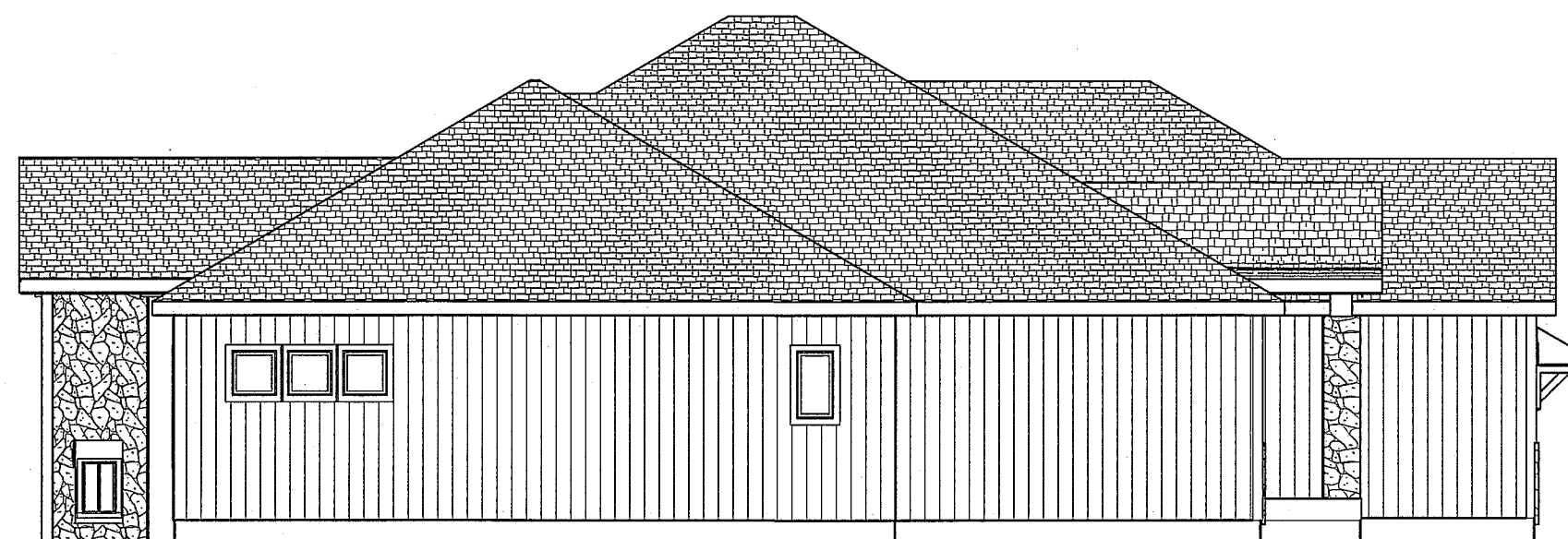




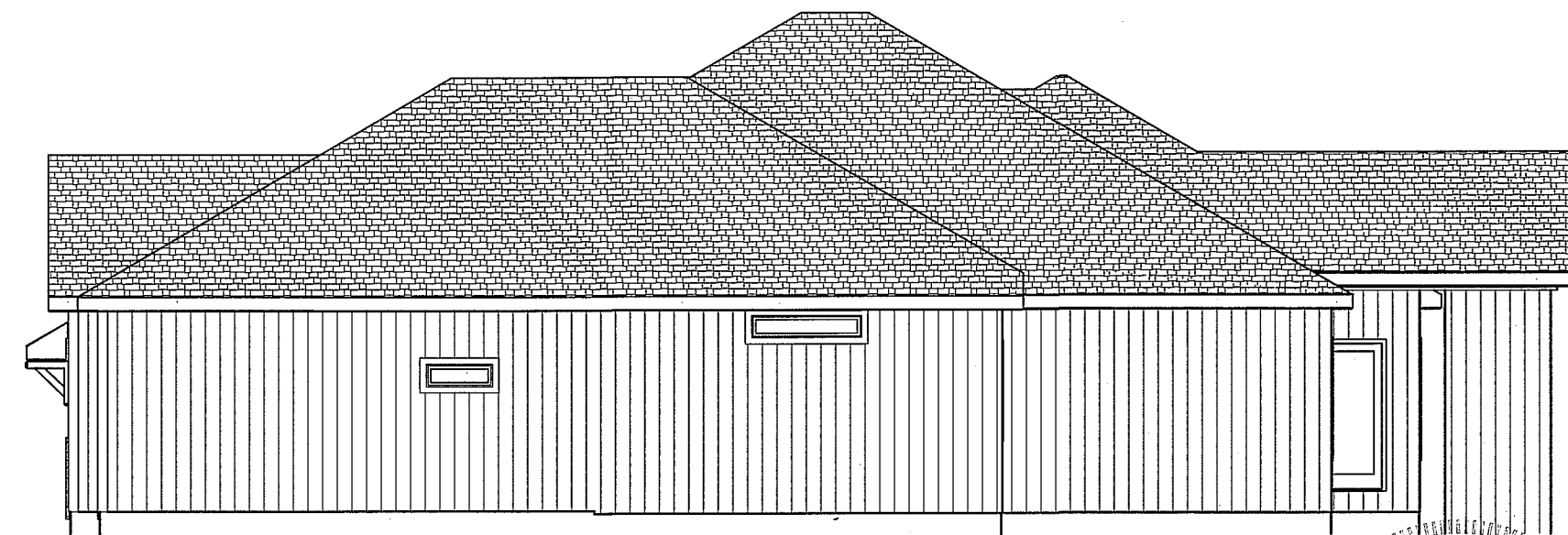
FRONT EL.
STUCCO
FINISH



REAR EL.
1/8 = 1-0



LEFT EL.
1/8 = 1-0



RIGHT EL.
1/8 = 1-0

RELEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
07/27/2021

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APPLIES TO STRUCTURAL
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BUILD IN ACCORDANCE WITH
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LOCAL CODES.

