



EXTERIOR BUILDING RENDERING- ARTISTS PERSPECTIVE - E&O.E. EXTRA

GENERAL NOTES

1. ALL CONSTRUCTION TO MEET THE 2012 ONTARIO BUILDING CODE (OBC, ONTARIO REGULATION 403/12, AMENDED O.REG 22/99 & 102/98) REQUIREMENTS.
2. INSPECT SITE CONDITIONS PRIOR TO QUOTING ON NEW WORK AND REPORT ANY DISCREPANCIES.
3. ENSURE THAT ALL CONSTRUCTION, MATERIALS, METHODS OF INSTALLATION AND TEMPORARY BRACING, COMPLY WITH REQUIREMENTS OF ALL AUTHORITIES HAVING JURISDICTION
4. SITE VERIFY ALL DIMENSIONS AND MAKE MODIFICATIONS TO SUIT EXISTING SITE CONDITIONS.
5. MAKE GOOD ALL AREAS DISTURBED OR DAMAGED DURING CONSTRUCTION WHETHER SHOWN ON DRAWINGS OR NOT.
6. REPORT ALL CONTEMPLATED DEVIATIONS FROM THE DRAWINGS PRIOR TO MAKING CHANGES.
7. PROVIDE CUTTING, PATCHING, AND REMEDIAL WORK IN ORDER TO ENSURE PARTS OF THE WORK COME TOGETHER PROPERLY.
8. THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH STRUCTURAL, MECHANICAL, AND ELECTRICAL, REFER TO ARCHITECTURAL DWGS. FOR EXACT LOCATION OF FINISHED FITTINGS, MECHANICAL AND ELECTRICAL INFORMATION TO BE SUBMITTED AS REQ'D. COORDINATE STRUCTURAL, MECHANICAL, ELECTRICAL, WORK TO ENSURE THE PARTS OF THE WORK COME TOGETHER PROPERLY.
9. ARRANGE FOR ALL PERMIT APPLICATIONS & INSPECTIONS REQUIRED BY LOCAL BUILDING, PLUMBING, HYDRO, GAS, ETC., AUTHORITIES DURING CONSTRUCTION AND FOR OCCUPANCY.
10. THE PLANS SHOWN HERE DO NOT REPRESENT THE FULL LIMIT OF THE SCOPE OF WORK. PROVIDE CUTTING, PATCHING, AND REMEDIAL WORK IN ORDER TO ENSURE PARTS OF THE WORK COME TOGETHER PROPERLY.
11. THE CONTRACT DOCUMENTS WERE PREPARED BY THE CONSULTANT FOR THE ACCOUNT OF THE CLIENT/CONTRACTOR. THE MATERIAL CONTAINED HEREIN REFLECTS THE CONSULTANT'S BEST JUDGEMENT IN LIGHT OF THE INFORMATION AVAILABLE TO TIME AT THE TIME OF PREPARATION. ANY USE WHICH A THIRD PARTY MAKES OF THE CONTRACT DOCUMENTS, OR ANY RELIANCE ON OR DECISIONS TO BE MADE BASED ON THEM ARE THE RESPONSIBILITY OF SUCH THIRD PARTIES. THE CONSULTANT ACCEPTS NO RESPONSIBILITY FOR DAMAGES, IF ANY, SUFFERED BY A THIRD PARTY AS A RESULT OF DECISIONS MADE OR ACTIONS BASED ON THE CONTRACT DOCUMENTS.
12. IT IS THE INTENT OF THESE SPECIFICATIONS TO FURNISH AND INSTALL ALL MATERIALS AND EQUIPMENT AS HEREINAFTER SPECIFIED AND/OR SHOWN ON THE DRAWINGS IN SUCH A MANNER AS TO LEAVE EACH SYSTEM COMPLETE AND SATISFACTORY OPERATING CONDITION.
14. SHOP DRAWINGS: (6 SETS) SHALL BE SUBMITTED FOR ALL EQUIPMENT INCLUDING FIXTURES AND WATER HEATERS.
15. ALL EQUIPMENT AND MATERIALS SHALL BE NEW.
16. THIS CONTRACTOR SHALL INCLUDE EXCAVATION, REMOVAL OF MATERIALS PERTAINING TO HIS OWN WORK. BACKFILLING AND COMPACTING WILL BE DONE BY OTHERS.
17. CUTTING AND PATCHING REQUIRED FOR THE COMPLETE INSTALLATION OF THIS CONTRACT SHALL BE BY THIS CONTRACTOR.
18. THIS CONTRACTOR IS TO OBTAIN AND PAY ALL PERMITS, NOTICES, FEES, AND APPROVALS NECESSARY TO FULFILL THE REQUIREMENTS OF THE CONTRACT. THIS CONTRACTOR SHALL GUARANTEE THE WORK, EQUIPMENT, MATERIALS AND SYSTEMS FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE BY OWNER.
19. EACH CONTRACTOR TO ALLOW FOR FLASHING PERTAINING TO HIS OWN WORK. COUNTER FLASHING IS BY ROOFING CONTRACTOR. GENERAL WORK INCLUDING STRUCTURAL SUPPORT TO BE DONE BY THE GENERAL CONTRACTOR.
20. TEST ALL SYSTEMS IN ACCORDANCE WITH CODES AND OBTAIN INSPECTION CERTIFICATES. WIRING OF CONTROLS FOR THERMOSTATS BY ELECTRICAL CONTRACTOR. BASEBOARD HEATERS SHOWN, ARE SUPPLIED AND INSTALLED BY ELECTRICAL CONTRACTOR.
21. THOROUGHLY BROOM CLEAN AND REMOVE FROM SITE ALL WASTE AS THE WORK PROCEEDS AND AT COMPLETION.
22. PROVIDE STRAPPING AND BLOCKING FOR SUPPORT OF ANY FINISHES, GRAB BARS, EQUIPMENT AS REQUIRED.
23. CONTRACTOR RESPONSIBLE TO RESTORE ALL DAMAGED AND/OR DISTURBED PROPERTY WITHIN THE MUNICIPAL RIGHT-OF-WAY TO MUNICIPAL STANDARDS.
24. IF FOR UNFORESEEN REASONS THE CONTRACTOR MAY HAVE TO ENCROACH ONTO PRIVATE LANDS TO UNDERTAKE ANY WORKS, THE CONTRACTOR SHALL OBTAIN WRITTEN PERMISSION FROM THE ADJACENT PROPERTY OWNERS PRIOR TO ENTERING UPON THE PRIVATE PROPERTY TO PERFORM ANY WORKS. COPIES OF THESE LETTERS OF CONSENT SHALL BE SUBMITTED TO THE DEPARTMENT OF PUBLIC WORKS PRIOR TO ANY WORK BEING PERFORMED. FAILURE TO COMPLY WITH THE ABOVE IS AT THE CONTRACTOR'S OWN RISK.

ABBREVIATIONS

AIR	ACOUSTIC CEILING	FIN	FINISH	RCP	REFLECTED CEILING PLAN
ACT	ABOVE FINISHED FLOOR	FLR	FLOOR	RD	ROOF DRAIN
A.F.F.	ALUMINUM	FRP	FIBERGLASS REINFORCED PANEL	REV	REVISION
AL/ALUM	ALUMINUM	FTG	FOOTING	REQ'D	REQUIRED
AN	ANODIZED	GA	GAUGE	RH	RIGHT HAND
APPROX	APPROXIMATE	GB	GYPSSUM BOARD	RM	ROOM
BLHD	BULKHEAD	GWB	GYPSSUM WALL BOARD	SACT	SUSPENDED ACOUSTIC CEILING TILE
BLDG	BUILDING	GALV	GALVANIZED	S	SINK
BM	BENCH MARK	GL	GLASS	SIM	SIMILAR
BR	BRICK	HARDW	HARDWARE	SP	SPANDREL PANEL
BD	BOARD	HB	HOSE BIB	SPEC	SPECIFICATION
CARP	CARPET	HC	HOLLOW CORE	SIS	STAINLESS STEEL
CJ	CONCRETE BLOCK	HM	HOLLOW METAL	ST	STEEL
CM	CENTIMETER	HSS	HOLLOW STRUCTURAL STEEL	STRUCT	STRUCTURAL
CLG	CEILING	HT	HEIGHT	SUSP	SUSPENDED
COL	COLUMN	HWT	HOT WATER TANK	SWC	SOLID WOOD CORE
CONC	CONCRETE	ICE	ICE MACHINE	SCWD	SOLID CORE WOOD
CONT	CONTINUOUS	INSUL	INSULATION OR INSULATED	SYN	CULTURED TILE STONE VENEER
CR	CARD READER	INT	INTERIOR	TIG	THERMAL INSULATED GLASS
CT	CERAMIC TILE	JT	JOINT	TBF	THERMALLY BROKEN FRAME
		LH	LEFT HAND	T&G	TONGUE AND GROOVE
				T	TRANSFORMER
CW	COLD WATER	MAX	MAXIMUM	TXT	TEXTURED
cw	COMPLETE WITH	MECH	MECHANICAL	TGL	TEMPERED GLASS
CJ	CONDENSING UNIT	MIN	MINIMUM	TTD	TOILET TISSUE DISPENSER
D	DRYER	M.U.A.	MAKE-UP-AIR	TTIG	TEMPERED THERMAL INSULATING GLASS
DEG	DEGREE	MISC	MISCELLANEOUS	TYP	TYPICAL
DET	DETAIL	MO	MASONRY OPENING	U/S	UNDERSIDE
DIA	DIAMETER	NF	NO FINISH	VCT	VINYL COMPOSITE TILE
DM	DIMENSION	NA	NOT APPLICABLE	VENO	VENDING MACHINE
DIV	DIVISION	N/A	NOT AVAILABLE	VFCT	VINYL FACED CEILING TILE
DN	DOWN	NR	NOT REQUIRED	VWC	VINYL WALL COVERING
DW	DRYWALL	NIC	NOT IN CONTRACT	VTAC	VERTICAL TERMINAL AIR CONDITIONER
DWG	DRAWING	NO	NUMBER	W	WASHER
EF	EXHAUST FAN	OC	ON CENTRE	WC	WATER CLOSET
ELEC	ELECTRICAL	PRE FIN	PREFINISHED	WALCO	WALL COVERINGS
ELEV	ELEVATION	PLAM	PLASTIC LAMINATE	WD	WOOD
EQUIP	EQUIPMENT	PT	PAINTED	WM	WIRE MESH
EX	EXISTING	PTAC	PACKAGED TERMINAL AIR CONDITIONER	WV	WALL VINYL
EXJT	EXPANSION JOINT	PVC	POLY VINYL CHLORIDE	WP	WATERPROOF
EXT	EXTERIOR	QT	QUARRY TILE	WR	WASHROOM
FD	FLOOR DRAIN	R	REFRIGERATOR		
F	FREEZER				

CONSULTANT LIST

ARCHITECTURAL:



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ELECTRICAL:



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2ND FLOOR
KITCHENER, N2H 6R9
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FAX (519) 745-5081
WEB www.mighton.com

MECHANICAL:



COLLINS
ENGINEERING GROUP
INCORPORATED
MECHANICAL ENGINEERING

Table 3.1.1.2.A (IP)
ZONE 1 - Compliance Packages for Space Heating Equipment with AFUE ≥ 92%
Forming Part of Sentence 3.1.1.2.(1)

Component	Thermal Values ⁽⁶⁾	Compliance Package					
		A1	A2	A3	A4	A5	A6
Ceiling with Attic Space	Min. Nominal R ⁽¹⁾	60	60	50	60	50	60
	Max. U ⁽²⁾	0.017	0.017	0.020	0.017	0.020	0.017
	Min. Effective R ⁽³⁾	59.22	59.22	49.23	59.22	49.23	59.22
Ceiling Without Attic Space	Min. Nominal R ⁽¹⁾	31	31	31	31	31	31
	Max. U ⁽²⁾	0.036	0.036	0.036	0.036	0.036	0.036
	Min. Effective R ⁽³⁾	27.65	27.65	27.65	27.65	27.65	27.65
Exposed Floor	Min. Nominal R ⁽¹⁾	31	31	35	31	35	31
	Max. U ⁽²⁾	0.034	0.034	0.031	0.034	0.031	0.034
	Min. Effective R ⁽³⁾	29.80	29.80	32.02	29.80	32.02	29.80
Walls Above Grade	Min. Nominal R ⁽¹⁾	22	19 + 5 ci	14 + 7.5 ci	22 + 5 ci	19 + 5 ci	22 + 5 ci
	Max. U ⁽²⁾	0.059	0.049	0.054	0.047	0.049	0.047
	Min. Effective R ⁽³⁾	17.03	20.32	18.62	21.40	20.32	21.40
Basement Walls ⁽⁶⁾	Min. Nominal R ⁽¹⁾	20 ci	12 + 10 ci	20 ci	20 ci	12 + 5 ci	20 ci
	Max. U ⁽²⁾	0.047	0.048	0.047	0.047	0.063	0.047
	Min. Effective R ⁽⁴⁾	21.12	20.84	21.12	21.12	15.96	21.12
Below Grade Slab Entire Surface > 600 mm Below Grade	Min. Nominal R ⁽¹⁾	—	—	—	—	—	—
	Max. U ⁽⁴⁾	—	—	—	—	—	—
	Min. Effective R ⁽⁴⁾	—	—	—	—	—	—
Heated Slab or Slab ≤ 600 mm Below Grade	Min. Nominal R ⁽¹⁾	10	10	10	10	10	10
	Max. U ⁽⁴⁾	0.090	0.090	0.090	0.090	0.090	0.090
	Min. Effective R ⁽⁴⁾	11.13	11.13	11.13	11.13	11.13	11.13
Edge of Below Grade Slab ≤ 600 mm Below Grade	Min. Nominal R ⁽¹⁾	10	10	10	10	10	10
	Max. U ⁽⁵⁾	0.28	0.28	0.25	0.28	0.28	0.28
	Energy Rating	25	25	29	25	25	25
Skylights	Max. U ⁽⁵⁾	0.49	0.49	0.49	0.49	0.49	0.49
Space Heating Equipment	Min. AFUE	96%	96%	94%	96%	94%	92%
HRV	Min. SRE	75%	75%	81%	75%	70%	65%
Domestic Water Heater ⁽⁷⁾	Min. EF	0.80	0.70	0.67	0.67	0.80	0.80
Column 1	2	3	4	5	6	7	8

ISSUE FOR: Final drawings

ISSUE DATE: 11/15/24

PROJECT No.: 23011

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1 BEDROOM - ZONE 1

ROOM SCHEDULE

NAME	AREA
HALLWAY	80 SF
CL.	16 SF
DINING & LIVING ROOM	315 SF
BATHROOM	55 SF
BEDROOM	150 SF
CL.	26 SF
LAUNDRY/MECH.	89 SF
Grand total: 7	731 SF

6	NP/ MH	Final drawings	11/15/24
5	NP/ MH	For Client Review	08/16/24
4	NP/ MH	For coordination	07/03/24
3	NP/ MH	For Client Review	06/10/24
2	NP/ MH	Review	03/09/24
1	NP/ MH	Review	02/07/24

Iss.	By	Description	Date
			YY-MM-DD

Issuance Schedule

Revisions :
All previous issues of this drawing are superseded.



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1 BEDROOM - ZONE 1

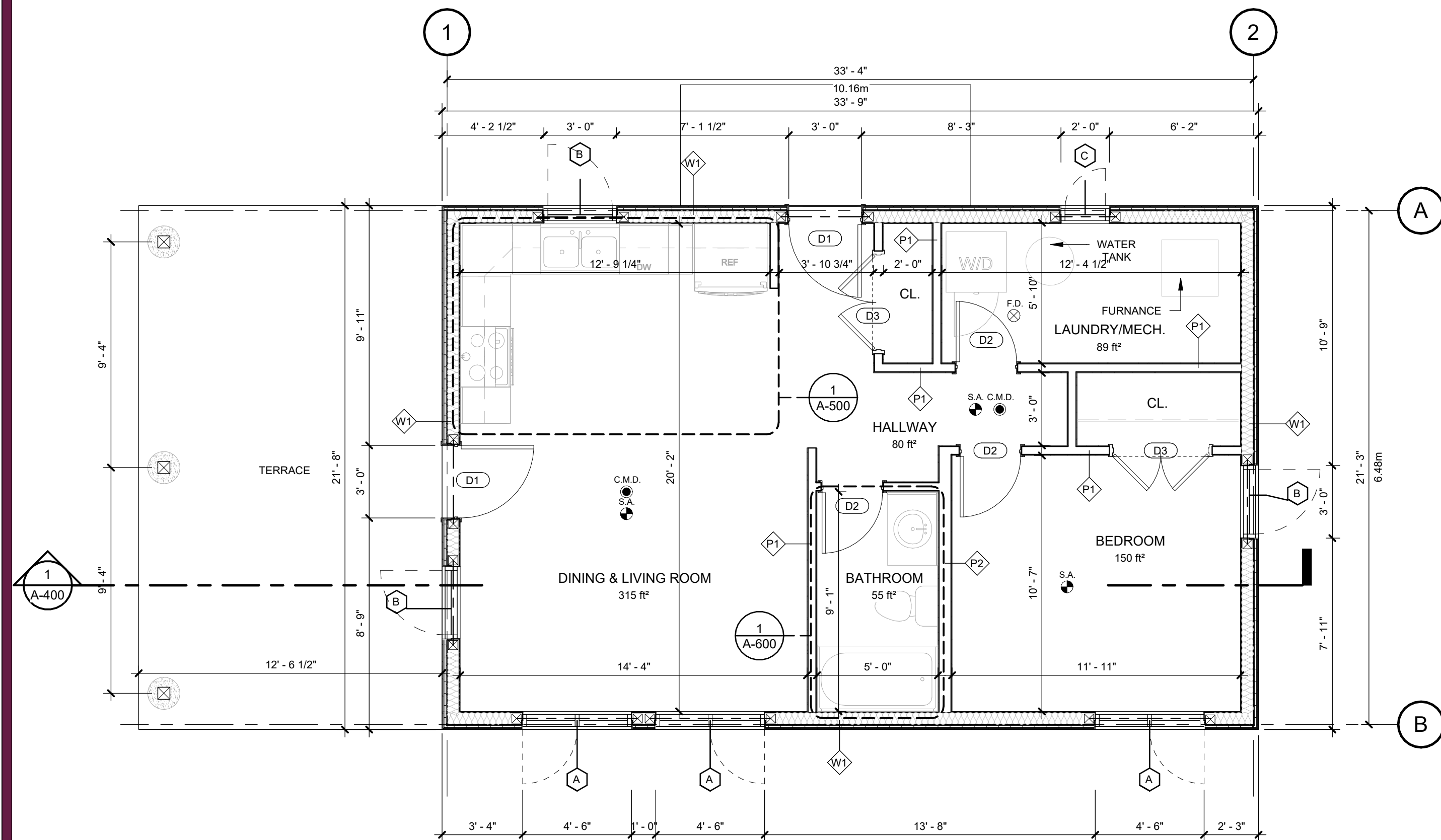
OVERALL GROUND FLOOR & ROOF & FOUNDATION PLAN

scale: As indicated
drawn by: NP
reviewed by: MH
job number: 23011
plot date: 11/15/24

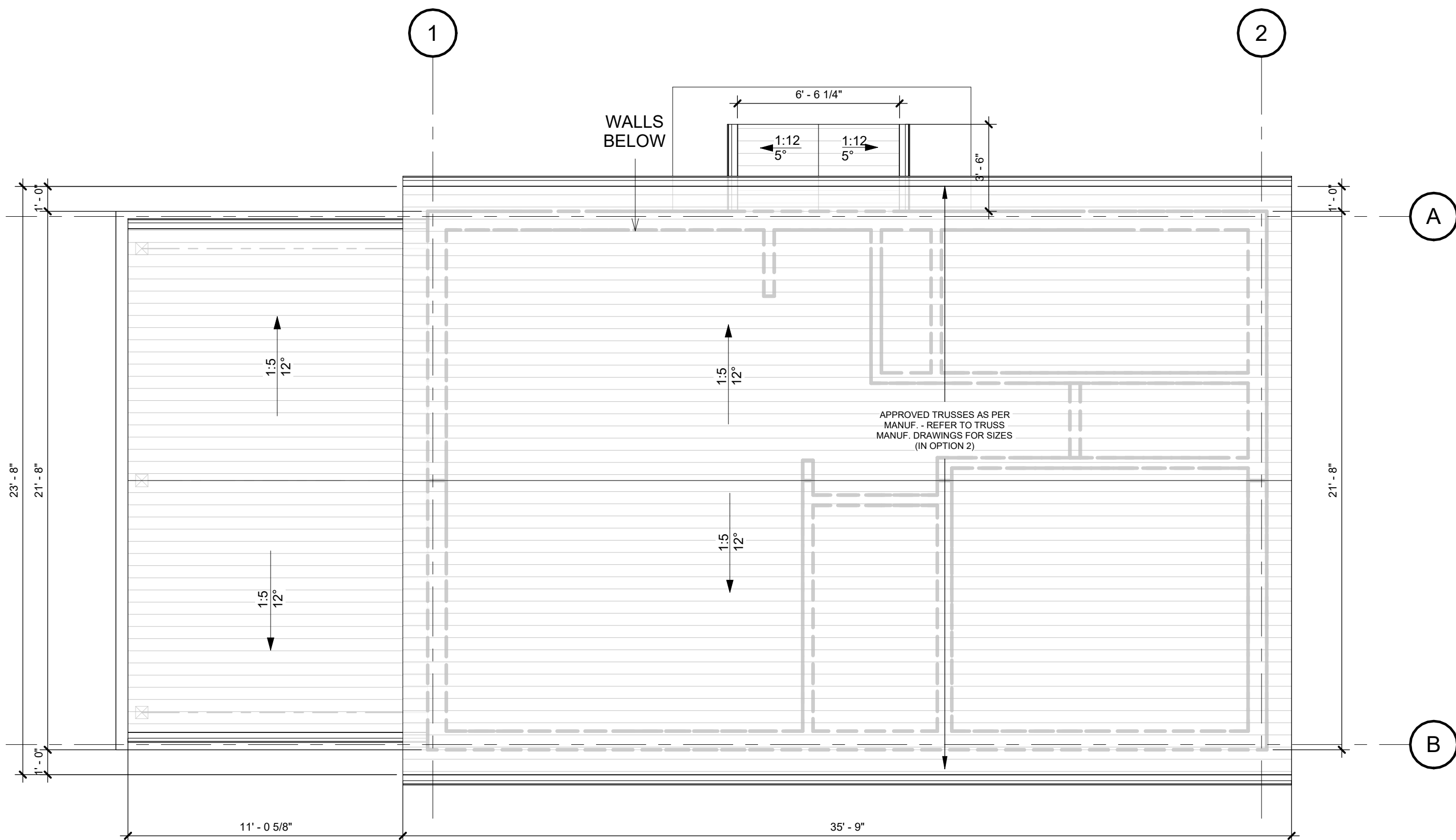
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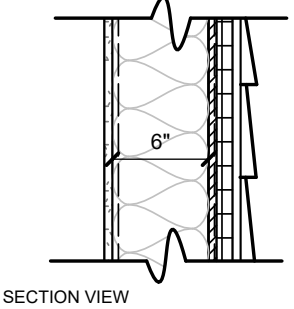
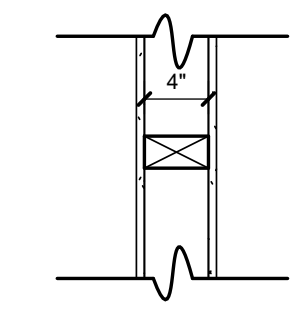
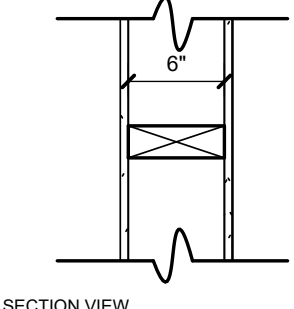
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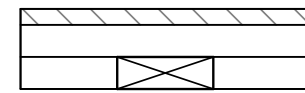
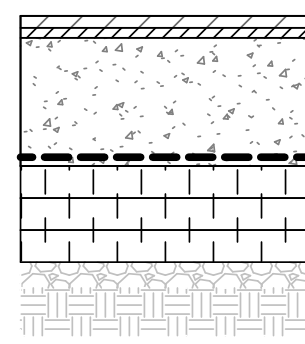
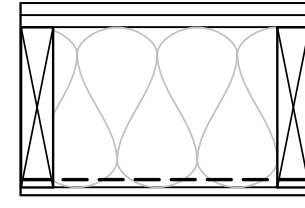
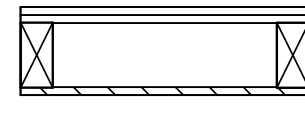


1 GROUND FLOOR
A-100 1/4" = 1'-0"



2 ROOF PLAN
A-100 1/4" = 1'-0"

WALL ASSEMBLY TYPES		
EXTERIOR WALL ASSEMBLIES:		
		2" x 6" FRAME WALL W SIDING - EXTERIOR SIDING AS PER MANUF. - 1/2" WOOD STRAPPING FASTENED TO SHEATHING TO SUPPORT APPLICATION OF SIDING WALL FIN. - 1" (R-5ci min.) POLYISO INSULATION - TYVEK HOUSE WRAP C/W TAPED JOINTS (TYP.) - 7/16" O.S.B. EXT. TYPE SHEATHING - 2" x 6" S.P.F. #1 WD. STUDS @ 16" O.C. (TYP.) - 6" (R-22 min.) FIBERGLASS BATT INSULATION WITHIN STUD CAVITY - 0.15mm POLYETH. VAPOUR BARRIER - 1/2" GYPSUM WALLBOARD - TAPED, SANDED, C/W PAINTED FIN. (TYP.) R-value: 22+5ci
INTERIOR PARTITION ASSEMBLIES:		
		TYPICAL 2" x 4" WOOD FRAME INTERIOR PARTITION - 1/2" GYPSUM WALLBOARD - TAPED, SANDED, C/W PAINTED FIN. (TYP.) - 2" x 4" S.P.F. #1 WD. STUDS @ 16" O.C. (TYP.) - 1/2" GYPSUM WALLBOARD - TAPED, SANDED, C/W PAINTED FIN. (TYP.)
		TYPICAL 2" x 6" WOOD FRAME INTERIOR PARTITION - PLUMBING WALL - 1/2" GYPSUM WALLBOARD - TAPED, SANDED, C/W PAINTED FIN. (TYP.) - 2" x 6" S.P.F. #1 WD. STUDS @ 16" O.C. (TYP.) - 1/2" GYPSUM WALLBOARD - TAPED, SANDED, C/W PAINTED FIN. (TYP.)

