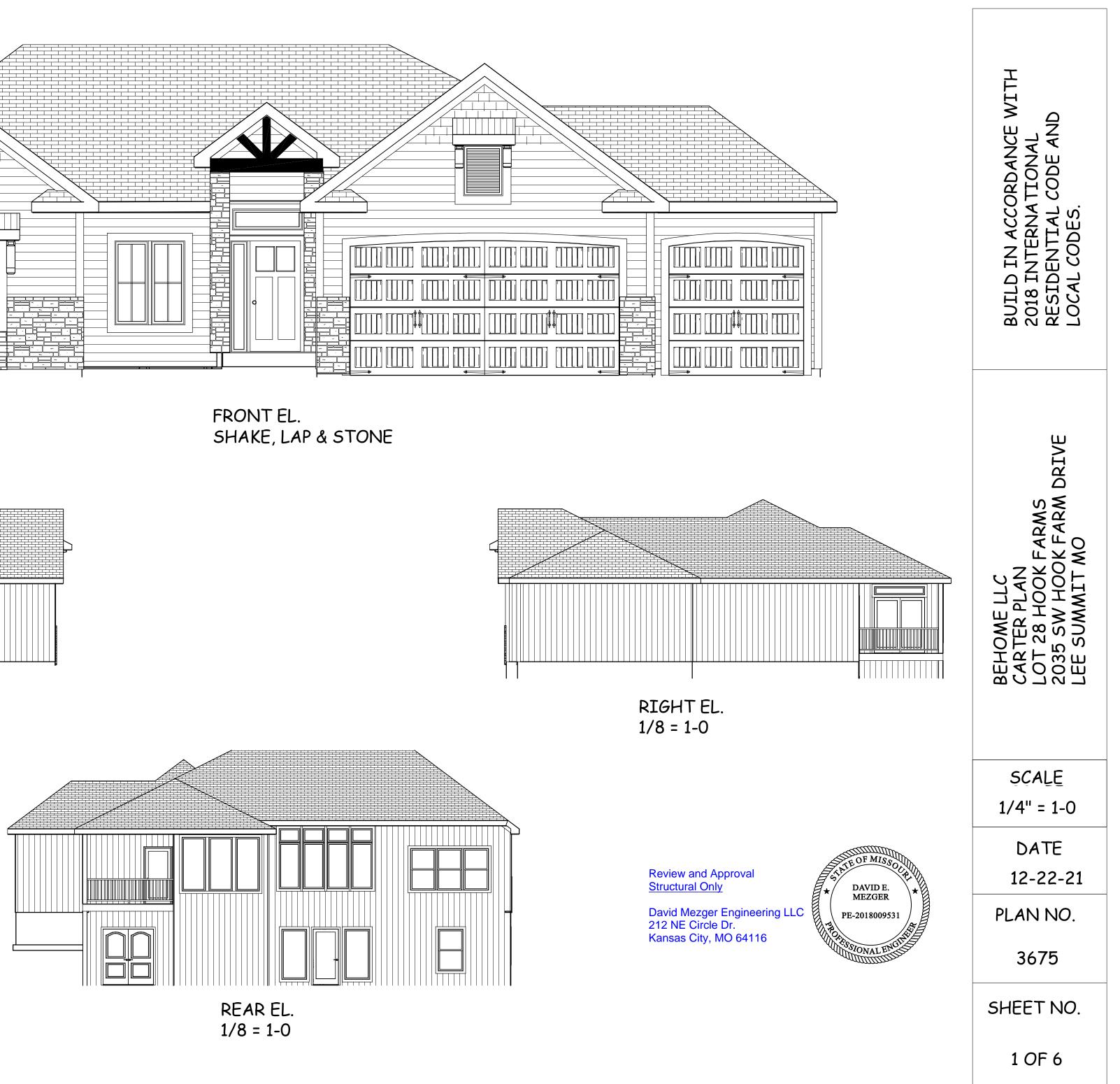
