

PLAN NO.

871-AMD

SHEET NO.

RELEASE FOR CONSTRUCTION

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

I RUMARK HOMES

ADDED COVERED DECK BACK RIGHT SIDE
PERGOLLA LEFT SIDE
LOT 1441 WINTERSET
2924 NW THOREAU DR
LEE SUMMIT MO

SCALE 1/4" = 1-0

> DATE 11-8-21

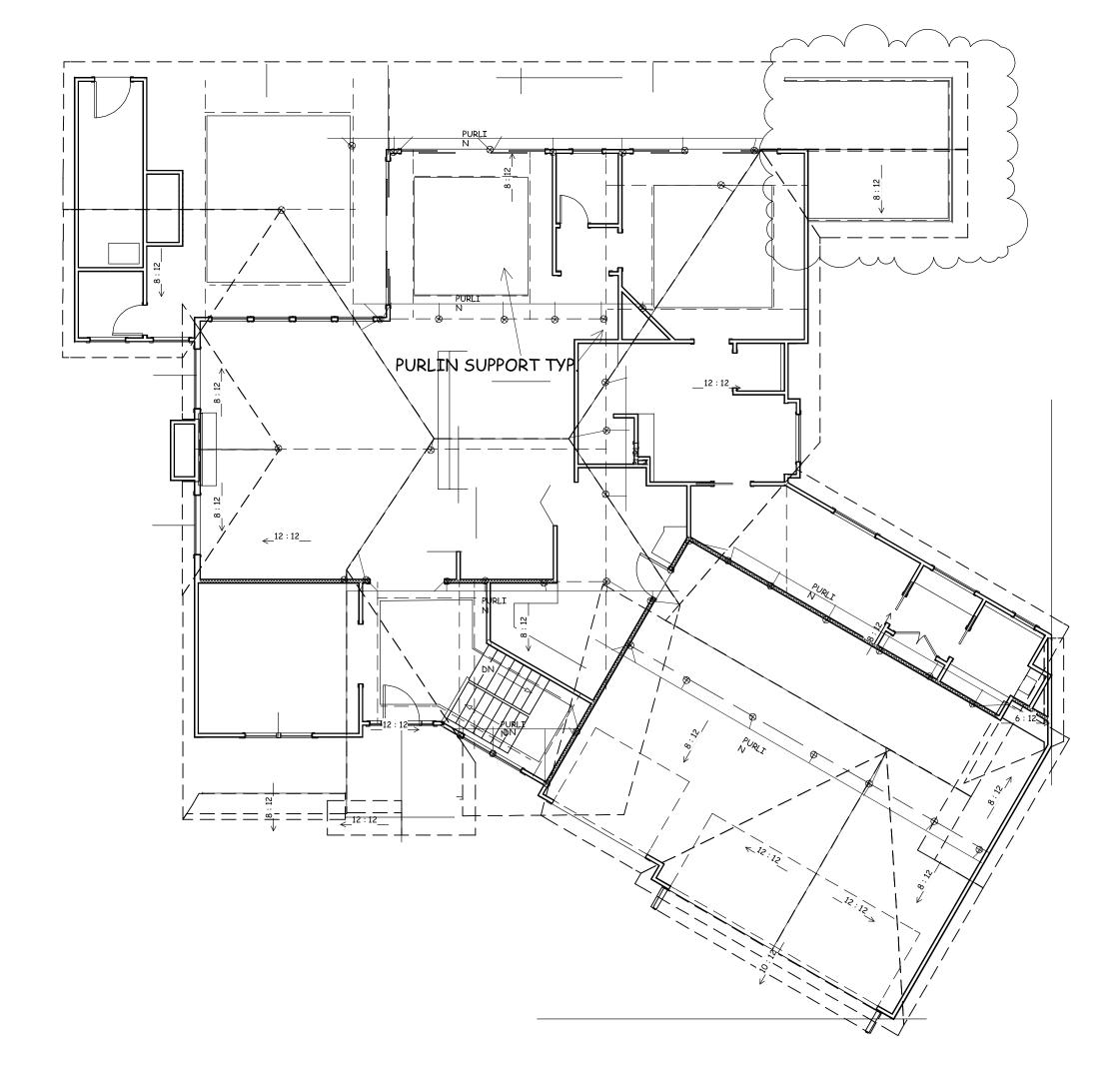
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3 OF SELEASE FOR STRUCTION AS NOTED ON PLANS REVIEW Development Services LEE'S SUMMIT, MISSOURI