FLOOR ASSEMBLY TYPES		
		TERRACE WOOD DECKING - DECKING - JOISTS - HEADER JOISTS
		SLAB ON GRADE - 8" REINFORCED CONCRETE SLAB + FIN. FLOORING - 3/4" HARDWOOD FLOORING - 1/2" PLYWOOD SUBFLOOR - 8" POURED CONC. SLAB - 0.15mm POLYETH. VAPOUR BARRIER - 6" (R-31 min.) RIGID INSUL. BELOW EXPOSED FLOOR AS PER SB-12 TABLE R-value: 31
ROOF ASSEMBLY TYPES		
		10" WOOD FRAMED ROOF - 3/4" ASPHALT SHINGLES - 3/4" PLYWOOD SHEATING - 2" x 10" WD. ROOF JOISTS S.P.F. #1 @ 16" O.C. - 10" (R-31 min.) FIBERGLASS BATT INSULATION WITHIN STUD CAVITY (OR 6" SPRAY INSULATION) - 0.15mm POLYETH. VAPOUR BARRIER - 1/2" GYPSUM WALL BOARD
		4" WOOD FRAMED ROOF - 3/4" ASPHALT SHINGLES - 3/4" PLYWOOD SHEATING - 2" x 8" WD. ROOF JOISTS S.P.F. #1 @ 16" O.C. - 1/2" METAL PANELS

SHOP DRAWING NOTE:

- OWNER / CONTRACTOR TO ENSURE SHOP DRAWING SUBMITTALS ARE PREPARED BY SYSTEMS DESIGNER (WALL, FLOOR, STAIR, WINDOW, DOOR ETC.)
- CONTRACTOR TO REVIEW AND APPROVE THE ABOVE MENTIONED SHOP DRAWINGS PRIOR TO SUBMISSION TO THE ARCHITECT. PLANS / DRAWINGS SHOWN ARE FOR REFERENCE AND DESIGN INTENT ONLY AND ARE NOT INTENDED FOR FABRICATION - TYP.

FIXTURE BLOCKING NOTE:

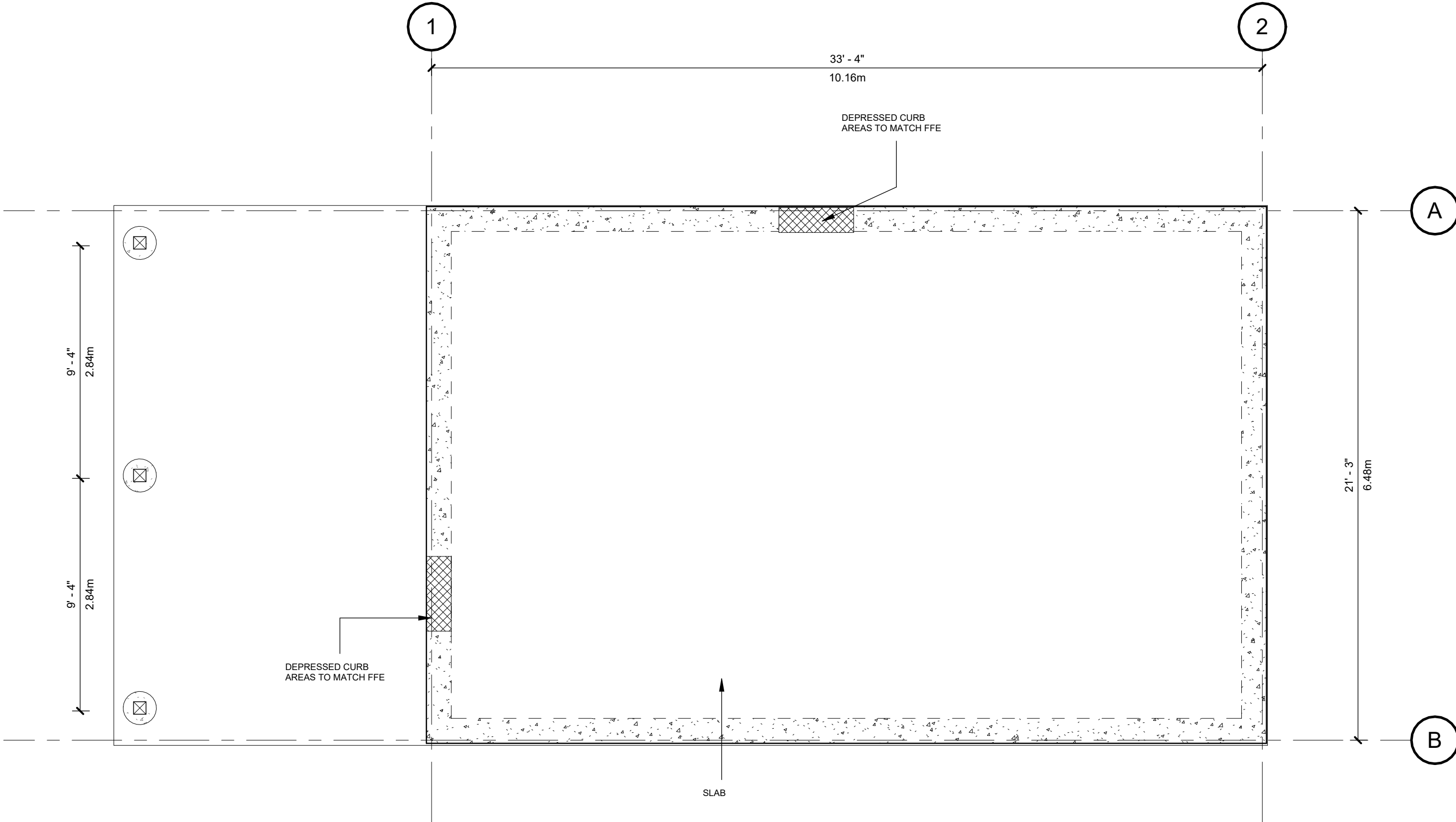
- WOOD STUD FRAMING SUB-TRADE TO PROVIDE & INSTALL ALL REQ. WALL BRACING / BLOCKING FOR THE INSTALLATION OF ALL SHOWERS, TUBS, GRAB BARS, SINKS ETC.

KITCHEN MILLWORK / ELECTRICAL NOTE:

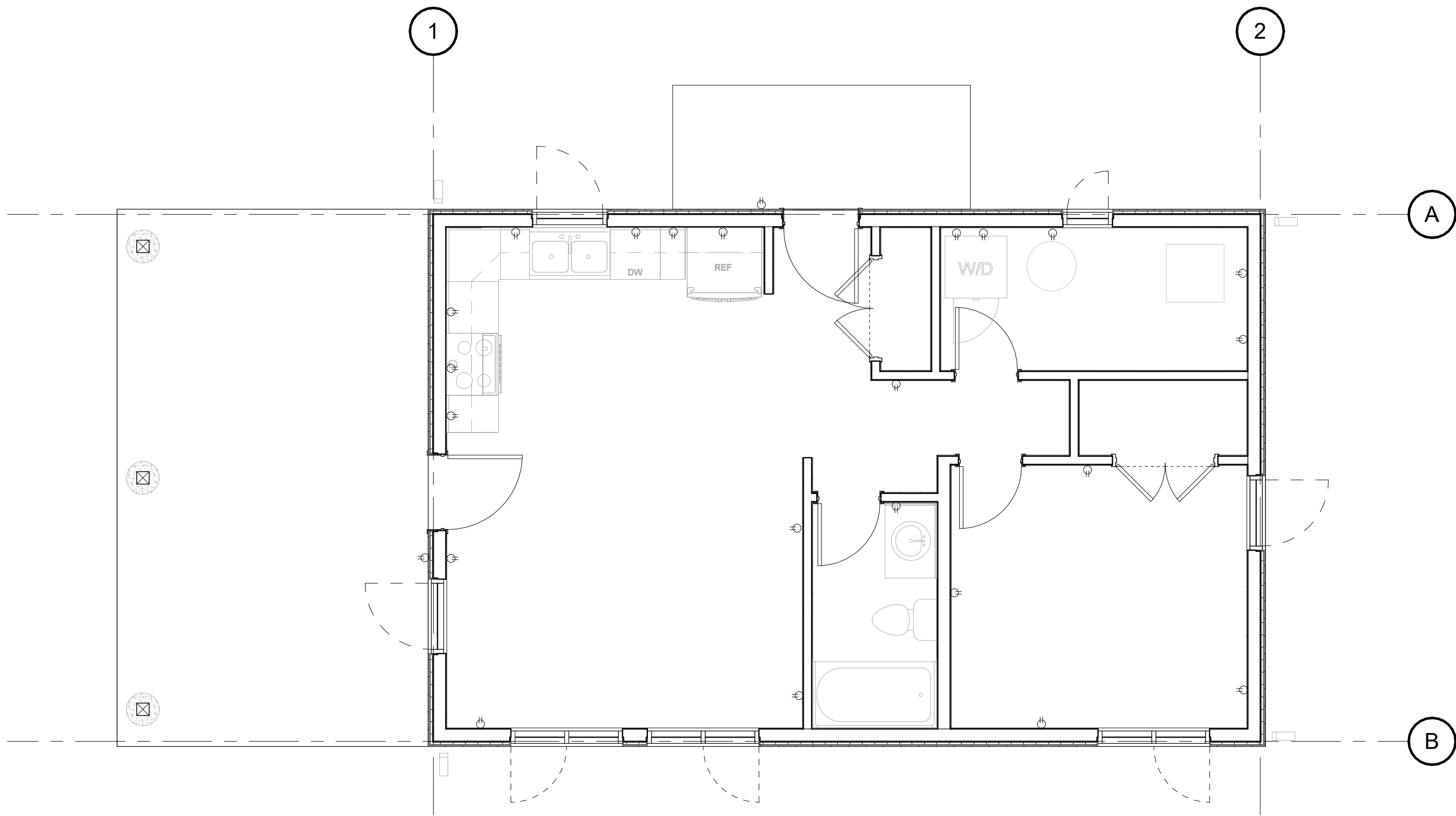
- ELECTRICAL SUB-TRADE TO PROVIDE RECEPTACLE LOCATED ABOVE KITCHEN FRIDGE CABINET FOR THE FUTURE INSTALLATION OF DATA SERVICES.
- ELECTRICAL SUB-TRADE TO RUN / SUPPLY CONDUITE SLEEVES (REF. ELEC. DWGS.) ABOVE KITCHEN FRIDGE CABINETS.

PLUMBING / HVAC GENERAL NOTES:

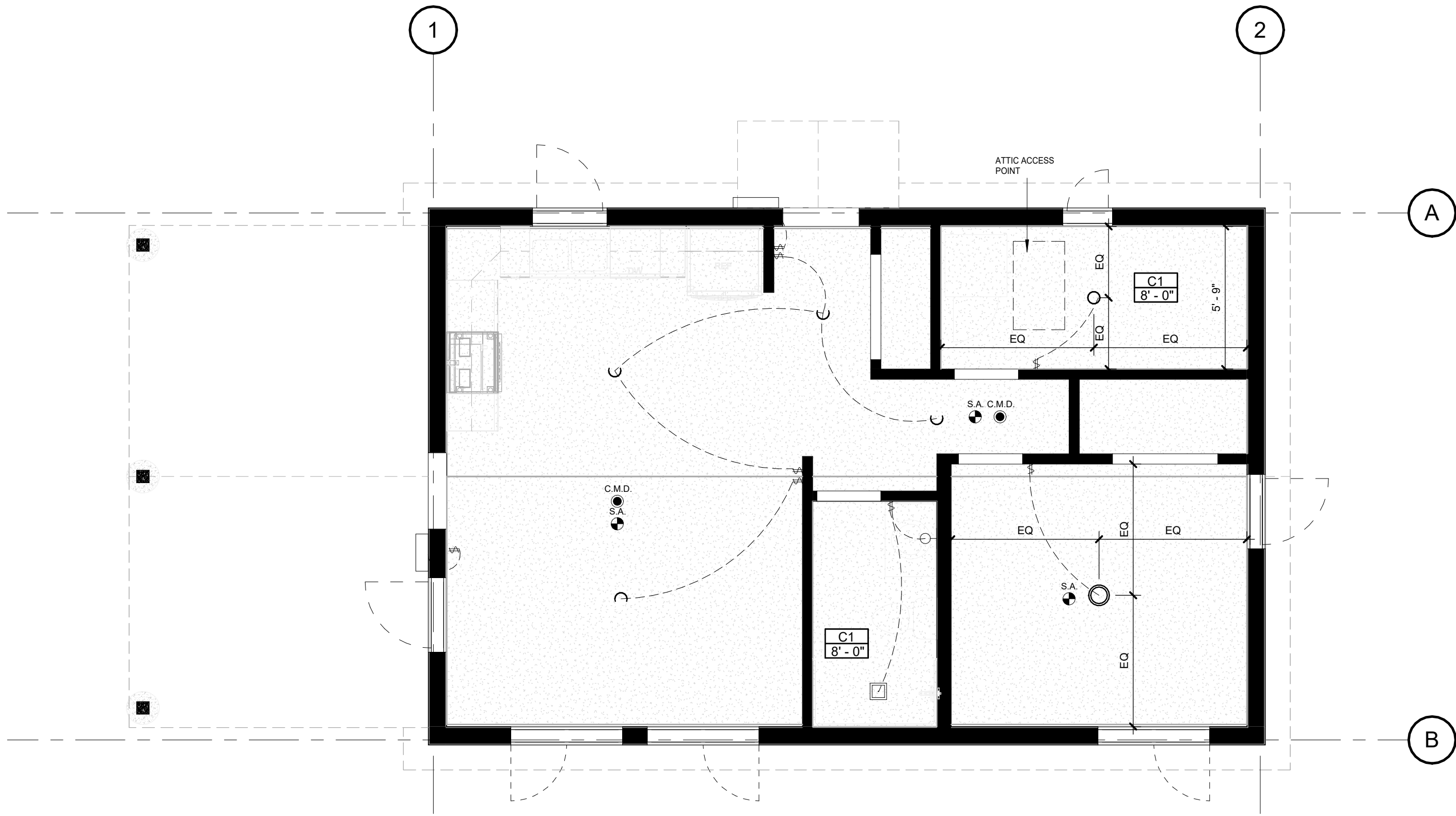
- PLUMBING TRADE TO INSTALL / RUN ALL VERTICAL & HORIZONTAL RISERS, LINES & SERVICES TIGHT TO FACE OF ALL WALLS, STRUCTURE & CEILINGS; TO ALLOW FOR THE HVAC DUCTWORK INSTALLED WITH NO INTERFERENCES - TYP. TRADES TO COORDINATE w/ DIVISION 16 ON SITE - TYP.
- GROUND FAULT INTERRUPTER (GFI) OUTLETS IN ALL BATHROOMS.



3 FOUNDATION PLAN
A-100 1/4" = 1'-0"



1 GROUND FLOOR - power plan
A-200 1/4" = 1'-0"



2 T/O GROUND FLOOR PLAN
A-200 1/4" = 1'-0"

REFER TO ELECTRICAL DRFAWINGS



P.O. Box 77 - 1804 6th Line - Chertseywood Rd. Chertseywood, ON, N0A 1M0
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CEILING LEGEND

C-1 - CEILING - GWB

- ARMSTRONG SUSPENDED DRYWALL CEILING HANGERS
OR APPROVED ALTERNATE. FILL VOIDS BETWEEN
DRYWALL CRACKS WITH 2LB SPRAY FOAM TYP.

- 1/2" GWB CEILING

- SWITCH
- SMALL LIGHT
- BIG LIGHT
- WALL LIGHT
- LIGHT, FAN, EXHAUST - COMBO
- WALL SOCKET

GENERAL NOTES:

- SMOKE / CO2 ALARMS ARE TO BE HARDWIRED
- FURNACE TO BE ELECTRIC
- SMOKE DETECTORS ARE TO BE CENTERED ON BETWEEN LIGHTS (TYP.)

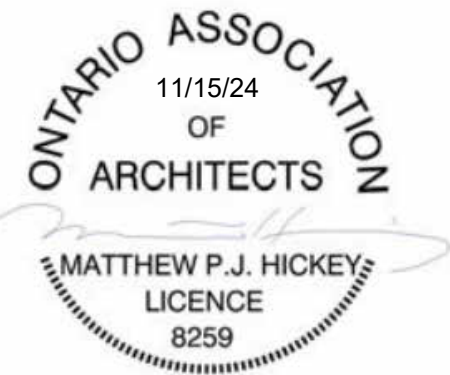
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Iss.	By	Description	Date YY-MM-DD
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OFNTSC - Housing Library

1 BEDROOM - ZONE 1

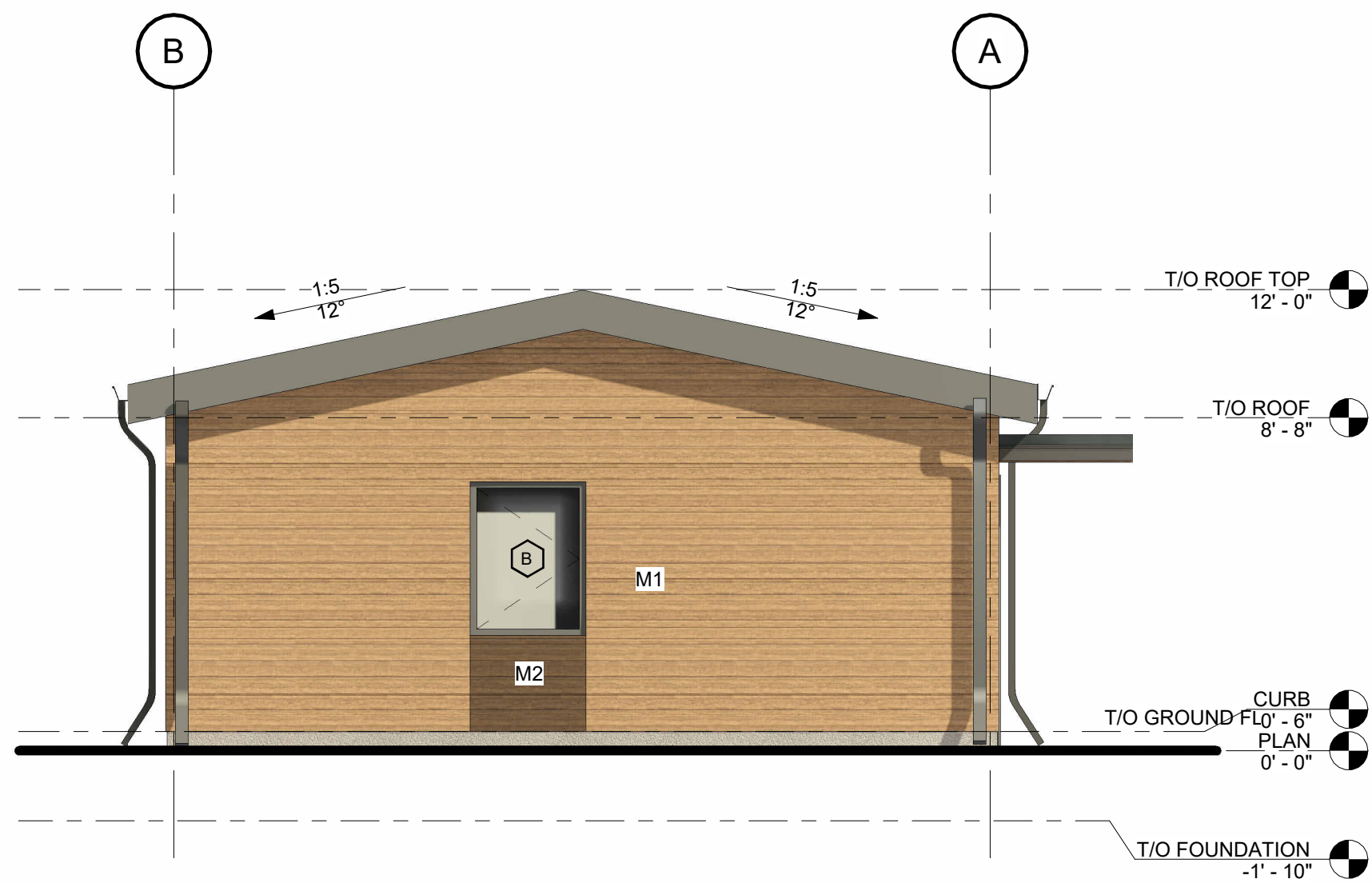
POWER & RCP PLAN GROUND FLOOR

scale: 1/4" = 1'-0"
drawn by: NP
reviewed by: MH
job number: 23011
plot date: 11/15/24

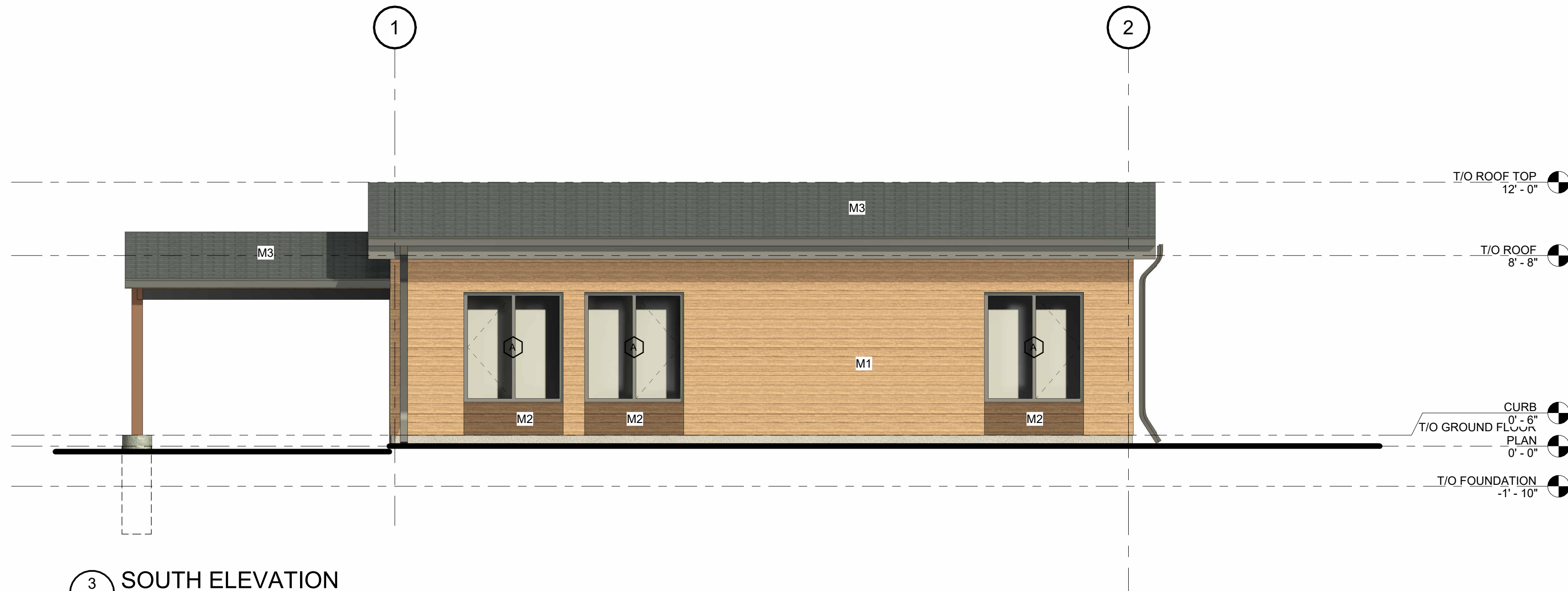
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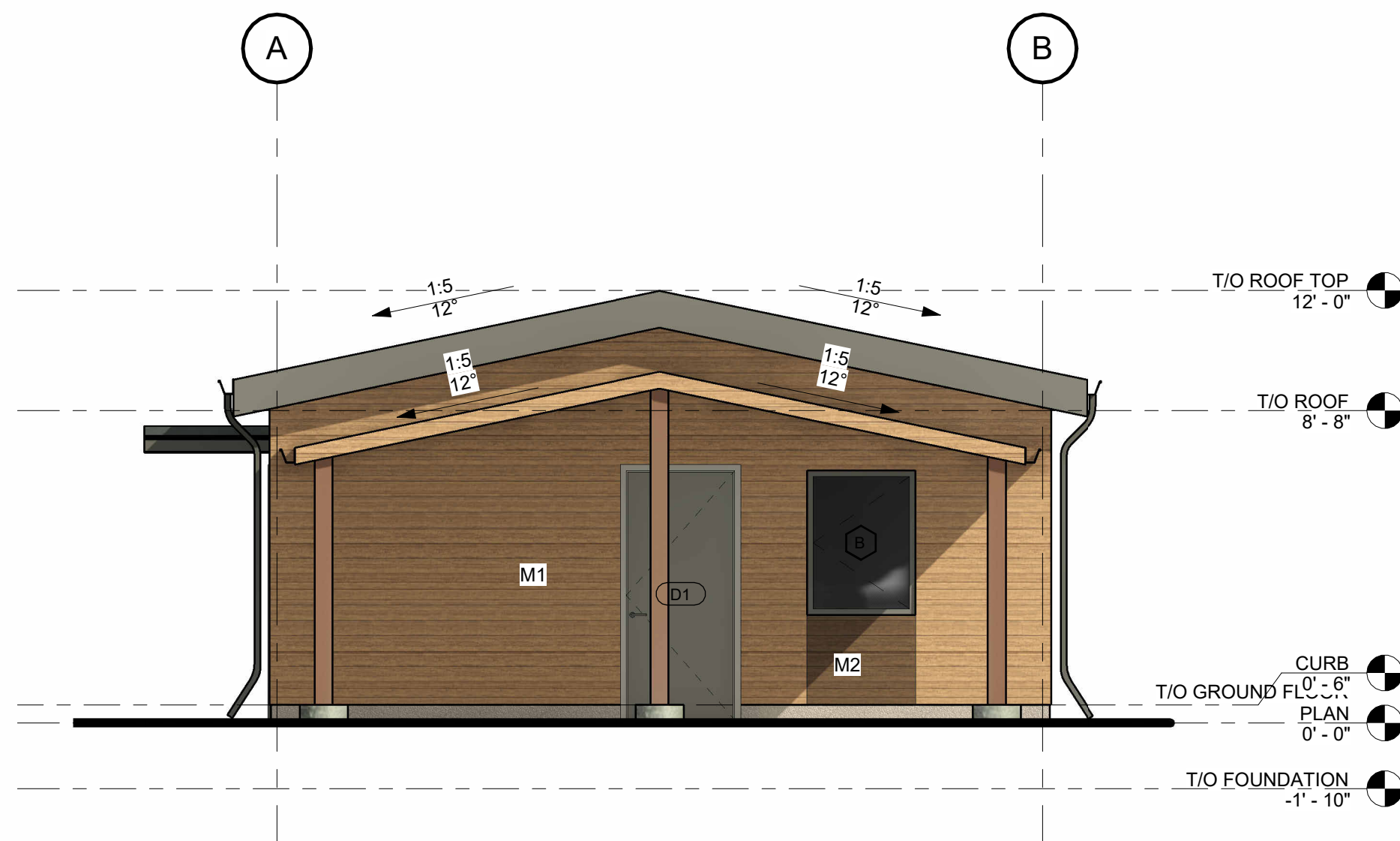
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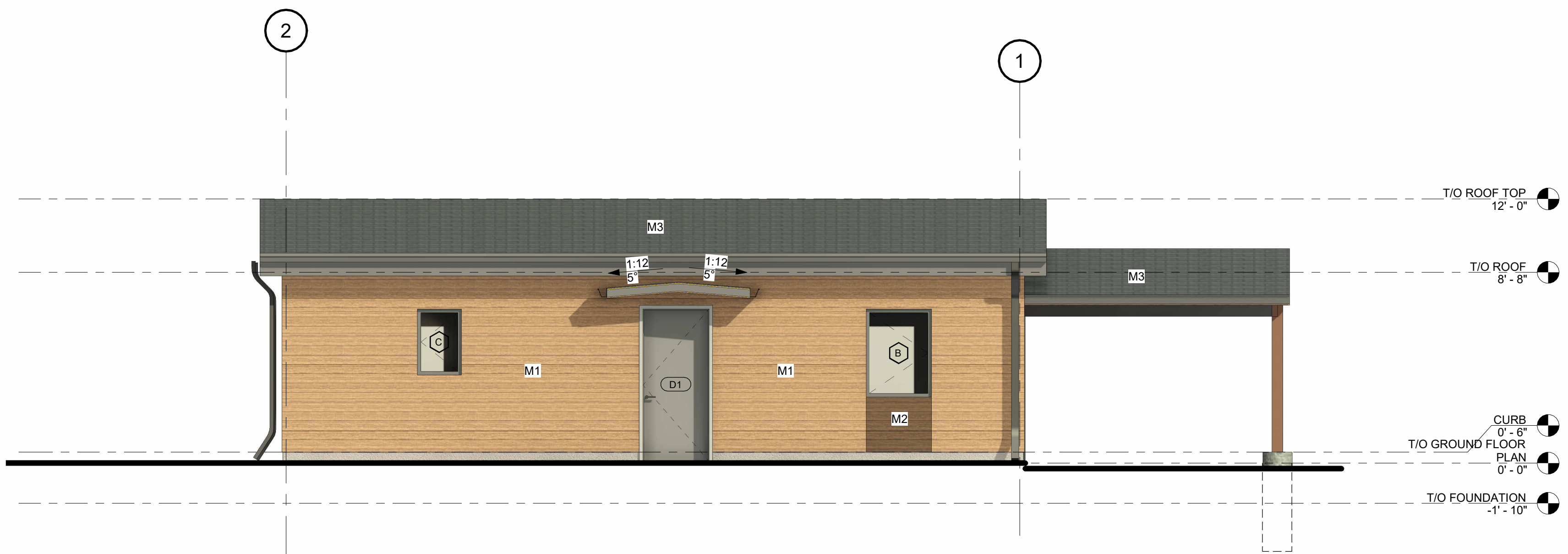
1 EAST ELEVATION
A-300 1/4" = 1'-0"



3 SOUTH ELEVATION
A-300 1/4" = 1'-0"



4 WEST ELEVATION
A-300 1/4" = 1'-0"

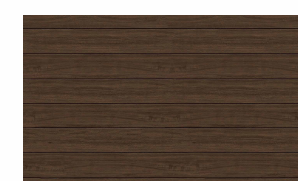


2 NORTH ELEVATION
A-300 1/4" = 1'-0"

EXTERIOR COLOUR LEGEND



M1 - WOOD/VINYL SIDING



M2 - WOOD/VINYL SIDING



M2 - ROOF ASPHALT SHINGLES/METAL ROOF

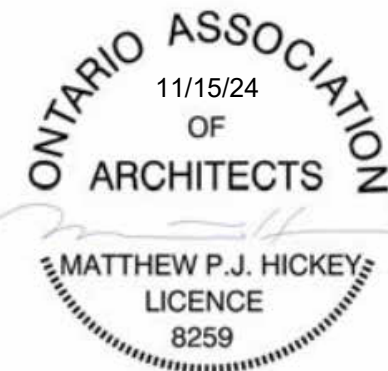
SHOP DRAWING NOTE:

OWNER/CONTRACTOR TO ENSURE SHOP DRAWING SUBMITTALS ARE PREPARED BY THE PRECAST SYSTEMS DESIGNER & SENT TO THE LIC. TECH. OAA TO ENSURE COLOUR SELECTIONS ARE APPROVED.

