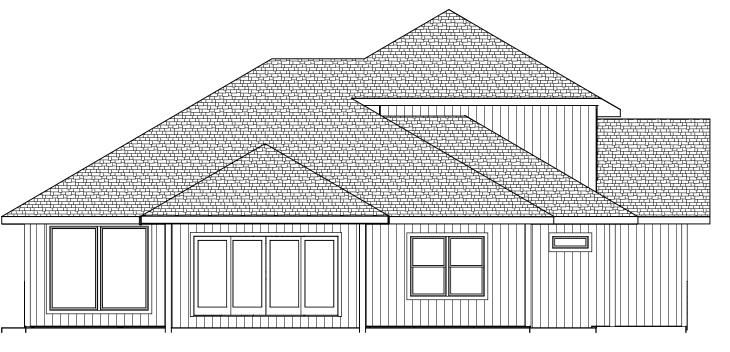
RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI 09/28/2021 2:42:24 FRONT EL. STUCCO & STONE

LEFT EL.

1/8 = 1-0

RIGHT EL. 1/8 = 1-0



REAR EL. 1/8 = 1-0 BUILD IN ACCORDANCE WITH 2018 INTERNATIONAL RESIDENTIAL CODE AND LOCAL CODES.

NICK ZVACEK HOMES CARTER LOT 145 MONTICELLO 4721 NE JAMESTOWN DR LEE SUMMIT MO

SCALE 1/4" = 1-0

DATE 9-21-21

PLAN NO. 3522

SHEET NO.

1 OF 6

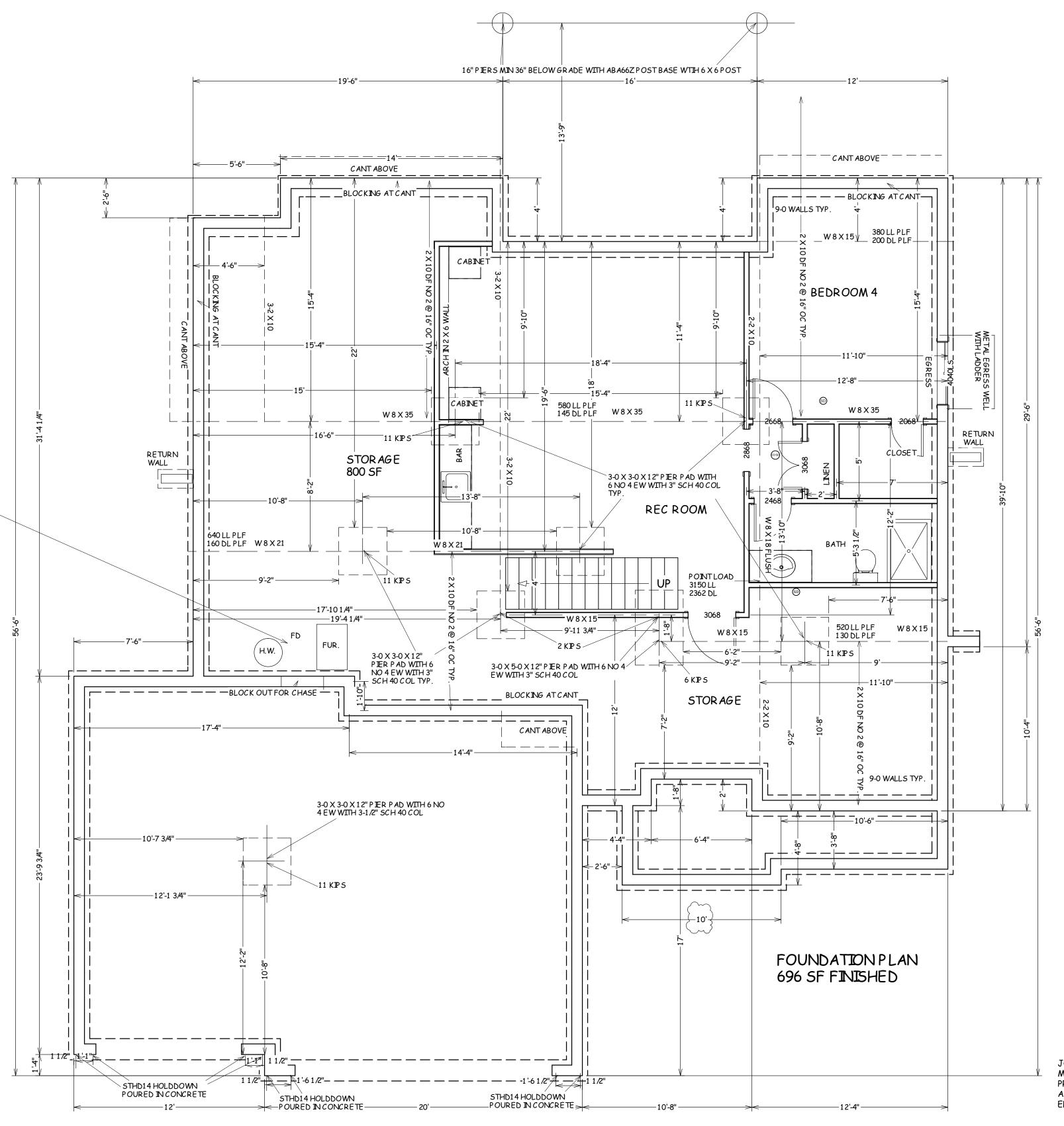
RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI 09/28/2021 2:42:25

