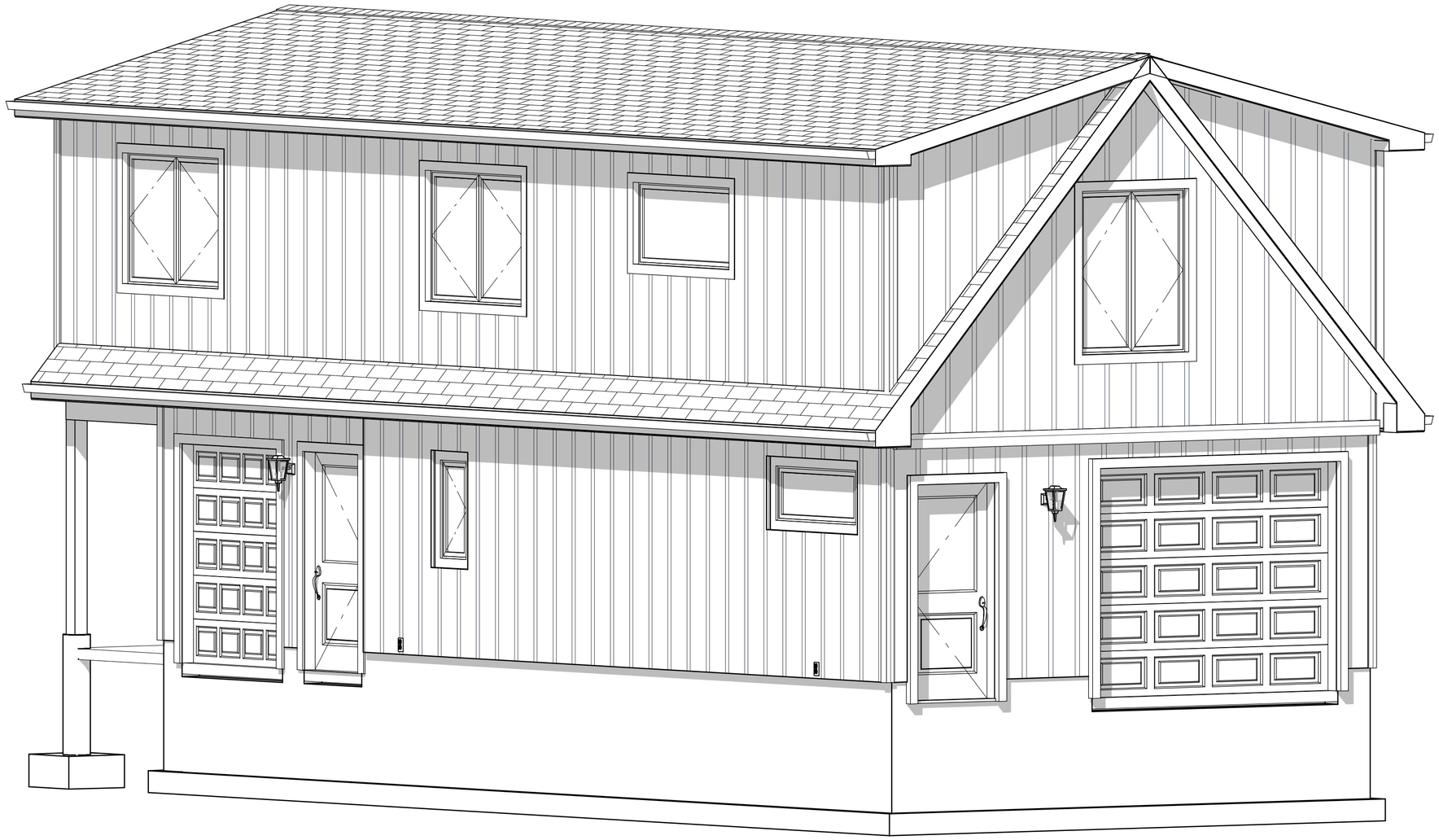
32 SOUTH CRES, PORT COLBORNE, ONTARIO

GARAGE - ACCESSORY DWELLING UNIT

ERIN & GRAHAM HART

PROJECT NO. 025-0323-GADU



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SHEET SIZE - ARCH C -18" X 24"

PORTER DESIGN
INFO@PORTERDESIGN.CA | 289.687.0501 | FONTHILL, ONT

THE UNDERSIGNED HAS REVIEWED AND TAKES RESPONSIBILITY FOR THIS DESIGN, AND HAS THE QUALIFICATION AND MEETS THE REQUIREMENTS SET OUT IN THE ONTARIO BUILDING CODE TO BE A DESIGNER.

QUALIFICATION INFORMATION
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REGISTRATION INFORMATION
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REVISIONS

NO.	DESCRIPTION	DATE

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AUGUST 20, 2023
DATE

N.T.S.
SCALE

COVER
SHEET NAME

A.1
SHEET NO.

SPECIFIED SNOW LOAD, KPA (OBC 9.4.2.2.)

Specified Snow Load, kPa (Ontario Building Code, 9.4.2.2. Specified Design Snow Loads)

LOCATION: Port Colborne, Ontario

Where Width of Roof Exceeds 4.3 m (14'-1")

Roof Width Factor	C_b	=	0.55	S =	C_b	x	S_s	+	S_r	
Snow Load, kPa, 1/50	S_s	=	2.3	S =	0.55	x	2.30	+	0.40	
	S_r	=	0.4	S =	1.665	kPa		Use =>	2.0	

Where Width of Roof is Less Than 4.3 m (14'-1")

Roof Width Factor	C_b	=	0.45	S =	C_b	x	S_s	+	S_r	
Snow Load, kPa, 1/50	S_s	=	2.3	S =	0.45	x	2.30	+	0.40	
	S_r	=	0.4	S =	1.435	kPa		Use =>	1.5	

***NOTE: MIN. SPECIFIED SNOW LOAD IS 1.0 kPa OR AS CALCULATED, WHICHEVER IS GREATER

Table 9.23.3.5.
Fasteners for Sheathing and Subflooring

Forming Part of Sentence 9.23.3.5.(1)

Item	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6
	Element	Minimum Length of Fasteners, mm				Minimum Number or Maximum Spacing of Fasteners
		Common or Spiral Nails	Ring Thread Nails or Screws	Roofing Nails	Staples	
1.	Board lumber 184 mm or less wide	51	45	N/A	51	2 per support
2.	Board lumber more than 184 mm wide	51	45	N/A	51	3 per support
3.	Fibreboard sheathing up to 13 mm thick	N/A	N/A	44	28	150 mm (o.c.) along edges and 300 mm (o.c.) along intermediate supports
4.	Gypsum sheathing up to 13 mm thick	N/A	N/A	44	N/A	
5.	Plywood, OSB or waferboard up to 10 mm thick	51	45	N/A	38	
6.	Plywood, OSB or waferboard over 10 mm and up to 20 mm thick	51	45	N/A	51	
7.	Plywood, OSB or waferboard over 20 mm and up to 25 mm thick	57	51	N/A	N/A	

Table 9.23.3.4.
Nailing for Framing

Forming Part of Sentence 9.23.3.4.(1)

Item	Column 1	Column 2	Column 3
	Construction Detail	Minimum Length of Nails, mm	Minimum Number or Maximum Spacing of Nails
1.	Floor joist to plate – toe nail	82	2
2.	Wood or metal strapping to underside of floor joists	57	2
3.	Cross bridging to joists	57	2 at each end
4.	Double header or trimmer joists	76	300 mm (o.c.)
5.	Floor joist to stud (balloon construction)	76	2
6.	Ledger strip to wood beam	82	2 per joist
7.	Joist to joist splice (See also Table 9.23.13.8.)	76	2 at each end
8.	Header joist end nailed to joists along perimeter	101	3
9.	Tail joist to adjacent header joist	82	5
	(end nailed) around openings	101	3
10.	Each header joist to adjacent trimmer joist	82	5
	(end nailed) around openings	101	3
11.	Stud to wall plate (each end) toe nail	62	4
	or end nail	82	2
12.	Doubled studs at openings, or studs at walls or wall intersections and corners	76	750 mm (o.c.)
13.	Doubled top wall plates	76	600 mm (o.c.)
14.	Bottom wall plate or sole plate to joists or blocking (exterior walls)(1)	82	400 mm (o.c.)
15.	Interior walls to framing or subflooring	82	600 mm (o.c.)
16.	Horizontal member over openings in non-*loadbearing* walls – each end	82	2
17.	Lintels to studs	82	2 at each end
18.	Ceiling joist to plate – toe nail each end	82	2
19.	Roof rafter, roof truss or roof joist to plate – toe nail	82	3
20.	Rafter plate to each ceiling joist	101	2
21.	Rafter to joist (with ridge supported)	76	3
22.	Rafter to joist (with ridge unsupported)	76	See Table 9.23.13.8.
23.	Gusset plate to each rafter at peak	57	4
24.	Rafter to ridge board – toe nail – end nail	82	3
25.	Collar tie to rafter – each end	76	3
26.	Collar tie lateral support to each collar tie	57	2
27.	Jack rafter to hip or valley rafter	82	2
28.	Roof strut to rafter	76	3
29.	Roof strut to *loadbearing* wall – toe nail	82	2
30.	38 mm × 140 mm or less plank decking to support	82	2
31.	Plank decking wider than 38 mm × 140 mm to support	82	3
32.	38 mm edge laid plank decking to support (toe nail)	76	1
33.	38 mm edge laid plank to each other	76	450 mm (o.c.)

Notes to Table 9.23.3.4.:

(1) See Sentence 9.23.3.4.(2).

SHEET SIZE - ARCH C - 18" X 24"

GENERAL NOTES

GEN1. THIS BUILDING HAS BEEN DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF THE 2012 ONTARIO BUILDING CODE
GEN2. ALL WORK PERFORMED AND MATERIAL SUPPLIED SHALL COMPLY WITH THE LATEST EDITION OF THE ONTARIO BUILDING CODE
GEN3. ANY DEVIATION TO THE DESIGN OF THE BUILDING, STRUCTURE OR PLAN OR THE USE OF ANY ALTERNATIVE MATERIALS OTHER THAN SPECIFIED MUST BE NOTIFIED TO THE DESIGNER AND PORTER DESIGN. ANY CHANGES SHALL NOT BE CARRIED OUT WITHOUT THE WRITTEN APPROVAL OF THE DESIGNER AND/OR MUNICIPALITY, WERE REQUIRED.
GEN4. 816028 ONTARIO LIMITED O/A PORTER DESIGN IS NOT LIABLE FOR ANY ERRORS OR EMISSIONS FOUND IN THESE BLUEPRINTS.
GEN5. DO NOT SCALE THESE BLUE PRINTS.

CONC. FOOTING, FND & SLAB NOTES

C1. FOOTINGS SHALL BEAR ON UNDISTURBED SOIL.
C2. COMPRESSIVE STRENGTH OF CONCRETE AFTER 28 DAYS SHALL BE NOT LESS THAN, 32 MPA FOR GARAGE FLOORS, CARPORT FLOORS AND ALL EXTERIOR FLATWORK, 20 MPA FOR INTERIOR FLOORS OTHER THAN THOSE FOR GARAGES AND CARPORTS, AND 15 MPA FOR ALL OTHER APPLICATIONS.
C3. CONCRETE USED FOR GARAGE AND CARPORT FLOORS AND EXTERIOR STEPS SHALL HAVE AIR ENTRAINMENT OF 5% TO 8%.
C4. FOUND EXTERIOR FOOTINGS AND OTHER FOOTINGS SUSCEPTIBLE TO DAMAGE RESULTING FROM FROST ACTION A MINIMUM OF 4'-0" BELOW FINISHED GRADE IF NOT NOTED TO BE FOUNDED LOWER.
C5. ALL FOOTINGS ARE CENTERED UNDER WALLS AND COLUMNS UNLESS NOTED OTHERWISE.
C6. INSTALL 6 MIL POLY VAPOUR BARRIER OVER A MINIMUM 4" CLEAN GRANULAR FILL BELOW SLAB.
C7. CONCRETE SLAB TO BE SAW CUT WITHIN 12 HOURS OF COMMENCEMENT OF CONCRETE PLACEMENT TO THE DEPTH OF 1/4 OF SLAB DEPTH.
C8. CONCRETE GARAGE SLAB SHALL CONSIST OF 10M STEEL REINFORCING BAR SPACED AT 16" O/C OR 9-GAUGE 6" X 6" WELDED WIRE MESH.
C9. DAMPPROOFING IS PROVIDED ON FOUNDATION WALLS TO CONTROL THE ENTRY OF WATER AND WATER VAPOUR INTO FINISHED BUILDING SPACE. AS PER OBC 9.13.
C10. MINIMUM 4" SUB-DRAIN SHALL BE INSTALLED AND TIED INTO EXISTING SUB-DRAIN SYSTEM WHERE FOUNDATION WALLS ENCLOSE A BASEMENT AS PER OBC 9.14.3.3.
C11. SEE WALL SECTIONS AND DETAILS FOR FURTHER FOOTING, FOUNDATION WALL AND SLAB DETAILS.

EXT. CLADDING & ROOFING NOTES

EXT1. ALL ROOFING MATERIALS SHALL BE INSTALLED AS PER MANUFACTURES RECOMMENDATION AND CONFORM TO SECTION 9.26 OF THE OBC.
EXT2. EAVE PROTECTION AS PER SECTION 9.26.5 OF THE OBC.
EXT3. METAL FLASHING REQUIRED AT ALL ROOF AND WALL INTERSECTIONS AS PER OBC 9.26.4.
EXT4. FASTENERS FOR ROOFING MATERIALS SHALL BE CORROSION RESISTANT.
EXT5. INSTALL RIDGE AND HIP VENTS TO MEET ONTARIO BUILDING CODE REQUIREMENTS.
EXT6. PROVIDE VENTILATION TO ATTIC STORAGE AREA AS PER ONTARIO BUILDING CODE SECTION 9.32
EXT7. ALL EXTERIOR GARAGE DOORS TO BE INSULATED STEEL WITH WEATHER STRIPPING.
EXT8. ALL EXTERIOR ENTRY DOORS TO BE INSULATED STEEL WITH WEATHER STRIPPING.
EXT9. ALL DOORS BETWEEN GARAGE AND DWELLING AREA SHALL BE EQUIPPED WITH A SELF-CLOSING DEVICE
EXT10. ALL CAPPING, FLASHING, FASCIA AND SOFFIT TO BE PRE-FINISHED ALUMINUM AND INSTALLED TO PREVENT WATER INFILTRATION.
EXT11. SIDING MATERIALS MUST BE INSTALLED ACCORDING TO MANUFACTURES RECOMMENDATIONS.
EXT12. FASTENERS USED FOR ATTACHMENT OF VINYL SIDING OR ASPHALT SHINGLES SHALL BE LONG ENOUGH TO PENETRATE THROUGH THE UNDERLYING SHEATHING

FLOOR PLAN NOTES

FP1. REFER TO SHEET E.1 FOR ELECTRICAL LAYOUT, LIGHTING, RECEPTACLES, AND SWITCHES
FP2. GARAGE OVERHEAD DOORS TO BE INSULATED ALUMINUM TYPE TO MATCH EXISTING OVERHEAD DOORS
FP3. ENTRY DOORS TO BE INSULATED STEEL

FRAMING & LUMBER NOTES

F1. ALL FRAMING LUMBER TO BE SPF NO. 1 AND 2 OR BETTER UNLESS STATED OTHERWISE.
F2. ALL NON-LOADBEARING STUDS FOR WALLS TO BE S-P-F STUD GRADE OR BETTER.
F3. MAXIMUM MOISTURE CONTENT OF LUMBER TO BE 19% OR LESS AT TIME OF INSTALLATION.
F4. ALL EXTERIOR PLYWOOD SHEATHING SHALL BE STAMPED EXTERIOR GRADE.
F5. EXCEPT WHERE SPECIFIED OTHERWISE, NAILING SHALL CONFORM TO TABLES 9.23.3 OF THE ONTARIO BUILDING CODE. (SEE TABLE 9.23.3.4 - NAILING FOR FRAMING)
F6. PLYWOOD, WAFERBOARD OR STRANDBOARD SHEATHING ATTACHED TO JOISTS, RAFTERS OR STUDS SHALL BE FASTENED WITH 2 1/2" COMMON NAILS AT 150MM (6") CENTERS AT EDGES OF SHEATHING PANELS, AND 300MM (12") CENTERS ELSEWHERE UNLESS NOTED OTHERWISE.
F7. WALL PLATES IN STUD WALLS SHALL CONFORM TO CLAUSE 9.23.11 OF THE ONTARIO BUILDING CODE.
F8. ALL WALL SHEATHING IS REQUIRED TO BE PROTECTED BY A SHEATHING MEMBRANE (HOUSEWRAP / BUILDING PAPER) INSTALLED AS PER THE MANUFACTURER'S INSTRUCTIONS FOR THE SPECIFIC FINISH OR CLADDING. OSB AND PLYWOOD ARE NOT SUITABLE EXTERIOR FINISHES.
F9. THE WALL BOTTOM PLATES ARE REQUIRED TO BE PRESSURE-TREATED, OR SEPARATED FROM THE CONCRETE WITH .05 MM POLYETHYLENE SHEET.
F10. ALL EXTERIOR WALL LOAD BEARING WOOD STUD WALLS SHALL BE SHEATHED OR TEMPORARILY LATERALLY BRACED @ 2'-0" O.C. VERTICALLY PRIOR TO SUPPORTING ANY SUPERIMPOSED CONSTRUCTION LOADS.
F11. SIGNED AND SEALED DRAWINGS FROM SUPPLIER/MANUFACTURES ARE REQUIRED FOR ALL ENGINEERED BUILDING ELEMENTS, SUCH AS TRUSSES, LVL HEADERS AND BEAMS, AND ALL OTHER ENGINEERED BUILDING ELEMENTS.
F12. SIMPSON H-1 HURRICANE ANCHORS, OR COMPARABLE, SHALL BE USED AT EACH TRUSS OR RAFTER TO WALL CONNECTION.
F13. SIMPSON, OR COMPARABLE, CONNECTORS SHALL INSTALLED, FASTENED AND CONFORM TO MANUFACTURER'S SPECIFICATIONS.
F14. PROVIDE BEARING PLATE FOR THE STEEL COLUMNS AS PER 9.17.