NICK ZVACEL CONSTRUCTION
LOT 112 MONTICELLO
4717 NE FREEHOLD DR
LEE SUMMIT MO

SCALE
1/4" = 1-0

DATE
7-20-21

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1 OF 6

ENERGY CONSERVATION CODE
THE FOLLOWING VALUES ARE NEEDED.

R-15 IN WALLS

R-49 IN ATTICS

R-38 IN VAULTS

R-30 REDUCTION FOR VAULTS IS ONLY FOR 500 SF
PF AREA

R-19 IN FLOORS OVER UNCONDITIONED SPACES

R-10 IN CRAWL SPACE WALLS

BASEMENT WALLS R-13 CAVITY OR R-10 CONTINUOUS

SLABS SHALL BE R-10 FOR A DEPTH OF 2 FOOT

A WINDOW U FACTOR OF .35 OR BETTER

DUCTWORK NEEDS TO HAVE AN R-8 VALUE

VAULT INSULATION DETAIL

1" AIR SPACE WITH FOAM AIR
CHUTES

R-38 HIGH DENSITY
INSULATION

2 X 10 VAULT RAFTER

2 X 2 NAILED TO BOTTOM OF
RAFTERS 12" O.C. WITH 12 D
NAILS

INTERCONNECTED HARD WIRED SMOKE
DETECTORS SHALL BE INSTALLED IN EACH
BEDROOM AND OUTSIDE OF EACH BEDROOM
ALL PLUMBING IF EXISTING SHALL BE CAPPED
AND AIR TESTED PRIOR TO ROUGH-IN
INSPECTION FOR LEAK VERIFICATION

1. DWELLING / GARAGE OPENINGS BETWEEN GARAGE AND SLEEPING
PURPOSES SHALL NOT BE PERMITTED. OTHER OPENINGS SHALL BE
EQUIPPED WITH SOLID WOOD OR STEEL DOORS NOT LESS THAN 1-3/8"
THICK OR 20 MINUTE RATED DOORS, WITH SELF CLOSING DEVICES
REQUIRED FOR GARAGE / DWELLING SEPARATION DOORS R302.5.1

2. WHOLE HOUSE MECHANICAL VENTILATION SYSTEM IS REQUIRED FOR
ANY DWELLING IN COMPLIANCE WITH IRC M 1505

3. CARBON MONOXIDE DETECTORS REQUIRED IRC R 315

4. STEEL COLUMNS SHALL BE MINIMUM SCHEDULE 40 R407.3

5. DECK SHALL BE BUILT PER TABLES 507.2, 507.2.1, 507.3, 507.6,
507.5.1(1)&(2), 507.5, AND 507.6

6. STUDS SHALL BE CONTINUOUS BETWEEN FLOOR, CEILING AND OR
ROOF DIAPHRAGMS R602.3

7. ADDED REQUIREMENTS FOR WINDOW FALL PROTECTION R312.2

8. NEW PROVISIONS FOR ATTACHMENT OF RAFTERS, TRUSSES AND
ROOF BEAMS R802.3.1, R802.11

9. INSULATION REQUIRED FOR ALL BASEMENT WALLS (INCLUDING
UNFINISHED BASEMENTS) N1102.1

10. EXTERIOR WINDOWS/DOORS SHALL HAVE U-FACTOR 0.35 AND
GLAZING SHALL HAVE SOLAR HEIGHT GAIN FACTOR OF 0.40 N1102.1

11. HOUSE LEAKAGE AND DUCT LEAKAGE PERFORMANCE STANDARDS
EFFECTIVE JANUARY 1, 2014. A SAMPLE TESTING PROGRAM WILL BE
IMPLEMENTED OCTOBER 1, 2012 KCBRC N1102.4.1.2 N1103.2.2

12. LIGHTING FIXTURES PENETRATING THE THERMAL ENVELOPE (E.G.
CAN LIGHTS IN ATTIC) SHALL BE IC- RATED, LEAKAGE- RATED AND
SEALED TO THE GYPSUM WALLBOARD N1102.4.4

13. PROGRAMMABLE THERMOSTAT REQUIRED N1103.1.1

14. AIR HANDLERS SHALL BE RATED FOR MAXIMUM 2 % AIR LEAKAGE
RATE N1103.2.2.1

15. BUILDING CAVITIES USED AS RETURN AIR PLENUMS SHALL BE
SEALED TO PREVENT LEAKAGE ACROSS THE THERMAL ENVELOPE KCBRC
N1103.2.2

16. CERTAIN HOT WATER PIPES SHALL BE INSULATED N1103.4

17. ALL EXHAUST FANS SHALL TERMINATE TO THE BUILDING EXTERIOR
M1507.2

18. MAKEUP AIR SYSTEM REQUIRED FOR KITCHEN EXHAUST HOODS
THAT EXCEED 400 CFM M1503.4

19. BUILDING CAVITIES IN A THERMAL ENVELOPE WALL (INCLUDING
THE WALL BETWEEN THE HOUSE AND GARAGE) SHALL NOT BE USED AS
RETURN AIR PLENUMS

