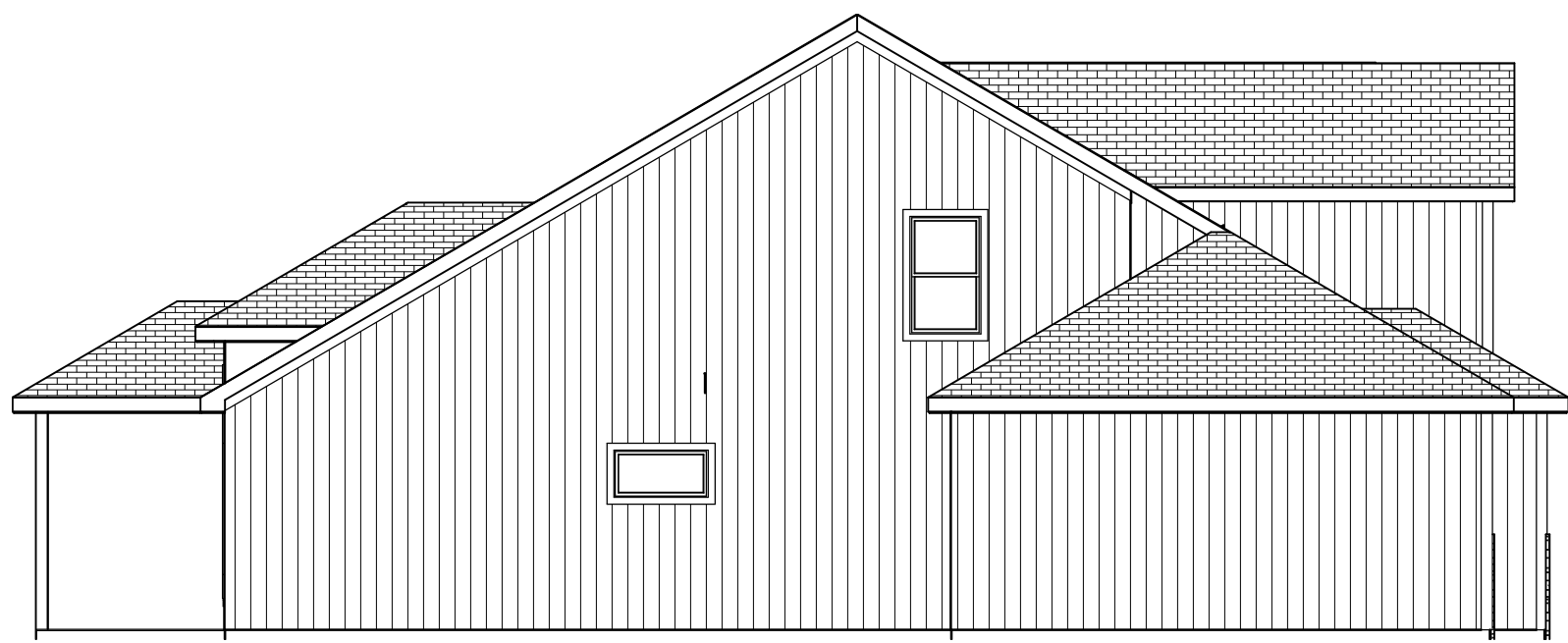


ROOF PLAN
1/8 = 1-0
ROOF PITCHES 7/12 U.N.O.
RAFTERS 2 X 6 DF NO 2 @ 16" OC TYP. U.N.O.
HIPS AND RIDGES 2 X 8 DF NO 2 TYP. U.N.O.

