



**32 Abell Avenue, Woodbridge
Vaughan**

(GBCA Project No: 20016)

Cultural Heritage Impact Assessment

March 30, 2020



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1. INTRODUCTION

1.1 Property Description

The property at 32 Abell Avenue is Designated under Part V of the *Ontario Heritage Act*, as part of the Woodbridge Heritage Conservation District (2009). The residential property includes a single-family detached, two-storey house, with a one-storey rear addition and a stand alone one-storey garage structure. According to the HCD Inventory the house dates 1900-1925.

The house is set-back from the street (with landscaping between the house and the sidewalk), and has a paved driveway on the east side of the property, leading to a separate one-storey garage structure in the rear.

1.2 Present Owner and Contact

Mark and Nancy Taylor
32 Abell Avenue
Woodbridge, ON
(647) 201-5026

1.3 Location Map







2. HISTORY AND HERITAGE EVALUATION

As per the direction from the Senior Heritage Planner, this Cultural Heritage Impact Assessment (CHIA) does not include the historical, architectural and contextual background of the property as would usually accompany a CHIA, as per the City of Vaughan's Guidelines. Background information for the property is contained within the Woodbridge Heritage Conservation District report.

The property was previously evaluated through the Building Inventory undertaken at the time of the HCD study. The property at 32 Abell Avenue is referred to as a Contributing Property in the Woodbridge HCD Plan. It is a typical four-square Edwardian residential building dating to the early twentieth century.

As the property is already designated under Part V of the Ontario Heritage Act (as part of the Woodbridge Heritage Conservation District) an evaluation under Ontario Regulation 9/06 is not warranted.



3. ALTERATION PROPOSAL

The proposed alterations are illustrated in the designs attached as Appendix II to this Report. The alterations can be summarized as follows:

- Addition of dormer windows onto the east and west sides of the existing pitched roof structure to extend living space in the attic level;
- Adding a second and third storey to the existing one-storey rear addition, and,
- Constructing a new two-storey garage structure with pitched roof attached to the expanded rear addition. (The existing one-storey separate garage structure will be demolished).

4. HERITAGE IMPACT ASSESSMENT

4.1 POLICY FRAMEWORK

The following Heritage and Planning Policies were used to assess the impact to the heritage resource.

Ontario Planning Act and Provincial Policy Statement (2014)

The City of Vaughan uses the Provincial Policy Statement (PPS) to guide its official plan and to inform decisions on other planning and development matters. It provides policy direction on matters of provincial interest related to land use planning and development and sets the policy foundation for regulating the development and use of land. Cultural Heritage is included as matters of provincial interest.

The Planning Act requires that all decisions affecting land use planning matters “shall be consistent with” the PPS.

The PPS, Section 2.6: Cultural Heritage and Archaeology states:

Section 2.6.1: Significant built heritage resources and significant cultural heritage landscapes shall be conserved.

Section 2.6.3: Planning authorities shall not permit development and site alteration on adjacent lands to protected heritage property except where the proposed development and site alteration has been evaluated and it has been demonstrated that the heritage attributes of the protected heritage property will be conserved.

Official Plan

The heritage policies in the City of Vaughan’s Official Plan provide the policy framework for heritage conservation in the City. The following Official Plan policies are relevant for this assessment.

6.3.2.3: It is the policy of Council to conserve Heritage Conservation Districts by approving only those alterations, additions, new developments, demolitions, removals and public works in accordance with the respective Heritage Conservation District Plans and the policies of the Plan

6.3.2.4: It is the policy of Council that any proposed private or public development within or adjacent to a Heritage Conservation District will be designed to respect and complement the identified heritage character of the district as described in the Heritage Conservation District Plan.

Ontario Heritage Legislation

The *Ontario Heritage Act* gives municipalities and the provincial government powers to preserve the heritage of Ontario. It provides the framework by defining municipal and provincial roles and by enabling municipal councils to pass by-laws under the Act that designate properties of cultural heritage value or interest. Properties can be designated under Part IV of the Act (for individual properties) or under Part V of the Act (for areas within a boundary defining a Heritage Conservation District). The properties that are designated under the *Ontario Heritage Act* are thereby defined as “significant built heritage resources” and therefore are subject to the above-mentioned planning policies.

The designation of an HCD invokes Section 42 of the Ontario Heritage Act, which states:

42. (1) No owner of property situated in a heritage conservation district that has been designated by a municipality under this Part shall do any of the following, unless the owner obtains a permit from the municipality to do so: 1) Alter, or permit the alteration of, any part of the property, other than the interior of any structure of building on the property. 2) Erect, demolish or remove any building or structure on the property or permit the erection, demolition or removal of such a building or structure.

The Standards and Guidelines for the Conservation of Historic Places in Canada

The Federal Agency Parks Canada *Standards and Guidelines for the Conservation of Historic Places in Canada* are accepted as the official document guiding planning, stewardship and conservation approach for all listed and designated heritage resources. The Standards are included as Appendix I to this report.

Woodbridge Heritage Conservation District Plan and Guidelines

The goal of the HCD Plan is to conserve the heritage resources within the district boundaries, preventing demolition or relocation. The information within the Plan provides guidance to both property owners and the municipality on the most appropriate ways of making changes to properties in the HCD boundaries.

The HCD Plan identifies seven Heritage Character Areas. These are Woodbridge Avenue; Kipling Avenue North and South; Wallace Street; William Street and James Street; Clarence Street and Park Drive; The Fairgrounds Area; and, the Humber River Corridor. In the District Plan, a list of attributes are laid out for each Heritage Character Area. And each Area has its own Guidelines. The subject property is located in the “Kipling Avenue South” Heritage Character Area.

It should be noted that the heritage attributes and the guidelines listed in the HCD Plan for this character area (see section 6.1.2 of the district Plan and Guidelines document) focus on properties that are located primarily along Kipling Avenue and are therefore not directly applicable to this residential property.

4.2 HERITAGE IMPACT ASSESSMENT

In accordance with the *Standards and Guidelines for the Conservation of Historic Places in Canada*, the project meets the following standards relating to preservation and rehabilitation:

- Conserve the heritage value of a historic place. Do not remove, replace, or substantially alter its intact or repairable character-defining elements.
- Conserve the heritage value and character-defining elements when creating any new additions to an historic place or any related new construction.
- Make the new work physically and visually compatible with, subordinate to and distinguishable from the historic place.
- Create any new additions or related new construction so that the essential form and integrity of an historic place will not be impaired if the new work is removed in the future.

The site alteration maintains in full the existing residential building, and is therefore consistent with the policies under the Ontario Planning Act (PPS) and under the City of Vaughan Official Plan. The alteration respects the character of the district.

The proposed addition is primarily to the rear of the existing four-square Edwardian era building, thereby conserving the front/public facade of the house on the streetscape. The garage portion of the addition is set well back from the face of the house so as to not affect the four-square characteristic. Houses of a similar age and style have previously been altered with garage additions (see photographs on the following page).

The proposed building materials are detailed on the drawings attached as Appendix II to this report. The addition will be clad in Hardie Panel (in a “board-and-batten” pattern) and will therefore be distinctive from the existing masonry, but being compatible with the heritage character of the district.

The proposed addition will not negatively impact the streetscape. The building immediately adjacent (to the east) is not a contributing building in the District and therefore the proposed addition does not impact adjacent properties (see photograph on the following page). The size of this adjacent property, along with the placement of the proposed addition towards the rear of the house, will diminish the visibility of the addition from the public realm.



23 Abell Avenue



27 Abell Avenue



38 Abell Avenue - adjacent to proposed addition

5. CONSERVATION/MITIGATION OPTIONS

According to the City of Vaughan's Guidelines for Cultural Heritage Impact Assessments, a CHIA must include a comprehensive examination of the following conservation / mitigation options:

- a) Avoidance Mitigation
- b) Salvage Mitigation
- c) Historical Commemoration

None of these conservation approaches are applicable in this instance where the heritage resource is being conserved in full and in situ.