20. AN AIR HANDLING SYSTEM SHALL NOT SERVE BOTH THE LIVING
SPACE AND THE GARAGE M1601.6

21. A CONCRETE- ENCASED GROUNDING ELECTRODE ('UFER' GROUND)
CONNECTION SHALL BE PROVIDED TO THE ELECTRICAL SERVICE E3608.1

22. COMPLIANCE WITH THE REQUIREMENT AND SHOW CONNECTION AS
NEEDED FOR ROOF BEAM, TRUS, RAFTER, AND GIRDER CONNECTION FOR
UPLIFT PER IRC 802.11. ALL RAFTERS BE IN COMPLIANCE WITH IRC 502.11
AMENDED RAYMORE CODE

FOUNDATION WALL

MIN 2 PCS 48" NO 4 REBAR

CONTINUOUS FOOTING
THROUGH SOLID JUMP

FOOTING JUMP TYP.

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NICK ZVACEL CONSTRUCTION
LOT 112 MONTICELLO
4717 NE FREEHOLD DR
LEE SUMMIT MO

SCALE

1/4" = 1'-0

DATE

7-20-21

PLAN NO.

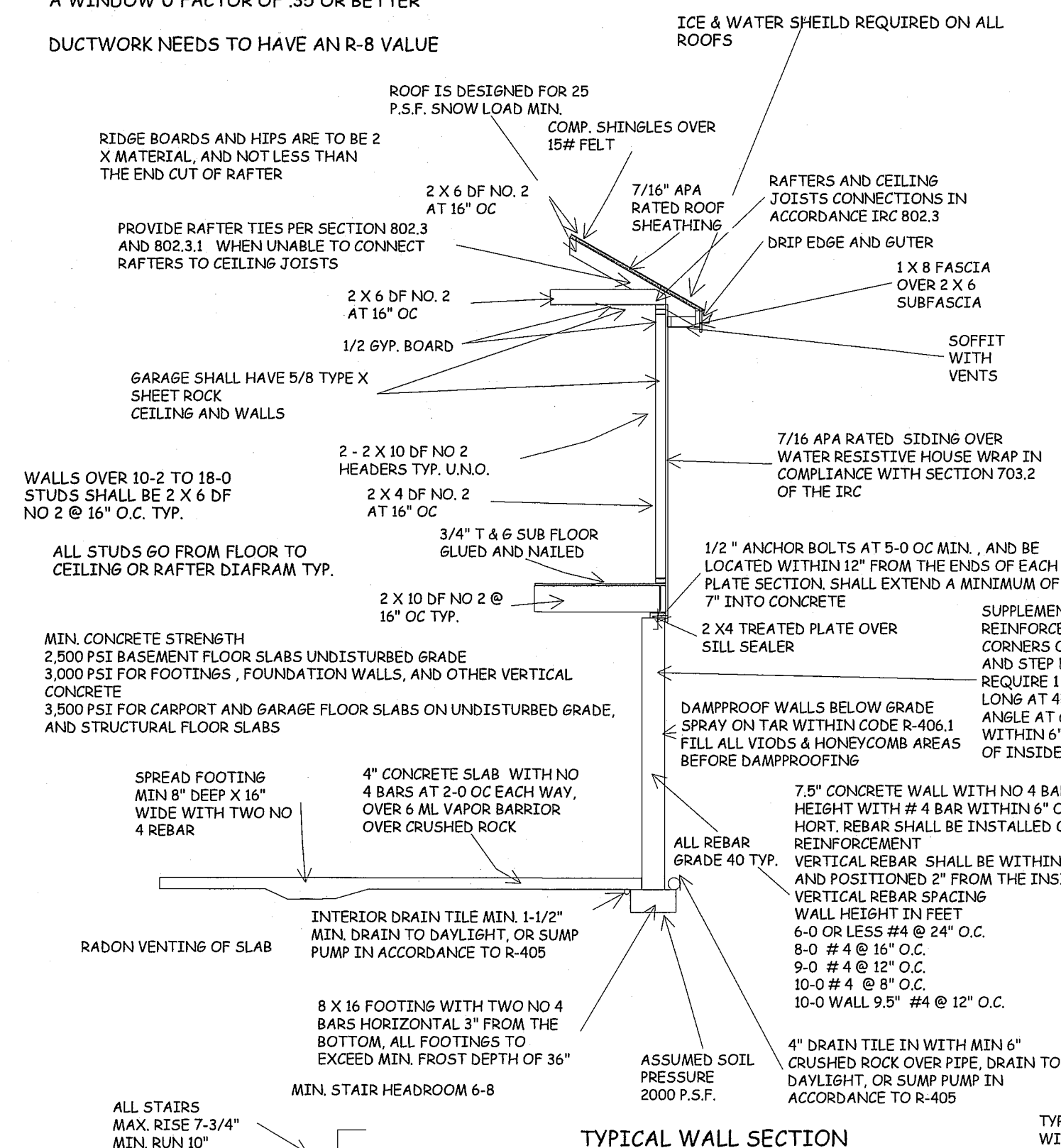
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SHEET NO.

