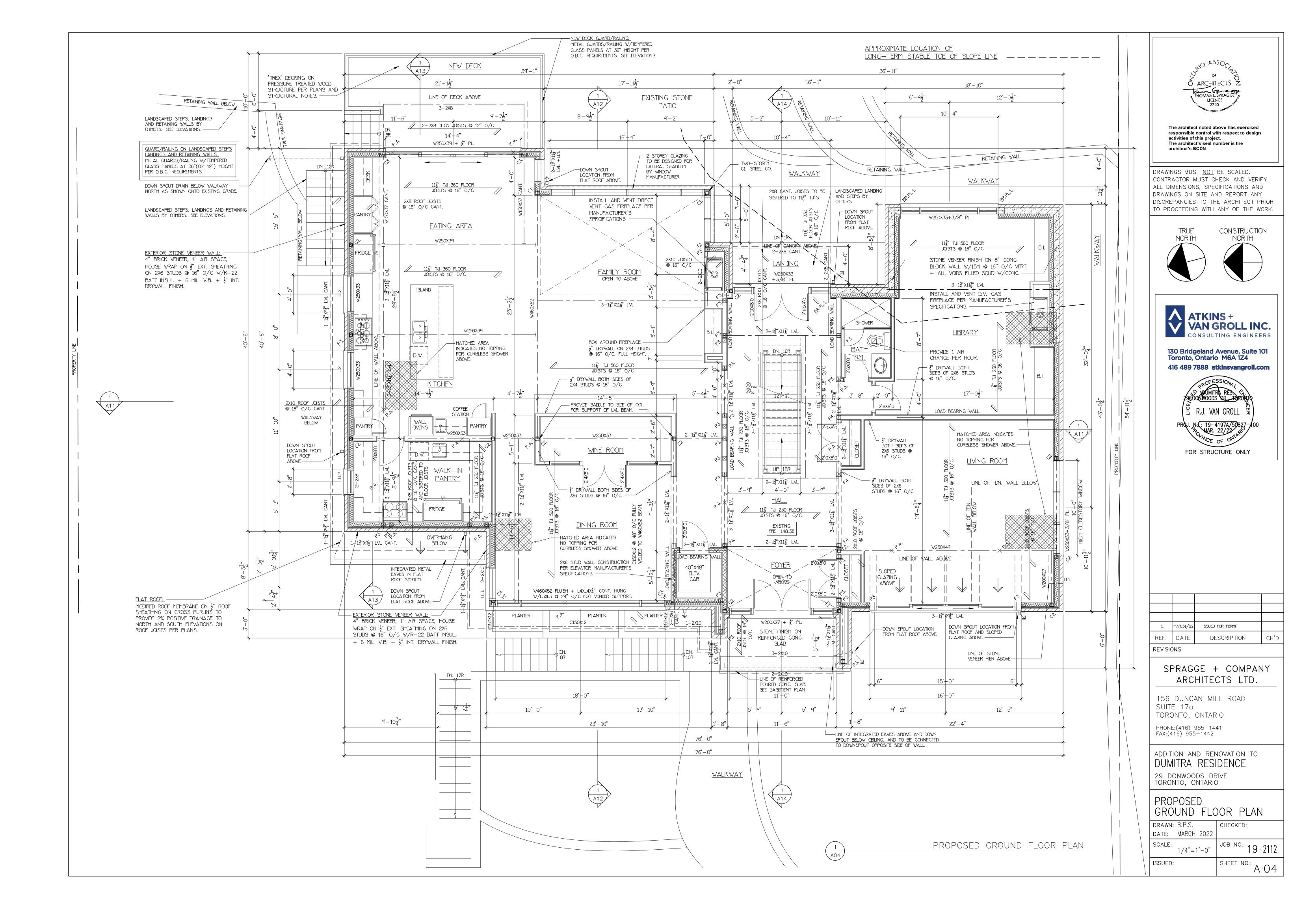
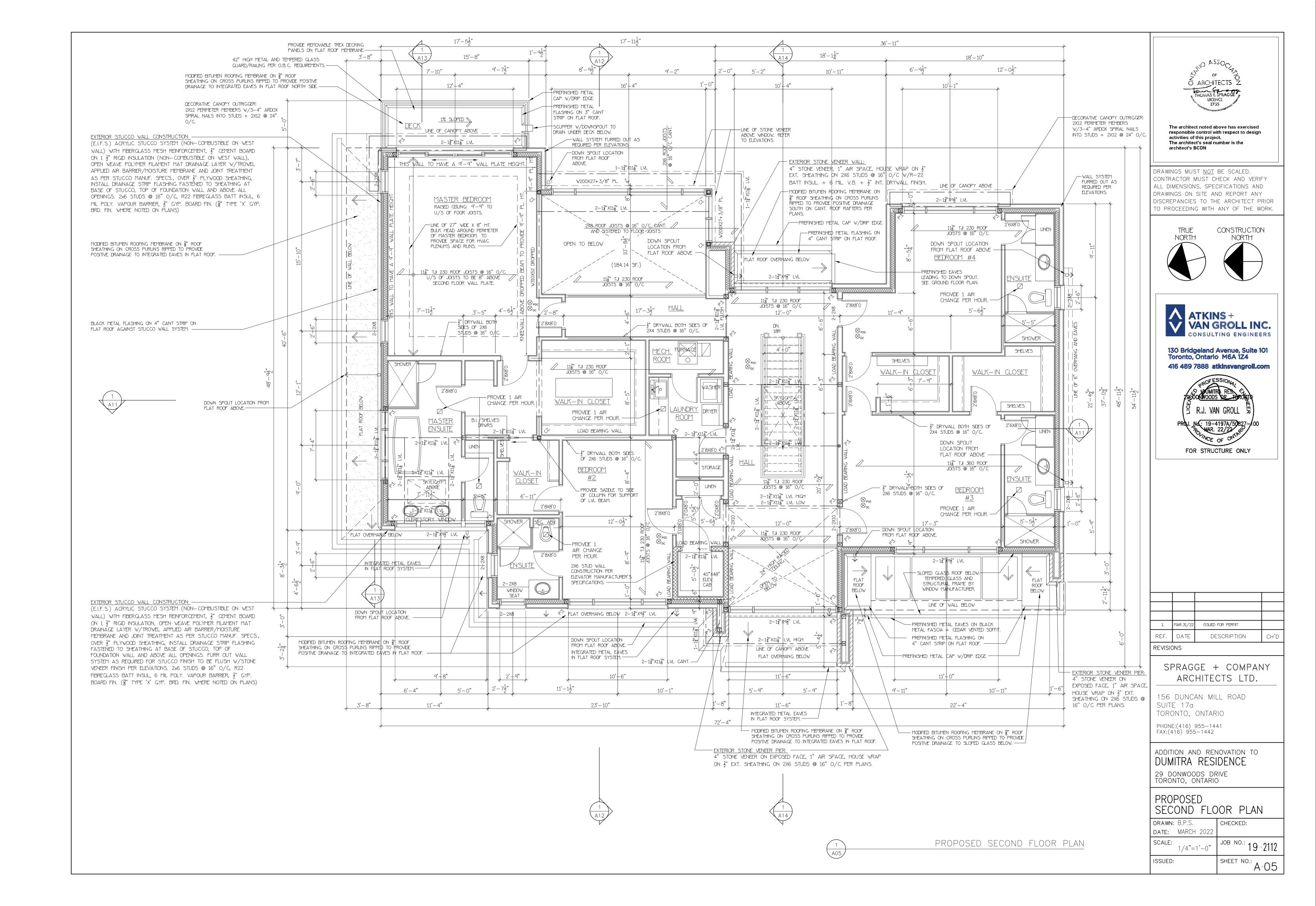