6. CLOSURE

The information and data contained herein represents GBCA's best professional judgment in light of the knowledge and information available to GBCA at the time of preparation. GBCA denies any liability whatsoever to other parties who may obtain access to this report for any injury, loss or damage suffered by such parties arising from their use of, or reliance upon, this report or any of its contents without the express written consent of the GBCA and the client.

THE STANDARDS

The Standards are not presented in a hierarchical order. All standards for any given type of treatment must be considered, and applied where appropriate, to any conservation project.

General Standards for Preservation, Rehabilitation and Restoration

1. Conserve the *heritage value* of an *historic place*. Do not remove, replace or substantially alter its intact or repairable *character-defining elements*. Do not move a part of an historic place if its current location is a character-defining element.
2. Conserve changes to an *historic place* that, over time, have become *character-defining elements* in their own right.
3. Conserve *heritage value* by adopting an approach calling for *minimal intervention*.
4. Recognize each *historic place* as a physical record of its time, place and use. Do not create a false sense of historical development by adding elements from other historic places or other properties, or by combining features of the same property that never coexisted.
5. Find a use for an *historic place* that requires minimal or no change to its *character-defining elements*.
6. Protect and, if necessary, stabilize an *historic place* until any subsequent *intervention* is undertaken. Protect and preserve archaeological resources in place. Where there is potential for disturbing archaeological resources, take mitigation measures to limit damage and loss of information.
7. Evaluate the existing condition of *character-defining elements* to determine the appropriate *intervention* needed. Use the gentlest means possible for any intervention. Respect *heritage value* when undertaking an intervention.
8. Maintain *character-defining elements* on an ongoing basis. Repair character-defining elements by reinforcing their materials using recognized conservation methods. Replace in kind any extensively deteriorated or missing parts of character-defining elements, where there are surviving *prototypes*.
9. Make any *intervention* needed to preserve *character-defining elements* physically and visually compatible with the *historic place* and identifiable on close inspection. Document any intervention for future reference.

Additional Standards Relating to Rehabilitation

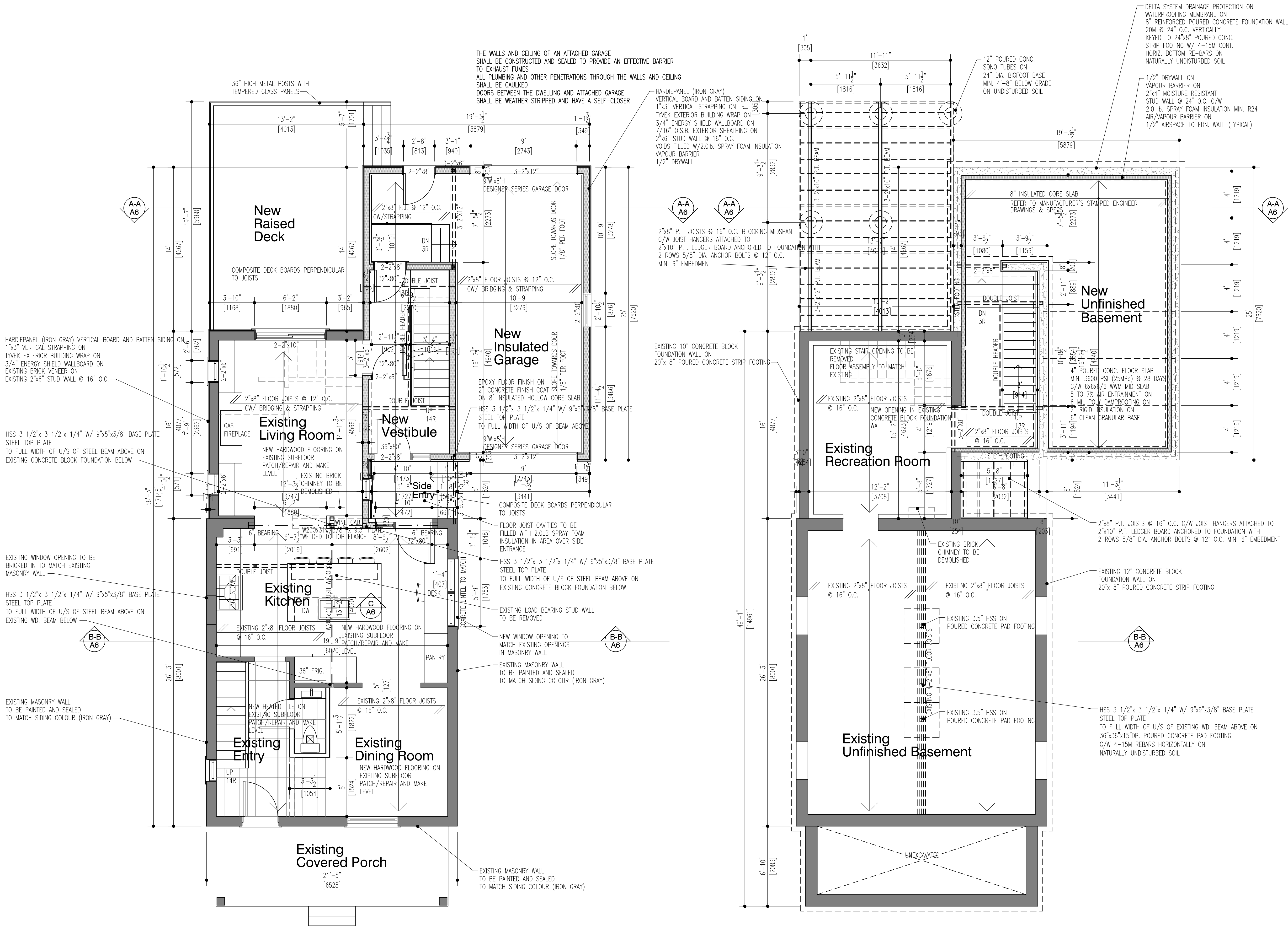
10. Repair rather than replace *character-defining elements*. Where character-defining elements are too severely deteriorated to repair, and where sufficient physical evidence exists, replace them with new elements that match the forms, materials and detailing of sound versions of the same elements. Where there is insufficient physical evidence, make the form, material and detailing of the new elements compatible with the character of the *historic place*.
11. Conserve the *heritage value* and *character-defining elements* when creating any new additions to an *historic place* or any related new construction. Make the new work physically and visually compatible with, subordinate to and distinguishable from the historic place.
12. Create any new additions or related new construction so that the essential form and integrity of an *historic place* will not be impaired if the new work is removed in the future.

Additional Standards Relating to Restoration

13. Repair rather than replace *character-defining elements* from the *restoration* period. Where character-defining elements are too severely deteriorated to repair and where sufficient physical evidence exists, replace them with new elements that match the forms, materials and detailing of sound versions of the same elements.
14. Replace missing features from the *restoration* period with new features whose forms, materials and detailing are based on sufficient physical, documentary and/or oral evidence.