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WINDOW SAFETY GLAZING PER 308

SAFETY GLAZING REQUIRED ALONG WALKING SURFACES AND
STAIRS LOCATED WITHIN 36 INCHES HORIZONTALLY OF THE STEPS.
SAFETY GLAZING REQUIRED IF EXPOSED SINGLE PANEL IS IN
EXCESS OF 9 SQUARE FEET OR THE BOTTOM EDGE OF THE GLAZING
IS LESS THAN 18 INCHES ABOVE THE FINISHED FLOOR.

SAFETY GLAZING REQUIRED WHERE THE NEAREST EXPOSED EDGE OF
THE GLAZING IS WITHIN 24 INCHES OF EITHER VERTICAL EDGE OF
THE DOOR IN A CLOSED POSITION AND WHERE THE BOTTOM
EXPOSED EDGE OF THE GLAZING IS LESS THAN 60 INCHES ABOVE A
WALKING SURFACE, SAFETY OR TEMPERED GLAZING IS REQUIRED.

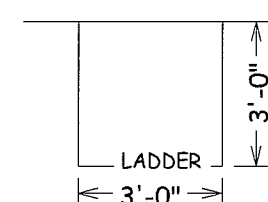
WINDOWS ARE TO HAVE FALL
PROTECTION PER IRC 312.2

WINDOW EGRESS REQUIREMENTS

BEDROOM WINDOW EGRESS MINIMUM FOR A DOUBLE HUNG
WINDOW IS 34 INCH CLEAR WIDTH MIN. AND 24 INCH CLEAR
HEIGHT MIN. WITH A CLEAR OPENABLE AREA OF 5.7 SQUARE FEET
MIN.
A CASEMENT OR SLIDER WINDOW MINIMUMS ARE 20 INCH CLEAR
WIDTH MINIMUM AND 41 INCH CLEAR HEIGHT MINIMUM. WITH A
MINIMUM 5.7 SQUARE FOOT OF OPENABLE AREA.
OPENING OF EGRESS WINDOW NOT MORE THAN 42"
FROM THE FLOOR