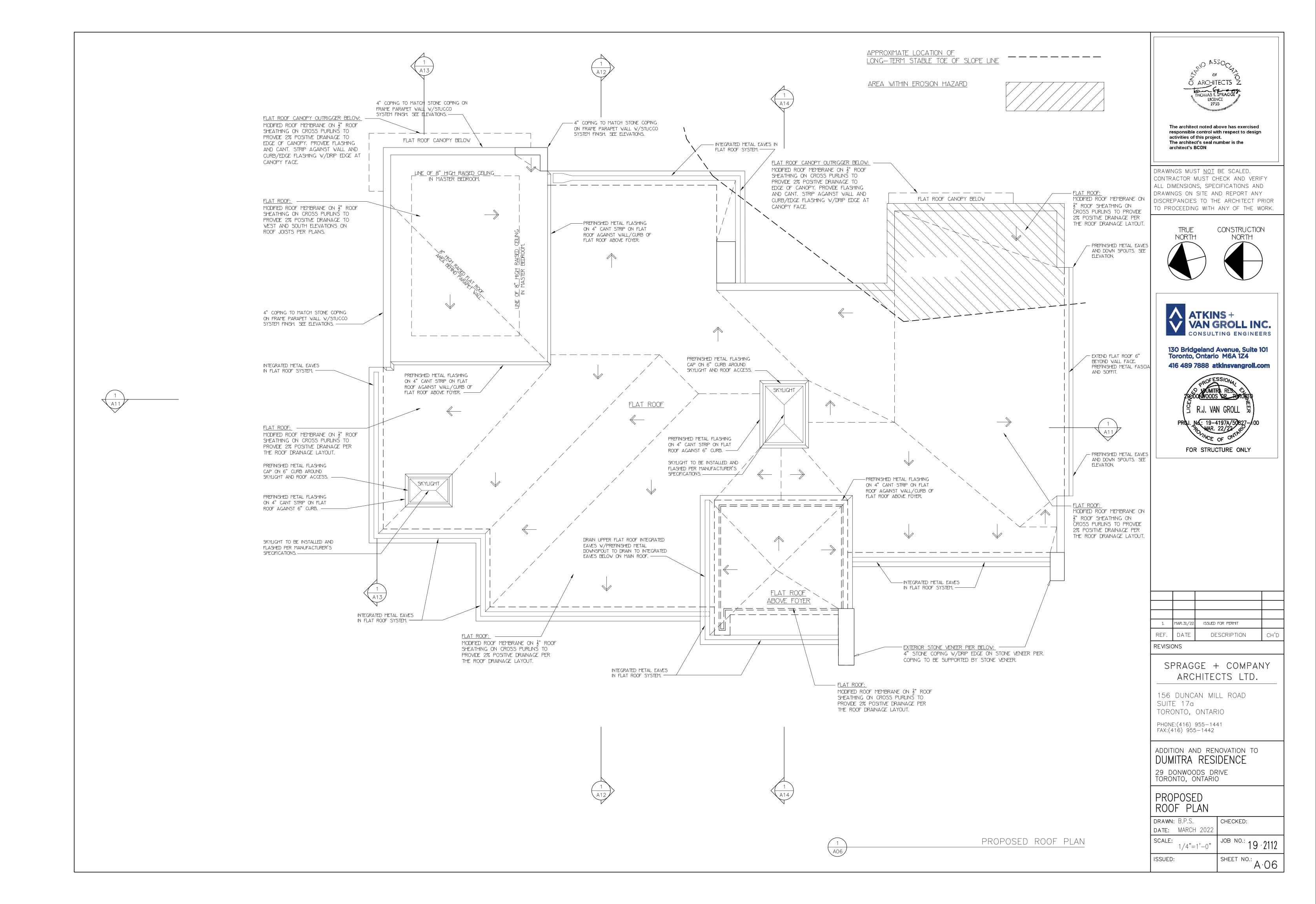


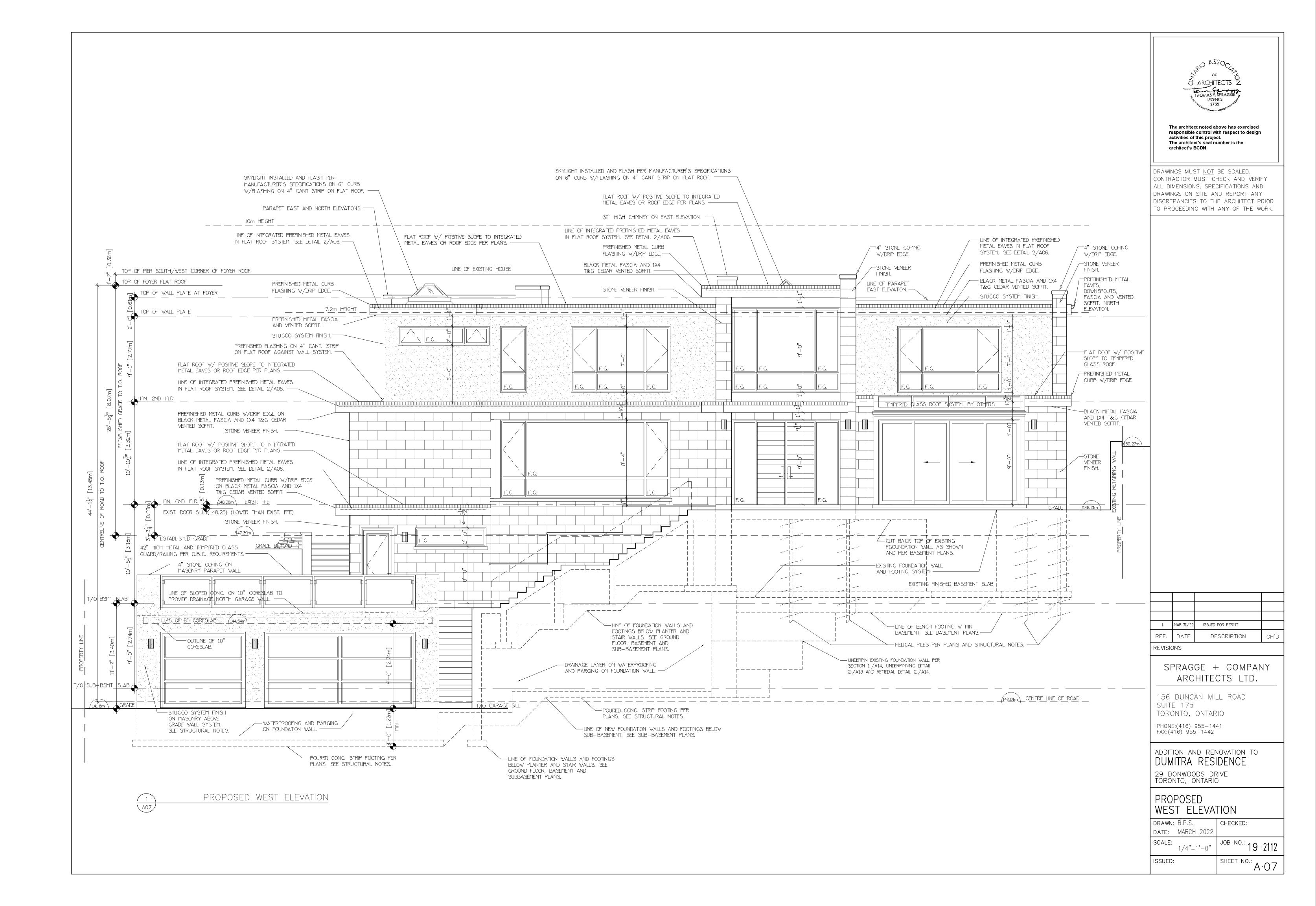
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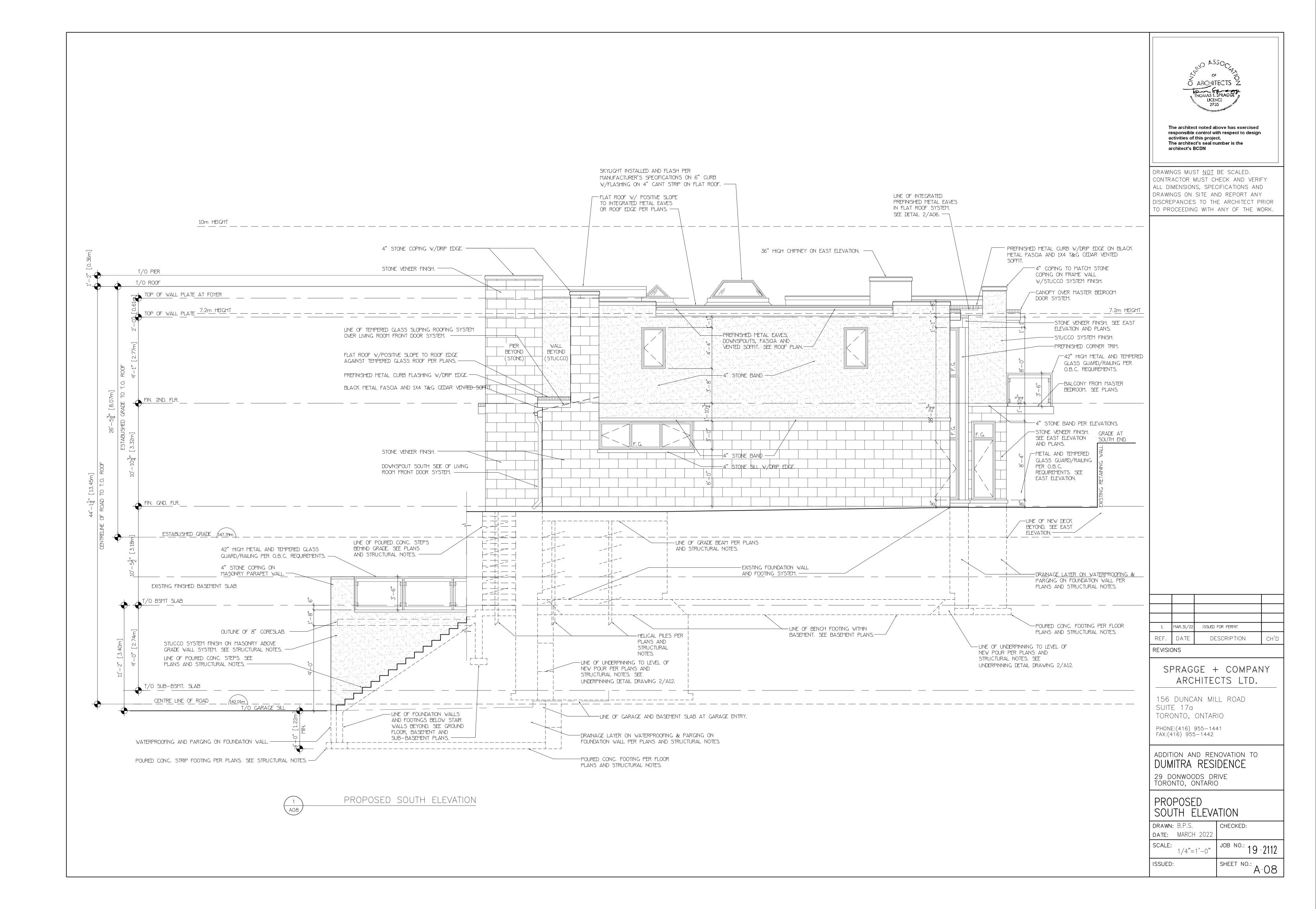
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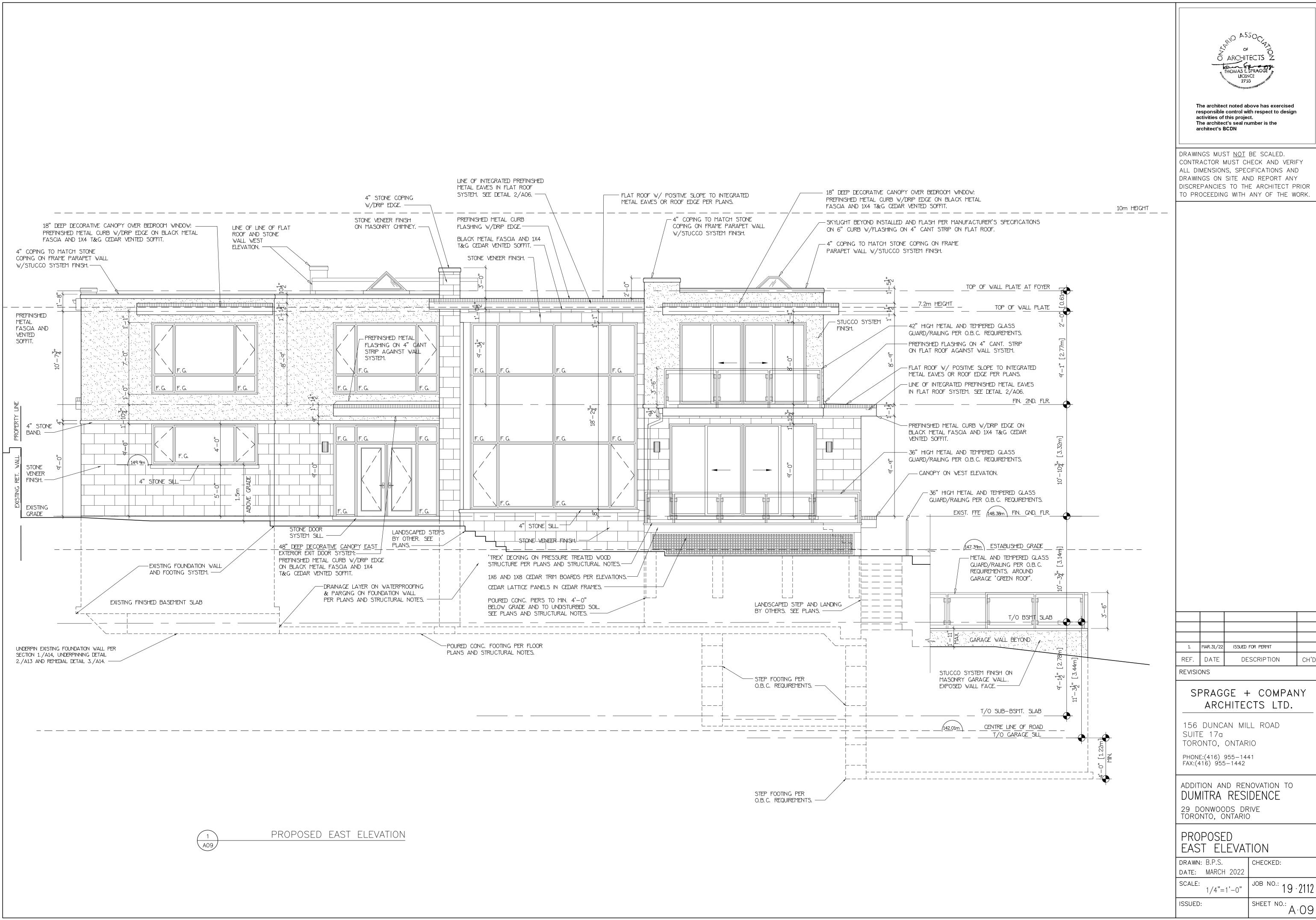




