.40 (208.82)	43.58 (469.09)	44.52 %
WEST ELEV.	4.43 m	17 %	11.36 (122.28)	67.13 (722.58)	16.92 %
TOTALS			75.21 (809.55)	199.16 (2143.74)	37.76 %
% OF FENESTRATION					

A STONE VENEER
B WOOD CLADDING

GENERAL NOTE :
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FAUSTO CORTESE
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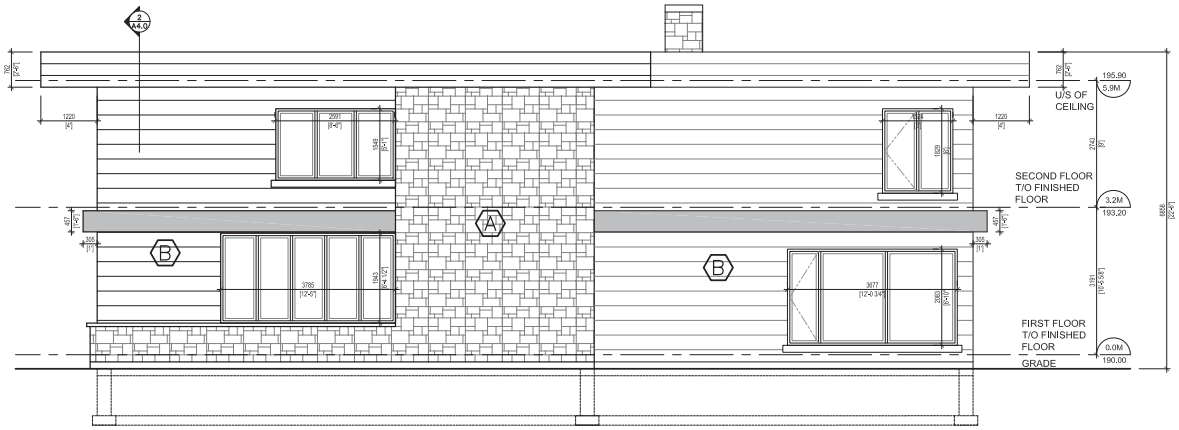
PROJECT:
PROPOSED TWO STOREY DWELLING
ON
75 VALLEY ROAD
KLEINBERG

DRAWING:
ELEVATIONS

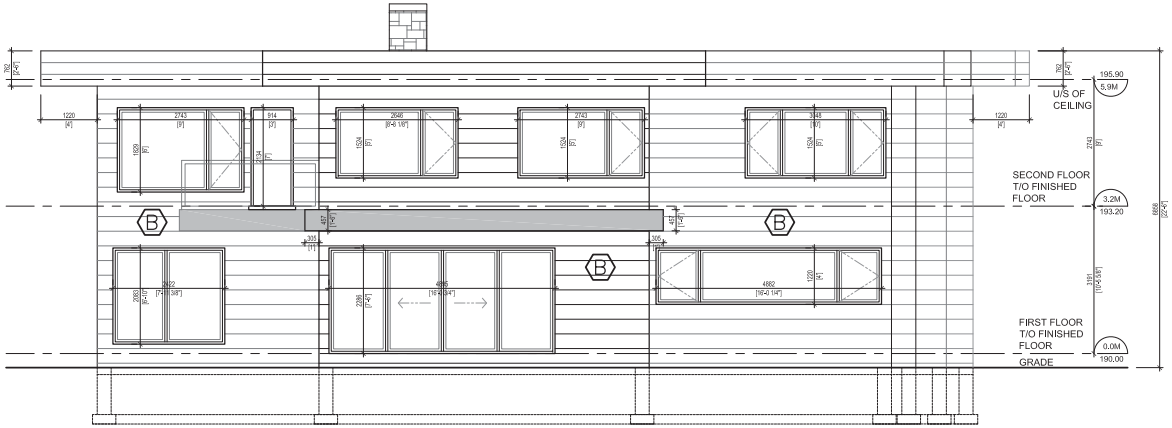
PLOTTER:

DATE: DECEMBER 2016
PROJECT No.: 2016-34
SCALE: AS NOTED
DRAWING No.: A3.0
DRAWN BY:
REVIEWED BY:

SHEETS
FILE NAME
PLOT SCALE: 1=



1 A3.1 WEST ELEVATION
SCALE: 1:75



2 A3.1 EAST ELEVATION
SCALE: 1:75

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% OF FENESTRATION					

A STONE VENEER
B WOOD CLADDING

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PROJECT:
PROPOSED TWO STOREY DWELLING
ON
75 VALLEY ROAD
KLEINBERG

DRAWING:
ELEVATIONS

PLOTTER:

DATE:	PROJECT No.
DECEMBER 2016	2016-34
SCALE: AS NOTED	DRAWING No. A3.1
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PLOT SCALE: 1=
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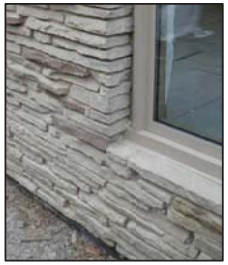
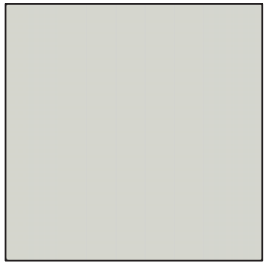
1 A5.0 PERSPECTIVE RENDERING
SCALE: NTS



STONE VENEER / WINDOW / SILL
(REFERENCE PHOTOS ONLY)

STONE VENEER (INDIVIDUAL PIECE)

LIMESTONE WINDOW SILL
(REFERENCE PHOTOS ONLY)

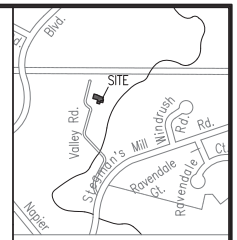


ANODIZED ALUMINUM WINDOW FRAME
PAINTED IN COLOR
(BENJAMIN MOORE GRAY OWL OC-52)

WOOD SIDING AT WALL
CEDAR PANEL (1X12) TONGUE AND GROOVE
WITH THREE COATS OF OIL

WOOD SIDING AT ROOF
CEDAR PANEL (1X12) TONGUE AND GROOVE
WITH TWO COATS OF OIL

2 A5.0 EXTERIOR FINISH MATERIALS
SCALE: NTS



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FCORTESE@FCARCHITECTS.CA

PROJECT:
PROPOSED TWO STOREY DWELLING
ON
75 VALLEY ROAD
KLEINBERG

DRAWING:
PERSPECTIVE VIEW
MATERIAL BOARD

PLOTTED:

DATE: DECEMBER 2016	PROJECT No. 2016-34
SCALE: AS NOTED	DRAWING No. A5.0
DRAWN BY:	REVIEWED BY:

PLOTTED SCALE: 1=
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Attachment 5

1 A5.1 PERSPECTIVE RENDERING
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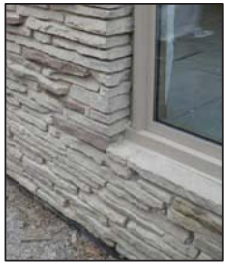

STONE VENEER / WINDOW / SILL
(REFERENCE PHOTOS ONLY)

STONE VENEER (INDIVIDUAL PIECE)

LIMESTONE WINDOW SILL
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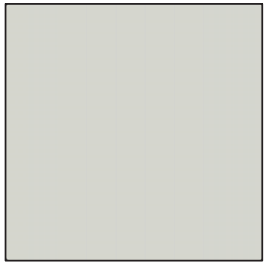

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WITH TWO COATS OF OIL

2 A5.1 EXTERIOR FINISH MATERIALS
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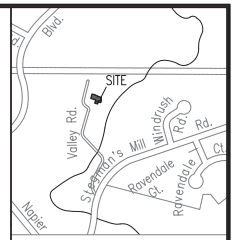

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FCORTESE@FCARCHITECTS.CA

PROJECT:
PROPOSED TWO STOREY DWELLING
ON
75 VALLEY ROAD
KLEINBERG

DRAWING:
PERSPECTIVE VIEW
MATERIAL BOARD

PLOTTED:

DATE: DECEMBER 2016	PROJECT No. 2016-34
SCALE: AS NOTED	DRAWING No. A5.1
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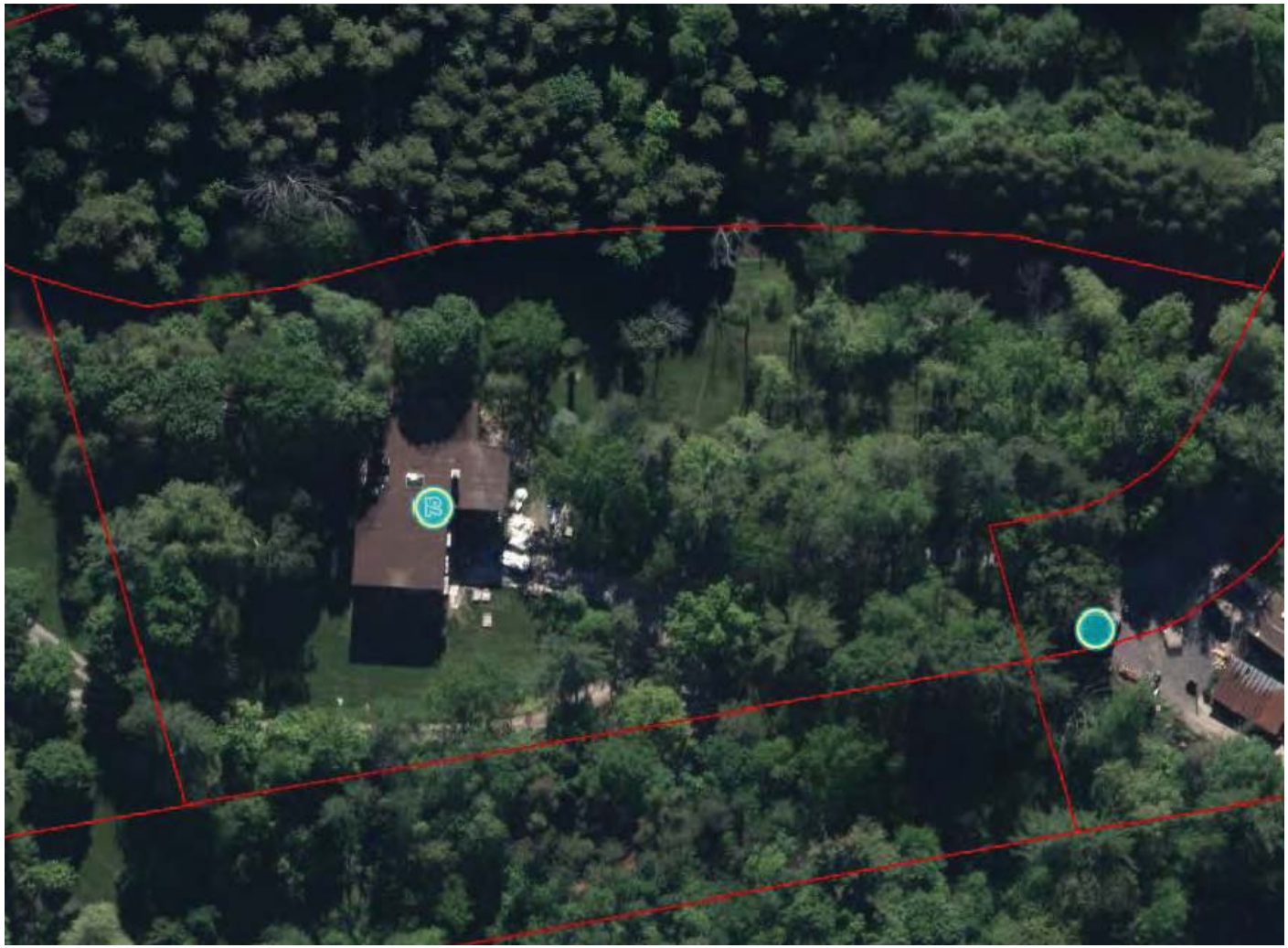
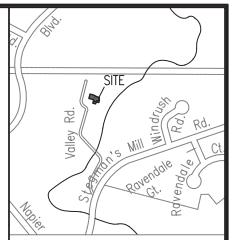
SHEETS
FILE NAME:
PLOT SCALE: 1=



1 A5.2 PROJECT ARIAL VIEW PHOTO
SCALE: NTS



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FCORTESE@FCARCHITECTS.CA

PROJECT:
PROPOSED TWO STOREY DWELLING
ON
75 VALLEY ROAD
KLEINBERG

DRAWING:
ARIAL VIEW PHOTO

PLOTTER:

DATE:	PROJECT No.
DECEMBER 2016	2016-34
SCALE: AS NOTED	DRAWING No. A5.2
DRAWN BY:	REVIEWED BY:

SHEETS
FILE NAME:
PLOT SCALE: 1=

Heartwood Tree Care
T (416) 459-5395
E adam@heartwood.tc

April 15, 2018.

City of Vaughan Forestry Department
Attn: Forestry Planner
#2800 Rutherford Rd.
Vaughan ON. L4K 2N9
T (905) 832-8577
E parks@vaughan.ca

Brent Peebles (owner)
75 Valley Road
Vaughan, ON L4H 3N5
E brent@northernwideplank.ca

Re: 75 Valley Road

Summary

I have been contracted by the owners of 75 Valley Road to prepare an arborist report for their property. The owners have constructed second storey addition to their home but require a new septic bed at the rear. No trees require a permit to remove to facilitate this work but a privately owned tree, numbered 34, requires a permit to injure. If the recommendations herein are strictly adhered, all trees slated for preservation will survive construction well.

I visited the property on April 6, 2018 to document the site and all trees within 6.0m of the existing home, construction access route, and the proposed septic bed. The tree inventory data can be found in Appendix I, and the photo documentation in Appendix II.

Assessment & Discussion

Trees Slated for Preservation

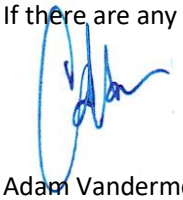
Tree 34; this 58cm Red maple has a very small portion of its TPZ encroached by the excavation required to install the new septic bed. The proximity of the dig to tree 34 does not come so close as to expose large roots, additionally, the area the septic bed is located has seasonal flooding. Given this is an area that floods (observed during my work) flooding, that anaerobic condition is not suitable for dominant root growth. That being said, the below recommendations are required to ensure any roots are not inadvertently injured;

Recommendations for Tree 34;

1. Tree protection fencing must be erected before work commences.
2. The first 50cm of excavation, or possible more depending on sandiness of soil, must be dug by hand to ensure not roots are torn by machinery.
3. The exposed roots must be pruned using sharp hand tools and documented for forestry review.
4. The cut roots must either be backfilled within 24 hours or covered with burlap, which must be kept moist to avoid root desiccation.

All other trees on the property are either far enough away from construction not to warrant protection or are protected using framed plywood tree protection barriers.

If there are any questions regarding this report please contact me at (416) 459-5395.