FIRE PROTECTION NOTES

FP1. PENETRATIONS IN FIRE SEPARATION SHALL BE SEALED USING FIRE RESISTANT CAULKING CONFORMING TO CAN/ULC-S115.
FP2. SMOKE ALARMS LOCATION AND TYPE SHALL BE AS PER OBC 9.10.19.3.
FP3. AS PER OBC 9.10.19.5., SMOKE ALARM MUST ALL BE INTERCONNECTED SO THAT IF ONE ACTIVATES, THEY ALL ACTIVATE SIMULTANEOUSLY.
FP4. SOLID-CORE WOOD DOORS THAT ARE A MINIMUM OF 45 MM (1 3/4") THICK ARE PERMITTED TO BE USED AS A CLOSURE WHEN THE MINIMUM fiRE PROTECTION RATING OF THE DOOR IS REQUIRED TO BE NOT MORE THAN 20 MINUTES.
FP5. OPENINGS IN REQUIRED FIRE SEPARATIONS ARE REQUIRED TO BE PROTECTED WITH CLOSURES THAT HAVE A FIRE-PROTECTION RATING THAT COINCIDES WITH THE FIRE-RATING OF THE FIRE SEPARATION ACCORDING TO OBC 9.10.13.1.(1) AND IS UL LISTED.
FP6. OPENINGS IN REQUIRED FIRE SEPARATIONS SHALL BE EQUIPPED WITH A SELF-CLOSING DEVICE THAT CLOSES. THE DOOR AUTOMATICALLY AFTER USE AND MEETS CAN/ULC-S104, "FIRE TESTS FOR DOOR ASSEMBLIES".
FP7. CARBON MONOXIDE ALARMS MUST CONFORM TO CAN/CSA- 6.19, "RESIDENTIAL CARBON MONOXIDE DEVICES" OR UL 2034, "SINGLE AND MULTIPLE STATION CARBON MONOXIDE ALARMS".
FP8. FIRE PROTECTION OF ALL STRUCTURAL FRAMING, LOADBEARING WALLS, BEAMS, COLUMNS, AND ARCHES SUPPORTING FLOORS ABOVE MUST CONFORM TO 9.10.8.3.

ROOF FRAMING NOTES

RF1. TRUSS FRAMING DRAWING IS FOR ILLUSTRATION ONLY. ALL TRUSSES SHALL BE INSTALLED & BRACED AS PER MANUFACTURER'S ENGINEERED STAMP DRAWING. (SEE SHEET S-1)
RF2. ALL ENGINEERED TRUSS DRAWINGS SHALL CARRY MANUFACTURER'S STAMP AND BE PRESENTED TO THE MUNICIPALITY AT TIME OF PERMIT APPLICATION. (SEE SHEET S-1)
RF3. TRUSSES SHALL NOT BE ALTERED WITHOUT APPROVAL OF MUNICIPAL BUILDING DEPARTMENT AND MANUFACTURER'S ENGINEER.
RF4. CONTRACTOR SHALL HAVE STAMPED TRUSS DRAWINGS ON-SITE FOR FRAMING INSPECTION AND DURATION OF PROJECT.
RF5. ALL CONNECTIONS TO TRUSSES TO MAIN SUPPORTING MEMBER SHALL BE AS IDENTIFIED BY THE MANUFACTURE.
RF6. OUTLOOKERS FOR GABLE ENDS SHALL NOT BE SPACED MORE THAT 24" O/C

DOOR SCHEDULE

NUMBER	LABEL	QTY	FLOOR	SIZE	WIDTH	HEIGHT	R/O	DESCRIPTION	HEADER	THICKNESS
D01	21068	1	1	21068 L IN	34"	80"	36"X82 1/2"	HINGED-DOOR P04		1 3/8"
D02	21068	1	1	21068 R EX	34"	80"	36"X83"	EXT. HINGED-DOOR E01	2"X6"X39" (2)	1 3/4"
D03	2668	1	2	2668 R IN	30"	80"	32"X82 1/2"	HINGED-DOOR P03		1 3/8"
D04	2868	1	1	2868 L IN	32"	80"	34"X82 1/2"	HINGED-DOOR P03		1 3/8"
D05	21068	1	2	21068 R IN	34"	80"	36"X82 1/2"	HINGED-DOOR P03		1 3/8"
D06	3068	1	1	3068 L EX	36"	80"	38"X83"	EXT. HINGED-DOOR E01	2"X6"X41" (2)	1 3/4"
D07	3068	1	1	3068 L EX	36"	80"	38"X83"	EXT. HINGED-DOOR P04		1 3/8"
D08	3068	1	2	3068 L	36"	80"	73 1/4"X82 1/2"	POCKET-DOOR P03		1 3/8"
D09	4068	1	1	4068 L/R	48"	80"	50"X82 1/2"	4 DR. BIFOLD-DOOR P03		1 3/8"
D10	4068	1	2	4068 L/R IN	48"	80"	50"X82 1/2"	DOUBLE HINGED-DOOR P03		1 3/8"
D11	5068	1	1	5068	60"	80 5/16"	63"X83 5/16"	GARAGE-GARAGE DOOR P02	2"X8"X69" (2)	1 3/4"
D12	9070	1	1	9070	108"	84"	111"X85 1/2"	GARAGE-GARAGE DOOR P02	2"X10"X117" (3)	1 3/4"

WINDOW SCHEDULE

NUMBER	LABEL	QTY	FLOOR	SIZE	WIDTH	HEIGHT	R/O	EGRESS	DESCRIPTION	HEADER
W01	1430SC	1	1	1430SC	16"	36"	17"X37"		SINGLE CASEMENT-HR	2"X4"X20" (2)
W02	2030SC	1	2	2030SC	24"	36"	25"X37"		SINGLE CASEMENT-HR	2"X4"X28" (2)
W05	4050DC	1	2	4050DC	48"	60"	49"X61"		DOUBLE CASEMENT-LHL/RHR	2"X4"X52" (2)
W06	4218FX	1	1	4218FX	50"	20"	51"X21"		FIXED GLASS	2"X8"X54" (2)
W07	5026FX	1	2	5026FX	60"	30"	61"X31"		FIXED GLASS	2"X8"X64" (2)
W08	5040DC	2	2	5040DC	60"	48"	61"X49"		DOUBLE CASEMENT-LHL/RHR	2"X6"X64" (2)

WALL SCHEDULE

NUMBER	2D SYMBOL	WALL TYPE	CAVITY R-VALUE	CONTINUOUS R-VALUE
WA01		8" CONCRETE STEM WALL	0	0
WA02		EXT- 2"X6" @ 24" - R22 & CI7.5 - SIDING	22	7.5
WA03		EXTERIOR - DRYWALL - 2"X6"@ 24" O/C - 7/16" OSB - TYVEK - B&B SI	0	0
WA04		INTERIOR - 2"X4" STUD @ 16" O/C	0	0
WA05		INTERIOR - 2"X6" STUD @ 16" O/C	0	22
WA06		SIDING-B&B-4-24"O/C-GARAGE	0	0

ROOM & WINDOW DAYLIGHT CALCULATIONS

LOCATION	FLOOR	MIN. GLASS AREA W/ ELEC LIGTHING	ROOM AREA (FT2)	REQ'D GLASS AREA (FT2)	WINDOW NO.	FRAME WIDTH (INCH)	FRAME HEIGHT (INCH)	GLASS AREA (FT2) (Deduct 3" all around for frame thickness)	TOTAL GLASS AREA (FT2)	MEETS OBC REQ.	NOTES
LIVING/DINIING/KITCHEN	2ND	10%	396	39.6	W07	60	30	9.00	40.50	YES	INCLUDES HALL AREA AND WINDOW
					W08	60	48	15.75			
					W08	60	48	15.75			
MASTER BEDROOM	2ND	5%	65	3.25	W05	48	60	15.75	15.75	YES	
BATHROOM	2ND	0%	135	0	W02	24	36	3.75	3.75	YES	

PORTER DESIGN
INFO@PORTERDESIGN.CA | 289.687.0501 | FONTHILL, ONT

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DESIGNER NAME

CERTIFIED ENGINEERING TECHNOLOGIST ONTARIO
DUSTIN KENNETH PORTER
№ 841113
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REGISTRATION INFORMATION
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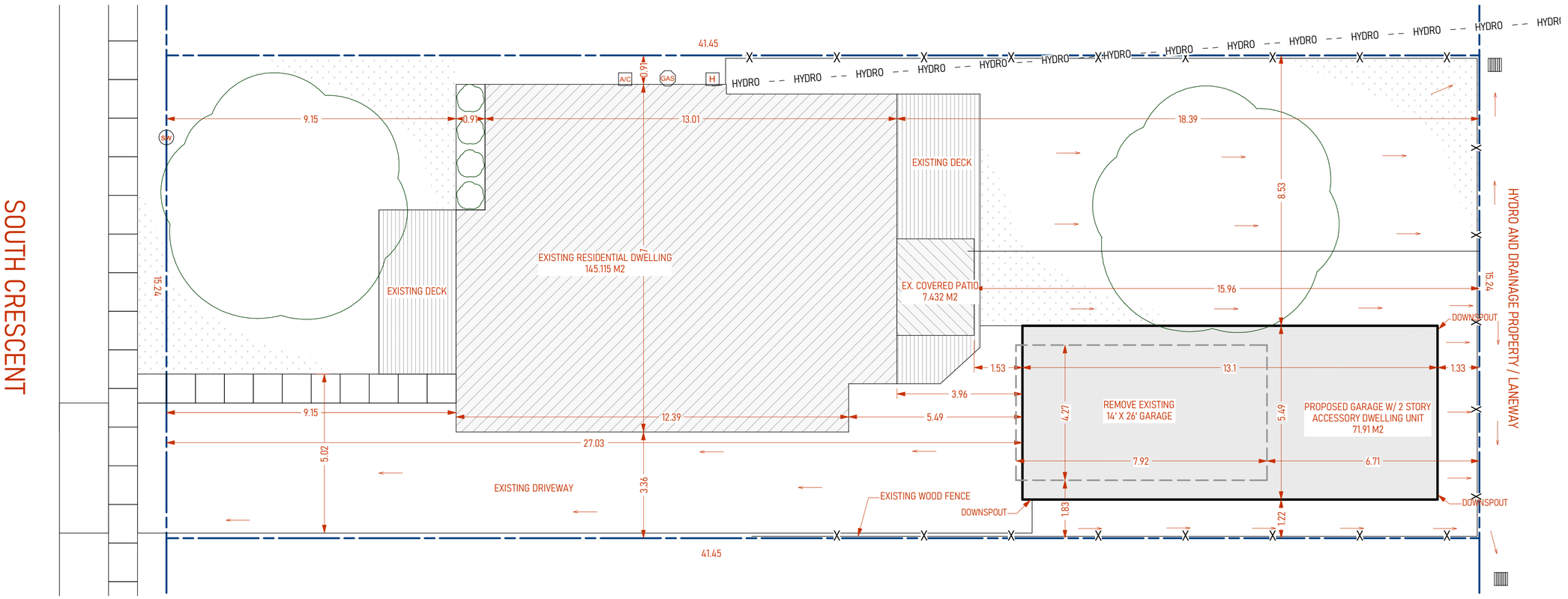
ERIN & GRAHAM HART
PROJECT NO. 025-0323-GADU

AUGUST 20, 2023
DATE

N.T.S.
SCALE

NOTES, TABLES & SCHEDULES
SHEET NAME

A.2
SHEET NO.



SITE WORKS AND SOILS NOTES

SP1. PROPERTY LINES TO BE VERIFIED PRIOR TO CONSTRUCTION.
SP2. THE GRADE SHALL BE SLOPED FROM THE BUILDING AND KEEP WATER FROM ACCUMULATING AROUND FOUNDATION. LOT MUST BE GRADED TO INSURE PROPER DRAINAGE AWAY FORM STRUCTURE.
SP3. DRAINAGE SHALL NOT IMPACT ADJACENT PROPERTIES.
SP4. DIRECT ALL DOWNSPOUTS AWAY FROM FOUNDATION.
SP5. ALL FOOTINGS SHALL BEAR ON UNDISTURBED AND STABLE SOILS WITH AN ALLOWABLE BEARING PRESSURE OF 75 KPA OR GREATER.
SP6. ALL STUMPS, ROOTS AND ORGANIC MATTER SHALL BE REMOVED FROM THE SOIL IN THE AREA OF THE BUILDING.
SP7. ALL EXTERIOR CONCRETE FLATWORK SHALL HAVE A COMPRESSIVE STRENGTH AT 28 DAYS OF NOT LESS THAN 32 MPA AND SHALL HAVE AIR ENTRAINMENT OF 5% TO 8%.
SP8. THE CONTRACTOR SHALL RETAIN THE REQUIRED VOLUME OF TOPSOIL AND EARTH FILL MATERIAL FROM THE EXCAVATION IN ORDER TO BACKFILL AND GRADE AROUND FOUNDATION.
SP9. ONTARIO BUILDING CODE AND MUNICIPAL BY-LAWS SHALL BE FOLLOWED.
SP10. CONTRACTOR MUST CALL **ONTARIO ONE CALL @ 1-800-400-2255** TO ARRANGE FOR LOCATES PRIOR TO THE START OF ANY EXCAVATION WORK. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ANY UTILITY COMPANIES OR MUNICIPAL INFRASTRUCTURE OFFICE THAT MAY NOT BE IDENTIFIED BY ONTARIO ONE CALL.

SITE PLAN LEGEND

FENCE
PROPERTY LINES
HYDRO LINE
SERVICE BOX
STORM SEWER GRATE
WATER STOP
ROUND IRON BAR
GAS METER
A/C UN IT
HYDRO METER

LOCATION

32 SOUTH CRESCENT,
LT 89 PL 814 HUMBERSTONE
IN THE
CITY OF PORT COLBORNE
REGIONAL MUNICIPALITY OF
NIAGARA

ZONING BY-LAW 6575/30/18 NOTES

2.9.1 ACCESSORY DWELLING UNIT (MEETS BY-LAW)
III) THE MAXIMUM FLOOR AREA FOR THE ACCESSORY DWELLING UNIT SHALL NOT EXCEED **40%** OF THE GROSS FLOOR AREA OF THE DWELLING.
- MAIN DWELLING LIVING SPACE – MAIN FLOOR AND BASEMENT = 2240 FT2
- ADU ABOVE THE GARAGE LIVING SPACE = 714 FT2
- PERCENTAGE OF ADU FLOOR AREA COMPARED TO DWELLING = **31.88%**

2.8.2. LOT COVERAGE (MINOR VARIANCE REQUIRED)
A) FOR A LOT WITH MUNICIPAL SANITARY SEWERS AND MUNICIPAL WATER SERVICES THE TOTAL ACCESSORY LOT COVERAGE SHALL NOT EXCEED **10%** OF THE LOT AREA OF THE SAID LOT, EXCLUDING SWIMMING POOLS.
- BUILDING LOT AREA = 631.7 m2 (6800 FT2)
- PROPOSED ADU LOT COVERAGE = 71.9 m2 (774 FT2)
- PERCENTAGE OF ADU FLOOR AREA COMPARED TO LOT AREA = **11.38%**

PROPERTY INFORMATION	
ZONING:	R1
LOT NO:	LT 89
PLAN NO:	PL 814

LOT DIMENSIONS	METRIC	IMPERIAL
LOT AREA:	631.74 m^2	6800.00 ft^2
LOT FRONTAGE:	15.24 m	50.00 ft
LOT DEPTH:	*41.45 m*	*136.00 ft*

PROPOSED STRUCTURE INFORMATION		
TYPE OF STR.:	GARAGE W/ ADU	
SIZE:	18' X 43'	
AREA:	774.0 ft^2	71.9 m2
HEIGHT:	19.68 ft	6.00 m
DESCRIPTION:	RESIDENTAL GARAGE WITH 2ND STORY ACCESSORY DWELLING UNIT	

ADDITIONAL NOTE*** Lot Description LT 89 PL 814 HUMBERSTONE; PORT COLBORNE

LOT COVERAGE				
DESCRIPTION	NOTES	EXISTING		
		METRIC	IMPERIAL	%
DWELLING AREA	EXISTING	145.1 m^2	1,562.00 ft^2	22.97%
COVERED PATIO	EXISTING	8.4 m^2	90.0 ft^2	1.32%
GARAGE/ADU	EXISTING	71.9 m^2	774.0 ft^2	11.38%
TOTAL LOT COVERAGE		225.4 m^2	2426 ft^2	35.68%
ALLOWABLE LOT COVERAGE		252.7 m^2	2720.0 ft^2	40.0%

SET BACKS				
LOCATION	ALLOWABLE		PROPOSED	
	METRIC	IMPERIAL	METRIC	IMPERIAL
FRONT YARD	Side or Back Yard		Side or Back Yard	
REAR YARD	1.0 m	3.3 ft	1.3 m	4.3 ft
EAST SIDE YARD	1.0 m	3.3 ft	8.5 m	28.0 ft
WEST SIDE YARD	1.0 m	3.3 ft	1.2 m	4.0 ft

SHEET SIZE - ARCH C -18" X 24"

PORTER DESIGN
INFO@PORTERDESIGN.CA | 289.687.0501 | FONTHILL, ONT

THE UNDERSIGNED HAS REVIEWED AND TAKES RESPONSIBILITY FOR THIS DESIGN, AND HAS THE QUALIFICATION AND MEETS THE REQUIREMENTS SET OUT IN THE ONTARIO BUILDING CODE TO BE A DESIGNER.