6	NP/ MH	Final drawings	11/15/24
5	NP/ MH	For Client Review	08/16/24
4	NP/ MH	For coordination	07/03/24
3	NP/ MH	For Client Review	06/10/24
2	NP/ MH	Review	03/09/24
1	NP/ MH	Review	02/07/24

Iss.	By	Description	Date YY-MM-DD
Issuance Schedule			

Revisions :
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1 BEDROOM - ZONE 1

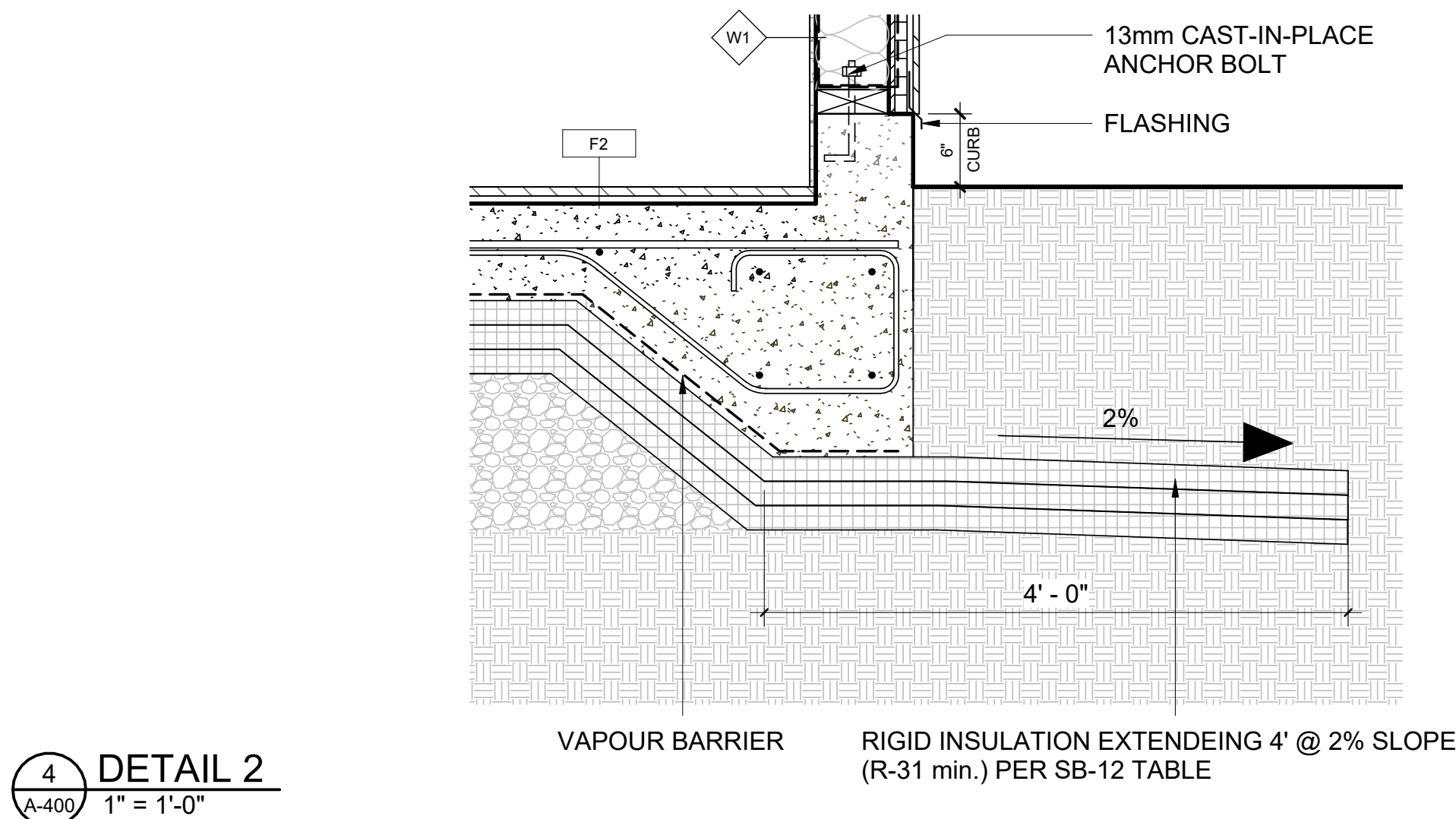
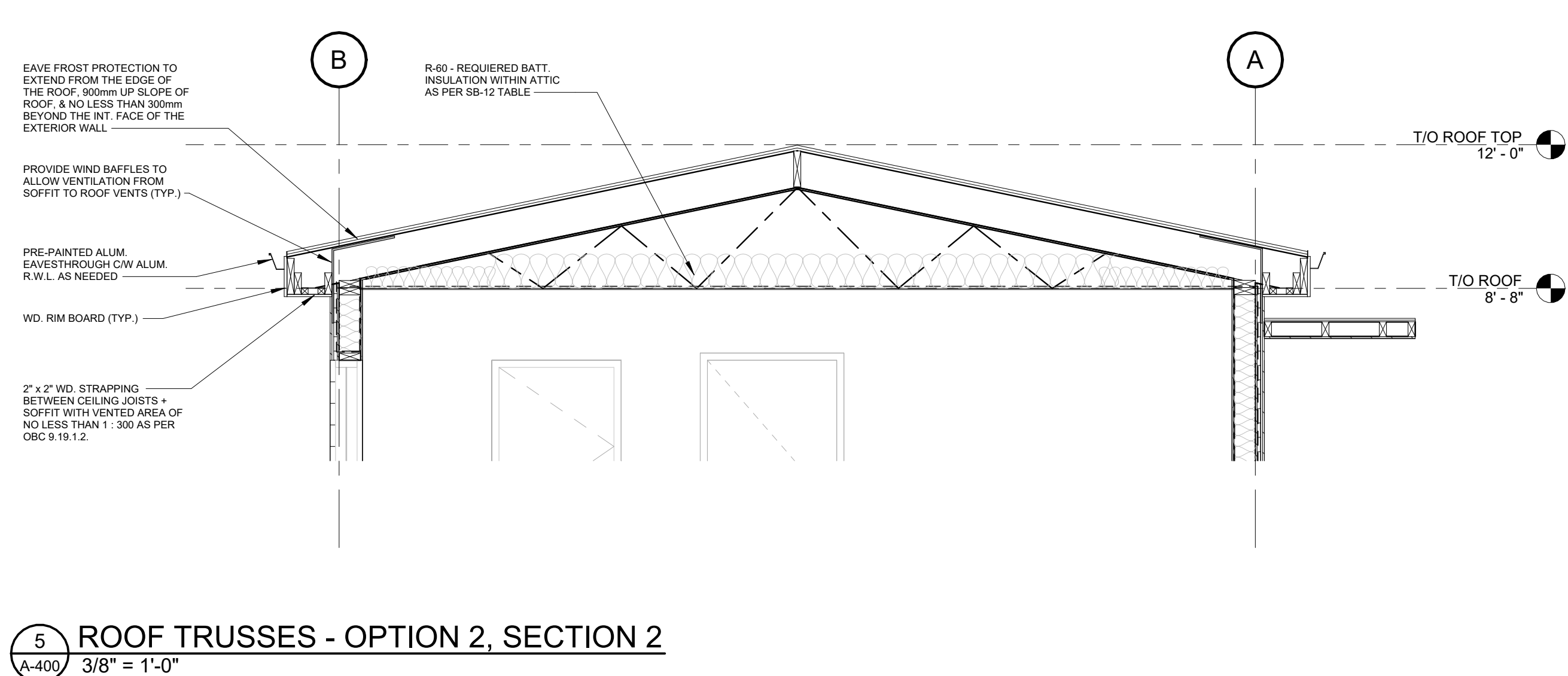
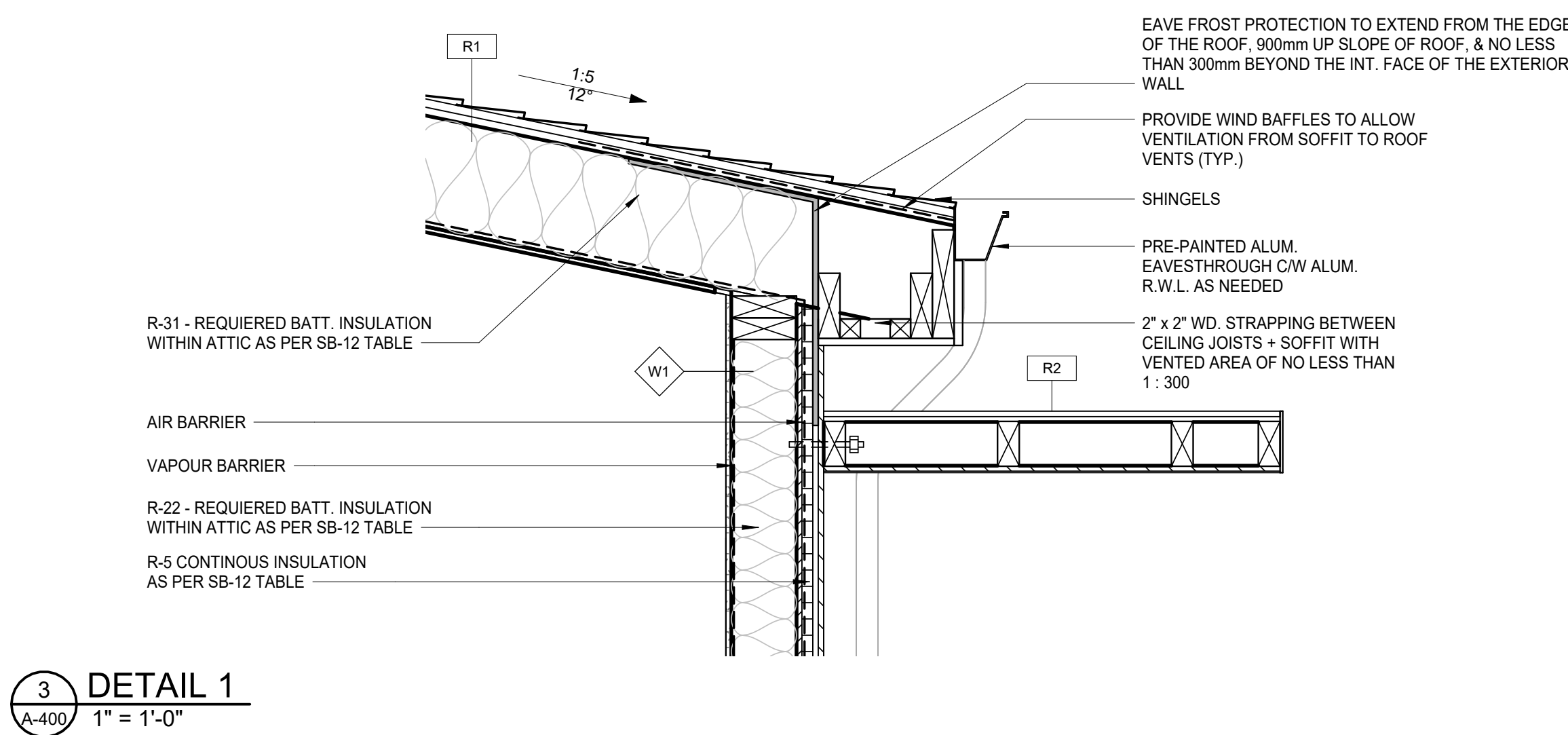
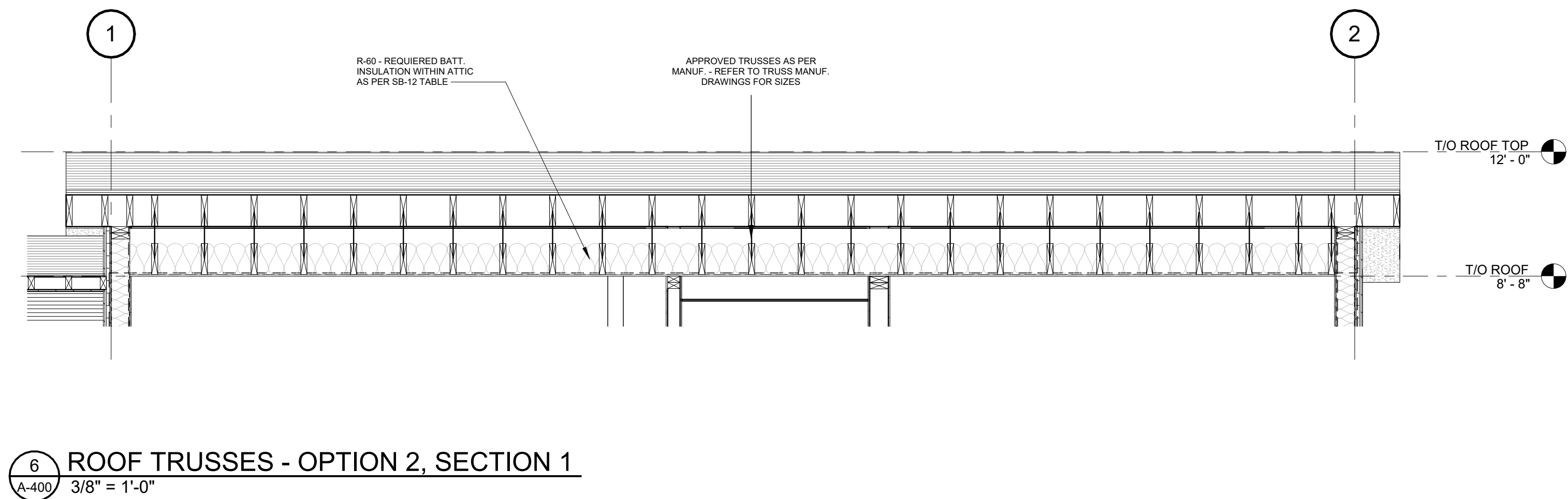
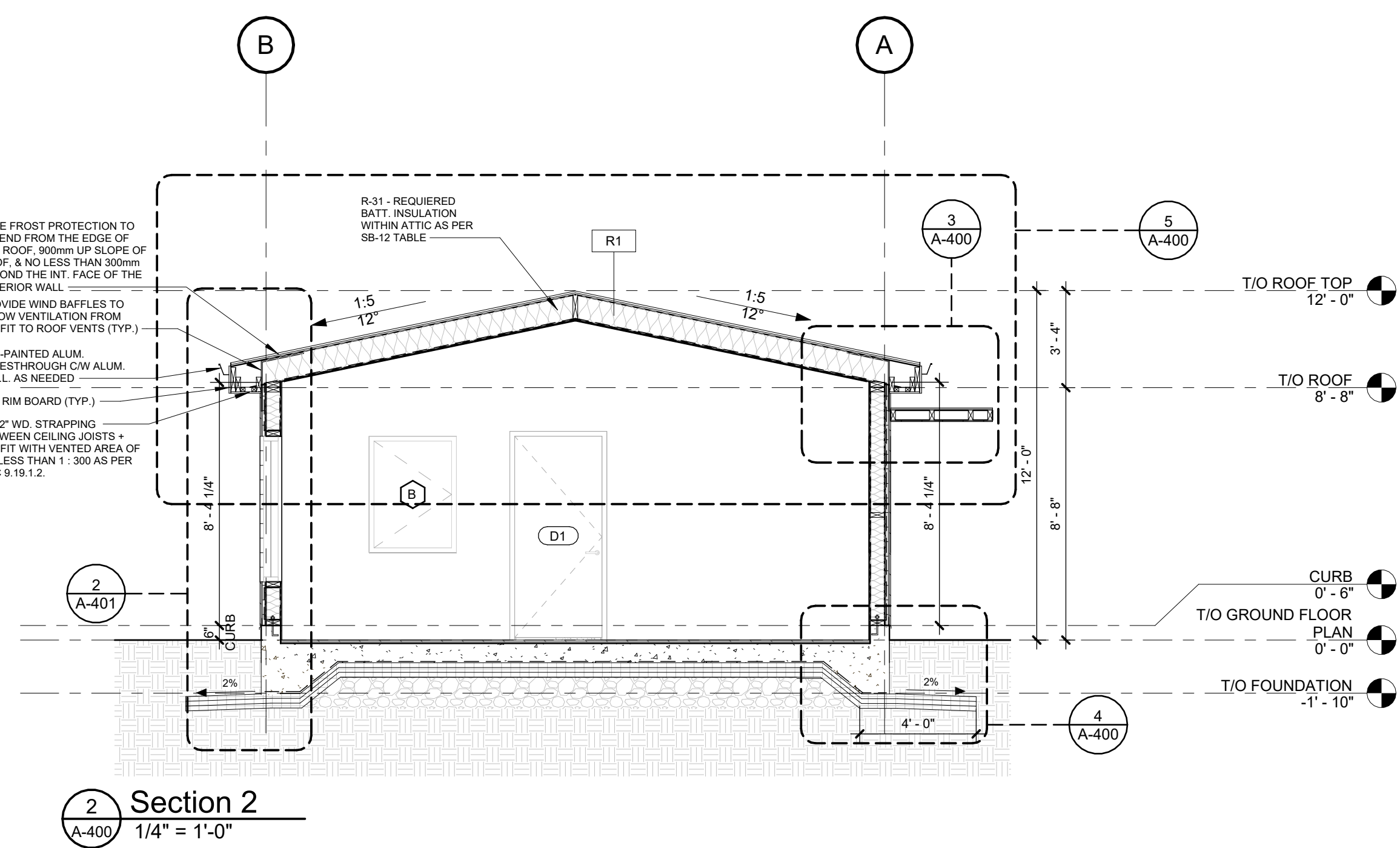
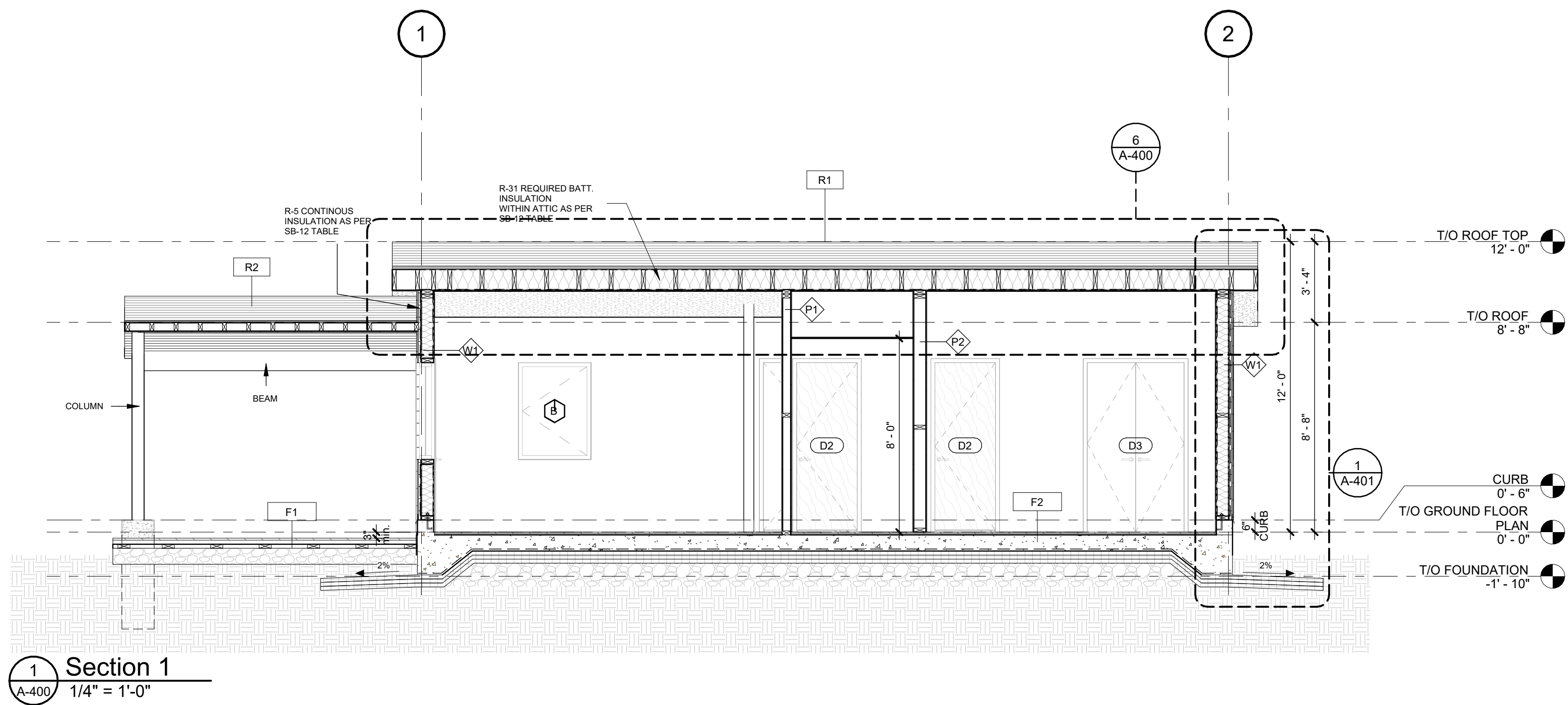
EXTERIOR ELEVATION

scale: As indicated
drawn by: NP
reviewed by: MH
job number: 23011
plot date: 11/15/24

drawing number:

A-300

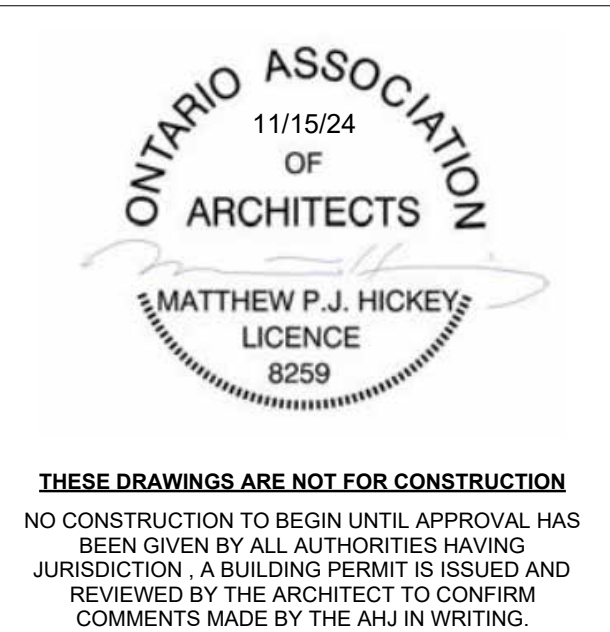
2024-11-15 5:01:42 PM



6	NP/ MH	Final drawings	11/15/24
5	NP/ MH	For Client Review	08/16/24
4	NP/ MH	For coordination	07/03/24
3	NP/ MH	For Client Review	06/10/24
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1	NP/ MH	Review	02/07/24