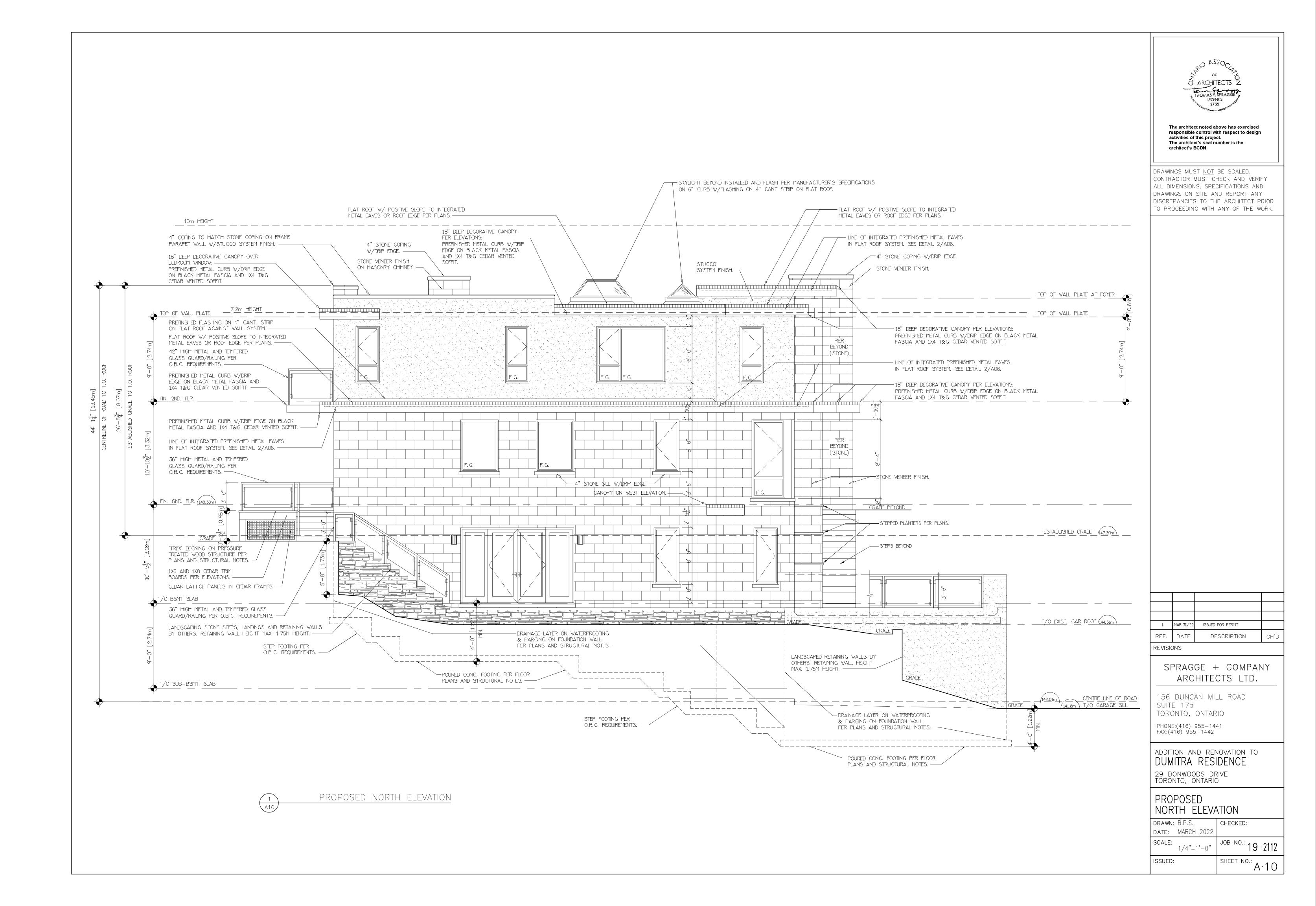


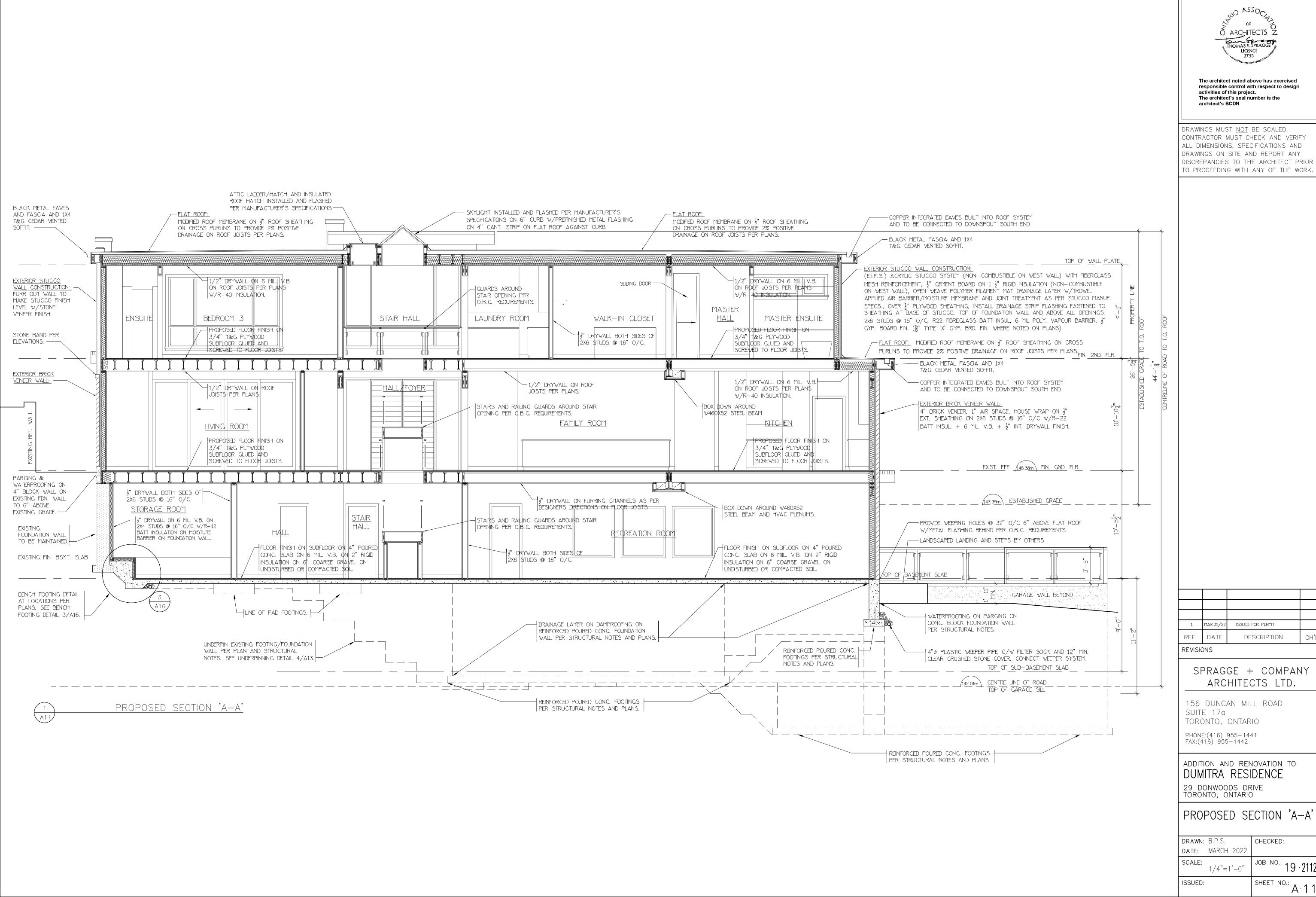






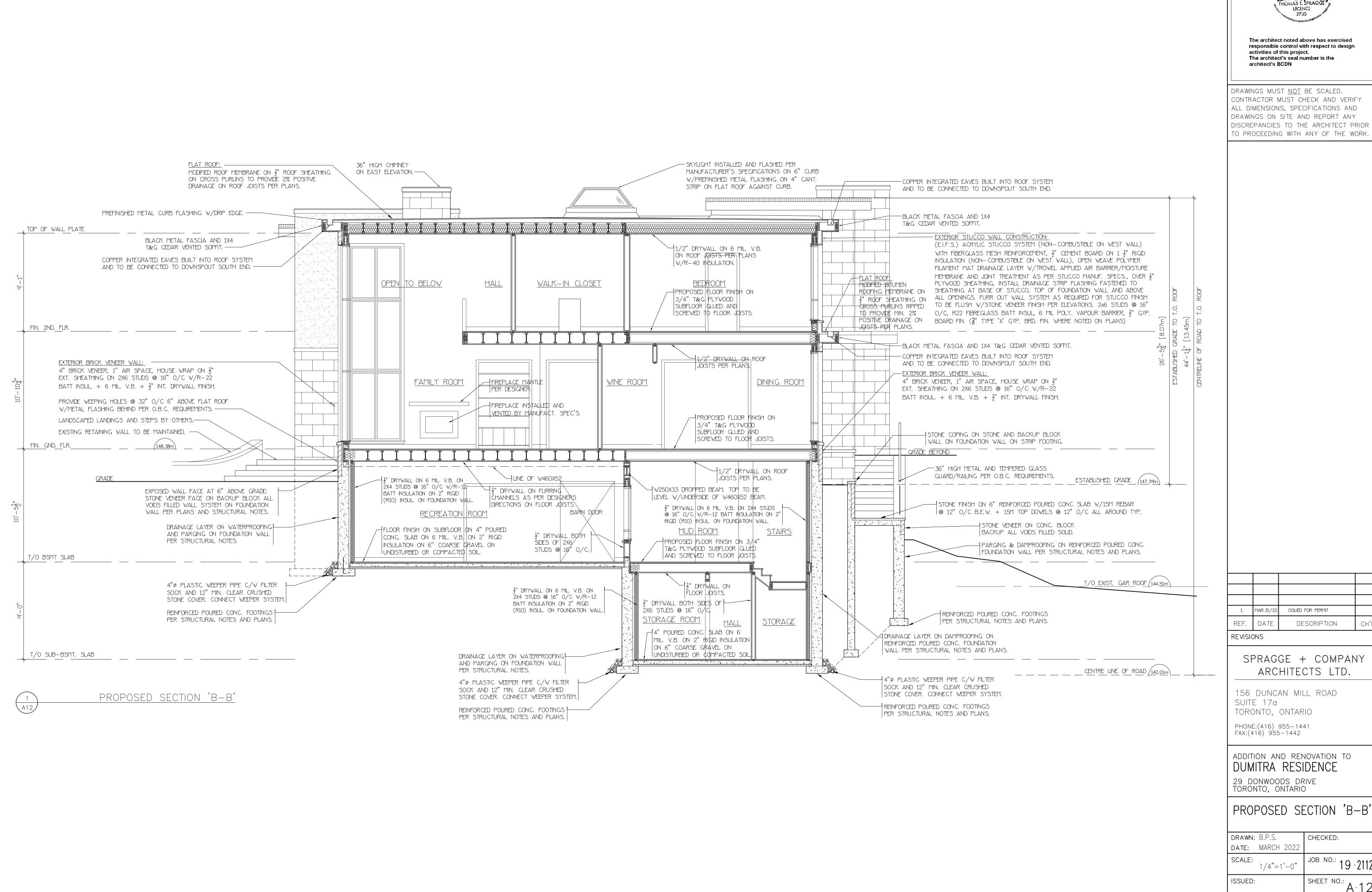
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responsible control with respect to design

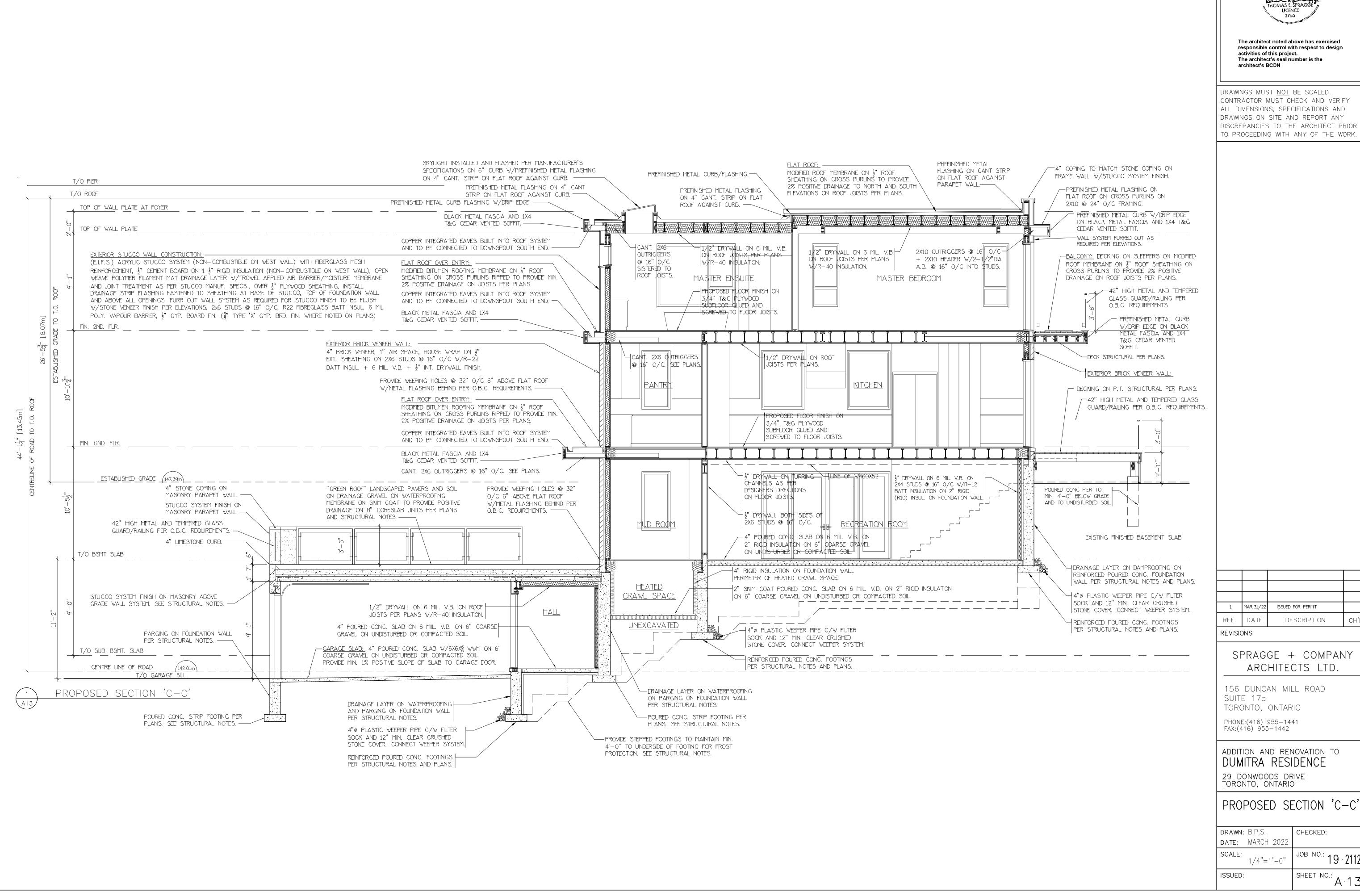
DRAWINGS MUST <u>NOT</u> BE SCALED. CONTRACTOR MUST CHECK AND VERIFY ALL DIMENSIONS, SPECIFICATIONS AND DRAWINGS ON SITE AND REPORT ANY DISCREPANCIES TO THE ARCHITECT PRIOR TO PROCEEDING WITH ANY OF THE WORK.