QUALIFICATION INFORMATION
DUSTIN PORTER, C.E.T.
DESIGNER NAME

CERTIFIED ENGINEERING TECHNOLOGIST ONTARIO DUSTIN KENNETH PORTER Nº 841113

SIGNATURE / STAMP

46915
DESIGNER BCIN

REGISTRATION INFORMATION
816028 ONTARIO LTD.
FIRM NAME

105277
FIRM BCIN

REVISIONS

NO.	DESCRIPTION	DATE
1	METRIC DIM. & BY-LAW NOTES	2024-12-06

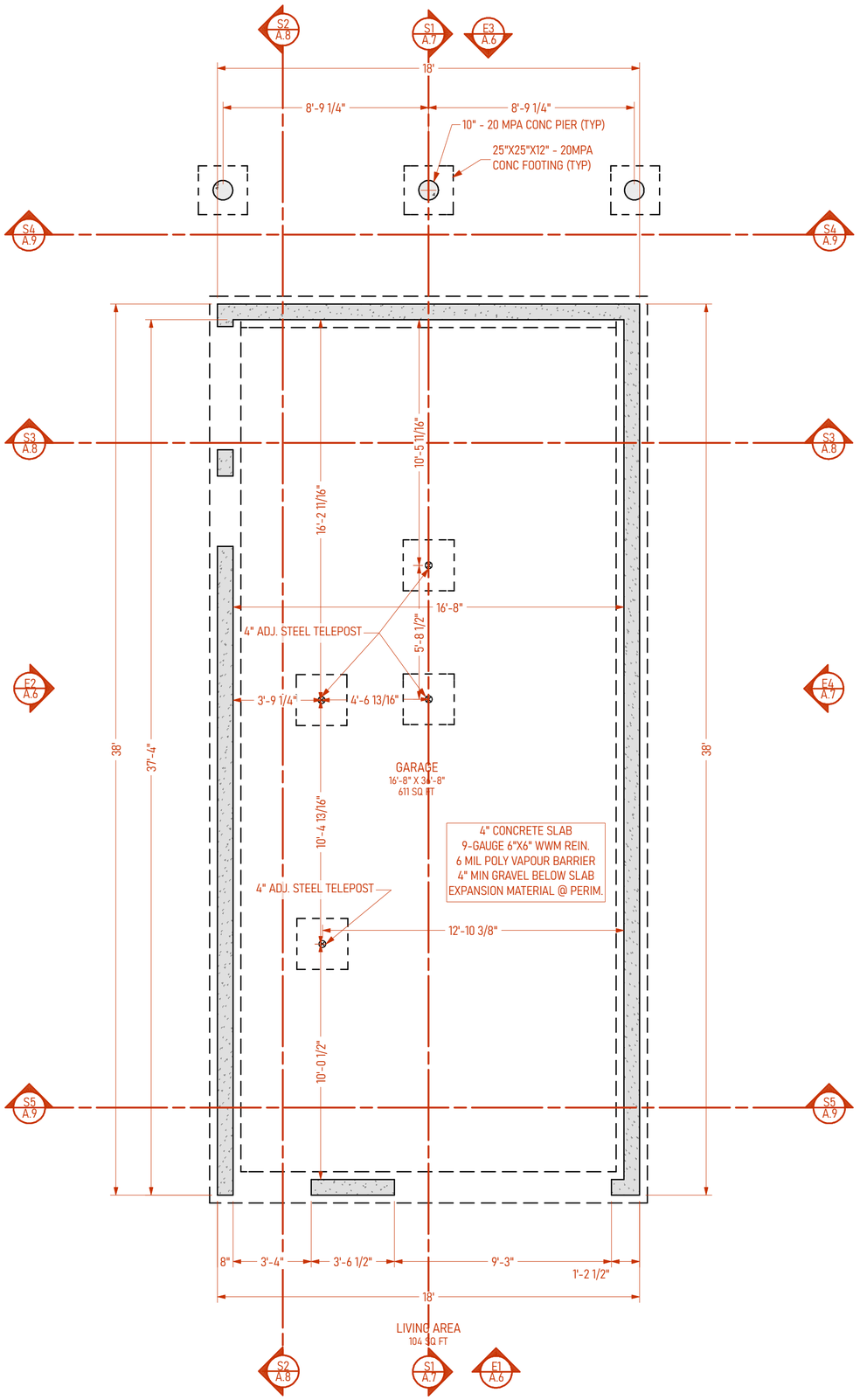
32 SOUTH CRES, PORT COLBORNE, ONTARIO
GARAGE - ACCESSORY DWELLING UNIT
ERIN & GRAHAM HART
PROJECT NO. 025-0323-GADU

AUGUST 20, 2023
DATE

1:100
SCALE

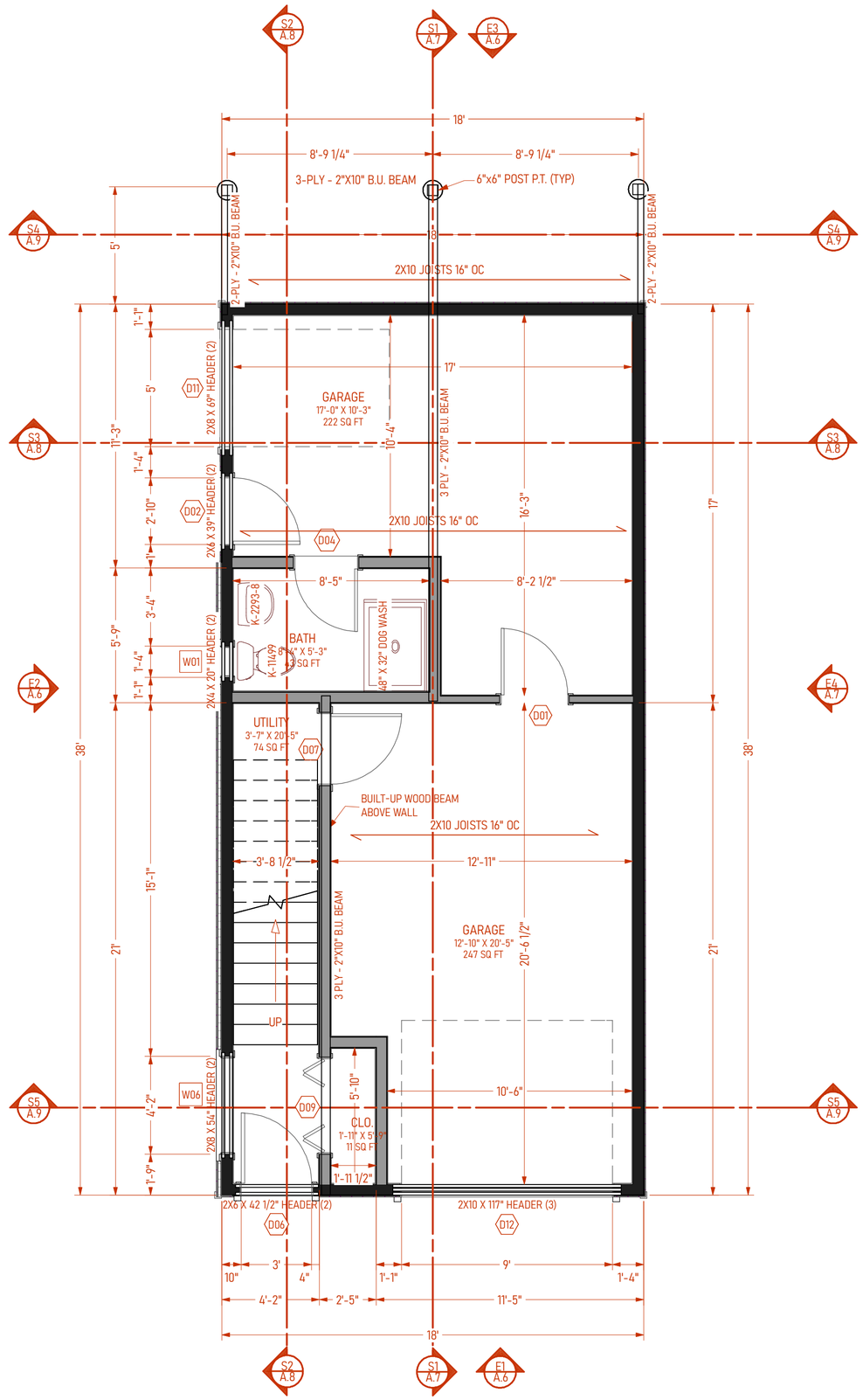
SITE PLAN
SHEET NAME

A.3
SHEET NO.



FOUNDATION - PLAN VIEW

SCALE: 1/4 IN = 1 FT



1ST FLOOR - PLAN VIEW

SCALE: 1/4 IN = 1 FT

SHEET SIZE - ARCH C - 18" X 24"

PORTER DESIGN
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DESIGNER NAME

CERTIFIED ENGINEERING TECHNOLOGIST
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ONTARIO
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Nº 841113
SIGNATURE / STAMP

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816028 ONTARIO LTD.
FIRM NAME

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REVISIONS

NO.	DESCRIPTION	DATE

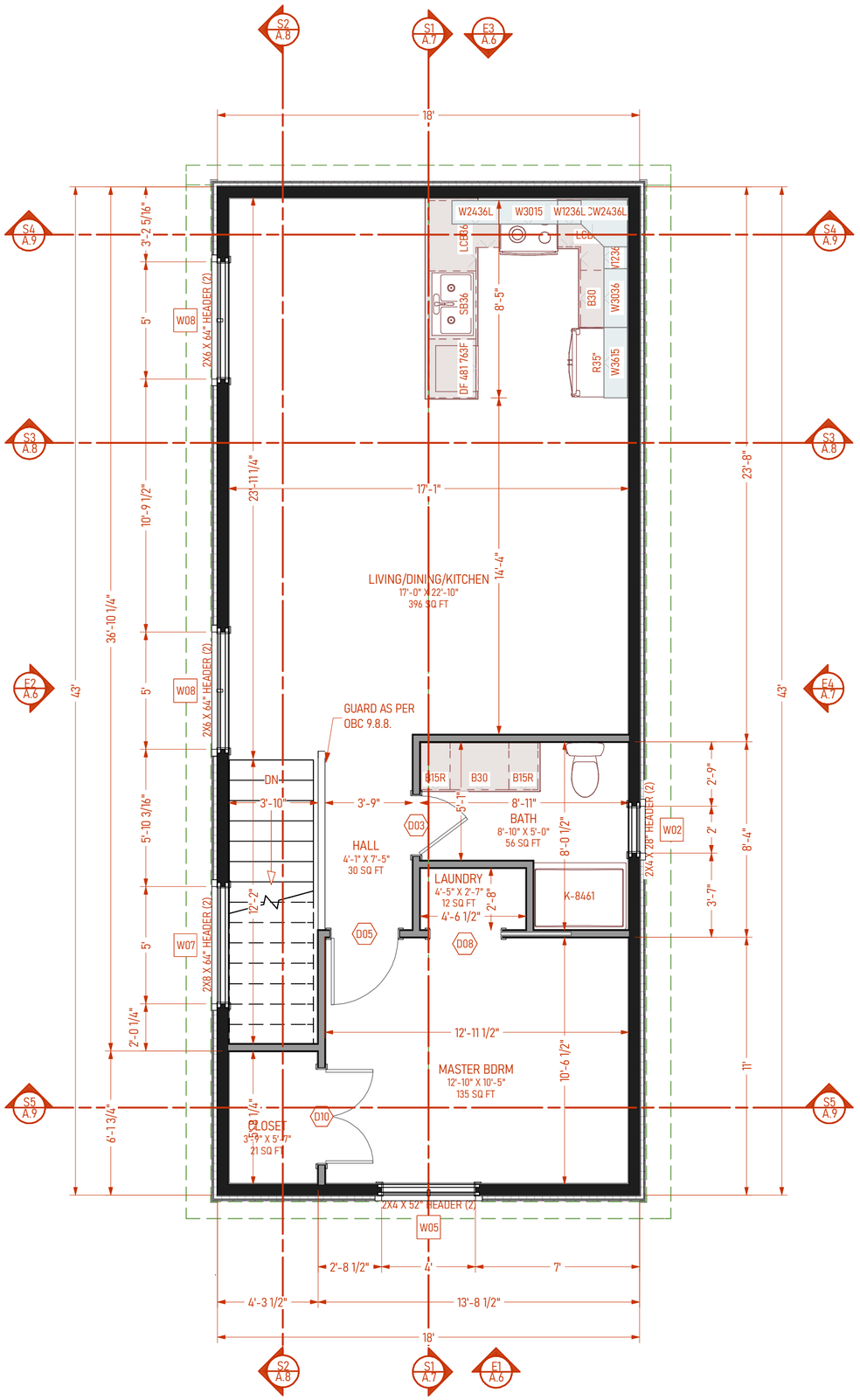
32 SOUTH CRES, PORT COLBORNE, ONTARIO
GARAGE - ACCESSORY DWELLING UNIT
ERIN & GRAHAM HART
PROJECT NO. 025-0323-GADU

AUGUST 20, 2023
DATE

AS NOTED
SCALE

FOUNDATION & 1ST FLOOR PLAN
SHEET NAME

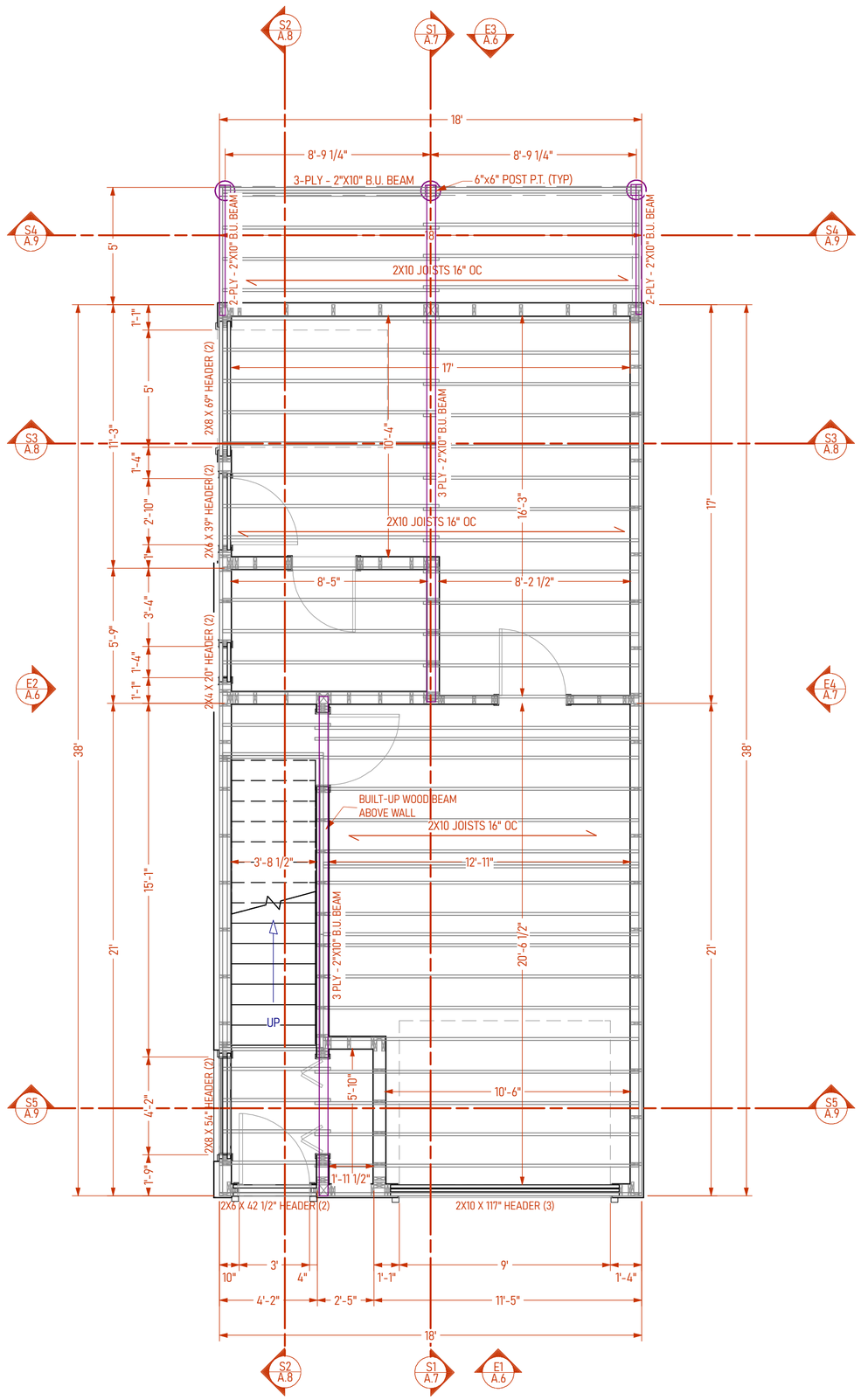
A.4
SHEET NO.



2ND FLOOR - PLAN VIEW

LIVING AREA
722 SQ FT

SCALE: 1/4 IN = 1 FT



1ST FLOOR - FRAMING PLAN VIEW

SCALE: 1/4 IN = 1 FT

SHEET SIZE - ARCH C - 18" X 24"

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DESIGNER NAME

CERTIFIED ENGINEERING TECHNOLOGIST
OACETT
ONTARIO
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Nº 841113

SIGNATURE / STAMP

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REGISTRATION INFORMATION
816028 ONTARIO LTD.
FIRM NAME

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32 SOUTH CRES, PORT COLBORNE, ONTARIO
GARAGE - ACCESSORY DWELLING UNIT
ERIN & GRAHAM HART

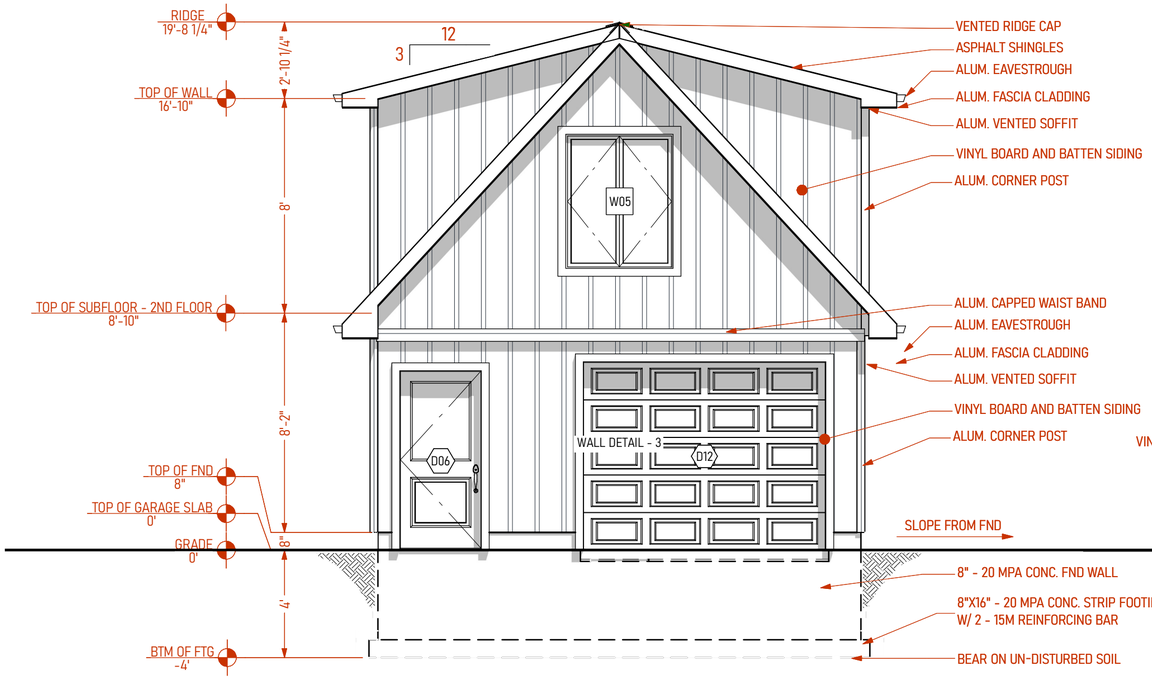
PROJECT NO. 025-0323-GADU

AUGUST 20, 2023
DATE

1/4" = 1'-0"
SCALE

2ND FLOOR PLAN & 2ND FL./ROOF TIE-IN FRAMING
SHEET NAME

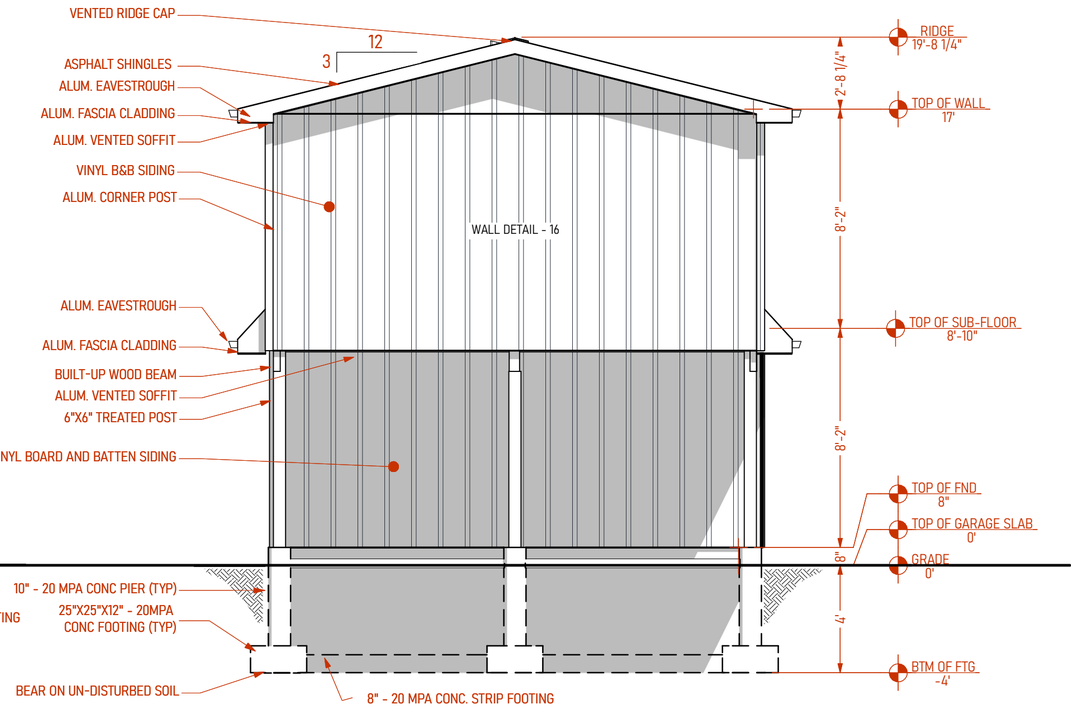
A.5
SHEET NO.