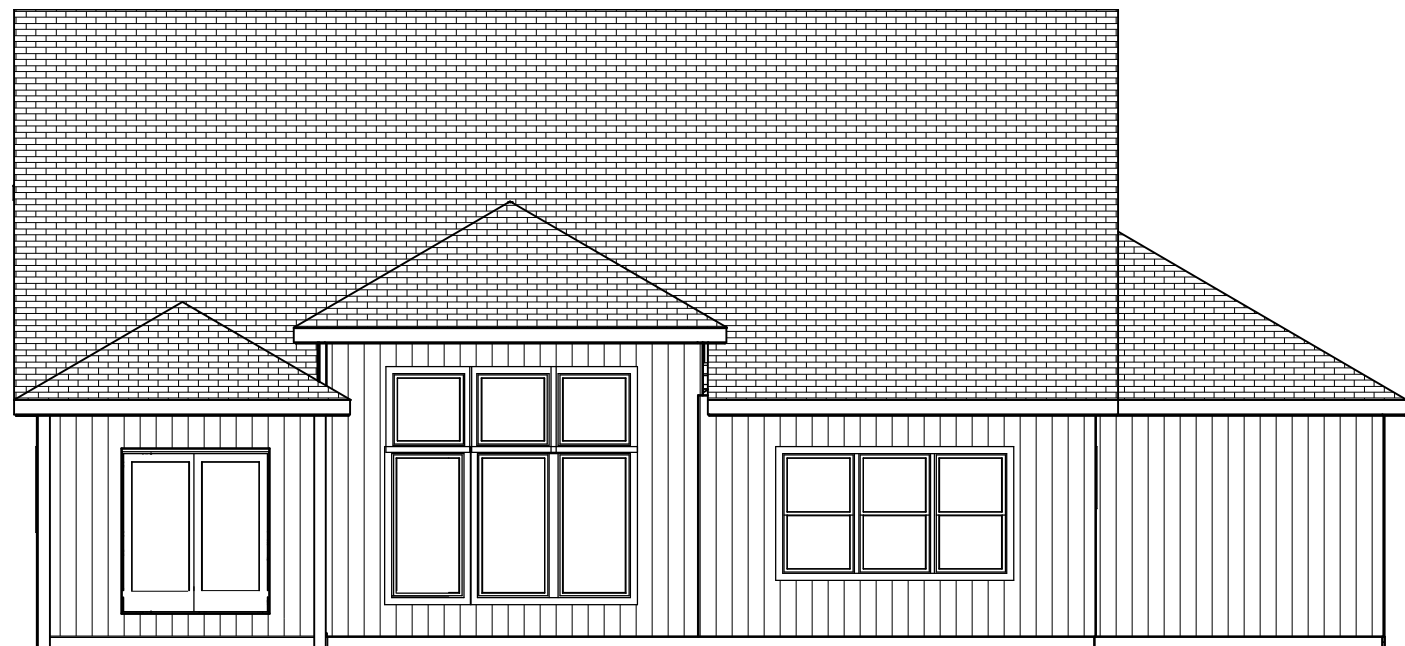


FRONT EL.
BOARD & BATT, LAP
AND STONE

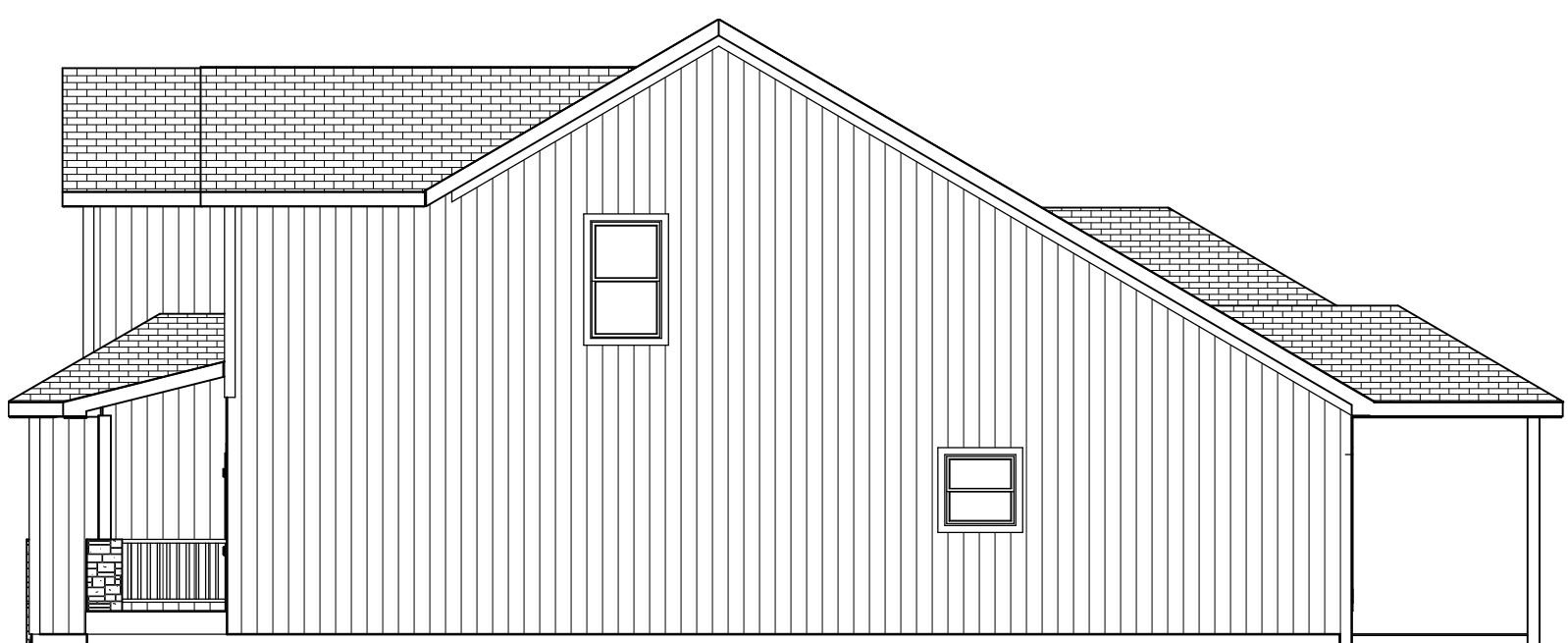


LEFT EL.
1/8 = 1-0

3 SIDES LP PANEL SIDING



REAR EL.
1/8 = 1-0



RIGHT EL.
1/8 = 1-0

3 SIDES LP PANEL SIDING

BUILD IN ACCORDANCE WITH
2018 INTERNATIONAL
RESIDENTIAL CODE AND
LOCAL CODES.