PURLIN PLAN 1/8" = 1-0

VAULT INSULATION DETAIL 2 X 10 VAULT RAFTER 1. DWELLING / GARAGE OPENINGS BETWEEN GARAGE AND SLEEPING PURPOSES SHALL NOT BE PERMITTED. OTHER OPENINGS SHALL BE 1" AIR SPACE WITH FOAM AIR EQUIPPED WITH SOLID WOOD OR STELL DOORS NOT LESS THAN 1-3/8" ENERGY CONSERVATION CODE THICK OR 20 MINUTE RATED DOORS, WITH SELF CLOSING DEVICES 2 X 2 NAILED TO BOTTOM OF REQUIRED FOR GARAGE / DWELLING SEPERATION DOORS R302.5.1 THE FOLLOWING VALUES ARE NEEDED. RAFTERS 12" O.C. WITH 12 D NAILS 2. WHOLE HOUSE MECHANICAL VENTILATION SYSTEM IS REQUIRED FOR R-15 IN WALLS ANY DWELLING IN COMPLIANCE WITH IRC M 1505 3. CARBON MONOXIDE DETECTORS REQUIRED IRC R 315 R-49 IN ATTICS R-38 HIGH DENSITY 4. STEEL COLUMNS SHALL BE MINIMUM SCHEDULE 40 R407.3 INSULATION R-38 IN VAULTS R-30 REDUCTION FOR VAULTS IS ONLY FOR 500 SF 5. DECK SHALL BE BUILT PER TABLES 507.2 , 507.2.1, 507.3 , 507.6 , INTERCONNECTED HARD WIRED SMOKE DETECTORS SHALL BE INSTALLED IN EACH 507.5.1(1)&(2), 507.5, AND 507.6 PF AREA BEDROOM AND OUTSIDE OF EACH BEDROOM 6. STUDS SHALL BE CONTINUOUS BETWEEN FLOOR, CEILING AND OR R-19 IN FLOORS OVER UNCONDITIONED SPACES ROOF DIAPHRAGMS R602.3 ALL PLUMBING IF EXISITING SHALL BE CAPPED AND AIR TESTED PRIOR TO ROUGH-IN 7. ADDED REQUIREMENTS FOR WINDOW FALL PROTECTION R312.2 R-10 IN CRAWL SPACE WALLS INSPECTION FOR LEAK VERIFICATION 8. NEW PROVISIONS FOR ATTACHMENT OF RAFTERS, TRUSSES AND BASEMENT WALLS R-13 CAVITY OR R-10 CONTINOUS ROOF BEAMS R802.3.1. R802.11 9. INSULATION REQUIRED FOR ALL BASEMENT WALLS (INCLUDING UNFINISHED BASEMENTS) N1102.1 SLABS SHALL BE R-10 FOR A DEPTH OF 2 FOOT A WINDOW U FACTOR OF .35 OR BETTER 10. EXTERIOR WINDOWS/DOORS SHALL HAVE U-FACTOR 0.35 AND ICE & WATER SHEILD REQUIRED ON ALL GLAZING SHALL HAVE SOLAR HEIGHT GAIN FACTOR OF 0.40 N1102.1 DUCTWORK NEEDS TO HAVE AN R-8 VALUE 11. HOUSE LEAKAGE AND DUCT LEAKAGE PERFORMANCE STANDARDS EFFECTIVE JANUARY 1, 2014. A SAMPLE TESTING PROGRAM WILL BE ROOF IS DESIGNED FOR 25 IMPLEMENTED OCTOBER 1, 2012 KCBRC N1102.4.1.2 N1103.2.2 P.S.F. SNOW LOAD MIN. 