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Issuance Schedule			

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1 BEDROOM - ZONE 1

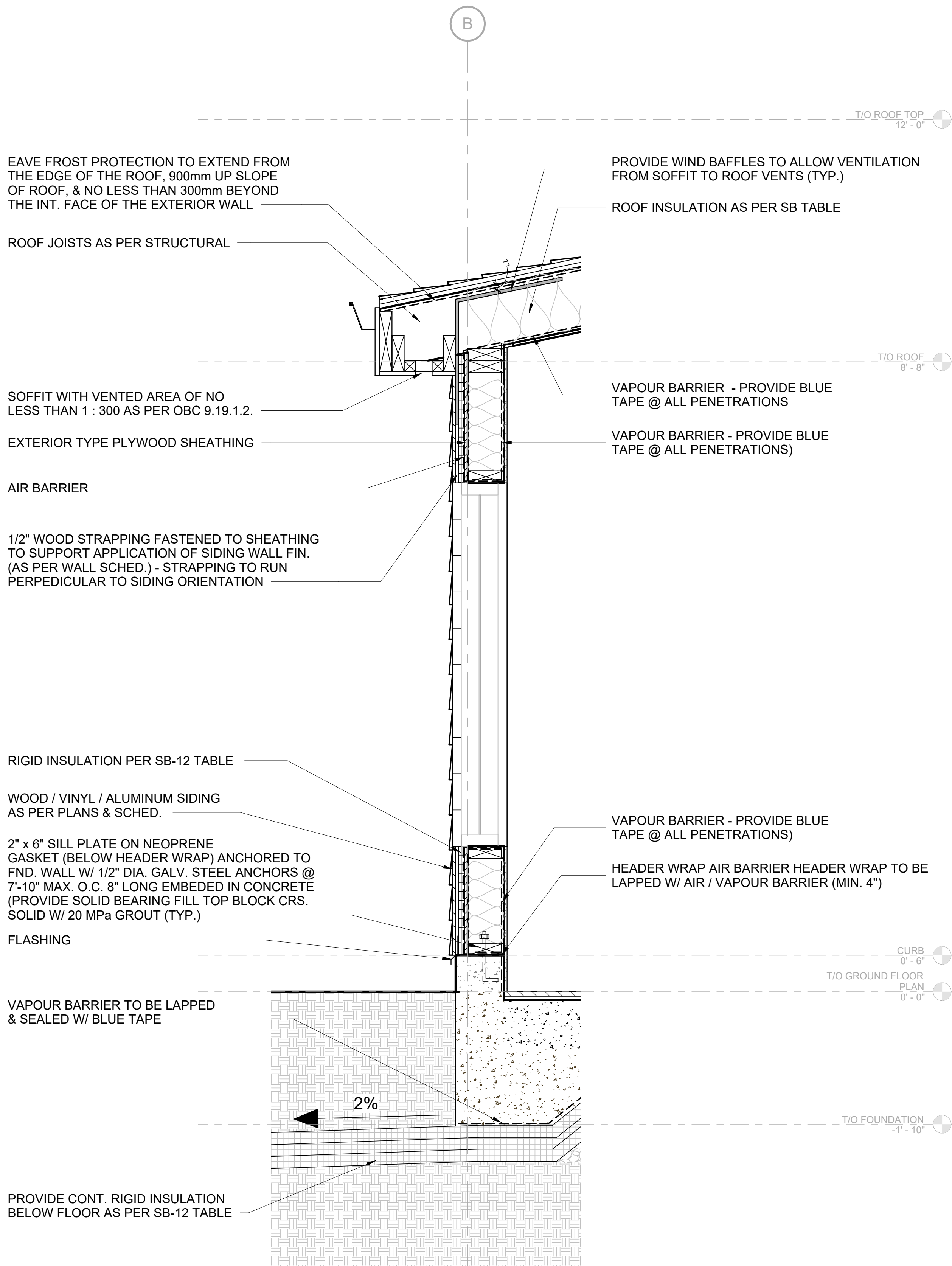
BUILDING SECTIONS & DETAILS

scale: As indicated
drawn by: NP
reviewed by: MH
job number: 23011
plot date: 11/15/24

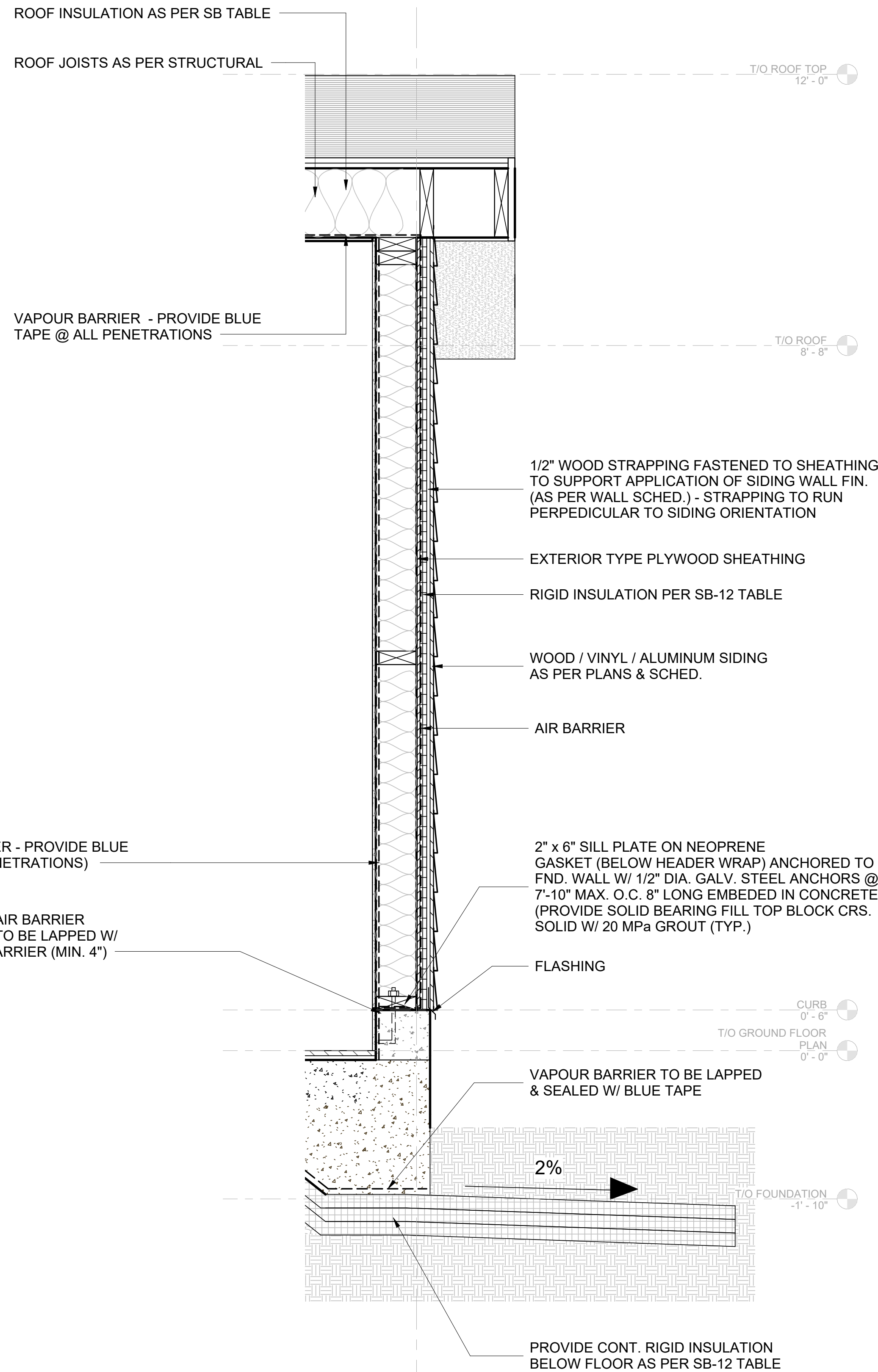
drawing number:

A-400

2024-11-15 5:01:43 PM



2 WALL SECTION DETAIL 1
A-401 1" = 1'-0"

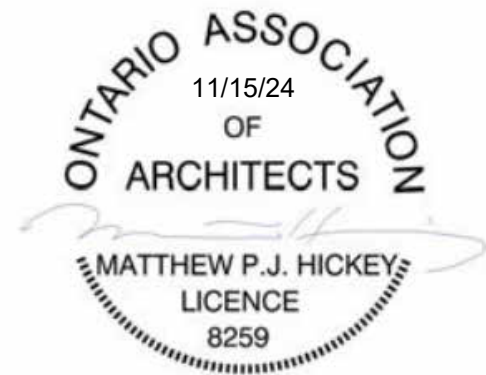


1 WALL SECTION DETAIL 2
A-401 1" = 1'-0"

6	NP/ MH	Final drawings	11/15/24
5	NP/ MH	For Client Review	08/16/24
4	NP/ MH	For coordination	07/03/24
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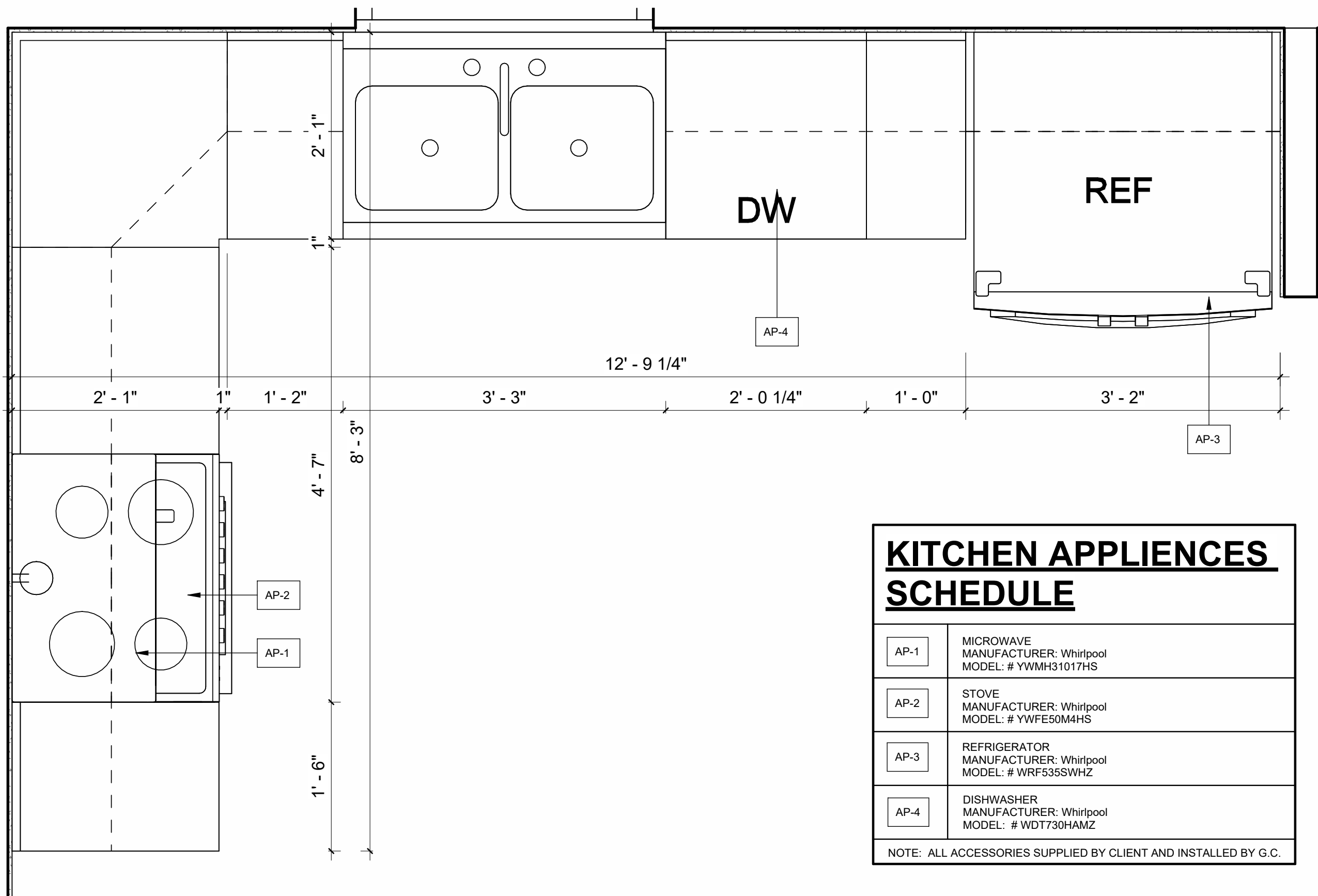
WALL SECTION DETAILS

scale: 1" = 1'-0"
drawn by: NP
reviewed by: MH
job number: 23011
plot date: 11/15/24

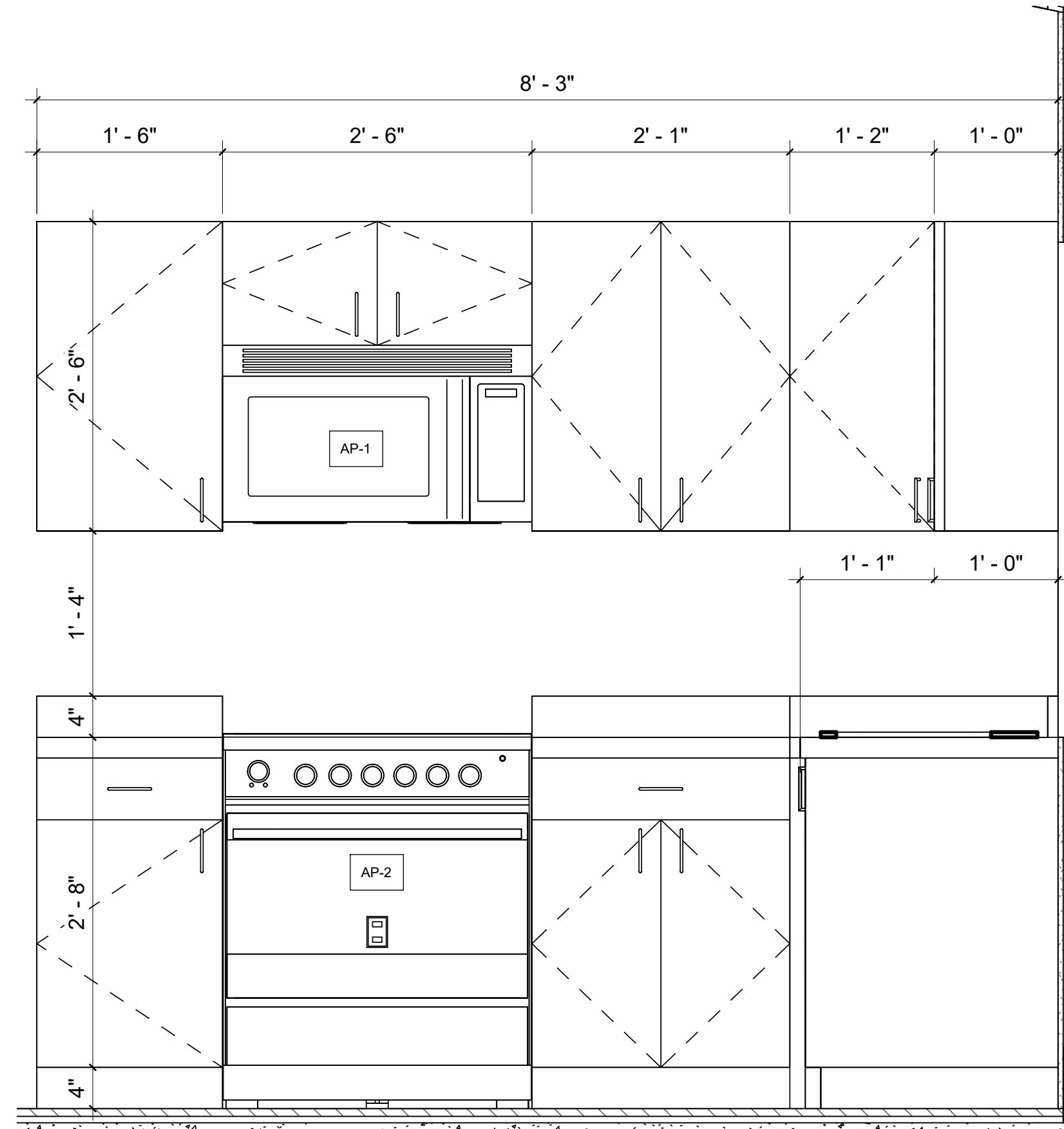
drawing number:

A-401

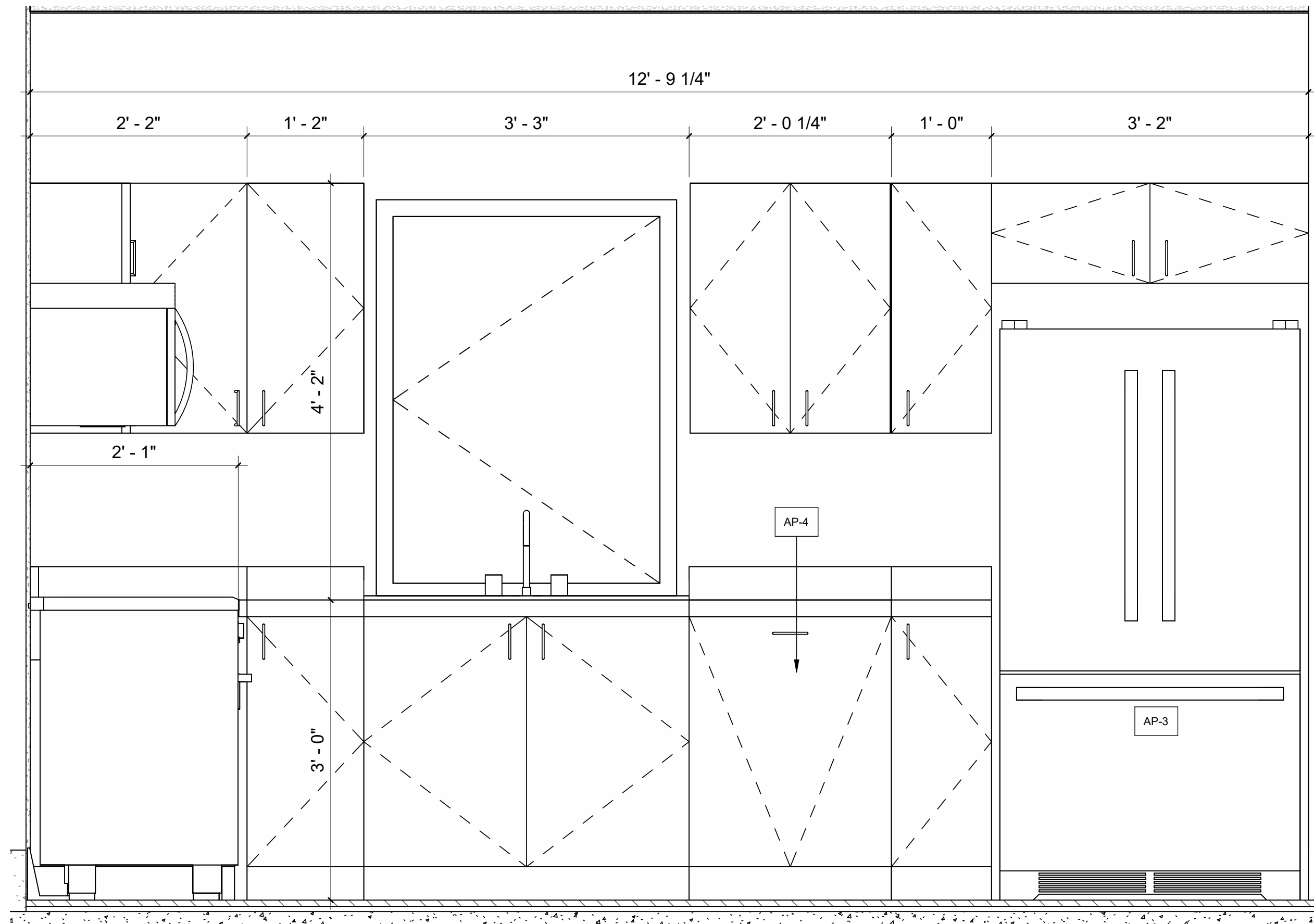
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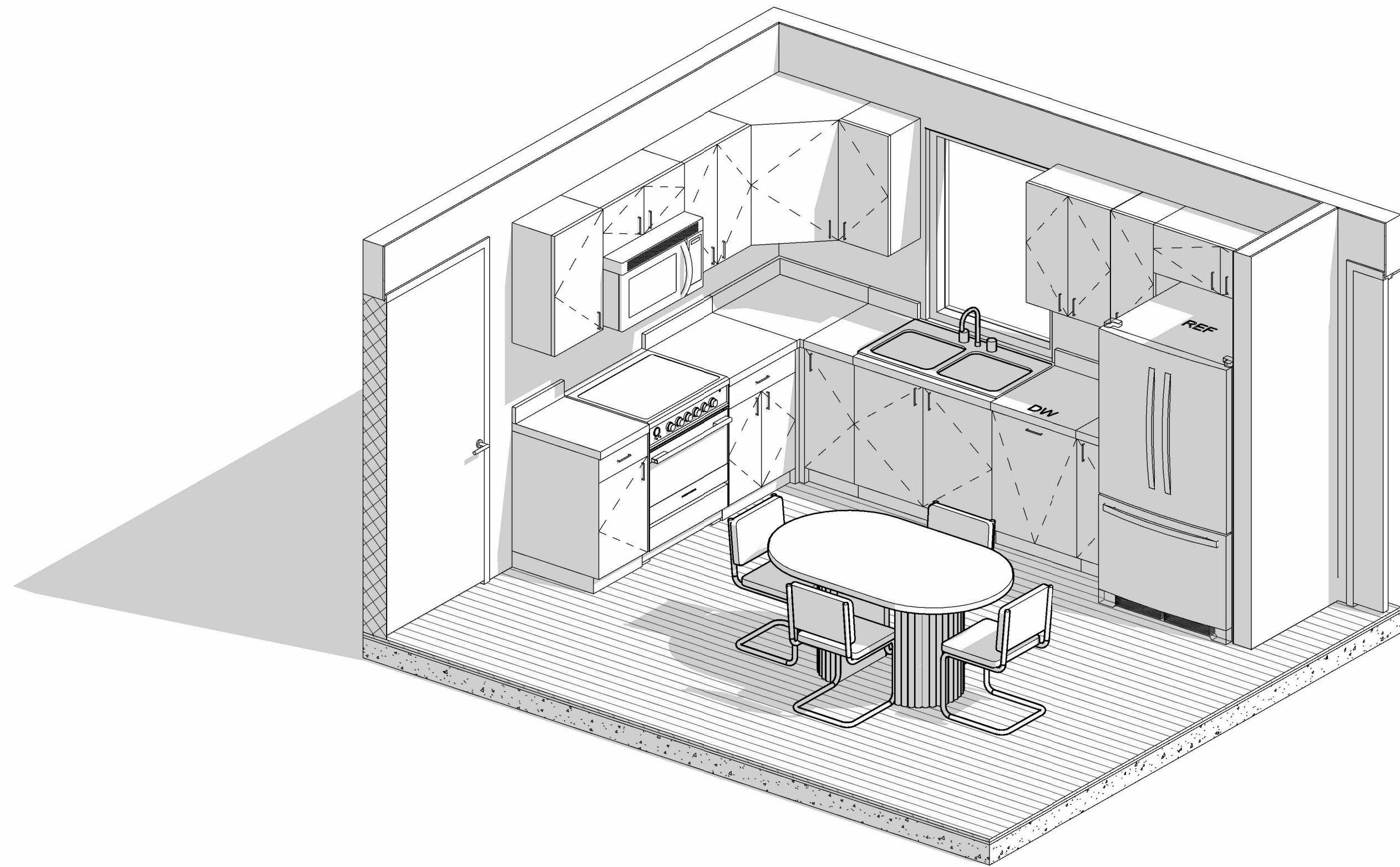
1 MILLWORK PLAN
1" = 1'-0"



3 MILLWORK VIEW 2
1" = 1'-0"



2 MILLWORK VIEW 1
1" = 1'-0"



4 MILLWORK 3D
1" = 1'-0"

MILLWORK GENERAL NOTES:

- SOLID BLOCKING BELOW ALL UPPER CABINETS
- CAULKING BETWEEN MILLWORK COUNTERS AND WALLS
- MILLWORK DOORS AND DRAWERS TO HAVE SOFT CLOSING HARDWARE

FINISHES:

- DOOR STYLE: PANELS TO BE FLAT STYLE DOOR
- FRAMING: SOLID WOOD FRAMING AND WOOD VENEER
- FINISH: LAMINATE FINISH
- BACKSPLASH - 4" BACK AND SIDE SPLASH - SAME MATERIAL AS THE COUNTERTOP

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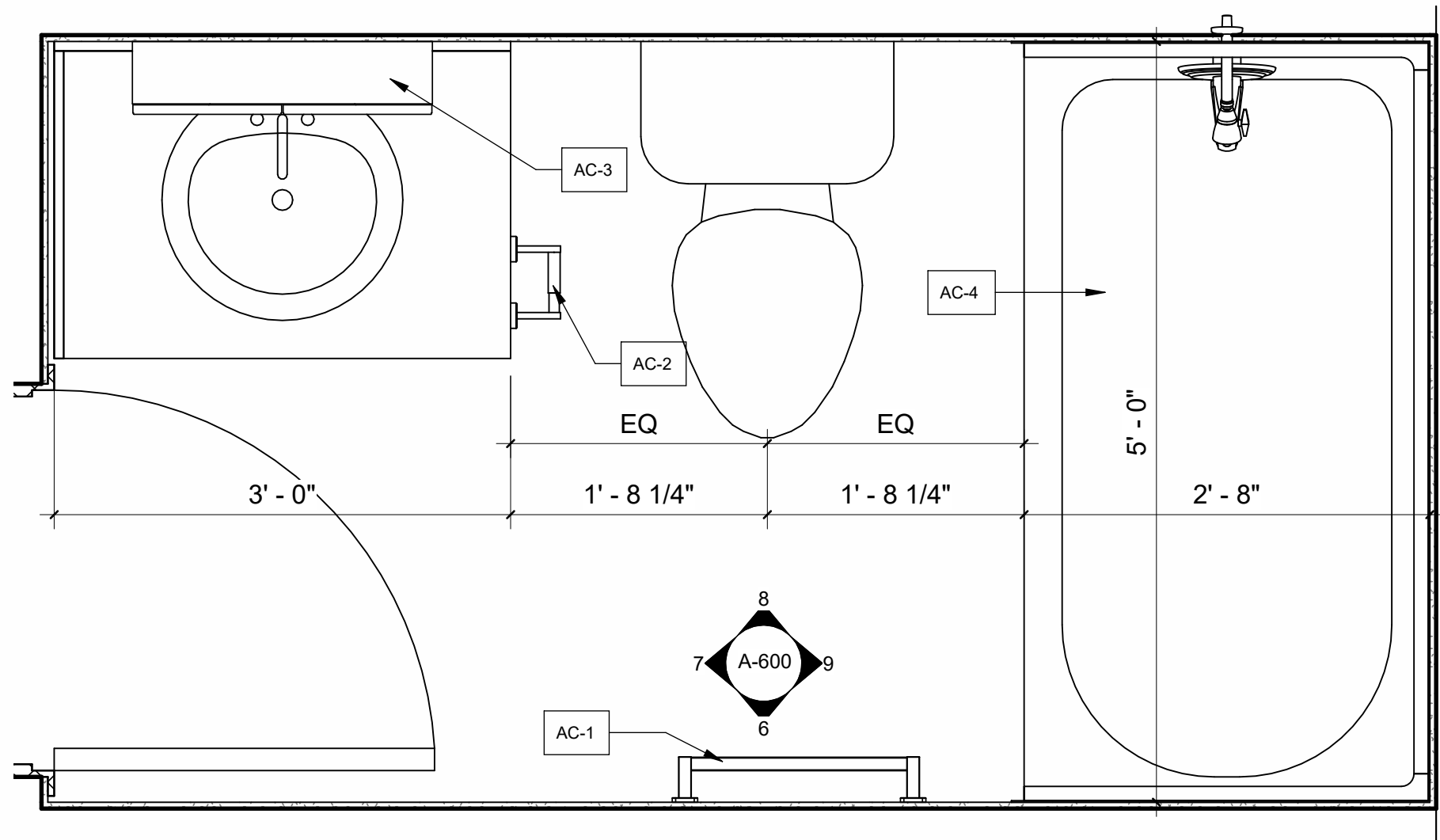
1 BEDROOM - ZONE 1