BEHOME LLC
LOT 74 MONTICELLO
1221 NE GOSHEN DR
LEE SUMMIT MO

SCALE
1/4" = 1-0

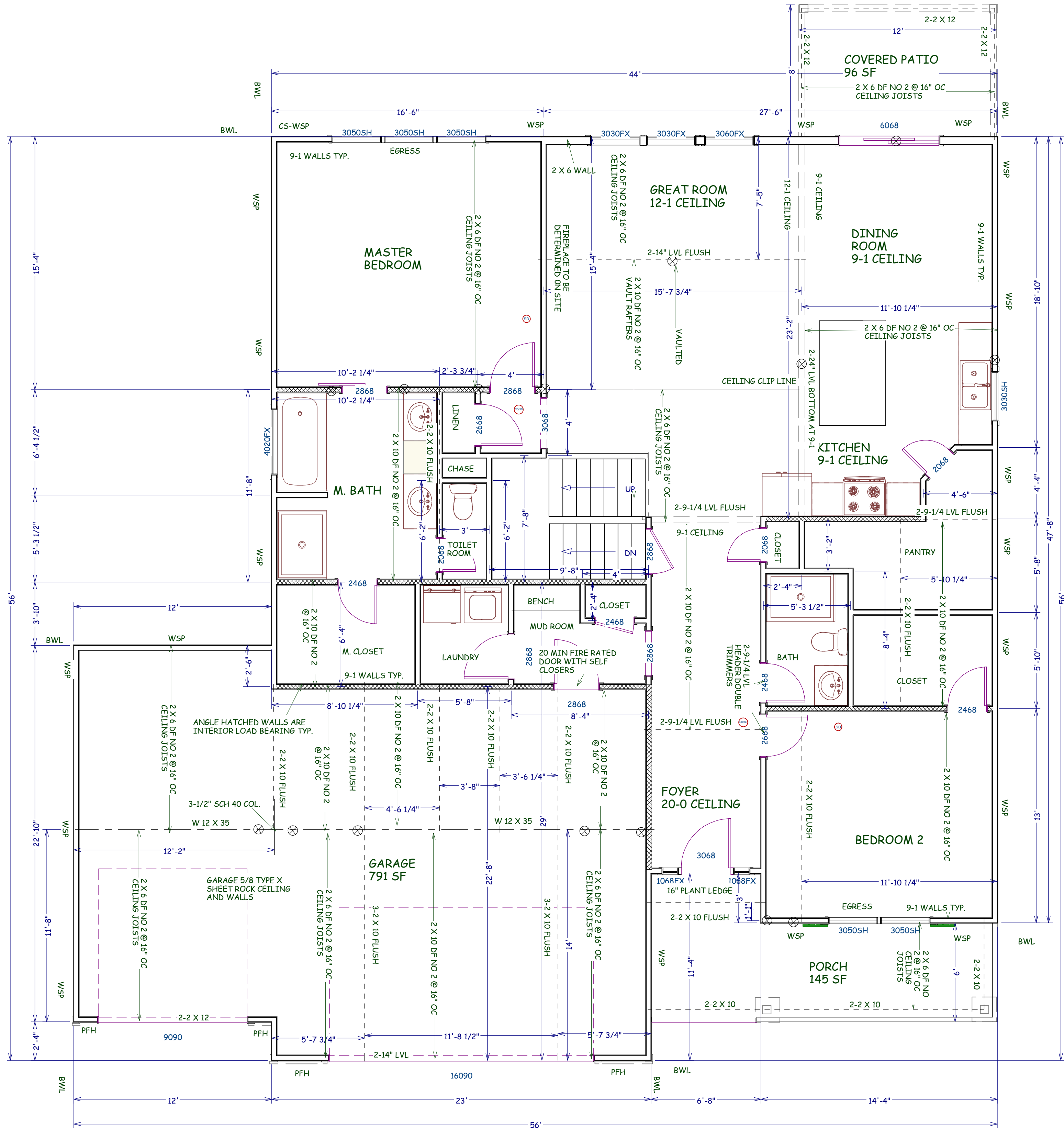
DATE
2-4-21

PLAN NO.
3356

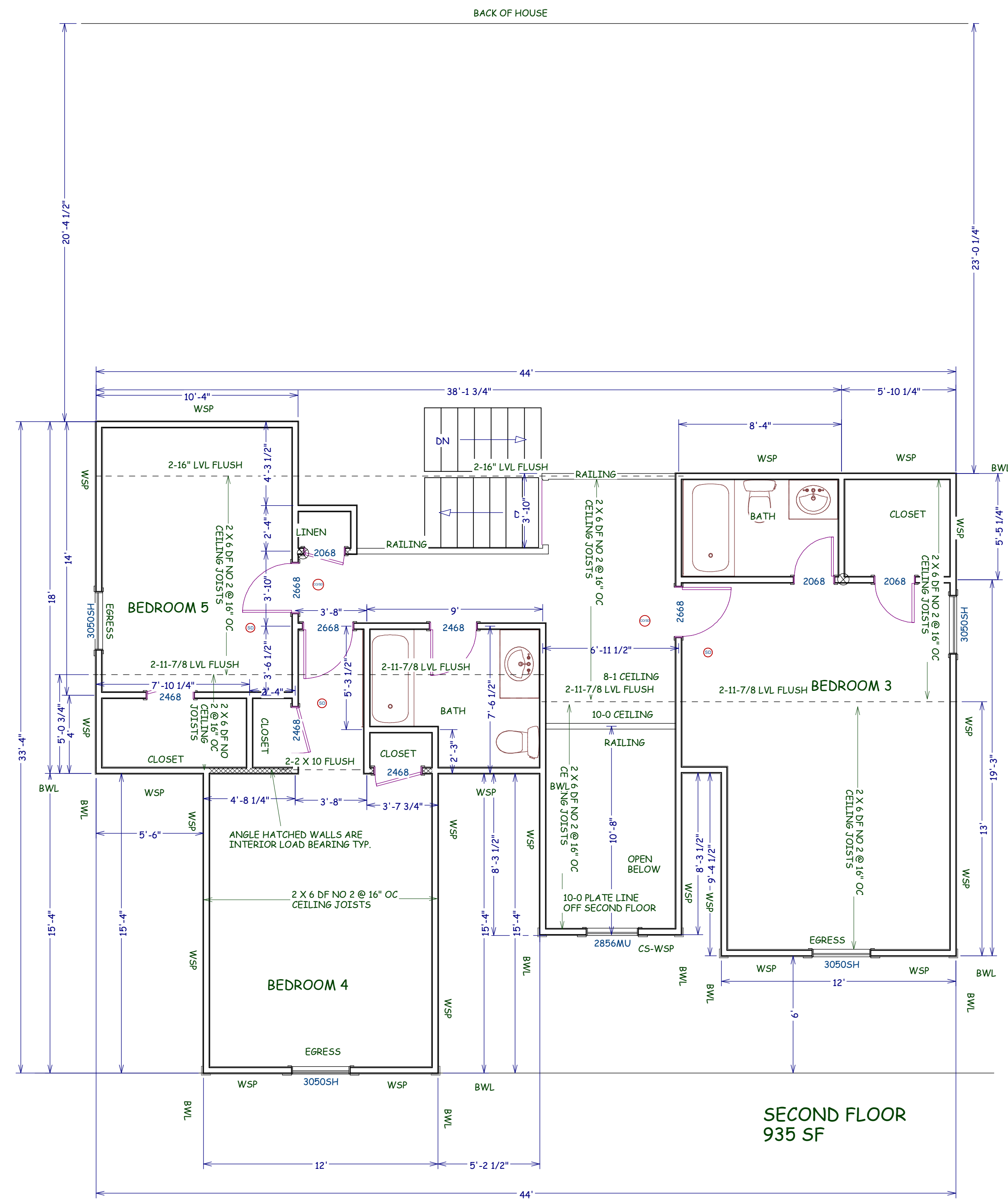
SHEET NO.