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 COMP. SHINGLES OVER RIDGE BOARDS AND HIPS ARE TO BE 2 X MATERIAL, AND NOT LESS THAN THE END CUT OF RAFTER RAFTERS AND CEILING 2 X 6 DF NO. 2 JOISTS CONNECTIONS IN 13.PROGRAMMABLE THERMOSTAT REQUIRED N1103.1.1 RATED ROOF AT 16" OC ACCORDANCE IRC 802.3 SHEATHING PROVIDE RAFTER TIES PER SECTION 802.3 14. AIR HANDLERS SHALL BE RATED FOR MAXIMUM 2 % AIR LEAKAGE DRIP EDGE AND GUTER AND 802.3.1 WHEN UNABLE TO CONNECT RATE N1103.2.2.1 RAFTERS TO CEILING JOISTS 1 X 8 FASCIA OVER 2 X 6 15. BUILDING CAVITIES USED AS RETURN AIR PLENUMS SHALL BE 2 X 6 DF NO. 2 SEALED TO PREVENT LEAKAGE ACROSS THE THERMAL ENVELOPE KCBRC SUBFASCIA AT 16" OC 16. CERTAIN HOT WATER PIPES SHALL BE INSULATED N1103.4 GARAGE SHALL HAVE 5/8 TYPE X 17. ALL EXHAUST FANS SHALL TERMINATE TO THE BUILDING EXTERIOR SHEET ROCK CEILING AND WALLS 7/16 APA RATED SIDING OVER 18. MAKEUP AIR SYSTEM REQUIRED FOR KITHCHEN EXHAUST HOODS 2 - 2 X 10 DF NO 2 HEADERS TYP. U.N.O. WATER RESISTIVE HOUSE WRAP IN THAT EXCEED 400 CFM M1503.4 WALLS OVER 10-2 TO 18-0 STUDS SHALL BE 2 X 6 DF NO 2 @ 16" O.C. TYP. COMPLIANCE WITH SECTION 703.2 OF THE IRC 19. BUILDING CAVITIES IN A THERMAL ENVELOPE WALL ( INCLUDING THE WALL BETWEEN THE HOUSE AND GARAGE ) SHALL NOT BE USED AS 2 X 4 DF NO. 2 3/4" T & *G* SUB FLOOR RETURN AIR PLENUMS 1/2 " ANCHOR BOLTS AT 5-0 OC MIN. , AND BE LOCATED WITHIN 12" FROM THE ENDS OF EACH ALL STUDS GO FROM FLOOR TO GLUED AND NAILED 20. AN AIR HANDLING SYSTEM SHALL NOT SERVE BOTH THE LIVING CEILING OR RAFTER DIAFRAM TYP. PLATE SECTION. SHALL EXTEND A MINIMUM OF SPACE AND THE GARAGE M1601.6 11-7/8 TJI 360 @ \_ 7" INTO CONCRETE SUPPLEMENTAL 16" OC 21. A CONCRETE- ENCASED GROUNDING ELECTRODE ( 'UFER' GROUND ) 2 X4 TREATED PLATE OVER REINFORCEMNT AT CONNECTION SHALL BE PROVIDED TO THE ELECTRICAL SERVICE E3608.1 MIN. CONCRETE STRENGTH CORNERS OF OPENINGS SILL SEALER 2,500 PSI BASEMENT FLOOR SLABS UNDISTURBED GRADE AND STEP DOWNS 22. COMPLIANCE WITH THE REQUIRMENT AND SHOW CONNECTION AS 3,000 PSI FOR FOOTINGS, FOUNDATION WALLS, AND OTHER VERTICAL REQUIRE 1 # 4 BAR 48" NEEDED FOR ROOF BEAM, TRUS, RAFTER, AND GIRDER CONNECTION FOR LONG AT 45 DEGREE UPLIFT PER IRC 802.11. ALL RAFTERS BE IN COMPLIANCE WITH IRC 502.11 DAMPPROOF WALLS BELOW GRADE 3,500 PSI FOR CARPORT AND GARAGE FLOOR SLABS ON UNDISTURBED GRADE, SPRAY ON TAR WITHIN CODE R-406.1
FILL ALL VIODS & HONEYCOMB AREAS
OF INSIDE CORNERS