APPENDIX II

Architectural Drawings



First Floor Plan

SCALE: 1/4"=1'-0" 1:50

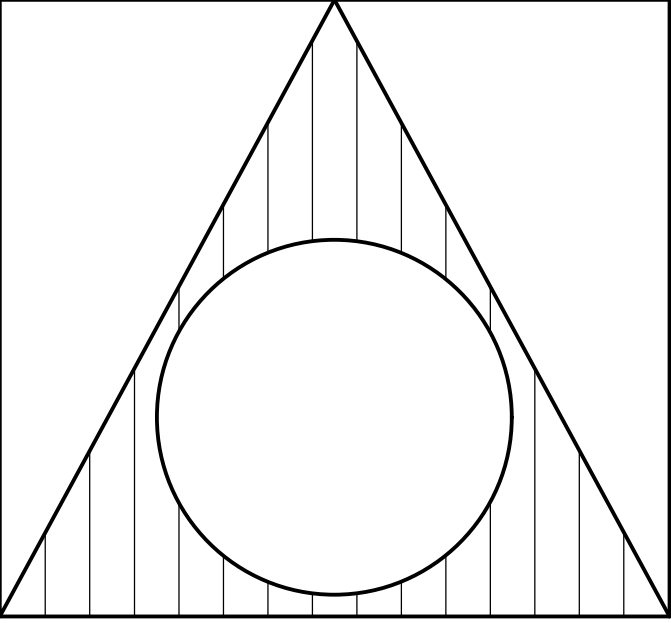
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NEW FLOOR AREA: 125.6 S.F. (11.67 s.m.)
TOTAL FLOOR AREA: 911.1 S.F. (84.64 s.m.)

EXISTING WALLS TO REMAIN
EXISTING WALLS TO BE DEMOLISHED

Basement Plan

SCALE: 1/4"=1'-0" 1:50

EXISTING WALLS TO REMAIN
EXISTING WALLS TO BE DEMOLISHED



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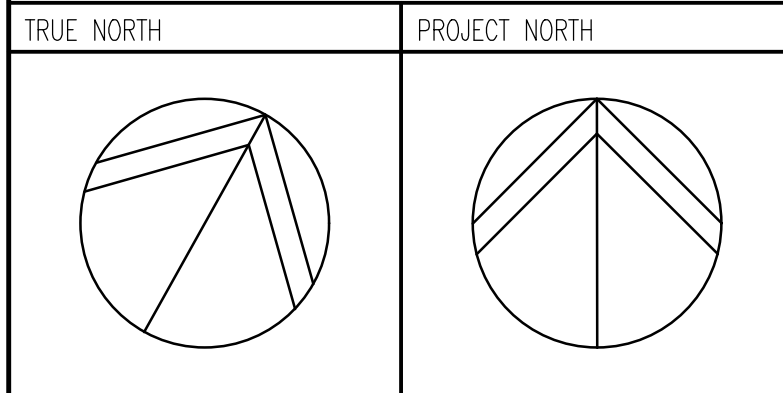
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1.	ISSUED FOR PERMIT REVIEW	26/09/19	T.V.
NO.	REVISION	DATE	APPR.

PROJECT:
NEW TWO STOREY REAR ADDITION WITH ATTACHED GARAGE
TO EXISTING TWO STOREY SINGLE FAMILY DWELLING
32 Abell Avenue
VAUGHAN, ONTARIO



DRAWING CONTENT:

Basement Plan
First Floor Plan

DRAWN BY:
T.V.
DATE:
SEPT. 2018
SCALE:
AS NOTED

PROJ. NO.:

2018-06

DRAWING NO.:

A2



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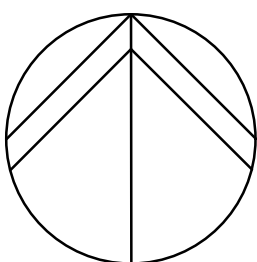
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32 Abell Avenue
VAUGHAN, ONTARIO

TRUE NORTH

PROJECT NORTH



DRAWING CONTENT:

Second Floor Plan
Third Floor Plan

DRAWN BY:

TV

DATE: _____

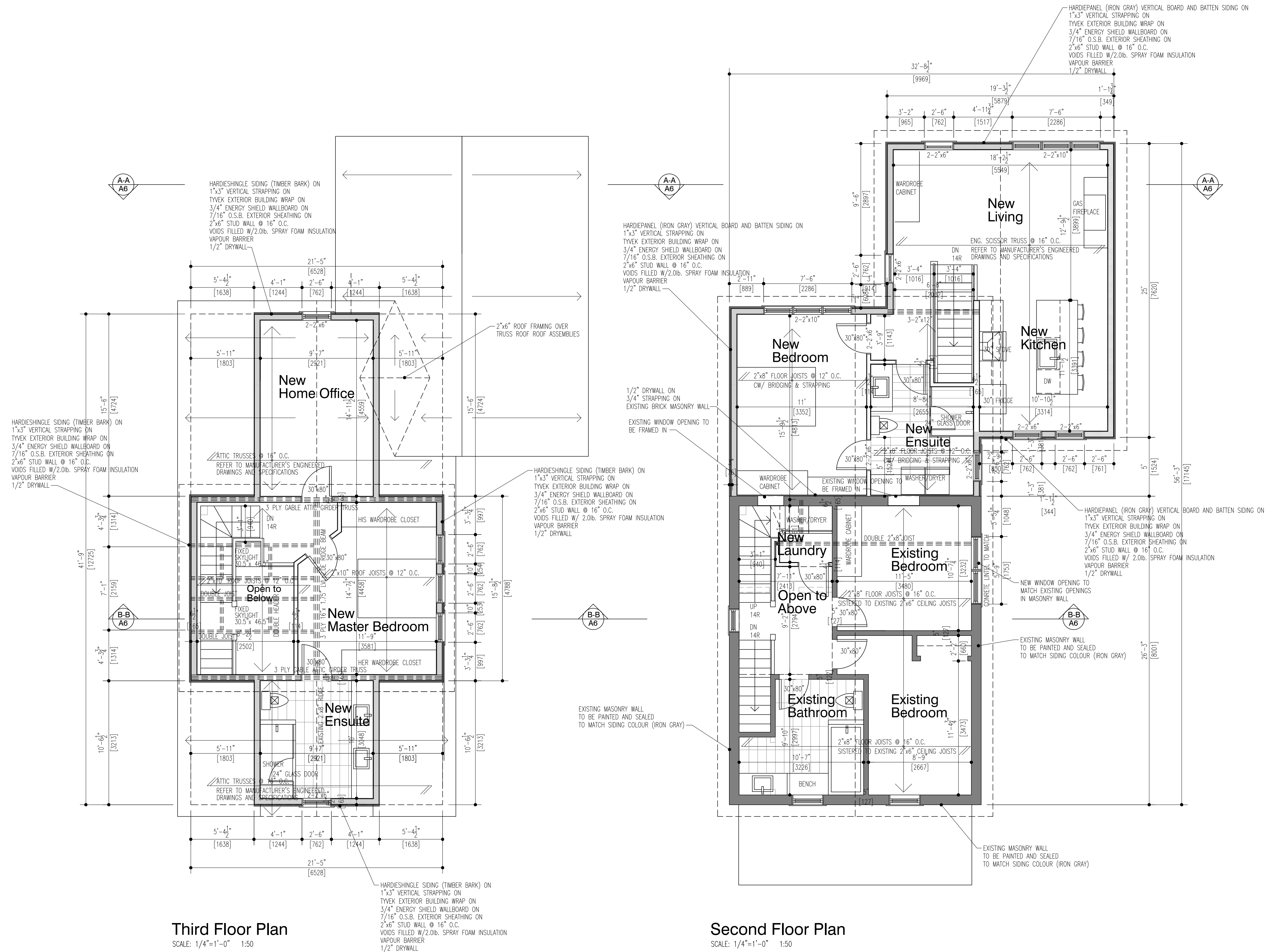
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DRAWING NO.

1

L

A3



Third Floor Plan

SCALE: 1/4"=1'-0" 1:50

TOTAL FLOOR AREA: 614.2 S.F. (57.06 s.m.)