1 OF 5

JOSEPH A. TOWNS P.E.
MO. LIC E 22017
PROFESSIONAL SEAL
APPLIES TO STRUCTURAL
ELEMENTS ONLY



MAIN FLOOR
1754 SF



SECOND FLOOR
935 SF

JOSEPH A. TOWNS P.E.
MO. LIC E 22017
PROFESSIONAL SEAL
APPLIES TO STRUCTURAL
ELEMENTS ONLY

BUILD IN ACCORDANCE WITH
2018 INTERNATIONAL
RESIDENTIAL CODE AND
LOCAL CODES.

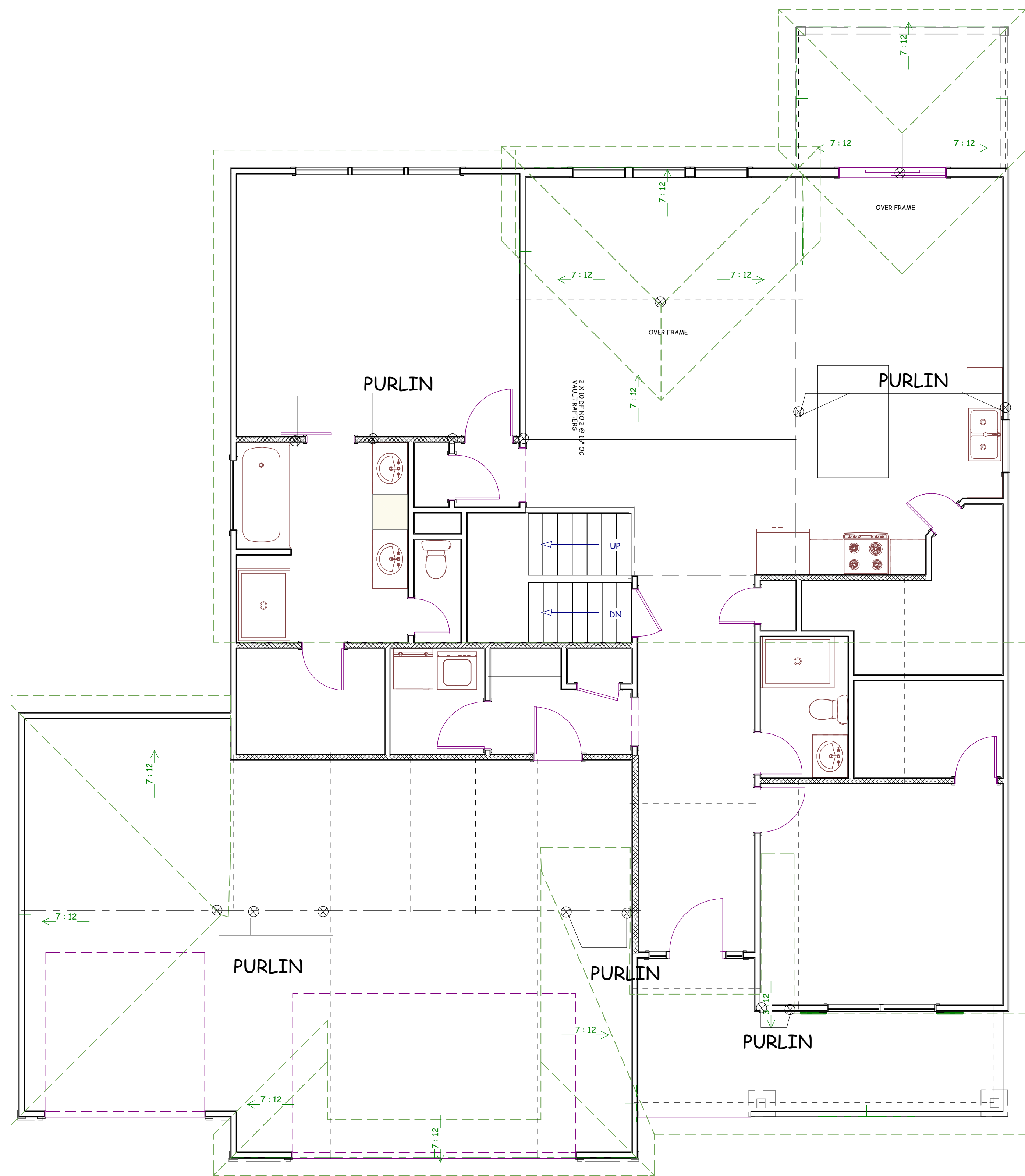
BEHOME LLC
LOT 74 MONTICELLO
1221 NE GOSHEN DR
LEE SUMMIT MO