E1

NORTH/FRONT ELEVATION

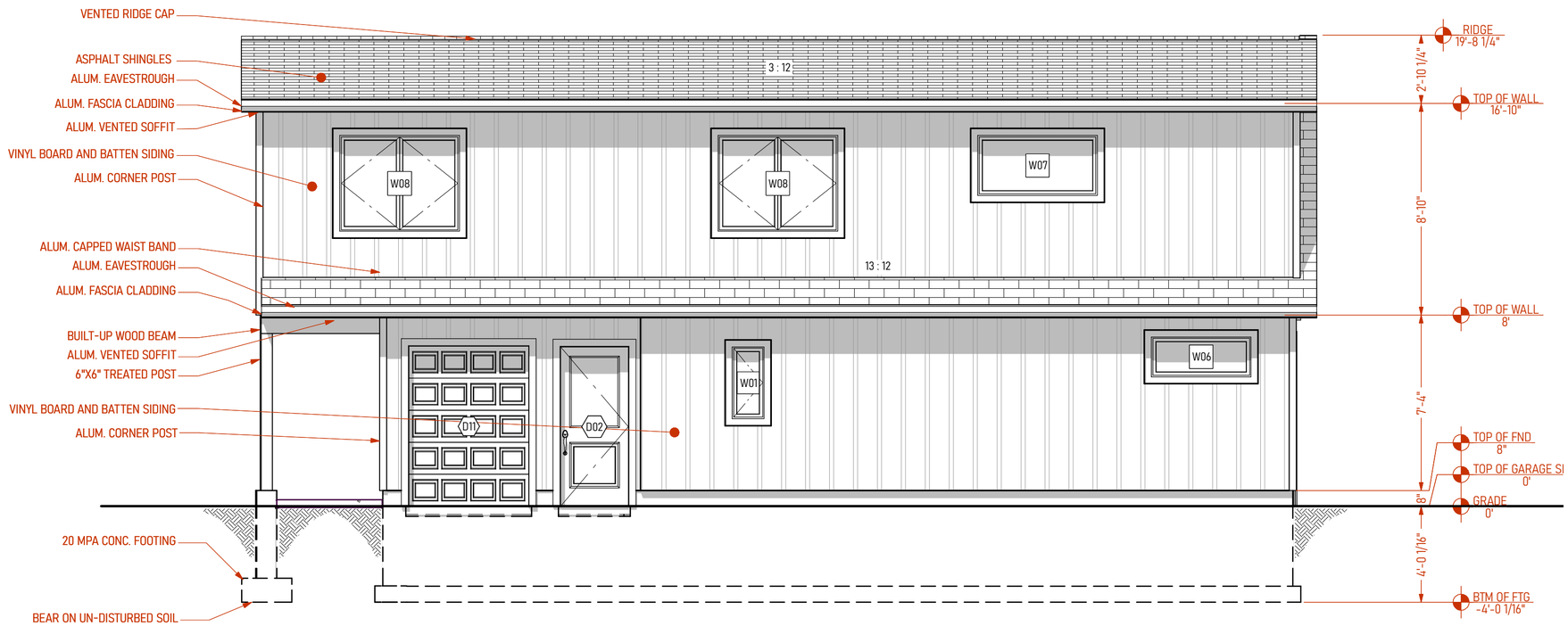
SCALE: 1/4 IN = 1 FT



E3

SOUTH/REAR ELEVATION

SCALE: 1/4 IN = 1 FT



E2

EAST/LEFT ELEVATION

SCALE: 1/4 IN = 1 FT

SHEET SIZE - ARCH C -18" X 24"

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REVISIONS

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32 SOUTH CRES, PORT COLBORNE, ONTARIO

GARAGE - ACCESSORY DWELLING UNIT

ERIN & GRAHAM HART

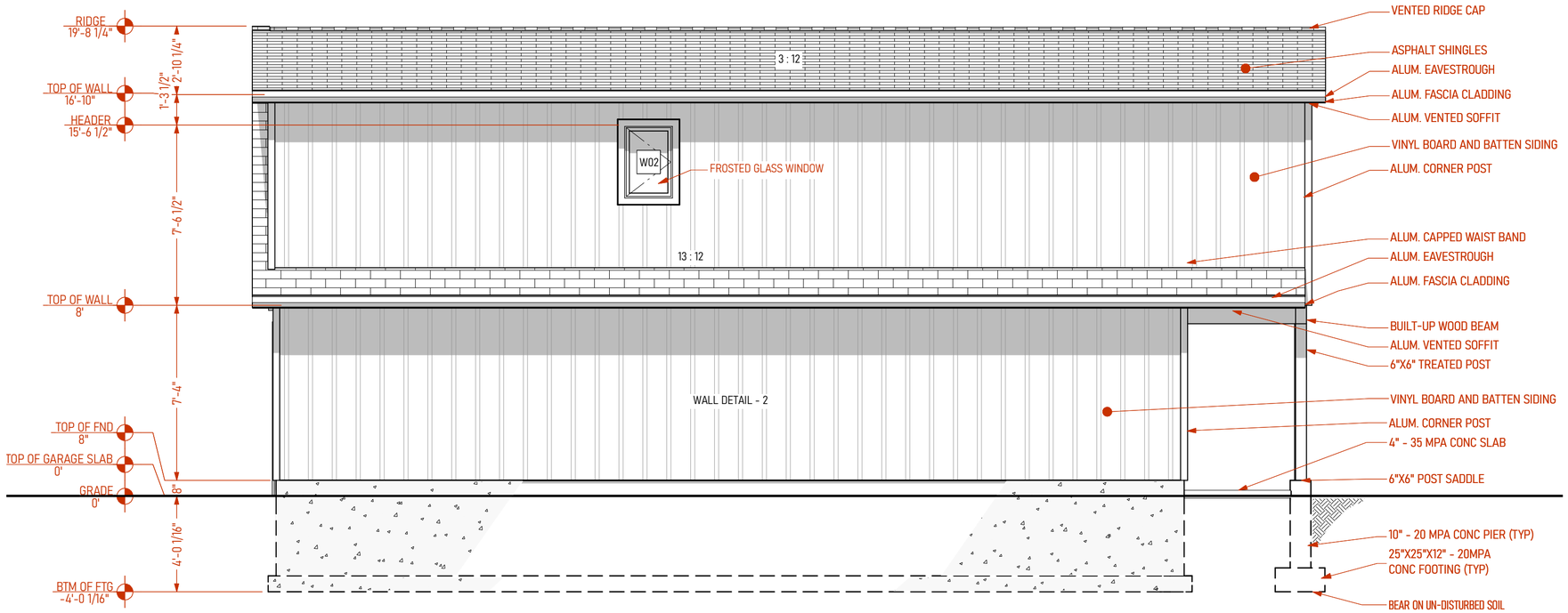
PROJECT NO. 025-0323-GADU

AUGUST 20, 2023
DATE

1/4" = 1'-0"
SCALE

ELEVATIONS 1, 2 & 3
SHEET NAME

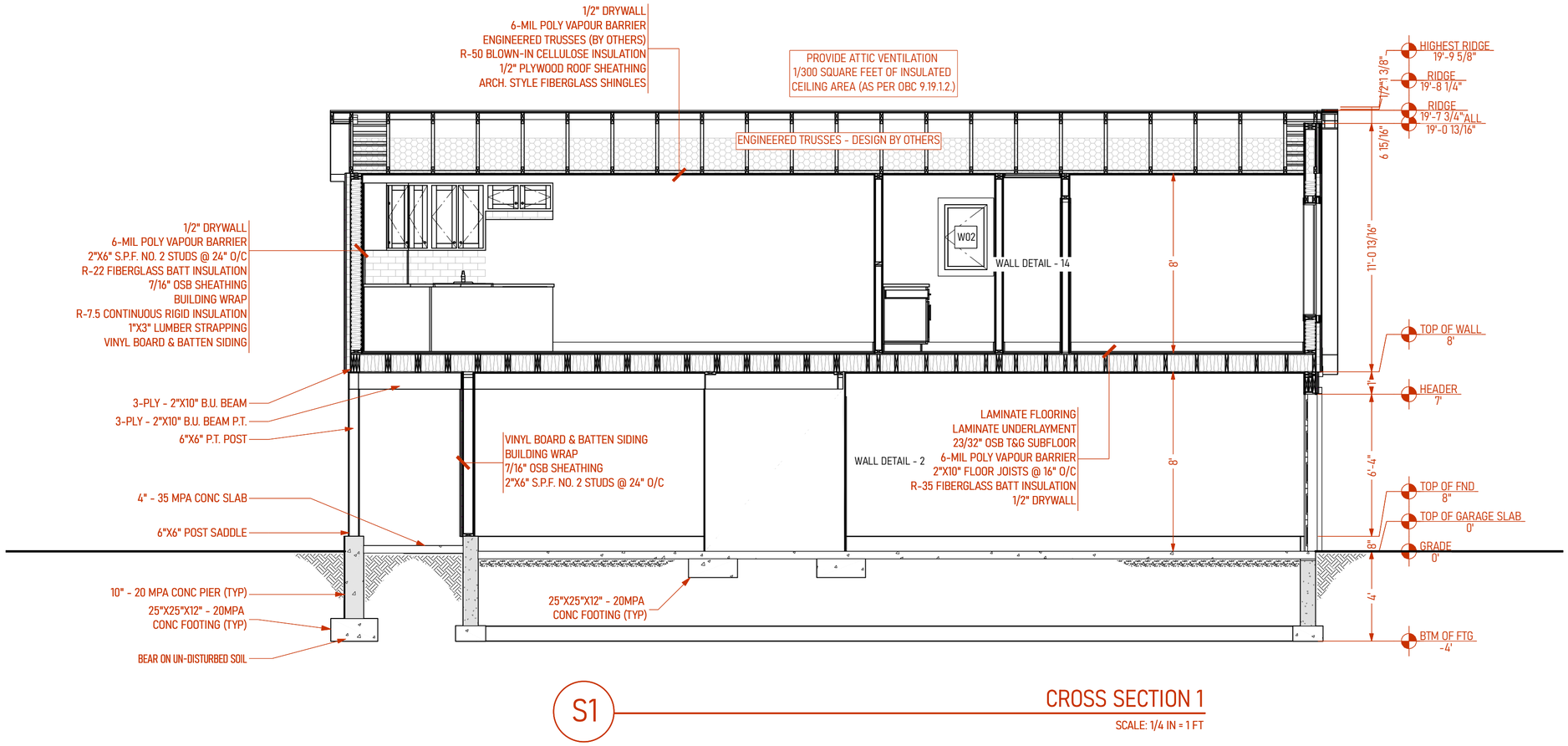
A.6
SHEET NO.



E4

WEST/RIGHT ELEVATION

SCALE: 1/4 IN = 1 FT



S1

CROSS SECTION 1

SCALE: 1/4 IN = 1 FT

SHEET SIZE - ARCH C - 18" X 24"

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DESIGNER NAME

CERTIFIED ENGINEERING TECHNOLOGIST
ONTARIO
DUSTIN KENNETH PORTER
Nº 841113

SIGNATURE / STAMP

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FIRM NAME

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FIRM BCIN

REVISIONS

NO.	DESCRIPTION	DATE

32 SOUTH CRES, PORT COLBORNE, ONTARIO
GARAGE - ACCESSORY DWELLING UNIT
ERIN & GRAHAM HART
PROJECT NO. 025-0323-GADU

AUGUST 20, 2023
DATE

1/4" = 1'-0"
SCALE

ELEV.4 & CROSS SECTION 1
SHEET NAME

A.7
SHEET NO.

STAIR AND RAILING NOTES

1. RISE, RUN & TREADS AS PER "OBC 9.8.4.2. DIMENSIONS FOR RECTANGULAR RUNS AND TREADS", AS FOLLOWS;

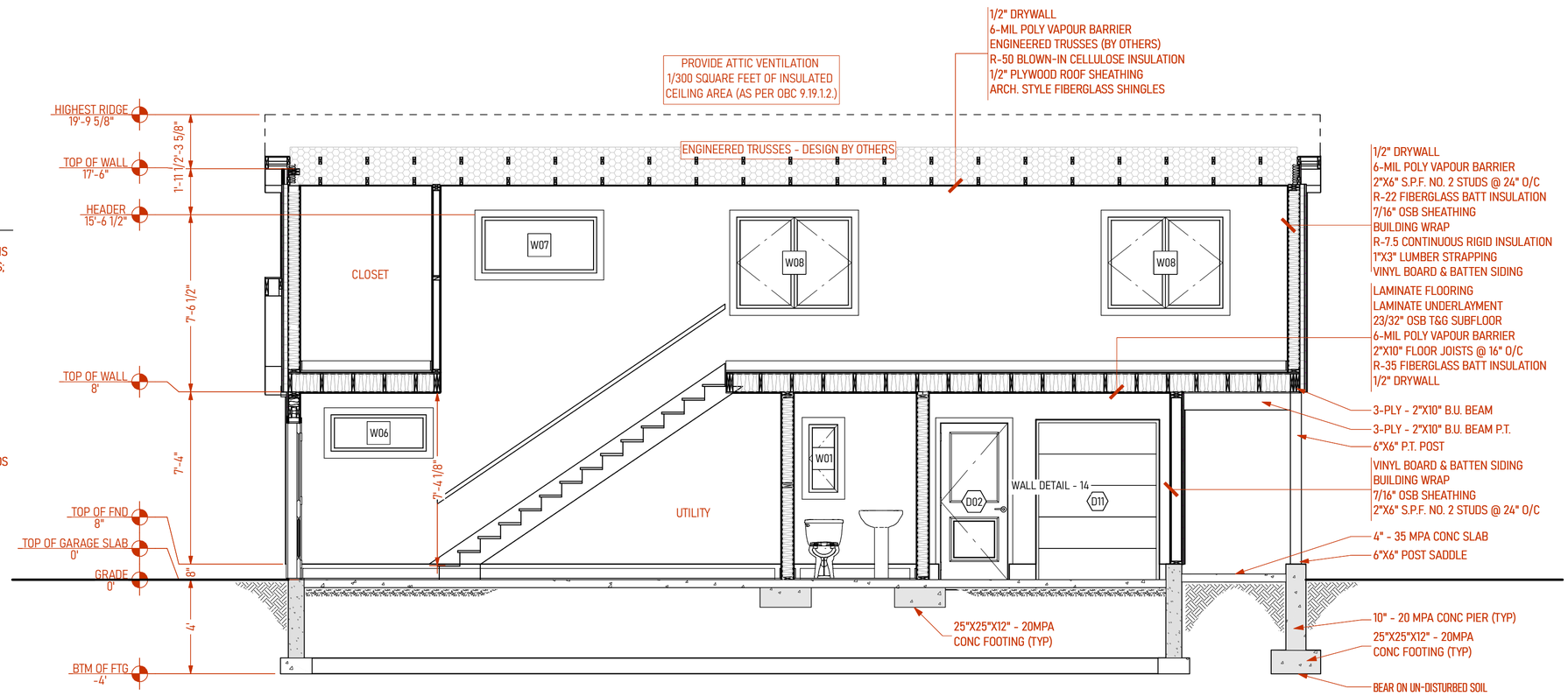
   MAX RISE = 7 7/8" (200 mm)
   MIN RISE = 4 15/16" (125 mm)

   MAX RUN = 14" (355 mm)
   MIN RUN = 8 1/4" (210 mm)

   MAX TREAD = 14" (355 mm)
   MIN TREAD = 9 1/4" (235 mm)

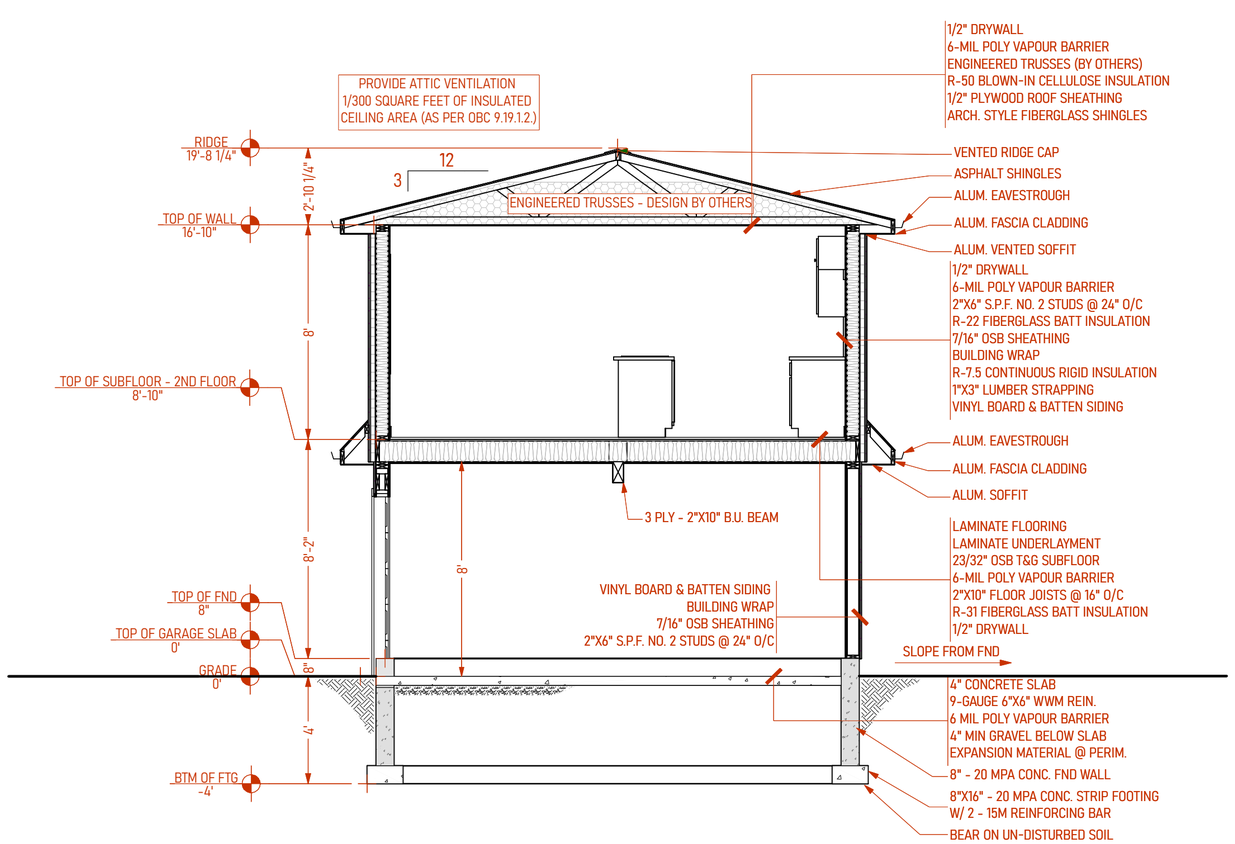
2. NOSING NOT TO EXCEED 1" (25 mm)