AMENDED RAYMORE CODE
OF INSIDE CORNERS ANGLE AT CORNERS, AND STRUCTURAL FLOOR SLABS BEFORE DAMPPROOFING 4" CONCRETE SLAB WITH NO SPREAD FOOTING 7.5" CONCRETE WALL WITH NO 4 BARS HORT. EVERY TWO FEET OF 4 BARS AT 2-0 OC EACH WAY, MIN 8" DEEP X 16" OVER 6 ML VAPOR BARRIOR WALL HEIGHT WITH # 4 BAR WITHIN 12" OF TOP AND BOTTOM OF WIDE WITH TWO NO USE LSTA24 RIDGE STRAPS WALL, HORT. REBAR SHALL BE INSTALLED ON SOIL SIDE OF OVER CRUSHED ROCK ON ALL VAULTS AT RIDGE ALL REBAR VERTICAL REINFORCEMENT OR COLLAR TIES GRADE 40 TYP. VERTICAL REBAR SHALL BE WITHIN 8" OF THE TOP OF THE WALL, AND POSITIONED 2" FROM THE INSIDE FACE OF WALL VERTICAL REBAR SPACING WALL HEIGHT IN FEET 8 X 16 FOOTING WITH TWO NO 4 6-0 OR LESS #4 @ 24" O.C. RADON VENTING OF SLAB BARS HORIZONTAL 3" FROM THE 8-0 # 4 @ 16" O.C. ALL CONCRETE EXPOSED TO 9-0 # 4 @ 12" O.C. WEATHER GARAGE SLABS BOTTOM, ALL FOOTINGS TO 10-0 # 4 @ 8" O.C. EXCEED MIN. FROST DEPTH OF 36" FOOTINGS WALLS AND FLATWORK 10-0 WALL 9.5" #4 @ 12" O.C. MUST HAVE 6% AIR ENTRAINMENT MIN. STAIR HEADROOM 6-8 4" DRAIN TILE IN WITH MIN 6" TYP VAULT WITH STRAPS ALL STAIRS ASSUMED SOIL \ CRUSHED ROCK OVER PIPE, DRAIN TO MAX. RISE 7-3/4" PRESSURE DAYLIGHT, OR SUMP PUMP IN MIN. RUN 10" 2000 P.S.F. PIER PADS ACCORDANCE TO R-405 TYP. U.N.O. 3-0 X 3-0 X 12" PEIR PADS MIN. STUDS OVER 10-0 SHALL HAVE TYPICAL WALL SECTION WITH # 4 REBAR, 6 EACH WAY BLOCKING ALONG WALL MAX OF 6-0 O.C. WINDOW EGRESS REQUIREMENTS WINDOW SAFETY GLAZING PER 308 OVERHEAD GARAGE DOORS SAFETY GLAZING REQUIRED ALONG WALKING SURFACES AND BEDROOM WINDOW EGRESS MINIMUM FOR A DOUBLE HUNG MUST MEET DASMA 115 MPH WINDOW IS 34 INCH CLEAR WIDTH MIN. AND 24 INCH CLEAR STAIRS LOCATED WITHIN 36 INCHES HORIZONTALLY OF THE STEPS. OR IRC 2018 REQUIRMENTS SAFETY GLAZING REQUIRED IF EXPOSED SINGLE PANEL IS IN HEIGHT MIN. WITH A CLEAR OPENABLE AREA OF 5.7 SQUARE FEET EXCESS OF 9 SQUARE FEET OR THE BOTTOM EDGE OF THE GLAZING IS LESS THAN 18 INCHES ABOVE THE FINISHED FLOOR. A CASEMENT OR SLIDER WINDOW MINIMUMS ARE 20 INCH CLEAR **←** 3'-0" → WIDTH MINIMUM AND 41 INCH CLEAR HEIGHT MINIMUM. WITH A SAFETY GLAZING REQUIRD WHERE THE NEAREST EXPOSED EDGE OF MINIMUM 5.7 SQUARE FOOT OF OPENABLE AREA. EGRESS WINDOW WELL AS NEEDED THE GLAZING IS WITHIN 24 INCHES OF EITHER VERTICAL EDGE OF OPENING OF EGRESS WINDOW NOT MORE THAN 42" PER SECTION 308 MIN 3-0 X 3-0 THE DOOR IN A CLOSED POSITION AND WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 60 INCHES ABOVE A FROM THE FLOOR WITH LADDER WALKING SURFACE, SAFETY OR TEMPERED GLAZING IS REQUIRED.