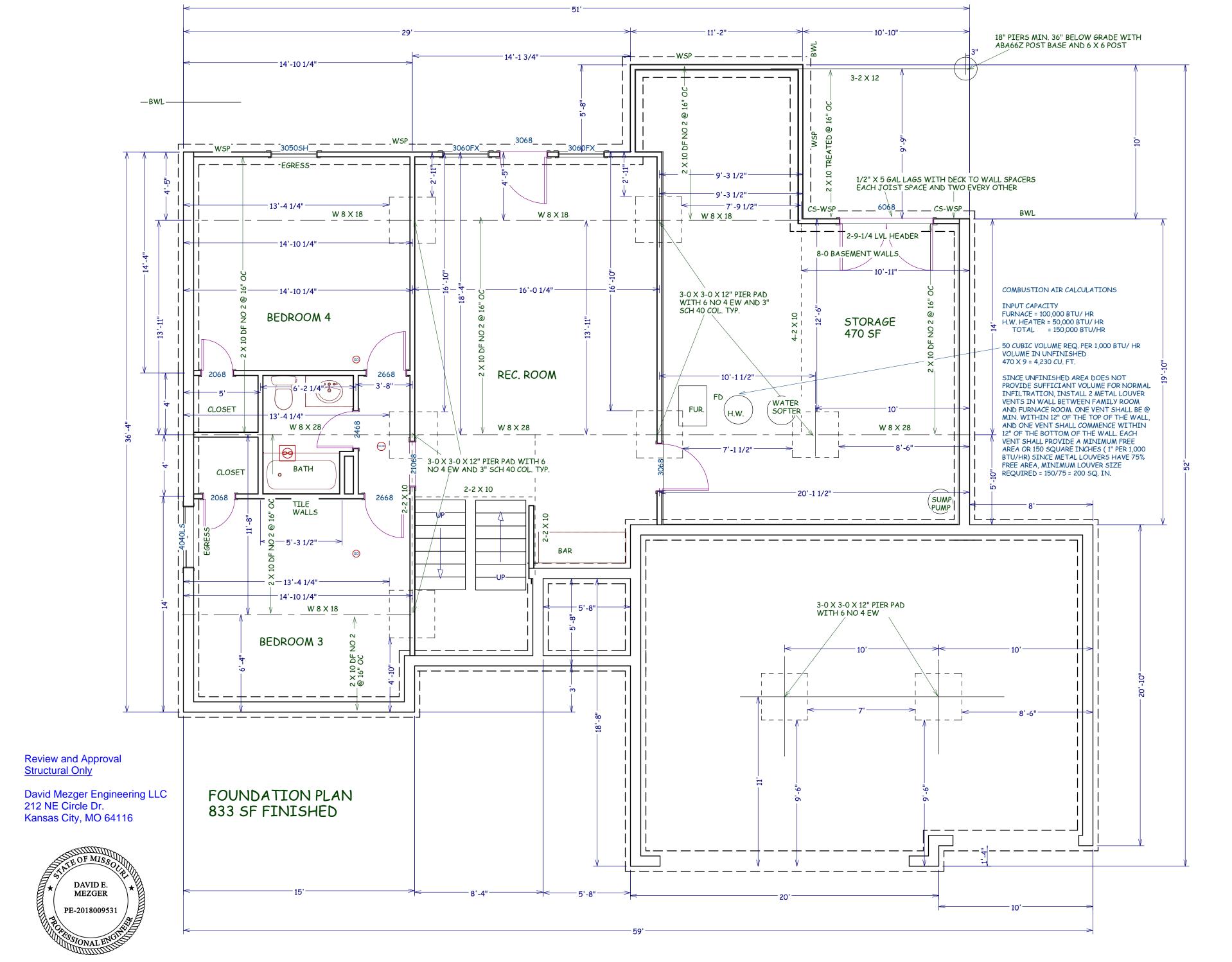