ENLARGED MILLWORK
DETAIL

scale: As indicated
drawn by: NP
reviewed by: MH
job number: 23011
plot date: 11/15/24

drawing number:

A-500



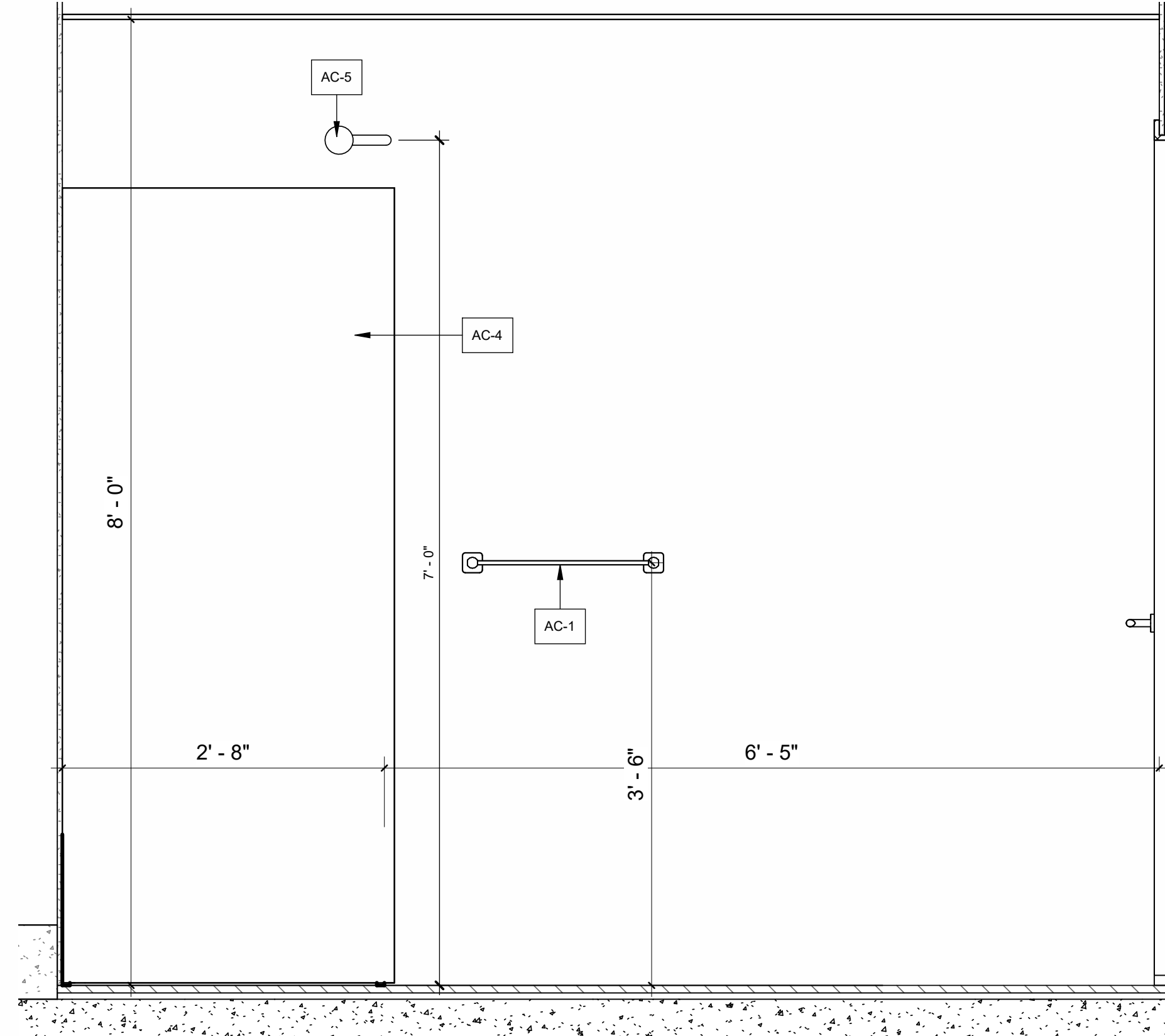
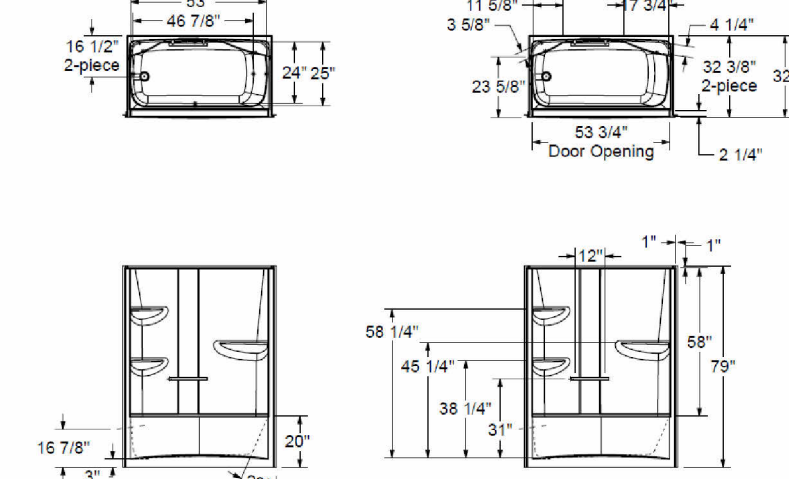
1 BATHROOM ENLARGED PLAN
1" = 1'-0"

WASHROOM ACCESSORIES SCHEDULE

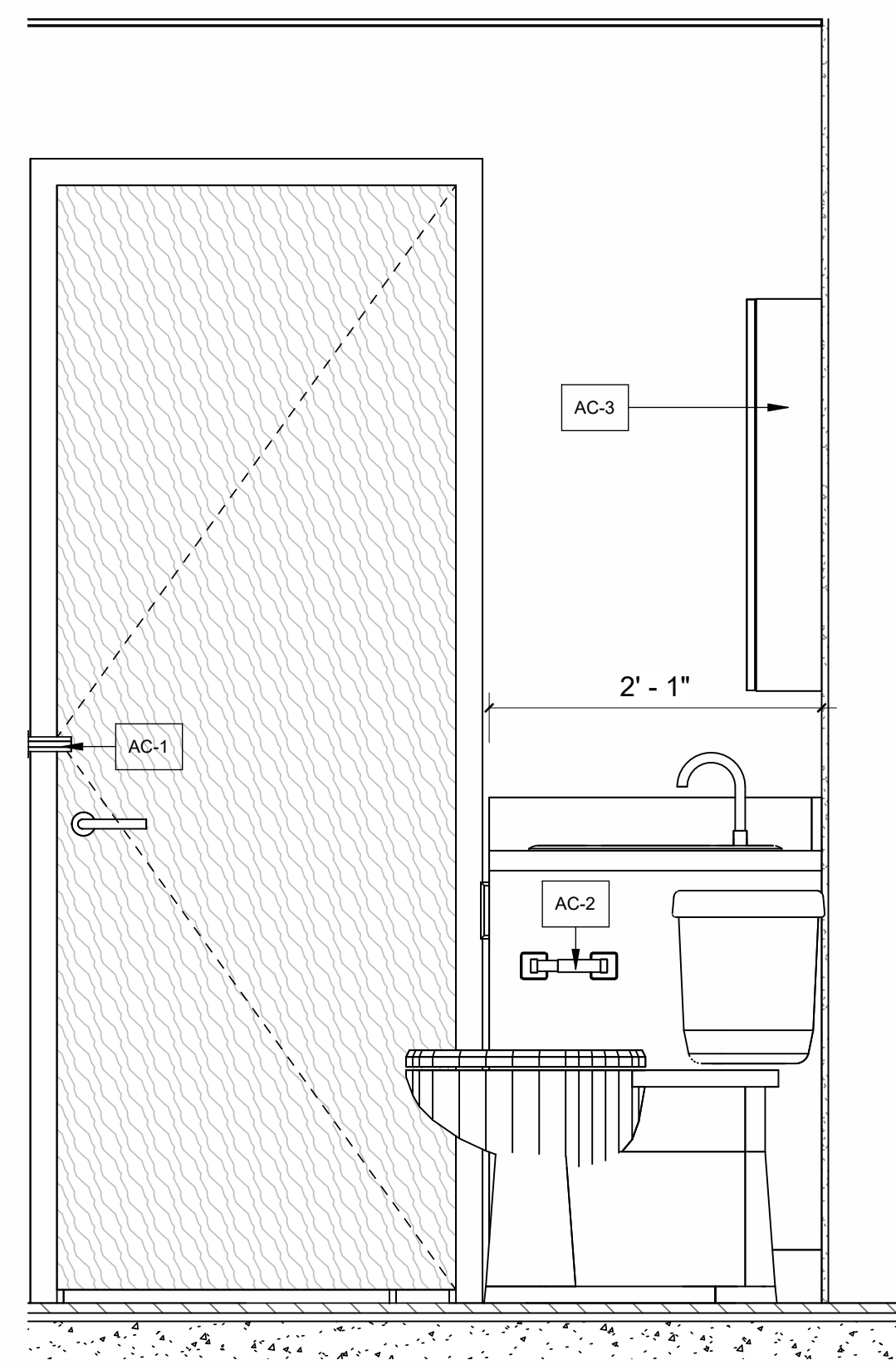
AC-1	TOWEL ROD MANUFACTURER: BOBRICK
AC-2	SURFACE-MOUNTED TOILET TISSUE DISPENSER MANUFACTURER: BOBRICK MODEL: B-685
AC-3	MIRROR CABINETS MANUFACTURER: HOMCOM
AC-4	ONE-PIECE SHOWER MANUFACTURER: MAAX MODEL: CAMELIA TS-6032
AC-5	SHOWER ROD MANUFACTURER: BOBRICK MODEL: B-8047 AND B-204

NOTE: ALL ACCESSORIES SUPPLIED BY CLIENT AND INSTALLED BY G.C.

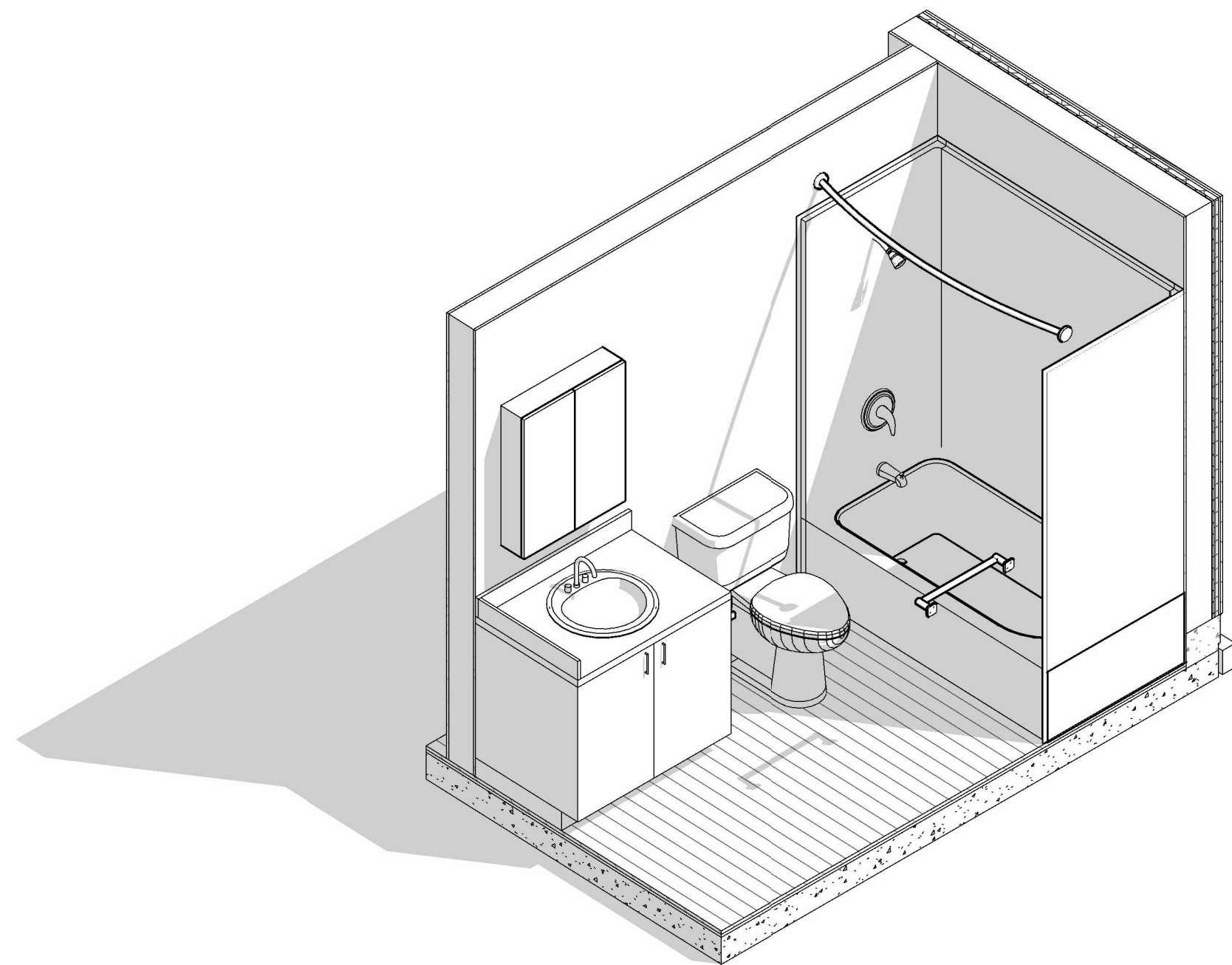
AC-4 - CAMELIA TS-6032 ACRYLIC
ALCOVE ONE-PIECE TUB
SHOWER



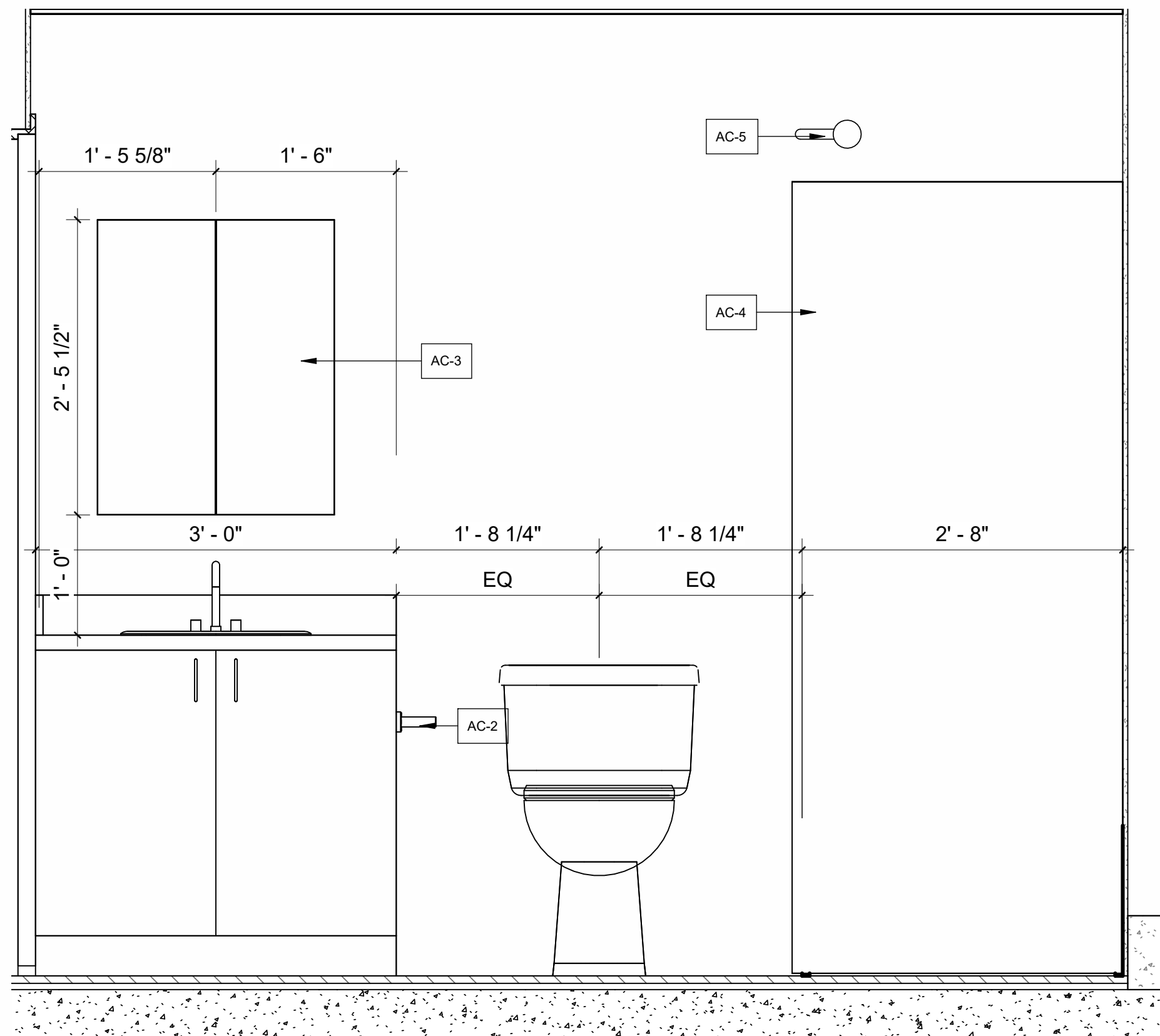
6 Elevation 1 - a
1" = 1'-0"



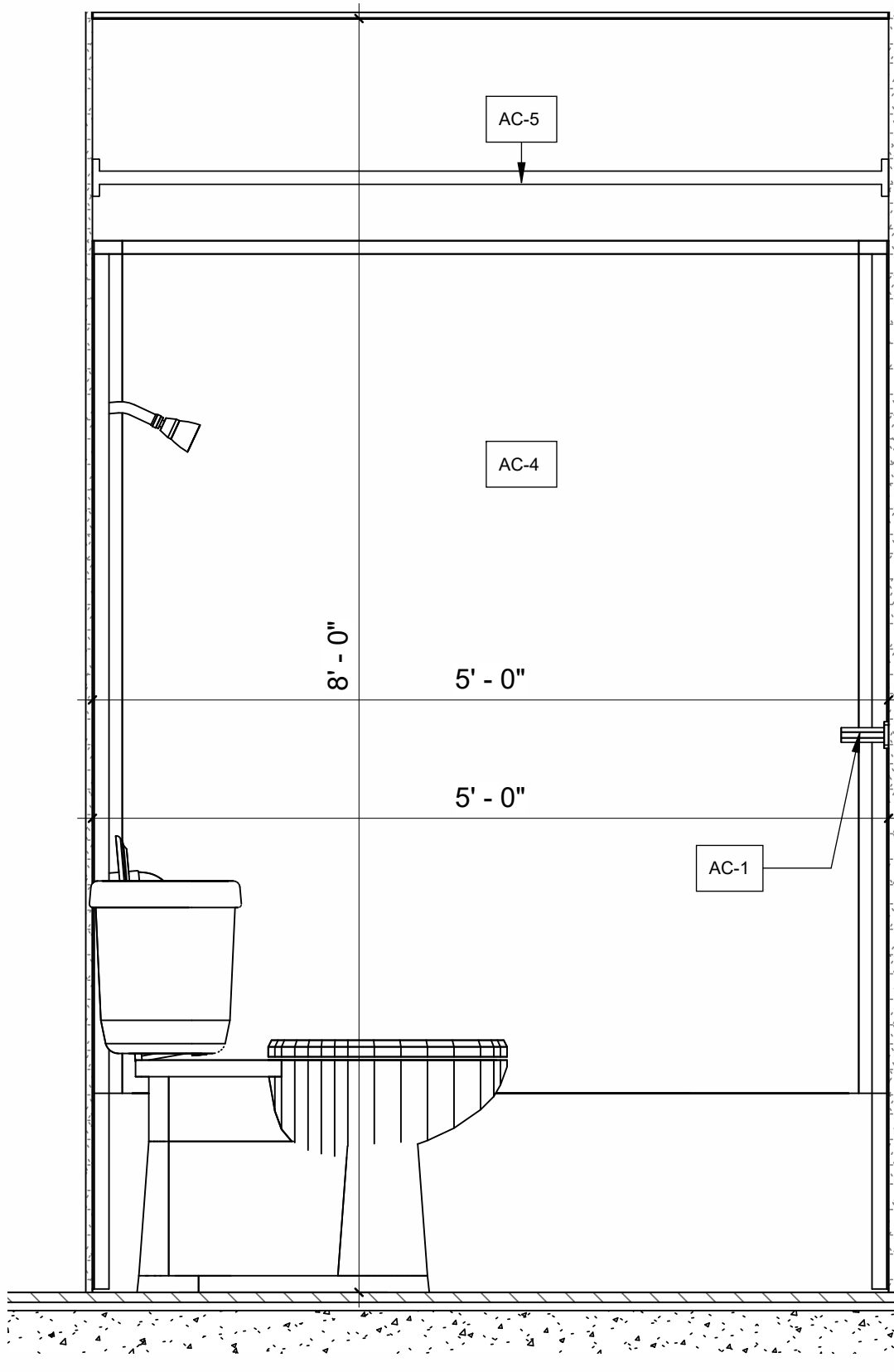
7 Elevation 1 - b
1" = 1'-0"



10 BATHROOM 3D VIEW
A-600



8 Elevation 1 - c
1" = 1'-0"



9 Elevation 1 - d
1" = 1'-0"

GENERAL NOTES:

- SOLID BLOCKING BELOW MIRROR CABINETS. ALL GRAB BARS, TOWEL ROD AND SHOWER FAUCET

VANITY CABINETS NOTES:

- CAULKING BETWEEN VANITY COUNTERS AND WALLS
- CABINETS DOORS AND DRAWERS TO HAVE SOFT CLOSING HARDWARE
- DOOR STYLE: PANELS TO BE FLAT STYLE DOOR
- FRAMING: SOLID WOOD FRAMING AND WOOD VENEER
- FINISH: LAMINATE FINISH
- BACKSPLASH - 4" BACK AND SIDE SPLASH - SAME MATERIAL AS THE COUNTERTOP

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Iss.	By	Description	Date YY-MM-DD
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1 BEDROOM - ZONE 1

ENLARGED BATHROOM DETAIL

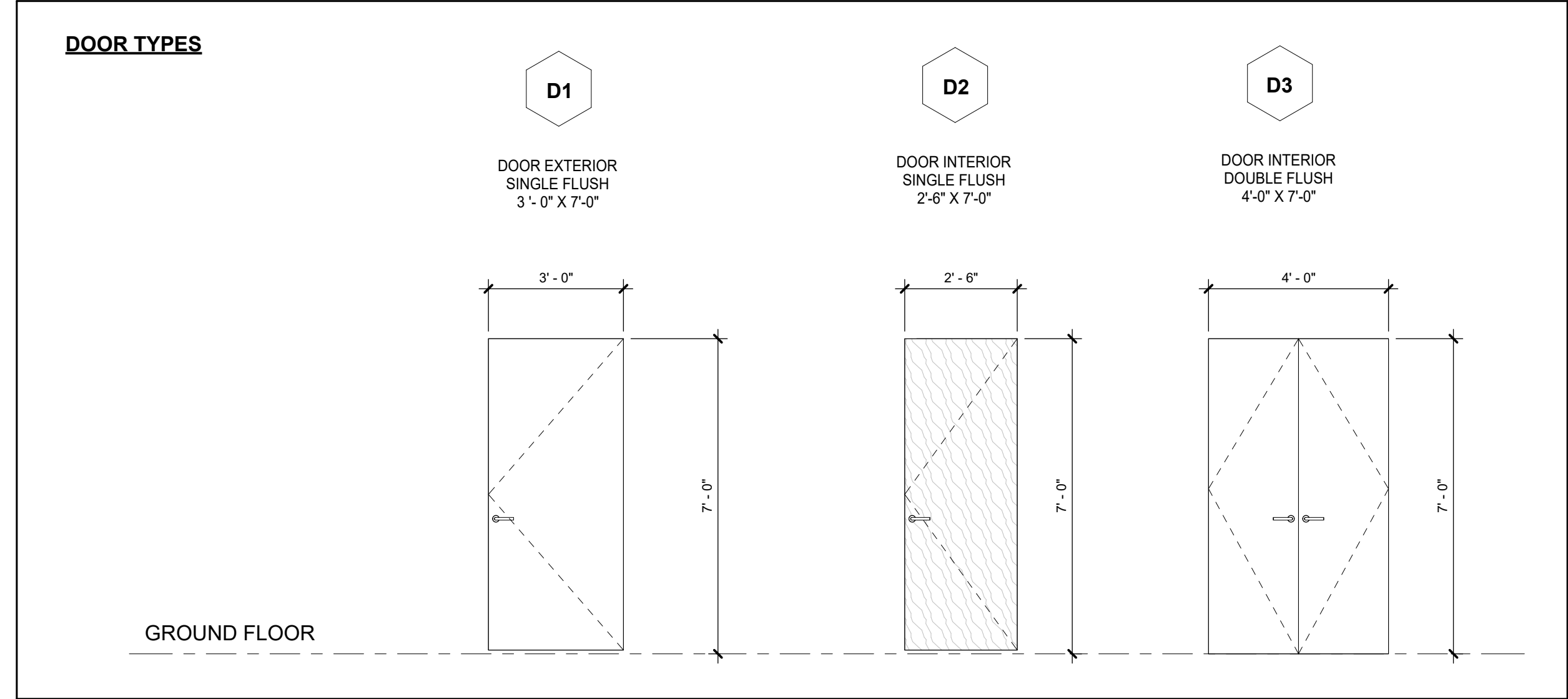
scale: As indicated
drawn by: NP
reviewed by: MH
job number: 23011
plot date: 11/15/24

drawing number:

A-600

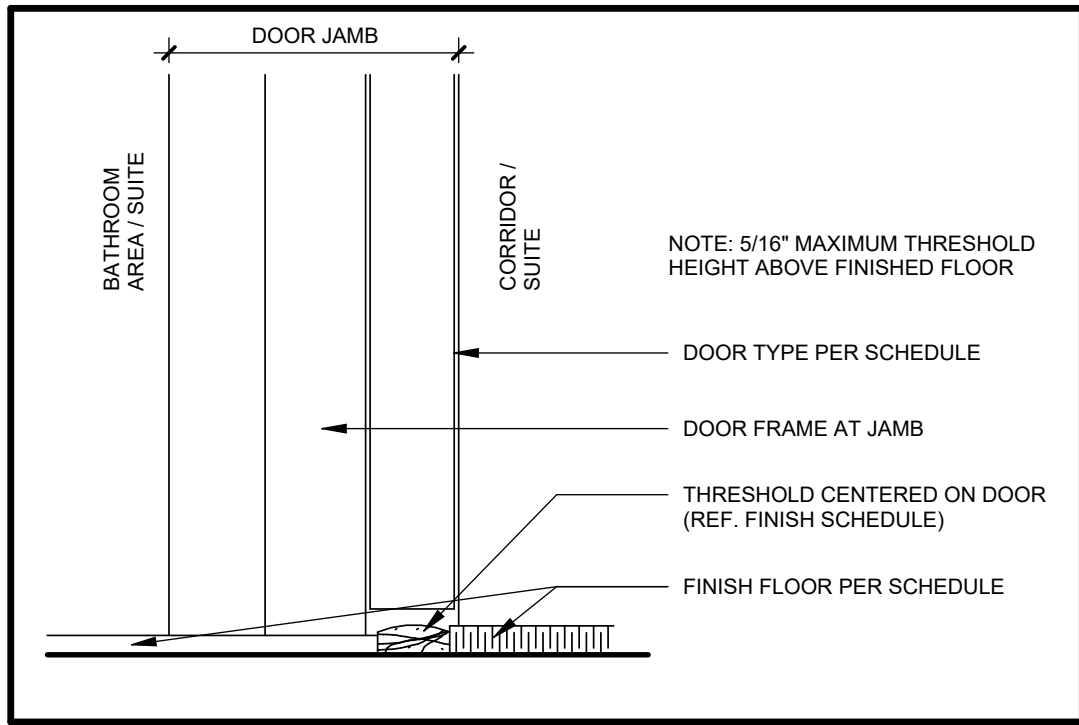
2024-11-15 5:01:49 PM

DOOR SCHEDULE										
TYPE	NAME	ROOM	DOOR				FRAME		HARDWARE SET	COMMENTS
			WIDTH	HEIGHT	MATERIAL	FINISH	MATERIAL	FINISH		
D1	TRA_SINGLE_FLUSH_HM	HALLWAY	3'-0"	7'-0"	HM	PAINTED	HM	PAINTED	1	
D1	TRA_SINGLE_FLUSH_HM	DINING & LIVING ROOM	3'-0"	7'-0"	HM	PAINTED	HM	PAINTED	2	
D1: 2										
D2	TRA_SINGLE_FLUSH_SCW	BEDROOM	2'-6"	7'-0"	SCW	PAINTED	SCW	PAINTED	3	
D2	TRA_SINGLE_FLUSH_SCW	BATHROOM	2'-6"	7'-0"	SCW	PAINTED	SCW	PAINTED	4	
D2	TRA_SINGLE_FLUSH_SCW	LAUNDRYMECH.	2'-6"	7'-0"	SCW	PAINTED	SCW	PAINTED	5	
D2: 3										
D3	TRA_DOUBLE_FLASHING	CL.	4'-0"	7'-0"	SCW	PAINTED	SCW	PAINTED	6	
D3	TRA_DOUBLE_FLASHING	CL.	4'-0"	7'-0"	SCW	PAINTED	SCW	PAINTED	6	
D3: 2										
Grand total: 7										



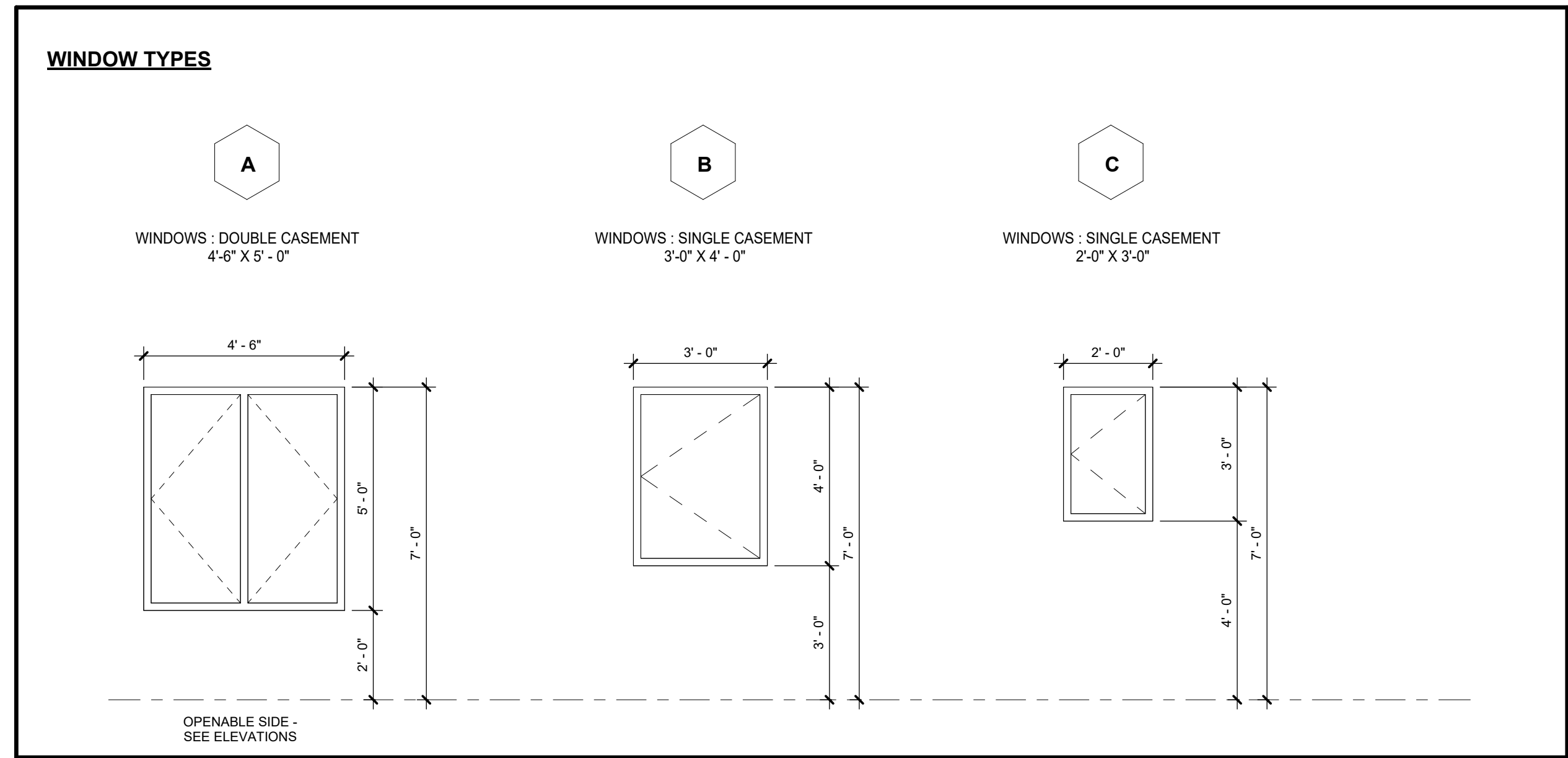
DOOR SCHEDULE NOTES

- DO NOT SCALE DRAWINGS
- ALL MATERIAL AND WORKMANSHIP SHALL COMPLY WITH ALL APPLICABLE CANADIAN CONSTRUCTION STANDARDS AND THE ONTARIO BUILDING CODE (2012).
- OVERALL DIMENSIONS PROVIDED FOR DOOR SCHEDULE ARE ROUGH-OPENING SIZES.
- OVERALL FRAME DIMENSIONS SHALL BE SIZED ACCORDINGLY.
- THE CONTRACTOR SHALL SITE VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS ON SITE AND SHALL REPORT ALL DISCREPANCIES TO THE CONSULTANT PRIOR TO DOOR FABRICATION.
- GENERAL CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR ALL DOORS AS FOLLOWS:
 - FINISH HARDWARE SCHEDULE PREPARED BY AN ARCHITECTURAL HARDWARE CONSULTANT (AHC), IN VERTICAL FORMAT TO DHI SEQUENCE AND FORMAT FOR THE HARDWARE SCHEDULE.
 - KEYING SCHEDULE PREPARED BY AN ARCHITECTURAL HARDWARE CONSULTANT (AHC), TO DHI KEYING SYSTEMS AND NOMENCLATURE, INCLUDING ALL SPECIAL KEYING NOTES AND STAMPING INSTRUCTIONS.
 - WIRING DIAGRAMS, INCLUDING A WRITTEN DESCRIPTION OF THE FUNCTIONAL USE OF ALL ELECTRICAL HARDWARE, INCLUDE DOOR AND FRAME ELEVATIONS SHOWING THE LOCATION OF EACH ITEM OF ELECTRICAL HARDWARE TO BE INSTALLED, INCLUDING A DIAGRAM SHOWING NUMBER AND SIZE OF ALL CONDUCTORS.
- PROVIDE ALL APPLICABLE CLOSURE TRIM TO OPENINGS AS REQUIRED. COLOUR OF TRIM TO MATCH COLOUR OF DOOR FRAMES.
- PROVIDE SEALANT AROUND DOOR FRAMES INSIDE AND OUT. SEALANT COLOUR TO MATCH COLOUR OF FRAMES.
- COORDINATE WITH OWNER KEYING OF ALL DOORS
- DOOR HARDWARE SUPPLIER IS RESPONSIBLE FOR SUPPLYING & INSTALLING ALL DOOR HARDWARE.
- ALL HARDWARE IS TO BE LEVER STYLE.
- ALL INTERIOR HARDWARE IS TO BE BRUSHED NICKEL FINISH.
- CONFIRM ALL HARDWARE PRIOR TO CONSTRUCTION.
- ALL QUANTITIES TO BE CONFIRMED BY CONTRACTOR PRIOR TO CONSTRUCTION.



DOOR THRESHOLD DETAIL
3" = 1'-0"

WINDOW SCHEDULE				
TYPE	NAME	WIDTH	HEIGHT	COMMENTS
A	TRA_2_SECTION_1	4' - 6"	5' - 0"	
A	TRA_2_SECTION_1	4' - 6"	5' - 0"	
A	TRA_2_SECTION_1	4' - 6"	5' - 0"	
A: 3				
B	TRA_1_SECTION	3' - 0"	4' - 0"	
B	TRA_1_SECTION	3' - 0"	4' - 0"	
B	TRA_1_SECTION	3' - 0"	4' - 0"	
B: 3				
C	TRA_1_SECTION	2' - 0"	3' - 0"	
C: 1				
Grand total: 7				



WINDOW NOTES:

- ALL WINDOWS TO BE THERMALLY BROKEN WITH LOW-E DOUBLE GLAZED
- DARK GREY VINYL FRAME
- WINDOWS TO BE DOUBLE PANE ENERGY STAR RATED, ARGON FILLED
- FIELD CONFIRM ALL DIMENSIONS FOR ALL SCREENS (TYP.)
- DIMENSIONS SHOWN ARE PROPOSED FINISHED OPENINGS
- WINDOW SUPPLIER AND FRAMER TO COORDINATE SIZE OF ROUGH OPENING.
- WINDOW SUPPLIER TO CONFIRM SIZE OF OPENING ON SITE BEFORE MFG

SHOP DRAWING NOTE:

1. OWNER / CONTRACTOR TO ENSURE SHOP DRAWING SUBMITTALS ARE PREPARED BY SYSTEMS DESIGNER (WALL, FLOOR, STAIR, WINDOW, DOOR ETC.)

2. CONTRACTOR TO REVIEW AND APPROVE THE ABOVE MENTIONED SHOP DRAWINGS PRIOR TO SUBMISSION TO THE ARCHITECT. PLANS / DRAWINGS SHOWN ARE FOR REFERENCE AND DESIGN INTENT ONLY AND ARE NOT INTENDED FOR FABRICATION - TYP.

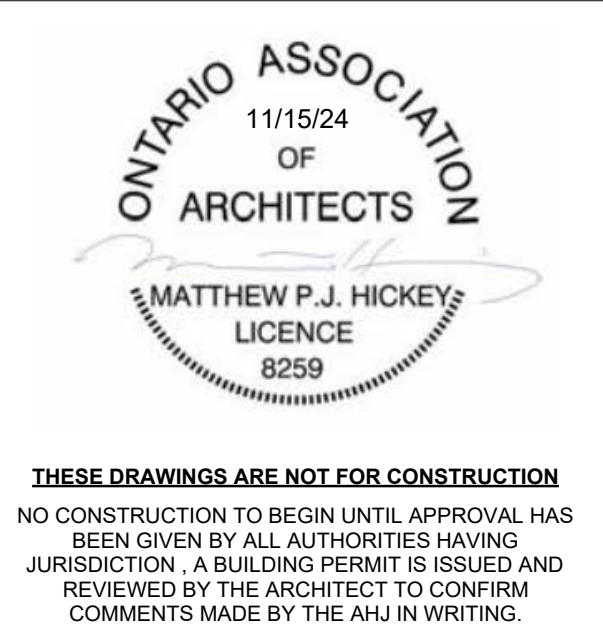
6	NP/ MH	Final drawings	11/15/24
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Iss.	By	Description	Date YY-MM-DD
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1 BEDROOM - ZONE 1

DOOR & WINDOW SCHEDULE

scale: As indicated
drawn by: NP
reviewed by: MH
job number: 23011
plot date: 11/15/24

drawing number:

A-700



P.O. Box 77 - 1804 6th Line - Chiefswood Rd. Chatham, ON, NOA 1M0
519.445.2137 www.tworow.com info@tworow.com

6	NP/ MH	Final drawings	11/15/24
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RENDERINGS

scale:

drawn by: NP

reviewed by: MH

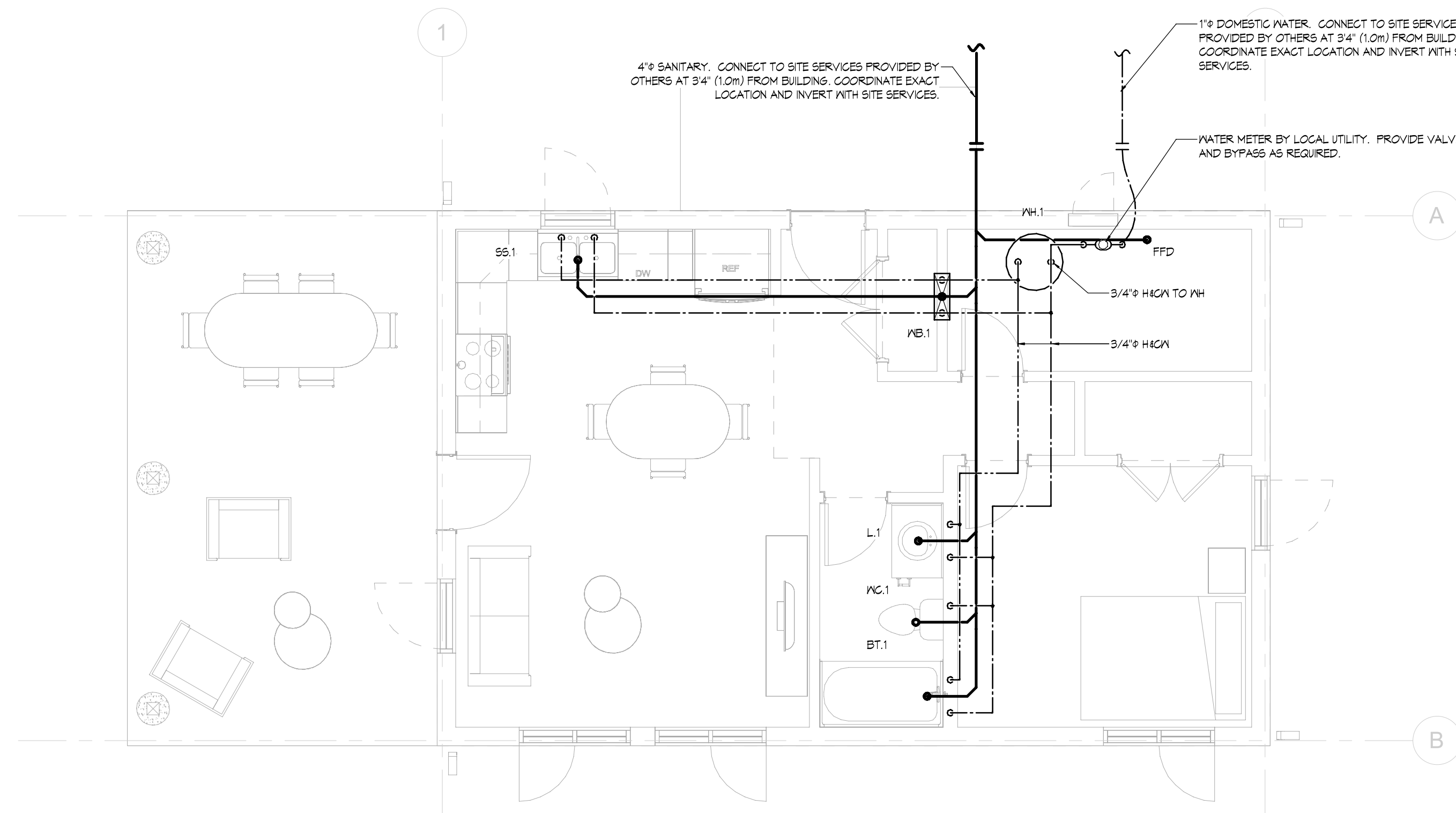
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plot date: 11/15/24

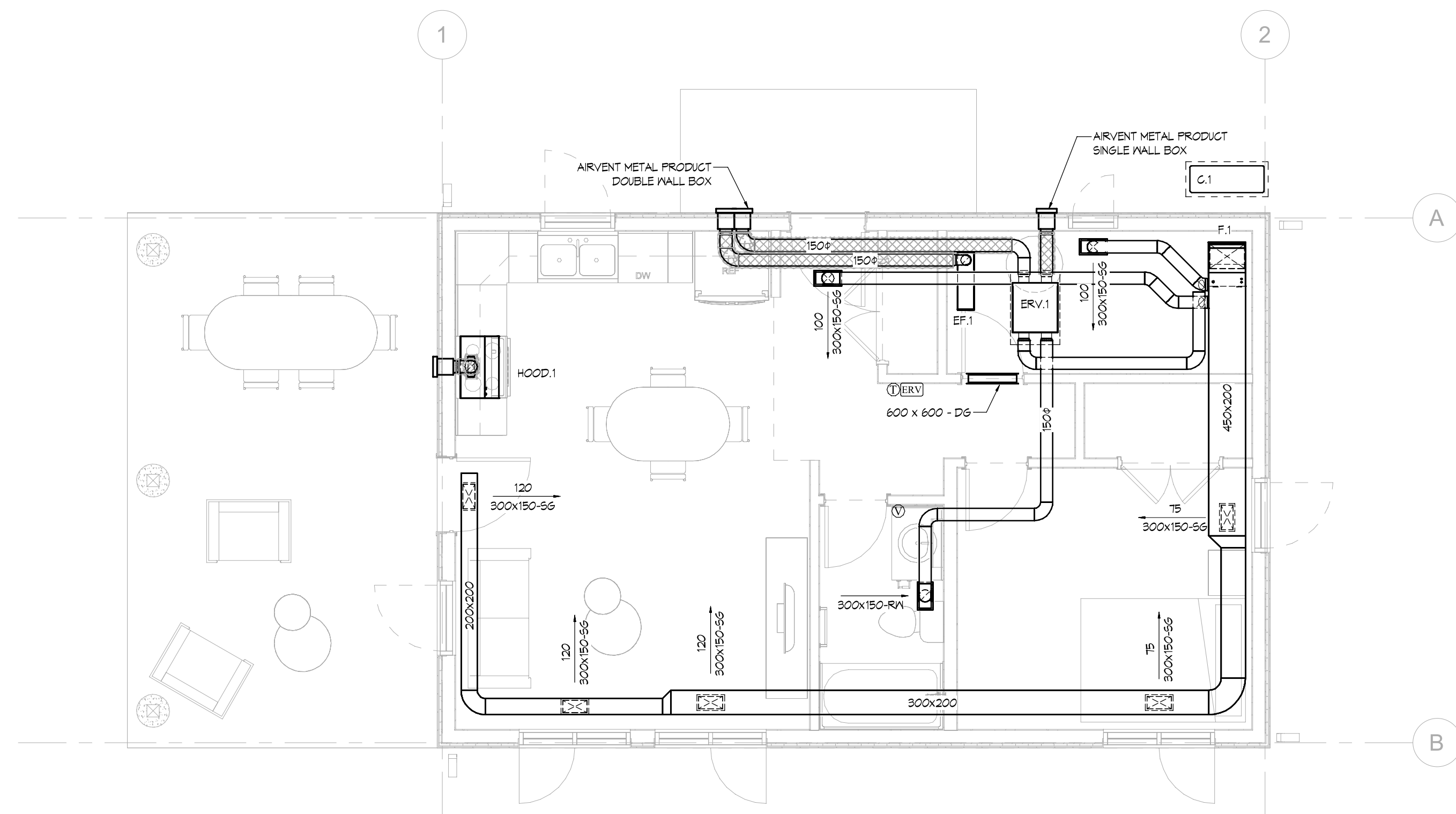
drawing number:

A-800

2024-11-15 5:01:51 PM



1 1BD Ground Floor PLM
1 : 50



2 1BD Ground Floor HVAC
1 : 50



Stamped for prototypical design only. All local codes and standards are to be confirmed with project location prior to construction.

2	ISSUED FOR CLIENT REVIEW.	2024.11.06
1	ISSUED FOR COORDINATION.	2024.10.18
No	DESCRIPTION	DATE



COLLINS
ENGINEERING GROUP
INCORPORATED
MECHANICAL ENGINEERING

PROJECT:
**OFNTSC - HOUSING
LIBRARY**

DATE:	2024.06.13	DRAWN:	DS
SCALE:	1 : 50	CHECKED:	HR

DRAWING:
1BD HVAC & Plumbing

JOB NO.	DWG NO.
7198	M1 (1BD)

MECHANICAL LEGEND	
	SUPPLY DUCT
	RETURN OR EXHAUST DUCT
	ACOUSTIC INSULATION 1/2" (13mm)
	THERMAL INSULATION 2" (50mm)
	CLIMATE FIRE DUCT WRAP
	SUPPLY DIFFUSER OR GRILLE
	RETURN OR EXHAUST GRILLE
	DYNAMIC FIRE DAMPER
	FIRE STOP FLAP
	DYNAMIC FIRE SMOKE DAMPER
	MANUAL BALANCING DAMPER
	THERMOSTAT/ZONE SENSOR
	SPEED CONTROLLER
	REV. ACTING TSTAT
	CARBON DIOXIDE SENSOR
	COLD WATER (CW)
	HOT WATER (HW)
	REGULATING WATER
	SANITARY ABOVE GRADE
	SANITARY BELOW GRADE
	STORM ABOVE GRADE
	STORM BELOW GRADE
	GAS PIPING
	CLEAN OUT
	FLOOR DRAIN
	ROOF DRAIN
	FLOW CONTROL ROOF DRAIN
	CATCHBASIN
	NON-FREEZE HOSE BIBB
	DOWN TO BELOW SLAB
	DUCT EXPOSED TO EXTERIOR
	CONNECT TO EXISTING
	ISOLATION VALVE
	BALANCING VALVE

PLUMBING FIXTURE SCHEDULE							
SYMBOL	FIXTURE	DESCRIPTION	CW	HW	DR	V	REMARKS
L.I	VANITY LAV	AMERICAN STANDARD RONDALYN 049019.020 DROP IN SINK, 4" CENTERSET INCLUDING 1-1/4" (32mm) ARE TO HAVE 1" (25mm) THICK INSULATION. PIPING 1-1/2" (38mm) AND LARGER ARE TO BE INSULATED WITH 1-1/2" (38mm) THICK INSULATION.	1/2" (13mm)	1/2" (13mm)	1-1/4" (32mm)	1-1/4" (32mm)	C/W FLOW RESTRICTOR TO O.B.C. REQ'GS.
WC.I	WATER CLOSET	AMERICAN STANDARD FLOUSE 2416216.010 WHITE, ELONGATED, INSULATED TANK, SLOW CLOSE SEAT COVER, SUPPLY WITH STOP.	1/2" (13mm)		3" (75mm)	1-1/2" (38mm)	4.8 LITRES PER FLUSH
BT.I	BATHTUB	MIRROL HAMPTON T8451 ONE PIECE, WHITE MOEN CHATEAU L2353, W/ TOE TESTER PRESURE BALANCING MIXING VALVE, SUPPLIES WITH STOPS.	1/2" (13mm)	1/2" (13mm)	2" (50mm)	1 1/2" (38mm)	
SS.I	SERVICE SINK	KNDRD LBD6408-1/1, DOUBLE COMPARTMENT 20 GA, 18-10 STAINLESS STEEL WITH LEDGE, MOEN CHATEAU 1423 TRAP, SUPPLIES WITH STOPS	1/2" (13mm)	1/2" (13mm)	2" (50mm)	1 1/2" (38mm)	C/W 1" DRAIN FITTING & 1/2" x 1/4" HW VALVE FOR DW. DOUBLE COMPARTMENT (2) 16x14x8
WB.I	WASHING MACHINE BOX	QATEY QUADPRO WASHING MACHINE OUTLET BOX 1/4 TURN BALL VALVE W/ WATER HAMMER ARRESTOR	1/2" (13mm)	1/2" (13mm)	2" (50mm)	1-1/2" (38mm)	C/W SNAP ON FACEPLATE, SIDE BRACKETS FOR RECESSED MOUNTING, TEST PLUG.
WH.I	WATER HEATER	G&W 556405DE3-30 OR EQUAL 40 GALLON	3/4" (19mm)	3/4" (19mm)			C/W T&P RELIEF TO SANITARY, ANTI-SCALD VALVE, ANTIROL 9T-5 EXPANSION TANK, SET HEATER AT MIN 140°F.

HVAC EQUIPMENT SCHEDULE								
SYMBOL	UNIT	DESCRIPTION	ELEC.	REMARKS	WEIGHT	DIMENSIONS		
						L	W	H
EF.I	DRYER FAN	REVERSOMATIC TLD200 180 CFM @ 0.5" S.P.	120.160	C/W REVERSOMATIC DRYER AMP SENSOR DAS 200, LT180 LINT TRAP, VENT WITH ALUMINUM EXHAUST DUCT TO EXTERIOR AS SHOWN.				
HOOD.I	KITCHEN HOOD	REVERSOMATIC 4000-200 WHITE 30" WIDE 190 CFM @ 0.2" S.P.	120.160 12 AMPS	C/W BDD, CONNECT TO WALL BOX OR ROOF CAP AS SHOWN.				
ERV.I	ENERGY RECOVERY VENTILATOR	EK150-HRV-N 115 CFM @ 0.4" SP	115.160 2.46 AMPS	C/W 60 MINUTE THERM MOUNTED IN EACH BATHROOM, DIGITAL MULTIFUNCTION CONTROL MOUNTED BESIDE THERMOSTAT, ACCESS PANEL FOR ERV AS PER MANUFACTURERS REQUIREMENTS, ACCESS PANEL FOR PLUG-IN RECEPTACLE.				
F.I	AIR HANDLER	LG LVN24HV4 VERTICAL AIR HANDLER COOLING : 24,000 BTU/H HEATING: 21,000 BTU/H NOMINAL HEATING: 21,900 BTU/H @ -13°F 3 KW BACKUP HEATER	141 POWERED THRU OUTDOOR UNIT C.I. 208.160 3 KW (HEATER)	C/W PREM WALL MOUNTED TSTAT, LG ANEH033B1 3 KW ELECTRIC HEATER INSTALLED IN DISCHARGE DUCT, HANGERS, AUXILIARY HEATER RELAY KIT, CONDENSATE DRAIN, REFRIGERANT LINES & SIGHT GLASS, INTERLOCK WITH C.I. INTERLOCK WITH AUXILIARY DH HEATER, PROVIDE CONTACT, TRANSFORMER, AND LOW VOLTAGE WIRING AS REQUIRED.				
C.I	CONDENSING UNIT	LG LUW240HV	208-230.160 22 MCA 30 MOCP	C/W WIND BAFFLE, BASEPAN HEATER, EVAP. FREEZE STAT, TIME DELAY RELAY, WINTER START KIT, LOW AMBIENT CONTROL, OFF CYCLE THER, ECO FOOT SUPPORT STAND MIN. 10" ABOVE GRADE, INTERLOCK WITH F.I.				