WINDOWS ARE TO HAVE FALL

PROTECTION PER IRC 312.2



ALL POINT LOADS SHALL HAVE A MINIMUM OF 2 STUDS UNLESS NOTED OTHERWISE

BUILD IN ACCORDANCE WITH 2018 INTERNATIONAL RESIDENTIAL CODE AND

TRUMARK HOMES

ADDED COVERED DECK BACK RIGHT SIDE &
PERGOLLA LEFT SIDE
LOT 1441 WINTERSET
2924 NW THOREAU DR

*SCALE* 1/4" = 1-0

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TABLE R602.10.4 BRACING METHODS CONNECTION CRITERIA® MINIMUM THICKNESS Wood: 2-8d common nails  $1 \times 4$  wood or approved metal straps  $3-8d (2^{1}/_{2}^{"} long \times 0.113^{"} dia.)$  nails at 45° to 60° angles for Let-in-bracing maximum 16" Metal strap: per manufacturer stud spacing  $2-8d (2^{1}/_{2}" long \times 0.113" dia.) nails$ '4" (1" nominal) for maximum 24"  $2 - 1^3/4$  long staples stud spacing wood boards Exterior sheathing per Table R602.3(3) Wood Interior sheathing per structural panel Table R602.3(1) or R602.3(2) (See Section R604) BV-WSP° Wood structural 8d common  $(2^{1}/_{2}" \times 0.131)$  nails panels with stone See Figure R602.10.6.5 or masonry veneer (See Section R602.10.6.5) " long  $\times$  0.12" dia. (for  $\frac{1}{2}$ " thick sheathing)  $1^3/4''$  long × 0.12" dia. (for  $2^5/32''$  thick sheathing) Structural maximum 16" fiberboard. galvanized roofing nails stud spacing sheathing Nails or screws per Table R602.3(1) for For all braced wall exterior locations Nails or screws per Table R702.3.5 for and bottom plates) 7 Gypsum board interior locations For 3/8", 6d common (2" long × 0.113" dia.) nails Particleboard For 1/2", 8d common stud spacing  $(2^{1}/_{2})^{n}$  long × 0.131" dia.) nails (See Section R605 <sup>2</sup> long, 11 gage, <sup>7</sup>/<sub>16</sub>" dia. head nails 6" o.c. on all framing See Section R703.7 for PCP

maximum 16"

stud spacing

" for maximum 16"

stud spacing

Portland

cement plaster

HPS

Hardboard

panel siding

Alternate braced wall

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.