SCALE
1/4" = 1-0

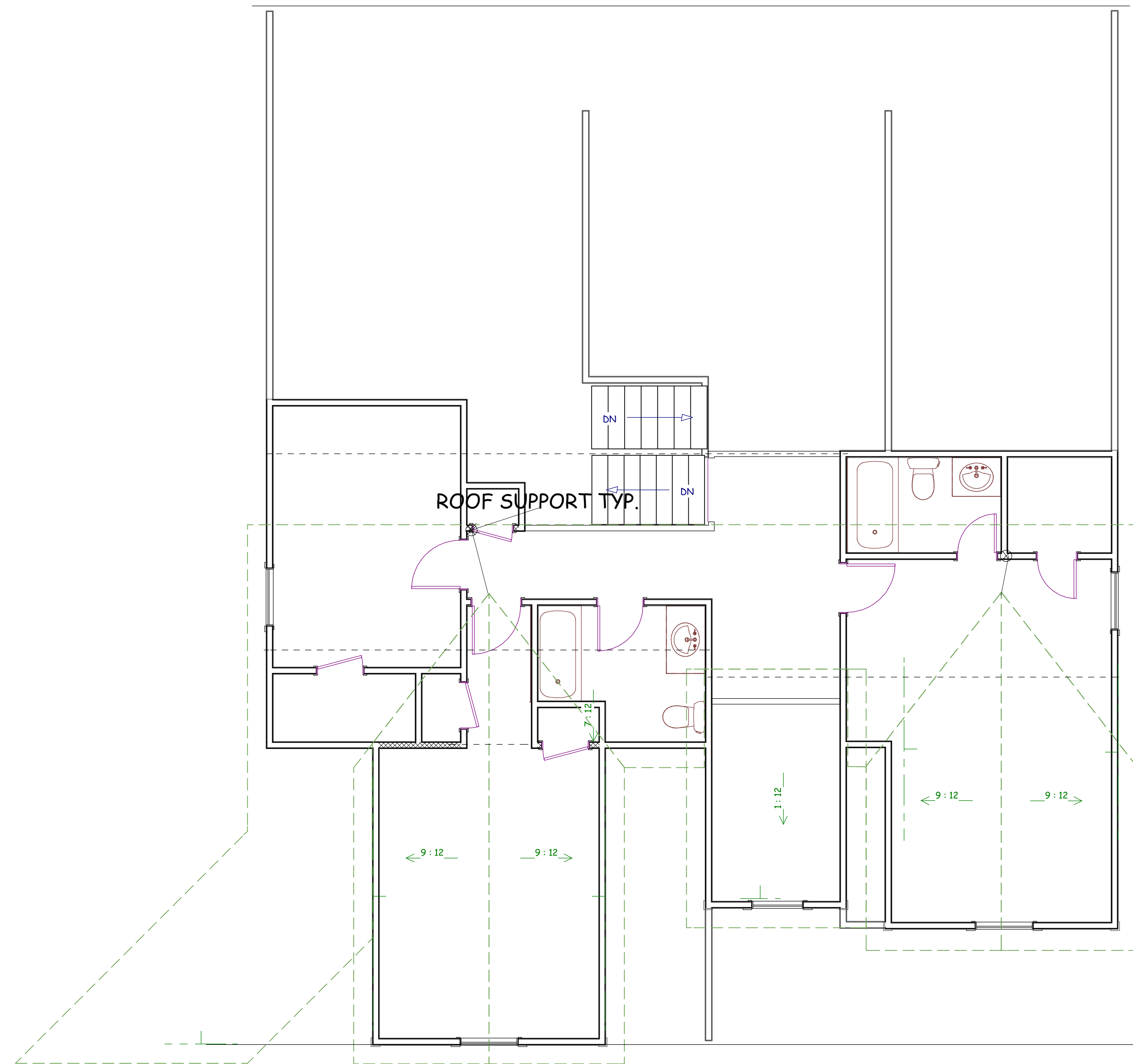
DATE
2-4-21

PLAN NO.
3356

SHEET NO.
3 OF 5



MAIN FLOOR
PURLIN PLAN



SECOND FLOOR
PURLIN PLAN

JOSEPH A. TOWNS P.E.
MO. LIC # 22017
PROFESSIONAL SEAL
APPLIES TO STRUCTURAL
ELEMENTS ONLY

BUILD IN ACCORDANCE WITH
2018 INTERNATIONAL
RESIDENTIAL CODE AND
LOCAL CODES.

BEHOME LLC
LOT 74 MONTICELLO
1221 NE GOSHEN DR
LEE SUMMIT MO

SCALE
1/4" = 1'-0"

DATE
2-4-21

PLAN NO.
3356

SHEET NO.
4 OF 5

TABLE R602.10.3(1) BRACING REQUIREMENTS BASED ON WIND SPEED						
EXPOSURE CATEGORY B 10-FOOT MEAN ROOF HEIGHT 10-FOOT WALL HEIGHT 2 BRACED WALL LINES		MINIMUM TOTAL LENGTH (FEET) OF BRACED WALL PANELS REQUIRED ALONG EACH BRACED WALL LINE ^a				
Ultimate Design Wind Speed (mph)	Story Location	Braced Wall Line Spacing (feet)	Method LIB ^b	Method GB	Methods DWB, WSP, SFB, PBS, PCP, HPS, BV-WSP, ABW, PPH, PFG, CS-SFB	Methods CS-WSP, CS-G, CS-PF
≤ 115		10	3.5	3.5	2.0	2.0
		20	6.5	6.5	3.5	3.5
		30	9.5	9.5	5.5	4.5
		40	12.5	12.5	7.0	6.0
		50	15.0	15.0	9.0	7.5
		60	18.0	18.0	10.5	9.0
		10	7.0	7.0	4.0	3.5
		20	12.5	12.5	7.5	6.5
		30	18.0	18.0	10.5	9.0
		40	23.5	23.5	13.5	11.5
		50	29.0	29.0	16.5	14.0
		60	34.5	34.5	20.0	17.0
		10	NP	10.0	6.0	5.0
		20	NP	18.5	11.0	9.0
		30	NP	27.0	15.5	13.0
		40	NP	35.0	20.0	17.0
		50	NP	43.0	24.5	21.0
		60	NP	51.0	29.0	25.0