EXISTING WALLS TO REMAIN

EXISTING WALLS TO BE
DEMOLISHED

Second Floor Plan

SCALE: $1/4"=1'-0"$ 1:50

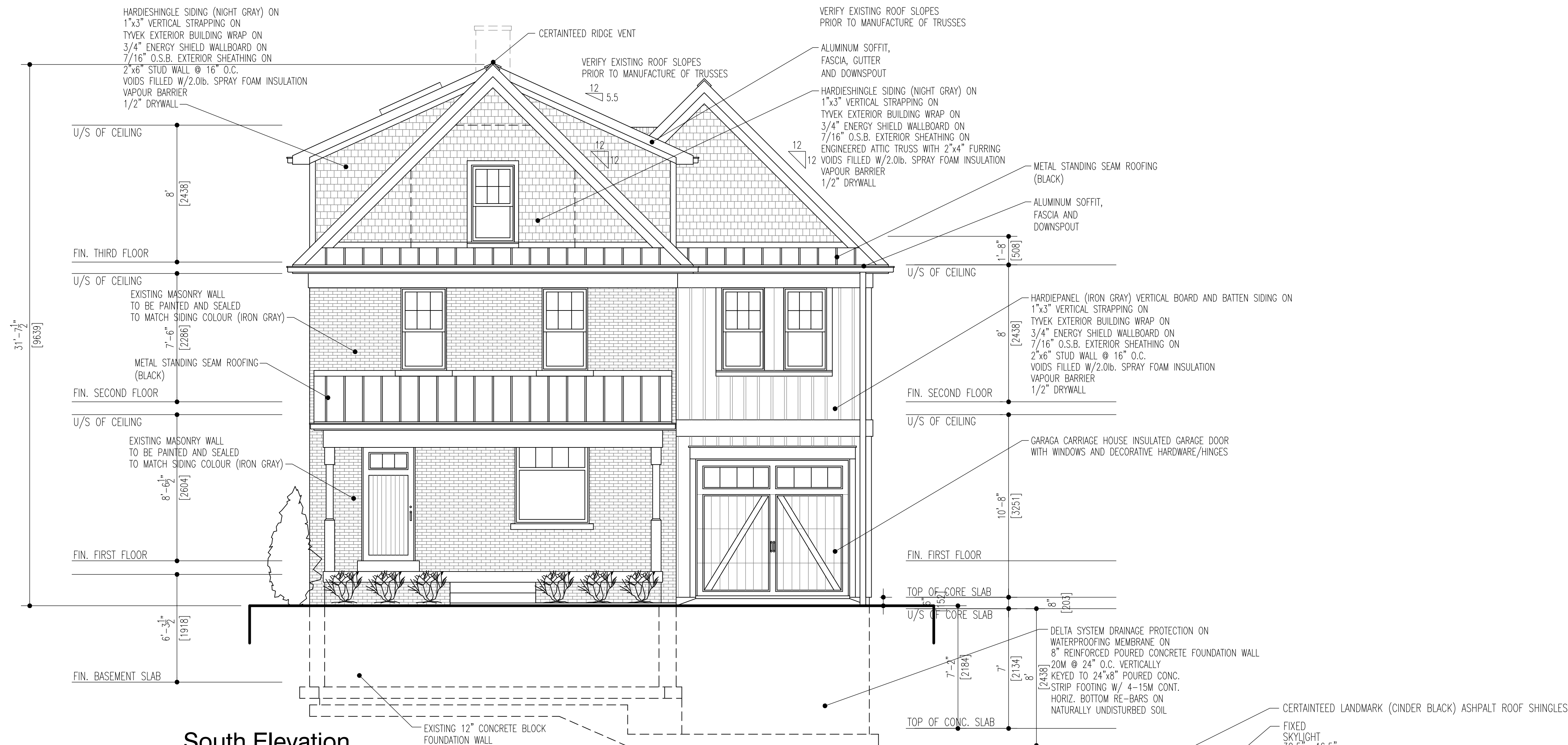
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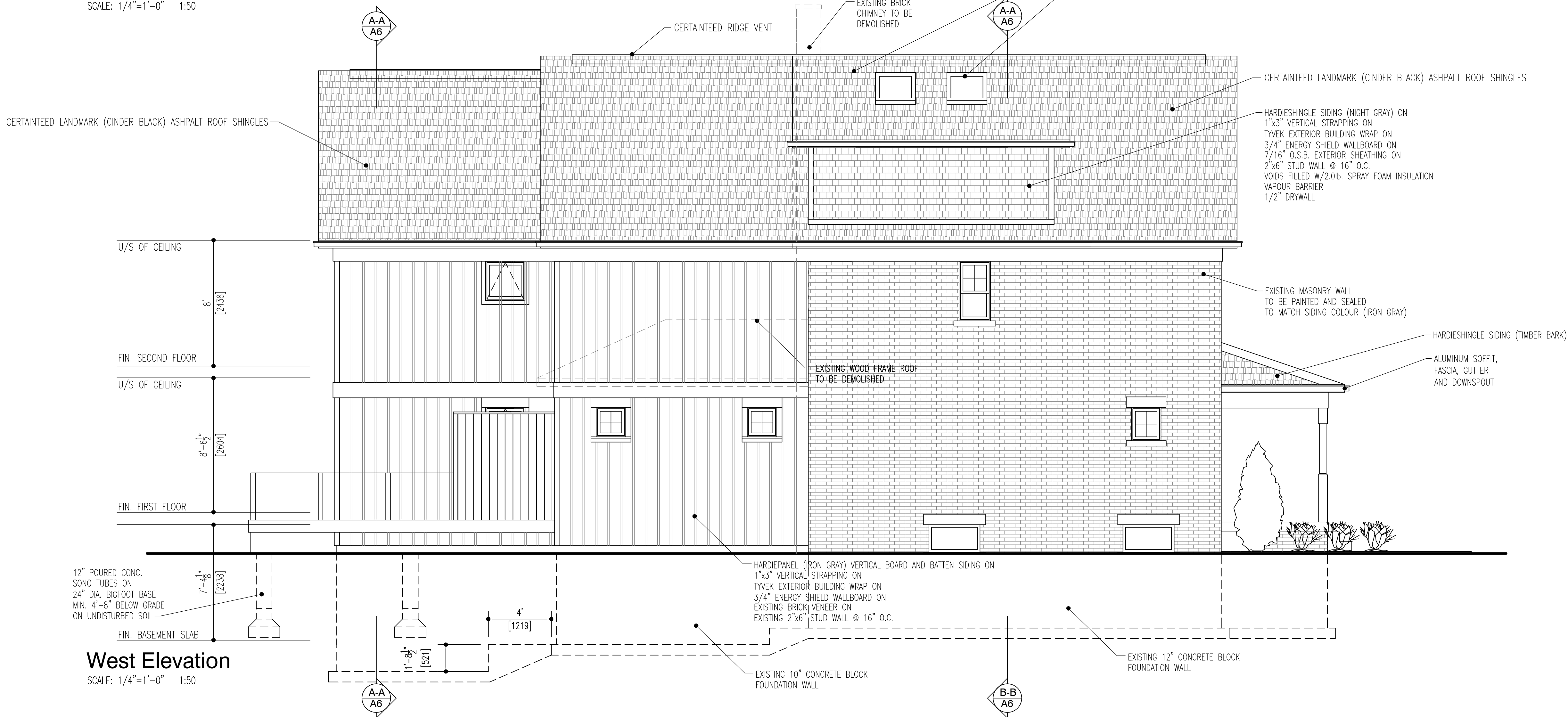
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EXISTING WALLS TO REMAIN