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ADDITION AND RENOVATION TO DUMITRA RESIDENCE

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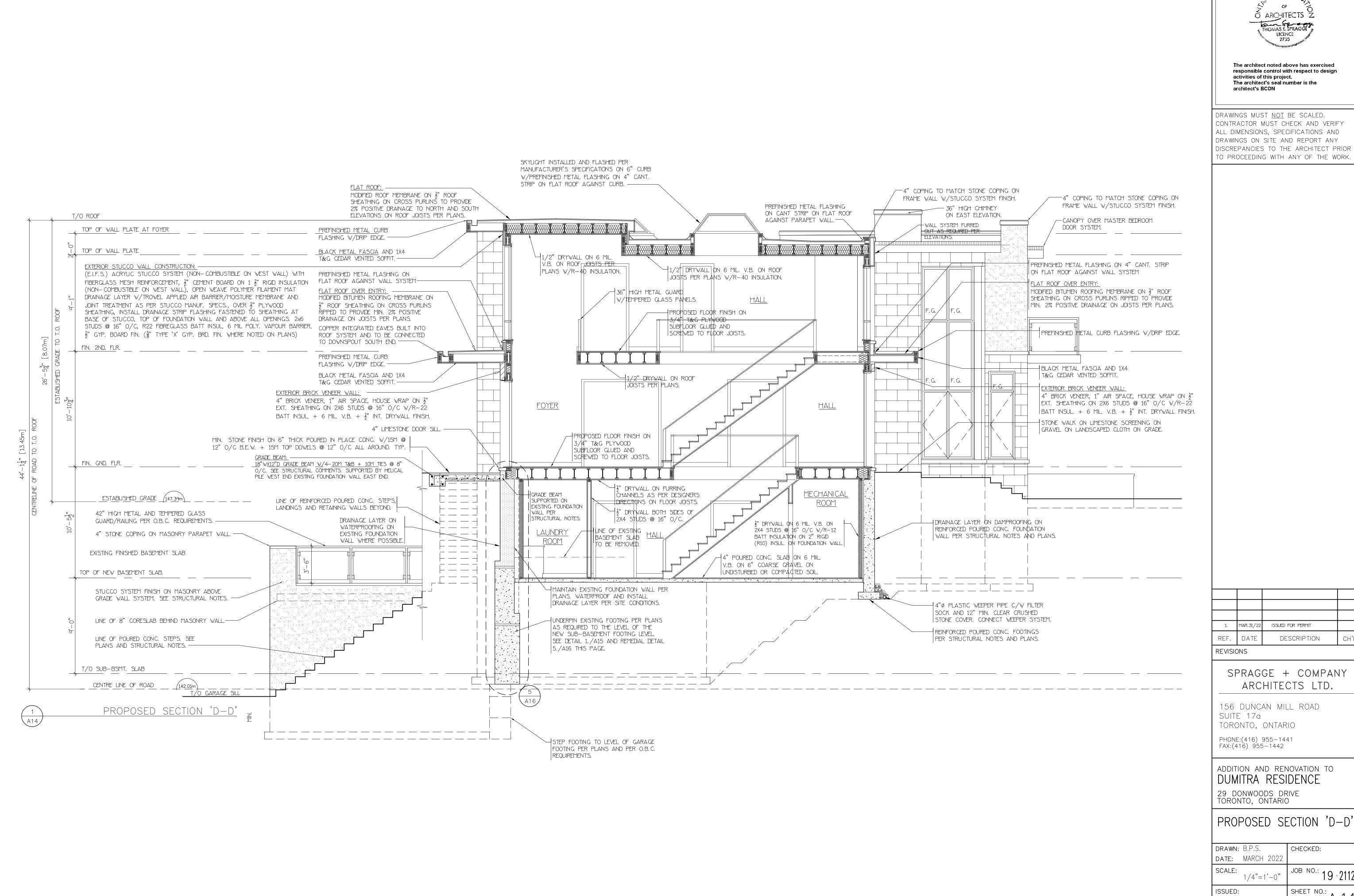
responsible control with respect to design

DRAWINGS MUST <u>NOT</u> BE SCALED. CONTRACTOR MUST CHECK AND VERIFY ALL DIMENSIONS, SPECIFICATIONS AND DRAWINGS ON SITE AND REPORT ANY DISCREPANCIES TO THE ARCHITECT PRIOR TO PROCEEDING WITH ANY OF THE WORK.