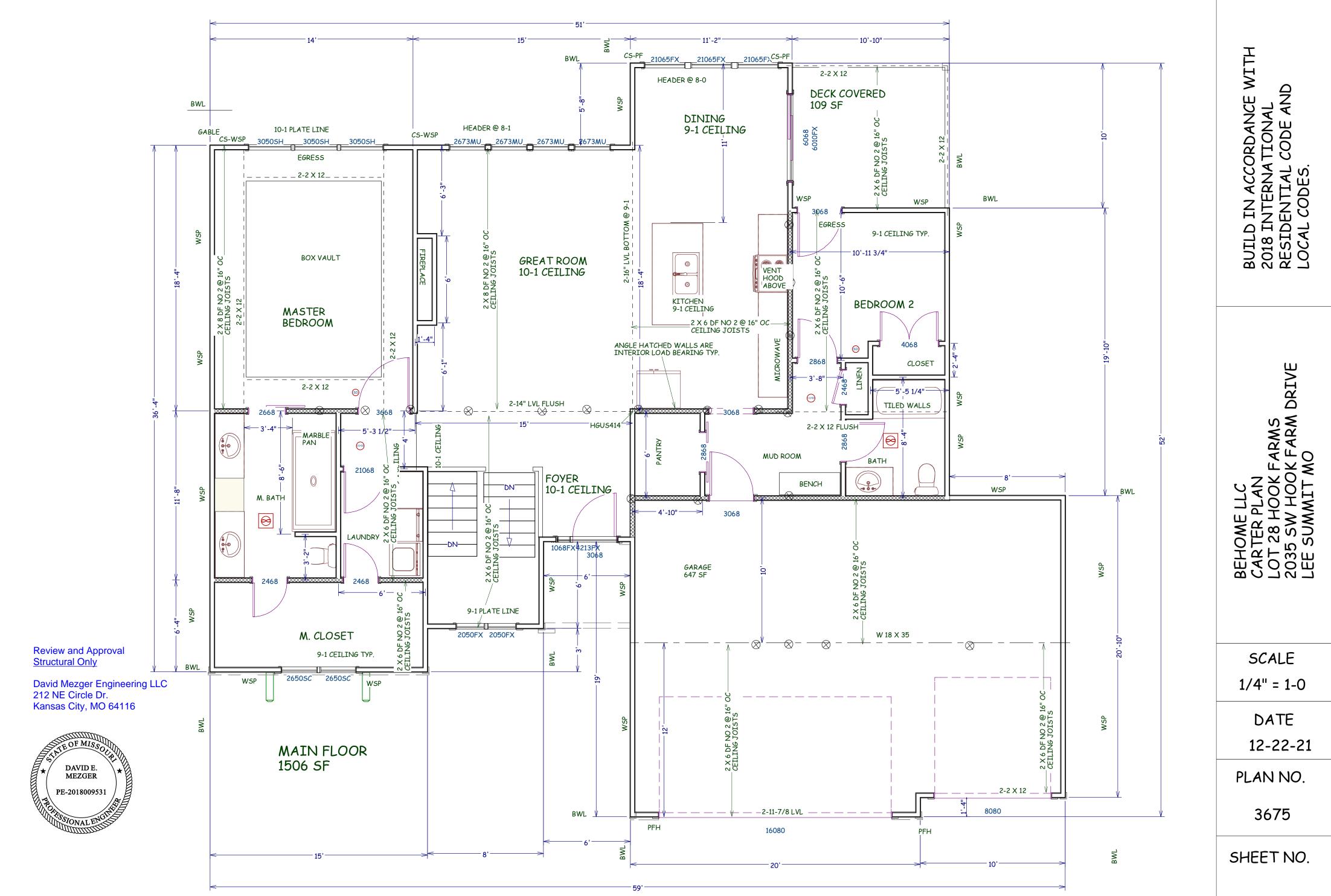