Adam Vandermeij ON-1562A
ISA Certified Arborist

Appendix I – Tree Inventory

Tree #	Species	Latin Name	DBH (cm)	Canopy Radius (m)	Height (m)	TPZ Radius (m)	Health	Structure	Assessment
1	Red oak	*Quercus rubra*	33	3	17	2.4	fair	fair	Low Leaf to biomass ratio. Tree is unblaanced, with no foliage on one side.
2	Red oak	*Quercus rubra*	74	1	11	n/a	dead	dead	Tree has no live branches only, pruning wounds and sucker growth.
3	Red oak	*Quercus rubra*	48	10	19	3	good	good	Tree is unbalanced likely due to tree 2, when it was full.
4	Crabapple	*Malus sp.*	11	2	7	1.2	good	good	
5	White Spruce	*Picea glauca*	13	2	8	1.2	good	good	
6	White Spruce	*Picea glauca*	23	2	10	1.8	good	good	Showing signs of die-back in canopy.
7	Red pine	*Pinus resinosa*	20	2	16	1.2	good	good	Tree has slightly thin canopy.
8	red Pine	*Pinus resinosa*	11	2	13	1.2	poor	fair	Tree has very low leaf to biomass ratio.
9	White cedar	*Thuja occidentalis*	24	2	10	1.8	good	good	
10	Norway maple	*Acer platanoides*	49	5	19	3	good	good	
11	White Cedar	*Thuja occidentalis*	12	1	10	1.2	good	good	
12	White Cedar	*Thuja occidentalis*	14	1	10	1.2	good	fair	Tree is leaning towards house.
13	White Cedar	*Thuja occidentalis*	16	2	13	1.2	good	good	
14	White Cedar	*Thuja occidentalis*	19 - 17	2	13	1.2	fair	Fair	Poorly structured union near grade And has a broken top.
15	White Cedar	*Thuja occidentalis*	11-11	1	10	1.2	far	far	Top of west stem has failed into tree 14.
16	White Cedar	*Thuja occidentalis*	17	2	13	1.2	good	good	
17	White Cedar	*Thuja occidentalis*	27	3	14	1.8	good	good	Numerous pruning wounds on south side of canopy.
18	White Cedar	*Thuja occidentalis*	31	two	15	2.4	fair	fair	Tree has low lead to biomass biomass ratio due to recent pruning likely to provide clearance from dwelling.
19	White Birch	*Thuja occidentalis*	30	4	17	1.8	poor	poor	Top of tree is entirely dead. Very little life left.
20	European buckthorn	*Rhamnus cathartica*	16	1	4	1.2	poor	poor	Vertical cracks in trunk open into sapwood. Top of tree has been removed
21	Norway maple	*Acer platanoides*	29	5	18	1.8	good	good	
22	Norway maple	*Acer platanoides*	20	4	17	1.2	good	good	
23	Norway maple	*Acer platanoides*	33	4	19	2.4	good	good	
24	Manitoba maple	*Acer negundo*	24	4	5	1.8	poor	poor	Tree grows parallel with grade into property.
25	Norway maple	*Acer platanoides*	17	2	15	1.2	good	good	

Tree #	Species	Latin Name	DBH (cm)	Canopy Radius (m)	Height (m)	TPZ Radius (m)	Health	Structure	Assessment
26	Red oak	*Quercus rubra*	64	8	22	4.2	good	good	Large deadwood in canopy overhanging property.
27	Norway maple	*Acer platanoides*	32	5	19	2.4	good	good	
28	Norway maple	*Acer platanoides*	54	5	19	3.6	good	good	Included bark at co-dominant stem just above grade.
29	White birch	*Betula papyrifera*	29	4	14	1.8	fair	fair	Die-back and deadwood throughout canopy. Crack in main trunk from grade up to 2 m; mostly closed but somewhat open into sapwood.
30	White Birch	*Betula papyrifera*	27-26–32	6	19	2.4	fair	poor – hazardous	West stem of tree is leaning at 60° angle towards house with included bark at its union and open pocket of decay within the inclusion.
31	White ash	*Fraxinus americana*	29	3	17	1.8	dead	dead	dead
32	Black cherry	*Prunus serotina*	79	9	22	4.8	good	good	Large deadwood throughout the canopy.
33	White pine	*Pinus strobus*	71	6	25	4.8	good	good	Deadwood throughout canopy.
34	Red maple	*Pinus resinosa*	58	6	19	3.6	good	good	
35	Red maple	*Pinus resinosa*	42	5	19	3	fair	fair	Tree is one sided with significant die-back on southside due to tree 34.
36	White ash	*Fraxinus americana*	30	4	15	2.4	poor	poor	Tree is infested with the emerald ash borer.
37	Red maple	*Acer rubrum*	38	4	18	2.4	fair	fair	Significant die-back and deadwood in canopy.
38	Red maple	*Acer rubrum*	19	3	10	1.2	good	good	Tree is on a grass island with sitting water surrounding it after recent rains and snowfall. Surprisingly healthy.
39	Red maple	*Acer rubrum*	19	1	5	1.2	poor	poor	Tree is nearly dead.
40	Red oak	*Quercus rubra*	37	6	19	2.4	good	good	
41	White pine	*Pinus strobus*	62	6	25	4.2	good	good	
42	Black cherry	*Prunus serotina*	31-58	6	18	3.6	fair	fair	Past failures and die-back significant in canopy.
43	Colorado spruce	*Picea pungens*	33	2	17	2.4	Poor	poor	Tree has been historically pruned to lift the canopy leaving it top-heavy and with a low leaf to biomasss ratio. No recent pruning pruning.

All trees are privately owned.

Appendix II – Photo Documentation

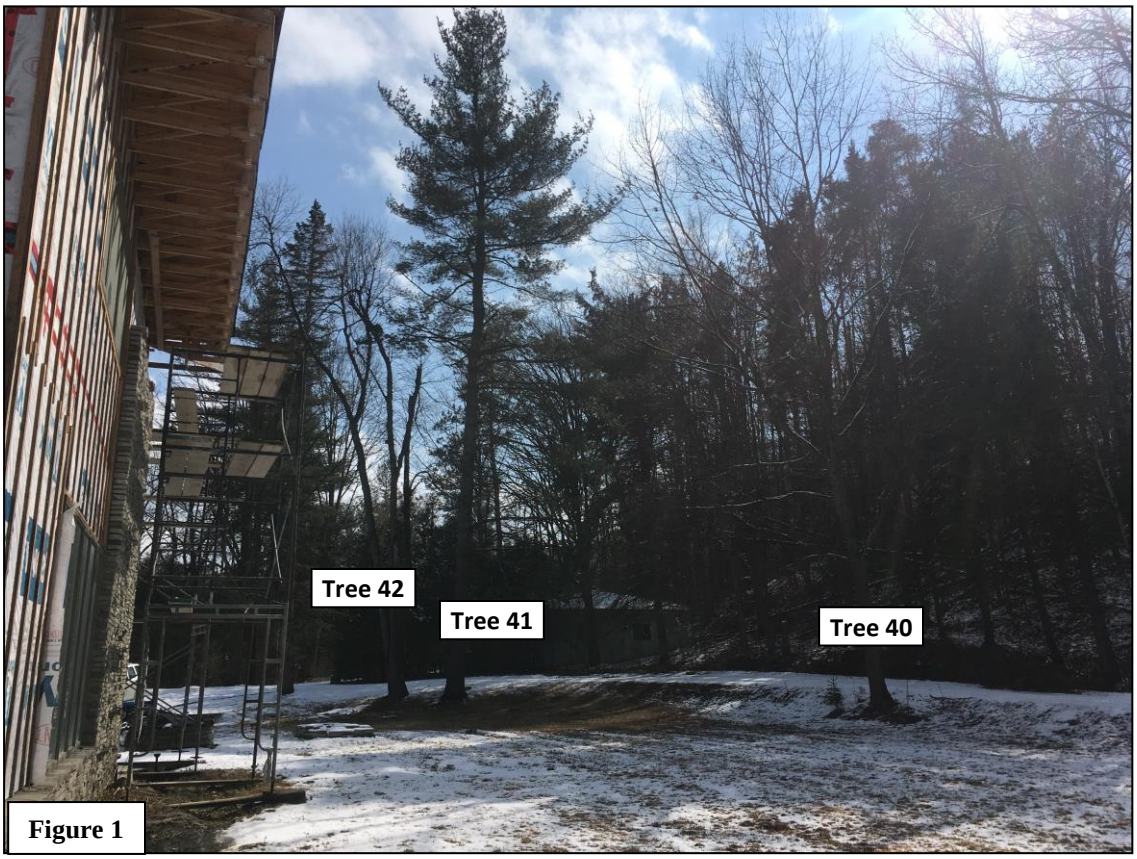


Figure 1

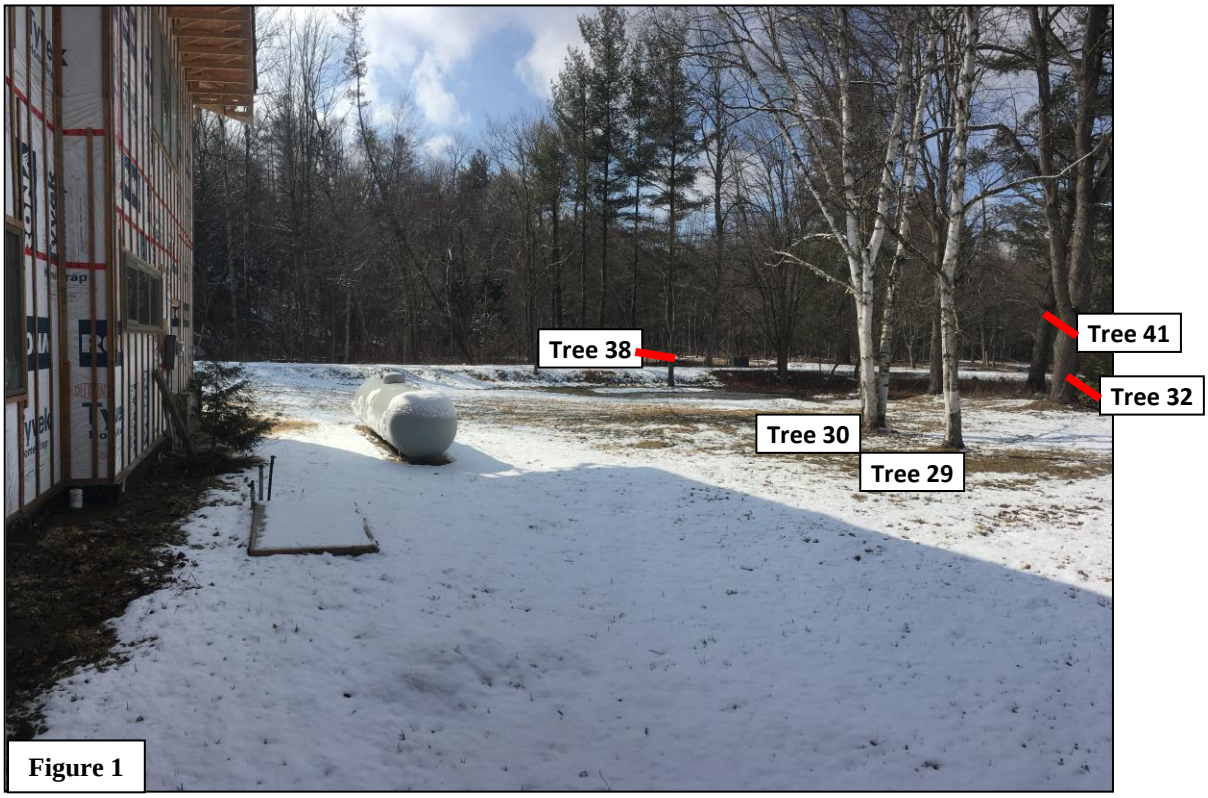
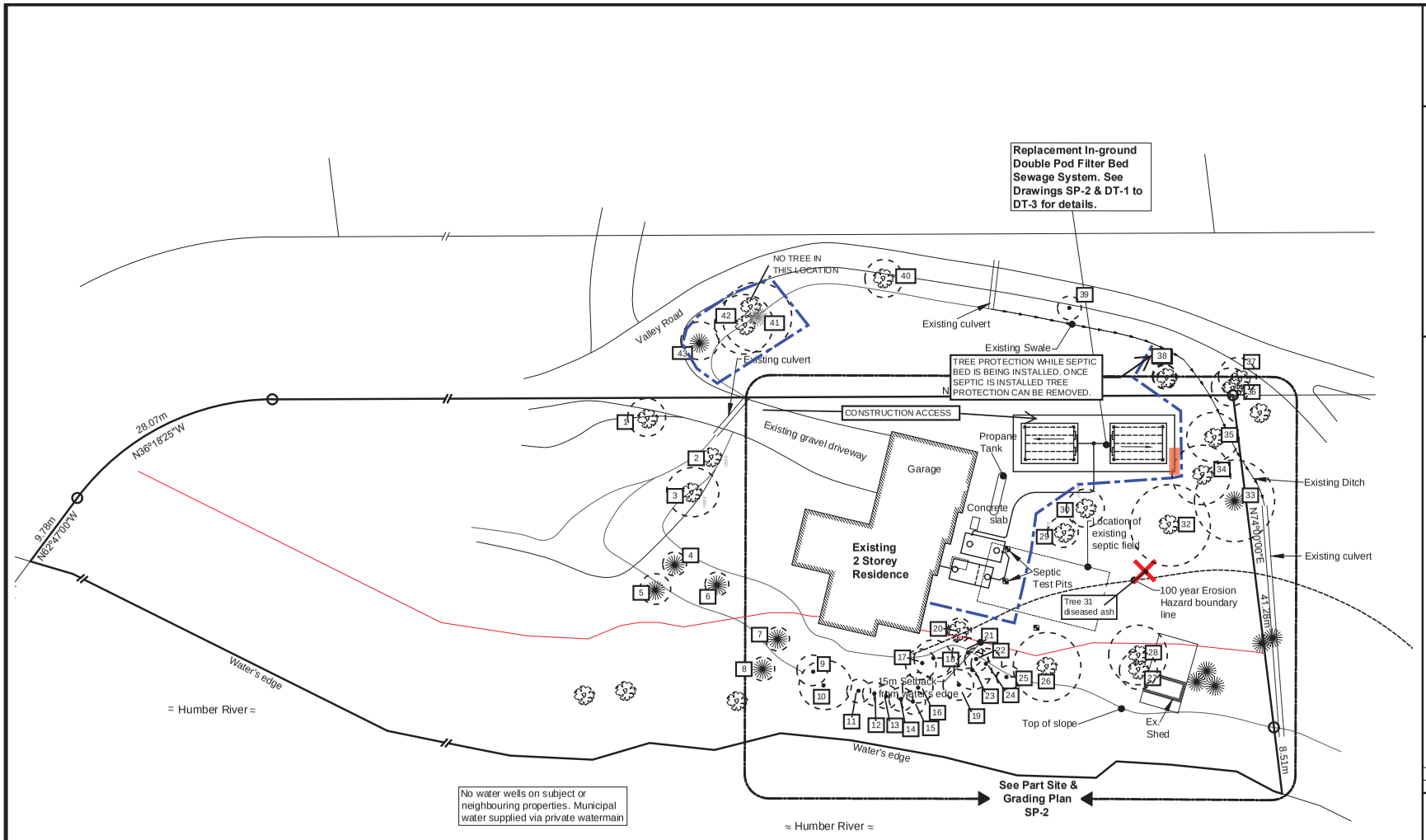


Figure 1


Tree 37
Tree 36
Tree 38
Tree 35
Tree 34
Tree 33
Tree 32
Trees 29-31

Figure 3

Attachment 7



Reference: Topographic Survey by Salna Surveying OLS, dated December 14, 2016

Gunnell Engineering Ltd.
1110 Stellar Drive, Unit 106
Newmarket, ON L3Y 7B7
bus: 905-868-9400
fax: 905-853-5734
www.septicdesign.ca

Tree Protection Plan

April 14, 2018

- Minimum Tree Protection Zone
- Framed Plywood Tree Protection Barrier
- Area of Hand Digging to Prune Roots of Tree 34

PROFESSIONAL ENGINEER
LICENSED
13–APR–18
E. L. GUNNELL
PROVINCE OF ONTARIO

Rev. 2	13-APR-18	Re-locate Septic Field	DK
Rev. 1	19-MAY-17	Re-locate Septic Field	DK

Peebles Residence
75 Valley Road
Kleinburg
City of Vaughan

Overall Site Plan
Replacement Sewage System Design

Scale: 1:500	Designed By: EG
Date: 30-NOV-16	Drawn By: DK
Project No.: D2500	Checked By: EG
	Drawing No.: SP-1

File: Z:\Gunnell Engineering Autocad\D2500 – PROJECTS\D2500–Brent Peebles_75 Valley Rd\CAD\–AB–\D2500ABSP001.dwg
Plotted on: ----

April 18, 2018

HERITAGE IMPACT ASSESSMENT – 75 VALLEY RD., KLEINBURG, ON

Prepared for:

Mr. David Medhurst,
Medhurst Consulting,
432 Burlington Avenue, Suite 400,
Burlington ON

In respect of an original design by Fausto Cortese Architects for the subject site.

Prepared by:

Rick Mateljan, Lic. Tech OAA
Partner, SMDA

EXECUTIVE SUMMARY

75 Valley Road, a house located off the Stegman's Mill Rd. in the Humber River valley in the historic Windrush development was recently subjected to extensive renovation without benefit of City or Toronto Region Conservation Authority permits. A Stop Work Order was issued by the Municipality on November 10, 2016. The house is located in the Kleinburg-Nashville Heritage Conservation District .

The house at 75 Valley Road was constructed about 1949. It was built and designed in a form and ethos sympathetic to an architectural style known as Usonian. This was part of an effort by famed American architect Frank Lloyd Wright to develop a 20th century modern way of living. In practice these houses were designed with open interior spaces, large windows, flat roofs, no basement and with a desire to bring the natural environment into the home to a far greater extent than was typical for that era, among other features. The homes were designed to be located on larger, suburban lots.

75 Valley Road as constructed (photograph c. early 1980's)

In late 1984, prior to the creation of the Kleinburg-Nashville Heritage Conservation District, the house was significantly modified with the addition of peaked roof and skylights. This transformed the house into something resembling a typical suburban bungalow. Later the two garages seen in the photographs were converted to living space and small windows installed in place of the garage doors.

75 Valley Rd. undergoing renovation late 1984. New roof and skylights are installed. Garage conversion to living space has not been started.