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ISSUED:	SHEET NO.: A·13





The architect noted above has exercised responsible control with respect to design The architect's seal number is the

CONTRACTOR MUST CHECK AND VERIFY ALL DIMENSIONS, SPECIFICATIONS AND DRAWINGS ON SITE AND REPORT ANY DISCREPANCIES TO THE ARCHITECT PRIOR TO PROCEEDING WITH ANY OF THE WORK.

SPRAGGE + COMPANY

DUMITRA RESIDENCE

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DATE:	MARCH 2022	
SCALE:	1/4"=1'-0"	JOB NO.: 19 · 2112
ISSUED:		SHEET NO.: A·14

PROJECT 2019-4197A DUMITRA RES.

1. REFERENCE STANDARD/CODES AND ACTS

- 1. CONFORM WITH THE ONTARIO BUILDING CODE LATEST REVISION, ANY APPLICABLE ACTS OF ANY AUTHORITY HAVING JURISDICTION, AND THE LATEST VERSIONS OF THE FOLLOWING:
- CONCRETE MATERIAL AND METHODS OF CONCRETE
- b. A23.2 METHODS OF TESTS FOR CONCRETE c. A23.3 DESIGN OF
- CONCRETE STRUCTURES d. CAN/CSA-S16 LIMIT STATES
- DESIGN OF STEEL STRUCTURES REINFORCING STEEL INSTITUTE OF CANADA (RSIC),
- STANDARD PRACTICE f. S136 COLD FORMED STEEL STRUCTURAL MEMBERS

MANUAL OF

- ENGINEERING DESIGN IN WOOD (LIMIT STATES
- DFSIGN) h. CAN3-A371 MASONRY CONSTRUCTION FOR BUILDINGS
- 2. ALL STANDARDS AND PUBLICATIONS REFERENCED BY THE STANDARDS NOTED ABOVE ARE TO APPLY.
- 3. WHERE THERE ARE DIFFERENCES BETWEEN THE DOCUMENTS AND THE STANDARDS, CODES AND ACTS, THE MOST STRINGENT SHALL GOVERN.

2. SUBMITTALS

1. SHOP DRAWINGS

- a. SUBMIT FOR REVIEW BY THF CONSULTANT, DETAILED SHOP DRAWINGS FOR REINFORCING STEEL, ENGINEERED WOOD JOISTS AND BEAMS, PRE-ENGINEERED WOOD ROOF TRUSSES, STRUCTURAL STEEL, OPEN WEB STEEL JOISTS, STEEL DECK AND PRECAST CONCRETE
- b. THE STRUCTURAL DRAWINGS SHALL NOT BE REPRODUCED IN WHOLE OR IN PART. FOR USE AS SHOP DRAWINGS
- c. EACH SHOP DRAWING FOR THE ITEMS IN 2.1.a. SUBMITTED FOR RFVIEW IS TO BEAR THE STAMP OF A PROFESSIONAL ENGINEER LICENSED IN THE PROVINCE OF

3. NOTIFICATION

- 1. CONTRACTOR IS TO NOTIFY ENGINEER OF COMMENCEMENT OF CONSTRUCTION.
- 2. CONTRACTOR IS TO PROVIDE A MIN. 48 HOURS NOTICE FOR EACH INSPECTION.
- 3. AS A MINIMUM, CONTRACTOR IS TO CONTACT ENGINEER PRIOR TO FIRST FOLINDATION WALL POLIR FOR REBAR INSPECTION AND FOR FINAL FRAMING INSPECTION.
- 4. INSPECTION OF REBAR IN FOOTINGS CAN BE PERFORMED BY A CERTIFIED SOILS ENGINEER. SOILS ENGINEER IS TO PROVIDE A REPORT FOR REVIEW TO CONSULTING ENGINEER.

4. MATERIALS

- 1. PROVIDE ONLY NEW STRUCTURAL MATERIALS IN ACCORDANCE WITH THE REFERENCE STANDARDS AND THE FOLLOWING, UNLESS OTHERWISE NOTED.
- a. CONCRETE NOT EXPOSED TO WEATHER: f'c = 25MPa AT 28 DAYS, SLUMP 75mm (3"). CONCRETE EXPOSED TO WEATHER: f'c = 32MPa, AIR CONTENT 5% TO 8%
- b. REINFORCING STEEL: GRADE 400 c. WELDED WIRE FABRIC: GRADE 386
- d. STRUCTURAL STEEL: STRUCTURAL WIDE FLANGE (W) TO CONFORM TO CAN/CSA-G40.20/G40.21 GRADE 350W, OR ASTM A992/A992M GRADE 50
- (345MPa). STRUCTURAL WELDED WIDE FLANGE SHAPES (WWF) TO CONFORM TO CAN/CSA-G40.20/G40/21
- GRADE 350W ANGLES, PLATES AND CHANNELS (L, C) TO CONFORM TO CAN/CSA-G40.20/G40.21 GRADE 300W.
- HOLLOW STRUCTURAL SECTIONS (HSS) TO CONFORM TO CAN/CSA-G40.20/G40/21 GRADE 350W CLASS C.
- e. PRIME PAINT: CONFORM TO CISC/CPMA STANDARD 2-75. f. HOT DIP GALVANIZING: CONFORM TO CAS G164, MINIMUM ZINC COATING
- $OF 600q/m^2$ g. STRUCTURAL BOLTS, NUTS AND WASHERS: CONFORM TO ASTM
- h. ANCHOR BOLTS: GRADE A307 OR TO CSA G40.21-M.
- 300W THREADED ROD CONFORMING i. NON-SHRINK GROUT: COMPRESSIVE STRENGTH OF 35MPa AT 28 DAYS.

- MASONRY BLOCK: COMPRESSIVE STRENGTH OF 15.0MPa (MIN.) ON NFT ARFA
- k. MORTAR: TYPE S FOR LOAD BEARING MASONRY GROUT: CONFORM TO CSA 4. A179, 15MPa MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS, 254mm (10") SLUMP, MAXIMUM AGGREGATE
- SIZE 10mm (3/8"). m. SAWN LUMBER: SPRUCE-PINE-FIR (SPF), NO. 2 GRADE OR BETTER, CONFORM TO CSA-0141. ALL TIMBER EXPOSED TO WEATHER IS TO BE PRESSURE TREATED.
- n. STRUCTURAL GLUED-LAMINATED FIMBER: CONFORM TO CSA 0122 o. STRUCTURAL COMPOSITE LUMBER: CONFORM TO CSA 086.1. p. PLYWOOD: CONFORM TO CSA 0121

1. FOUNDATIONS

PLYWOOD).

a. CONSTRUCT ALL FOOTINGS EXPOSED TO FROST ACTION A MINIMUM OF 1220mm (4'-0") BELOW FINISHED b. DO NOT EXCEED A RISE OF 7 IN A RUN OF 10 IN THE LINE OF SLOPE

(DOUGLAS FIR PLYWOOD) OR TO

CSA 1051 (CANADIAN SOFTWOOD

- BETWEEN ADJACENT FOOTING EXCAVATIONS OR ALONG STEPPED FOOTINGS. FOR STEPPED FOOTINGS, USE STEPS NOT EXCEEDING 610mm (2'-0") IN HEIGHT. c. SOIL BEARING CAPACITY SPECIFIED MUST BE VERIFIED BY THE
- GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF FOOTINGS AND ANY NON-CONFORMANCE WITH THE SPECIFIED MINIMUM CAPACITIES MUST BE IMMEDIATELY REPORTED TO THE STRUCTURAL ENGINEER. GEOTECHNICAL ENGINEER TO REVIEW

SITE FOR SHORING REQUIREMENTS

PRIOR TO CONSTRUCTION AND/OR

FXCAVATION

- THE CONTRACTOR SHALL ENSURE THAT REINFORCING STEEL IS ADEQUATELY BRACED AGAINST MOVEMENT DURING POURING OF
- CONCRETE. FOLLOW MANUFACTURER'S INSTRUCTIONS REGARDING INSTALLATION PROCEDURES AND MINIMUM EMBEDMENT OF ANCHORS.

3. STRUCTURAL STEEL

- PAINT ALL STRUCTURAL STEEL TO REQUIREMENTS OF CISC/CPMA 2-75. TOUCH UP ALL FIFLD WELDS
 - ALL STRUCTURAL STEEL EXPOSED TO WEATHER SHALL BE GALVANIZED IN ACCORDANCE WITH CSA G164. ALL WELDS SHALL CONFORM TO LATEST VERSION OF CSA STANDARDS
 - d. ANY ORGANIZATION PERFORMING WELDING ON THIS PROJECT SHALL BE CERTIFIED BY THE CANADIAN WELDING BUREAU UNDER DIVISION 1 OR DIVISION 2.1 OF W47.1. e. DO NOT SPLICE STRUCTURAL STEEL
 - SECTIONS WITHOUT PRIOR APPROVAL OF THE CONSULTANT. f. PROVIDE SLOTTED HOLES AND FRICTION TYPE BOLTED CONNECTIONS TO CONNECT NEW STEEL TO EXISTING WORK.
 - AT LOCATIONS WHERE STEEL COLUMNS ARE SUPPORTED BY STEEL BEAMS, 10mm (3/8") THICK STEEL WEB STIFFENERS SHALL BE WELDED ON EITHER SIDE OF THE BEAM WEB CENTERED ON THE COLUMN.
 - h. ALL BEAMS TO BE FLUSH UNLESS NOTED OTHERWISE. WHERE STEEL BEAM IS DROPPED TO AN ELEVATION REQUIRING WALL STUDS BETWEEN U/S OF
 - FLOOR/ROOF FRAMING AND T/O STEEL BEAM, EXTEND COLUMNS TO U/S OF DOUBLE TOP PLATE AND CONNECT CAP PLATE WITH THROUGH ON TOP OF STEEL BEAMS PROVIDE A MINIMUM OF 1 PLY WOOD NAILER BOLTED WITH 13mm (1/2") Ø THROUGH BOLTS AT 610mm (24") STAGGERED ON EACH SIDE OF THE

WEB. WOOD NAILER TO HAVE

- MAXIMUM OVERHANG OF 6mm (1/4") AND MAXIMUM UNDERHANG OF 3mm (1/8"). WHEN SUPPORTING WOOD BEAMS OR JOISTS ON STEEL FLUSH BEAMS WITH FACE MOUNT HANGERS, BLOCK THE WEB WITH CONTINUOUS SOLID SAWN LUMBER TO CLEAR FLANGES. BOLT BLOCKING PIECES WITH 1/2" Ø BOLTS AT 610mm (24") TO THE
- STEEL BEAM WEB STAGGERED TOP AND BOTTOM. PROVIDE 13mm (1/2") STEEL SADDLE FOR WOOD BEAMS WHICH BEAR ONTO OR INTO STEEL COLUMNS ALLOWING FOR A MINIMUM OF 76mm (3") BEARING, COMPLETE WITH (2) 1/2"ø THROUGH BOLTS.

m. PROVIDE 51mm (2") MINIMUM NON-SHRINK GROUT BELOW ALL COLUMN BASEPLATES AND BEARING

- a. PROVIDE A MINIMUM LENGTH OF 203mm (8") AND DEPTH OF 406mm (16") OF SOLID FILLED MASONRY UNITS FOR BEARING OF STEEL, CONCRETE OR REINFORCED MASONRY LINTELS
- b. DO NOT FILL MASONRY VOIDS WITH MORTAR. FILL ONLY WITH GROUT OR CONCRETE.