GRILLE & DIFFUSER SCHEDULE				
SYMBOL	TYPE	MANUFACTURER		
		NAILOC	KRUEGER	TITUS
SG	SUPPLY GRILLE	61DH	880	300RL
L	LINEAR DIFFUSER	5010	1900	ML-39
E	EXHAUST GRILLE	615H-0A	5500-50ED	350-RL
EE	EGGORATE EXHAUST GRILLE	51 EC TYPE 5	EGC5	50F-1
RW	WALL MOUNTED RETURN GRILLE	614H	580	355-RL
HRG	HEAVY-DUTY RETURN GRILLE	615H-HD	5480	33RL
RG	SURFACE MOUNTED RETURN GRILLE	51 EC TYPE 5	EGC5	50F-1
DG	DOOR GRILLE	61DG	600A	T-100L-AF
FDG	FIRE-RATED DOOR GRILLE	61DG-FR	ANEMOSTAT FLDL-UL	FLDL-UL

PLUMBING NOTES

PL1 ALL WATER LINES (UNLESS OTHERWISE NOTED) ARE TO BE INSULATED WITH 1/2" (13mm) THICK PIPE INSULATION. DOMESTIC HOT WATER PIPING (140°F OR LESS) INCLUDING RECIRCULATION LINES UP TO AND INCLUDING 1-1/4" (32mm) ARE TO HAVE 1" (25mm) THICK INSULATION. PIPING 1-1/2" (38mm) AND LARGER ARE TO BE INSULATED WITH 1-1/2" (38mm) THICK INSULATION.

PIPE INSULATION IS TO BE PRE-FORMED AND FINISHED WITH A PVC JACKET, TAPE ALL JOINTS.

PL2 USAGE SUMMARY FOR ABOVE GROUND STORM & DWI PIPING MATERIALS: NOTE: SUITABLE FIRESTOPPING METHODS ARE REQUIRED FOR ALL MATERIALS WHEN PENETRATING VERTICAL AND HORIZONTAL FIRE SEPARATIONS.

PVC STANDARD PVC CAN BE USED IN 'A' BUILDING PERMITTED TO BE OF COMBUSTIBLE CONSTRUCTION'. STANDARD PVC CAN BE USED IN 'A' BUILDING PERMITTED TO BE OF NON-COMBUSTIBLE CONSTRUCTION' EXCEPT BUILDINGS DESCRIBED IN OBC 32.6 'ADDITIONAL REQUIREMENTS FOR HIGH BUILDINGS'.

AS PER OBC 3.6.4.3 PVC PIPING IS NOT PERMITTED IN A CEILING SPACE USED AS A RETURN AIR PLENUM. AS PER OBC 3.19.4.4(D) PVC PIPING IS NOT PERMITTED IN A VERTICAL SHAFT.

NOTE: FLENUM RATED PVC (IPEX SYSTEM XFR OR EQUAL) IS PERMITTED IN HIGH BUILDINGS AND CEILING SPACE RETURN AIR PLENUMS.

COPPER OR CAST IRON COPPER OR CAST IRON IS PERMITTED IN ALL CONSTRUCTION AND IN CEILING SPACE RETURN AIR PLENUMS.

PL3 PLASTIC VENTING SYSTEMS FOR HIGH EFFICIENCY GAS BOILERS AND WATER HEATERS MUST BE APPROVED TO THE REQUIREMENTS OF U.L.C. VENTING SYSTEMS SHALL BE IPEX SYSTEM 636 PVC (65°C) OR EQUAL. VENTING SYSTEMS FOR USE WITH CEILING SPACE RETURN AIR PLENUMS, NON-COMBUSTIBLE BUILDINGS AND HIGH BUILDINGS SHALL BE IPEX SYSTEM 636 CPVC (180°C) OR EQUAL.

PL4 PROVIDE 3/4" (19mm) NON-COMBUSTIBLE DRAIN FOR CONDENSATE. EXTEND TO NEAREST SANITARY. TERMINATE WITH INDIRECT CONNECTION.

PL5 CONNECT VENT PIPES FROM NEW PLUMBING FIXTURES TO EXISTING PLUMBING VENT THRU ROOF. COORDINATE ON SITE.

PL6 DISCONNECT AND REMOVE ALL ABOVE SLAB PLUMBING INCLUDING EXISTING FIXTURES, CAP ALL DRAINS AT 2" (50mm) BELOW FINISHED FLOOR. PROVIDE ALL CUTTING, EXCAVATING, BACK FILL AND COMPACTING AS REQ'D TO COMPLETE WORK. FINAL FLOOR AND/OR WALL FINISH IS BY THE GENERAL CONTRACTOR.

PL7 NEW FIXTURES AND PLUMBING PROVIDE ALL CUTTING, EXCAVATING, BACKFILL AND COMPACTING AS REQ'D TO COMPLETE INSTALLATION OF NEW PLUMBING. COORDINATE ON SITE. FINAL FLOOR AND/OR WALL FINISH IS BY THE GENERAL CONTR.

PL8 PROVIDE HEAT TRAPS FOR STORAGE HEATERS AND/OR STORAGE TANKS IN NONCIRCULATING SYSTEMS WITH VERTICAL PIPING. (ASHRAE 90I - 1.4.6)

HVAC NOTES

H1 COORDINATE DIFFUSER AND GRILLE LOCATIONS WITH ARCHITECTURAL REFLECTED CEILING PLAN AND THE GENERAL CONTRACTOR.

H2 USE DUCT SIZES SHOWN OR EQUIVALENT.

H3 WHERE THE CEILING IS USED AS A RETURN AIR PLENUM, ENSURE THAT OTHER TRADES DO NOT INSTALL COMBUSTIBLE MATERIALS IN THIS PLENUM UNLESS ALLOWED FOR BY SENTENCES 6.2.32(2) TO (4) AND ARTICLE 3.6.4.3 OF THE ONTARIO BUILDING CODE.

H4 WHERE THE CEILING IS NOT USED AS A RETURN AIR PLENUM, DUCTS TO HAVE 2" (50mm) THICK THERMAL INSULATION AND ADDITIONAL 1" (25mm) ACOUSTIC INSULATION FOR THE FIRST 10'-0". ALL RUNOUTS C/W 2" (50mm) THICK THERMAL INSULATION.

H5 ALL DUCTWORK INSIDE BUILDING IS TO BE COMPLETE WITH 1/2" (13mm) THICK ACOUSTIC INSULATION WHERE SHOWN.

H6 DUCTWORK IN ATTIC DUCTS IN ATTIC SPACE TO HAVE 1" (25mm) ACOUSTIC INSULATION AND ADDITIONAL 2" (50mm) THICK THERMAL INSULATION. ALL RUNOUTS IN ATTIC C/W 2" (50mm) THICK THERMAL INSULATION.

H7 INSTALL REFRIG. LINES ON METAL BRACKETS, SECURE WITH CLAMPS. COORDINATE ROUTING OF REFRIG LINES WITH GENERAL CONTRACTOR.

H8 ALL DUCTWORK INCLUDING FITTING, IS TO BE SEALED AS REQ'D BY ASHRAE AND SMACNA STANDARDS.

H9 AIR VOLUMES ARE IN CFM.

H10 INTAKE & EXHAUST LOUVRES - VENTEX OR EQUAL EXHAUST - HI PRO 245 C/W BIRD SCREEN INTAKE - HI PRO 2635 C/W BIRD SCREEN.

LOUVRES TO BE FACTORY PAINTED. COLOUR SELECTIONS BY ARCHITECT FROM VENTEX COLOUR CHART.

H11 PLASTIC VENTING SYSTEMS FOR HIGH EFFICIENCY GAS FURNACES MUST BE APPROVED TO THE REQUIREMENTS OF U.L.C. VENTING SYSTEMS SHALL BE IPEX SYSTEM 636 PVC (65°C) OR EQUAL. VENTING SYSTEMS FOR USE WITH CEILING SPACE RETURN AIR PLENUMS, NON-COMBUSTIBLE BUILDINGS AND HIGH BUILDINGS SHALL BE IPEX SYSTEM 636 CPVC (180°C) OR EQUAL.

H12 STAGGER RUNOUT CONNECTIONS TO MAIN DUCT.

H13 ALL VRF SCHEMATICS ARE APPROXIMATE PIPE LENGTHS ONLY. THIS CONTRACTOR IS TO SITE VERIFY ALL PIPING LENGTHS AND NOTIFY EQUIPMENT SUPPLIER & MANUFACTURER, AN UPDATED VRF PIPING SCHEMATIC IS TO BE SUBMITTED TO THE ENGINEER PRIOR TO INSTALLATION.

1. BASIC MECHANICAL REQUIREMENTS

THIS CONTRACTOR SHALL FURNISH AND INSTALL MATERIALS AND EQUIPMENT AS SPECIFIED AND AS SHOWN ON THE DRAWINGS FOR THE SATISFACTORY COMPLETION OF THE WORK. TEST AND PUT INTO OPERATION ALL MECHANICAL WORK. CONFORM TO THE APPLICABLE REQUIREMENTS AND CONDITIONS OF THE GENERAL CONTRACT.

THIS CONTRACTOR SHALL SUBMIT A LUMP SUM PRICE BASED ON THE SPECIFICATIONS AND DRAWINGS. IF THIS CONTRACTOR WISHES TO BID ON ALTERNATIVE MATERIALS AND EQUIPMENT, THE BID MUST INCLUDE THE NAME OF THE ALTERNATIVE MANUFACTURER AND THE ADJUSTMENT IN PRICE, IF ANY.

THIS CONTRACTOR BEFORE BIDDING, SHALL EXAMINE THE SITE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BE FAMILIAR WITH THE BUILDING CONSTRUCTION SO THAT THE BID INCLUDES ALL THAT IS NECESSARY FOR THE PROPER COMPLETION OF THE WORK.

THIS CONTRACTOR SHALL CONFORM TO MINIMUM REQUIREMENTS OR BETTER OF PROVINCIAL AND LOCAL CODES AND TO THE REQUIREMENTS OF LOCAL INSPECTION AUTHORITIES FOR THE EXECUTION OF THE WORK.

THIS CONTRACTOR SHALL OBTAIN PERMITS, PAY FEES AND FURNISH CERTIFICATES AS EVIDENCE THAT THE WORK INSTALLED CONFORMS WITH THE LAWS AND REGULATIONS OF ALL GOVERNING AUTHORITIES HAVING JURISDICTION.

THIS CONTRACTOR SHALL STUDY THE DRAWINGS AND SPECIFICATIONS AND SHALL REPORT ANY ERRORS OR INCONSISTENCIES TO THE ENGINEER BEFORE BIDDING. IN NO CASE SHALL THE CONTRACTOR PROCEED IN UNCERTAINTY.

SHOP DRAWINGS: THIS CONTRACTOR SHALL FORWARD SHOP DRAWINGS OF EQUIPMENT AND FIXTURES. TAPPED SHOP DRAWINGS WILL NOT BE ACCEPTED. CUTTING AND PATCHING: INCLUDE CUTTING AND PATCHING AS REQUIRED FOR WORK IN THIS DIVISION.

EXCAVATING AND BACKFILL: INCLUDE EXCAVATION AND BACKFILL AS REQUIRED FOR UNDERGROUND PIPING IN THIS DIVISION. SLEEVES, ACCESS DOORS: PROVIDE SLEEVES AND ACCESS DOORS FOR THE INSTALLATION AND SERVICING OF ALL CONCEALED MECHANICAL EQUIPMENT. ELECTRICAL: CONTRACTOR SHALL PROVIDE EQUIPMENT COMPLETE WITH CONTROLS FOR THE MECHANICAL EQUIPMENT. ALL POWER WIRING SHALL BE BY THE ELECTRICAL CONTRACTOR.

ROOF CURBS AND OPENINGS: THIS CONTRACTOR SHALL SUPPLY ALL ROOF CURBS, STRUCTURAL SUPPORTS FOR ROOF OPENINGS AND COUNTER FLASHING FOR MECHANICAL EQUIPMENT UNLESS SPECIFICALLY INSTRUCTED OTHERWISE BY THE GENERAL CONTRACTOR.

GENERAL WORK: CONCRETE PADS, FURRED IN DUCT SPACES TO BE DONE BY THE GENERAL CONTRACTOR UNLESS SPECIFICALLY INSTRUCTED OTHERWISE. GUARANTEE: GUARANTEE EQUIPMENT AND SYSTEMS AGAINST DEFECTS OF MATERIAL AND WORKMANSHIP FOR ONE FULL YEAR FROM DATE OF FINAL ACCEPTANCE.

2. PLUMBING AND DRAINAGE

DOMESTIC WATER PIPING: ALL PIPING SHALL BE COPPER CONFORMING TO THE PROVINCIAL BUILDING CODE. VALVES SHALL BE JENKINS, CRANE OR EQUAL UP TO 2" (50mm). PROVIDE DRAIN VALVES AT LOW SPOTS OF SYSTEM.

SANITARY AND VENTS: ALL SANITARY AND VENT PIPING SHALL CONFORM TO THE PROVINCIAL BUILDING CODE. USE PLASTIC PIPE AND FITTINGS WHERE PERMISSIBLE BY PROVINCIAL BUILDING CODE.

STORM PIPING: ALL STORM DRAINAGE PIPING SHALL CONFORM TO THE PROVINCIAL BUILDING CODE.

PIPE INSULATION: DOMESTIC HOT AND COLD WATER PIPING TO BE INSULATED WITH 1" (25mm) PREFORMED PIPE INSULATION. DOMESTIC HOT WATER PIPING 1 1/2" (38mm) OR LARGER TO BE INSULATED WITH 1 1/2" (38mm) PREFORMED PIPE INSULATION. STORM DRAIN SYSTEMS USING CAST IRON PIPE FITTINGS AND ROOF DRAINS SHALL BE COVERED WITH VAPOUR SEAL INSULATION.

GAS PIPING: ARRANGE FOR THE INSTALLATION AND PAY FEES IF NECESSARY, OF A GAS SERVICE TO THE BUILDING AS SHOWN. GAS PIPING AND GAS VENTS SHALL CONFORM TO THE GAS UTILIZATION CODE, LATEST AMENDMENT. PAINTING OF GAS PIPE SHALL BE BY THIS CONTRACTOR.

SITE SERVICES: SUPPLY AND INSTALL ALL SERVICES FROM THE BUILDING AS SHOWN ON THE DRAWINGS. COORDINATE ALL INVERTS ON SITE WITH GENERAL CONTRACTOR AND LOCAL AUTHORITIES.

2.1 PLUMBING FIXTURES AND SPECIALTIES

FD FLOOR DRAIN, CAST IRON BODY, ADJ. STRAINER COLLAR, TRAP PRIMER, TRAP, ZURN 245-BD OR EQUAL.
FFD FUNNEL FLOOR DRAIN, CAST IRON BODY, ADJ. STRAINER COLLAR, TRAP PRIMER, TRAP, ZURN 2N-4B-BE OR EQUAL.
CO CLEANOUT, CAST IRON BODY, ADJ. COLLAR, PLUG, COVER TO SUIT FLOOR FINISH, ZURN 240B-5 OR EQUAL.
NHFB EXPOSED HOSE BIBB, NON-FREEZE WITH KEY, ZURN 2330 OR EQUAL.
RD ROOF DRAIN, CAST IRON COMPLETE WITH CLAMPING RING, DOME STRAINER UNDER DECK CLAMP TO SUIT ROOF CONSTRUCTION.
ZURN 2100-C-HD OR EQUAL.

FORD FLOW CONTROL, ROOF DRAIN, CAST IRON COMPLETE WITH FLASHING, CLAMP, GRAVEL GUARD, POLY-DOME UNDER DECK CLAMP TO SUIT ROOF CONSTRUCTION, CONTROL-FLO WEIR, ZURN 2105 OR EQUAL.

3. HVAC

ALL SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH CODE REQUIREMENT, AND TO ASHRAE AND SMACNA STANDARDS. ALL MATERIAL AND EQUIPMENT SHALL BE NEW. DUCTWORK SHALL BE OF GAUGES AS OUTLINED BY SMACNA STANDARDS. EQUIPMENT TO BE AS OUTLINED ON THE DRAWINGS. PROVIDE ALL NECESSARY BALANCING AND VOLUME DAMPERS. BALANCE THE AIR SYSTEMS TO VOLUMES SHOWN. SUBMIT BALANCING REPORT TO THE OWNER IN TRIPPLICATE. DUCT INSULATION.

ACOUSTIC LINING 1/2" (13mm) THICK SHALL BE MECHANICALLY FINNED AND GLUED TO THE INSIDE OF DUCTWORK. IT IS NOT REQUIRED TO INCREASE THE DUCT SIZE FOR ACOUSTIC INSULATION. INSTALL WHERE SHOWN AND/OR AS NOTED. ALWAYS ACOUSTICALLY INSULATE THE FIRST 10 FEET (3000mm) FROM A FAN OR AN OUTSIDE AIR INTAKE/ EXHAUST.

THERMAL INSULATION SHALL BE 2" (50mm) AND BE SECURED TO THE OUTSIDE OF DUCTWORK. INSULATE AS SHOWN AND/OR AT LEAST THE FIRST 10 FEET (3000mm) FROM AN OUTSIDE AIR INTAKE/ EXHAUST.

FIRE DAMPERS: DYNAMIC FIRE DAMPERS SHALL BE U.L.C. APPROVED AND INSTALLED AS REQUIRED BY N.B.C. PROVINCIAL BUILDING CODE AND LOCAL FIRE MARSHALL. CONTROLLED AIR OR EQUAL. INSTALL AS SHOWN OR AS NOTED ON THE DRAWING.

4. WORK IN EXISTING BUILDING

1. THE CONTRACTOR SHALL VISIT THE SITE AND EXAMINE THE EXISTING CONDITIONS AND MAKE ALLOWANCES IN HIS TENDER PRICE FOR REMOVAL, RELOCATION, RE-ROUTING, RECONNECTION OF EXISTING MECHANICAL EQUIPMENT AS MAY BE NECESSARY FOR THE EXECUTION AND COMPLETION OF THIS PROJECT.

2. EQUIPMENT LOCATED IN AREAS BEING ALTERED OR DEMOLISHED, BUT SERVICING OTHER EQUIPMENT REQUIRED TO REMAIN IN SERVICE SHALL BE RE-ROUTED AS REQ'D TO MAINTAIN CONTINUITY OF SERVICES.

3. SEQUENCE OF REMOVAL AND RELOCATION OF EXISTING EQUIPMENT SHALL BE COORDINATED WITH THE OTHER TRADES AND THE OWNER. SYSTEM INTERRUPTIONS SHALL BE KEPT TO A MINIMUM.

4. ALL EXISTING MECHANICAL EQUIPMENT WHICH IS NOT TO BE RE-USED SHALL BECOME THE PROPERTY OF THE OWNER. IF THE OWNER DECIDES HE DOES NOT WANT IT, THE MECHANICAL CONTRACTOR SHALL DISPOSE OF IT.

5. THE CONTRACTOR SHALL PROVIDE ADEQUATE PROTECTION TO EXISTING EQUIPMENT THROUGHOUT THE PROJECT AND PARTICULARLY WHERE EQUIPMENT HAS BECOME EXPOSED TO MECHANICAL INJURY OR MOISTURE IN THE COURSE OF ALTERATIONS OR NEW CONSTRUCTION.



Stamped for prototypical design only. All local codes and standards are to be confirmed with project location prior to construction.

2	ISSUED FOR CLIENT REVIEW.	2024.11.06
1	ISSUED FOR COORDINATION.	2024.10.18
No	DESCRIPTION	DATE



COLLINS
ENGINEERING GROUP
INCORPORATED
MECHANICAL ENGINEERING

PROJECT:

OFNTSC - HOUSING LIBRARY

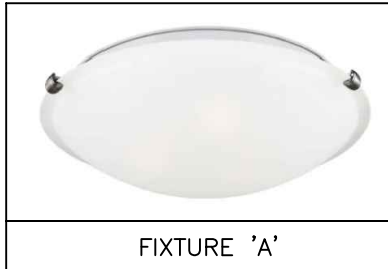
DATE: 2024.06.13	DRAWN: DS
SCALE: 1 : 50	CHECKED: HR

DRAWING:

1 BD Schedules & Notes

JOB NO. 7198	DWG NO. M2 (1BD)
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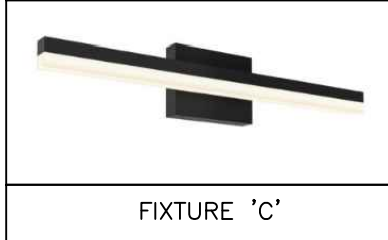
LUMINAIRE SCHEDULE						
TYPE	ACCEPTABLE MANUFACTURES	MODELS	CATALOGUE NUMBERS	DESCRIPTION NUM OF LAMPS VOLTAGE	LOCATION MOUNTING HEIGHT	NOTES
A	GENERATION LIGHTING		7543503-962	FLUSH MOUNT 3-A19 BULBS 60W 120V	BEDROOMS SURFACE CEILING	CONFIRM FINISH WITH OWNER PRIOR TO ORDERING.
B	SEAGULL LIGHTING		7594EN3-782	FLUSH MOUNT 2-A19 BULBS 60W 120V	GENERAL SURFACE CEILING	CONFIRM FINISH WITH OWNER PRIOR TO ORDERING.
C	DALS	LEDVAN	LEDVAN003.24	2FT VANITY LIGHT 22W 1600lm 120V	WASHROOM WALL ABOV. MIRROR	CONFIRM FINISH WITH OWNER PRIOR TO ORDERING.
D	LITHONIA LIGHTING	WF4	WF4 LED 3500K/10.5W/780L. MVOLT.90CRI.MW	4" POT LIGHT 10.5W, 780lm 120V	WASHROOM RECESSED CEILING	FIXTURE TO BE WET LOCATION LISTED.
F	XTC LIGHTING	WN	WN-4038	OUTDOOR LIGHT 5W, 240lm 120V	EXTERIOR WALL	CONFIRM MOUNTING HEIGHT WITH OWNER PRIOR TO ROUGH-IN.



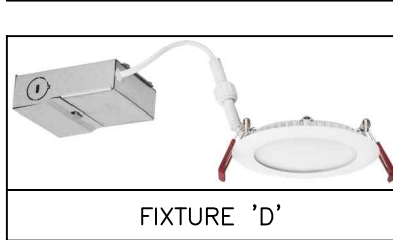
FIXTURE 'A'



FIXTURE 'B'



FIXTURE 'C'

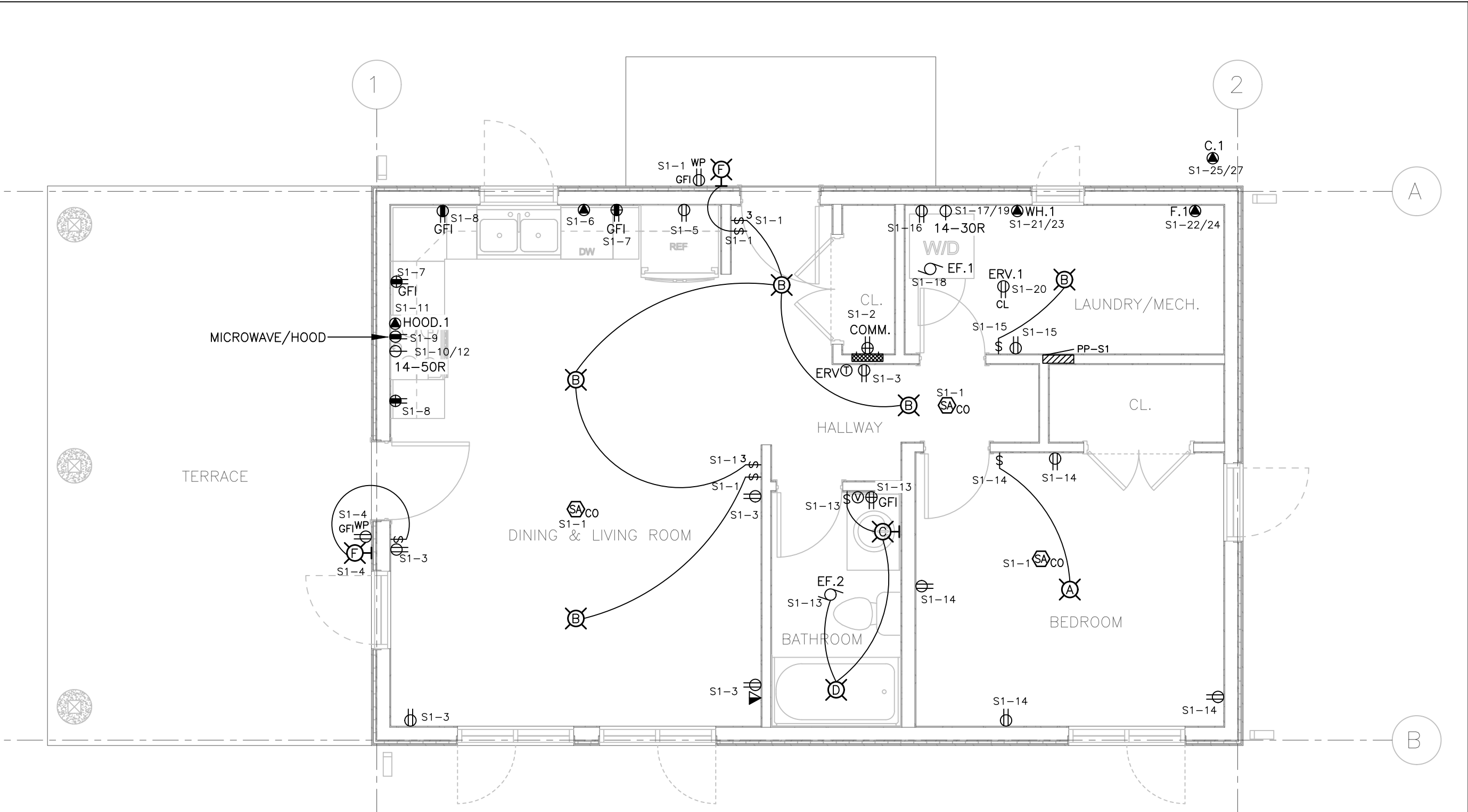


FIXTURE 'D'