COMBUSTION AIR CALCULATIONS

INPUT CAPACITY
FURNACE = 100,000 BTU/ HR
H.W. HEATER = 50,000 BTU/ HR
TOTAL = 150,000 BTU/HR

50 CUBIC VOLUME REQ. PER 1,000 BTU/ HR VOLUME IN UNFINISHED $800 \times 9 = 7,200 \text{ CU}$. FT.

SINCE UNFINISHED AREA DOES NOT PROVIDE SUFFICIANT VOLUME FOR NORMAL INFILTRATION, INSTALL 2 METAL LOUVER VENTS IN WALL BETWEEN FAMILY ROOM AND FURNACE ROOM. ONE VENT SHALL BE @ MIN. WITHIN 12" OF THE TOP OF THE WALL, AND ONE VENT SHALL COMMENCE WITHIN 12" OF THE BOTTOM OF THE WALL. EACH VENT SHALL PROVIDE A MINIMUM FREE AREA OR 150 SQUARE INCHES (1" PER 1,000 BTU/HR) SINCE METAL LOUVERS HAVE 75% FREE AREA, MINIMUM LOUVER SIZE REQUIRED = 150/75 = 200 SQ. IN.



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

NICK ZVACEK HOMES
CARTER
LOT 145 MONTICELLO
4721 NE JAMESTOWN DR
LEE SUMMIT MO

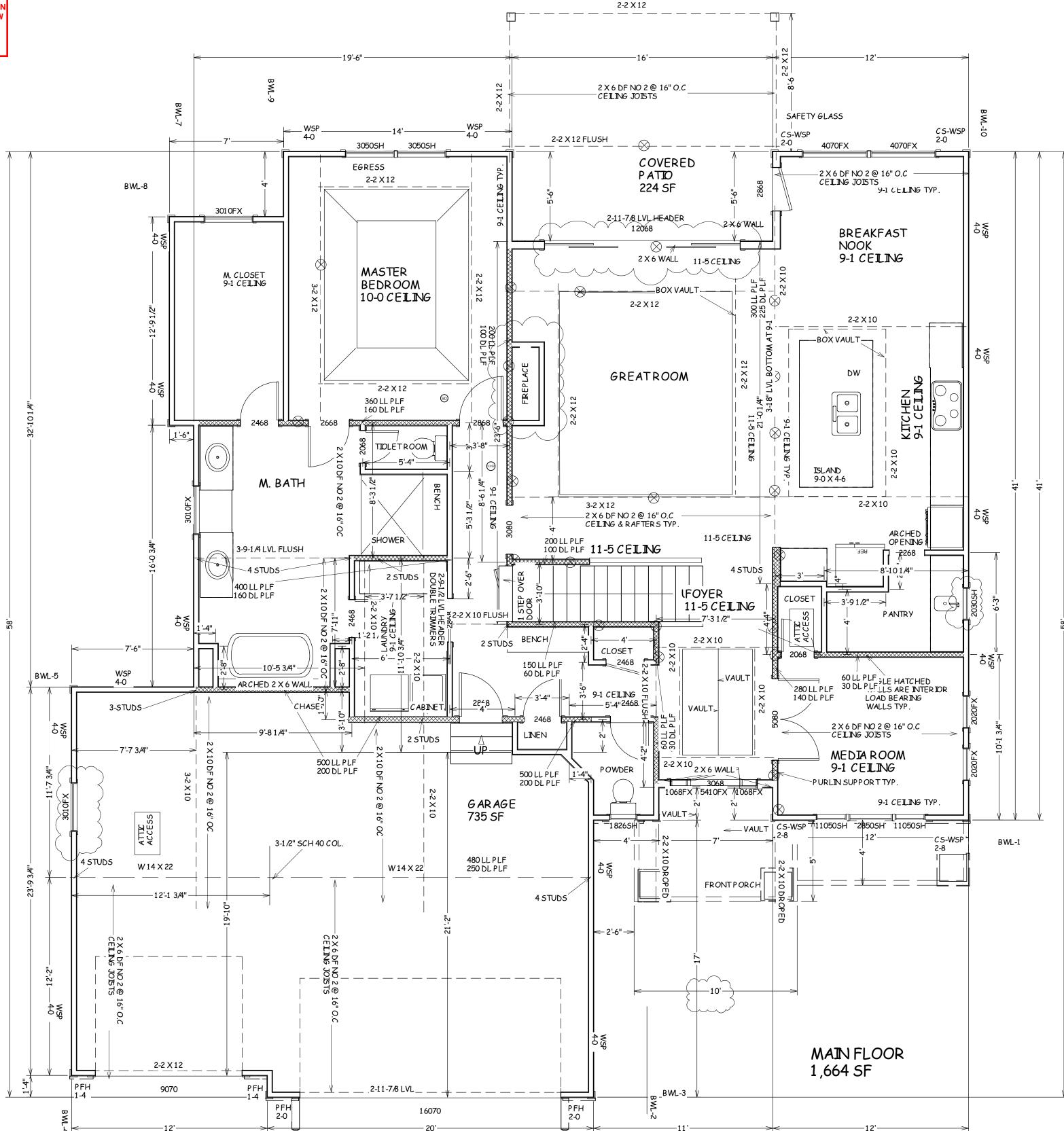
SCALE 1/4" = 1-0

> DATE 9-21-21

PLAN NO. 3522

SHEET NO.

2 OF 6



BUILD IN ACCORDANCE WITH 2018 INTERNATIONAL RESIDENTIAL CODE AND LOCAL CODES. ICK ZVACEK HOMES
CARTER
OT 145 MONTICELLO
I NE JAMESTOWN DR
LEE SUMMIT MO