Spacing

op and bottom plates

per manufacturer

Per stud

6" edges 12" field

Varies by fastener

4" at panel edges

12" at intermediate

supports 4" at braced

wall panel end posts

3" edges 6" field

edges (including top

3" edges 6" field

4" edges 8" field

Section R602.10.6.1

<sup>7</sup>/<sub>8</sub>" long, 16 gage staples

0.092" dia., 0.225" dia. head nails with

length to accommodate 11/2"

penetration into studs

See Section R602.10.6.1

Wood: per stud and

METHODS, MATERIAL

PFH

Portal frame with

hold-downs

Portal frame at garage

METHOD (See Table R602.10.4)		MINIMUM LENGTH° (Inches) Wall Height					CONTRIBUTING LENGTH (Inches)
		DWB, WSP, SFB, PBS, PCP, HPS, BV-WSP		48	48	48	53
GB		48	48	48	53	58	Double sided = Actual Single sided = 0.5 × Actual
LIB		55	62	69	NP	NP	Actual <sup>6</sup>
ABW	SDC A, B and C, ultimate design wind speed < 140 mph	28	32	34	38	42	48
	SDC D <sub>0</sub> , D <sub>1</sub> and D <sub>2</sub> , ultimate design wind speed < 140 mph	32	32	34	NP	NP	
CS-G		24	27	30	33	36	Actual <sup>b</sup>
CS-WSP, CS-SFB	Adjacent clear opening height (inches)						
	≤ 64	24	27	30	33	36	Actual <sup>b</sup>
	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		_	<u> </u>	56	51	
	128	_			61	54	
	132				66	58	
	136				-	62	
	140	-	_			66	
	144					72	
METHOD				rtal header 10 feet	height 11 feet	12 feet	-
(See Table R602,10.4)		8 feet	9 feet	10 teet	Note c	Note c	
PFH	Supporting roof only	16	16	24	Note c	Note c	40
	Supporting one story and room		24		Note d	Note d	
PFG		24	27	30	Note e	Note e	
CS-PF	SDC A, B and C	16	18	20	Note e	Note e	
CO-1 1	$SDC D_0, D_1 $ and $D_2$	16	18	20	TADIES	14016.6	7101011

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

MINIMUM TOTAL LENGTH (FEET) OF BRACED WALL PANELS REQUIRED ALONG EACH BRACED WALL LINE' DWB, WSP, SFB, PBS, PCP, HPS, SV-WSP, ABW, PFH, PFC, CS-SFB Methods CS-WSP, CS-G, CS-PF 9.0 10.5 9.0 10.5 11.5 17.0 20.0 11.0 13.0 17.0 20.0 24.5 21.0 25.0 29.0