On June 23, 2004, with the enactment of the Kleinburg-Nashville Heritage Conservation District, this renovated iteration of the house (suburban-style roof, no garages) was designated under Part V of the Ontario Heritage Act, notwithstanding that this building did not reflect the original building or the architectural intent of the Windrush development.

The property changed hands in 2015. The present owner wished to return the house to a form sympathetic to the original design of 1949, including returning the living space to garage use. To compensate for the large loss of floor space resultant from doing so he proposed to add a second floor to the building.

The owner is in the process of correcting his error of proceeding without the required permits. After exhaustive studies and reports, he has now received full permission to proceed from the Toronto Region Conservation Authority ("TRCA"), which issued a permit December, 2017. The TRCA supports the development including the addition of a second floor. The entire project will sit within the original 1949 footprint and on original foundations. The main floor will remain slab-on-grade. The TRCA permit anticipates a return to the flat roof style and the inclusion of large windows in keeping with the style of the original 1949 design. All these elements were reviewed by TRCA, including specifically the windows.

The owner now needs to address the issue of the Part IV heritage designation and to acquire the necessary Heritage Permit before proceeding to apply for Building Permit.

City staff have been consulted and noted they understood the intent of the owner to carry out a renovation sympathetic to the Usonion style of the original house, but noted the matter has been complicated by the owner's actions.

The owner has been advised that as regards the City of Vaughan permit process, the Heritage District issues needs to be attended to first. Following Heritage approval, there will be Zoning & Planning Clearance required and then application to the Building Department for permission to construct.

75 Valley Road undergoing construction summer 2016

Overview:

This report is prepared to address the proposed re-development of the property at 75 Valley Rd., Kleinberg, ON. This property is part of a small mid-20th century subdivision of homes known as Windrush. The building was designated under Part V of the Ontario Heritage Act as part of the Kleinburg-Nashville Heritage Conservation District. The building which was in place at the time of the 2004 District Designation had been significantly renovated from its original 1949 construction with the original flat roofed replaced with a peaked roof with skylights and the original two car garage converted to living space. The current owner wants to reflect the original design intent in the proposed renovations.

Rick Mateljan of Strickland Mateljan Design Associates Ltd. was engaged by the property owner to comment on renovations to this property that are presently underway and to complete a Heritage Impact Study to assess the impact of this intervention.

Rick Mateljan has completed approximately 30 Heritage Impact Studies in the Greater Toronto Area since 2010 and has been involved in over 50 Heritage Conservation projects in his career.

Rick Mateljan has no interest in the outcome of this application to the City of Vaughan Urban Design & Cultural Heritage Department, save as to duty to client and to the Authorities having Jurisdiction to advise to the best of his ability, as he has no other professional, financial, familial or other associative connection or interest in the project.

Key map:

Terms of Reference

The City required terms of reference are as follows:

1. Applicant and owner contact information.

2. A description of the property, both built form and landscape features, and its context including nearby cultural heritage resources.

3. A statement of cultural heritage value if one does not already exist. Part IV individually designated properties will have statements provided in the existing City by-law. This statement shall be based on Ontario Regulation 9/06 – Criteria for Determining Cultural Heritage Value or Interest.

4. A chronological description of the history of the 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 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 property

7. The documentation of all cultural heritage resources on the property by way of photographs (interior & exterior) and /or measured drawings, and by mapping the context and setting of the built heritage.

8. An outline of the development proposal for the lands in question and the potential impact, both adverse and beneficial, the proposed development will have on identified cultural heritage resources. A site plan drawing and tree inventory is required for this section.

9. A comprehensive examination of the following conservation/ mitigation options for cultural heritage resources. Each option should be explored with an explanation of its appropriateness. Recommendations that result from this examination should be based on the architectural and historical significance of the resources and their importance to the City of Vaughan's history, community, cultural landscape or streetscape. Options to be explored include (but are not limited to):

a. Avoidance Mitigation
Avoidance mitigation may allow 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.

b. 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.

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.

Applicant and Owner information:

The present owner is Mr. Brent Peebles

Statement of Heritage Value:

The subject property, a single family house, is designated under City of Vaughan by-law 183-2003 as part of the Kleinburg-Nashville Heritage Conservation District. This is a large District including all of the area of the Village of Kleinburg, the former railroad station, mills, etc. The Heritage Character Statement associated with this bylaw makes reference to "the presence of a substantial stock of heritage buildings, and the continuous maintenance of the rural pattern of road profile, variety of building types and ages, streetscape and landscape elements, mature urban forestry, and modest scale of construction combine to preserve a heritage character that is worthy of preservation".[1]

The by-law does not name Windrush but makes reference to the importance of the river valleys in forming the community and way that they have "provided 'rural retreat' sites for the postwar resettlement that kept the village alive".[2]

The *Kleinburg-Nashville Heritage Conservation District Vol. 1: The Study and Plan* document that preceded the by-law makes limited reference to Windrush. It notes that "the Windrush Co-operative, at the end of Stegman's Mill Road, began the transformation of a bald cornfield into a wooded valley enclave".

> *Not many people were prepared to live in really modern houses, but almost everyone felt that some kind of modern world was rising from the ruins of war. The first of the postwar developments was the Windrush Co-operative off of Stegman's Mill road, built within a few years on either side of 1950. Windrush was something of an "artist's colony", and the members were among those few who took their modern architecture straight up. Many of the original houses are quite faithful to the example of Frank Lloyd Wright's "Usonian" houses, with flat roofs jutting over one another, large areas of glass, wood siding, and massive stone chimneys. It is a remarkable collection of consciously modern architecture. These houses deserve consideration for designation under Part IV of the Ontario Heritage Act*.[3]

The District Study includes one photograph of the existing house on Lot 3, another two photographs which may be of Lot 1 along with a representative Frank Lloyd Wright Usonian

[1] City of Vaughan by-law 183-2003
[2] Ibid.
[3] *Kleinburg-Nashville Heritage Conservation District Vol. 1: The Study and Plan*

design to represent Windrush but apart from these references does not consider the community. Certainly Windrush is not a prominent part of either the Study Plan or the By-Law.

Description of the Subject Property: 75 Valley Road

The subject property is located on Lot 2 of the original Windrush subdivision. The original house was a one-storey structure with attached garage and a building area of 306 m2.

It is assumed to have been built sometime after 1949. The building does not appear on the original 1949 Plan of Subdivision.

In 1952 a double car garage and shed were added to the property. These sit more than 100 m from the main house.

The house is presently undergoing renovation to the first floor and a second storey addition.

The original building appears to have been designed and constructed in the spirit of mid-century modernist design and with obvious Usonian influences. Walls were horizontally-laid thin stone and/or Western Red Cedar board and batten with horizontal battens. There was a flat roof with a row of clerestory windows visible on the front elevation. Windows were large and unobstructed and frequently oriented in corners. A large corner window framed the view of the Humber Valley.

The topography and natural features of the site have not changed since the founding of the community. Detailed studies by Palmer Environmental Consulting in 2017 found that the essential elements of the shoreline at the subject site are essentially unaltered as far back as records are available, almost 70 years. The most prominent feature, the proximity to the river valley and the views of the river from the site, are unchanged.

The entire site is above the flood plain.[4] The house sits outside the "100 year erosion zone" determined by Palmer Environmental Consulting.[5]

The site is randomly treed and heavily shaded. Valley Road, the road servicing the site is gravel and relatively narrow and functions more as a long driveway serving this site and Lot 3 beyond. Valley Rd. is privately owned and maintained by the Windrush.

Description of the Subject Property: Context

The configuration, roads and lotting patterns of the original Windrush are still very evident today. The character of the lower section of the Windrush development, essentially the river valley, embankment and the Humber River remains unchanged. Above the valley, on the upper

[4] Updated Survey and Topographical Survey for 75 Valley Road, prepared and issued by Salna Surveying, December 14, 2016.
[5] Ibid.

plateau above the Humber River's east embankment, the Windrush lands present a different picture.

Of the upper lots above the valley on the plateau, number 4, 5, 6 and 10 on Windrush Rd. have been demolished and replaced with newer and much larger structures that have no connection to the architectural heritage or intent of Windrush. Lots 7 and 9 remain although significantly enlarged since their initial construction. Lot 8 cannot be observed from the street.

The lower lots, in the river valley, have fared better. Lot 1 is virtually intact and is a very well preserved example of the original architectural intent. Lot 3 is also intact although much renovated and in only fair condition. The lands of Lot 1 are under threat from west-bank river erosion and are within the 100 year erosion limited determined by Palmer Environmental Consulting Group Inc. according to findings in their extensive January 31, 2017 report 115 Valley Road Erosion Control Project – Geomorphic Assessment and Preliminary Design Alternatives prepared for the Toronto Region Conservation Authority ("TRCA").[6]

Original house at Lot 1, Windrush, remains nearly as built

[6] 115 Valley Road Erosion Control Project – Geomorphic Assessment and Preliminary Design Alternatives prepared for the Toronto Region Conservation Authority ("TRCA")

Original house at Lot 3, Windrush showing original form but non-original finishes and windows

Site History: Windrush Development - Overview

The Windrush development began as a Plan of Subdivision of Part Lot 25, Concession 8, Township of Vaughan filed Oct 4 1949 by William F and Margaret L McCrow. The development then consisting of 10 residential lots and Block "A" designated as common park and playground, Block "B" designated as Valley Road and Block "C" designated as Upper Road. It would become known as Plan 3755.

The overall property size was about 35 acres.

The property is east of the village of Kleinburg, and was at the time of application in 1949 was surrounded by farmland, bordered on one side by Kleinburg Sideroad and traversed by the Humber River. The Plan shows one unfinished frame dwelling on Lot 5 and an un-named building on Block "A".

William McCrow was a set designer at the Canadian Broadcasting Corporation[7] and also seems to have had some architectural training. He encouraged other CBC personalities to purchase properties in the subdivision. An early purchaser was Lister Sinclair (1921-2006), noted playwright and CBC on-air personality. Sinclair encouraged his friend, author and fellow CBC personality Pierre Berton to visit the property and Berton recorded his earliest recollections of the area in an article called "The Smell and the Feel of the Past in Kleinburg":

> *I remember when I first came to Kleinburg, nearly 30 years ago, on a warm July Sunday, at the invitation of Lister Sinclair. He had just bought three acres of property in a co-operative settlement on the east branch of the Humber, which we later called "Windrush". . .*

[7] https://www.theglobeandmail.com/news/national/lister-sinclair/article20415556/

> *After our picnic my wife and I walked up the hill, through the groves of pointed cedars and the orchard of wild apples and hawthorns – all second growth – and over the stumps left by the loggers of another century. We reached the unused pastureland which had been part of the old Bell farm and we stood in the tall grass and looked across the tops of the trees for more than a mile to the farms that front on Highway 27 and we decided, right at that moment, to buy the property. It took every penny we had but it was worth every penny we had. In thirty years we have not grown tired of that view*.[8]

Pierre Berton makes reference to this as a co-operative settlement prior to his purchase. Likely this was the intention of the McCrow's but the co-operative agreement did not come into place until about 5 years later and McCrow seems at that time to have not been involved. Instead, by this time Pierre Berton had become the most prominent member of the local community.

Windrush Properties Incorporated was granted Letters Patent on June 8 1953. The Letters Patent included as the aims of the Corporation:

> a) *TO foster and promote the interests of the Windrush community by joint communal action; to assist the members of the Corporation in maintaining Windrush as a desirable location for each of their homes; and to provide community services and recreational facilities and generally to assist the members of the Corporation to maintain and mutual compatible living conditions within Windrush; and*
>
> b) *TO do all such other things as are incidental and conducive to the attainment of the above objects*
>
> *. . . the said Corporation shall be carried on without the purpose of gain for its members, and that any profits or other accretions to the Corporation shall be used in promoting its objects.*

First directors were Allan Douglas Hogg, Pierre Francis Berton and John Forrest Mackay Ross; Pierre Berton was President.

The corporation's first order of business was to formalize the way that the residents would be governed and this lead to the creation of what was known as Schedule A. This established the right of the Corporation to collect money from the individual owners for common purposes and to regulate the use of the properties. The regulations were very restrictive:

> 1. *There shall be only one dwelling house and appurtenant buildings on the lot hereby conveyed.*
>
> 2. *Any dwelling and/or the appurtenant buildings and their positions on the land shall be designed by the Grantors or by some one appointed for the purposes of the carrying*

[8] A Walking Tour of Kleinburg, Then & Now

out of the covenants, stipulations, restrictions and provisions contained in this instrument from time to time by them or their heirs, executors, administrators or assigns (hereinafter called the "nominee") and shall be constructed of materials, and according to the specifications of the Grantors or their Appointee.

3. *No building shall be commenced without the written approval of the Grantors or their nomine and all construction shall be proceeded with only under the direct supervision of the Grantors or their nominee.*

4. *The lands and buildings shall not be used for any other purpose but a private residence, but this shall not preclude the the owners from using any part of the said buildings as a studio relating to their profession. Provided, however, that the lands or buildings shall not be used for any purposes that may be deemed a nuisance.*

5. *The land hereby conveyed shall not be divided or dealt with in part or parts but shall be conveyed and/or dealt with as one parcel only, unless otherwise expressly permitted in writing by the Grantors or their Nominee.*

6. *No trees shall be cut on the said lands or on the common lands without the written consent of the Grantors or their Nominee.*

7. *Any changes in the landscaping or altering of contours on the lands shall be done only with the written consent of the Grantors or their Nominee.*

8. *No fences of any kind shall be put up by the Grantees. Should the Grantees, however, erect a fence about the the whole or part of the perimeter of the lands enclosing the whole or part of the lands set out in the said Plan, the Grantees shall pay one-tenth of the whole cost of such fences erected and shall pay one-tenth of the cost of maintaining and repairing such fences or of the erection of such further fences.*

9. *The Grantors or their Nominee shall have the absolute right to amend, vary, alter, cancel, delete, substitute, replace or in any way deal with the restrictions governing this land or any of the land or lands on this Plan without any leave or consent from the Grantees herein, or any other owners or users of the lands herein or any of the other lands on this Plan.*

The effect of Schedule A was to give the Corporation full development control over the architectural design and construction of buildings and to regulate tree cutting, changes to landscaping and fencing. Schedule A was given a defined duration. Its restrictions would expire approximately 32 years later in January, 1985.

In 1984 the Corporation, in the face of the coming expiry of Schedule A, re-wrote these restrictions into a new Schedule A:

1. *There shall be only one dwelling house and appurtenant buildings on the lot hereby conveyed.*

2. *New and replacement buildings, and their location, or additions thereto, shall conform to the existing architecture and, in this respect only, shall require the approval of Windrush Properties, Incorporated*.

3. *The lands and buildings shall not be used for any other purpose but a private residence, however this shall not preclude the owners from using any part of the said buildings as a studio relating to their profession, provided that said lands or buildings shall not be used for any purpose that may be deemed to be a nuisance. In this respect Windrush Properties, Incorporated shall have the sole authority to define the term nuisance to decide whether a nuisance is being or would be created in contravention of this Agreement.*

4. *The land conveyed shall not be divided or dealt with in part or parts but shall be conveyed and/or dealt with as one parcel only.*

5. *No boundary fences of any kind shall be put up between the Lots and/or Blocks of Plan 3755 described herein, with the exception that perimeter fencing along any exterior boundary of Plan 3755 only is hereby permitted.*

6. *Schedule A and its clauses shall be reviewed every 5 years.*

5. *The unanimous written consent of all owners and of Windrush Properties, Incorporated shall suffice to except any party and his assigns, heirs, executors or administrators from any term of this Agreement.*

The net effect of the changes in Schedule 1 are significant. The restrictions on building design and construction were relaxed, requiring only conformance to the existing architecture rather than absolute control over every aspect of the design and construction. The restrictions on tree cutting and landscaping changes were removed. The clause regarding uses creating a nuisance was strengthened by allowing the Corporation only to define what constituted a nuisance.

This revised Schedule A was legally registered on title against all of the homes in Windrush, replacing the earlier co-operative agreement. It was reviewed in 1990 and not changed. In 2001 Pierre Berton asked that it be reviewed again because there had been discussion of the future of Windrush. It was reviewed and re-affirmed at the 2002 Annual General Meeting.[9]

Windrush continued to be a viable entity managing the day-to-day business of the community. Available Annual General Meeting minutes make frequent reference to the provision of water (after 1961 provided by the Municipality), plowing of roads, maintenance of the bridge, etc. The

[9] Windrush, Notice of Meeting January 23, 2005

1999 AGM remarks that Windrush has been a "bulwark against developers"[10] however it also suggests that discussions have taken place regarding dividing Windrush into its upper and lower elements.