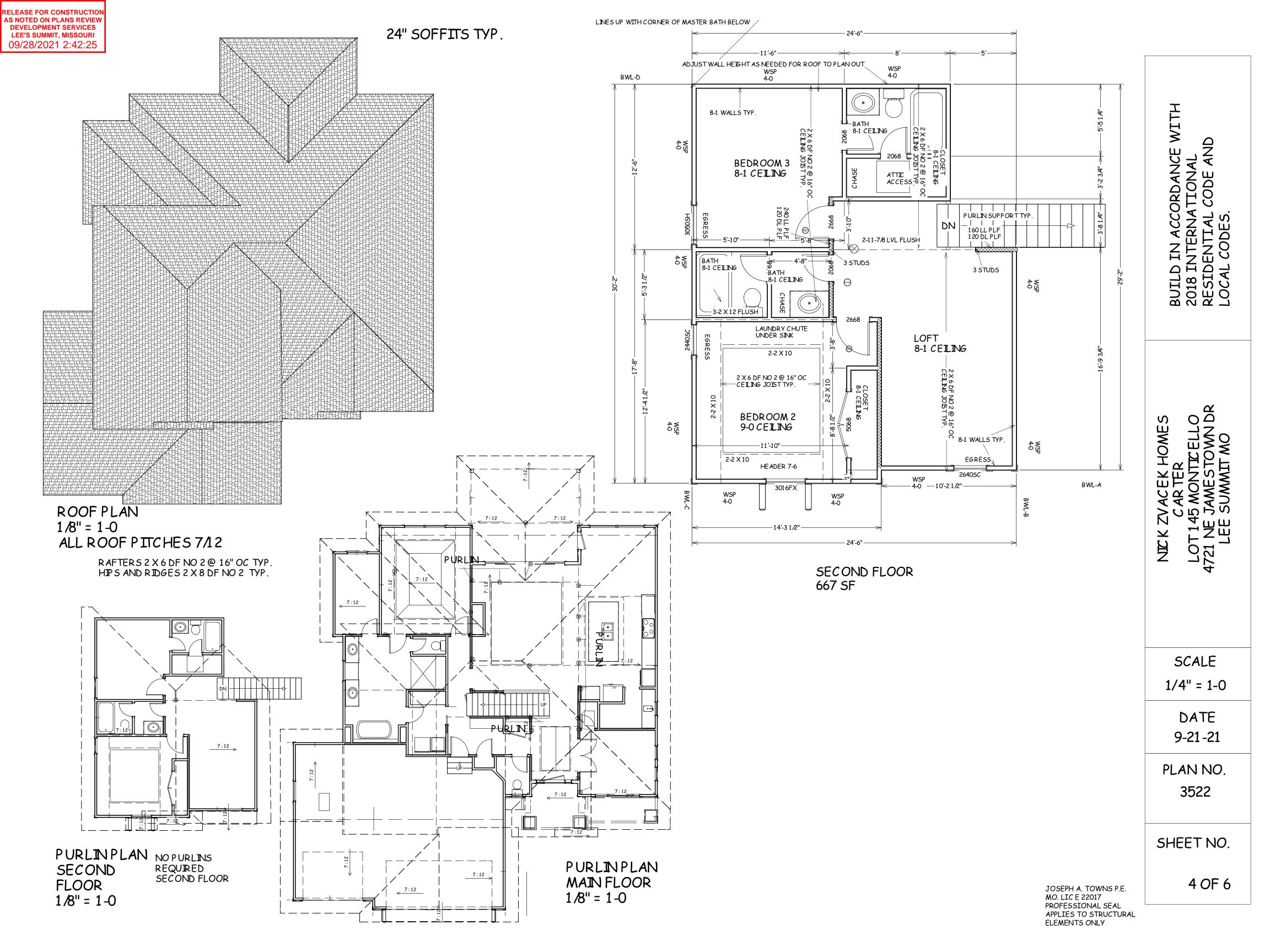
> SCALE 1/4" = 1-0

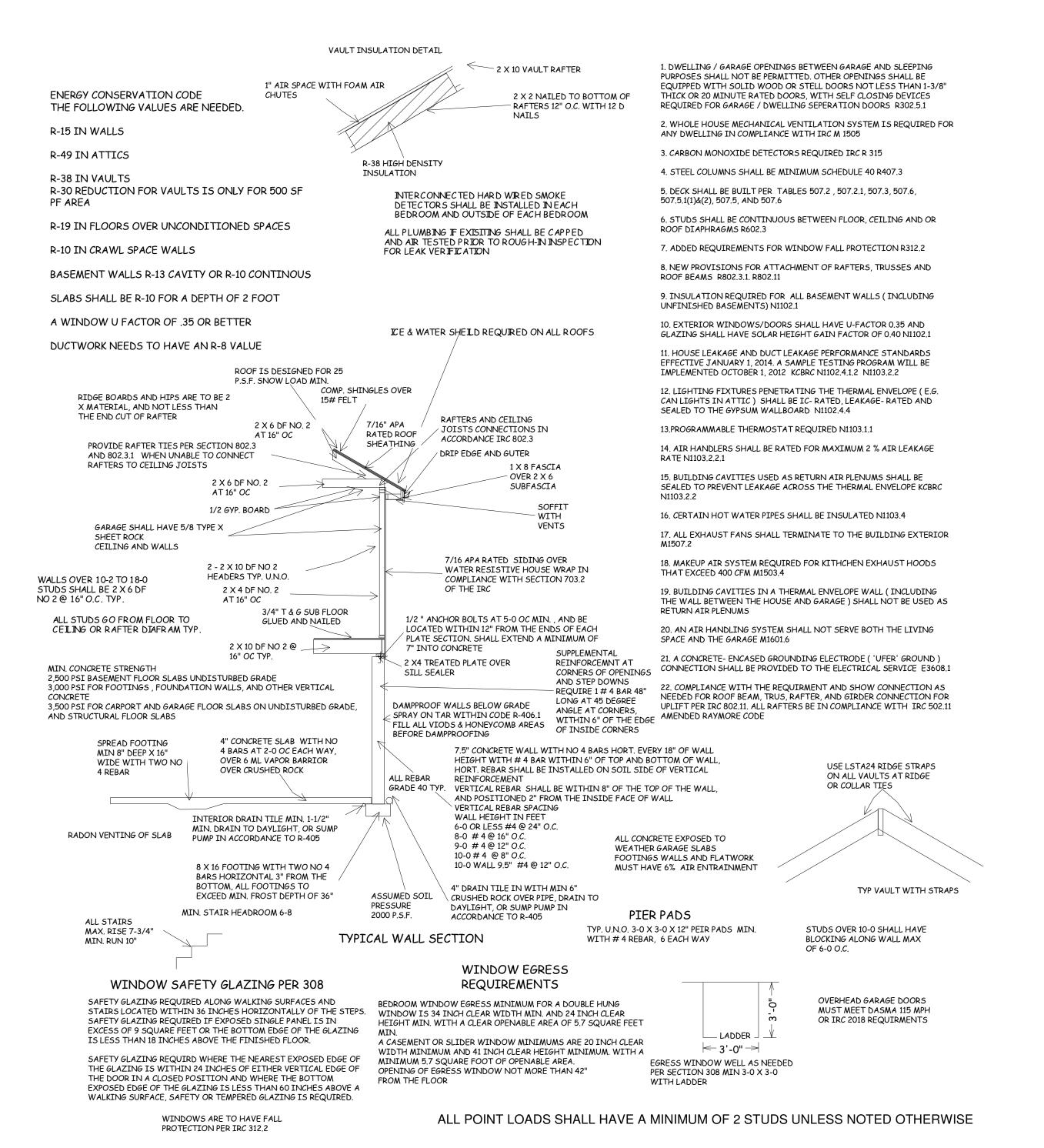
> > DATE 9-21-21

PLAN NO. 3522

SHEET NO.

3 OF 6





ANCE TONA DE CCORD, 00 TERNA. UILI 018 BUB

OĀ HOWE ELL M

SCALE 1/4" = 1-0

> DATE 9-21-21

PLAN NO.

3522

SHEET NO.

5 OF 6

3522

SHEET NO.