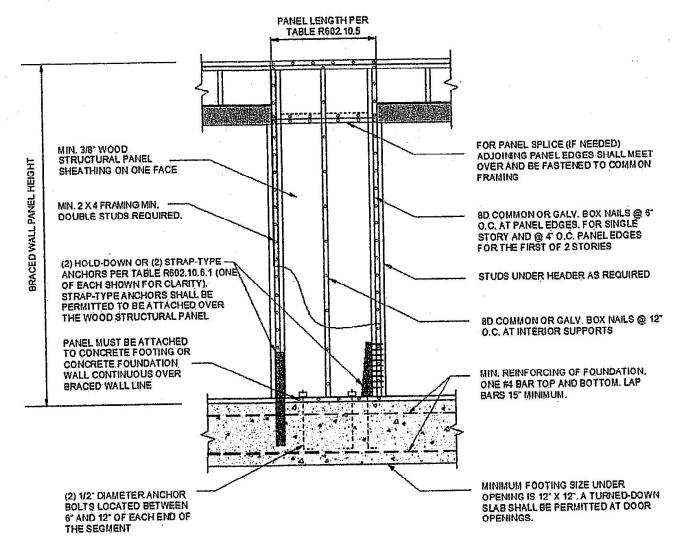


TABLE R602.10.3(1)
BRACING REQUIREMENTS BASED ON WIND SPEED

Method LIBb

12.5

15.0

18.0

12.5

23.5

29.0

34.5

Method GB

12.5

15.0

18.0

18.0

23.5

29.0

34.5

10.0

18.5

27.0

43.0

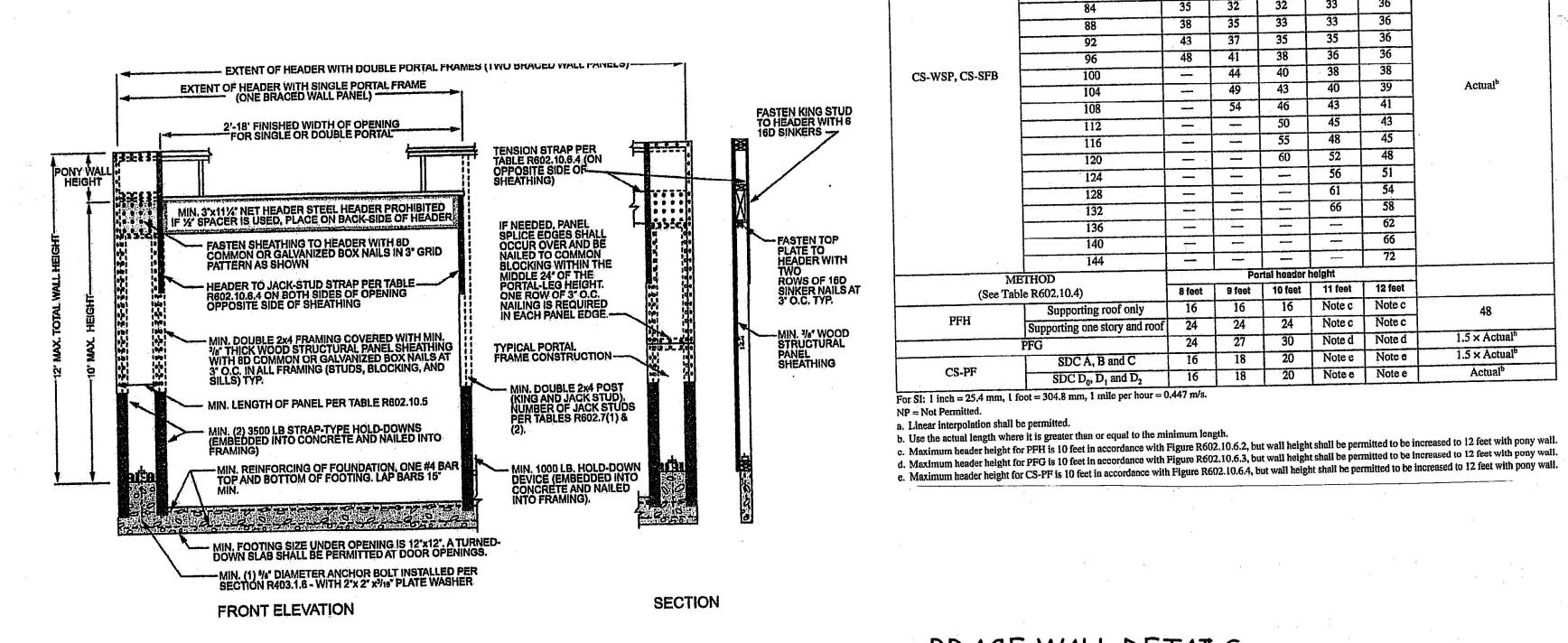
EXPOSURE CATEGORY B SD-FOOT MEAN ROOF HEIGHT 10-FOOT WALL HEIGHT 2 BRACED WALL LINES

≤ 115

25.4 mm.

Story Location

FIGURE R602.10.6.1 METHOD ABW-ALTERNATE BRACED WALL PANEL



4 mm, 1 foot = 304.8 mm.