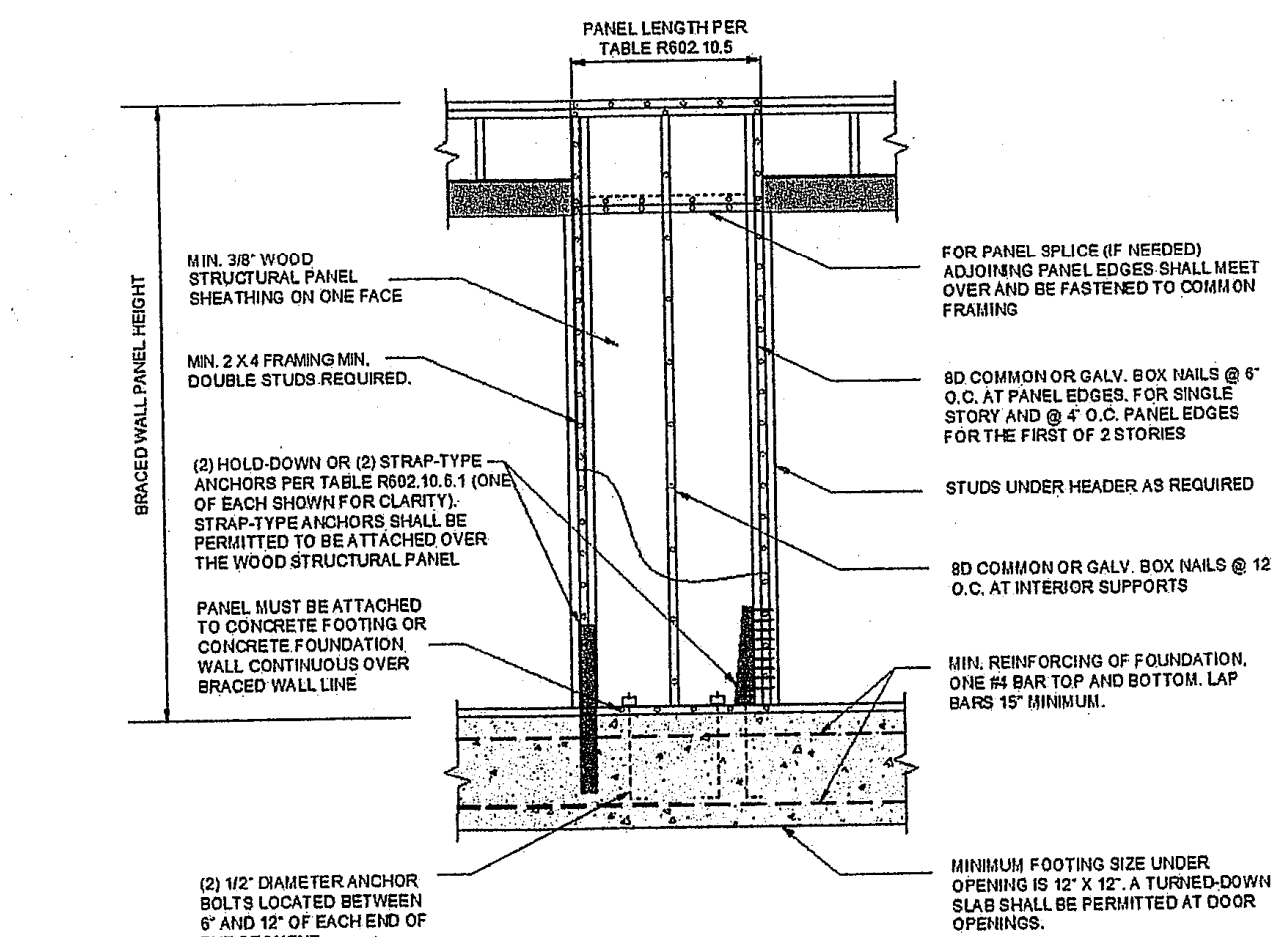
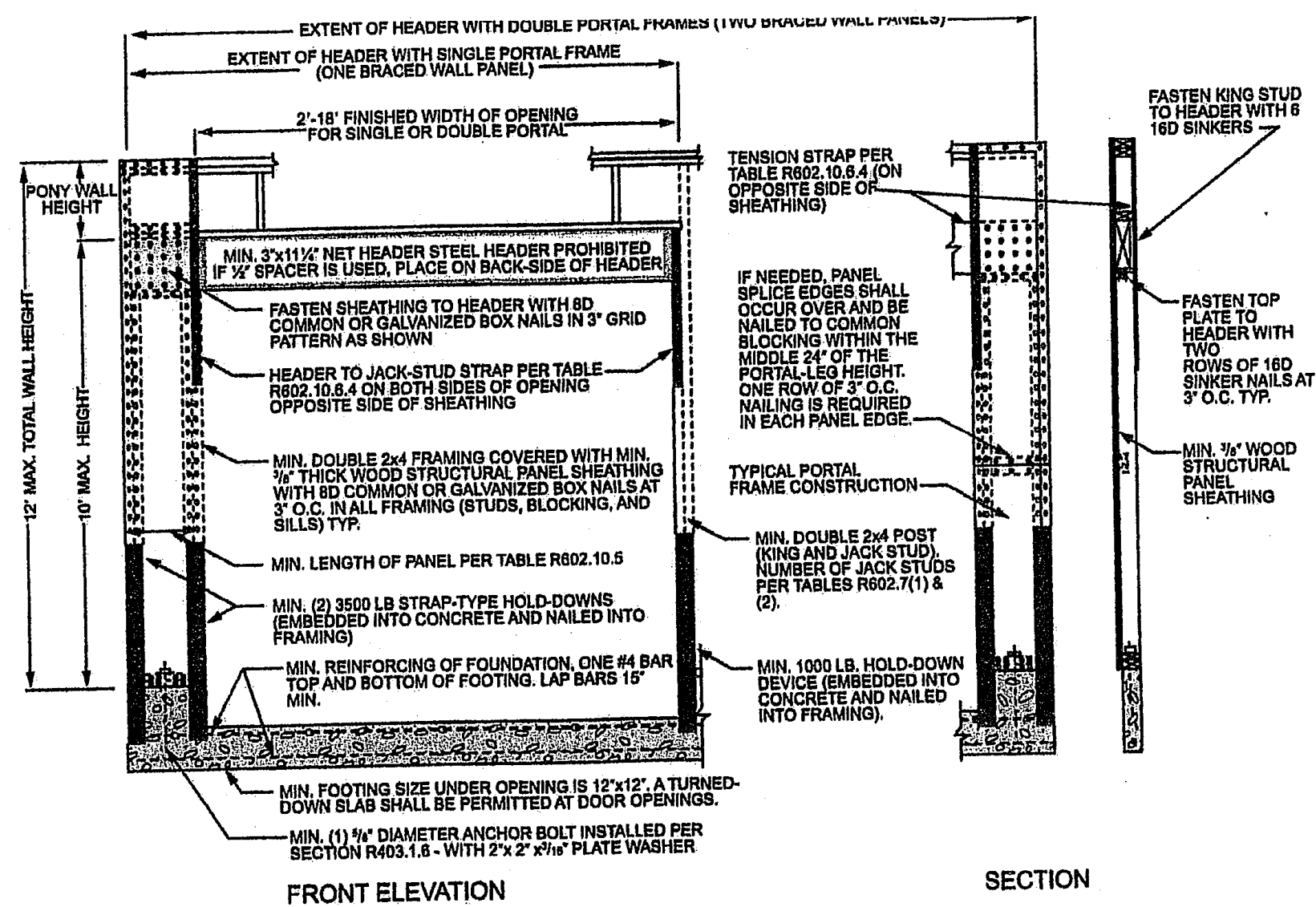


FIGURE R602.10.5.1
METHOD ABW—ALTERNATE BRACED WALL PANEL



4 mm, 1 foot = 304.8 mm.