In 2005, following the death of Pierre Berton and upon application by his son Peter to sever the Berton property the community reacted in a show of force by rejecting the proposal in a document signed by all of the other residents. The decision referenced Pierre's commitment to Schedule A and the principle that properties not be divided.[11]

The community was not strong enough to control the redevelopment in the early 2000's of the majority of the properties on Windrush Rd., however. The loss of these original buildings and their replacement by homes that were antithetical to the aims of the community was a significant loss to the heritage value and character of Windrush.

Site History: 75 Valley Road

75 Valley Road was built about 1949 as a one storey home with attached two car garage.

The original owner was Allan D. Hogg, an engineer with Ontario Hydro and one of the founding directors of Windrush. There are no original construction drawings available and only two photographs that give an idea of the original building.[12] Despite the limited photographic documentation of the building before or immediately after the pitched roof addition, the original building features can generally be discerned from these photographs.

Front Elevation as-built (photograph c. early 1980's)

[10] Minutes of Windrush Annual General Meeting, 1999
[11] Minutes of Windrush Annual General Meeting, 2005
[12] A Freedom of Information application to the City of Vaughan in July 2017 by David Medhurst agent for the current owner, resulted in an extensive search of municipal records. No plans or permit documents from 1949, 1950, 1951 were found.

Oblique Elevation as-built (photograph c. early 1980's)

On or about June 21, 1984 the then property owner (not the current owner) renovated the house by overbuilding the flat roof structure, adding an approximately 4/12 pitch low-slope peaked roof and skylights and also reorganized the interior spaces and finishes of the home. This may have been done because of concern regarding persistent leakage through the flat roof, according to the memory of long-time neighbour and resident. [13] The attached integral-to-the-house garage was eliminated and the space converted to living space. The low-sloped hip roof was a typical of residential subdivision construction in the 1960's and '70's and the effect of this renovation was to significantly alter the visual appearance of the building and to transform it into something much more similar to an ordinary suburban bungalow than was the original design intent.

Front Elevation showing pitched roof and garage conversion to living space (photograph c. 2015)

[13] Recollection of Donna Aspinall, owner of Lot 3, Windrush

Side Elevation showing pitched roof and garage conversion to living space (photograph c. 2015)

Oblique Elevation showing house in landscape context (photograph c. 2015)

Note that these changes to the building were approximately contemporaneous with the changes that took place regarding Schedule A in 1984/1985. It is not known if this timing was significant or not.

In December 1997 the property changed hands, and was purchased by David Moyles.

The property was purchased by Brent Peebles in 2015. Mr. Peebles is the present owner.

PEEBLES' VISION

The present owner purchased the property with the intention of renovating in a way that was sympathetic to the design intent of the original home and of the Windrush community. His intention was to be reflective of the original modern design elements, to conserve as many of these as possible. He anticipated adding a second story addition and re-purposing the main floor by returning to garage use the previously eliminated two-car garage, reducing interior partitions and opening up interior spaces including creating additional height in the main floor. He intended to remove the suburban-style sloped bungalow roof and return the structure the main original design element of a flat roof with bold soffits and strong visual appeal.

The owner started renovations in the summer of 2016 and these renovations got out of hand as construction accelerated and the scope of work became more extensive than first imagined.

Front Elevation showing renovations underway (photograph February 2018)

Side Elevation showing renovations underway (photograph February 2018)

Oblique Elevation showing renovations underway (photograph February 2018)

These renovations were started without any of the required permits from the City of Vaughan and the Toronto Region Conservation Authority. The property owner was issued a City of Vaughan Stop Work Order November 10, 2016. The renovations are presently stopped. The owner is seeking all required permits.

The foundations dating from the late 1940's have been examined by structural engineers Reed Jones Christophersen ("RJC") in 2017 and found to be robust and sufficient for all anticipated reconstruction and redevelopment, including both an addition of a second floor and the return

to the original style flat roof. The property redevelopment sits fully on and within the original building footprint[14].

Development Proposal:

The development proposal involves:

1. The removal of the mid-1980's pitched roof and the remnants original flat roof structure; replacement with new flat roof,
2. The re-framing of the original exterior walls up to 9' from their original 8',
3. Reframing interior walls to 9', from 8',
4. Removal of some interior walls to modernize with large open spaces,
5. The creation of a new second floor,
6. The original floor slab and foundations to remain,
7. The original stone floor finish on the main floor will be removed, preserved and retained for re-use,
8. The original circa 1949 stone fireplace will be removed, preserved and re-built essentially in the same location as originally designed, but fire-box oriented to face differently,
9. An integral attached garage, entirely eliminated in the 1970's by conversion to interior living space, will be returned to the house design; garage doors will be added back to the south elevation as original to the 1949 construction.

The architectural design intent of the proposal is to stay as sympathetic and true as possible to the design intent of the original building designed by William McCrow:

a) The new and restored building will have a flat roof with generous overhangs and deep fascia to match the original building.

b) The original stone will remain and new stone has been sourced to match.

c) New stone will be laid beside and above the original stone to create a seamless transition between new and old.

d) New siding will be Western Red Cedar installed horizontally as per the original.

[14] Foundation Load Assessment Report – 75 Valley Road. Engineering Study issued August 18, 2017 Reed Jones Christophersen ("RJC") Philip Sarvinis P.Eng. **Page 2, Section 3.1 (2)** "The footprint of the home has not increased in size from the original bungalow and the original foundations were being used"

e) New windows have been sourced. They are larger than the original windows but retain the same character and proportion and are oriented to maximize views of the river and valley as did the previous windows.

The intention here is to re-interpret the design intent of the original building in what is functionally a new building rather than approach this as an addition to the original where the individual elements and building progression can be discerned.

Architecture of William McCrow:

The design of the homes at Windrush is attributed to William McCrow[15]. Little is known of McCrow's background with regard to architectural training or ambition. It appears to have been a hobby for him. He is described as a set designer at the CBC and he is referenced in 1980 as a director of a company called Les Productions W D M Inc. in Montreal[16].

The only other known home to be designed by him is Crowick House in South Yorkshire, England. McCrow was the Art Director on the film Kes and apparently designed the home for Eric Wicks who was a location builder on the film. The design of the house recalls his work at Windrush with stone walls, flat roofs and expressive cantilevers however taking these elements to a new level of sophistication. Crowick House presently exists but is in poor condition and facing development pressure. There is some local interest in preserving it as a rare example of American style architecture in Britain.[17]

Crowick House

Architectural significance of the Windrush Development:

Windrush is significant in that is part of the post WW2 trend to sub-urbanization that began in all of the major cities in North America in the late 1940's and continued for most of the rest of the century. Levittown in New York is the most known example of these communities that were

[15] https://www.theglobeandmail.com/news/national/lister-sinclair/article20415556/
[16] https://www.ic.gc.ca/app/scr/cc/CorporationsCanada/fdrlCrpDtls.html?corpId=656526
[17] https://archinect.com/forum/gallery/150042023/1/query-from-england-on-canadian-architect-william-bill-mccrow

built around a car and driving lifestyle and that generally were characterized by modernist architectural expression. Windrush is clearly very influenced by architectural Modernism and by a North American interpretation of that style known as Mid-Century Modernism.

Modernism was a philosophical and cultural movement associated with early 20th century Europe that highly influenced art and social thought. Architecturally, it is marked by a dramatic departure from traditional styles not only in visual terms but in its use of materials and orientation of spaces. It emphasized flat planes of monochromatic materials, flat or very minimally sloped roofs, simple planes of glass that are extensions of the wall plane, an absolute absence of any applied decoration and a philosophy that "form follows function"[18]. It attempted to blur the line between indoor and outdoor spaces and to allow for more flexibility of use of indoor spaces through the use of fewer walls and internal divisions. Exterior were typically simple, natural materials, and designs often cubic and presenting themselves as a composition of cubes and planes. Massing was deeply sculptural. Interior finishes were often extensions of exterior finishes to create a lack of differentiation between interior and exterior space.

In North America, early 20th century Modernism influenced residential, commercial and institutional design and was widely interpreted by notable architects like Frank Lloyd Wright and others.

Frank Lloyd Wright created the term "Usonian" to describe his vision of American 20th century middle-class residential development and he developed about 60 standard designs for homes that he felt would be suitable for simple, residential sites.[19] The homes are similar in character to larger houses that Wright designed in Oak Park and elsewhere featuring flat roofs, clerestory windows, native materials, large cantilevered overhangs and strong visual connections between exterior and interior space.

Comparable development: Briarcliffe, Ottawa ON

> The community of Briarcliffe in Ottawa is a "small, rare, intact example of Modern planning and architecture in Ottawa's east end that was developed mainly between 1961 and 1969 . . . the district has 23 houses and a small public park . . . although each house is unique, the neighbourhood is unified by its Modern architectural character and natural topography.[20]
>
> The community of Briarcliffe has recently been recognized as a Heritage Conservation District by the City of Ottawa.

[18] Statement commonly attributed to Frank Lloyd Wright
[19] Wikipedia
[20] Briarcliffe - HCD Study Plan (City of Ottawa)

Home in Briarcliffe, Ottawa ON

Comparable development: Arapahoe Acres, Englewood, Colorado

Arapahoe Acres is a community of 124 homes created between 1949 and 1957. It was the creation of developer and designer Edward B. Hawkins, an admirer of Frank Lloyd Wright. Hawkins favoured long, linear designs with flat roofs, large windows and use of stone and natural elements. He established a series of covenants for the community including restrictions on use, dwelling size, fencing and requiring the creation of an Architectural Control Committee to approve all building and landscaping works. These covenants were to be in force for 25 years following the creation of the community.[21]

In 1998 Arapahoe Acres became the first post-WW2 subdivision to be listed as a National Register Historic District

[21] https://arapahoeacreshistoricdistrict.org/covenants/

Home in Arapahoe Acres, Colorado USA

Comparable development: Usonia, Mount Pleasant, New York

> Wright's ideas came to fruition in 1947 in Mount Pleasant, New York, when a group of idealistic New Yorkers lead by architect David Henken purchased 95 acres of heavily wooded, gently rolling property with the intent of creating a cooperative housing community.[22]
>
> "I think there was a great surge of idealism after the war, which gave us a freedom to do what we wanted to do" recalled Aaron Resnick, another of the architects who designed homes in the development. "We were united on several concepts: we wanted natural or organic houses, we wanted a sense of community spirit and we needed homes that could be built inexpensively. And, of course, we were all admirers of architect Frank Lloyd Wright".[23]

Usonia, as its founders called it, is located about 100 miles north of New York City and remains an enclave of original homes featuring glass and stone construction, flat roofs, open floor plans, oversized windows, carports and an overwhelming desire to fit into the landscape they are built upon.[24]

In 2012 the Usonia Historic District was added to the National Register of Historic Places.

[22] https://www.nytimes.com/1981/08/30/nyregion/usonia-community-remembers-its-past.html?pagewanted=1
[23] Ibid.
[24] https://www.architecturaldigest.com/story/usonia-ny-best-designed-small-town-in-the-us

Frank Lloyd Wright designed home in Usonia, New York USA

Conservation Principles[25]:

Respect for documentary evidence: The premise of the proposed addition is founded upon respect for the original design value and intent of the building.

Respect for the original location: no re-location of the heritage resource is proposed. The physical setting remains as it was, the preservation of the existing footprint exactly as it has been.

Respect for historic material: The proposal intends to replicate and source new material to match that existing in 1949 and the existing materials have been preserved for re-use. The re-institution of the flat roof elements, the extension of the exterior cladding material, particularly the original stone elements, is completely in sympathy with the 1949 original.

Respect for original fabric: There is loss of original fabric with this proposal including interior and exterior finishes and windows.

Reversibility: The proposed renovation cannot be reversed.

Legibility: The proposed addition is not demonstrably different from the original building before the district heritage plan was put in place. The legibility of the original building is impaired.

Maintenance: The proposed use makes the likelihood of regular future maintenance very high.

Conservation/Mitigation:

No alternative design options have been considered. The Toronto Region Conservation Authority would in any event not allow any different footprint, it is not possible to move the

[25] Ontario Heritage Trust: "Eight Guiding Principles in the Conservation of Heritage Properties"

structure and the addition of a second floor is the best solution to allow the creation of needed additional living space. The house has no basement as it is slab-on-grade.

Mandatory Analysis:

The property must be evaluated under the criteria for designation under Ontario Regulation 9/06, *Ontario Heritage Act*. This is the part of the Act that allows designation of individual designations (Part IV designations). The criteria area:

1. The property has design value or physical value because it,

    i. is a rare, unique, representative or early example of a style, type, expression, material or construction method.

    ii. displays a high degree of craftsmanship or artistic merit, or

    iii. demonstrates a high degree of technical or scientific achievement.

Analysis: The property is important as one of the remaining examples of the original Windrush development. It is a rare and unique example of a style. It did not display a high degree of craftsmanship or artistic merit, nor did it demonstrate high technical or scientific achievement.

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

    i. has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to the community,

    ii. yields, or has the potential to yield, information that contributes to an understanding of a community or culture, or

    iii. demonstrates or reflects the work or ideas of an architect, artist, builder, designer or theorist who is significant to a community.

Analysis: The property has associations with the Windrush development and with one its earliest members, Allan D. Hogg, who was significant to the community. The property does yield information that contributes to an understanding of a culture, in this case the post-WW2 sub-urbanization of large communities and the trend to co-operative communities. The founder and designer of this community, William McCrow, is not of particular local or national significance, however. Pierre Berton is a national icon as a writer and historian; his visions for Windrush were related to the nature and beauty of the natural setting. This is preserved and unaltered in the lower valley portion of Windrush.

3. The property has contextual value because it,

    i. is important in defining, maintaining or supporting the character of an area,

ii. is physically, functionally, visually or historically linked to its surroundings, or

iii. is a landmark.

Analysis: The property is important in defining, maintaining and supporting the natural river valley character of Valley Road which comprises the last remaining intact part of the Windrush development. It is physically and visually linked to its surroundings. It is not a landmark.

Concluding Analysis:

The property at 75 Valley Road has architectural, contextual and historical value and would be a candidate for Part IV designation under the Ontario Heritage Act.

Provincial Policy Statement:

Under the Provincial Policy Statement,

"Conserved: means the identification, protection, use and/or management of cultural heritage and archaeological resources in such a way that their heritage values, attributes and integrity are retained."

Analysis:

Under this definition the property at 75 Valley Rd. does warrant conservation.

Conclusion:

Notwithstanding the property owner's commencement of construction without the required permits, his intention to renovate the subject building in a way sympathetic to the original design intent of the building and community can be encouraged and supported as an appropriate intervention. The work that has been commenced is of a high standard, engineering has confirmed that it is sound from the point-of-view of reuse of the original slab-on-grade, foundations and footings, and it should be allowed to proceed. Toronto Region Conservation Authority, which has a significant interest in the site, has supported by issuing a permit for all aspects of the development including the addition of a second storey.

The work meets the intent of the Kleinburg-Nashville Heritage Conservation District Plan and all local by-laws.

The work does not preclude the possibility that the adjacent homes on Lots 1 and 3 could be considered for Part IV designation at some future date and does not preclude that this building could be similarly considered.