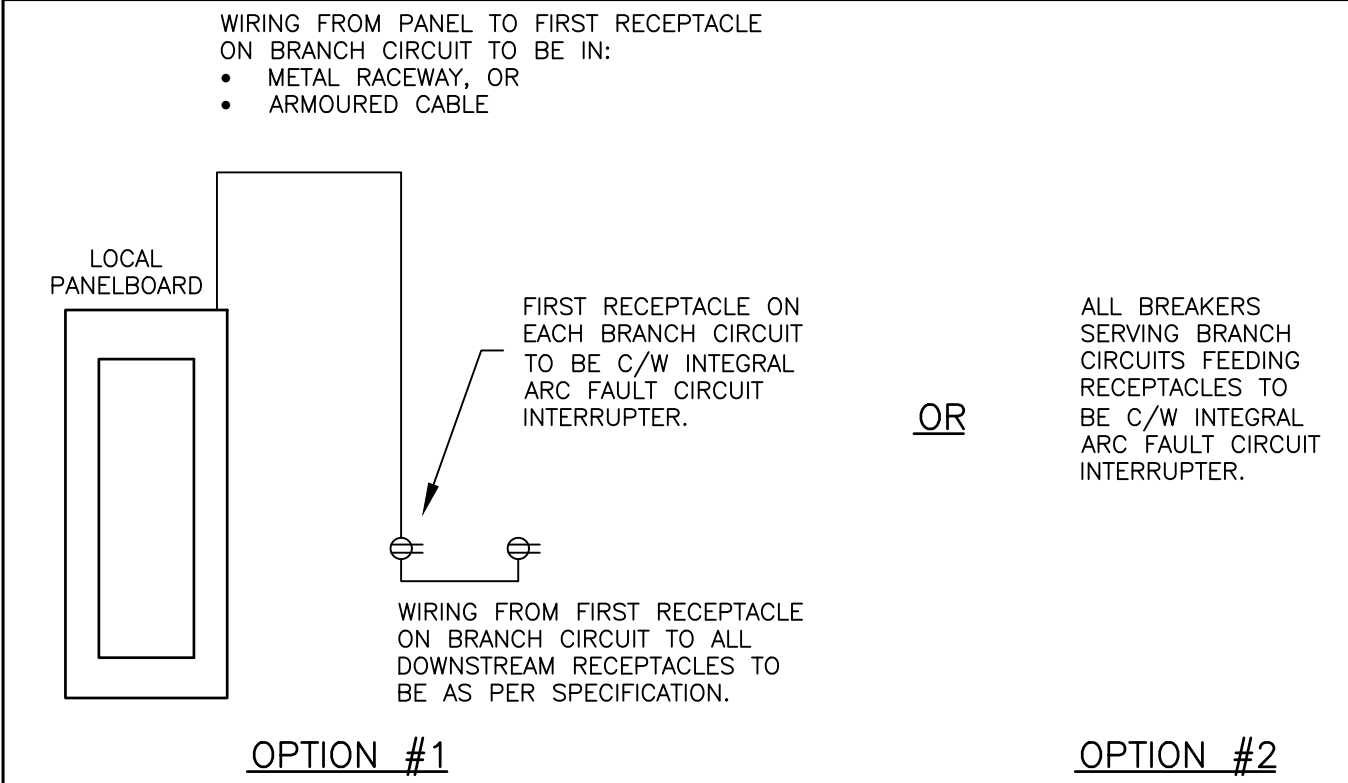
FIXTURE 'F'

ELECTRICAL LEGEND	
	LIGHT FIXTURE (z = TYPE AS PER SCHEDULE)
	WALL MOUNTED LIGHT FIXTURE (z = TYPE AS PER SCHEDULE)
	DUPLEX RECEPTACLE
	DUPLEX RECEPTACLE (102mm ABOVE COUNTER BACKSPLASH, OR AS SHOWN)
	20A T-SLOT RECEPTACLE
	20A T-SLOT RECEPTACLE (102mm ABOVE COUNTER BACKSPLASH)
	DIRECT WIRED CONNECTION
	TOGGLE SWITCH (3,4 = 3 OR 4 WAY, K = KEY OPERATED)
	COMBINATION VOICE/DATA OUTLET
	POWER PANEL
	COMMUNICATION PANEL
	COMBINATION SMOKE ALARM/CARBON MONOXIDE C/W AUDIO/VISUAL (120V & 7-DAY BATTERY)
	GROUND FAULT PROTECTION
	WEATHERPROOF (WHILE IN-USE COVER)
DEVICE	
NOTES	
GFI	
WP	



1 1 BEDROOM SUITE LAYOUT
1/4"=1'-0"

WIRING FOR MECHANICAL EQUIPMENT SCHEDULE																			
EQUIPMENT		MOTOR		STARTERS				REMOTE ITEMS								REMARKS			
TYPE	NAME OR DESCRIPTION	VOLTAGE	PHASE	SIZE	MANUAL	VFD	COMBINATION	H.-O.-A.	ON.-OFF. SS	CONT. VOLT	PUSHBUTTON	ISOLATING SW.	WP ISOL. SW.	WIRING BY	TERMOSTAT	SPD. CONTROL	F/A SHUTDN.	ETOTC TIME CL	FSOM TIMER
EF.1	DRYER FAN	120	1											E					
EF.2	EXHAUST FAN	120	1											E					
ERV.1	ENERGY RECOVERY VENTILATOR	120	1	2.46 A										E	M				
F.1	AIR HANDLER	208	1	3 KW										E					
HOOD.1	KITCHEN HOOD	120	1	1.2 A										E					
WH.1	WATER HEATER	208	1	3000 W										E					
C.1	CONDENSING UNIT	208	1	30 MOCF 22 MCA										E	E				

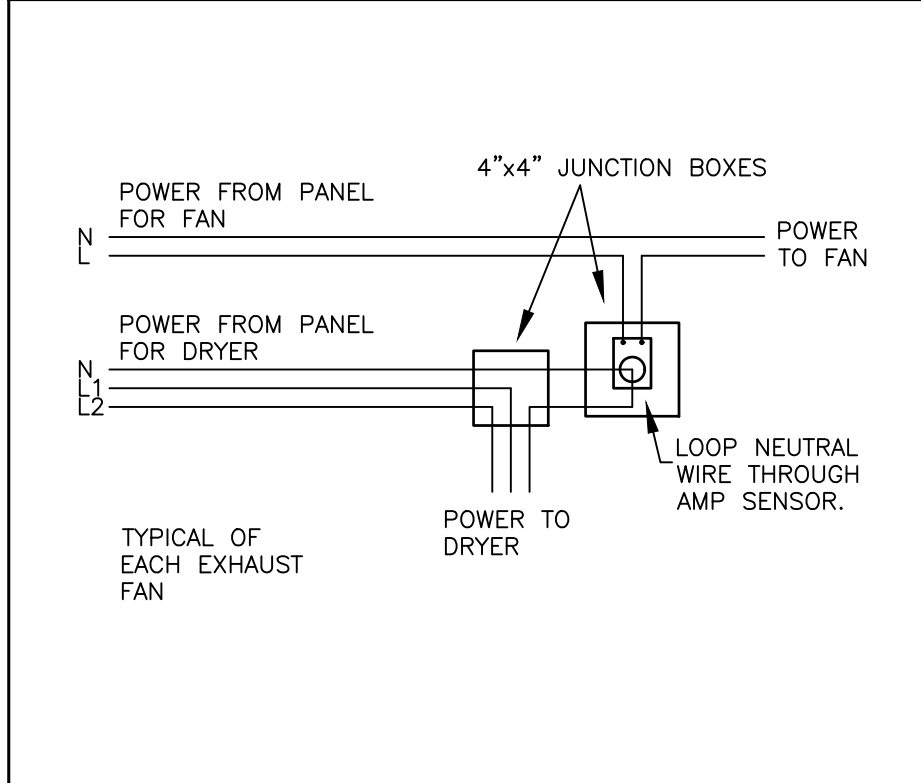


OPTION #1

OPTION #2

- THESE TWO OPTIONS APPLY TO ALL RECEPTACLES IN UNITS EXCEPT:
- WASHROOM/BATHROOM RECEPTACLES [26-720(f)]
 - REFRIGERATOR [26-724(d)(i)]
 - KITCHEN COUNTER RECEPTACLES [26-724(d)(ii)]
 - KITCHEN ISLAND RECEPTACLES [26-724(d)(v)]
 - KITCHEN PENINSULA RECEPTACLES [26-724(d)(v)]
 - DEDICATED SUMP PUMP RECEPTACLES [26-656(1)(b)]

3 ARC FAULT CIRCUIT INTERRUPTER DETAIL [OESC 26-656]
E1 N.T.S.

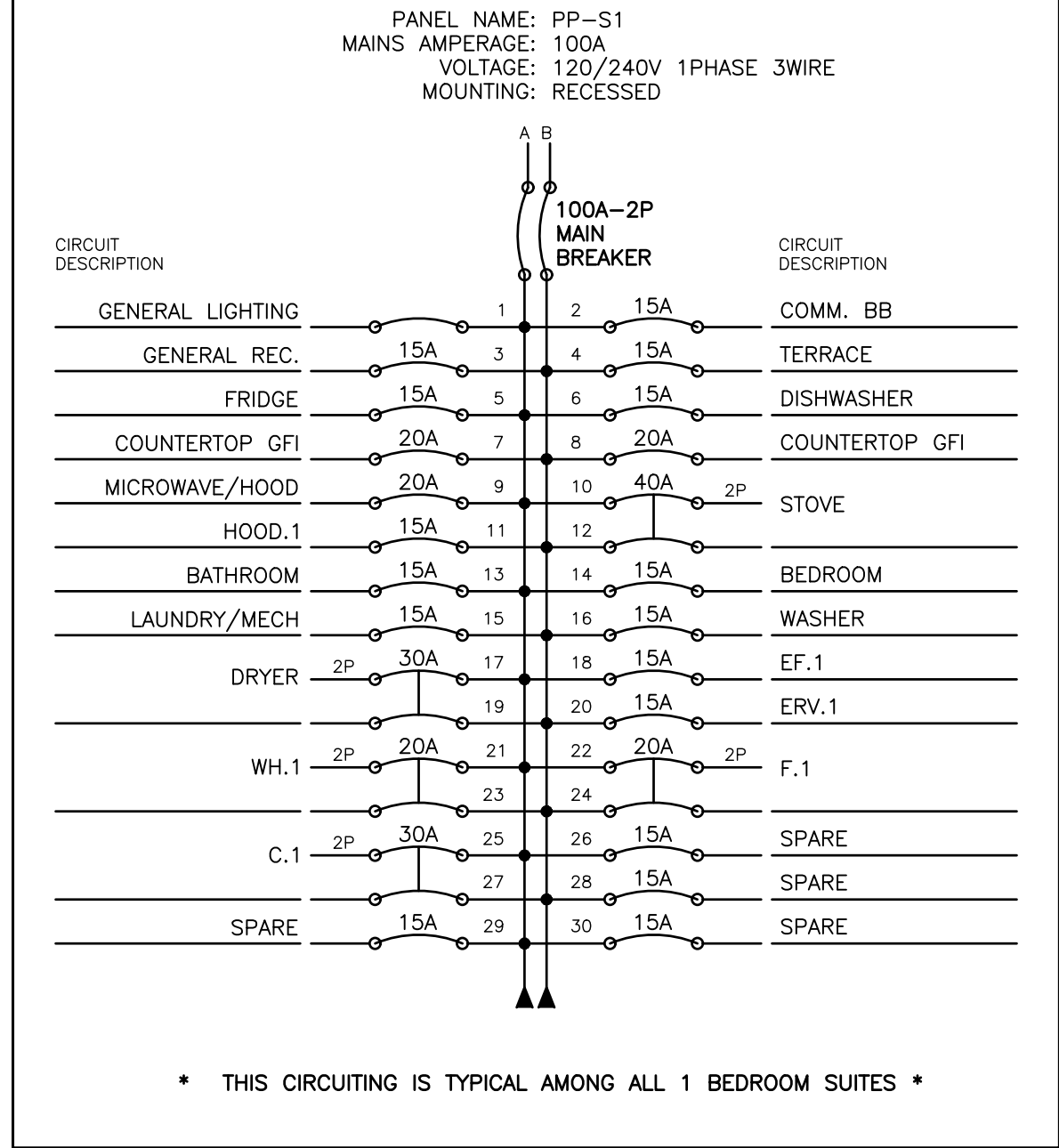


- NOTES:
- AMP SENSOR SUPPLIED BY MECHANICAL CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR.
 - JUNCTION BOXES TO BE RECESSED INTO WALL BEHIND DRYER.
 - MOUNT AMP SENSOR IN JUNCTION BOX.

2 DRYER BOOSTER FAN CONTROL WIRING
E1 NTS

NOTES:

- SMOKE ALARMS SHALL BE WIRED SO THAT THE ACTUATION OF ONE SMOKE ALARM WILL CAUSE ALL SMOKE ALARMS WITHIN THE DWELLING UNIT TO SOUND. PANEL SCHEDULE IS TO INDICATE WHICH LIGHTING CIRCUIT THE SMOKE ALARM IS WIRED TO.
- LIVING ROOM RECEPTACLES ARE TO BE LOCATED MORE THAN 1500mm FROM THE KITCHEN SINK AND LESS THAN 1800mm FROM THE EDGE OF THE MILLWORK OR ARE TO BE PROTECTED BY A CLASS A GROUND FAULT CIRCUIT INTERRUPTER.
- ALL RECEPTACLES LOCATED WITHIN 1500mm OF A SINK ARE TO BE PROVIDED WITH A CLASS A GROUND FAULT CIRCUIT INTERRUPTER.
- LOCATION OF COMMUNICATION BACKBOARD IS DENOTED AS 'COMM'. ALL COMMUNICATION CONDUIT TO TERMINATE IN THIS LOCATION.
- ALL RECEPTACLES IN DWELLING UNITS ARE TO BE PROTECTED BY AN ARC FAULT CIRCUIT INTERRUPTER AS PER 26-656 OF THE ELECTRICAL SAFETY CODE. REFER TO 'ARC FAULT CIRCUIT INTERRUPTER' DETAIL.
- SMOKE ALARMS AND CARBON MONOXIDE ALARMS ARE TO BE HARDWIRED.
- ALL RECEPTACLES ALONG FINISHED WALLS WITHIN DWELLING UNITS ARE TO BE OF TAMPER RESISTANT TYPE AS PER 26-706 OF THE ELECTRICAL SAFETY CODE.
- SWITCHES TO BE LOCATED A MINIMUM OF 1m FROM THE BATHTUB OR TO BE PROVIDED WITH A CLASS A GROUND FAULT CIRCUIT INTERRUPTER.
- ALL SUITES TO HAVE MICROWAVE SHELF BUILT INTO KITCHEN CABINETRY. PROVIDE 20A T-SLOT AND POWER FROM CIRCUIT ALLOCATED ON PANELBOARD SCHEDULE.
- COORDINATE LOCATION OF ALL WASHROOM WALL MOUNTED DEVICES WITH MIRROR AND TOWEL RACK LOCATIONS. CONFIRM ON SITE.
- COORDINATE WALL THICKNESS AT PROPOSED ELECTRICAL PANEL LOCATIONS WITH ARCHITECTURAL PLANS. WALL TO BE MINIMUM 4" DEEP TO ACCOMMODATE FULLY RECESSING PANEL.
- RECEPTACLES ARE TO BE SPACED SUCH THAT NO POINT ALONG USABLE WALL SPACE IS MORE THAN 1.8m HORIZONTALLY FROM A RECEPTACLE AS PER 26-724(a) OF THE ELECTRICAL SAFETY CODE. RECEPTACLE LOCATIONS TO BE COORDINATED WITH STUD LOCATIONS ON SITE. PROVIDE ADDITIONAL RECEPTACLE LOCATIONS AS REQUIRED TO SUIT WALL CONSTRUCTION.
- LOCATION OF HYDRO METER AND COMMUNICATIONS PROVIDER DEMARCATION POINT SHALL BE COORDINATED ON A SITE BY SITE BASIS AND WILL VARY DEPENDING ON UTILITY COMPANY AND PROVIDERS.
- FAULT CURRENT CALCULATIONS SHALL BE COMPLETED ON A SITE BY SITE BASIS PRIOR TO ORDERING THE ELECTRICAL BREAKER PANELS. COORDINATE WITH THE LOCAL UTILITY COMPANY TO OBTAIN AVAILABLE FAULT CURRENT. ORDER PANELS WITH KA RATINGS TO SUIT THE CALCULATION RESULTS.



• THIS CIRCUITING IS TYPICAL AMONG ALL 1 BEDROOM SUITES •



5	ISSUED FOR PERMIT	2024.11.18
4	ISSUED FOR FINAL REVIEW	2024.09.26
3	ISSUED FOR REVIEW	2024.08.20
2	ISSUED FOR REVIEW	2024.08.15
1	ISSUED FOR REVIEW	2024.07.23

No	REVISION	DATE
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PROJECT TITLE:
PROPOSED TO:
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DRAWING TITLE:

ONE BEDROOM
SUITE LAYOUT

DRAWN BY: ZH	CUSTOMER PROJECT No.
CHECKED BY: TA	MIGHTON PROJECT No. 43204
DATE: JULY 2024	DRAWING No.
SCALE: AS NOTED	E1

ELECTRICAL SPECIFICATION

1. GENERAL

1.1. THE CANADIAN STANDARD FORM OF CONSTRUCTION CONTRACT AND GENERAL CONDITIONS GOVERNING THE SAME CCDC PARTS 1 TO 12 INCLUSIVE ARE HEREBY MADE A PART OF THIS SPECIFICATION.

1.2. ALL WORK SHALL BE IN FULL ACCORDANCE WITH THE REQUIREMENTS OF THE ONTARIO ELECTRICAL CODE, ELECTRICAL SAFETY AUTHORITY (ESA), AND THE LOCAL INSPECTION DEPARTMENT REQUIREMENTS.

1.3. THIS CONTRACTOR IS REQUIRED TO PAY ALL FEES TO THE ESA FOR FIELD INSPECTION.

1.4. THIS CONTRACTOR SHALL MAINTAIN LIABILITY INSURANCE AS REQUIRED.

1.5. ALL WORKMANSHIP SHALL BE EXECUTED TO A STANDARD DETERMINED BY GOOD PRACTICE. THE ELECTRICAL CONTRACTOR SHALL GUARANTEE THE INSTALLATION FOR ONE YEAR FROM SUBSTANTIAL COMPLETION.

1.6. THE ELECTRICAL CONTRACTOR SHALL SUBMIT ONE SET OF ELECTRONIC PDF SHOP DRAWINGS TO THE ARCHITECT. MATERIALS SHALL NOT BE ORDERED UNTIL REVIEW HAS BEEN COMPLETED. APPROVAL IS FOR GENERAL DESIGN AND ARRANGEMENT ONLY.

1.7. THE OWNERS RESERVE THE RIGHT TO ALTER THE LOCATION OF ANY ITEM UP TO TEN FEET (3m) WITHOUT INCURRING EXTRA COSTS, PROVIDED THE REQUEST IS MADE PRIOR TO INSTALLATION.

1.8. ALL MATERIAL AND EQUIPMENT USED ON THIS PROJECT SHALL BE C.S.A. APPROVED, ESA FIELD EVALUATED, OR MUST BEAR AN ESA RECOGNIZED CERTIFICATION MARK.

1.9. ALL CUTTING AND PATCHING FOR ELECTRICAL WORK SHALL BE DONE BY THE GENERAL CONTRACTOR AT THE ELECTRICAL CONTRACTOR'S EXPENSE.

1.10. THE DRAWINGS AND SPECIFICATIONS SHALL BE READ IN CONJUNCTION WITH THE ARCHITECTURAL AND MECHANICAL DRAWINGS AND SPECIFICATIONS. ANY DISCREPANCIES OR CONTRADICTIONS SHALL BE BROUGHT TO THE CONSULTANT'S ATTENTION.

1.11. ALL TEMPORARY LIGHTING AND POWER DURING CONSTRUCTION SHALL BE BY THE GENERAL CONTRACTOR AFTER AGREEMENT WITH THE ELECTRICAL CONTRACTOR. POWER SHALL BE PROVIDED FROM PANELS WITH REQUIRED SUPPLY AND CAPACITY.

1.12. TENDER SHALL BE BASED UPON THE SPECIFIED EQUIPMENT AND MATERIAL. REQUESTS FOR CONSIDERATION OF ALTERNATES TO THE SPECIFIED MATERIALS SHALL BE MADE TO THE CONSULTANT ONE WEEK PRIOR TO TENDER CLOSING AND SHALL INCLUDE MANUFACTURER, MODEL, AND COST MODIFICATION. COSTS OF ANY CHANGE REQUIRED TO OTHER TRADES AS A RESULT OF USING ALTERNATE EQUIPMENT ARE TO BE INCURRED BY THE ELECTRICAL CONTRACTOR.

1.13. ALL CLAIMS FOR EXTRA WORK NOT COVERED IN THE CONTRACT TO BE SUBMITTED WITH A COMPLETE BREAKDOWN OF MATERIAL AND LABOUR.

1.14. DO NOT SCALE THESE DRAWINGS. ALL DIMENSIONS ARE TO BE TAKEN FROM THE ARCHITECTURAL DRAWINGS AND CONFIRMED ON SITE.

1.15. ALL OVERTIME WORK SHALL BE CARRIED OUT WITH NO ADDITIONAL COST TO THE OWNER.

1.16. PROVIDE FIRE STOPPING PROTECTION FOR OPENINGS THROUGH FIRE RATED WALLS, FLOORS AND ROOF. U.L.C. LISTED ASSEMBLY NUMBERS ARE TO BE USED.
2. ELECTRICAL EQUIPMENT

2.1. ALL SURFACE WIRING SHALL BE T90 COPPER IN EMT CONDUIT WHERE WIRING AND CONDUIT CANNOT BE RECESSED.

2.2. ALL BELOW GRADE WIRING SHALL BE RWU90 COPPER IN RIGID PVC CONDUIT UNLESS OTHERWISE NOTED.

2.3. THE ELECTRICAL SERVICE EQUIPMENT, EACH METALLIC PIPING SYSTEM, AND EACH CONDUIT SYSTEM SHALL BE PERMANENTLY AND EFFECTIVELY GROUNDED/BONDED IN ACCORDANCE WITH THE ONTARIO ELECTRICAL SAFETY CODE.

2.4. GROUND FAULT PROTECTION WITH 30mA TRIP SENSITIVITY SHALL BE PROVIDED FOR ALL BREAKERS SERVING ELECTRIC HEAT TRACING.

2.5. ALL ELECTRICAL DISTRIBUTION EQUIPMENT MUST BE PROPERLY IDENTIFIED WITH LAMACOID NAME PLATES SCREWED ON EQUIPMENT. PANELS ARE TO HAVE TYPED DIRECTORIES. DISCONNECTS ARE TO HAVE MAXIMUM FUSE RATINGS INDICATED.

2.6. THE ELECTRICAL CONTRACTOR SHALL SUPPLY ALL LABOUR AND MATERIALS TO PROVIDE ELECTRIC SERVICE COMPLETE WITH FEEDERS AND BRANCH CIRCUITS ALL AS SHOWN ON THE PLANS.

2.7. EXTRA CHARGES FOR PREMIUM TIME LABOUR SHALL BE INCLUDED IN THE TENDER PRICE, ALLOWING FOR AFTER HOURS, WEEKEND AND HOLIDAY LABOUR REQUIREMENTS.

2.8. ALL JUNCTION AND PULLING BOXES ARE TO BE ACCESSIBLE AND BE PROVIDED WITH SCREWED PLATES COLOUR MATCHED TO ADJACENT WALL OR CEILING FINISHES.

2.9. PULL BOXES SHALL BE PROVIDED EVERY 30m AND EVERY TWO 90° BENDS.

2.10. ALL WIRING SHALL BE PARALLEL WITH ARCHITECTURAL LINES AND DESIGN.

2.11. ALL EXPOSED CONDUIT SHALL BE PAINTED TO MATCH SURROUNDING SURFACE BY GENERAL CONTRACTOR AT ELECTRICAL CONTRACTOR'S EXPENSE. EXCLUDE UNFINISHED AREAS SUCH AS UTILITY OR STORAGE ROOMS.

2.12. PROVIDE A PULL STRING IN ALL EMPTY CONDUIT.

2.13. ALL NEW SWITCH AND RECEPTACLE PLATES SHALL BE WHITE.

2.14. DEVICE MOUNTING HEIGHT TO CENTRE OF DEVICE IS AS FOLLOWS:

2.14.1. LIGHT SWITCHES1100mm

2.14.2. RECEPTACLE400mm

2.14.3. TELEPHONE OUTLETS400mm

2.14.4. THERMOSTATS1200mm

2.14.5. OTHER BUILDING CONTROLS1000mm

2.15. DEVICE MOUNTING HEIGHT TO BOTTOM OF DEVICE IS AS FOLLOWS:

2.15.1. BASEBOARD HEATER100mm

2.15.2. FORCE FLOW HEATER300mm

2.16. DO NOT MOUNT WALL OUTLETS BACK TO BACK IN WALLS, STAGGER TO PREVENT SOUND TRANSFER.

2.17. ALL RECEPTACLES LOCATED WITHIN 1500mm OF A SINK ARE TO BE PROVIDED WITH AN INTEGRAL CLASS A GROUND FAULT CIRCUIT INTERRUPTER.

2.18. ALL CONDUITS AND CABLES TO BE SECURELY FASTENED WITH APPROVED CLIPS AND SCREWS. NAILS OR TIE WIRES ARE NOT ACCEPTABLE.

2.19. ALL ELECTRICAL EQUIPMENT, DEVICES, AND WIRING ARE TO BE INDEPENDENTLY SUPPORTED. KEEP CLEAR OF MECHANICAL PIPING WHERE POSSIBLE.

2.20. WIRING FOR MECHANICAL EQUIPMENT SHALL BE AS DETAILED ON THE PLANS.
3. LIGHT FIXTURES

3.1. ELECTRICAL CONTRACTOR SHALL INSTALL ALL FIXTURES AND LAMPS AS PER THE MANUFACTURERS SPECIFICATIONS.

3.2. ALL LED LAMPS ARE TO HAVE A COLOUR TEMPERATURE OF 3500K UNLESS OTHERWISE NOTED.

3.3. INSTALL ALL FIXTURES PARALLEL WITH BUILDING LINES UNLESS INDICATED OTHERWISE.

3.4. EXIT FIXTURES ARE TO BE PROVIDED WITH GRAPHICAL SYMBOLS INDICATING THE PATH OF EGRESS FROM THE BUILDING.

3.5. INSTALL A SEPARATE NEUTRAL CONDUCTOR TO EACH BRANCH CIRCUIT FEEDING LIGHT FIXTURES.

3.6. THE ELECTRICAL CONTRACTOR SHALL SUPPLY AND INSTALL LIGHTING FIXTURES AS NOTED ON THE PLANS.
4. COMMUNICATION EQUIPMENT

4.1. THE ELECTRICAL CONTRACTOR IS TO PROVIDE ALL MATERIALS AND LABOUR FOR A COMPLETE EMPTY CONDUIT SYSTEM FOR COMMUNICATION OUTLETS AS SHOWN ON THE PLANS.

4.2. PROVIDE 21mm (3/4") CONDUIT TO EACH OUTLET FROM COMMUNICATION BACKBOARD C/W NYLON PULL STRING IN ALL EMPTY CONDUITS.

4.3. CONTACT BELL CANADA TO DETERMINE INCOMING SERVICE ROUTING.
5. CLOSE OUT PROCEDURES

5.1. ELECTRICAL CONTRACTOR TO SUBMIT ESA CERTIFICATE OF INSPECTIONS.
6. INSPECTIONS BY CONSULTANT

6.1. CONTRACTOR TO CONTACT CONSULTANTS OFFICE TO NOTIFY WHEN INSPECTIONS ARE REQUIRED. ALLOW FOR MINIMUM THREE BUSINESS DAYS OF NOTICE PRIOR TO INSPECTION.

6.2. INSPECTIONS ARE REQUIRED AT THE FOLLOWING MILESTONES:

6.2.1. FINAL INSPECTION



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