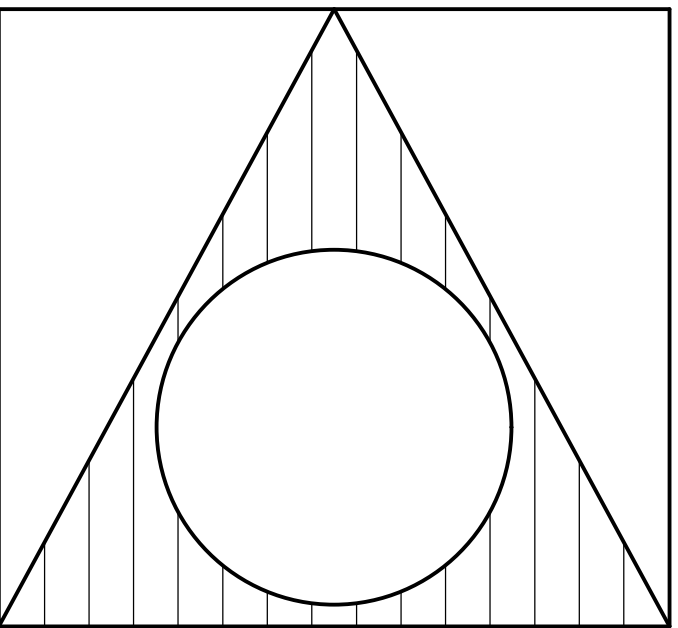
EXISTING WALLS TO BE
DEMOLISHED



South Elevation
SCALE: 1/4"=1'-0" 1:50



West Elevation
SCALE: 1/4"=1'-0" 1:50



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32 Abell Avenue
VAUGHAN, ONTARIO

TRUE NORTH	PROJECT NORTH

DRAWING CONTENT:

Elevations

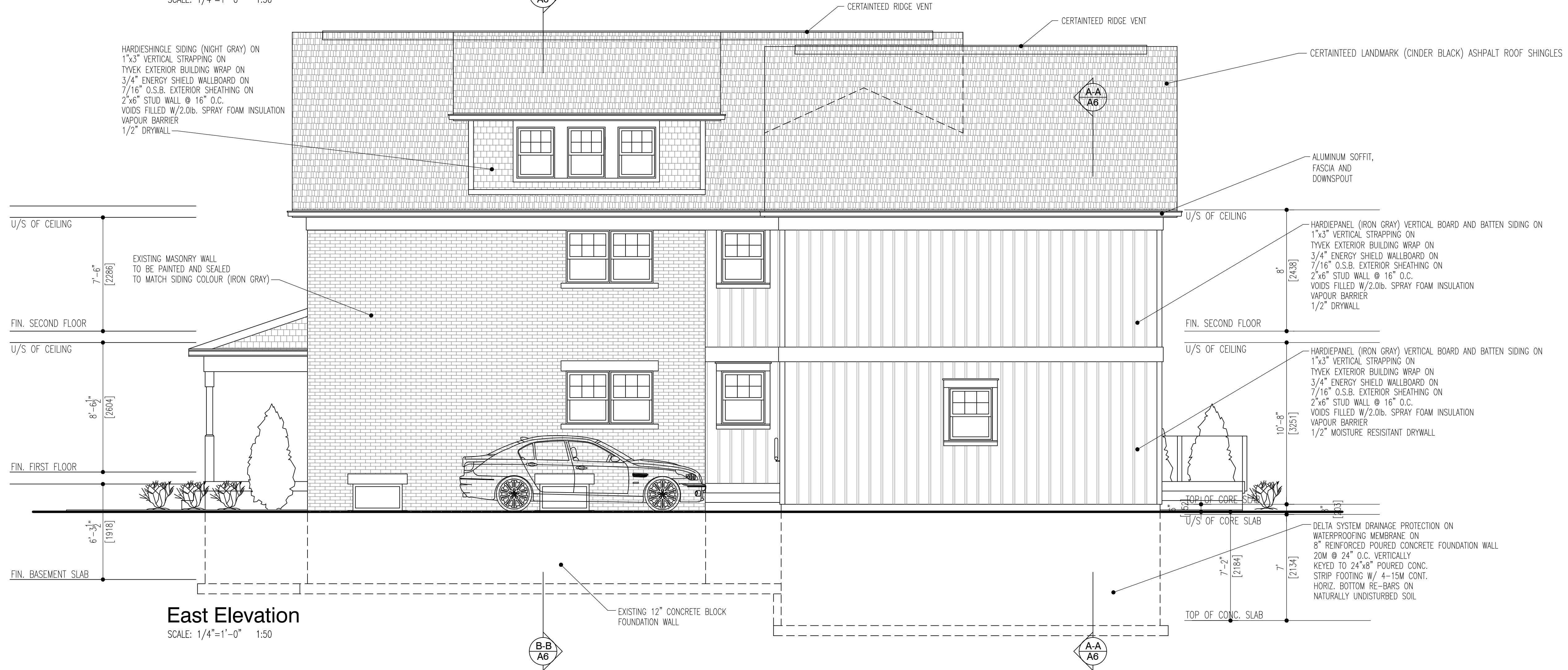
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T.V.	2018-06	
DATE:	SEPT. 2018	
SCALE:	AS NOTED	

A4



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DRAWING CONTENT:		<h1 style="text-align: center;">Elevations</h1>
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T.V.	2018-06	
DATE: SEPT. 2018		
SCALE: AS NOTED		

A5

General Notes NOTES ON ARCHITECTURAL DRAWINGS, ENGINEERING DRAWINGS AND MANUFACTURER'S SPECIFICATIONS SUPERCEDE THE GENERAL NOTES. ALL NOTES MUST COMPLY TO THE ONTARIO BUILDING CODE REGULATIONS.

Excavation and Backfill

Excavation shall be undertaken in such a manner so as to prevent damage to existing structures, adjacent property and utilities
The topsoil and vegetable matter in unexcavated areas under a building shall be removed.
The bottom of excavations for foundations shall be free of all organic material
If termiles are known to exist, all stumps, roots and debris shall be removed to a minimum depth of 11 3/4" in excavated areas under a building, and the clearance between untreated structural wood elements and the ground shall be no less than 17 3/4"
Backfill within 23 5/8" of the foundation walls shall be free of deleterious debris and boulders over 9 7/8" in diameter

Dampproofing and Drainage

In normal soil conditions, the exterior surfaces of foundation walls enclosing basements and crawl spaces shall be dampproofed. Where hydrostatic pressure occurs, a waterproofing system is required
Masonry foundation walls shall be parged with 1/4" of mortar covered over the footing prior to dampproofing
Foundation drains shall be laid on level, undisturbed ground adjacent to the footings at or below the top of the basement slab or crawl space floor, and shall be covered with 6" of crushed stone. Foundation drains shall drain to a storm sewer, drainage ditch, dry well or sump
Window wells shall be drained to the footing
Downspouts not directly connected to a storm sewer shall have extensions to carry water away from the building, and provisions shall be made to prevent soil erosion
Concrete slabs in attached garages shall be sloped to drain to the exterior
The building site shall be graded so that surface, sump and roof drainage will not accumulate at or near the building and will not adversely affect adjacent properties

Footings

- minimum 2200 psi poured concrete
- minimum 48" below finished grade
- Footings shall be founded on natural undisturbed soil, rock or compacted granular fill with minimum bearing capacity of 1570psf

Footing Size

Floors Supported	Supporting Ext. Wall	Supporting Int. Wall	Column Area
1	9 7/8"	9 7/8"	4.3 ft ²
2	13 3/4"	13 3/4"	8.1 ft ²
3	17 3/4"	19 3/4"	10.9 ft ²

• Increase footing width by 2 5/8" for each storey of brick veneer supported, and by 5 1/8" for each storey of masonry
• The projection of an unreinforced footing beyond the wall supported shall not be greater than its thickness

Step Footings

- Vertical Rise 23 5/8" Max.
Horizontal Run 23 5/8" Min.