LEFT EL. 1/8 = 1-0

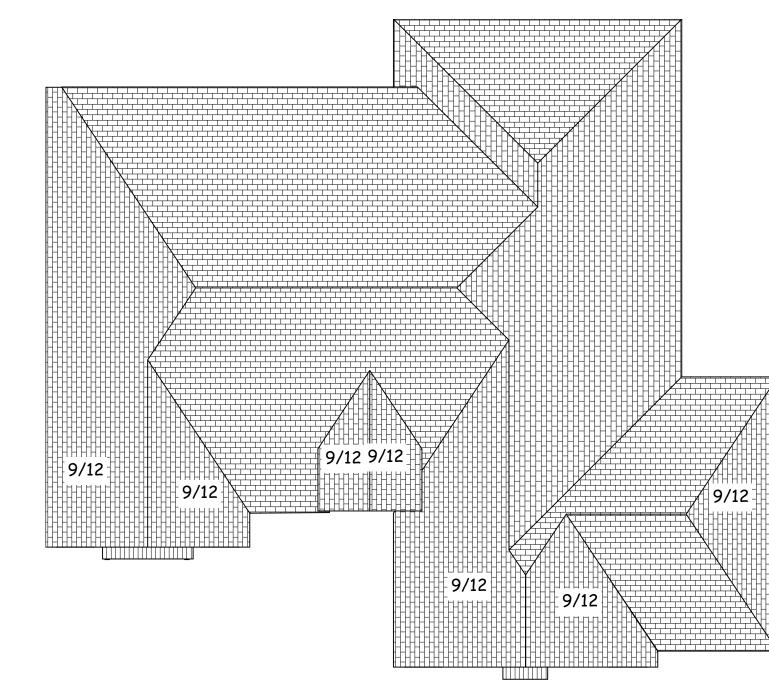








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ROOF PLAN 1/8 = 1-0 ROOF PITCHES 6/12 TYP. U.N.O. RAFTERS 2 X 6 DF NO 2 @ 16" O.C. HIPS AND RIDGES 2 X 8 DF NO 2

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David Mezger Engineering LLC 212 NE Circle Dr. Kansas City, MO 64116



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 CONTINOUS 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

ROOF IS DESIGNED FOR 25 P.S.F. SNOW LOAD MIN.

2 X 6 DF NO. 2

CHUTES

RIDGE BOARDS AND HIPS ARE TO BE 2 X MATERIAL, AND NOT LESS THAN THE END CUT OF RAFTER

AT 16" OC PROVIDE RAFTER TIES PER SECTION 802.3 AND 802.3.1 WHEN UNABLE TO CONNECT RAFTERS TO CEILING JOISTS

> 2 X 6 DF NO. 2 AT 16" OC

1/2 GYP. BOARD

GARAGE SHALL HAVE 5/8 TYPE X SHEET ROCK CEILING AND WALLS

WALLS OVER 10-2 TO 18-0 STUDS SHALL BE 2 X 6 DF NO 2 @ 16" O.C. TYP.

2 - 2 X 10 DF NO 2 HEADERS TYP. U.N.O. 2 X 4 DF NO. 2 AT 16" OC

ALL STUDS GO FROM FLOOR TO CEILING OR RAFTER DIAFRAM TYP.

2 X 10 DF NO 2 @ 16" OC TYP.

MIN. CONCRETE STRENGTH

2,500 PSI BASEMENT FLOOR SLABS UNDISTURBED GRADE 3,000 PSI FOR FOOTINGS, FOUNDATION WALLS, AND OTHER VERTICAL CONCRETE 3,500 PSI FOR CARPORT AND GARAGE FLOOR SLABS ON UNDISTURBED GRADE,