6 OF 6

Methods
S-Welf, CS-G,
CS-PF

2.0
3.5
4.5
6.0
7.5
9.0
3.5
6.5
9.0
11.5
14.0
17.0
5.0
9.0
13.0
17.0
21.0
25.0

3,5

7.0

9.0

10.5

7.5

13.5

16.5

20.0

11.0

20.0

24.5

15.0

18.0

18.0

23.5

29.0

34.5

10.0 18.5

27.0

35.0

43.0

	PANEL LENGTH PER TABLE R602.10.5	
TEIGHT	M.IN. 3/B* WOOD STRUCTURAL PANEL SHEATHING ON ONE FACE	FOR PANEL SPLICE (IF NEEDED) ADJOINING PANEL EDGES SHALL MEET OVER AND BE FASTENED TO COMMON FRAMING
BRACED WALL PANEL HEIGHT	MIN. 2 X4 FRAMING MIN. DOUBLE STUDS REQUIRED.	8D COMMON OR GALV. BOX NAILS @ 6" O.C. AT PANEL EDGES, FOR SINGLE STORY AND @ 4" O.C. PANEL EDGES FOR THE FIRST OF 2 STORIES
BRACED	(2) HOLD-DOWN OR (2) STRAP-TYPE ANCHORS PER TABLE ROSO, 10.6.1 (ONE) OF EACH SHOWN FOR CLARITY). STRAP-TYPE ANCHORS SHALL BE PERMITTED TO BE ATTACHED OVER THE WOOD STRUCTURAL PANEL	STUDS UNDER HEADER AS REQUIRED 8D COMMON OR GALV. BOX NAILS @ 12*
	PANEL MUST BE ATTACHED TO CONCRETE FOOTING OR CONCRETE FOUNDATION WALL CONTINUOUS OVER	O.C. AT INTERIOR SUPPORTS MIN. REINFORCING OF FOUNDATION.
	BRACED WALL LIME	ONE #4 BAR TOP AND BOTTOM, LAP BARS 15" MINIMUM.
		MINIMUM FOOTING SIZE UNDER
	(2) 1/2: DAMETER ANCHOR BOLTS LOCATED BETWEEN 6' AND 12' OF EACH END OF THE SEGMENT	OPENING IS 12' X 12". A TURNED-DOWN SLAB SHALL BE PERMITTED AT DOOR OPENINGS.
25.4 mm.		

FIGURE R602.10.6.1 METHOD ABW—ALTERNATE BRACED WALL PANEL

6.5

9.5

15.0

18.0

12.5 18.0

29.0 34.5

40 50

50

≤ 115