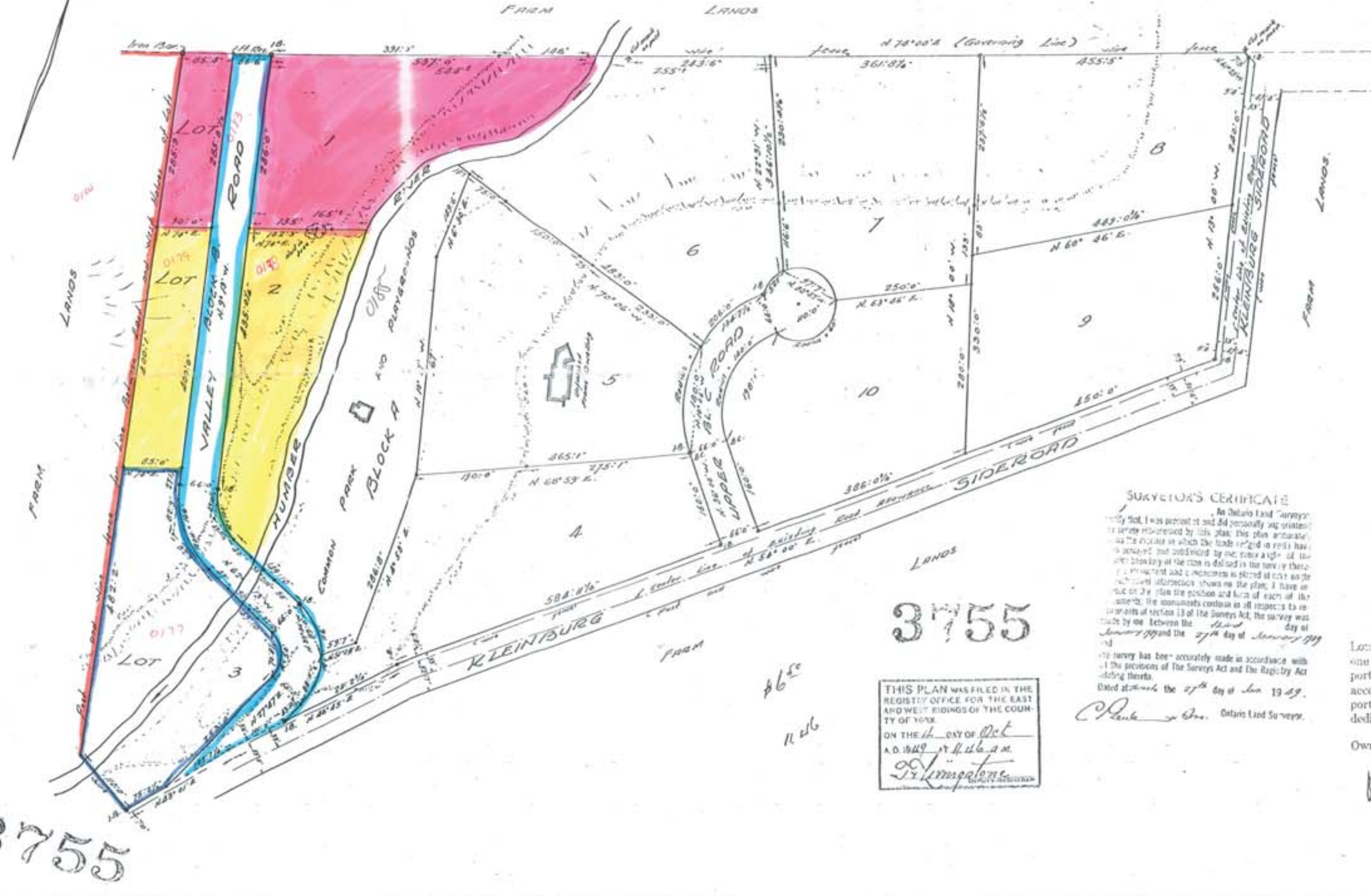
Appendices:

A) Original Plan of Subdivision (Plan 3755)
B) Proposed Building Drawings (Fausto Cortese Architects)
C) Report from Palmer Environmental Consulting Group
D) Report from Read Jones Cristofferson Ltd.
E) TCRA Permit

3755

PLAN OF SUBDIVISION
OF PART OF LOT 25 CONCESSION 8 AND PT. ROAD ALLOWANCE
BETWEEN LOTS 25 & 26. TOWNSHIP OF VAUGHAN

SCALE 100 ft. = 1 in.



3755

NOTES

The N. 74° E. of Road Allowance Between Lots 25 & 26 governs all bearings hereon
Iron pipes are planted at all lot corners and are shown +
Standard Iron Bars planted are shown thus + 18.

FIELD NOTES

I hereby certify that this plan represents a true copy of the field notes taken in connection with survey thereof.
Dated January 27 1949.
C. P[illegible] O. L. S.

[illegible]
1st. That I was personally present and did see this plan duly signed at [illegible]
2nd. That I the said [illegible]
3rd. That I am a subscribing witness to said signing.

Sworn before me this [illegible] day of [illegible] 19 [illegible] W. P. Cassidy

SURVEYOR'S CERTIFICATE

I, [illegible], An Ontario Land Surveyor, certify that, I was present at and did personally superintend the survey represented by this plan; this plan accurately shows the manner in which the lands included in it have been surveyed and subdivided by me; every angle of the outer boundary of the plan is defined in the survey thereof by a monument and a monument is planted at every angle of each street intersection shown on the plan; I have shown on the plan the position and kind of each of the monuments; the monuments conform in all respects to the requirements of section 13 of The Surveys Act; the survey was made by me between the third day of January 1949 and the 27th day of January 1949 and the survey has been accurately made in accordance with all the provisions of The Surveys Act and The Registry Act relating thereto.

Dated at [illegible] the 27th day of Jan 1949.

C. P[illegible] Ontario Land Surveyor.

3755

THIS PLAN WAS FILED IN THE REGISTRY OFFICE FOR THE EAST AND WEST RIDINGS OF THE COUNTY OF YORK
ON THE 4th DAY OF Oct
A.D. 1949 AT 11.46 a.m.
T. Livingstone
DEPUTY REGISTRAR

OWNER'S CERTIFICATE

Lots 1 to 10 and Bl. A, B, C coloured pink hereon, one foot reserves coloured green, are portions coloured brown are laid out according to my instructions and the portions coloured brown are hereby dedicated as Public Highways.

Owner Wm. F. McGraw [illegible]
Margaret L. McGraw

I certify that this is a duplicate copy of a plan being a subdivision of Part of Lot 25 Con. 8. Tp. of Vaughan.) prepared by me for [illegible] and dated 27th day of January A.D. 1949

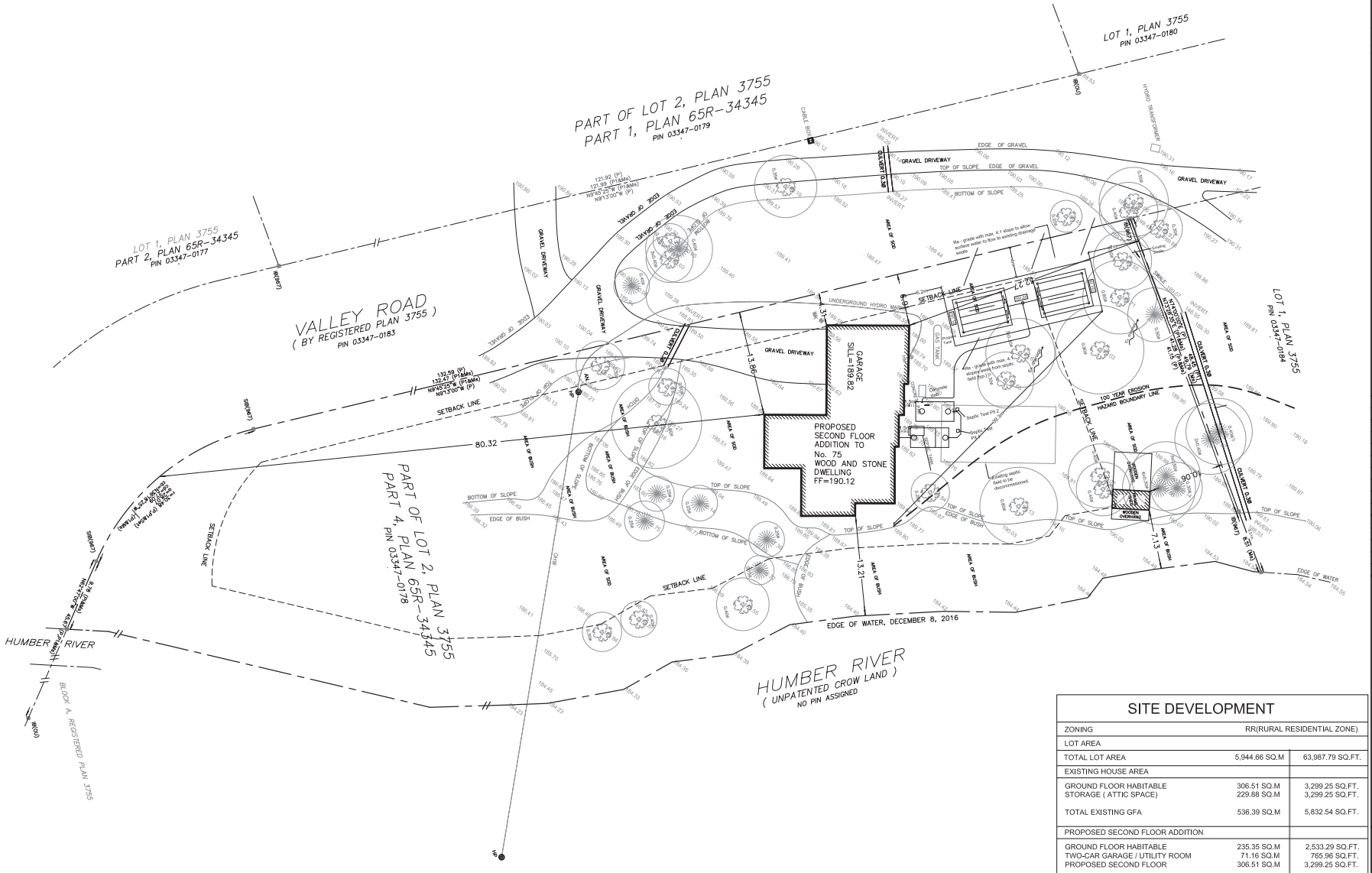
Approved Under Section 25 of THE PLANNING ACT, 1946
this 12th day of SEPTEMBER 1949.

W. Griesinger
MINISTER OF PLANNING & DEVELOPMENT

3755

PART OF LOT 2
REGISTERED PLAN 3755

THE CITY OF VAUGHAN
REGIONAL MUNICIPALITY OF YORK



1 / A1.0 SITE PLAN
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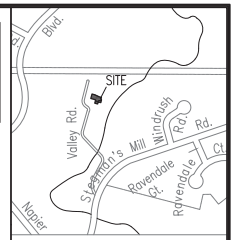

KEY PLAN

ONTARIO ASSOCIATION OF ARCHITECTS
FAUSTO CORTESE
LICENCE
7774

4		
3		
2		
1		

ISSUED FOR CONSTRUCTION
ISSUED FOR BID
ISSUED FOR BUILDING PERMIT
ISSUED FOR SITE PLAN APPROVAL
SUBMITTALS

CONTRACTORS MUST CHECK AND VERIFY ALL DIMENSIONS AND CONDITIONS ON THE PROJECT AND MUST REPORT ANY DISCREPANCIES TO THE DESIGNER BEFORE PROCEEDING WITH CONSTRUCTION.

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FCA
FAUSTO CORTESE ARCHITECTS
3590 RUTHERFORD RD. UNIT 7
VAUGHAN, ONTARIO, L4H 3T8
416-806-7000
FCORTESE@FCARCHITECTS.CA

SITE DEVELOPMENT

ZONING		RR(RURAL RESIDENTIAL ZONE)
LOT AREA		
TOTAL LOT AREA	5,944.66 SQ.M	63,987.79 SQ.FT.
EXISTING HOUSE AREA		
GROUND FLOOR HABITABLE	306.51 SQ.M	3,299.25 SQ.FT.
STORAGE (ATTIC SPACE)	229.88 SQ.M	3,299.25 SQ.FT.
TOTAL EXISTING GFA	536.39 SQ.M	5,832.54 SQ.FT.
PROPOSED SECOND FLOOR ADDITION		
GROUND FLOOR HABITABLE	235.35 SQ.M	2,533.29 SQ.FT.
TWO-CAR GARAGE / UTILITY ROOM	71.16 SQ.M	765.96 SQ.FT.
PROPOSED SECOND FLOOR	306.51 SQ.M	3,299.25 SQ.FT.
TOTAL PROPOSED GFA	541.86 SQ.M	5,832.54 SQ.FT.
TOTAL HOUSE FOOTPRINT	306.51 SQ.M	3,299.25 SQ.FT.
LOT COVERAGE	ALLOWED	PROVIDED
TOTAL COVERAGE	10.00%	5.16%
SETBACKS	BY-LAW	PROVIDED
FRONT YARD	15.00 M	80.32M
REAR YARD	15.00 M	32.27M
EXTERIOR SIDE YARD	9.00 M	13.21M
INTERIOR SIDE YARD	4.50 M	4.31M
BUILDING HEIGHT	BY-LAW	PROVIDED
HOUSE	9.5M	6.86M

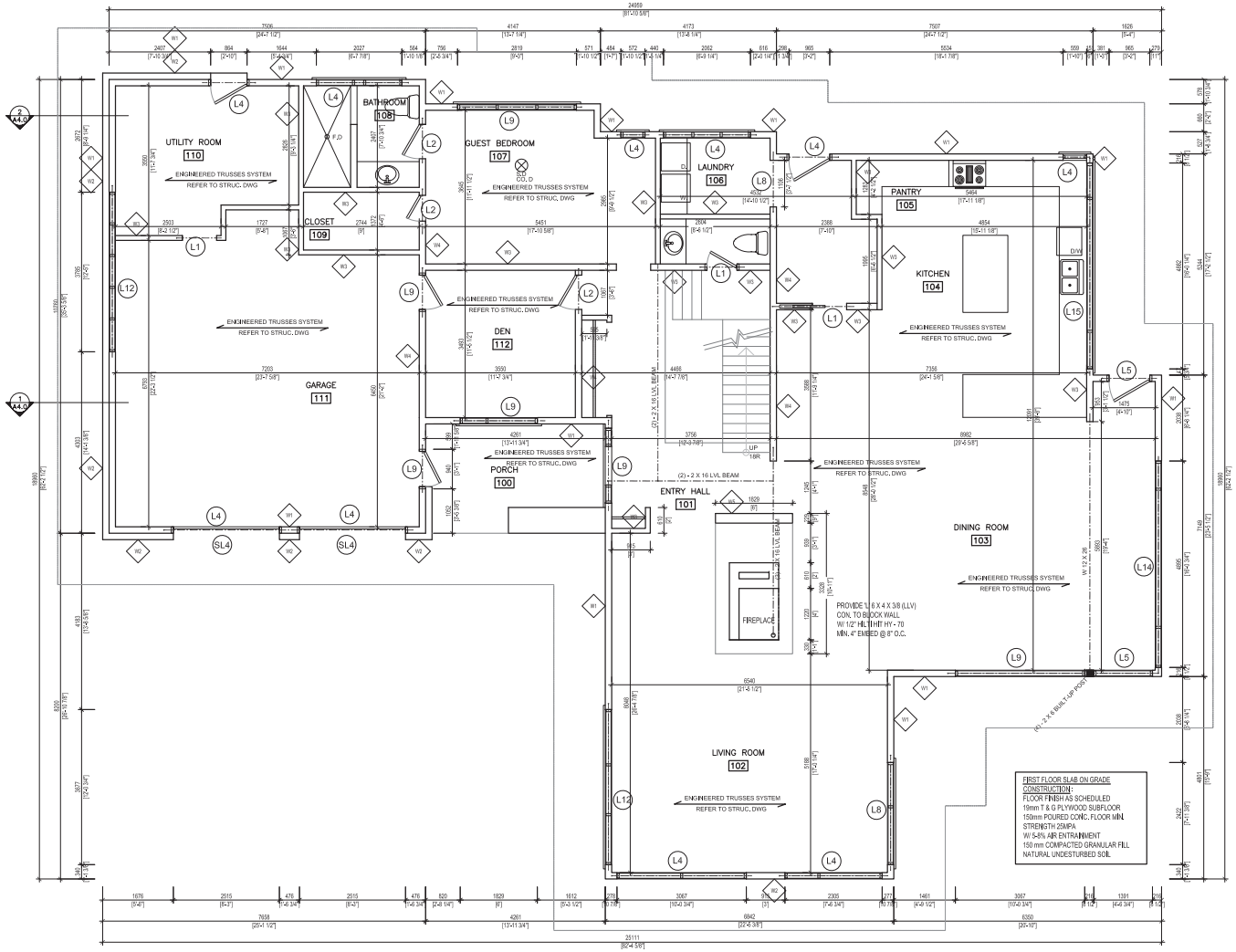
PROJECT:
EXISTING TWO STOREY DWELLING
ON
75 VALLEY ROAD
KLEINBERG

DRAWING:
SITE PLAN

PLOTTER:

DATE:	PROJECT No.
DECEMBER 2016	2016-34
SCALE: AS NOTED	DRAWING No. A1.0
DRAWN BY:	REVIEWED BY:

SHEETS
FILE NAME:
PLOT SCALE: 1=



1 A2.0 FIRST FLOOR PLAN
SCALE: 1:75

WALL TYPES

W1 — EXTERIOR VINYL SIDING
LAYERS TO OVERLAP EACH OTHER
TYVEK AIR BARRIER
13mm PLYWOOD SHEATHING
38X140 STUDS @ 406mm O.C.
R 24 BATT INSULATION
6 MIL POLY VAPOUR BARRIER
13mm GYPSUM BOARD

W2 — STONE VENNER/BRICK
METAL TIES SPACED MAX.400mm O.C.
VERT. & 600mm O.C. HORIZ.
25mm AIR SPACE
TYVEK AIR BARRIER
13mm PLYWOOD SHEATHING
38X140 STUDS @ 406mm O.C.
R 24 BATT INSULATION
6 MIL POLY VAPOUR BARRIER
13mm DRYWALL