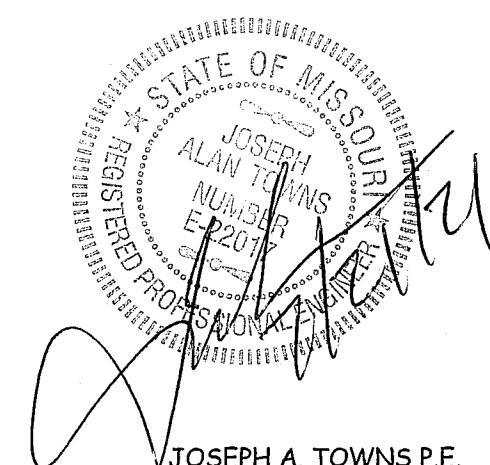
PIER PADS

TYP. U.N.O. 3-0 X 3-0 X 12" PEIR PADS MIN.
WITH # 4 REBAR, 6 EACH WAY

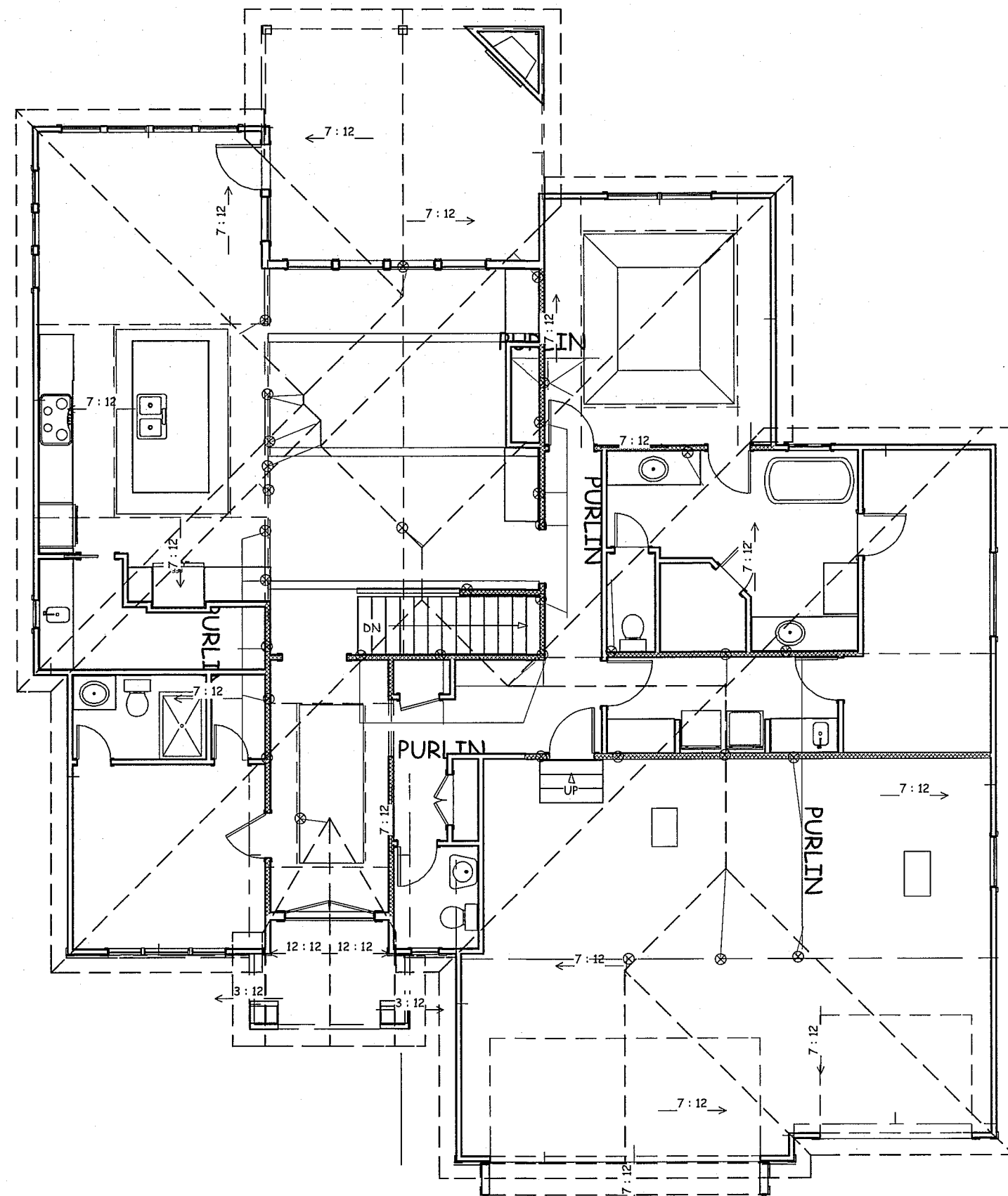


EGRESS WINDOW WELL AS NEEDED
PER SECTION 308 MIN 3-0 X 3-0
WITH LADDER

OVERHEAD GARAGE DOORS
MUST MEET DASHA 115 MPH
OR IRC 2018 REQUIREMENTS

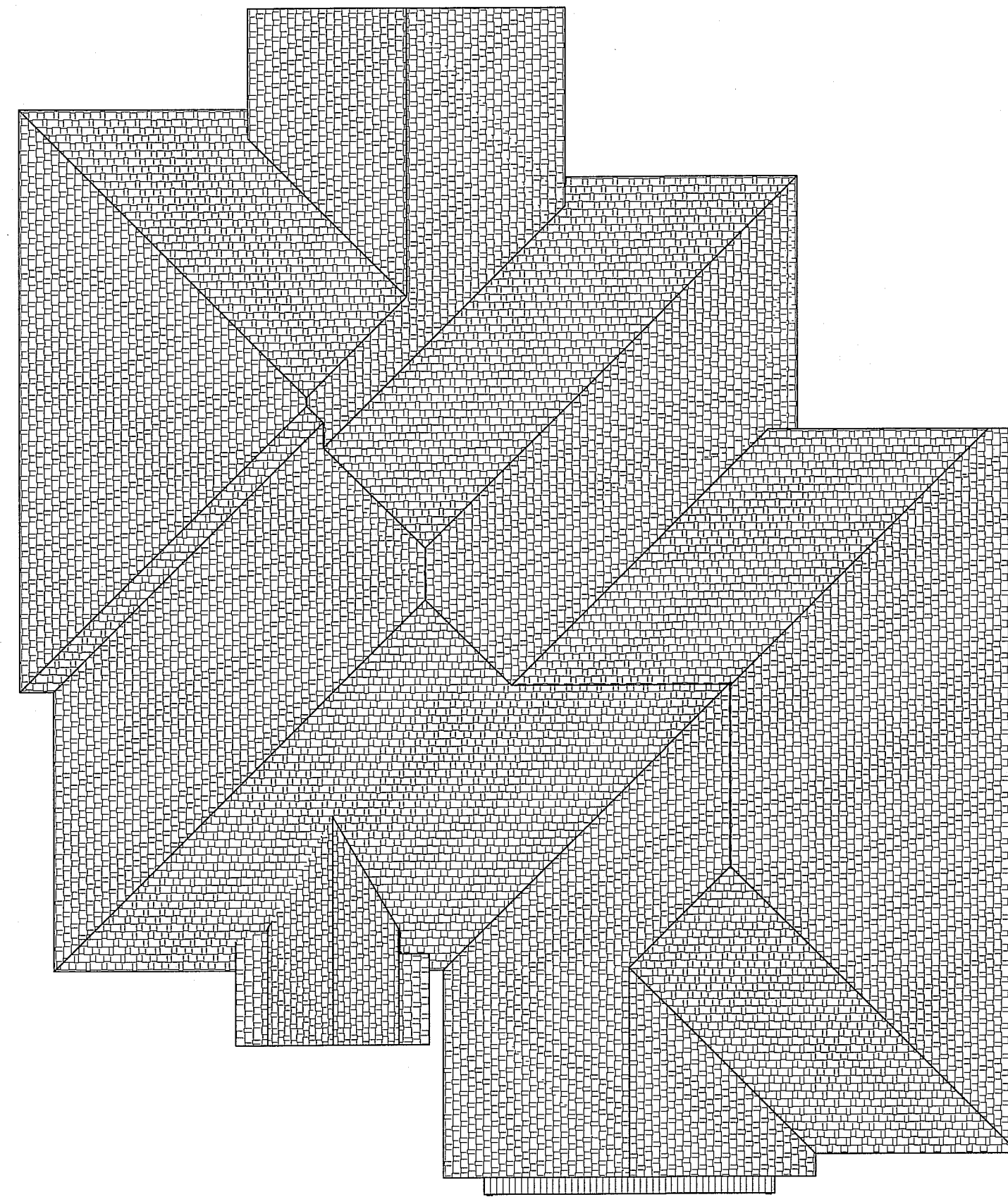


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PURLIN PLAN

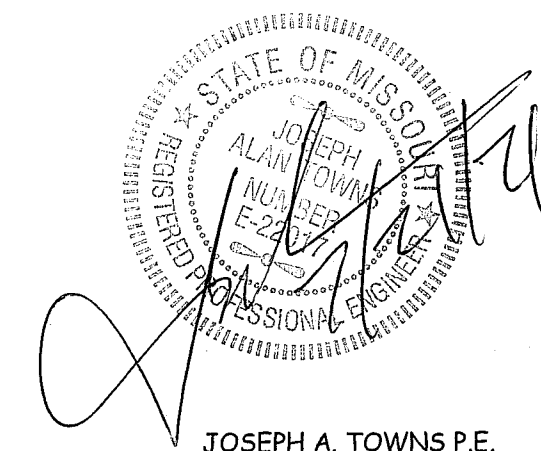
1/8" = 1-0



ROOF PLAN
1/8" = 1-0
ROOF PITCHES 7/12

MAX. RAFTER SPAN 14-4

ALL RAFTERS 2 X 6 DF NO 2 @ 16" O.C UNLESS NOTED OTHERWISE
ALL HIPs 2 X 8 DF NO 2 UNLESS NOTED OTHER WISE



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SHEET NO.

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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, PFB, FCF, HPS, BV-WSP, ABW, PFH, PCF, 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

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	3/4" (1" nominal) for maximum 24" stud spacing		2-8d (2 1/2" long x 0.113" dia.) nails or 2-1 1/2" long staples	Per stud
WSP Wood structural panel (See Section R604)	3/8"		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
BV-WSP ^c Wood structural panels with stone or masonry veneer (See Section R602.10.6.5)	7/16"	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 5/8" for maximum 16" stud spacing		1 1/2" long x 0.12" dia. (for 1/2" thick sheathing) 1 1/2" long x 0.12" dia. (for 5/8" 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)	3/8" or 1/2" for maximum 16" stud spacing		For 3/8" or 1/2" 6d common (2" long x 0.113" dia.) nails For 1/2", 8d common (2 1/2" long x 0.131" dia.) nails	3" edges 6" field