Wood Frame Construction

- All lumber shall be spruce-pine-fir No.1 &2, and shall be identified by a grade stamp
- Maximum moisture content 19% at time of installation
- Wood framing members which are supported on concrete in direct contact with soil shall be separated from the concrete with 6 mil polyethylene

Walls

- Exterior walls shall consist of:
 - cladding, brick veneer or stucco
 - sheathing paper lapped 4" at joints
 - 7/16" fibreboard or gypsum board or 7/16" plywood sheathing
 - 2x6 studs @ 16" o.c.
 - 2x6 bottom plate and double 2x6 top plate
 - 2x4 studs @ 16" o.c. can be utilized provided the combined R value of the batt insulation and exterior rigid insulation achieves R=24.
- Interior loadbearing walls shall consist of:
 - 2x4 studs @ 16" o.c.
 - 2x4 bottom plate and double 2x4 top plate
 - 2x4 mid-girts if not sheathed
 - 1/2" gypsum board sheathing

Floors

- See Tables for floor joist size and spacing requirements
- Joists to have minimum 1 1/2" of end bearing
- Joists shall bear on a sill plate fixed to foundation with 1/2" anchor bolts @ 7" o.c.
- Header joists between 3' 11" and 10' 6" in length shall be doubled. Header joists exceeding 10' 6" shall be sized by calculations
- Trimmer joists shall be doubled when supported header is between 2' 7" and 6' 7". Trimmer joists shall be sized by calculations when supported header exceeds 6' 7".
- 2x2 cross bridging required not more than 6' 11" from each support and from other rows of bridging
- Joists shall be supported on joist hangers at all flush beams, trimmers, and headers.
- Joists located under parallel non-loadbearing partitions shall be doubled
- See Tables for subflooring requirements

Foundation Walls

- To be poured concrete, unit masonry or preserved wood (see drawings for type and thickness)
- Dampproofing shall be a heavy coat of bituminous material
- Foundation wall to extend minimum 5 7/8" above finished grade.
- A drainage layer is required on the outside of a foundation wall where the interior insulation extends more than 2"-11" below exterior grade. A drainage layer shall consist of
 - Min. 3/4" mineral fibre insulation with min. Density of 3.6 lb/ft³
 - Min. 4" of free drainage granular material, or
 - An approved system which provides equivalent performance
- Foundation walls shall be braced or have the floor joists installed before backfilling

Concrete Floor Slabs

- Garage, carport and exterior slabs and exterior steps shall be 4500psi concrete with 5-8#x8in. entrainment
- Other slabs 3500psi concrete
- Minimum 3" thick, placed on a minimum 4" of coarse, clean, granular material
- All fill other than coarse clean material placed beneath concrete slabs shall be compacted to provide uniform support

Masonry Walls

- Where constructed of 3 1/2" brick, wall shall be bonded with header course every 6th course
- Provide 2" solid masonry or continuous 1 1/2" plate under all roof and floor framing members
- Provide 7 1/2" solid masonry under beams and columns
- Masonry wall to be tied to each tier of joists with 1 9/16" x 3/16" corrosion resistant steel straps, keyed minimum 4" into masonry. When joists are parallel to wall, ties are to extend across at least 3 joists @ 6" o.c.
- Inside back of wall to be parged and covered with No.15 breather-type asphalt paper
- For reduced foundation walls to allow a brick facing while maintaining lateral support, tie minimum 3 1/2" brick to minimum 3 1/2" back-up block, with corrosion resistant ties at least 0.020in. x cross sectional area, spaced 7 7/8" vertically and 2"-11" horizontally, with joints completely filled with mortar
- Masonry over openings shall be supported on corrosion resistant or prime coated steel lintels with a minimum of 5 7/8" and bearing

Masonry Veneer

- Minimum 2 3/4" thick if joints are not raked and 3 1/2" thick if joints are raked
- Minimum 1" air space to sheathing
- Provide weep holes @ 31 1/2" o.c. at the bottom of the cavity and over doors and windows
- Direct drainage through weep holes with 20 mil poly flashing extending minimum 5 7/8" up behind the sheathing paper
- Veneer ties minimum 0.030" thick x 7/8" wide corrosion resistant straps spaced @ 23 5/8" vertically and 15 3/4" horizontally
- Fasten ties with corrosion resistant 0.125" diameter screws or spiral nails which penetrate at least 1-3/16" into studs

Roof & Ceilings

- See Tables for rafter, roof joist and ceiling joist size and spacing requirements
- Hip and valley rafters shall be 2" deeper than common rafters
- 2x4 collar ties @ rafter spacing with 1x4 continuous brace at mid span if collar tie exceeds 7' 10" in length
- See Tables for roof sheathing requirements

Notching & Drilling of Trusses, Joists, Rafters

- Holes in floor, roof and ceiling members to be maximum 1/4" actual depth of member and not less than 2" from edges
- Notches in floor, roof and ceiling members to be located on top of the member within 1/2" the actual depth from the edge of bearing and not greater than 1/3 joist depth
- Wall studs may be notched or drilled provided that no less than 2/3 the depth of the stud remains, if load bearing, and 1 9/16" if non-load bearing
- Roof truss members shall not be notched, drilled or weakened unless accommodated in the design

Roofing

- Fasteners for roofing shall be corrosion resistant. Roofing nails shall penetrate through or at least 1/2" into roof sheathing
- Every asphalt shingle shall be fastened with at least 4 nails
- Eave protection shall extend 2' 11" up the roof slope from the edge, and at least 11 3/4" from the inside face of the exterior wall, and shall consist of Type M or Type S Roll Roofing laid with minimum 4" head and end laps cemented together, or glass Fibre or Polyester Fibre coated base sheets, or self sealing composite membranes consisting of modified bituminous coated material. Eave protection is not required for unheated buildings, for roofs exceeding a slope of 1 in 1.5, or where a low slope asphalt shingle application is provided
- Open valleys shall be flashed with 2 layers of roll roofing, or 1 layer of steel sheet min. 23 5/8" wide
- Flashing shall be provided at the intersection of shingle roofs with exterior walls and chimneys
- Sheet metal flashing shall consist of not less than 1/16" sheet lead, 0.013" galvanized steel, 0.018" copper, 0.018" zinc, or 0.019" aluminum

Natural Ventilation

- Every roof space above an insulated ceiling shall be ventilated, with unobstructed openings equal to not less than 1/150 of insulated area
- Insulated roof spaces not incorporating an attic shall be ventilated with unobstructed openings equal to not less than 1/150 of insulated area
- Roof vents shall be uniformly distributed and designed to prevent the entry of rain, snow or insects
- Unheated crawl spaces shall be provided with 1.1 ft² of ventilation for each 538 ft²
- Minimum natural ventilation areas, where mechanical ventilation is not provided, are:
 - Bathrooms: 0.97 ft²
 - other rooms: 3 ft²
- Unfinished basement: 0.2% of floor area

Doors and Windows

- Every floor level containing a bedroom and not served by an exterior door shall contain at least 1 window having an unobstructed area of 3.8 ft² and no dimension less than 15", which is openable from the inside without tools
- Exterior house doors and windows within 6' 7" from grade shall be constructed to resist forced entry. Doors shall have a deadbolt lock
- The principal entry door shall have either a door viewer, transparent glazing or a sidegirt

Exterior Walls

- No windows or other unprotected openings are permitted in exterior walls less than 3' 11" from property lines, or
- 5/8" fire rated drywall shall be installed on the inside face of attached garage exterior walls and gable ends of roofs which are less than 3' 11" from property lines
- Non combustible cladding shall be installed on all exterior walls less than 23 5/8" from property lines

Ceramic Tile

- When ceramic tile applied to a mortar bed with adhesive, the bed shall be a minimum of 1/2" thick & reinforced with galvanized diamond mesh lath, applied over polyethylene on subflooring on joists at no more than 16" o.c. with at least 2 rows cross bridging

Access to Attics and Crawl Spaces

- Access latches minimum 21 5/8" x 2' -11" to be provided to every crawl space and every roof space which is 108 ft² or more in area and more than 23 5/8" in height