MAX. TOTAL WALL HEIGHT H A MAX. HEIGHT MAX. HEIGHT	MIN. 3'X11 MIN. 3'X11 FAS COP OP OP MIN MIN MIN MIN MIN MIN MIN MI	EXTENT OF HEADER WITH DOUBLE PORTAL PROPOSED FOR HEADER WITH SINGLE PORTAL FRAME (ONE BRACED WALL PANEL) 2'-18' FINISHED WIDTH OF OPENING FOR SINGLE OR DOUBLE PORTAL 2'-18' FINISHED WIDTH OF OPENING FOR SINGLE OR DOUBLE PORTAL W'. NET HEADER STEEL HEADER PROHIBITED ER IS USED, PLACE ON BACK-SIDE OF HEADER STEN SHEATHING TO HEADER WITH 8D MMON OR GALVANIZED BOX NAILS IN 3" GRID TERN AS SHOWN ADER TO JACK-STUD STRAP PER TABLE 2'-10.8.4 ON BOTH SIDES OF OPENING POSITE SIDE OF SHEATHING I. DOUBLE 2'AF FRAMING COVERED WITH MIN. THICK WOODD STRUCTURAL PANEL SHEATHING THE DOMMON OR GALVANIZED BOX NAILS AT OC. IN ALL FRAMING (STUDS, BLOCKING, AND LS) TYP. I. LENGTH OF PANEL PER TABLE R602.10.5 M. (2) 3500 LB STRAP-TYPE HOLD-DOWNS MEDDED INTO CONCRETE AND NAILED INTO AMING) III. REINFORCING OF FOUNDATION, ONE #4 BAR OP AND BOTTOM OF FOOTING. LAP BARS 15" III. N. FOOTING SIZE UNDER OPENING IS 12"x12". A "WN SLAB SHALL BE PERMITTED AT DOOR OPEN III. (1) *10" DIAMETER ANCHOR BOLT INSTALLED SECTION R403.1.6" WITH 2"x2" x"10" PLATE WASH	TENSION STRAP PER TABLE R602.10.6.4 (ON OPPOSITE SIDE OF SHEATHING) IF NEEDED, PANEL SPLICE EDGES SHALL OCCUR OVER AND BE NAILED TO COMMON BLOCKING WITHIN THE MIDDLE 24' OF THE PORTAL-LEG HEIGHT. ONE ROW OF 3' O.C. NAILING IS REQUIRED IN EACH PANEL EDGE. TYPICAL PORTAL FRAME CONSTRUCTION MIN. DOUBLE 2*4 POST (KING AND JACK STUD), NUMBER OF JACK STUDS PER TABLES R602.7(1) & (2). MIN. 1000 LB. HOLD-DOWN DEVICE (EMBEDDED INTO CONCRETE AND NAILED INTO FRAMING).	FASTEN KING STUD TO HEADER WITH 6 16D SINKERS FASTEN TOP PLATE TO HEADER WITH TWO ROWS OF 16D SINKER NAILS A 3" O.C. TYP. MIN. %" WOOD STRUCTURAL PANEL SHEATHING
	F	RONT ELEVATION	SECTION	