3. RAILING/GUARDS TO MEET "OBC 9.8." &, SB-7 - GUARDS FOR HOUSING AND SMALL BUILDINGS"



S2 — CROSS SECTION 2

SCALE: 1/4 IN = 1 FT



S3 — CROSS SECTION 3

SCALE: 1/4 IN = 1 FT

SHEET SIZE - ARCH C -18" X 24"

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DUSTIN PORTER, C.E.T.
DESIGNER NAME

CERTIFIED ENGINEERING TECHNOLOGIST — ONTARIO — DUSTIN KENNETH PORTER — № 841113

SIGNATURE / STAMP

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DESIGNER BCIN

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FIRM BCIN

REVISIONS

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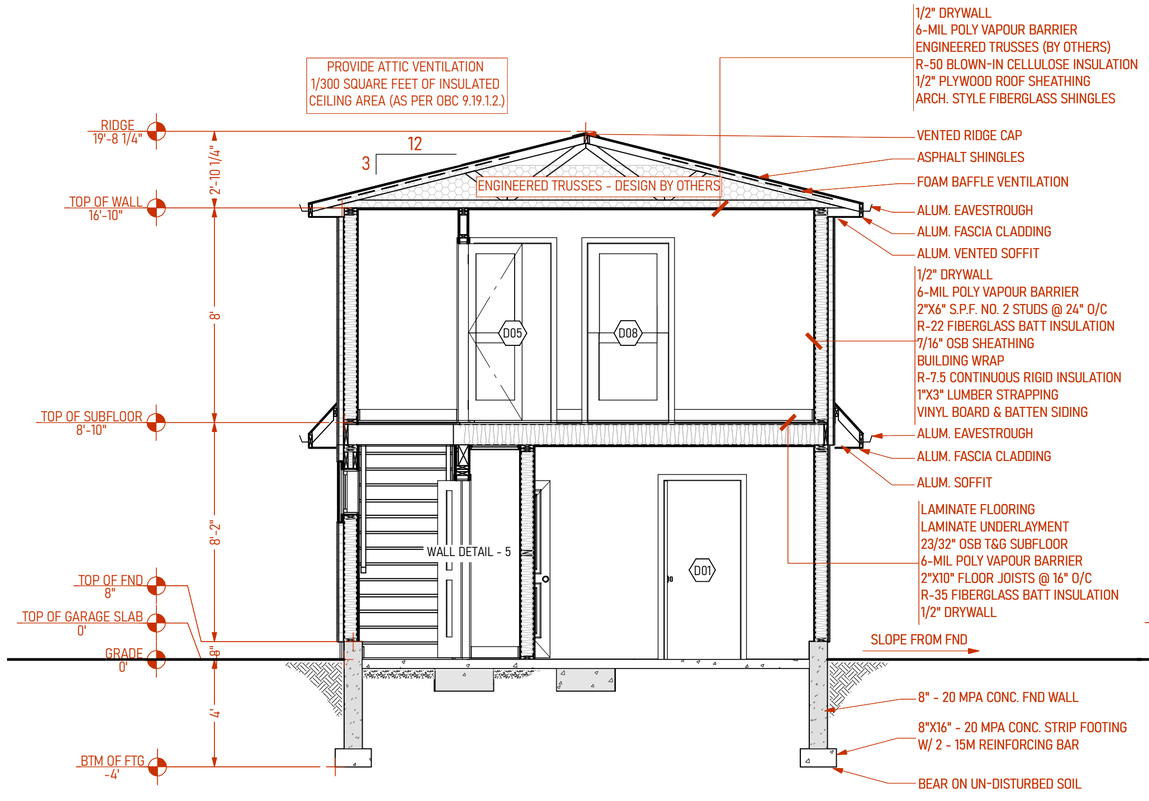
32 SOUTH CRES, PORT COLBORNE, ONTARIO
GARAGE - ACCESSORY DWELLING UNIT
ERIN & GRAHAM HART
PROJECT NO. 025-0323-GADU

AUGUST 20, 2023
DATE

1/4" = 1'-0"
SCALE

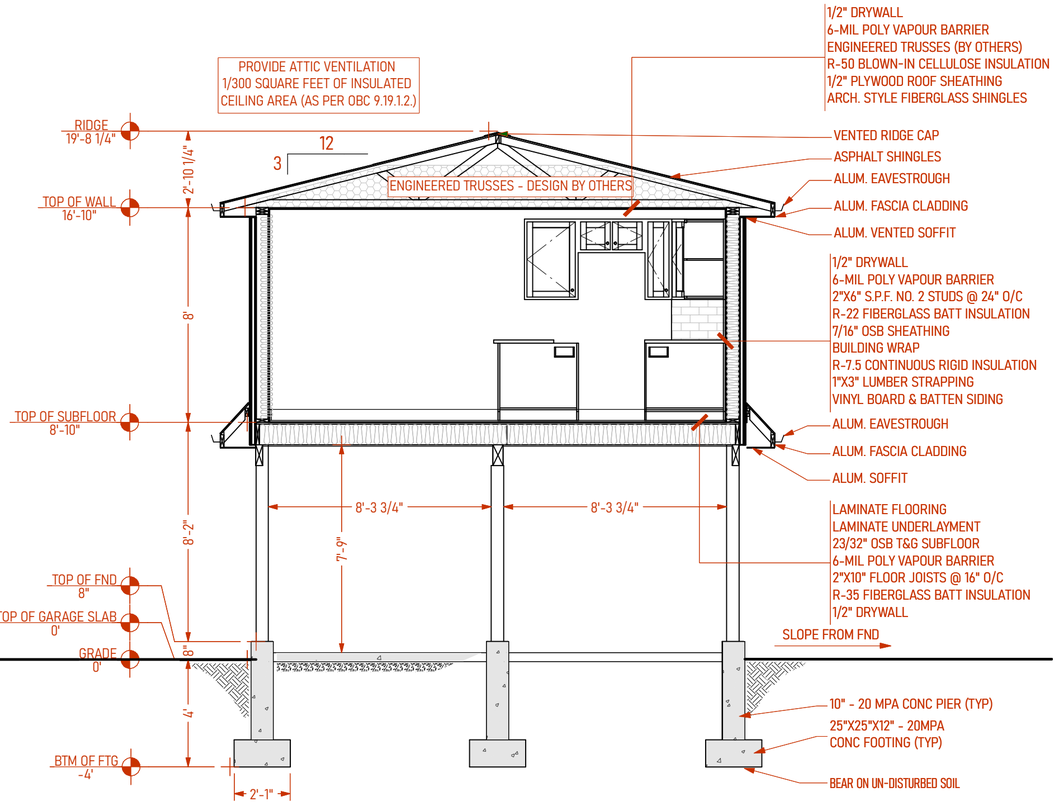
CROSS SECTIONS 2, 3 & 4
SHEET NAME

A.8
SHEET NO.



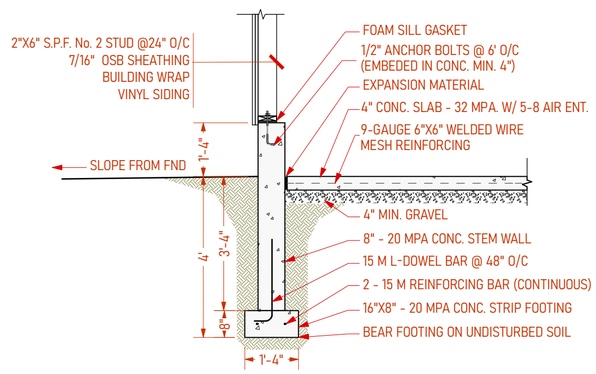
S5 CROSS SECTION 5

SCALE: 1/4 IN = 1 FT



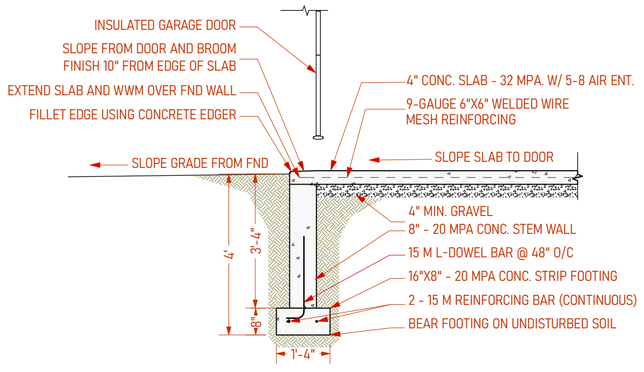
S4 CROSS SECTION 4

SCALE: 1/4 IN = 1 FT



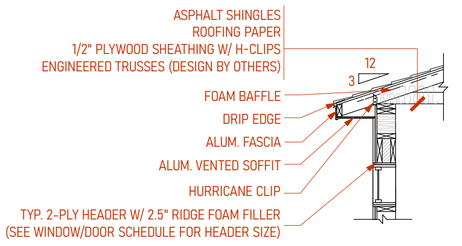
D1 48" DEPTH CONC. FOOTING AND FND WALL

SCALE: 3/8 in = 1 ft



D2 48" DEPTH CONC. FOOTING AND FND - GARAGE DOOR

SCALE: 3/8 in = 1 ft



D3 EAVES & HEADER TYPICAL DETAIL (2"X6" STUD)

SCALE: 3/8 in = 1 ft

SHEET SIZE - ARCH C -18" X 24"

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DESIGNER NAME

CERTIFIED ENGINEERING TECHNOLOGIST · ONTARIO · DUSTIN KENNETH PORTER Nº 841113

SIGNATURE / STAMP

46915

DESIGNER BCIN

REGISTRATION INFORMATION

816028 ONTARIO LTD.

FIRM NAME

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FIRM BCIN

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NO.	DESCRIPTION	DATE

32 SOUTH CRES, PORT COLBORNE, ONTARIO

GARAGE - ACCESSORY DWELLING UNIT

ERIN & GRAHAM HART

PROJECT NO. 025-0323-GADU

AUGUST 20, 2023

DATE

AS NOTED

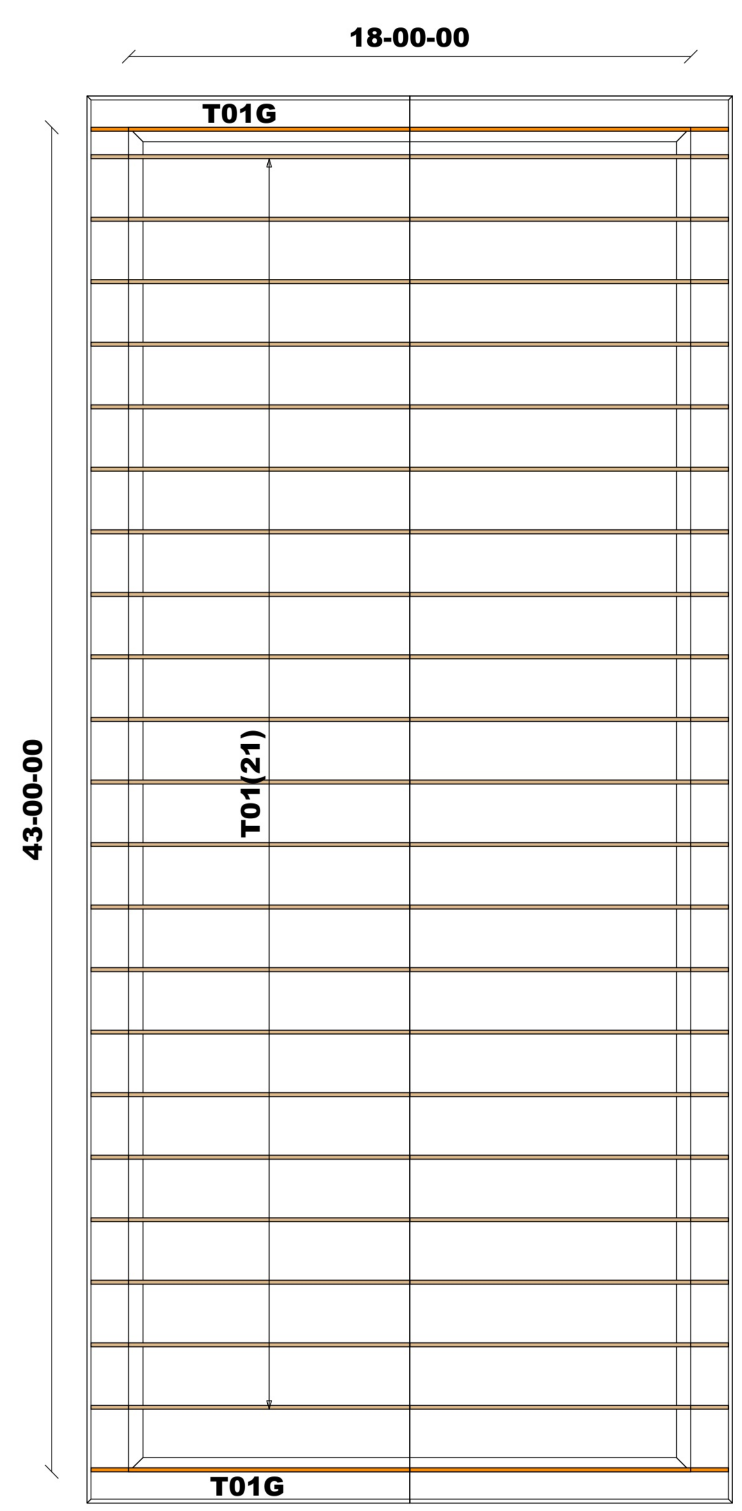
SCALE

CROSS SECTIONS NO.3 & DETAILS

SHEET NAME

A.9

SHEET NO.



TRUSS DESIGNS CONFORM TO O.B.C 2012 (2019 AMENDMENT).

ALL CONV. FRAMING TO CONFORM WITH PART 9 OF O.B.C. 2012. ROOF RAFTERS THAT CROSS OVER TRUSSES TO BE SUPPORTED WITH 2x4 SPF#2 VERTICAL POST @ 24" O.C. TO THE TRUSS UNDERNEATH AT EACH CROSS POINT. VERTICAL POST LONGER THAN 6' TO HAVE LATERAL BRACING SO THAT THE DISTANCE BETWEEN END POINT AND BETWEEN ROWS OF BRACING DOES NOT EXCEED 6'

ASPHALT SHINGLES
2x6 BRG.
16" FINISHED OVERHANG
7" HEEL
W/ 2x6 FASCIA

PORT COLBORNE (Using 45.9 APP)
GSL: 45.94 PSF
TCDL: 6 PSF
BCLL: 0 PSF
BCDL: 7.4 PSF

PITCH: 3/12 (U.N.O.)

CONVENTIONAL FRAMING

Model / Elevation: **GARAGE - ACCESSORY DWELLING UNIT**

Builder: **PORTER CONSTRUCTION**

Project: **32 SOUTH CRESCENT, PORT COLBORNE**

Date: **2024-09-16** Designer: **Dave Gorman**

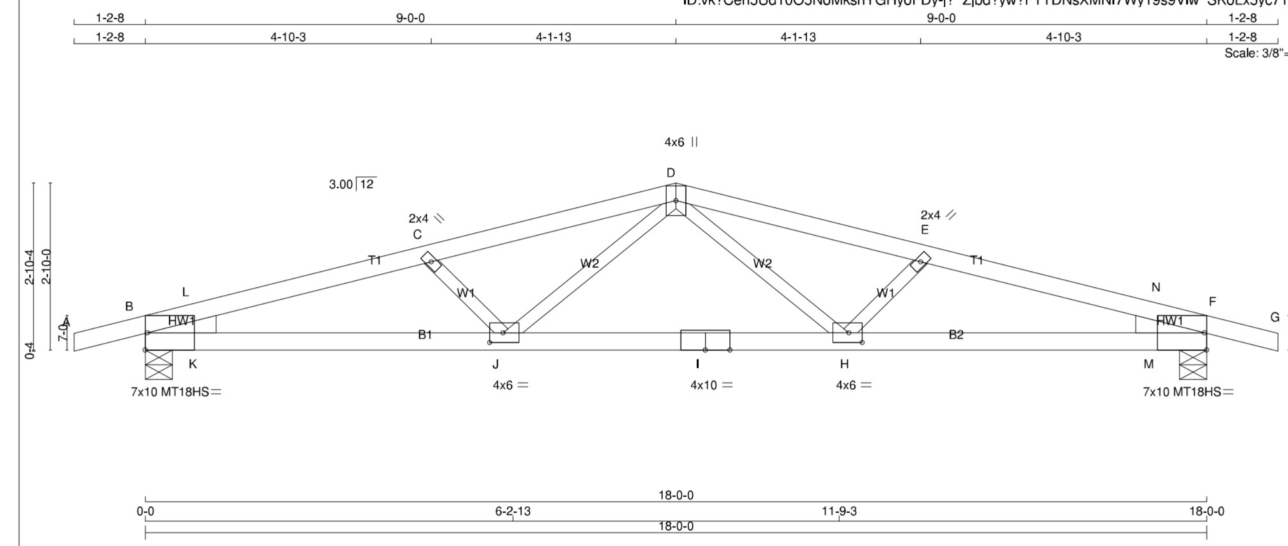
Project#: **F24-00355**
O / T: **B-24-00556**
Layout ID: **111813**

Fonthill LUMBER & TRUSSES 905-892-2641

Mitek ver 8.0.3

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
441190	T01	21	1	Porter Construction	

Tamarack Roof Truss, Burlington — Version 8.730 S Aug 15 2024 MiTek Industries, Inc. Thu Sep 19 09:39:49 2024 Page 1
ID:vk?Ceh5Ud10O5NoMkshYGHyoFDy-j? Zjbd?yw?FTTDNsXMNI7Wy19s9VIw SKoLx5yc71O



TOTAL WEIGHT = 21 X 56 = 1182 lb [M][F]

LUMBER
N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - D	2x4	DRY	No.2	SPF
D - G	2x4	DRY	No.2	SPF
B - I	2x4	DRY	No.2	SPF
I - F	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B, B, F, F						
B						
B	TMBH1-I	MT18HS	7.0	10.0		Edge
C	TMW+w	MT20	2.0	4.0		
D	TTWW+p	MT20	4.0	6.0		
E	TMW+w	MT20	2.0	4.0		
F	TMBH1-I	MT18HS	7.0	10.0		Edge
H	BMWW-t	MT20	4.0	6.0	2.00	2.75
I	BS-t	MT20	4.0	10.0		
J	BMWW-t	MT20	4.0	6.0	2.00	2.75

Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.