5. TIMBER/STRUCTURAL COMPOSITE LUMBER (SCL)

- a. SCL TO BE MINIMUM PSL 2.0E, LVL 2.0E, AND LSL 1.55E. b. SCL BEAMS SHALL BF MANUFACTURED CONFORMING WITH THE LATEST VERSION OF
- CAN/CSA-086.1. c. UP TO THREE 44mm (1 3/4") WIDE BEAMS MAY BE NAILED WITH 3 ROWS OF 89mm (3 1/2") COMMON NAILS AT 305mm (12") o.c. EACH SIDE: FOUR PLY BEAMS SHALL BE BOLTED WITH 2 ROWS OF 13mm (1/2") DIAMETER BOLTS AT 305mm (12") o.c. STAGGERED BETWEEN ROWS. DO NOT SPLICE ANY PLIES
- BETWEEN SUPPORTS. DO NOT NOTCH OR DRILL HOLES WITHOUT PRIOR APPROVAL FROM THE STRUCTURAL ENGINEER (AND THE SUPPLIER OF THE SCL BEAMS IF APPLICABLE).
- e. BEAMS SHALL BE INSTALLED d. ROOF TRUSS DESIGN IS TO CONFORMING TO THE MANUFACTURER'S INSTRUCTIONS. ALL BEAMS SHALL BE PROPERLY STORED ON SITE AND SHALL BE
- EXPOSURE TO SUN AND WATER BY USING STOCKERS ADEQUATE TO KEEP PRODUCTS ABOVE GROUND AND OUT OF MUD AND WATER. g. ALL FRAMING, BRIDGING, NAILING PROTECTION, HARDWARE AND OTHER

PROTECTED AGAINST EXTENDED

- FRAMING DETAILS ARE TO BE IN ACCORDANCE WITH PART 9 OF THE ONTARIO BUILDING CODE, LATEST h. EXTERIOR WALL SHEATHING TO BE 13mm (1/2") EXTERIOR GRADE PLYWOOD OR STRAND BOARD NAILED AT 152mm (6") c/c ALONG EDGES
- AND 305mm (12") c/c ON INTERMEDIATE FRAMING MEMBERS. SHEATHING PROVIDES LATERAL SUPPORT FOR FRAMING AND MUST BE NAILED TO EACH STUD UNLESS SPECIFICALLY NOTED OTHERWISE ON THE DRAWINGS, THE CONTRACTOR SHALL PROVIDE
- STANDARD SIMPSON STRONG-TIE CONNECTORS OR APPROVED ALTERNATIVE FOR ALL JOIST HANGERS. BEAM HANGERS. BEAM SEATS, POST ANCHORS, ETC. MEMBERS SHALL BE ALIGNED LEVEL
- AND PLUMB, WITHIN A TOLERANCE k. MAKE ADEQUATE PROVISIONS FOR ERECTION STRESSES AND FOR SUFFICIENT TEMPORARY BRACING TO KEEP THE STRUCTURAL FRAME PLUMB AND IN TRUE ALIGNMENT UNTIL THE COMPLETION OF THE ENTIRE FRAMING INCLUDING
- INSTALLATION OF THE FLOOR SHEATHING. FRAME AROUND ALL OPENINGS WITH DOUBLE HEADERS AND TRIMMERS NAILED TOGETHER WITH TWO ROWS OF 89mm (3 1/2") SPIRAL NAILS AT 203mm (8") ON CENTER STAGGERED UNLESS NOTED OTHERWISE. DO NOT SPLICE PLIES
- BETWEEN SUPPORTS. m. FOR ALL BUILT-UP BEAMS SUPPORTED ON TIMBER WALLS, SUPPORT BEAMS ON POSTS, WITH AN EQUAL NUMBER OF LAMINATIONS UNLESS NOTED OTHERWISE, OR CONNECT TO OTHER BEAMS WITH METAL BEAM HANGERS.

PROVIDE MINIMUM BEARING OF

- 51mm (2") FOR ALL JOISTS. o. PROVIDE MINIMUM BEARING OF 89mm (3 1/2") FOR ALL BEAMS p. ALL BUILT-UP POSTS ARE TO BE CONSTRUCTED CONTINUOUSLY TO THE FOUNDATION WITH TRANSFER BLOCKING AT EACH FLOOR FRAMING. POSTS ARE TO CONTINUE TO FOUNDATIONS EVEN IF SUPPORTED
- ON LOAD BEARING STUD WALLS, UNLESS NOTED OTHERWISE ON THE q. ALL POSTS SUPPORTING DROPPED BEAMS TO HAVE MINIMUM TWO CONTINUOUS KING STUDS AND MINIMUM TWO JACK STUDS TO ATTAIN REQUIRED MINIMUM BEAM
- BEARING. r. BUILT-UP POSTS OF 2, 3, OR 4 PLIES SHALL BE NAILED TOGETHER AT 152mm (6") c/c STAGGERED UNLESS NOTED OTHERWISE. s. ALL BEAMS TO BE FLUSH UNLESS NOTED OTHERWISE.
- t. ALL LINTELS TO BE DROPPED UNLESS NOTED OTHERWISE. u. PROVIDE DOUBLE FLOOR JOISTS BELOW ALL NON-LOAD BEARING PARTITION WALLS SPANNING

PARALLEL TO THE FLOOR FRAMING UNLESS OTHERWISE NOTED. v. ALL JOISTS ARE TO BE INSTALLED

AS SIMPLY SUPPORTED AND NOT

CONTINUOUS OVER ANY SUPPORTS

BEARING AND NON-LOAD BEARING

PROVIDE SOLID BLOCKING BETWEEN

PROVIDE 38x38mm (2x2) DIAGONAL

CROSS BRIDGING OR APPROVED

(7'-0") c/c UNLESS NOTED

LOCATIONS

WOOD TRUSSES

ALTERNATE AT MAXIMUM 2130mm

OTHERWISE, FOR ALL SAWN JOIST

z. WOOD IS NOT PERMITTED TO BEAR

CONCRETE WITHOUT PROTECTION.

WOOD OR POLYETHYLENE SHEET

PROVIDE EITHER PRESSURE TREATED

SCISSOR TRUSSES IS TO BE LIMITED

HOLD DOWN CLIPS AT SUPPORTS OF

WALLS TO BOTTOM CHORD OF WOOD

TRUSSES WITH SLIDING CONNECTORS

CONSIDER WIND UPLIFT AND IS TO

BE IN ACCORDANCE WITH PART 4

MANNER ENSURING PROPER SAFETY

HOLLOW CORE PRECAST CONCRETE

a. HANDLE AND ERECT UNITS IN A

AND ALIGNMENT. PROVIDE ALL

b. PROVIDE MASONITE BEARING PADS

AT CONCRETE AND MASONRY

BEARINGS, SMOOTH SIDE UP.

ANCHORAGE TO MASONRY,

OPENINGS IN UNITS WHERE

DETAILED.

CONCRETE, AND STEEL. CUT

. INSTALL BAR REINFORCEMENT IN

JOINTS BETWEEN UNITS AND AT

REQUIRED TO PERMIT PENETRATION

WALLS, OR TO PERMIT INSTALLATION

OF VERTICAL REINFORCEMENT IN

OF ANCHORS TO BEARING. WELD

AT SIDE-BEARING OF PRECAST

SLABS, PROVIDE NON-SHRINK

e. PROVIDE GROUT IN ALL JOINTS

RETWEEN LINITS AND WHERE

CORES OF UNITS AND WHERE

FEATHER CAMBER DIFFERENCES

f. FASTEN PRECAST UNITS IN PLACE

g. AT OPENINGS, PROVIDE HEADER

THAN 152mm (6") IN ANY

AS INDICATED ON APPROVED SHOP

FRAMING AS REQUIRED TO SUPPORT

AS REQUIRED. OPENINGS LARGER

DIRECTION MUST BE APPROVED BY

CUTTING. CUT HOLES EXCEEDING

152mm (6") IN ANY DIMENSION

TRADES. SUPERVISE CUTTING BY

OTHER TRADES OF HOLES 152mm

(6") OR LESS IN ANY DIMENSION.

WRITTEN APPROVAL OF PRECAST

PROVIDE 64mm (2 1/2") THICK

UNITS AT EXTERIOR BEARING.

BEARING ON MASONRY AND

k. CLEAN FIELD WELDS WITH WIRE

PRECAST FLOOR/ROOF UNIT

DESIGNER UNLESS NOTED

OTHERWISE ON DRAWINGS.

SUPPLIER TO PROVIDE

ERECTION TOLERANCES IN

INSULATION PLUGS IN CORES OF

PROVIDE 83mm (3 1/4") MINIMUM

ACCORDANCE WITH CSA-A23.4-05.

BRUSH AND TOUCH UP GALVANIZED

ANTI-ROTATION BARS BETWEEN ALL

PANEL ABUTMENT JOINTS AT 1800

(6'-0") o.c. AND AS REQUIRED BY

FINISH WITH ZINC-RICH PRIMER.

SLAB MANUFACTURER.

CONCRETE.

DO NOT CUT REINFORCING WITHOUT

WHERE REQUIRED BY OTHER

THE SLAB MANUFACTURER PRIOR TO

UNITS. STRENGTHEN ADJACENT UNITS

REQUIRED ON THE DRAWINGS

BETWEEN ADJACENT UNITS.

REINFORCING TO STEEL BEAMS AS

GROUT IN GAP BETWEEN PRECAST

SLAB AND SIDE-BEARING ELEMENT

REQUIRED TO ANCHOR BARS IN

HOOKS, BRACKETS AND HANDING

b. TRUSS DESIGNER IS TO SPECIFY ALL

. CONNECT TOP OF NON-BEARING

ALLOWING FOR 25mm (1") OF

VERTICAL MOVEMENT.