Garage Gasproofing

- The walls and ceiling of an attached garage shall be constructed and sealed so as to provide an effective barrier to exhaust fumes
- All plumbing and other penetrations through the walls and ceiling shall be caulked
- Doors between the dwelling and attached garage may not open into a bedroom and shall be weatherstripped and have a self-closer

Alarms and Detectors

- At least one smoke alarm shall be installed on or near the ceiling on each floor and basement level 2' 11" or more above an adjacent level
- Smoke alarms shall be interconnected and located such that one is within 16' 5" of every bedroom door and no more than 49' 3" travel distance from any point on a floor
- A carbon monoxide detector shall be installed on or near the ceiling in every room containing a solid fuel burning fireplace or stove

Columns, Beams & Lintels

- Steel beams and columns shall be shop primed.
- Minimum 3 1/2" end bearing for wood and steel beams, with 7 7/8" solid masonry beneath the beam.
- Steel columns to have minimum outside diameter of 2 7/8" and minimum wall thickness of 3/16"
- Wood columns for carports and garages shall be minimum 3 1/2" x 3 1/2" in all other cases either 5 1/2" x 5 1/2" or 7 1/4" round, unless calculations based on actual loads show lesser sizes are adequate. All columns shall be not less than the width of the supported member
- Masonry columns shall be a minimum of 11 3/8" x 11 3/8" or 9 1/2" x 15"
- Provide solid blocking the full width of the supported member under all concentrated loads

Insulation & Weatherproofing

Zone 1 Less than 5000 Degree-Days with AFUE ≥ 90%	Compliance Package A
Ceiling with attic	RS/R Value 8.81 / R60
Ceiling without attic	RS/R Value 5.46 / R31
Exposed floor	RS/R Value 5.46 / R31
Walls above grade	RS/R Value 4.23 / R24
Basement walls	RS/R Value 3.52 / R20

Entire surface > 600mm below grade	RS/R Value 0.88 / R5
Below grade slab	RS/R Value 1.76 / R10
≤ 600mm below grade	RS/R Value 1.76 / R10

Drilled slab or slab	RS/R Value 1.76 / R10
600mm below grade	RS/R Value 1.76 / R10

Windows and sliding glass doors maximum U-Value	1.6
Skylights	2.8

Space heating equipment minimum AFUE	90%
HRV	—

Minimum Efficiency unfinished basements where minimum EF	0.57
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- Ducts passing through unheated space shall be made airtight with tape or sealant
- Caulking shall be provided for all exterior doors and windows between the frame and the exterior cladding
- Weatherstripping shall be provided on all doors and access hatches to the exterior, except doors from a garage to the exterior
- Exterior walls, ceilings and floors shall be constructed so as to provide a continuous barrier to the passage of water vapour from the interior and to the leakage of air from the exterior

Stairs

- Maximum Rise 7 7/8"
- Minimum Run 8 1/4"
- Minimum Tread 9 1/4"
- Minimum Head Room 6' 5"
- Minimum Width 2' 10"
- Curved stairs shall have a min. run of 5 7/8" at any point and a minimum overage run of 7 7/8"
- Winders which converge to a point in stairs must turn through an angle of no more than 90°, with no less than 30" for more than 45" per tread. Sets of winders must be separated by 3' 11" along the run of the stair
- A landing minimum 2' 11" in length is required at the top of any stair leading to the principal entrance to a dwelling, and other entrances with more than 3 risers
- Exterior concrete stairs with more than 2 risers require foundations

Handrails and Guards

- A handrail is required for interior stairs containing more than 2 risers and exterior stairs to containing more than 3 risers
- Guards are required around every accessible surface which is more than 23 5/8" above the adjacent level
- Interior and exterior guards min. 2' 11" high. Exterior guards shall be 3' 6" high where height above adjacent surface exceeds 5' 11"
- Guards shall have no openings greater than 4", and no member between 4" and 2' 11" that will facilitate climbing

Plumbing

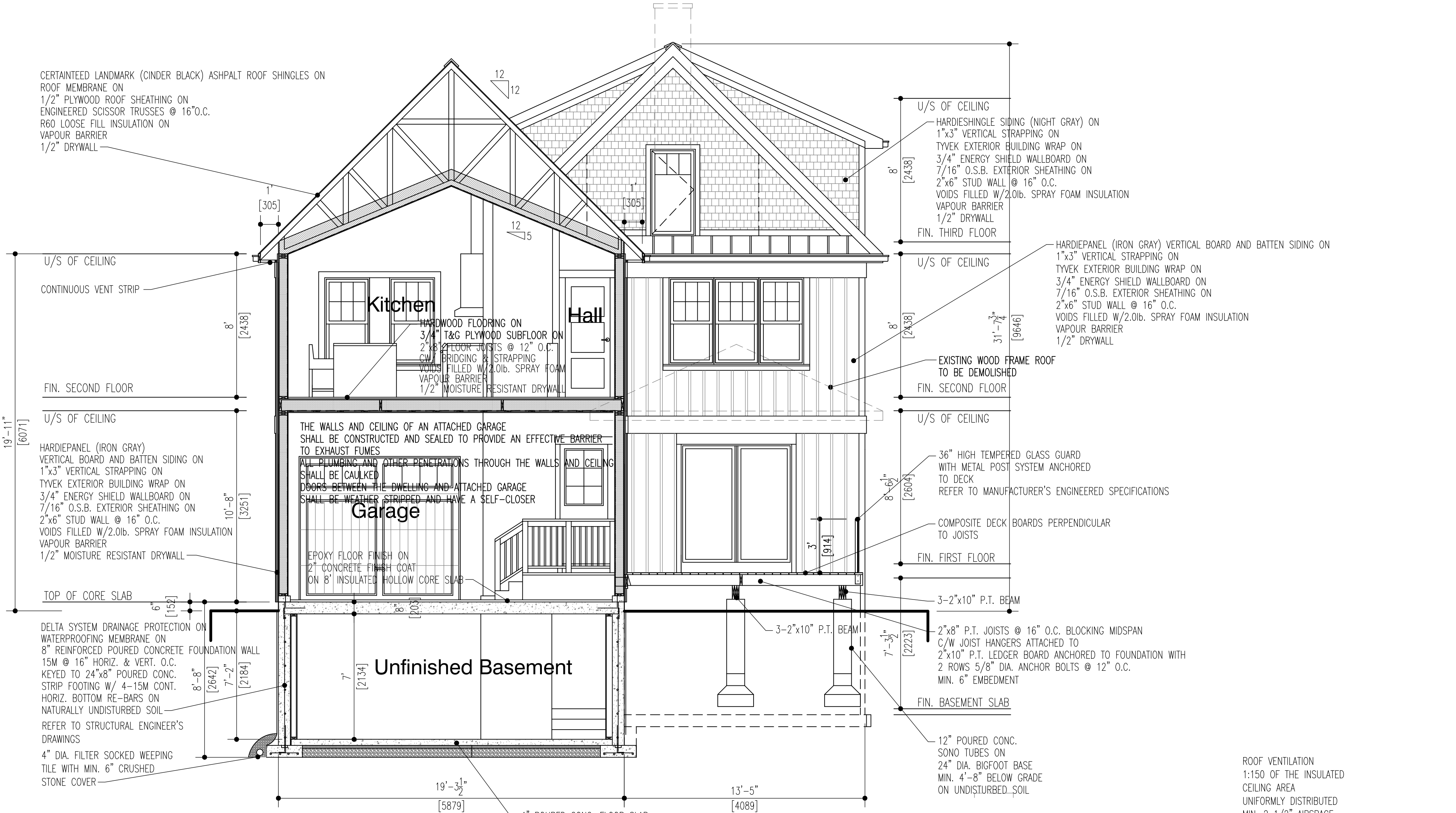
- Every dwelling requires a kitchen sink, lavatory, water closet, bathtub or shower stall and the installation or availability of laundry facilities
- A floor drain shall be installed in the basement, and connected to the sanitary sewer where gravity drainage is possible. In other cases, it shall be connected to a storm drainage system, ditch or dry well