FIGURE R602.10.8.2
METHOD PFH—PORTAL FRAME WITH HOLD-DOWNS

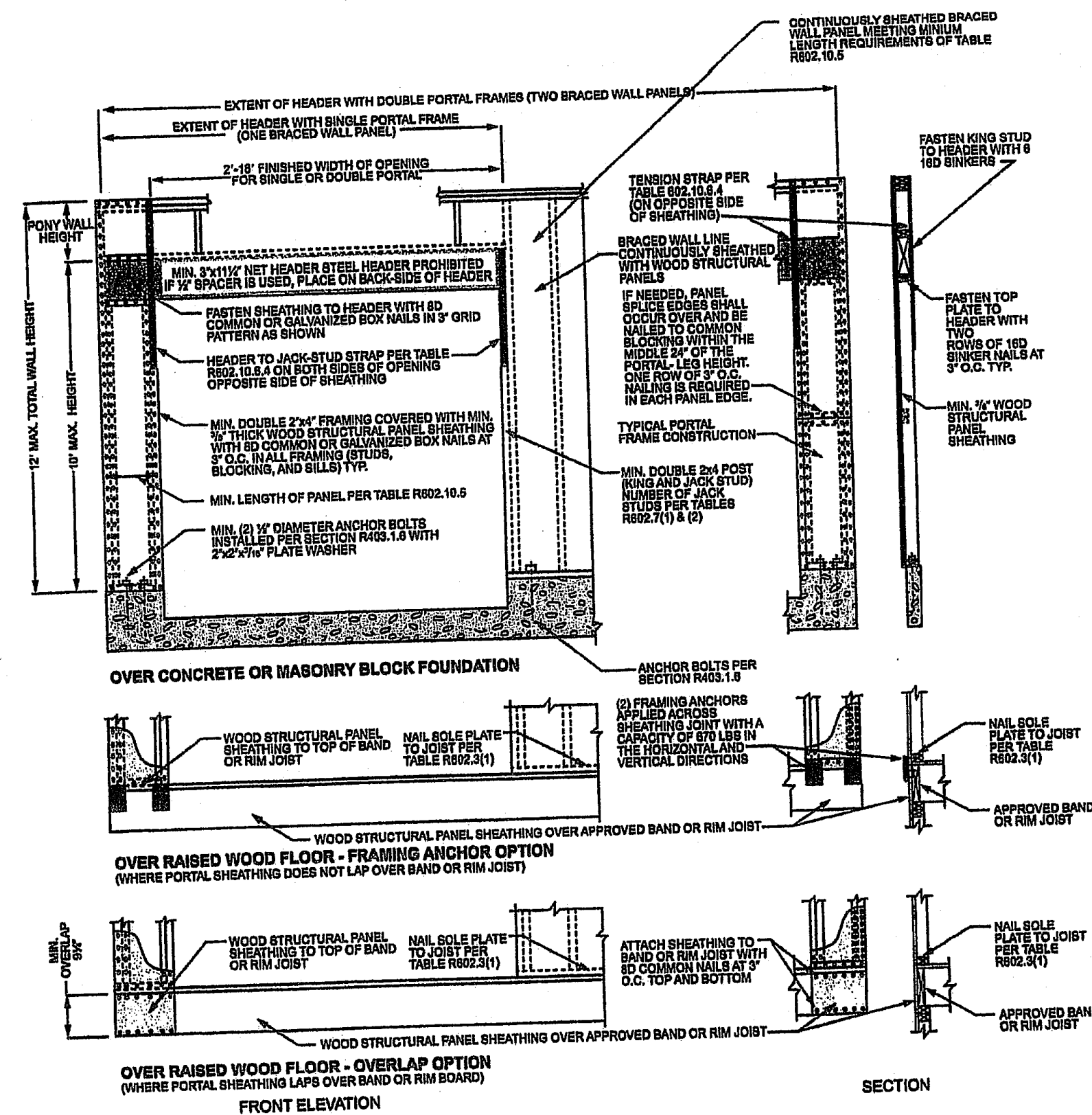
TABLE R602.10.4 BRACING METHODS				
METHODS, MATERIAL	MINIMUM THICKNESS	FIGURE	CONNECTION CRITERIA ^a	
			Fasteners	Spacing
LIB Let-in-bracing	1 x 4 wood or approved metal straps at 45° to 60° angles for maximum 16\" stud spacing		Wood: 2-8d common nails or 3-8d (2 1/2\" long x 0.113\" dia.) nails Metal strap: per manufacturer	Wood: per stud and top and bottom plates Metal: per manufacturer
DWB Diagonal wood boards	1/2\" (1\" nominal) for maximum 24\" stud spacing		2-8d (2 1/2\" long x 0.113\" dia.) nails or 2 - 1 1/4\" long staples	Per stud
WSP Wood structural panel (See Section R604)	1/4\"		Exterior sheathing per Table R602.3(2) Interior sheathing per Table R602.3(1) or R602.3(2)	6\" edges 12\" field Varies by fastener
BV-WSP Wood structural panels with stone or masonry veneer (See Section R602.10.6.5)	1/16\"	See Figure R602.10.6.5	8d common (2 1/2\" x 0.131\" dia.) nails	4\" at panel edges 12\" at intermediate supports 4\" at braced wall panel end posts
SFB Structural fiberboard sheathing	1/2\" or 3/16\" for maximum 16\" stud spacing		1 1/2\" long x 0.12\" dia. (for 1/2\" thick sheathing) 1 1/4\" long x 0.12\" dia. (for 3/16\" thick sheathing) galvanized roofing nails	3\" edges 6\" field
GB Gypsum board	1/2\"		Nails or screws per Table R602.3(1) for exterior locations Nails or screws per Table R702.3.5 for interior locations	For all braced wall panel locations: 7\" edges (including top and bottom plates) 7\" field
PBS Particleboard sheathing (See Section R605)	1/2\" or 1/4\" for maximum 16\" stud spacing		For 1/2\", 6d common (2\" long x 0.113\" dia.) nails For 1/4\", 8d common (2 1/2\" long x 0.131\" dia.) nails	3\" edges 6\" field
PCP Portland cement plaster	See Section R703.7 for maximum 16\" stud spacing		1 1/2\" long, 11 gage, 1/16\" dia. head nails or 1/4\" long, 16 gage staples	6\" o.c. on all framing members
HPS Hardboard panel siding	1/16\" for maximum 16\" stud spacing		0.092\" dia., 0.225\" dia. head nails with length to accommodate 1 1/2\" penetration into studs	4\" edges 8\" field
ABW Alternate braced wall	1/4\"		See Section R602.10.6.1	See Section R602.10.6.1