DIRECTLY ON MASONRY OR

BETWEEN THE WOOD AND

a. HORIZONTAL DEFLECTION OF

TO L/500 OF HEIGHT OF

MASONRY/CONCRETE.

SUPPORTING WALL.

ALL TRUSSES.

OF THE OBC.

WALLS OFFSET FROM THE SUPPORTS

BELOW FOR FLOOR JOISTS SPANNING

w. PROVIDE SOLID BLOCKING, MATCHING

JOIST SIZE. UNDER ALL LOAD

PERPENDICULAR TO THE WALL

JOISTS OVER SUPPORT AT ALL

CANTILEVERED CONDITIONS.

1. ROOFS: a. TYPICAL CONVENTIONALLY FRAMED ROOF: SNOW LOAD: 1.44kPa (30.0psf) DEAD LOAD: 0.72kPa (15.0psf)

2. CEILINGS: a. TYPICAL CEILING: LIVE LOAD: 0.48kPa (10.0psf)

LIVE LOAD:

6. DESIGN LOADS

- DEAD LOAD: 0.48kPa (10.0psf) 3. FLOORS: a. TYPICAL WOOD FLOOR:
- DEAD LOAD: 0.96kPa (20.0psf) b. WOOD FLOOR WITH CONCRETE TOPPING LIVE LOAD: 1.92kPa (40.0psf) 1.92kPa (40.0psf) DEAD LOAD:

1.92kPa (40.0psf)

c. HOLLOW CORE PRECAST GREEN ROOF: LIVE LOAD: 4.80kPa (100psf) DEAD LOAD: SELF WEIGHT 3.11kPa (65psf) SUPERIMPOSED: 5.00kPa (105psf)

5. DEFLECTION LIMITS: a. LIVE LOAD DEFLECTION OF JOISTS HAS BEEN LIMITED TO L/480. b. LIVE LOAD DEFLECTION OF BEAMS HAS BEEN

TOTAL DEAD LOAD: 8.11kPa (170sf)

LIMITED TO L/360. c. TOTAL LOAD DEFLECTION OF BOTH JOISTS AND BEAMS HAS BEEN LIMITED TO L/240.

6. BEARING SOILS: a. REFER TO GEOTECHNICAL REPORT WHERE

AVAII ABI F. b. CONSTRUCT FOOTINGS ON SOIL CAPABLE OF SUSTAINING AN SLS BEARING PRESSURE OF 125kPa (2500psf), WHICH IS TO BE VERIFIED BY A CERTIFIED GEOTECHNICAL ENGINEER. c. CONSTRUCT ALL FOOTINGS EXPOSED TO FROST

ACTION A MINIMUM OF 1220mm (4'-0") BELOW

FINISHED GRADE.

- 7. PLAN NOTES AND ABBREVIATIONS 1. FLOOR SHEATHING TO BE 19mm (3/4") TONGUE AND GROOVE PLYWOOD OR OSB SUB FLOOR GLUED AND NAILED AT 152mm (6") o.c. ALONG ALL SHEET EDGES AND 305mm (12") o.c. ON INTERMEDIATE FRAMING MEMBERS.
- 2. ROOF SHEATHING TO BE 19mm (3/4") EXTERIOR GRADE PLYWOOD OR EXTERIOR GRADE OSB NAILED AT 152mm (6") o.c. ALONG ALL SHEET EDGES AND 305mm (12") o.c. ON INTERMEDIATE FRAMING MEMBERS, COMPLETE WITH H-CLIPS. PROVIDE 3mm (1/8") GAP BETWEEN SHEATHING PIECES.
- 3. TYPICAL EXTERIOR BEARING WALL TO BE 38mmx140mm @ 406mm o.c. (2x6 @ 16" o.c.), U.N.O., WITH DOUBLE WOOD TOP PLATE. PROVIDE 13mm (1/2") EXTERIOR GRADE PLYWOOD OR OSB SHEATHING TO EXTERIOR FACE. PROVIDE NAILING AT 152mm (6") o.c. ALONG ALL SHEET EDGES AND 305mm (12") o.c. ON INTERMEDIATE FRAMING MEMBERS, U.N.O. SILL PLATE TO BE SECURED TO MASONRY OR CONCRETE BASEMEN WALL OR FOUNDATION WALL w/ 5/8"Ø ANCHOR BOLTS x 305mm (12") LONG PLUS 51mm (2") HOOK AT 1220mm (4'-0") o.c. COMPLETE WITH 32mm $(1 \ 1/4")$
- 4. TYPICAL INTERIOR BEARING WALL TO BE 38mmx140mm @ 406mm o.c. (2x6 @ 16" o.c.), U.N.O., WITH DOUBLE WOOD TOP PLATE. SILL PLATE TO BE SECURED TO MASONRY OR CONCRETE BASEMENT WALL, FOUNDATION WALL OR CURB w/ 1/2"ø ANCHOR BOLTS x 305mm (12") LONG PLUS 51mm (2") HOOK AT 1220mm (4'-0") o.c. COMPLETE WITH 32mm $(1 \ 1/4")$ Ø

5. POSTS/COLUMNS:

- (3) 38x89mm (2x4)(4) 38x89mm (2x4) P2:
- (3) 38x140mm (2x6) P3: (4) 38x140mm (2x6)
- 5 1/4" x 5 1/4" 1.8E PSL HSS $127mm \times 127mm \times 9.5mm (5" \times 5")$ $\times 3/8"$)WITH 152mm $\times 13$ mm \times 254mm (6" x 1/2" x 10") CAP PLATE w/ (4) 3/4"ø BOLTS AND 203mm x 19mm x 279mm (8" x 3/4" x 11") OFFSET BASE
- PLATE w/ (4) 1/2"ø ANCHOR RODS 203mm (8") EMBED. WITH 51mm (2") HOOK. HSS $102mm \times 102mm \times 9.5mm (4" \times 4")$ x 1/4")WITH 152mm x 13mm x 254mm (6" x 1/2" x 10") CAP PLATE w/ (4) 3/4" BOLTS AND 152mm x 19mm x 254mm (6" x 3/4" x 10") BASE PLATE w/ (2) 1/2" ANCHOR RODS 203mm (8")
- EMBED. WITH 51mm (2") HOOK. W200x31 (W8x21) WITH 203mm x 19mm x 356mm (8" x 3/4" x 14") BASE PLATE w/ (4) 3/4"ø ANCHOR RODS WITH 406mm (16") EMBEDMENT WITH 76mm (3") HOOK. ANCHOR RODS ARE TO BE CAST INTO
- CONCRETE PIERS/WALLS. W150x37 (W6x25) WITH 203mm x 19mm x 356mm (8" x 3/4" x 14") BASE PLATE w/ (4) 3/4"ø ANCHOR RODS WITH 406mm (16") EMBEDMENT WITH 76mm (3") HOOK. ANCHOR RODS ARE TO BE CAST INTO CONCRETE PIERS/WALLS.
- 305x609 (21"X24") W/8-20M VERT. + 10M TIES @ 305 (12") O/C W/DOUBLE TIE AT TOP AND BOTTOM.

6. PIERS:

- $203 \text{mm} \times 609 \text{mm} (8" \times 24") \text{ w/} (8) 15 \text{M}$ VERT. PLUS 10M TIES @ 203mm (8") o.c. WITH DOUBLE TIE AT TOP. PIER2: $406mm \times 560mm (16" \times 22") w/ (6) 15M$
- WITH DOUBLE TIE AT TOP. 7. SLAB ON GRADE TO BE 102mm (4") THICK CONCRETE REINFORCED WITH 152×152 MW18.7 x MW18.7 (6×6 6x6) WELDED WIRE FABRIC, PLACED 38mm (1 1/2")

8. BASEMENT AND FOUNDATION WALLS:

NOTE: MAXIMUM HEIGHT FOR BASEMENT WALLS IS MEASURED FROM TOP OF BASEMENT SLAB TO

BASEMENT WALL TO BE 300mm (12") POURED CONCRETE, 25MPa AT 28 DAYS WITH 4% TO 7% AIR CONTENT, WITH A MAXIMUM HEIGHT OF 3.5m (9'_10"), WITH THE FOLLOWING REINFORCEMENT (DOWELS INTO FOOTINGS TO BE TO MATCH VERT., MIN. 600mm x 600mm (24"x24"):

> 15M @ 305mm (12") o.c. V.I.F. 15M @ 305mm (12") o.c. H.I.F. 10M @ 305mm (12") o.c. V.O.F. 10M @ 305mm (12") o.c. H.O.F.

TO OVERLAP A MINIMUM OF 610mm (24") WITH REINFORCING FROM 305mm (12") WALL BELOW. ABOVE GRADE.

> 15M @ 305mm (12") o.c. V.I.F. 15M @ 305mm (12") o.c. H.I.F. 10M @ 305mm (12") o.c. V.O.F. 10M @ 305mm (12") o.c. H.O.F.

9. FOR BASEMENT WINDOWS 1220mm (4'-0") IN WIDTH OR GREATER, PROVIDE (2)15M VERT. FULL HEIGHT ON EACH SIDE. ABOVE & BELOW WINDOW PROVIDE (2)15M HOR. CONT. EXTEND 610mm (24") ON BOTH SIDE OF

10. TYPICAL EXTERIOR STRIP FOOTING TO BE 660mm (26") \times 203mm (8") DP. w/ (2)15M CONTINUOUS. DOWELS INTO WALLS ABOVE TO BE 15M @ 300mm (12") o.c. 24. ALL GUARDS ARE TO BE DESIGNED TO MEET CLAUSE

11. INTERIOR STRIP FOOTINGS: MATCH WALL VERTICALS. b. AT LOAD BEARING WOOD STUD WALLS, PROVIDE MINIMUM ONE COURSE OF CONCRETE BLOCK WITH

16. PAD FOOTINGS:

- (3)15M B.E.W.&H.E.E.
- 915mm x 915mm x 305mm DP. w/ (4)15M B.E.W.&H.E.E. $(3'-0" \times 3'-0" \times 12" DP.)$
- 1067mm x 1067mm x 305mm DP. w/ (5)15M B.E.W.&H.E.E. $(3'-6" \times 3'-6" \times 12"$ 1220mm x 1220mm x 356mm DP. w/
- (6)15M B.E.W.&H.E.E. $(4'-0" \times 4'-0" \times 14"$ 1370mm x 1370mm x 356mm DP. w/ (6)15M B.E.W.
- $(4'-6" \times 4'-6" \times 14" DP.)$ 1525mm x 1525mm x 356mm DP. w/ (7)15M B.E.W.
- 17. FIREPLACE FRAMING: a. FOOTING TO BE 305mm (12") DEEP WITH 305mm
- b. ABOVE GRADE WALLS TO BE 190mm (8") CONCRETE BLOCK MINIMUM WITH 15M @ 406mm (16") o.c. VERTS. COMPLETE WITH ALL VOIDS
- d. FOR LARGE HEARTHS, PROVIDE INSTEAD A 152mm (6") THICK CONCRETE SLAB WITH 15M @ 203mm (8") o.c. E.W. PLUS 15M @ 305mm (12") o.c.