4 mm, 1 foot = 304.8 mm.

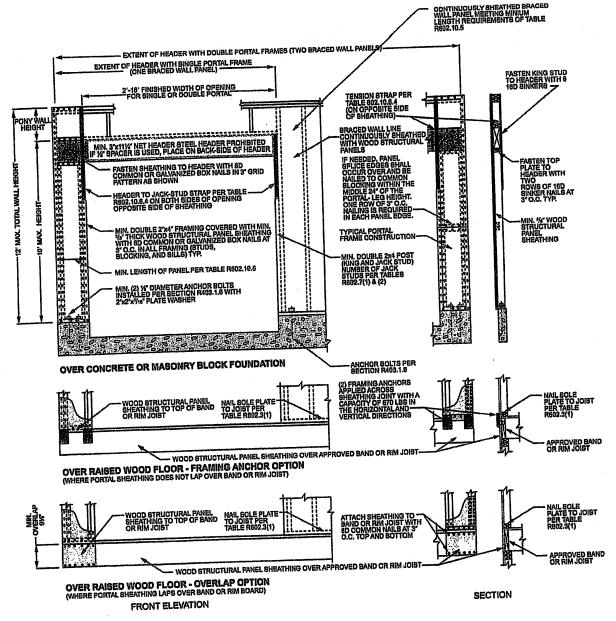
FIGURE R602.10.6.2 METHOD PFH—PORTAL FRAME WITH HOLD-DOWNS

			TABLE R602.10 BRACING METHO				
				CONNECTION CRITERIA®			
METHODS, MATERIAL		MINIMUM THICKNESS	FIGURE	Fasteners	Spacing		
	LIB	1 × 4 wood or approved metal straps			Wood: per stud and top and bottom plates		
	Let-in-bracing	at 45° to 60° angles for maximum 16" stud spacing		Metal strap: per manufacturer	Metal: per manufacturer		
	DWB Diagonal wood boards	³ / ₄ " (1" nominal) for maximum 24" stud spacing		2-8d $(2^{1}/_{2}" \text{ long } \times 0.113" \text{ dia.})$ nails or $2 - 1^{3}/_{4}" \text{ long staples}$	Per stud		
	WSP Wood			Exterior sheathing per Table R602.3(3)	6" edges 12" field		
	structural panel (See Section R604)	ructural panel 18		Interior sheathing per Table R602.3(1) or R602.3(2)	Varies by fastener		
ethods	BV-WSP* 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 " × 0.131) nails	4" at panel edges 12" at intermediate supports 4" at braced wall panel end posts		
Intermittent Bracing Methods	SFB Structural fiberboard sheathing	1/2" or ²⁵ / ₃₂ " for maximum 16" stud spacing		$1^{1}l_{2}^{"}$ long \times 0.12" dia. (for $^{1}l_{2}^{"}$ thick sheathing) $1^{3}l_{4}^{"}$ long \times 0.12" dia. (for $^{25}l_{32}^{"}$ thick sheathing) galvanized roofing nails	3" edges 6" field		
mittent				Nails or screws per Table R602.3(1) for exterior locations	For all braced wall panel locations: 7" edges (including top		
GB Gypsum board		1/2"		Nails or screws per Table R702.3.5 for interior locations	and bottom plates) 7" field		
	PBS Particleboard sheathing (See Section R605)	³ / ₈ " or ¹ / ₂ " for maximum 16" stud spacing		For ³ / ₈ ", 6d common (2" long × 0.113" dia.) nails For ¹ / ₂ ", 8d common (2'/ ₂ " long × 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, ⁷ / ₁₆ " dia. head nails or ⁷ / ₈ " long, 16 gage staples	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 ½" penetration into studs	4" edges 8" field		
	ABW Alternate braced wall	3/8"		See Section R602.10.6.1	See Section R602.10.6.		