NOTES- (1)
1) Lateral braces to be a minimum of 2x4 SPF #2

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX	HEEL WEDGE
B	1353	0	1353	0	0	5-8	1-8	2x4 L
F	1353	0	1353	0	0	5-8	1-8	2x4 R

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
		MAX./MIN. COMPONENT REACTIONS					
B	945	689 / 0	0 / 0	0 / 0	0 / 0	256 / 0	0 / 0
F	945	689 / 0	0 / 0	0 / 0	0 / 0	256 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) B, F

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.55 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.

LOADING
TOTAL LOAD CASES: (4)

CHORDS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF) FROM	TO	MAX CSI (LC)	MAX. UNBRAC LENGTH
A- B	0 / 1	-115.9	-115.9	0.12 (1)	10.00
B- L	-3156 / 0	-115.9	-115.9	0.41 (1)	3.55
L- C	-2987 / 0	-115.9	-115.9	0.42 (1)	3.65
C- D	-2675 / 0	-115.9	-115.9	0.37 (1)	3.89
D- E	-2675 / 0	-115.9	-115.9	0.37 (1)	3.89
E- N	-2987 / 0	-115.9	-115.9	0.42 (1)	3.65
N- F	-3156 / 0	-115.9	-115.9	0.41 (1)	3.55
F- G	0 / 1	-115.9	-115.9	0.12 (1)	10.00
B- K	0 / 2884	-18.5	-18.5	0.66 (1)	10.00
K- J	0 / 2884	-18.5	-18.5	0.66 (1)	10.00
J- I	0 / 2103	-18.5	-18.5	0.48 (1)	10.00
I- H	0 / 2103	-18.5	-18.5	0.48 (1)	10.00
H- M	0 / 2884	-18.5	-18.5	0.66 (1)	10.00
M- F	0 / 2884	-18.5	-18.5	0.66 (1)	10.00

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
D- H	0 / 645	0.15 (1)
H- E	-457 / 0	0.07 (1)
J- D	0 / 645	0.15 (1)
C- J	-457 / 0	0.07 (1)
K- L	0 / 253	0.00 (1)
M- N	0 / 253	0.00 (1)

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 33.6 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 47.0 PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , NBC-2019AE
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

(55 % OF 46.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 33.6 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.60")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.20")
ALLOWABLE DEFL.(TL)= L/360 (0.60")
CALCULATED VERT. DEFL.(TL) = L/ 606 (0.36")

CSI: TC=0.42/1.00 (C-L:1) , BC=0.66/1.00 (B-K:1) , WB=0.15/1.00 (D-H:1) , SSI=0.26/1.00 (B-L:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 1.00

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

NAIL VALUES

PLATE	GRIP(DRY) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	650	371	1747	788	1987	1873
MT18HS	586	403	2455	1382	3163	3004

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

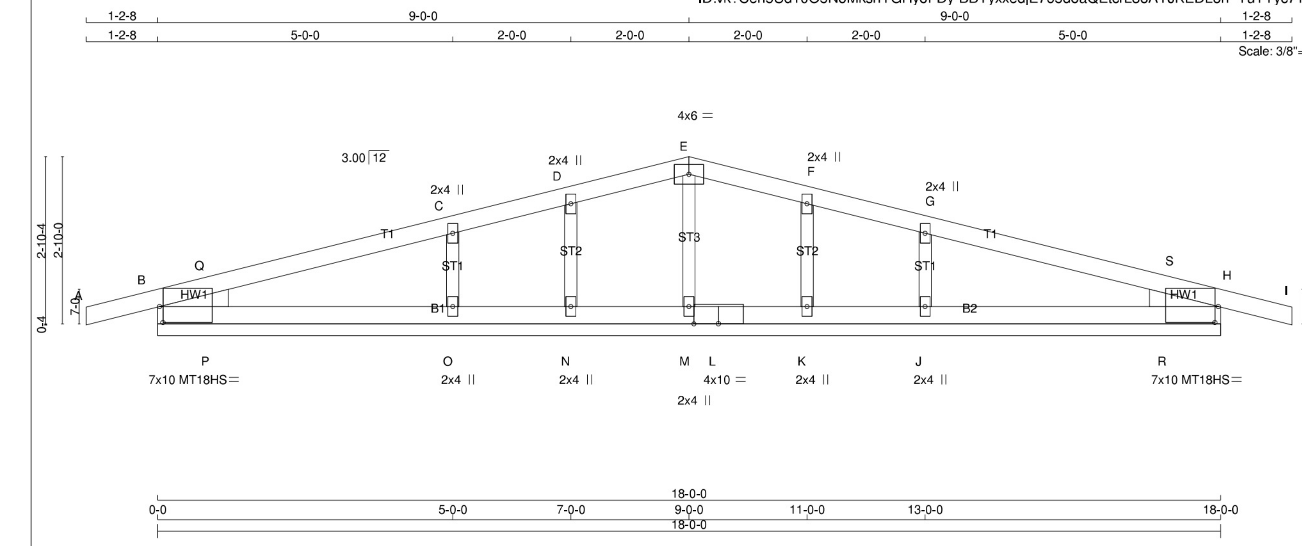
JSI GRIP= 0.79 (D) (INPUT = 0.80)
JSI METAL= 0.62 (I) (INPUT = 0.80)

LICENSED PROFESSIONAL ENGINEER 09-19-24 H. J. G. ALVES 100009024 PROVINCE OF ONTARIO

Structural component only
DWG# F-243382

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
441190	T01G	2	1	Porter Construction	

Tamarack Roof Truss, Burlington — Version 8.730 S Aug 15 2024 MiTek Industries, Inc. Thu Sep 19 09:39:50 2024 Page 1



TOTAL WEIGHT = 2 X 54 = 108 lb [M]

LUMBER
N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - E	2x4	DRY	No.2	SPF
E - I	2x4	DRY	No.2	SPF
B - L	2x4	DRY	No.2	SPF
L - H	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF
ALL GABLE WEBS 2x3		DRY	No.2	SPF

DRY: SEASONED LUMBER.

GABLE STUDS SPACED AT 2-0-0 OC.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B, B, H, H						
B						
B	TMBH1-I	MT18HS	7.0	10.0	3.25	0.75
C, D, F, G						
C	TMW+w	MT20	2.0	4.0		
E	TTW-p	MT20	4.0	6.0		
H	TMBH1-I	MT18HS	7.0	10.0	3.25	0.75
J, K, M, N, O						
J	BMW1+w	MT20	2.0	4.0		
L	BS-t	MT20	4.0	10.0		

NOTES- (1)
1) Lateral braces to be a minimum of 2x4 SPF #2

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

BEARINGS

THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.

THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.

HEEL
WEDGE
2x4 L
2x4 R
BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S)

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.

LOADING
TOTAL LOAD CASES: (4)

CHORDS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF) FROM	TO	MAX CSI (LC)	MAX. UNBRAC LENGTH
A- B	0 / 1	-115.9	-115.9	0.12 (1)	10.00
B- Q	-393 / 0	-115.9	-115.9	0.04 (4)	6.25
Q- C	-345 / 0	-115.9	-115.9	0.26 (1)	6.25
C- D	-366 / 0	-115.9	-115.9	0.26 (1)	6.25
D- E	-343 / 0	-115.9	-115.9	0.07 (1)	6.25
E- F	-343 / 0	-115.9	-115.9	0.07 (1)	6.25
F- G	-366 / 0	-115.9	-115.9	0.26 (1)	6.25
G- S	-345 / 0	-115.9	-115.9	0.26 (1)	6.25
S- H	-393 / 0	-115.9	-115.9	0.04 (4)	6.25
H- I	0 / 1	-115.9	-115.9	0.12 (1)	10.00
B- P	0 / 345	-18.5	-18.5	0.22 (1)	10.00
P- O	0 / 345	-18.5	-18.5	0.22 (1)	10.00
O- N	0 / 334	-18.5	-18.5	0.18 (1)	10.00
N- M	0 / 332	-18.5	-18.5	0.08 (1)	10.00
M- L	0 / 332	-18.5	-18.5	0.08 (1)	10.00
L- K	0 / 332	-18.5	-18.5	0.08 (1)	10.00
K- J	0 / 334	-18.5	-18.5	0.18 (1)	10.00
J- R	0 / 345	-18.5	-18.5	0.22 (1)	10.00
R- H	0 / 345	-18.5	-18.5	0.22 (1)	10.00

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
M- E	-57 / 12	0.01 (1)
N- D	-151 / 0	0.02 (1)
O- C	-482 / 0	0.07 (1)
K- F	-151 / 0	0.02 (1)
J- G	-482 / 0	0.07 (1)
P- Q	-140 / 22	0.00 (1)
R- S	-140 / 22	0.00 (1)

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 33.6 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 47.0 PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , NBC-2019AE
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

(55 % OF 46.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 33.6 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.26/1.00 (C-Q:1) , BC=0.22/1.00 (J-R:1) , WB=0.07/1.00 (C-O:1) , SSI=0.21/1.00 (G-S:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 1.00

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

NAIL VALUES

PLATE	GRIP(DRY) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	650	371	1747	788	1987	1873
MT18HS	586	403	2455	1382	3163	3004

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.38 (D) (INPUT = 0.80)
JSI METAL= 0.11 (G) (INPUT = 0.80)

LICENSED PROFESSIONAL ENGINEER 09-19-24 H. J. G. ALVES 100009024 PROVINCE OF ONTARIO

Structural component only
DWG# F-243383

Alves Engineering Services Inc.
5208 Easton road
Burlington, Ontario L7L 6N6
(289) 259 5455

LICENSED PROFESSIONAL ENGINEER 06/11/19 H.J.G. ALVES PROVINCE OF ONTARIO

RESPONSABILITIES

1-Alves Engineering Services Inc. is responsible for the design of trusses as individual components

2-It is the responsibility of others to ascertain that the design loads utilized on this drawing meet or exceed the actual dead load imposed by the structure and the live load imposed by the local building code or the authorities having jurisdictions.

3- All dimensions are to be verified by owner, contractor, architect or other authority before manufacture.

4- Alves Engineering Services Inc. bears no responsibility for the erection of the trusses. Persons erecting trusses are cautioned to seek professional advice regarding temporary and permanent bracing system. Bracing shown on Alves Engineering Services Inc. drawings is specified for the truss as a single component and forms an integral part of the truss design, but is not meant to represent the only required bracing for that truss when trusses are installed in a series of trusses forming a roof truss system.

5- It is the manufactures responsibility to ensure that the trusses are manufactured in conformance with Alves Engineering Services Inc. specifications outlined below.

SPECIFICATIONS

1-Truss components sealed by Alves Engineering Services Inc. conform to the relevant sections of the current Building Code of Ontario and Canada (part 4 or part 9) or the current Canadian code for Farm Buildings in accordance with the application specified on the sealed truss component drawing. All truss component design procedures must conform to the current design standard issued by the truss plate institute of Canada (TPIC). All lumber and nailing stresses to conform to the current CSA wood design standard identified on the current Building Code and TPIC.

2- Lumber is to be the sizes and grade specified on the truss drawing.

3- Moist content of lumber is not to exceed 19% in service unless otherwise specified.

4- Plates shall be applied to both faces of the each truss joint and shall be positioned as shown on the truss drawings

5- Lumber used on manufacture of trusses is not to be treated with chemicals unless otherwise specified on the truss drawings.

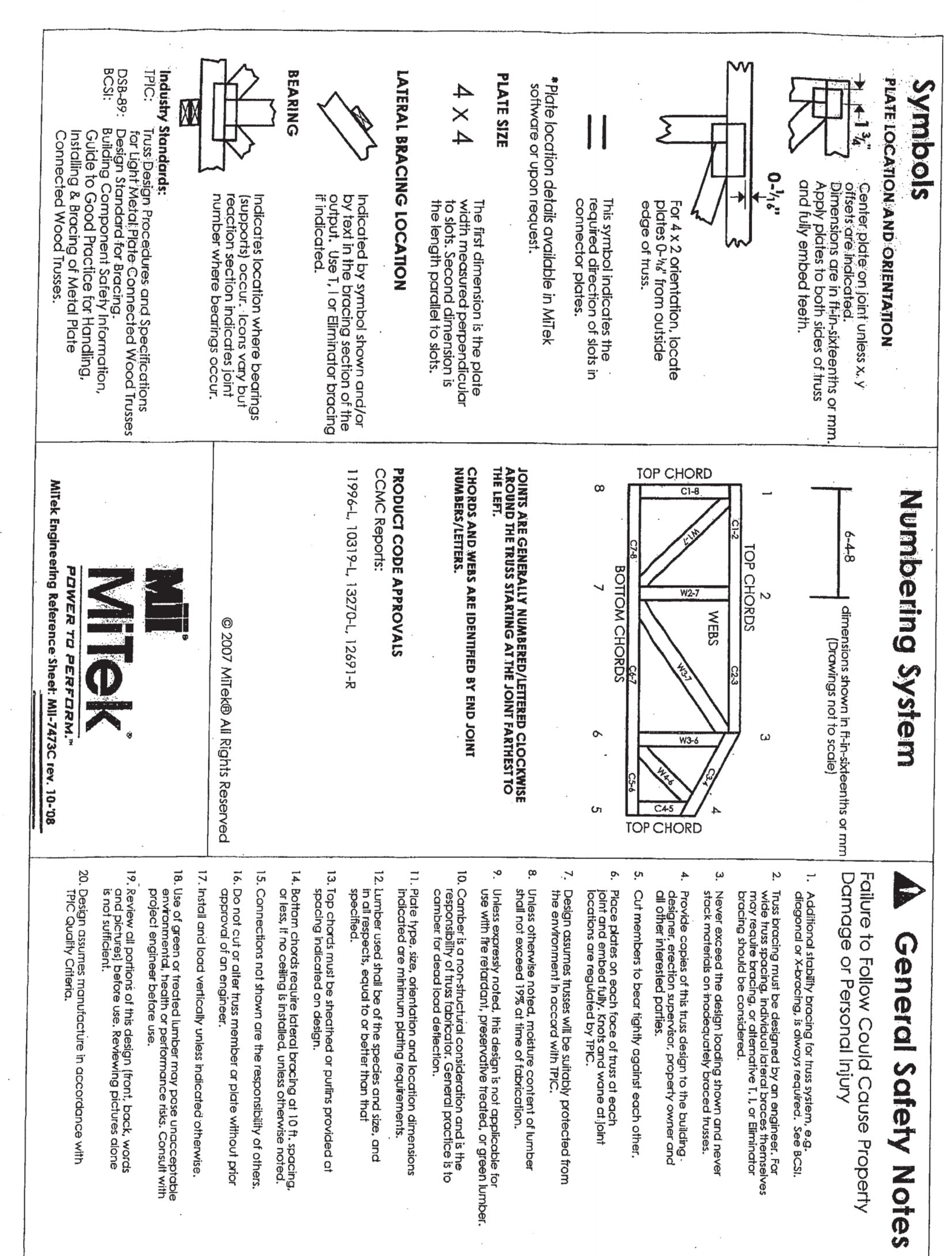
6- The top chord is assumed to be continuously laterally braced by the roof sheathing or purlins at intervals specified on the truss drawing but not exceeding 24" c/c for (part 9) and not exceeding 48" for (part 4 or farm design)

7- When rigid ceiling is not attached directly to the bottom chord, lateral bracing is required and it should not exceed more than 3m or 10' intervals.

8-Refer to Mitek sheet MII7473C REV.10-08 attached for information on symbols, numbering system and General Safety notes.

T-1900218 Feb 09, 2018

SHEET SIZE - ARCH C -18" X 24"

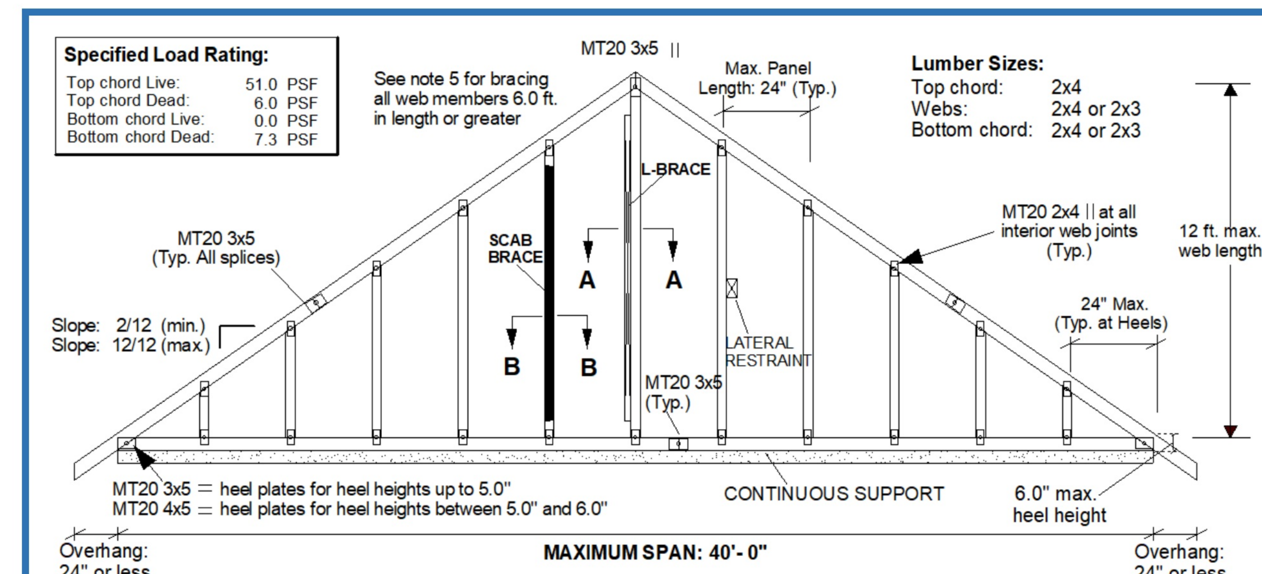

Symbols
PLATE LOCATION AND ORIENTATION
Numbering System
General Safety Notes
Failure to Follow Could Cause Property Damage or Personal Injury
PRODUCT CODE APPROVALS

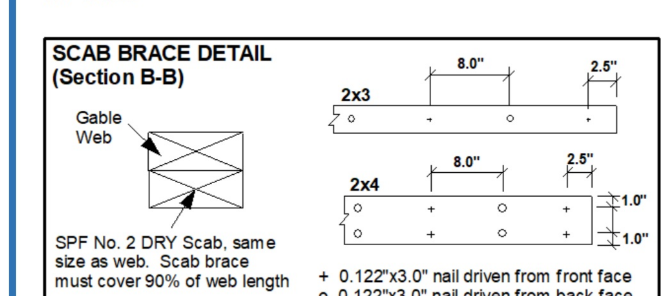
MiTek Engineering Reference Sheet: MII-7473C rev. 10-08

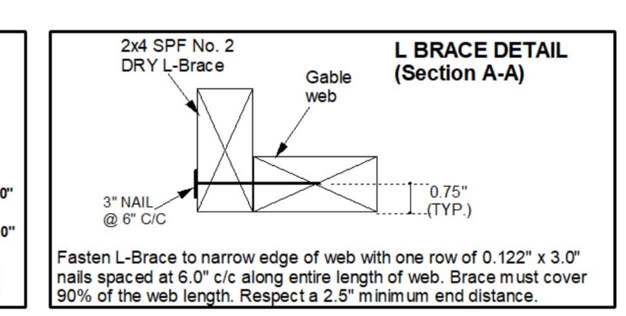
MiTek®

STANDARD DETAIL **MSD2015-K**
Issued: **MARCH 1, 2022**
Expiry: **MARCH 30, 2025**

STANDARD GABLE END DETAIL







Notes:

1. This detail is only valid for projects conforming to **Part 9, NBCC 2015** that do not require a wind analysis to be incorporated into the design of the truss.
2. This detail is for vertical (gravity) load rating of the truss only. Truss must be continuously supported over the entire length of bottom chord.
3. Maximum web length not to exceed 12.0 ft. Spacing of gable stud webs in the truss not to exceed 24 inches cc.
4. Splice joints shall not be located in the first panel adjacent to the heel joint or peak joint.
5. Lateral restraint required at half-length of all webs over 6.0 ft. long. Alternatively install an L-Brace or scab brace as shown above. Scab braces shall be limited to 10 ft. long webs or less.
6. All plates are MITEK MT20 pressed into both faces of truss.
7. All lumber to be SPF (or D-Fir) DRY and of No.2 grade or better.
8. Additional building bracing is typically installed to brace the face of the end wall assembly. See BCSI Canada '*Building Designer Responsibilities for Gable End Frame Bracing*' for additional information on building bracing for gable-end assemblies.