W3 — 13mm DRYWALL
38X89 STUDS @ 406mm O.C.
13mm DRYWALL

W4 — 13mm DRYWALL
38X140 STUDS @ 406mm O.C.
13mm DRYWALL

W5 — 19mm INTERIOR STONE TILE
13mm PLYWOOD SHEATHING
38X184 STUDS @ 406mm O.C.
13mm GYPSUM BOARD

SMOKE DETECTOR
CARBON MONOXIDE DETECTOR
INTERLINKED

LINTEL SCHEDULE

L1 = (2) - 2 X 6
L2 = (3) - 2 X 6
L3 = (2) - 2 X 8
L4 = (3) - 2 X 8
L5 = (3) - 2 X 10
L6 = (1) - 2 X 10
(2) - 2 X 10 LVL
L7 = (2) - 2 X 10
(2) - 2 X 10 LVL
L8 = (2) - 2 X 10 LVL
L9 = (3) - 2 X 10 LVL
L10 = (2) - 2 X 12 LVL
L11 = (3) - 2 X 12 LVL
L12 = (3) - 2 X 14 LVL 1.9E
L13 = (3) - 2 X 16 LVL 1.9E
L14 = (3) - 2 X 16 LVL 1.9E
L15 = (3) - 2 X 20 LVL 1.9E

LOOSE STEEL LINTELS(NON-LOAD BEARING WALLS)

NO.	DESCRIPTION	CLEAR SPAN
SL1	3 1/2"X 3 1/2"X 1/4" L	*UP TO 4'-0"*
SL2	3 1/2"X 3 1/2"X 5/16" L	*4'-0" - 6'-0"*
SL3	4"X 3 1/2"X 1/4" L	*6'-0" - 8'-0"*
SL4	5"X 3 1/2"X 3/8" L	*8'-0" - 9'-0"*
SL5	6"X 4"X 3/8" L	*9'-0" - 10'-0"*
SL6	6"X 4"X 1/2" L	*10'-0" - 12'-0"*

GENERAL NOTE
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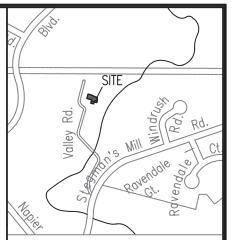

KEY PLAN

ONTARIO ASSOCIATION OF ARCHITECTS
FAUSTO CORTESE
LICENCE
7774

N

4		
3		
2		
1		

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VAUGHAN, ONTARIO, L4H 3T8
416-806-7000
FCORTESE@FCARCHITECTS.CA

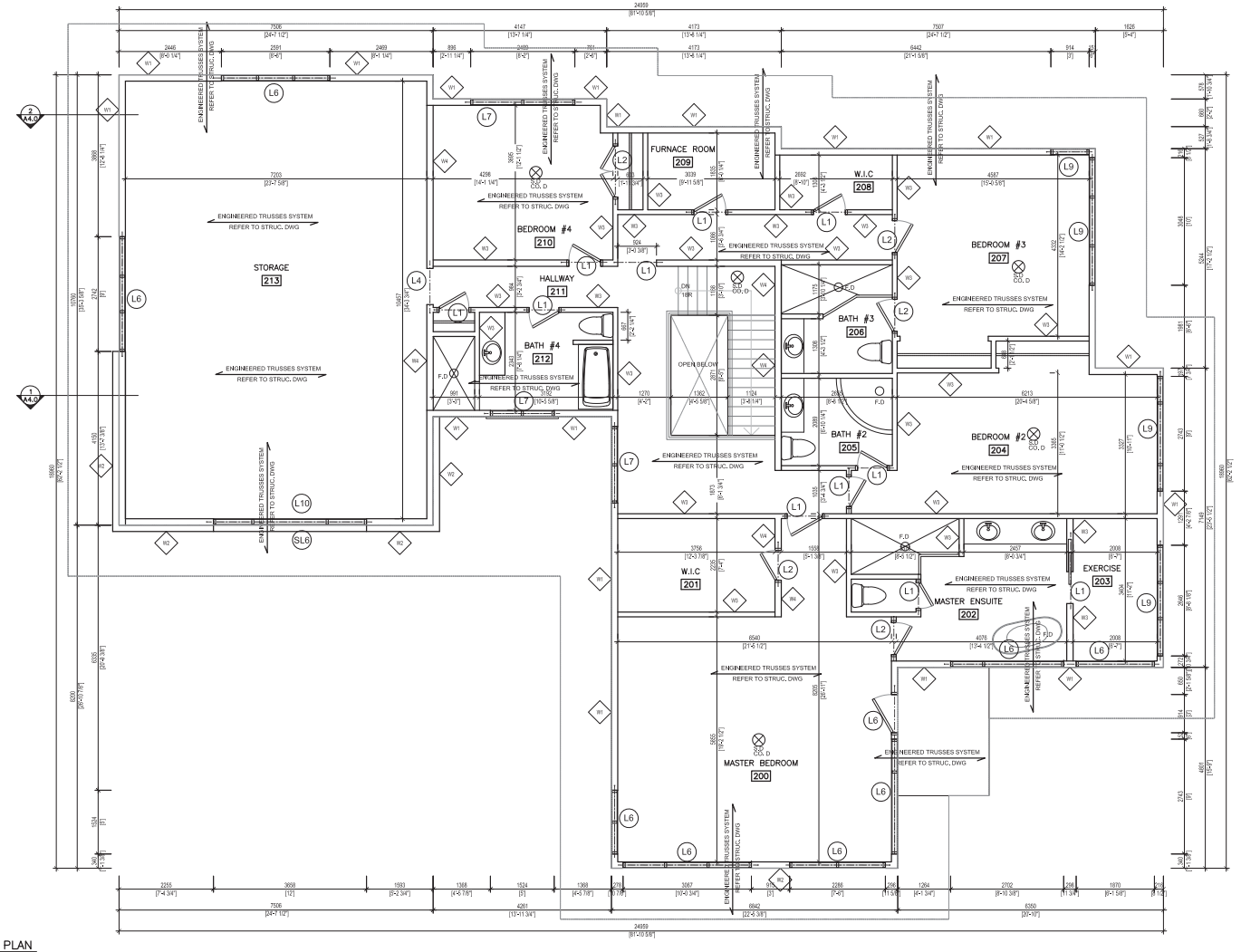
PROJECT:
PROPOSED TWO STOREY DWELLING
ON
75 VALLEY ROAD
KLEINBERG

DRAWING:
FIRST FLOOR PLAN

PLOTTER:

DATE:	PROJECT No.
DECEMBER 2016	2016-34
SCALE: AS NOTED	DRAWING No. A2.0
DRAWN BY:	REVIEWED BY:

PLOT SCALE: 1=
FILE NAME:
SHEETS



1 / A2.1 SECOND FLOOR PLAN
SCALE: 1:75

WALL TYPES

W1 — EXTERIOR VINYL SIDING
LAYERS TO OVERLAP EACH OTHER
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13mm PLYWOOD SHEATHING
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CARBON MONOXIDE DETECTOR
INTERLINKED

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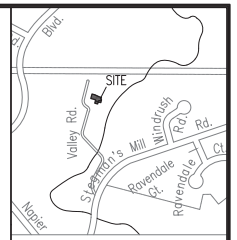

KEY PLAN

ONTARIO ASSOCIATION OF ARCHITECTS
FAUSTO CORTESE
LICENCE 7774

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ISSUED FOR BID
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PROJECT:
PROPOSED TWO STOREY DWELLING
ON
75 VALLEY ROAD
KLEINBERG

DRAWING:
SECOND FLOOR PLAN

PLOTTER:

DATE: DECEMBER 2016
PROJECT No.: 2016-34
SCALE: AS NOTED
DRAWING No.: A2.1
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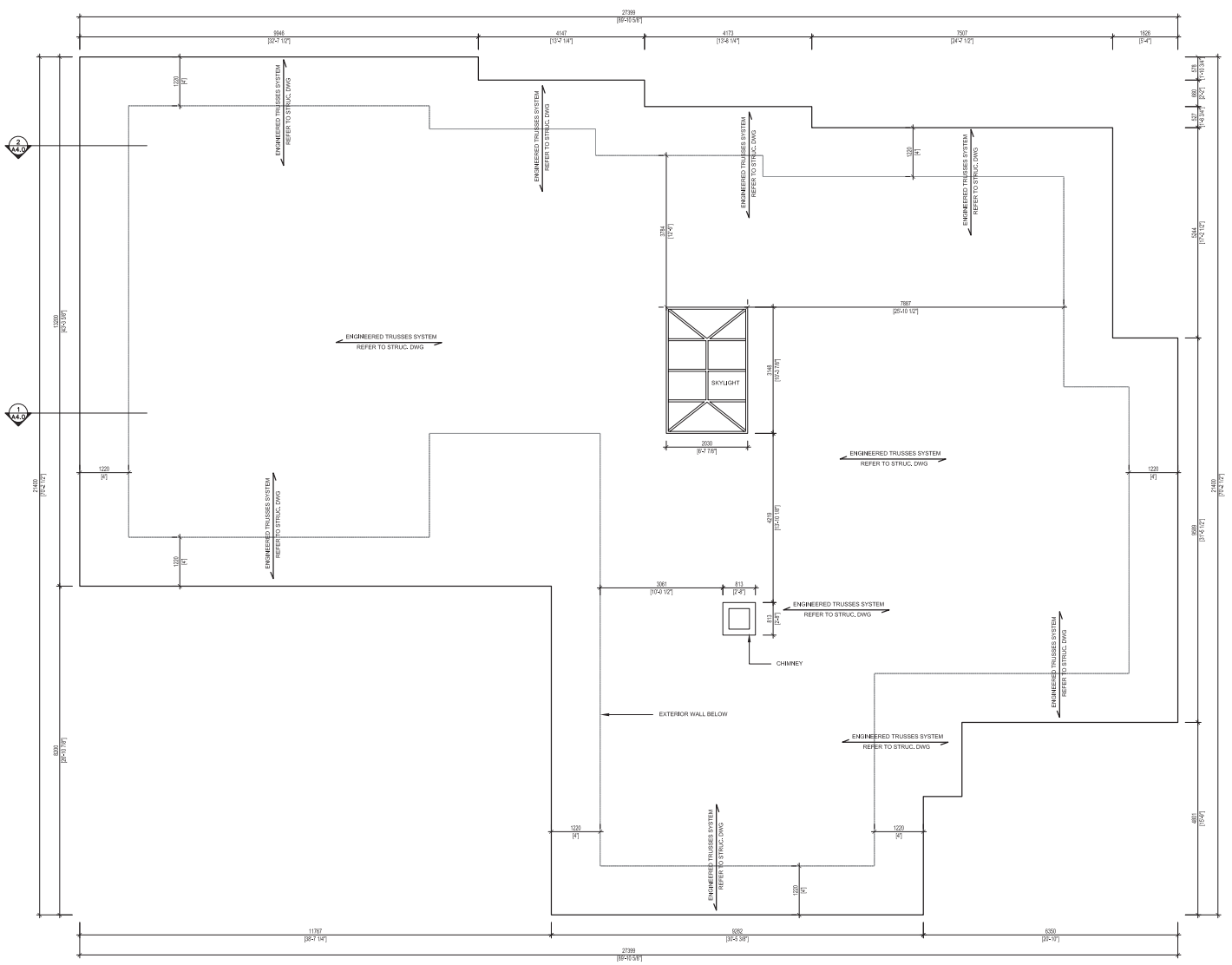


1 A2.2 ROOF PLAN
SCALE: 1:75

WALL TYPES

W1 EXTERIOR VINYL SIDING LAYERS TO OVERLAP EACH OTHER TYVEK AIR BARRIER 13mm PLYWOOD SHEATHING 38X140 STUDS @ 406mm O.C. R 24 BATT INSULATION 6 MIL POLY VAPOUR BARRIER 13mm GYPSUM BOARD	W3 13mm DRYWALL 38X89 STUDS @ 406mm O.C. 13mm DRYWALL	W5 19mm INTERIOR STONE TILE 13mm PLYWOOD SHEATHING 38X184 STUDS @ 406mm O.C. 13mm GYPSUM BOARD
W2 STONE VENNER/BRICK METAL TIES SPACED MAX.400mm O.C. VERT. & 600mm O.C. HORIZ. 25mm AIR SPACE TYVEK AIR BARRIER 13mm PLYWOOD SHEATHING 38X140 STUDS @ 406mm O.C. R 24 BATT INSULATION 6 MIL POLY VAPOUR BARRIER 13mm DRYWALL	W4 13mm DRYWALL 38X140 STUDS @ 406mm O.C. 13mm DRYWALL	SMOKE DETECTOR CARBON MONOXIDE DETECTOR INTERLINKED

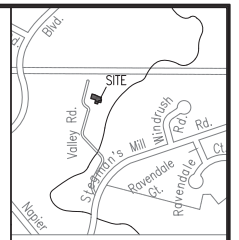
LINTEL SCHEDULE

L1= (2) - 2 X 6	L8 = (2) - 2 X 10 LVL
L2= (3) - 2 X 6	L9 = (3) - 2 X 10 LVL
L3 = (2) - 2 X 8	L10 = (2) - 2 X 12 LVL
L4 = (3) - 2 X 8	L11 = (3) - 2 X 12 LVL
L5 = (3) - 2 X 10	L12 = (3) - 2 X 14 LVL 1.9E
L6 = (1) - 2 X 10 (2) - 2 X 10 LVL	L13 = (3) - 2 X 16 LVL 1.9E L14 = (3) - 2 X 16 LVL 1.9E
L7 = (2) - 2 X 10 (2) - 2 X 10 LVL	L15 = (3) - 2 X 20 LVL 1.9E

LOOSE STEEL LINTELS(NON-LOAD BEARING WALLS)

NO.	DESCRIPTION	CLEAR SPAN
SL1	3 1/2"X 3 1/2"X 1/4" L	*UP TO 4'-0"*
SL2	3 1/2"X 3 1/2"X 5/16" L	*4'-0" - 6'-0"*
SL3	4"X 3 1/2"X 1/4" L	*6'-0" - 8'-0"*
SL4	5"X 3 1/2"X 3/8" L	*8'-0" - 9'-0"*
SL5	6"X 4"X 3/8" L	*9'-0" - 10'-0"*
SL6	6"X 4"X 1/2" L	*10'-0" - 12'-0"*

GENERAL NOTE
*ALL DIMENSIONS FOR REFERENCE ONLY
NEED TO BE CONFIRMED ON SITE



KEY PLAN

ONTARIO ASSOCIATION OF ARCHITECTS
FAUSTO CORTESE
LICENCE
7774

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FAUSTO CORTESE
ARCHITECTS
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VAUGHAN, ONTARIO, L4H 3T8
416-806-7000
FCORTESE@FCARCHITECTS.CA

PROJECT:
PROPOSED TWO STOREY DWELLING
ON
75 VALLEY ROAD
KLEINBERG

DRAWING:
ROOF PLAN

PLOTTER:

DATE:	PROJECT No.
DECEMBER 2016	2016-34
SCALE: AS NOTED	DRAWING No. A2.2
DRAWN BY:	REVIEWED BY:

PLOT SCALE: 1=
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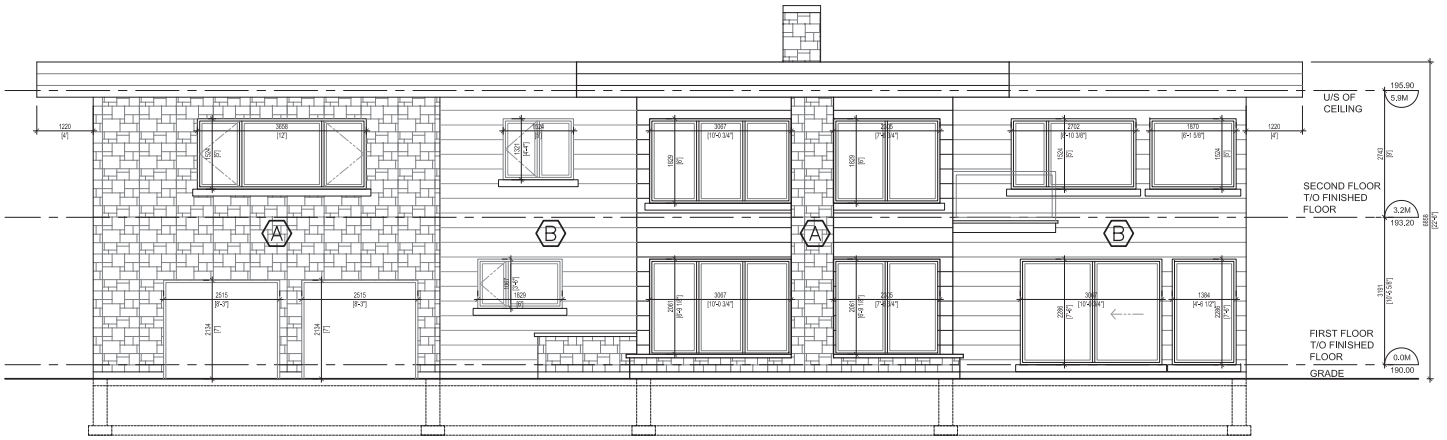