PCF Portland cement plaster	See Section R703.7 for maximum 16" stud spacing		1 1/2" long, 11 gage, 1/8" dia. head nails or 7/8" long, 16 gage staples	6" o.c. on all framing members
HPS Hardboard panel siding	7/16" 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	3/8"		See Section R602.10.6.1	See Section R602.10.6.1

METHODS, MATERIAL	MINIMUM THICKNESS	FIGURE	CONNECTION CRITERIA ^a	
			Fasteners	Spacing
PFH Portal frame with hold-downs	3/8"		See Section R602.10.6.2	See Section R602.10.6.2
PFG Portal frame at garage	7/16"		See Section R602.10.6.3	See Section R602.10.6.3
CS-WSP Continuously sheathed wood structural panel	3/8"		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 ^c Continuously sheathed wood structural panel adjacent to garage openings	3/8"		See Method CS-WSP	See Method CS-WSP
CS-PF ^c Continuously sheathed portal frame	7/16"		See Section R602.10.6.4	See Section R602.10.6.4
CS-SFB ^d Continuously sheathed structural fiberboard	1/2" or 5/8" for maximum 16" stud spacing		1 1/2" long x 0.12" dia. (for 1/2" thick sheathing) 1 1/2" long x 0.12" dia. (for 5/8" thick sheathing) galvanized roofing nails	3" edges 6" field

For SFI: 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 opening 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 D₂ only.