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

Exterior sheathing per Table R602.3(3) 6" edges 12" field Continuously sheathed Interior sheathing per Table R602.3(1) or R602.3(2) Varies by fastener wood structural pane See Method CS-WSP See Method CS-WSP wood structural panel adjacent to garage openings CS-PF See Section R602.10.6.4 See Section R602.10.6.4 portal frame (for 1/2" thick sheathing)  $1^{3}/_{4}$ " long × 0.12" dia. (for  $^{23}/_{32}$ " thick sheathing) galvanized roofing nails 3" edges 6" field Continuously sheathed structural fiberboard stud spacing 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. Adhesive attachment of wall sheathing, including Method GB, shall not be permitted in Seismic Design Categories C, D<sub>0</sub>, D<sub>1</sub> and D<sub>2</sub>.

b. Applies to panels next to garage door opening where supporting gable end wall or roof load only. Shall only be used on one wall of the garage. In Seismic Design Categories D<sub>0</sub>, D<sub>1</sub> and D<sub>2</sub>, 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  $D_0$ ,  $D_1$  and  $D_2$ . e. Method applies to detached one- and two-family dwellings in Seismic Design Categories  $D_0$  through  $D_2$  only.

TABLE R602.10.4—continued BRACING METHODS

CONNECTION CRITERIA'

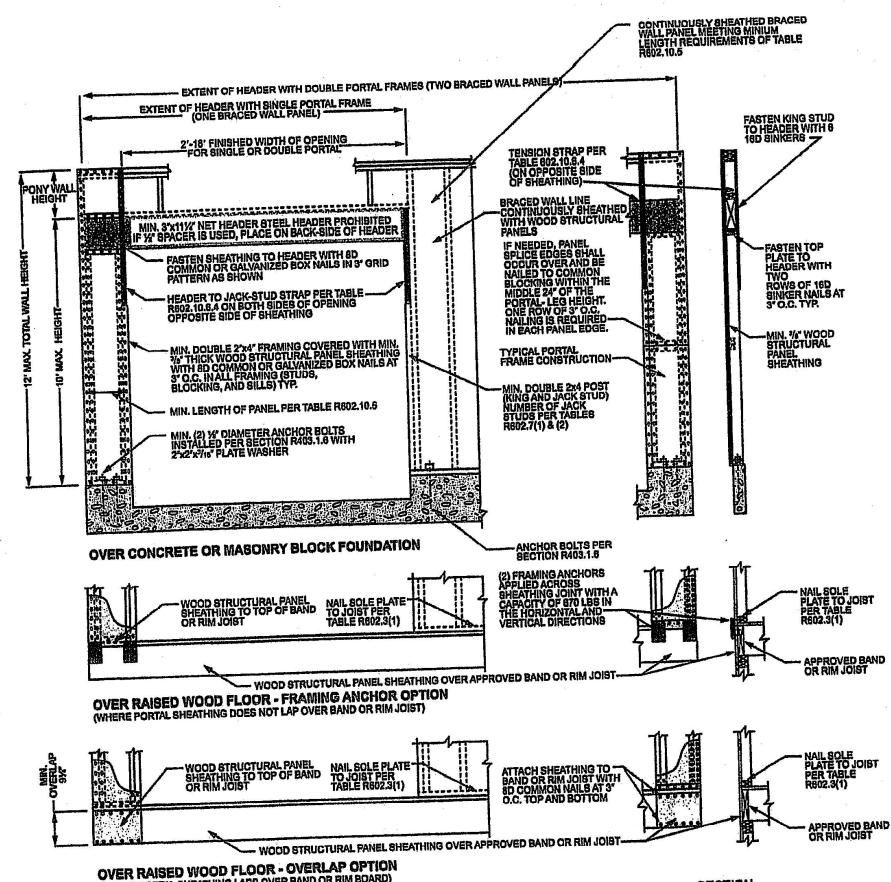
See Section R602.10.6.2

See Section R602.10.6.3

Spacing

See Section R602.10.6.2

See Section R602.10.6.3



OVER RAISED WOOD FLOOR - OVERLAP OPTION (WHERE PORTAL SHEATHING LAPS OVER BAND OR RIM BOARD) SECTION

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

FRONT ELEVATION

FIGURE R802.10.6.4
METHOD CS-PF—CONTINUOUSLY SHEATHED PORTAL FRAME PANEL CONSTRUCTION

DEMO PRIN