PEO Certificate No. 10889485
LICENSED PROFESSIONAL ENGINEER 2024-03-20 C. Cordogiannis 90553736 PROVINCE OF ONTARIO

PORTER DESIGN
INFO@PORTERDESIGN.CA | 289.687.0501 | FONTHILL, ONT

THE UNDERSIGNED HAS REVIEWED AND TAKES RESPONSIBILITY FOR THIS DESIGN, AND HAS THE QUALIFICATION AND MEETS THE REQUIREMENTS SET OUT IN THE ONTARIO BUILDING CODE TO BE A DESIGNER.

QUALIFICATION INFORMATION
DUSTIN PORTER, C.E.T.
DESIGNER NAME

CERTIFIED ENGINEERING TECHNOLOGIST OACETT ONTARIO DUSTIN KENNETH PORTER Nº 841113
SIGNATURE / STAMP

46915
DESIGNER BCIN

REGISTRATION INFORMATION
816028 ONTARIO LTD.
FIRM NAME

105277
FIRM BCIN

REVISIONS

NO.	DESCRIPTION	DATE

32 SOUTH CRES, PORT COLBORNE, ONTARIO
GARAGE - ACCESSORY DWELLING UNIT
ERIN & GRAHAM HART
PROJECT NO. 025-0323-GADU

AUGUST 20, 2023
DATE

AS NOTED
SCALE

ENGINEERED DESIGN
SHEET NAME

S.1
SHEET NO.

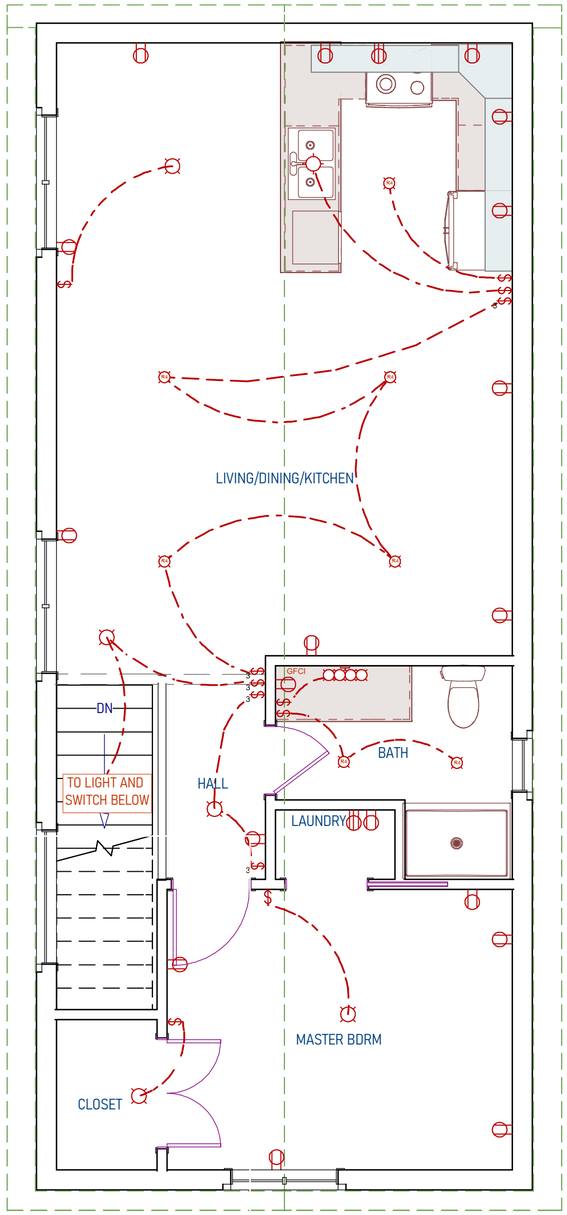
*** SUGGESTED ELEC LAYOUT - FINAL LAYOUT TO MEET ELEC CODE, OBC, AND OWNERS REQUEST

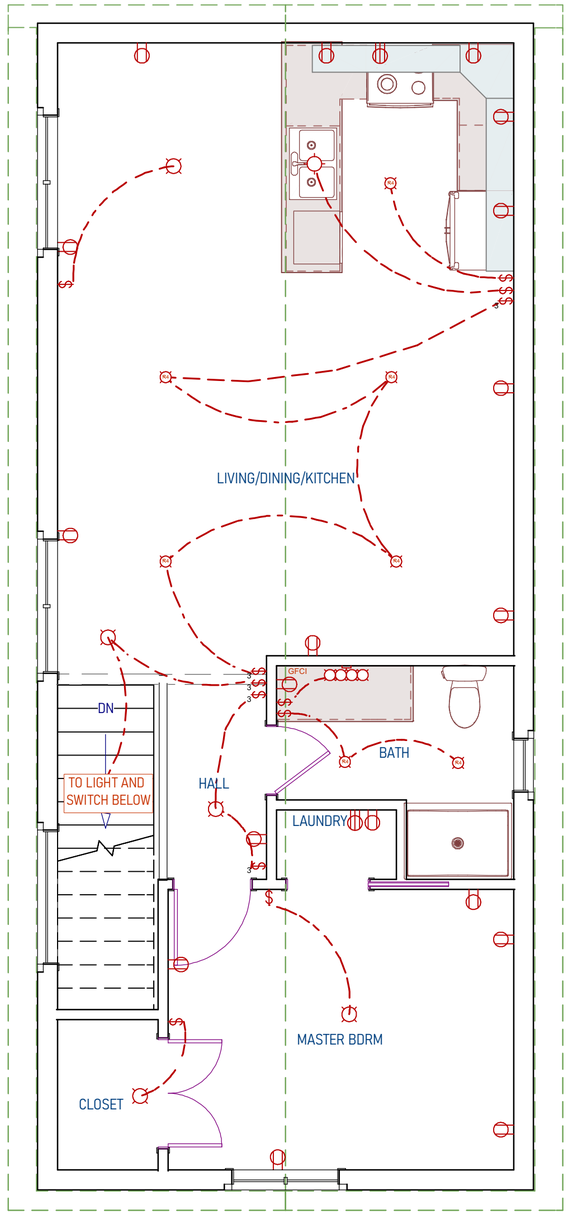
ELECTRICAL NOTES

E1. ALL ELECTRICAL INSTALLATION MUST BE INSPECTED BY THE ELECTRICAL SAFETY AUTHORITY (ESA), A SEPARATE PERMIT/ INSPECTION APPLICATION MUST BE FILED. FOR MORE INFORMATION OR INQUIRIES ON ISSUING PERMITS PLEASE CALL THE ELECTRICAL SAFETY AUTHORITY.
E2. ALL WORK TO BE DONE TO MEET Ontario Electrical Safety Code, Ontario Regulation 164/99
E3. THE FOLLOWING ELECTRICAL PLAN IS A SUGGESTED LAYOUT, FINAL LAYOUT MUST BE CONFIRMED WITH OWNER, ANY AND ALL CHANGES MUST MEET CURRENT ELECTRICAL CODES AND REQUIREMENTS.
E4. SITE CONFIRM ANY ELECTRICAL WITHIN AREAS OF RENOVATION REQUIRING RELOCATION TO ACCOMMODATE THE RENOVATION.
E5. PROVIDE BLANK COVER PLATES OVER ALL EXISTING UNUSED OPENINGS.
E6. WHERE BRANCH CIRCUIT BREAKERS ARE REMOVED, PROVIDE FILLER PLATES FOR BREAKER SPACES.
E7. CIRCUIT BREAKERS SHALL MATCH EXISTING. CONFIRM SHORT CIRCUIT RATING AND TYPE ON SITE, PRIOR TO FINALIZING PRICING
E8. PROVIDE AN EXTERIOR LIGHT CONTROLLED BY A WALL SWITCH LOCATED WITHIN THE BUILDING AT EVERY ENTRANCE.
E9. PROVIDE A 3-WAY SWITCH AT THE TOP & BOTTOM OF STAIRS.
E10. GENERAL CONTRACTOR & ELECTRICIAN TO REVIEW DRAWINGS FOR ANY DISCREPANCIES. ANY DRAWING DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE INTERIOR DESIGN CONSULTANT PRIOR TO CONSTRUCTION.
E11. ALL
LIENT & INTERIOR DESIGN CONSULTANT PRIOR TO INSTALLATION.
E12. SOME LIGHT FIXTURES TO HAVE DIMMER, CONFIRM WITH OWNER PRIOR TO SWITCH INSTALLATION.
E13. DIMENSIONS ARE TAKEN FROM CENTER OF LIGHT FIXTURES, UNLESS OTHERWISE NOTED.
E14. ALL LIGHT FIXTURES SHOWN CENTERED ON REFLECTED CEILING PLAN TO BE LOCATED CENTERED ON SITE, UNLESS OTHERWISE NOTED
E15. FIXTURE QUANTITIES TO BE VERIFIED BY INSTALLER PRIOR TO ORDERING
E16. ALL DECORATIVE SURFACE MOUNTED FIXTURES TO BE SPECIFIED OR SUPPLIED BY CLIENT TO BE INSTALLED BY ELECTRICIAN
E17. ALL WALL SCONCES TO BE LOCATED AS PER INTERIOR DESIGN DRAWINGS OR AS IDENTIFIED BY OWNER.
E18. ALL WALL MOUNTED ELECTRICAL OUTLETS & SWITCHES ARE TO BE "DECORA" UNLESS OTHERWISE NOTED. FINISH AS SPECIFIED.
E19. ALL OUTLETS PLACED TOGETHER TO BE GANGED INTO SINGLE BOX WITH ONE COVER PLATE AS REQUIRED. SPECIFIC MOUNTING HEIGHT TO BE AS PER STANDARD PRACTICE.
E20. ALL AREAS WHERE CABINETRY IS TO HAVE ELECTRICAL TO BE FINALIZED ONCE MILLWORK SHOP DRAWINGS ARE REVIEWED.
E21. ALL SMOKE / CARBON MONOXIDE DETECTORS TO BE INTERCONNECTED AS PER OBC 9.10.19.5. AND LOCATION OF ALARMS TO MEET OBC 9.10.19.3. AS SHOWN ON ELECTRICAL DRAWINGS AND IN BASEMENT AS WELL.
E22. CARBON MONOXIDE ALARMS ARE REQUIRED TO BE INSTALLED ADJACENT TO BEDROOMS IN A HOUSE WHERE THERE IS A FUEL-BURNING APPLIANCE (GAS FURNACE OR fiREPLACE) IN THE HOUSE OR WHERE THERE IS STORAGE GARAGE ATTACHED TO THE HOUSE.

ELECTRICAL - DATA - AUDIO LEGEND

SYMBOL	DESCRIPTION
	CEILING FAN
	VENTILATION FANS: CEILING MOUNTED, WALL MOUNTED
R	CEILING MOUNTED LIGHT FIXTURES: SURFACE/PENDANT, RECESSED, HEAT LAMP, LOW VOLTAGE
	WALL MOUNTED LIGHT FIXTURES: FLUSH MOUNTED, WALL SCONCE
	CHANDELIER LIGHT FIXTURE
	FLUORESCENT LIGHT FIXTURE
	240V RECEPTACLE
WP GFCI	110V RECEPTACLES: DUPLEX, WEATHER PROOF, GFCI
$ WP $ 3 $ 4 $	SWITCHES: SINGLE POLE, WEATHER PROOF, 3-WAY, 4-WAY
DM $ T $	SWITCHES: DIMMER, TIMER
AV Control A $	AUDIO VIDEO: CONTROL PANEL, SWITCH
SP SP	SPEAKERS: CEILING MOUNTED, WALL MOUNTED
C5 C5/TV TV	WALL JACKS: CAT5, CAT5 + TV, TV/CABLE
	TELEPHONE JACK
	INTERCOM
T	THERMOSTAT
	DOOR CHIME, DOOR BELL BUTTON
SD SD	SMOKE DETECTORS: CEILING MOUNTED, WALL MOUNTED
EP	ELECTRICAL BREAKER PANEL





SHEET SIZE - ARCH C -18" X 24"

PORTER DESIGN
INFO@PORTERDESIGN.CA | 289.687.0501 | FONTHILL, ONT

THE UNDERSIGNED HAS REVIEWED AND TAKES RESPONSIBILITY FOR THIS DESIGN, AND HAS THE QUALIFICATION AND MEETS THE REQUIREMENTS SET OUT IN THE ONTARIO BUILDING CODE TO BE A DESIGNER.

QUALIFICATION INFORMATION
DUSTIN PORTER, C.E.T.
DESIGNER NAME

CERTIFIED ENGINEERING TECHNOLOGIST ONTARIO DUSTIN KENNETH PORTER Nº 841113
SIGNATURE / STAMP

46915
DESIGNER BCIN

REGISTRATION INFORMATION
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FIRM NAME

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FIRM BCIN

REVISIONS

NO.	DESCRIPTION	DATE

32 SOUTH CRES, PORT COLBORNE, ONTARIO
GARAGE - ACCESSORY DWELLING UNIT
ERIN & GRAHAM HART
PROJECT NO. 025-0323-GADU

AUGUST 20, 2023
DATE

AS NOTED
SCALE

ELECTRICAL LAYOUT
SHEET NAME

E.1
SHEET NO.

Energy Efficiency Design Summary: Prescriptive Method

(Building Code Part 9, Residential)

This form is used by a designer to demonstrate that the energy efficiency design of a house complies with the building code using the prescriptive method described in Subsection 3.1.1. of SB-12. This form is applicable where the ratio of gross area of windows/sidelights/skylights/glazing in doors and sliding glass doors to the gross area of peripheral walls is not more than 22%.

For use by Principal Authority	
Application No:	Model/Certification Number

A. Project Information

Building number, street name		Unit number	Lot/Con
32 South Crescent			
Municipality	**Postal code**	**Reg. Plan number / other description**	
Port Colborne	L3K 2X9	Plan 55 Lot 89 NP814	

B. Prescriptive Compliance [indicate the building code compliance package being employed in this house design]

SB-12 Prescriptive (input design package): Package: C4 Table: 3.1.1.2.C (IP)

C. Project Design Conditions

Climatic Zone (SB-1):	Heating Equipment Efficiency	Space Heating Fuel Source
■ Zone 1 (< 5000 degree days)	■ ≥ 92% AFUE	□ Gas □ Propane □ Solid Fuel
□ Zone 2 (≥ 5000 degree days)	□ ≥ 84% < 92% AFUE	□ Oil ■ Electric □ Earth Energy

Ratio of Windows, Skylights & Glass (W, S & G) to Wall Area		Other Building Characteristics
Area of walls = _____m² **or** 992 ft²	W, S & G % = 9.7	□ Log/Post&Beam □ ICF Above Grade □ ICF Basement □ Slab-on-ground □ Walkout Basement
Area of W, S & G = _____m² **or** 97 ft²	Utilize window averaging: □Yes □No	■ Air Conditioning □ Combo Unit ■ Air Sourced Heat Pump (ASHP) □ Ground Sourced Heat Pump (GSHP)

D. Building Specifications [provide values and ratings of the energy efficiency components proposed]

Energy Efficiency Substitutions

□ ICF (3.1.1.2.(5) & (6) / 3.1.1.3.(5) & (6))

□ Combined space heating and domestic water heating systems (3.1.1.2.(7) / 3.1.1.3.(7))

□ Airtightness substitution(s)

Airtightness test required (Refer to Design Guide Attached)

□ Table 3.1.1.4.B Required:_____ Permitted Substitution:_____

□ Table 3.1.1.4.C Required:_____ Permitted Substitution:_____

Required:_____ Permitted Substitution:_____

Building Component	Minimum RSI / R values or Maximum U-Value(1)		Building Component	Efficiency Ratings
Thermal Insulation	Nominal	Effective	**Windows & Doors** Provide U-Value(1) or ER rating	
Ceiling with Attic Space	50	49.23	Windows/Sliding Glass Doors	.28 er25
Ceiling without Attic Space	31	27.65	Skylights/Glazed Roofs	.49
Exposed Floor	35	32.02	**Mechanicals**	
Walls Above Grade	22+7.5 ci	23.9	Heating Equip.(AFUE)	
Basement Walls	20 ci	21.12	HRV Efficiency (SRE% at 0°C)	55%
Slab (all >600mm below grade)	-	-	DHW Heater (EF)	
Slab (edge only ≤600mm below grade)	10	11.13	DWHR (CSA B55.1 (min. 42% efficiency))	# Showers___
Slab (all ≤600mm below grade, or heated)	10	-	Combined Heating System	

(1) U value to be provided in either W/(m²•K) or Btu/(h•ft²•F) but not both.

E. Designer(s) [name(s) & BCIN(s), if applicable, of person(s) providing information herein to substantiate that design meets the building code]

Qualified Designer Declaration of designer to have reviewed and take responsibility for the design work.

Name	BCIN	Signature
Dustin Porter	46915/105277	

Form authorized by OHBA, OBOA, LMCBO. Revised December 1, 2016.

Reset Form

Schedule 1: Designer Information

Use one form for each individual who reviews and takes responsibility for design activities with respect to the project.