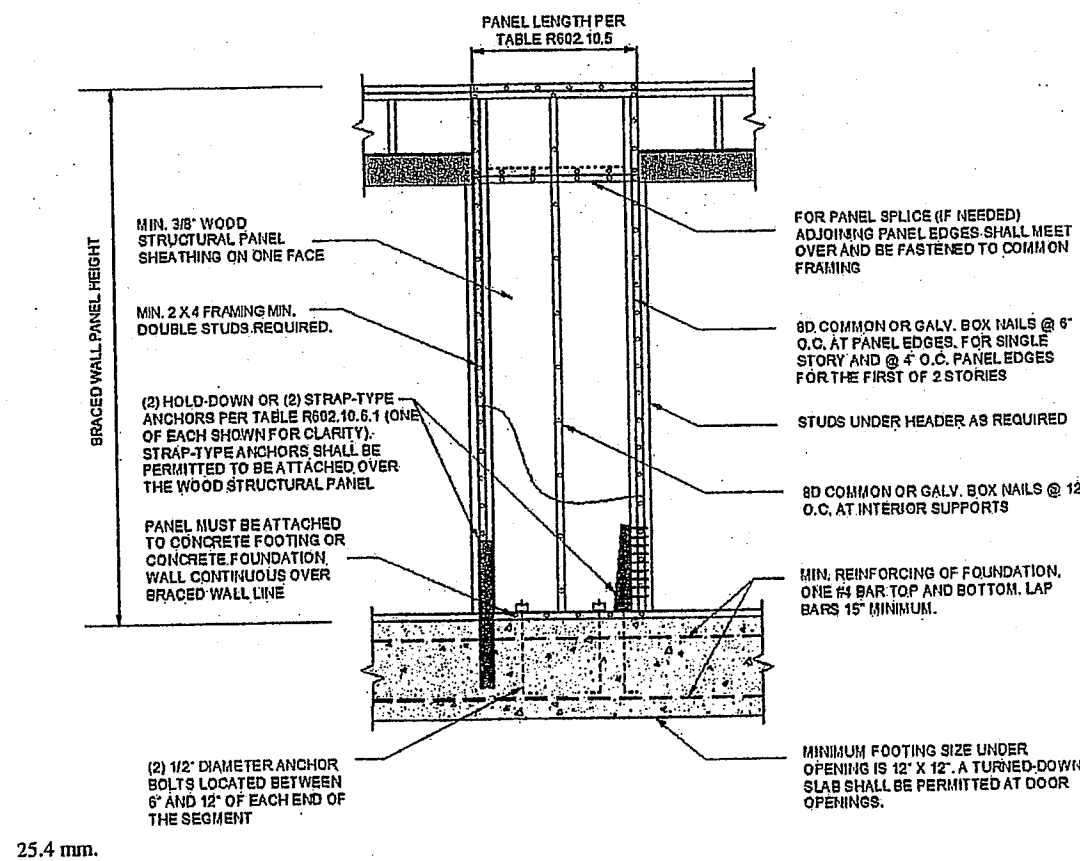


FIGURE R602.10.6.1
METHOD ABW—ALTERNATE BRACED WALL PANEL

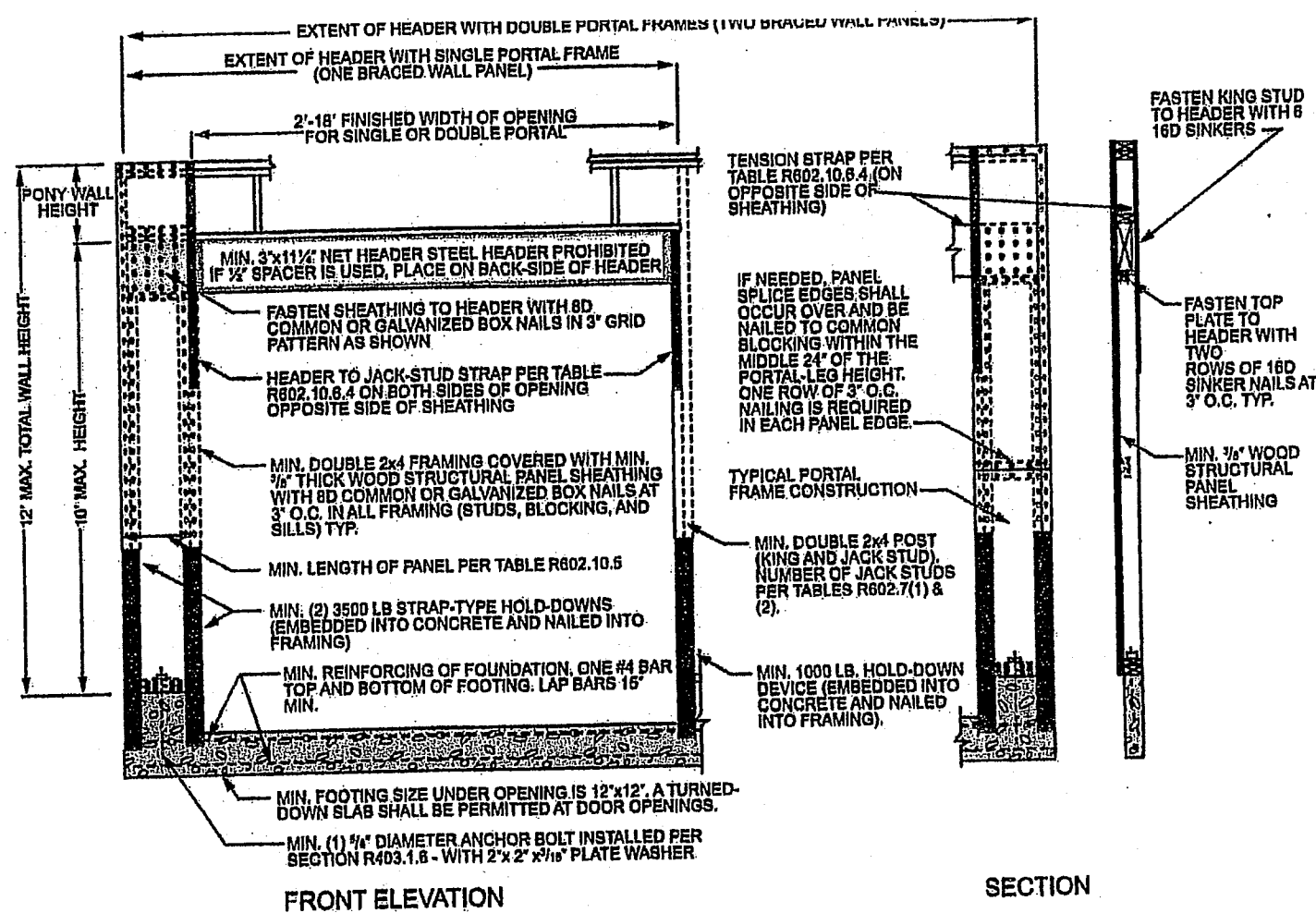


FIGURE R602.10.6.2
METHOD PFH—PORTAL FRAME WITH HOLD-DOWNS

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, PFB, PCF, 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 SDC D ₁ , D ₂ and D ₃ , ultimate design wind speed < 140 mph	28 32	32 34	38 NP	42 NP	48
CS-G	Adjacent clear opening height (Inches)					Actual ^b
	≤ 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)	Portal header height					
	8 feet	9 feet	10 feet	11 feet	12 feet	
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	Note e

For SFI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 mile per hour = 0.447 m/s.
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.