1 A3.0 NORTH ELEVATION
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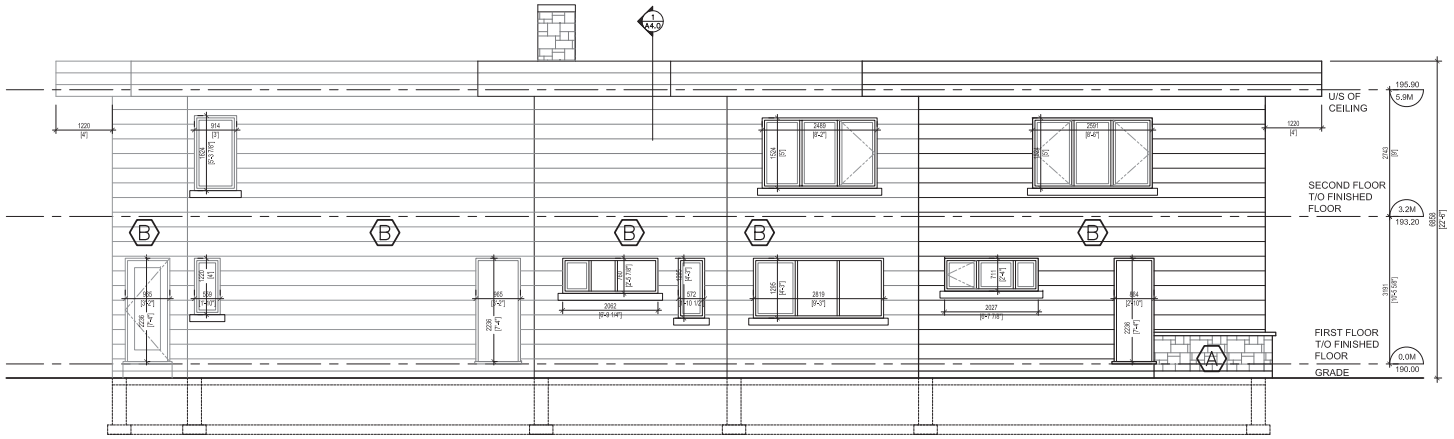

2 A3.0 SOUTH ELEVATION
SCALE: 1:75

FENESTRATION BREAKDOWN					
	DISTANCE TO PROPERTY LINE	ALLOWABLE UNPROTECTED OPENINGS	TOTAL SM (SQ/FT) OF FENESTRATION	TOTAL SM (SQ/FT) OF WALL AREA	PERCENTAGE OF FENESTRATION
NORTH ELEV.	34.46 m	100 %	20.90 (224.97)	42.69 (459.51)	48.96 %
SOUTH ELEV.	57.84 m	100 %	23.55 (253.49)	45.76 (492.56)	51.46 %
EAST ELEV.	13.21 m	93 %	19.40 (208.82)	43.58 (469.09)	44.52 %
WEST ELEV.	4.43 m	17 %	11.36 (122.28)	67.13 (722.58)	16.92 %
TOTALS			75.21 (809.55)	199.16 (2143.74)	37.76 %
% OF FENESTRATION					

A STONE VENEER
B WOOD CLADDING

GENERAL NOTE :
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416-806-7000
FCORTESE@FCARCHITECTS.CA

PROJECT:
PROPOSED TWO STOREY DWELLING
ON
75 VALLEY ROAD
KLEINBERG

DRAWING:
ELEVATIONS

PLOTTER:

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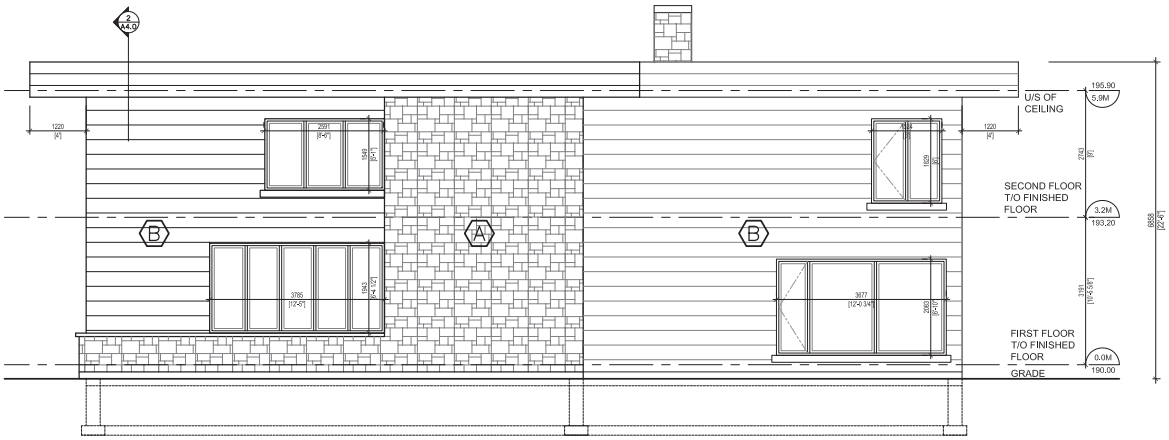

1 A3.1 WEST ELEVATION
SCALE: 1:75

2 A3.1 EAST ELEVATION
SCALE: 1:75

FENESTRATION BREAKDOWN					
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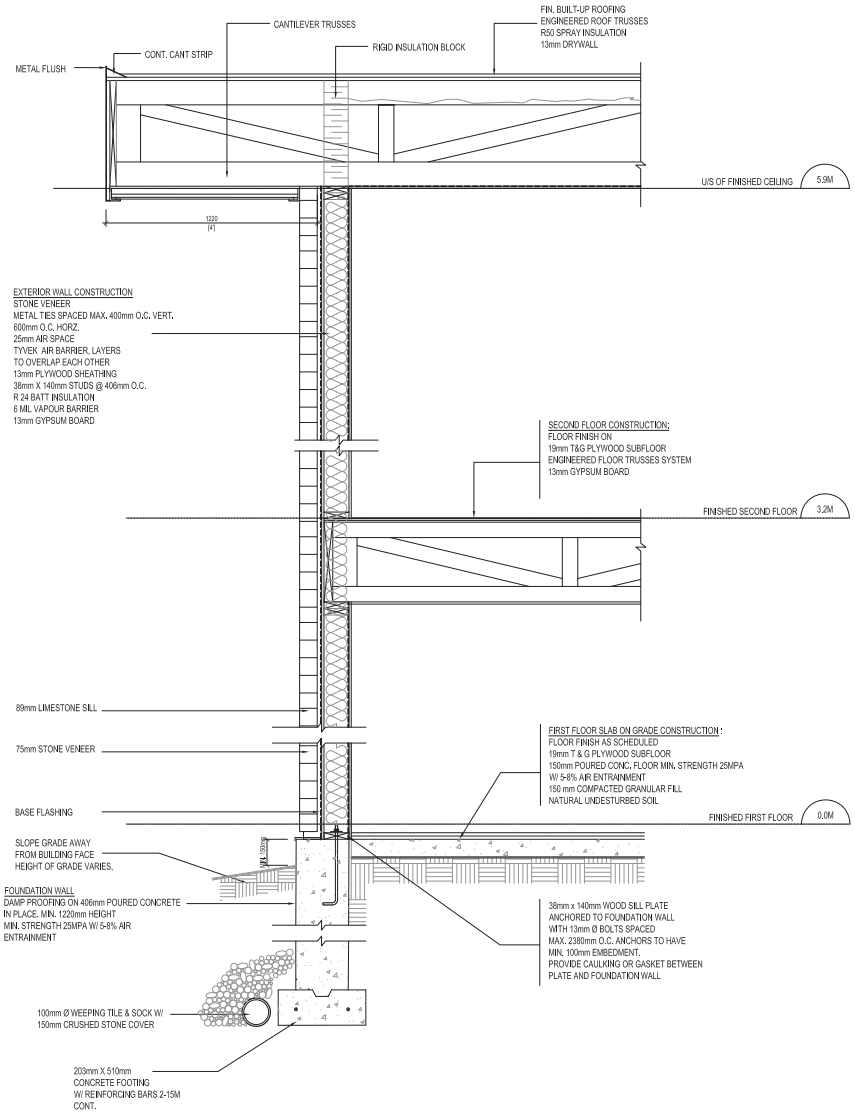

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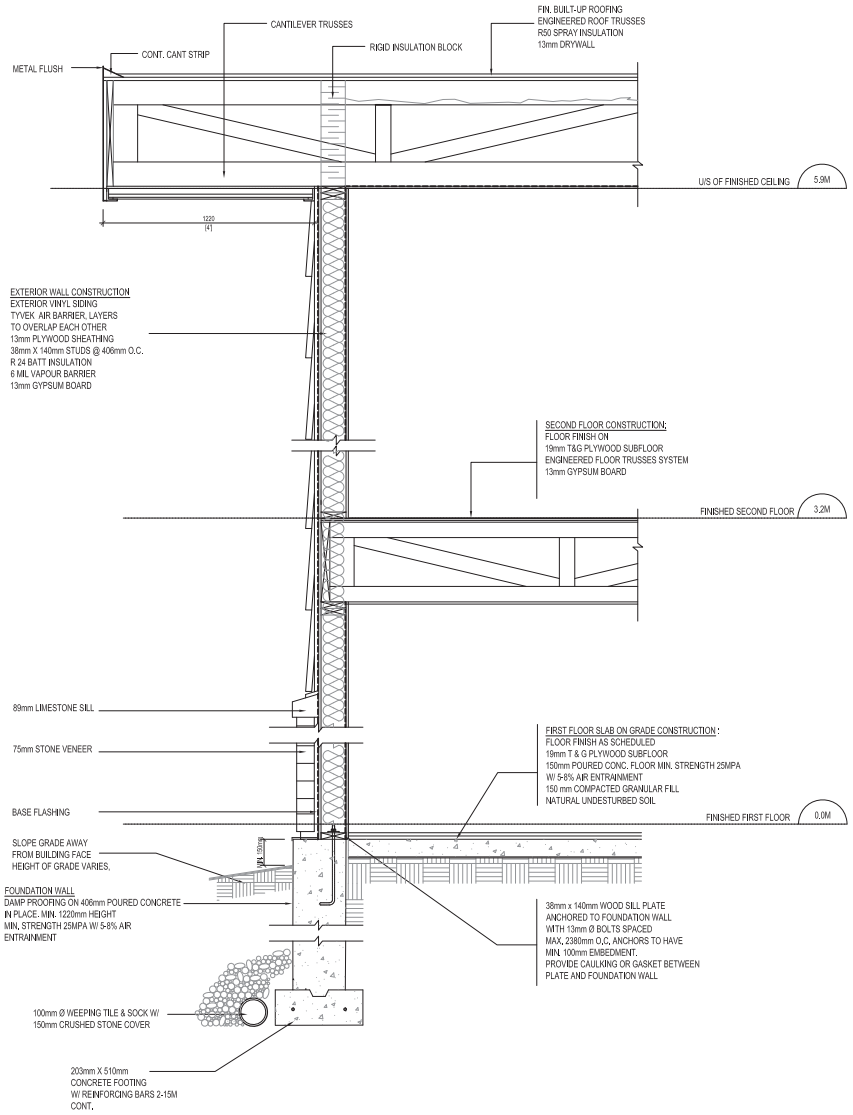

2 A4.0 SECTION DETAIL
SCALE: 1:20

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DRAWING:
DETAILS

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DRAWN BY:	REVIEWED BY:

SHEETS
FILE NAME
PLOT SCALE: 1=

PALMER
ENVIRONMENTAL
CONSULTING
GROUP INC.

*374 Wellington Street West, Suite 3, Toronto, ON M5V 1E3 **t**: 647-795-8153*

September 7, 2017

Mr. Brent Peebles
75 Valley Road
Vaughan, ON L0J 1C0
c/o Mr. David G. Medhurst, MBA
Medhurst Consulting
(David Medhurst (International) Inc.)
2349 Fairview Street, Suite 407

Dear Mr. Medhurst:

Re: Fluvial Geomorphological Review of East Humber River Meanders and Erosional Processes at 75 Valley Road, Vaughan

Introduction

Palmer Environmental Consulting Group Inc. (PECG) is pleased to provide Medhurst Consulting, on behalf of Mr. Brent Peebles, the results of our fluvial geomorphological review of meanders and erosional processes at 75 Valley Road, in Vaughan. This letter report has been prepared to help address the requirement of Toronto and Region Conservation Authority (TRCA) for a river erosion hazard and meander belt study alongside 75 Valley Road, in association with proposed alteration to the existing single-dwelling house originally constructed in or around 1949. Our review builds on the results of the comprehensive, reach-scale geomorphic assessment we completed for TRCA in support of erosion mitigation planning at neighbouring 115 Valley Road (report submitted to TRCA on January 3, 2017) (PECG, 2017). Following provision of important background information, we characterize channel morphology and erosional processes in the immediate vicinity of 75 Valley Road, and conclude by identifying a number of important findings with respect to site-specific meander processes and erosion hazards from a fluvial geomorphological perspective.

Background

In or around 1949, a single-dwelling house was constructed along the East Humber River valley at 75 Valley Road, in Vaughan. The house is now within a valley land regulated by TRCA. Renovations to the house, on its original foundations and within its original footprint, were recently initiated and then halted. In order to support approval for the proposed alterations to the house, TRCA has requested completion of a meander/erosion study to support establishment of the erosion hazard limit and demonstrate that the alterations are not anticipated to affect slope stability or erosional processes alongside East Humber River.

Terraprobe Inc. (Terraprobe) completed a slope stability assessment for 75 Valley Road (Terraprobe, 2017), which included establishment of the site-specific erosion hazard limit in accordance with appropriate protocols of Ontario Ministry of Natural Resources and Forestry (MNRF) (Ontario Ministry of Natural Resources, 2001) and TRCA (Parish Geomorphic, 2004). Based on the results of three boreholes drilled adjacent to the bank of East Humber River by GeoTerre Limited (GeoTerre) at 75 Valley Road (GeoTerre, 2017), Terraprobe determined that the application of toe erosion allowances established for "stiff/hard cohesive soils" is appropriate for the site. To support its delineation of the long-term stable top of slope, Terraprobe applied a toe erosion allowance of 8 m to the upstream (northern) portion of the property, adjacent to the outbuilding where erosion is active, and an allowance of 5 m immediately adjacent to the existing house, where active erosion is not observed.

Read Jones Christoffersen Ltd. (RJC) prepared a foundation load assessment report to determine the impact the addition of a 2nd storey has had on existing foundations and if the resulting soil pressure from the foundations has adversely affected the stability of the soil along the bank of East Humber River, immediately east of the house (RJC, 2017). RJC confirmed that the footprint of the home is unchanged, and that the foundations below the load-bearing interior and exterior walls are the original foundations of the original building. Its assessment determined that the addition of the 2nd storey has increased soil bearing pressure below the (original) foundations, but that the increase has not exceeded the soil bearing resistance capacity of the soils in which the footings are founded. RJC concludes that "the addition of the 2nd floor will not have an adverse effect on the stability of the soil along the east side of the home (bank of Humber River). Further given the foundations [sic] position relative to the 100 year erosion boundary line, we are of the opinion that the reconstruction, similar to the existing structure, will not have any effect on erosion or on the control of erosion."

Channel Morphology and Erosional Processes alongside 75 Valley Road

Although its focus was an eroding bank alongside 115 Valley Road, PECG (2017) characterizes channel morphology and erosional processes along the entire reach of East Humber River alongside which 75 Valley Road is situated. The reach-scale characterization is not repeated here. Pertinent results of PECG's (2017) report include the limits of the meander belt and projected erosion hazard zones, both of which are depicted in Figure 1 of our previous report. The existing meander belt, which was delineated in accordance with TRCA's *Belt Width Delineation Procedures* (Parish Geomorphic, 2004), encompasses large portions of the valley bottom, including the properties at both 75 and 115 Valley Road (yellow dashed line in PECG's (2017) Figure 1). This definition of the meander belt is considered particularly conservative alongside 75 and 115 Valley Road, where the river channel and floods up to the Regional storm are locally confined by the terrace on which both properties are perched. PECG (2017) defined erosion hazard zones adjacent to sections of the river that exhibited evidence of systematic erosion based on comparative overlay analysis of channel position in historical and recent aerial photography. The erosion hazard zones project the potential top of (outer) bank position based on site-specific erosion rates back-calculated from the overlay analysis. The 'long-term' (25-100 years) erosion hazard zone corresponding to Meander 2 on PECG's (2017) Figure 1 intersects the existing house at 115 Valley Road and fully encompasses the outbuilding at the northern end of the 75 Valley Road property. This erosion hazard zone approaches but does not reach the house at 75 Valley Road.