A. Project Information

Building number, street name			Unit no.	Lot/con.
32 South Crescent				
Municipality	**Postal code**	**Plan number/ other description**		
Port Colborne				

B. Individual who reviews and takes responsibility for design activities

Name		Firm	
Dan Gazzola		Gazzola HVAC Design & Consulting Inc.	
Street address		**Unit no.**	**Lot/con.**
29 Pancake Lane			
Municipality	**Postal code** / **Province**		**E-mail**
Fonthill	L0S 1E2 / ON		gazzola.hvac@gmail.com
Telephone number	**Fax number**		**Cell number**
(905)892 2999	( )		(905) 892 2999

C. Design activities undertaken by individual identified in Section B. [Building Code Table 3.5.2.1. of Division C]

❑ House	☑ HVAC – House	❑ Building Structural
❑ Small Buildings	❑ Building Services	❑ Plumbing – House
❑ Large Buildings	❑ Detection, Lighting and Power	❑ Plumbing – All Buildings
❑ Complex Buildings	❑ Fire Protection	❑ On-site Sewage Systems

Description of designer's work: heat loss / heat gain

ventilation design

D. Declaration of Designer

I Dan Gazzola declare that (choose one as appropriate):

(print name)

☑ I review and take responsibility for the design work on behalf of a firm registered under subsection 3.2.4.of Division C, of the Building Code. I am qualified, and the firm is registered, in the appropriate classes/categories.

Individual BCIN: 27452

Firm BCIN: 104884

❑ I review and take responsibility for the design and am qualified in the appropriate category as an "other designer" under subsection 3.2.5.of Division C, of the Building Code.

Individual BCIN: _____

Basis for exemption from registration: _____

❑ The design work is exempt from the registration and qualification requirements of the Building Code.

Basis for exemption from registration and qualification: _____

I certify that:

1. The information contained in this schedule is true to the best of my knowledge.
2. I have submitted this application with the knowledge and consent of the firm.

September 09, 2024 (Date) — Dan Gazzola (Signature of Designer)

NOTE:

1. For the purposes of this form, "individual" means the "person" referred to in Clause 3.2.4.7(1) d).of Division C, Article 3.2.5.1. of Division C, and all other persons who are exempt from qualification under Subsections 3.2.4. and 3.2.5. of Division C.
2. Schedule 1 is not required to be completed by a holder of a license, temporary license, or a certificate of practice, issued by the Ontario Association of Architects. Schedule 1 is also not required to be completed by a holder of a license to practise, a limited license to practise, or a certificate of authorization, issued by the Association of Professional Engineers of Ontario.

Application for a Permit to Construct or Demolish – Effective January 1, 2011

Print

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Load Short Form

Entire House

Gazzola HVAC Design & Consulting Inc

Cert.#: 251(RHLG, RASD)

1133 Haist Street, Fonthill, On L0S 1E2 Phone: 905 892 2999 Email: gazzola.hvac@gmail.com License: 27452 / 104884

Job: 24-410
Date: September 09, 2024
By:

Project Information

For:

32 South Crescent, Port Colborne, ON

Design Information

	Htg	Clg
Outside db (°F)	5	86
Inside db (°F)	72	75
Design TD (°F)	67	11
Daily range	-	L
Inside humidity (%)	30	50
Moisture difference (gr/lb)	29	47

Infiltration

Method	F280-12
Expos. categ	No local shielding
Const. categ	Present (1961-) (ACH=3.57)
Number of stories	2.0

HEATING EQUIPMENT

Make	Fujitsu
Trade	FUJITSU
Model	AOU18RLXFZH
AHRI ref	
Efficiency	9.6 HSPF2
Heating input	
Heating output	22000 Btuh @ 47°F
Temperature rise	34 °F
Actual air flow	600 cfm
Air flow factor	0.034 cfm/Btuh
Static pressure	0 in H2O
Space thermostat	
Capacity balance point = 10 °F	

COOLING EQUIPMENT

Make	Fujitsu
Trade	FUJITSU
Cond	AOU18RLXFZH
Coil	ASU 12+ 7
AHRI ref	
Efficiency	13.5 EER2,21.5 SEER2
Sensible cooling	12600 Btuh
Latent cooling	5400 Btuh
Total cooling	18000 Btuh
Actual air flow	600 cfm
Air flow factor	0.100 cfm/Btuh
Static pressure	0 in H2O
Load sensible heat ratio	0.77

Backup: Elec baseboard
Input = 17763 Btuh, Output = 17763 Btuh, 100 EFF

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
WR2	52	0	0	0	0
Primary	152	3046	2693	103	269
,	27	0	0	0	0
Laundry	15	0	0	0	0
WR	63	0	0	0	0
Stairs	54	0	0	0	0
Kitchen,GR,Din	452	6387	3308	216	331
Stairs.	89	8331	0	281	0

Entire House	d	904	17763	6001	600	600
Other equip loads			0	0		
Equip. @ 1.00	RSM			6001		
Latent cooling				1800		
TOTALS		904	17763	7801	600	600

SHEET NO. M.1
SHEET NAME HVAC DESIGN
SCALE AS NOTED
DATE AUGUST 20, 2023

32 SOUTH CRES, PORT COLBORNE, ONTARIO

GARAGE - ACCESSORY DWELLING UNIT

ERIN & GRAHAM HART

PROJECT NO. 025-0323-GADU

REVISIONS
NO. DESCRIPTION DATE

TRIM BCIN 105277
TRIM NAME 816028 ONTARIO LTD.
REGISTRATION INFORMATION
DESIGNER BCIN 46915
SIGNATURE / STAMP

CERTIFIED ENGINEERING TECHNOLOGIST ONTARIO DUSTIN KENNETH PORTER № 841113

DESIGNER NAME DUSTIN PORTER, C.E.T.
QUALIFICATION INFORMATION
THE UNDERSIGNED HAS REVIEWED AND TAKES RESPONSIBILITY FOR THIS DESIGN AND HAS THE QUALIFICATION AND MEETS THE REQUIREMENTS SET OUT IN THE ONTARIO BUILDING CODE TO BE A DESIGNER.

PORTER DESIGN
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wrightsoft

Project Summary
Entire House
Gazzola HVAC Design & Consulting Inc

Job: 24-410
Date: September 09, 2024
By:

Cert.#: 251(RHLG, RASD)
1133 Haist Street, Fonthill, On L0S 1E2 Phone: 905 892 2999 Email: gazzola.hvac@gmail.com License: 27452 / 104884

Project Information

For: 32 South Crescent, Port Colborne, ON

Notes: Calculation based on customer supplied information, with unshaded low e argon filled windows with a solar heat gain coeffcient of 0.40. Installation to comply with Ontario Building Code and Local Municipal Code. Ductwork in unconditioned spaces shall be rigid duct insulated to OBC Standards.

Design Information

Weather: Port Colborne, ON, CA

Winter Design Conditions

Outside db	5	°F
Inside db	72	°F
Design TD	67	°F

Summer Design Conditions

Outside db	86	°F
Inside db	75	°F
Design TD	11	°F
Daily range	L	
Relative humidity	50	%
Moisture difference	47	gr/lb

Heating Summary

Structure	17763	Btuh
Ducts	0	Btuh
Central vent (0 cfm) (none)	0	Btuh
Humidification	0	Btuh
Piping	0	Btuh
Equipment load	17763	Btuh

Sensible Cooling Equipment Load Sizing

Structure	6001	Btuh
Ducts	0	Btuh
Central vent (0 cfm) (none)	0	Btuh
Blower	0	Btuh
Use manufacturer's data	y	
Rate/swing multiplier	1.00	
Equipment sensible load	6001	Btuh

Infiltration

Method	F280-12
Expos. categ	No local shielding
Const. categ	Present (1961-) (ACH=3.57)
Number of stories	2.0

	Heating	Cooling
Area (ft²)	904	763
Volume (ft³)	7997	6869
Air changes/hour	0.67	0.32
Equiv. AVF (cfm)	89	37

Latent Cooling Equipment Load Sizing

Structure	1800	Btuh
Ducts	0	Btuh
Central vent (0 cfm) (none)	0	Btuh
Equipment latent load	1800	Btuh
Equipment Total Load (Sen+Lat)	7801	Btuh
Req. total capacity at 0.70 SHR	0.7	ton

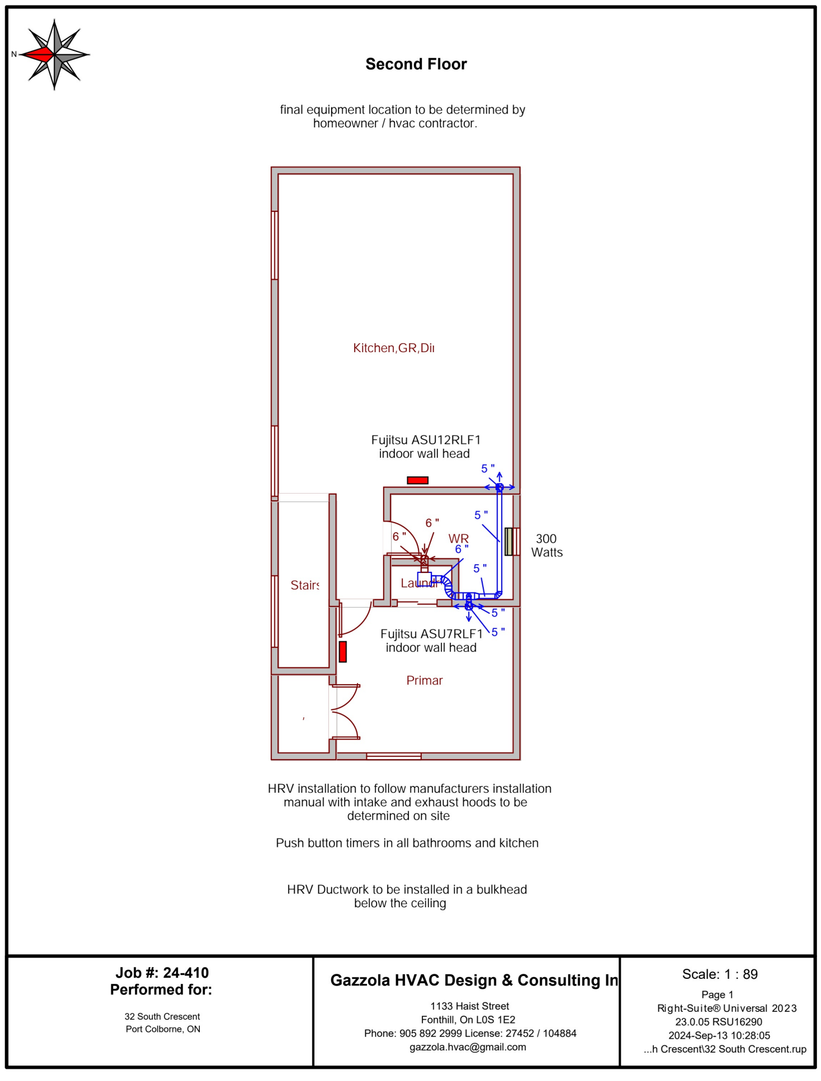
Heating Equipment Summary

Make	Fujitsu
Trade	FUJITSU
Model	AOU18RLXFZH
AHRI ref	
Efficiency	9.6 HSPF2
Heating input	
Heating output	22000 Btuh @ 47°F
Temperature rise	34 °F
Actual air flow	600 cfm
Air flow factor	0.034 cfm/Btuh
Static pressure	0 in H2O
Space thermostat	
Capacity balance point = 10 °F	

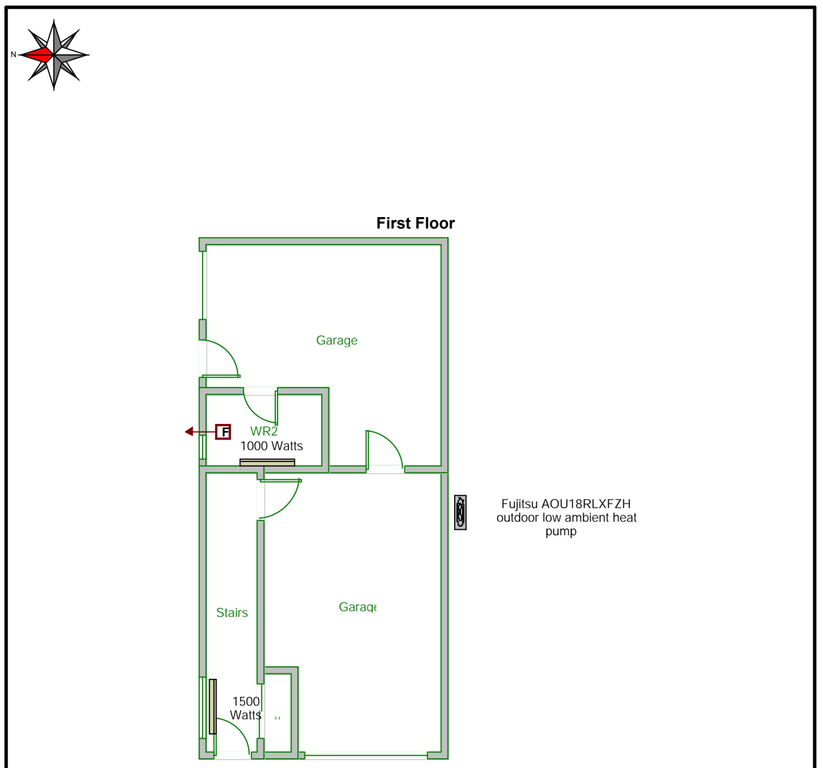
Backup: Elec baseboard
Input = 17763 Btuh, Output = 17763 Btuh, 100 EFF

Cooling Equipment Summary

Make	Fujitsu
Trade	FUJITSU
Cond	AOU18RLXFZH
Coil	ASU 12+ 7
AHRI ref	
Efficiency	13.5 EER2,21.5 SEER2
Sensible cooling	12600 Btuh
Latent cooling	5400 Btuh
Total cooling	18000 Btuh
Actual air flow	600 cfm
Air flow factor	0.100 cfm/Btuh
Static pressure	0 in H2O
Load sensible heat ratio	0.77



Job #: 24-410 Performed for:	Gazzola HVAC Design & Consulting In	Scale: 1 : 89
32 South Crescent Port Colborne, ON	1133 Haist Street Fonthill, On L0S 1E2 Phone: 905 892 2999 License: 27452 / 104884 gazzola.hvac@gmail.com	Page 2 Right-Suite® Universal 2023 23.0.05 RSU16290 2024-Sep-13 10:28:05 ...h Crescent\32 South Crescent.rup



RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY
for design and performance of residential ventilation systems to OBC 2012 Div. B 9.32

RESET

LOCATION — 1. Location: Township: Port Colborne; Civic Address: 32 South Crescent

BUILDER — 2. Builder: Name: ; Address: ; City: ; Postal Code: ; Ph: ; Fax:

DESIGNER — 3. Designer: Name: Gazzola HVAC Design & Consulting Inc.; Address: 29 Pancake Lane; Postal Code: L0S 1E2; City: Fonthill; Ph: 905 892 2999; Fax: ; Firm BCIN: ; Designer BCIN: 104884 / 27452; HRAI#: 251

HEATING SYSTEM — 4. Heating Systems: ☐ Forced Air ☑ Non Forced Air ☐ Oil ☑ Electric ☐ Gas ☑ Other

HEATING SYSTEM COMBUSTION APPLIANCES — 5. Combustion Appliances 9.32.3.1.(1)
- ☐ a) Direct Vent
- ☐ b) Induced Draft
- ☐ c) Natural Draft
- ☐ d) Solid Fuel Appliances
- ☑ e) No combustion appliances

HOUSE TYPE — 6. Type of House 9.32.3.1.(2)
- ☐ Type 1 a) or b) type appliances only
- ☐ Type 2 a) or b) type appliances with a d) type appliance
- ☐ Type 3 any type c) appliance = part 6 design
- ☑ Type 4 electric space heat

SYSTEM DESIGN OPTION — 7. System Design Option
- ☐ Exhaust only forced air system/coupled
- ☐ HRV with extended exhaust or simplified coupled
- ☑ HRV full ducting/not coupled to forced air
- ☐ Part 6 design

TOTAL VENTILATION CAPACITY (TVC) — 8.TVC Capacity OBC 9.32.3.3

Bsmt & Master bedroom	1	@ 21.2 CFM (10 L/S)	21.2	CFM
Other Bedrooms	0	@ 10.6 CFM (5 L/S)	0	CFM
Bathrooms & Kitchen	3	@ 10.6 CFM (5 L/S)	31.8	CFM
Other Habitable Rooms	1	@ 10.6 CFM (5 L/S)	10.6	CFM
		Total Ventilation Capacity (TVC)	63.6	CFM

TVC SYSTEM — 8. TVC System: ☑ HRV ☐ Central Exhaust ☐ Multiple Fans

PRINCIPAL EXH. FAN CAPACITY — 9. Principal Exhaust Fan Capacity (PEF)

Master Bedroom	1	@ 31.8CFM(15L/S)	31.8	CFM
Other Bedrooms	0	@ 15.9CFM(7.5L/S)	0	CFM
		Total	31.8	CFM

PRINCIPAL EXHAUST FAN — 10. Principal Exhaust Fan

Fan 1 — Location: Laundry; Manufacturer: Vanee; Model: V160H75NT; ☑ HVI rated
Design Airflow High ___ CFM Low - ___ CFM Sones ___
If Using HRV/ERV:
75 % Sensible Efficiency @ 0°C 36 watts
60 % Sensible Efficiency @ -25°C 30 watts

SUPPLIMENTAL EXHAUST CAPACITY — 11. Supplemental Exhaust Fan Capacity (SEF)

Total Ventilation Capacity	63.6	CFM
Less Principle Ventilation Capacity	31.8	CFM
Required Supplemental Ventilation Capacity	31.8	CFM

ADDITIONAL EXHAUST EQUIPMENT — 12. Additional Equipment

Fan 2 — Location: HRV Exhuast; 0.3 Sones; Manufacturer/Model: panasonic fv-0511vq1; ☐ TVC; Design airflow: 80 CFM

Fan 3 — Location: kitchen; 7.5 Sones; Manufacturer/Model: generic range hood; ☐ TVC; Design airflow: 130 CFM

Fan 4 — Location: ___ Sones ___; Manufacturer/Model: ___; ☐ TVC; Design airflow: ___ CFM

DESIGNER CONSENT — 13 Designer Consent

I, dan gazzola have reviewed and take responsibility for the design work described In this document and I am qualified in the appropriate categories.
Date: 09 / 09 / 24
Signature: Dan Gazzola

Conversion Note: 1 L/S = 2.118 CFM

HRAI SKILLTECH ACADEMY

 Ontario Residential Ventilation Design Summary R 06/11

SHEET NO: M.2
SHEET NAME: HVAC DESIGN
SCALE: AS NOTED
DATE: AUGUST 20, 2023

32 SOUTH CRES, PORT COLBORNE, ONTARIO
GARAGE - ACCESSORY DWELLING UNIT
ERIN & GRAHAM HART
PROJECT NO. 025-0323-GADU

REVISIONS — NO. DESCRIPTION DATE
PERMISSION 105277
REGISTRATION INFORMATION — PERMIT NAME: 816028 ONTARIO LTD.
DESIGNER SIGN 46915
SIGNATURE / STAMP: CERTIFIED ENGINEERING TECHNOLOGIST ONTARIO — JUSTIN KENNETH PORTER — No 841119
QUALIFICATION INFORMATION — DESIGNER NAME: DUSTIN PORTER, C.E.T.
THE UNDERSIGNED HAS REVIEWED AND TAKES RESPONSIBILITY FOR THIS DESIGN AND HAS THE QUALIFICATION AND MEETS THE REQUIREMENTS SET OUT IN THE ONTARIO BUILDING CODE TO BE A DESIGNER.

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