METHOD			MIN	CONTRIBUTING LENGTH			
(See Table R602.10.4)				(inches)			
		8 feet	9 feet	10 feet	11 feet	12 feet 58	Actual ^b
DWB, WSP, SFB, P	BS, PCP, HPS, BV-WSP	48	48	48			Double sided = Actual
GB		48	48	48	53	58	Single sided = 0.5 × Actual Actual ⁶
	LIB	55	62	69	NP	NP	Acmar
ABW	SDC A, B and C, ultimate design wind speed < 140 mph	28	32	34	38	42	48
ADW	SDC D ₀ , D ₁ and D ₂ , ultimate design wind speed < 140 mph	32	32	34	NP	NP	
	CS-G	24	27	30	33	36	Actual ^b
	Adjacent clear opening height (inches)						
	≤ 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	1
	88	38	35	33	33	36	
	92	43	37	35	35	36	-
	96	48	41	38	36 38	36	Actual ^b
CS-WSP, CS-SFB	100		44	40	40	39	
	104		49 54	46	43	41	-
	108		1 34	50	45	43	-
	112	 -	+-=-	55	48	45	·
	116	 _	 	60	52	48	-
	124	 	-	+=	56	51	-
	128	+=	+=	+	61	54	
	132		+=	-	66	58	-
	136	+	 	-	+	62	1
	140	 		+=		66	7
	144	 _	+=	_	 	72	
<u>N</u>	AETHOD	+	F	ortal heads			
	able R602,10.4)	8 feet	9 feet	10 feet		12 feet	
DATE T	Supporting roof only	16	16	16	Note c	Note o	48
PFH	Supporting one story and roo		24	24	Note c	Note o	
	PFG	24	27	30	Note d	Note o	
CS-PF	SDC A, B and C	16	18	20	Note e	Note 6	
	SDC D ₀ , D ₁ and D ₂	16	18	20	Note e	Note	Actual
= Not Permitted. .inear interpolation shal	foot = 304.8 mm, 1 mile per hour = 1 be permitted. ere it is greater than or equal to the for PFH is 10 feet in accordance wit		th		. 1 1 11 1	ittad to b	e increased to 12 feet with nonv

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

ent Bracing Methods	PFH al frame with old-downs PFG frame at garage	MINIMUM THICKNESS Ng" 7116"	FIGURE	Feateners See Section R602.10.6.2	Specing See Section R602.10.6.2
Portal Portal	al frame with old-downs	<u>"</u>		See Section R602.10.6.2	See Section R602.10.6.2
Intermittent Bracing Portal		71."			
		716		See Section R602.10.6.3	See Section R602.10.6.3
	CS-WSP			Exterior sheathing per Table R602.3(3)	6" edges 12" field
wood s	uously sheathed structural panel	3/8"		Interior sheathing per Table R602.3(1) or R602.3(2)	Varies by fastener
wood adja	CS-G ^{b,c} nuously sheathed structural panel icent to garage openings	3/8"		See Method CS-WSP	See Method CS-WSP
S Contin	CS-PF nuously sheathed portal frame	⁷ / ₁₆ "		See Section R602.10.6.4	See Section R602.10.6.4
Contir	CS-SFB ^d nuously sheathed tural fiberboard	1/2" or ²⁵ /32" for maximum 16" stud spacing		$1^{1}l_{2}^{"}$ long × 0.12" dia. (for $^{1}l_{2}^{"}$ thick sheathing) $1^{3}l_{4}^{"}$ long × 0.12" dia. (for $^{25}l_{22}^{"}$ thick sheathing) galvanized roofing nails	3" edges 6" field



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

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