TABLE R602.10.5 MINIMUM LENGTH OF BRACED WALL PANELS						
METHOD (See Table R602.10.4)	MINIMUM LENGTH ^a (inches)					CONTRIBUTING LENGTH (inches)
	8 feet	9 feet	10 feet	11 feet	12 feet	
DWB, WSP, SFB, PBS, PCP, HPS, BV-WSP	48	48	48	53	58	Actual ^b
GB	48	48	48	53	58	Double sided = Actual Single sided = 0.5 x Actual
LIB	55	62	69	NP	NP	Actual ^b
ABW	SDC A, B and C, ultimate design wind speed < 140 mph	28	32	34	38	42
	SDC D ₁ , D ₂ and D ₃ , ultimate design wind speed < 140 mph	32	32	34	NP	NP
CS-G	Adjacent clear opening height (inches)	24	27	30	33	36
CS-WSP, CS-SFB	≤ 64	24	27	30	33	36
	68	26	27	30	33	36
	72	27	27	30	33	36
	76	30	29	30	33	36
	80	32	30	30	33	36
	84	35	32	32	33	36
	88	38	35	33	33	36
	92	43	37	35	35	36
	96	48	41	38	36	36
	100	—	44	40	38	38
	104	—	49	43	40	39
	108	—	54	46	43	41
	112	—	—	50	45	43
	116	—	—	55	48	45
	120	—	—	60	52	48
	124	—	—	—	56	51
	128	—	—	—	61	54
	132	—	—	—	66	58
	136	—	—	—	—	62
	140	—	—	—	—	66
	144	—	—	—	—	72
METHOD (See Table R602.10.4)						
PFH	Supporting roof only	16	16	16	Note c	Note c
	Supporting one story and roof	24	24	24	Note c	Note c
PFG		24	27	30	Note d	Note d
CS-PF	SDC A, B and C	16	18	20	Note e	Note e
	SDC D ₁ , D ₂ and D ₃	16	18	20	Note e	Actual ^b

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 mile per hour = 0.447 m/s.
NP = Not Permitted.
a. Linear interpolation shall be permitted.
b. Use the actual length where it is greater than or equal to the minimum length.
c. Maximum header height for PFH is 10 feet in accordance with Figure R602.10.6.2, but wall height shall be permitted to be increased to 12 feet with pony wall.
d. Maximum header height for PFG is 10 feet in accordance with Figure R602.10.6.3, but wall height shall be permitted to be increased to 12 feet with pony wall.
e. Maximum header height for CS-PF is 10 feet in accordance with Figure R602.10.6.4, but wall height shall be permitted to be increased to 12 feet with pony wall.

TABLE R602.10.4—continued BRACING METHODS					
METHODS, MATERIAL		MINIMUM THICKNESS	FIGURE	CONNECTION CRITERIA ^a	
				Fasteners	Spacing
Intermittent Bracing Methods	PFH Portal frame with hold-downs	1/4"		See Section R602.10.6.2	See Section R602.10.6.2
	PFG Portal frame at garage	1/16"		See Section R602.10.6.3	See Section R602.10.6.3
Continuous Sheathing Methods	CS-WSP Continuously sheathed wood structural panel	1/4"		Exterior sheathing per Table R602.3(3) Interior sheathing per Table R602.3(1) or R602.3(2)	6" edges 12" field Varies by fastener
	CS-G ^b Continuously sheathed wood structural panel adjacent to garage openings	1/4"		See Method CS-WSP	See Method CS-WSP
	CS-PF ^c Continuously sheathed portal frame	1/16"		See Section R602.10.6.4	See Section R602.10.6.4
	CS-SFB ^c Continuously sheathed structural fiberboard	1/2" or 3/16" for maximum 16" stud spacing		1 1/2" long x 0.12" dia. (for 1/2" thick sheathing) 1 1/4" long x 0.12" dia. (for 3/16" thick sheathing) galvanized roofing nails	3" edges 6" field

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 degree = 0.0175 rad, 1 pound per square foot = 47.8 N/m², 1 mile per hour = 0.447 m/s.
a. Additive attachment of wall sheathing, including Method GB, shall not be permitted in Seismic Design Categories C, D₁, D₂, and D₃.
b. Applies to panels next to garage door openings where supporting gable and wall or roof load only. Shall only be used on one wall of the garage. In Seismic Design Categories D₁, D₂, and D₃, roof covering dead load shall not exceed 3 psf.
c. Garage openings adjacent to a Method CS-G panel shall be provided with a header in accordance with Table R602.7(1). A full-height clear opening shall not be permitted adjacent to a Method CS-G panel.
d. Method CS-SFB does not apply in Seismic Design Categories D₁, D₂, and D₃.
e. Method applies to detached one- and two-family dwellings in Seismic Design Categories D₁ through D₃ only.



For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

FIGURE R602.10.8.4
METHOD CS-PF—CONTINUOUSLY SHEATHED PORTAL FRAME PANEL CONSTRUCTION

BUILD IN ACCORDANCE WITH
2018 INTERNATIONAL
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LOCAL CODES.

BEHOME LLC
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1/4" = 1'-0"

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