19. BEARING PLATES:

BR.PL1: 152mm x 13mm x 203mm (6" x <math>1/2" x

- VERT. PLUS 10M TIES @ 305mm (12") o.c.
- FROM TOP OF SLAB. BASEMENT SLAB ON GRADE TO BE 25MPa. GARAGE SLAB ON GRADE TO BE 32MPa WITH AIR CONTENT 5% TO 8%.

UNDERSIDE OF GROUND FLOOR STRUCTURE JOISTS OR

SEPERATE CORNER BARS TO MATCH HORIZ.

203mm (8") PORTION TO HAVE REBAR IN BOTH FACES. INSIDE LAYER OF REBAR IS TO BE CONTINUOUS FROM FOOTING TO TOP OF WALL. OUTSIDE LAYERS OF REBAR ENSURE BRICK LEDGE IS A MINIMUM OF 152mm (6")

BW 2: BASEMENT WALL TO BE 200mm (8") POURED CONCRETE, 25MPa AT 28 DAYS WITH 4% TO 7% 22. TRUSS HOLD DOWNS: AIR CONTENT, WITH A MAXIMUM HEIGHT OF 3.5m (9'_10"), WITH THE FOLLOWING REINFORCEMENT (DOWELS INTO FOOTINGS TO BE TO MATCH VERT., SEPERATE CORNER BARS TO MATCH HORIZ. MIN. 600mm x 600mm (24"x24"):

MINIMUM OR TO MATCH WALL VERTICALS.

a. TO BE 860mm (33") x 250mm (10") DP. w/ 25. STEEL MOMENT FRAMES: (2)15M CONTINUOUS. DOWELS INTO WALLS ABOVE TO BE 15M @ 300mm (12") o.c. MINIMUM OR TO

TOP OF BLOCK TO BE FLUSH WITH TOP OF SLAB.

PROVIDE 15M AT 406mm (16") o.c. DOWELS FROM

FOOTING INTO CONCRETE BLOCK AND FILL ALL

CORES SOLID WITH CONCRETE.

- F2.5: 762mm x 762mm x 305mm DP. w/
- $(2'-6" \times 2'-6" \times 12" DP.)$

$(5'-0" \times 5'-0" \times 14" DP.)$

- (12") PROJECTION AROUND BASE WITH 15M @ 305mm (12") o.c. T.&B.E.W.
- FILLED SOLID WITH CONCRETE c. FOR HEARTH FRAMING, REFER TO TACBOC DETAIL

TOP DOWEL INTO FIREPLACE WALLS.

8") BEARING PLATE w/ (2) 1/2"ø ANCHOR

RODS WITH 203mm (8") EMBED. PLUS 51mm (2") HOOK. [(2) 1/2"\sqrt{9} HILTI BOLTS INTO EXISTING] [ON MIN. TWO COURSES SOLID MASONRY] [ON FULL HEIGHT SOLID MASONRY] [ON 406mm (16") LONG x 203mm (8") WIDE x 406mm (16") TALL CONCRETE BEARING PAD ON EXISTING DOUBLE BRICK WALL]

BR.PL.2: $203 \text{mm} \times 16 \text{mm} \times 254 \text{mm} (8" \times 5/8" \times 16 \text{mm})$ 10") PL. w/ (2) 1/2" ANCHOR RODS WITH 203mm (8") EMBED. PLUS 51mm (2")

20. CONCRETE LINTELS:

(2)15M BOTTOM BARS PLUS (2)15M TOP BARS WITH 10M @ 254mm (10") STIRRUPS MINIMUM DEPTH OF BEAM FROM UNDERSIDE OF BEAM TO TOP BARS IS 305mm (12"). TOP AND BOTTOM BARS ARE TO EXTEND A MINIMUM OF 406mm (16") BEYOND OPENING

ON EACH SIDE. (2)20M BOTTOM BARS PLUS (2)20M TOP BARS WITH 10M @ 254mm (10") STIRRUPS. MINIMUM DEPTH OF BEAM FROM UNDERSIDE OF BEAM TO TOP BARS IS 406mm (16"). TOP AND BOTTOM BARS ARE TO EXTEND A MINIMUM OF 406mm (16") BEYOND OPENING ON EACH SIDE.

21. LOOSE LINTELS:

- L89x89x6.4mm UP TO 1200mm WITH 102mm MIN. BEARING. (L3 1/2"x3 1/2"x1/4" UP TO 3'-11" WITH 4" MIN.
- BEARING.) L102x89x7.9mm LLV UP TO 1800mm WITH 152mm MIN. BEARING. (L4"x3 1/2"x5/16" LLV UP TO 5'-11" WITH 6" MIN. BEARING.) L127x89x7.9mm LLV UP TO 2400mm WITH 203mm MIN. BEARING. (L5"x3 1/2"x5/16" LLV UP TO 7'-10" WITH 8" MIN. BEARING.)

TO 9'-10" WITH 8" MIN. BEARING.)

L152x102x9.5mm LLV UP TO 3000mm WITH

203mm MIN. BEARING. (L6"x4"x3/8" LLV UP

a. THE TRUSS DESIGNER IS TO DESIGN ALL TRUSSES FOR UPLIFT AND SPECIFY ALL HOLD DOWNS TO THE WALL DOUBLE TOP PLATES

REQUIRED BELOW THE DOUBLE TOP PLATE.

b. REFER TO PLANS FOR ANY HOLD DOWNS

- c. INSTALLATION OF ALL HOLD DOWN HARDWARE TO FOLLOW MANUFACTURERS GUIDELINES. HD-1: T/O POST TO DBL. TOP PLATE: SIMPSON STRONG-TIE DSP B/O POST TO RIM BOARD: SIMPSON
- STRONG-TIE CS20 24" LG. MIN. w/ (9)8d FASTENERS TO POST + (9)8d FASTENERS T/O POST TO DBL. TOP PLATE: (2) SIMPSON HD-2: STRONG-TIE TSP B/O POST TO RIM BOARD: SIMPSON STRONG-TIE CS16 28" LG. MIN. w/ (12)8d FASTENERS TO POST + (12)8d FASTENERS
- 9.8.8.2. OF THE MOST CURRENT OBC. PROVIDE SHOP

DRAWINGS, COMPLETE WITH P.ENG STAMP FOR REVIEW.

a. 'M' DENOTES FULL MOMENT CONNECTION. b. ANCHOR RODS OF MOMENT FRAME COLUMNS ARE

c. PROVIDE STEEL SHOP DRAWINGS FOR REVIEW. 30. HOLLOW CORE PRECAST: a. CONCRETE TOPPING TO BE 25MPa COMPLETE WITH FIBRE REINFORCING FOR SHRINKAGE CONTROL. PEA GRAVEL IS TO BE USED AS AGGREGATE. AT EXTERIOR CONDITIONS, PROVIDE 5% TO 8% AIR

ENTRAINMENT. PROVIDE SAW CUTS IN TOPPING

ABOVE ALL SUPPORTS OF PRECAST SLABS (i.e.

TO BE CAST INTO THE CONCRETE PIER/FOOTING

BELOW AND NOT POST-INSTALLED.

STEEL BEAMS, BEARING WALLS, ETC.).

31. INDEPENDENT INSPECTION AND TESTING:

MUNICIPAL AUTHORITIES.

STEEL INSPECTIONS.

a. THE OWNER WILL APPOINT AN INDEPENDENT INSPECTION AND TESTING AGENCY TO UNDERTAKE CONCRETE STRENGTH TESTS. THE COST OF TESTING SHALL BE PAID BY THE OWNER. LABORATORY CURING AND TESTING OF SAMPLES WILL BE CARRIED OUT IN ACCORDANCE WITH CSA STANDARDS A23.1-04 AND A23.2-04 EXCEPT THAT STRENGTH TESTS, INCLUDING AIR ENTRAINMENT AND SLUMP TESTS, WILL BE REQUIRED FOR EACH 40 cu.m, BUT NOT LESS THAN ONE TEST, FOR EACH CLASS OF CONCRETE PLACED EACH DAY. PROVIDE A GROUP OF THREE CYLINDERS FOR EACH STANDARD STRENGTH TEST ONE SPECIMEN WILL BE TESTED AT 7 DAYS AND TWO AT 28 DAYS. PROVIDE ONE ADDITIONAL FIELD CURED CYLINDER FOR TESTING AT 7 DAYS WHEN CONCRETE IS PLACED UNDER COLD WEATHER CONDITIONS. RESULTS WILL BE ON THE FORM APPROVED BY R.M.C.A.O. AND WILL BE REPORTED TO THE ARCHITECT WITH COPIES TO THE

STRUCTURAL ENGINEER, THE CONTRACTOR AND THE

INSPECTION AND TESTING AGENCY TO UNDERTAKE

b. THE OWNER WILL APPOINT AN INDEPENDENT



The architect noted above has exercised responsible control with respect to design activities of this project. The architect's seal number is the architect's BCDN

DRAWINGS MUST <u>not</u> be scaled. CONTRACTOR MUST CHECK AND VERIFY ALL DIMENSIONS, SPECIFICATIONS AND DRAWINGS ON SITE AND REPORT ANY DISCREPANCIES TO THE ARCHITECT PRIOR TO PROCEEDING WITH ANY OF THE WORK.



R.J. VAN GROLL

FOR STRUCTURE ONLY

(: 19–4197A/5**0**827

ISSUED FOR PERMIT MAR. 31/22

DESCRIPTION

SPRAGGE + COMPANY ARCHITECTS LTD.

156 DUNCAN MILL ROAD SUITE 17a TORONTO, ONTARIO PHONE:(416) 955-1441

FAX:(416) 955-1442

REF.

REVISIONS

DATE

ADDITION AND RENOVATION TO DUMITRA RESIDENCE

STRUCTURAL NOTES

29 DONWOODS DRIVE

TORONTO, ONTARIO

DRAWN:	B.P.S.	CHECKED:
DATE:	MARCH 2022	
SCALE:	1/4"=1'-0"	JOB NO.: 19 · 2112
ISSUED:		SHEET NO.: A·15

STRUCTURAL NOTES

A15