Electrical

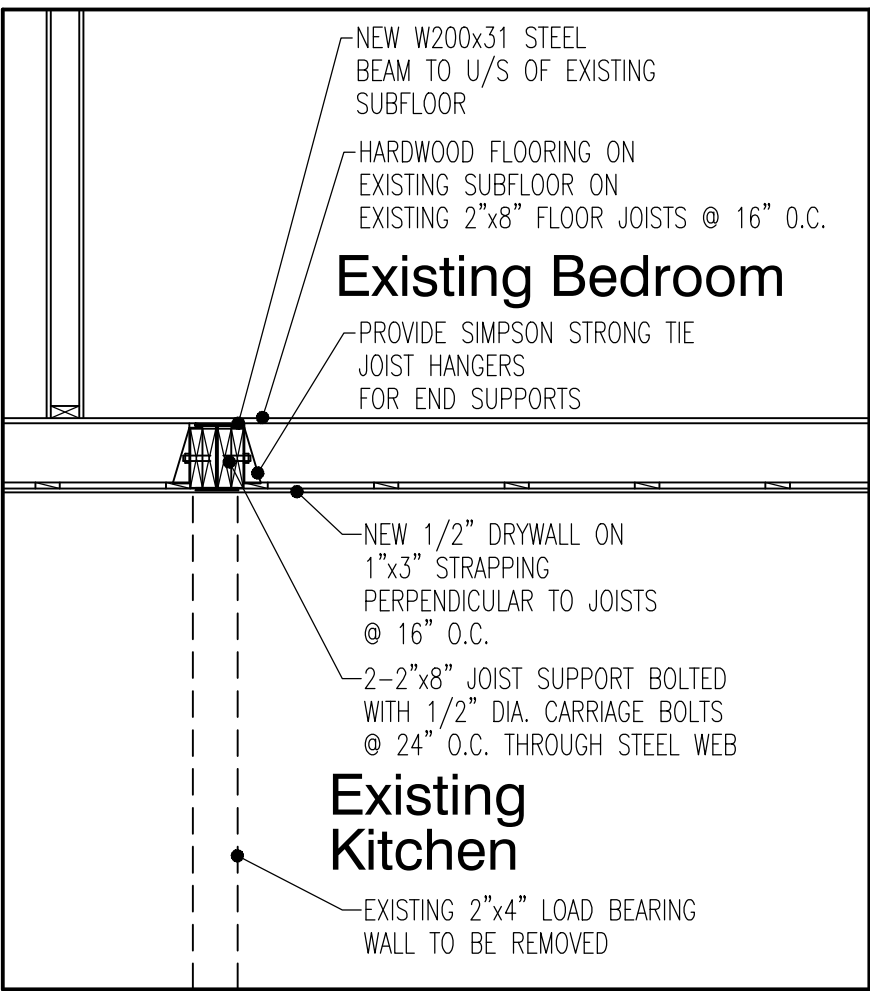
- An exterior light controlled by an interior switch is required at every entrance
- A light controlled by a switch is required in every kitchen, bedroom, living room, utility room, laundry room, dining room, bathroom, vestibule, hallway, garage and carport.
- A switched receptacle may be provided instead of a light in bedrooms and living rooms
- Stairs shall be lighted, and except where serving an unfinished basement shall be controlled by a 3 way switch at the head and foot of the stairs
- Basements require a light for each 323 ft², controlled by a switch at the head of the stairs

Mechanical Ventilation

- A mechanical ventilation system is required with a total capacity at least equal to the sum of:
 - 10 cfm each for basement and master bedroom
 - 5 cfm for each other room
- A principal dwelling exhaust fan shall be installed and controlled by a centrally located switch identified as such
- Supplemental exhaust shall be installed so that the total capacity of all kitchen, bathroom and other exhausts, less the principal exhaust, is not less than the total required capacity
- A Heat Recovery Ventilator may be employed in lieu of exhaust to provide ventilation. An HRV is required if any solid fuel burning appliances are installed
- Supply air intakes shall be located so as to avoid contamination from exhaust outlets

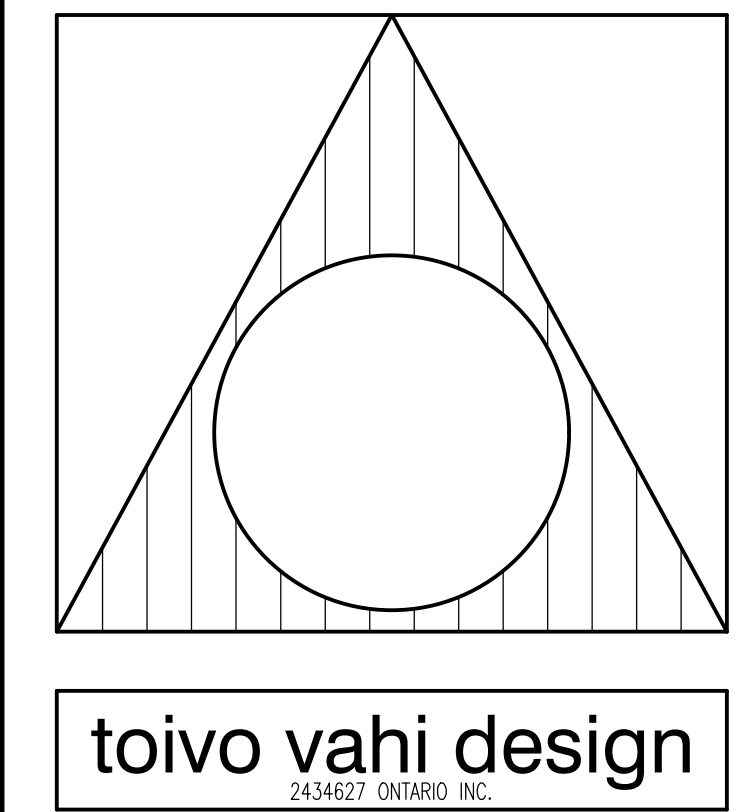


Cross Section SCALE: 1/4"=1'-0" 1:50



Flush Beam Section SCALE: 1/4"=1'-0" 1:25

Cross Section SCALE: 1/4"=1'-0" 1:50



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Telephone/Fax: (705) 721-1409
toivovahidesign@gmail.com

THE UNDERSIGNED HAS REVIEWED AND TAKES RESPONSIBILITY FOR THIS DESIGN, AND HAS THE QUALIFICATIONS AND MEETS THE REQUIREMENTS SET OUT IN THE ONTARIO BUILDING CODE TO BE A DESIGNER.		
QUALIFICATION INFORMATION		
REQUIRED UNLESS DESIGN IS EXEMPT UNDER 2.17.5.1. OF THE O.B.C.		
TOIVO VAHI	31358	
NAME	SIGNATURE	BCIN
REGISTRATION INFORMATION		
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2434627 ONTARIO INC.	32927	
FIRM NAME	SIGNATURE	BCIN

2.	REVIEWED FOR HERITAGE REVIEW	31/01/20	T.V.
1.	ISSUED FOR PERMIT REVIEW	26/09/19	T.V.
NO.	REVISION	DATE	APPR.
PROJECT:			
NEW TWO STOREY REAR ADDITION WITH ATTACHED GARAGE TO EXISTING TWO STOREY SINGLE FAMILY DWELLING			
32 Abell Avenue			
VAUGHAN, ONTARIO			

TRUE NORTH		PROJECT NORTH	
DRAWING CONTENT:			
Sections			
DRAWN BY: T.V.		PROJ. NO.: 2018-06	
DATE: SEPT. 2018		DRAWING NO.: A6	
SCALE: AS NOTED			

A6