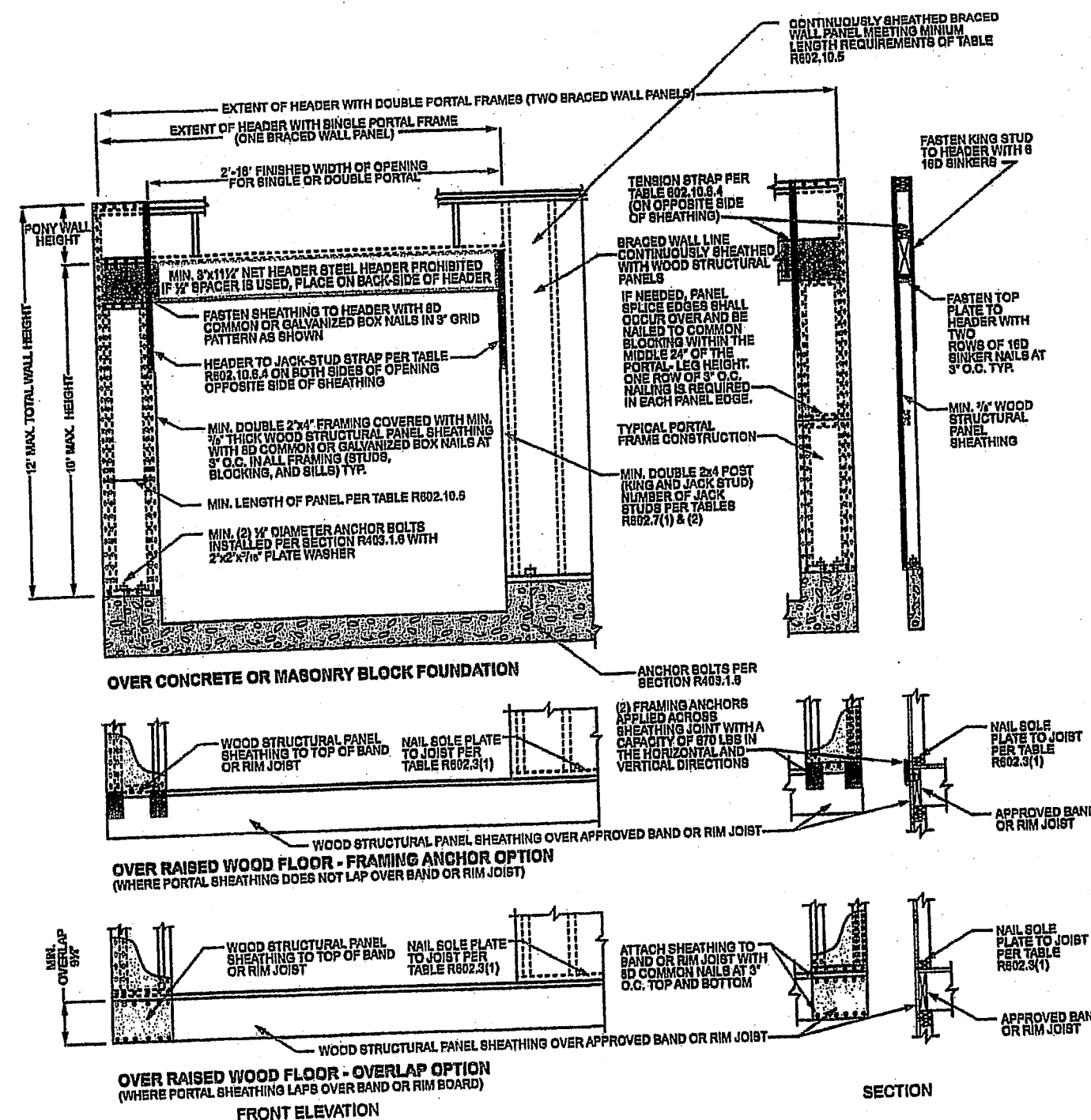
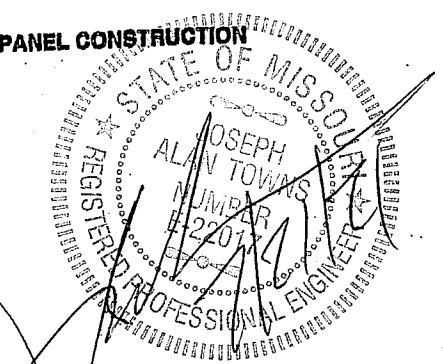


FIGURE R602.10.6.4
METHOD CS-PF—CONTINUOUSLY SHEATHED PORTAL FRAME PANEL CONSTRUCTION



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6 OF 6

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BRACE WALL DETAILS
WIND SPEED 115 MPH
WIND EXPOSURE A
SEISMIC DESIGN CATEGORY A

4 mm, 1 foot = 304.8 mm.