Figure 1 (below) illustrates key features and fluvial processes alongside 75 Valley Road, which is situated downstream of the apex of a meander along East Humber River. Active slumping along the west bank extends from the residence at 115 Valley Road downstream to just beyond the outbuilding at the northern limit of the 75 Valley Road property (**Photo 1**). The slumping is driven by fluvial undercutting of the toe of the terrace scarp, surface runoff from a shallow swale (concentrated through a drainage pipe), and localized groundwater seepage. The downstream limit of active erosion along the west bank is marked by a small woody debris jam (**Photo 2**), which deflects flow toward the east bank. Alongside the house at 75 Valley Road, bank scour predominates along the east bank, while deposition is more evident along the west bank (**Photo 3**). A low bench with localized groundwater seepage occurs along the base of the terrace scarp, immediately upstream of the house (**Photo 4**). Its downstream limit coincides with a small hollow in the wall of the scarp (**Photo 5**). Several mature, 'pistol-butt' trees growing along the scarp alongside the house provide evidence of a scarp position that has remained stable for decades albeit with minor, near-surface creep of soil or a winter snowpack (**Photo 6**). Downstream of the house, minor erosion is occurring along a low, west bank of the river, where it is first able to access and spill into its floodplain (**Photo 7**).

Figure 1. Key features and fluvial processes alongside 75 Valley Road

Photo 1. Active slumping along west bank below outbuilding at 75 Valley Road

Photo 2. Upstream view of woody debris jam at downstream limit of active slumping along west bank, upstream of the house at 75 Valley Road

Photo 3. Scoured east bank (background) and deposition along west bank (foreground) immediately upstream and opposite the house at 75 Valley Road

Photo 4. Groundwater seepage area along base of west bank, immediately upstream of the house at 75 Valley Road

Photo 5. Small hollow in wall of scarp just upstream of northeastern corner of the house at 75 Valley Road

Photo 6. 'Pistol-butt' trees growing along the base of the western bank adjacent to the house at 75 Valley Road

Photo 7. Minor erosion along the low, western bank immediately downstream of the house at 75 Valley Road

Key Findings and Implications

A number of important findings and implications of our field reconnaissance and desktop assessment warrant acknowledgment:

1. *Meander belt* – The meander belt established previously by PECG (2017) in association with the study of erosional processes alongside 115 Valley Road also applies to 75 Valley Road. Both properties are within the meander belt, although the limits are deemed conservative in their immediate vicinities due to the localized confinement of the channel between the eastern valley wall and western terrace scarp.

2. *Erosion hazard zones* – PECG's (2017) study of 115 Valley Road established three erosion hazard zones at all locations along the study reach that exhibit systematic and measurable bank erosion. As shown in Figure 1 of that report, the long-term (25-100 year) erosion hazard zone encompasses the outbuilding but does not extend down-valley as far as the house at 75 Valley Road.

3. *Toe erosion allowance* – In support of erosion hazard limit delineation, Terraprobe (2017) appropriately applied a toe erosion allowance of 5 m to the section of valley immediately adjacent to the existing house at 75 Valley Road, based on MNR's (2001) empirical toe erosion allowances for "stiff/hard cohesive soil" where there is evidence of active erosion. The 8 m upper limit of the empirical range is overly conservative, in this case, because the section of channel alongside

which the house is situated is relatively straight (i.e., less prone to concentrated bank erosion) and only exhibits active erosion upstream in the vicinity of the existing outbuilding (**Photo 1**).

Despite there currently being no active erosion along the bank immediately adjacent to the house, further reducing the toe erosion allowance below 5 m is not recommended due to (i) the potential for erosion to initiate within a 100-year planning horizon (even simply in association with outflanking of a temporary logjam, for example), (ii) the occurrence of groundwater seepage and possible piping processes along the base of the western bank (**Photo 4**), and (iii) the observation of a small hollow in the wall of the terrace scarp immediately upstream of the house (**Photo 6**).

PECG's (2017) comparative overlay analysis of channel position in historical and recent aerial photography failed to identify any systematic or measurable erosion alongside the house at 75 Valley Road, precluding the use of a site-specific erosion rate. Applying the 0.13 m/year erosion rate (i.e., a 13 m erosion allowance) back-calculated by PECG (2017) for the apex of the meander adjacent to the house at 115 Valley Road would not be appropriate due to different mechanisms and severity of erosion.

4. *No effect of 2nd storey on Regulatory flood or associated erosion* – The house at 75 Valley Road, similar to that at 115 Valley Road, is above the level of the Regulatory flood, which is confined to the incised channel along which East Humber River now flows. Any modifications to the existing house would therefore have no effect on flood flows (up to at least the Regulatory level) or associated erosion (e.g., by deflecting flow), especially considering the main proposed alteration is the addition of 2nd storey.

5. *No effect of 2nd storey on stability of river bank* – RJC (2017) investigated the possibility of the proposed 2nd storey addition to the house at 75 Valley Road affecting the stability of soil adjacent to the house through the increased loading, which could potentially increase erosion potential. Its conclusion based on documented soil characteristics (GeoTerre, 2017) was that the increased loading associated with the 2nd storey would have "no effect on erosion or the control of erosion."

6. *No impacts of proposed renovations on the river channel or associated hazards* – A number of valley land development considerations identified in TRCA's draft *The Living City Policies* document (TRCA, 2013) and pursuant to Ontario Regulation 166/06 warrant acknowledgment. For reasons outlined above, the proposed modifications to the house at 75 Valley Road will not interfere in any way with the existing channel or fluvial processes of East Humber River. The form and function of the channel will remain unchanged. No new hazards will be created (i.e., existing risks associated with the house remain the same), and existing natural hazards locally, upstream and downstream will not be aggravated by proposed alterations. Furthermore, no erosion protection is required in order to facilitate or accommodate the proposed alterations.

7. *Unchanged emergency access* – The proposed modifications to the house at 75 Valley Road have no effect on the footprint of the existing house and thus do not alter future access to the adjacent embankment should it be required for emergency works or evacuation purposes.

8. *No feasible alternative site* – The existing house is situated within a few metres of the crest of the western bank of East Humber River, the terrace scarp that wraps around its south side, the outermost limit of the long-term erosion hazard zone at its northern limit, and the municipal right-of-way of Valley Road along its west side (**Figure 1**). As such, any shifts or expansions of the existing footprint of the house are constrained and inadvisable from a fluvial geomorphological perspective.

Conclusion

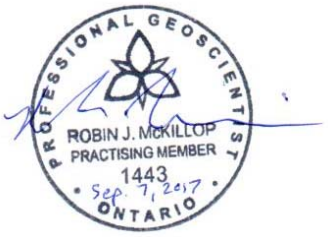
Fluvial geomorphological field observations and desktop assessment have demonstrated that the proposed alterations to the house at 75 Valley Road should not affect fluvial processes, erosion hazards or related risks along adjacent East Humber River in any way over the next 100 years. The existing outbuilding has already been partly undermined by fluvial erosion and is at risk of further impact from continued erosion.

Should you or technical/regulatory reviewers have any questions, please do not hesitate to contact Robin McKillop at 647-795-8153 (ext. 106) or robin@pecg.ca.

We appreciate the opportunity to work with you.

Yours truly,

Palmer Environmental Consulting Group Inc.



Robin McKillop, M.Sc., P.Geo., CISEC
Principal, Senior Fluvial Geomorphologist

PALMER ENVIRONMENTAL CONSULTING GROUP INC.

References

GeoTerre Limited, 2017. Geotechnical Factual Investigation Report, 75 Valley Road, Vaughan, Ontario. Prepared for Brent Peebles, dated June 9, 2017.

Ontario Ministry of Natural Resources, 2001. Natural Channel Systems: Adaptive Management of Stream Corridors in Ontario, including Natural Hazards Technical Guides for River and Stream Systems: Erosion Hazard Limit.

Palmer Environmental Consulting Group Inc., 2017. 115 Valley Road Erosion Control Project – Geomorphic Assessment and Preliminary Design Alternatives. Prepared for Toronto and Region Conservation Authority, dates January 3, 2017.

Parish Geomorphic, 2004. Belt Width Delineation Procedures. Prepared for Toronto and Region Conservation Authority, September 27, 2001, revised January 30, 2004.

Read Jones Chrstoffersen Ltd., 2017. Foundation Load Assessment Report, 75 Valley Road, Kleinburg, Ontario. Prepared for Brent Peebles, dates August 18, 2017.

Terraprobe Inc., 2017. Slope Stability Assessment, 75 Valley Road, Vaughan, Ontario. Prepared for Medhurst Consulting, DRAFT dated July 21, 2017.

Toronto and Region Conservation Authority, 2013. The Living City Policies for Planning and Development in the Watersheds of the Toronto and Region Conservation Authority. DRAFT dated January 25, 2013, 164 pp.

Engineers

August 18, 2017

Brent Peebles
75 Valley Road
Kleinburg ON L0J 1C0

Dear Mr. Peebles,

RE: Foundation Load Assessment Report **RJC No. TOR.119130.0001**
75 Valley Road, Kleinburg, Ontario

1.0 INTRODUCTION

Further to your request, Read Jones Christoffersen Ltd. (RJC) has completed an assessment of the existing foundations for the above noted home. In general, the purpose of this assessment was to determine the impact the addition of a 2nd storey to the home has had on existing foundations and if the resulting soil pressure from the foundations has adversely affected the stability of the soil along the bank of the Humber River located on the east side of the home.

As part of this assessment, we were provided with copies of the following documents:

.1 Legal Survey prepared by Salna Surveying with 100 Year Erosion Hazard Boundary dated May 31, 2017.
.2 Architectural Drawings for the home addition prepared by Fausto Cortese Architects dated December 2016.
.3 115 Valley Road Erosion Control Project Report dated by Palmer Environmental dated January 3, 2017.
.4 Geotechnical Factual Investigation Report for 75 Valley Road prepared by GeoTerre Limited dated June 9, 2017.
.5 Conservation Authorities Act – Ontario Regulation 166/06
.6 Excerpts from TRCA's Living City Policies for Planning and Development in Watershed

2.0 BRIEF DESCRIPTION OF THE HOME

The home currently under construction at 75 Valley Road is a two storey home without a basement.

The original home was constructed in or around 1949 and was constructed as a single level bungalow complete with a two car garage. The original building was of traditional wood frame construction with 10" thick concrete block foundation walls with 22" wide by 8" deep cast-in-place concrete strip footing foundations. The roof structure was originally a flat roof of stick lumber construction supported by load bearing interior and exterior wood framed walls and structural steel beams. The ground floor slab is a concrete slab on grade. Sometime

after original construction, it is our understanding that a peaked roof was installed above the original flat roof and the garage area was converted to living space.
The current two storey home being constructed is also of timber construction. The footprint of the home is unchanged and the vertical addition is the same footprint of the original home. It appears that the original roof was removed and the exterior/interior load bearing wall was increased in size to 2x6 elements. The new roof structure is flat and utilizes 24" deep wood joists spaced at 24" centres. The 2nd floor structure utilized 16" deep wood joists spaced at 16" centres. The joists are supported by load bearing interior and exterior walls and beams of timber construction. The foundations below the load bearing interior and exterior walls are the original foundations for the original building. The current construction also includes re-installing the original garage.

3.0 SUMMARY OF FINDINGS

The following is a summary of the findings of this assessment:

3.1 Visual Review

The visual review of the site was conducted on August 9, 2017 in the presence of Mr. Brent Peebles and Mr. David Medhurst. At the time of our visit, construction of the home appears to have begun but was stopped. It appears that the 2nd floor and roof structure have been added and the structure for the interior walls were in place. The contractor was in the process of installing the exterior cladding when the work stopped.

In general, our review of the site confirmed the following:

.1 The work performed to date appeared to be in general conformance with the Architectural Drawings provided.
.2 The footprint of the home has not increased in size from the original bungalow and the original foundations were being utilized.
.3 In the location where the foundations were exposed they consisted of a 10" concrete block foundation wall supported by a 22" wide by 8" deep concrete strip footing. The footings were approximately 4 feet below grade.
.4 As indicated on the Legal Survey the home was back approximately 5 to 6 feet from the edge of the top of slope at the closest point at the south east corner of the home.
.5 The structural systems (floors, walls) utilized to construct the home appear to be in accordance with the information shown on the drawings provided to us.

(Refer to Photos #1 to #12 in Appendix A)

With respect to the physical condition of the home and site immediately around the home, we note the following:

.1 There was no evidence of cracking of the walls or differential settlement between the structural elements or out of place distortion of the walls.

.2 There was no observed evidence of heaving or mounding of soil adjacent to the home.

3.2 Legal Survey

The legal survey provided outlines the location of the 100 year erosion hazard boundary line for the Humber River in the vicinity of 75 Valley Road. It appears that this hazard line is to the north of the home at 75 Valley Road.

The survey also documents that the home is approximately 13.21 metres away from the edge of the water and the top of the slope next to the east side of the home is 5.41 metres above the surface of the water.

3.3 Geotechnical Factual Investigation Report

Based on the information presented in the Geotechnical Report and information received from Mr. Garry Muckle, P.Eng. of Terraprobe, it appears that the soil in which the footings are founded is a silty fine sand (alluvium). The properties of the soil were given as follows:

.1	Soil unit weight	- 18 kN/m^3
.2	Friction angle	- 30 Degrees
.3	Soil bearing resistance	- 70 to 100 kPa (SLS)

3.4 Foundation Loading Calculations

In accordance with Building Code, the calculation of soil bearing pressures is based on service loading and not factored loading. Our calculations include for the self-weight of the structure including finishes for both the 2nd floor and roof structure. Our calculations also include for the occupancy live loading for the building. The loading utilized in our analysis was as follows:

.1	Dead Loading (self-weight)	- roof	- 1.5 kPa
		- 2nd floor	- 2.4 kPa
.2	Live Loading	- roof	- 1.9 kPa (Snow Load)
		- 2nd floor	- 1.9 kPa

Further based on the soil characteristic, we have calculated the ultimate soil bearing capacity to be in the order of 460 kPa.

Our calculations confirm that the maximum loading on the interior load bearing wall is 65.6 KN/m which translate into a soil bearing pressure of 95.5 kPa which is in line with the soil bearing resistance provided by the soil consultant and provides a factor of safety of approximately 4.8. For the east exterior which is closest to the Humber River, the maximum footing loading is the in the order of 39 KN/m which translates into a soil bearing pressure of 48 kPa which is well below the suggested soil bearing

resistance value and provides for a factor of safety of approximate 9.5. The generally accepted factor of safety is 3.0.

4.0 CONCLUSIONS

Based on the findings of this review, the use of building has not changed as it remains a single family dwelling and in fact has re-incorporated some of the original features of the original home, such as the garage. The footprint of the building has not changed, it has only increased in size vertically. With respect to the structural loading, we are of the opinion that the original building foundations are adequate for the addition of the 2nd floor on the original bungalow. The soil bearing pressure below the footings has increased as a result of the addition, however, this pressure has not exceeded the soil bearing resistance capacity of the soil for which the footings are founded.

Further, given the new applied loading has not caused the soil bearing to exceed the ultimate soil bearing capacity, we do not foresee a concern with shear failure of the soil below the footings or adjacent to the footings and movement of the soil downwards below the footings and outward adjacent to the footing is not expected. Therefore, in our opinion, the addition of the 2nd floor will not have an adverse effect on the stability of the soil along the east side of the home (bank of Humber River). Further given the foundations position relative to the 100 year erosion boundary line, we are of the opinion that the reconstruction, similar to the existing structure, will not have any effect on erosion or on the control of erosion.

5.0 CLOSING REMARKS

We trust this report provides the information you require at this time. However, if you have any questions or concerns, please do not hesitate to call.

Yours truly,

READ JONES CHRISTOFFERSEN LTD.

Philip Sarvinis, BASc, P.Eng.
Managing Principal
Building Science and Restoration

PHS/sab

Encl.: Appendix A – Photographs

Appendix A

Photographs

Photo # 1: Overview of Status of Home Construction.

Photo # 2: Overview of Status of Home Construction.

Photo # 3: Overview of Status of Home Construction.

Photo # 4: Overview of Status of Interior Construction.

Photo # 5: Overview of Status of Interior Construction.

Photo # 6: Overview of Status of Interior Construction.

Photo # 7: Overview of Test Excavation.

Photo # 8: Overview of Test Excavation.

Photo # 9: Overview of Exterior Grade at East Side of Home.

Photo # 10: Overview of Exterior Grade at East Side of Home.

Photo # 11: Overview of Exterior Grade at East Side of Home.

Photo # 12: Overview of Exterior Grade at East Side of Home.