AND STRUCTURAL FLOOR SLABS

SPREAD FOOTING MIN 8" DEEP X 16" WIDE WITH TWO NO 4 REBAR

4" CONCRETE SLAB WITH NO 4 BARS AT 2-0 OC EACH WAY, OVER 6 ML VAPOR BARRIOR OVER CRUSHED ROCK

RADON VENTING OF SLAB

INTERIOR DRAIN TILE MIN. 1-1/2" MIN. DRAIN TO DAYLIGHT, OR SUMP PUMP IN ACCORDANCE TO R-405

8 X 16 FOOTING WITH TWO NO 4 BARS HORIZONTAL 3" FROM THE BOTTOM, ALL FOOTINGS TO

MIN. STAIR HEADROOM 6-8

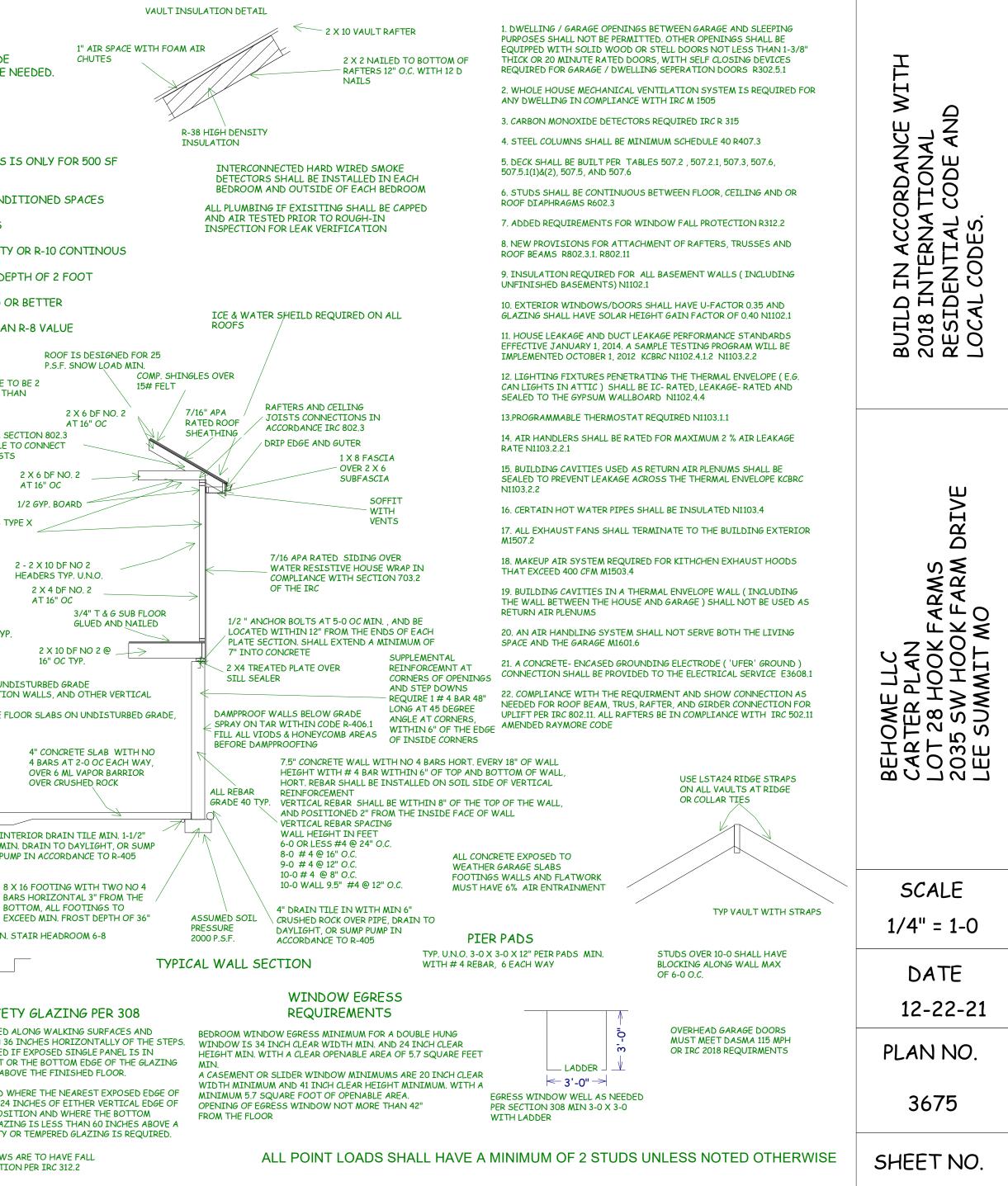
ALL STAIRS MAX. RISE 7-3/4" MIN. RUN 10"

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.

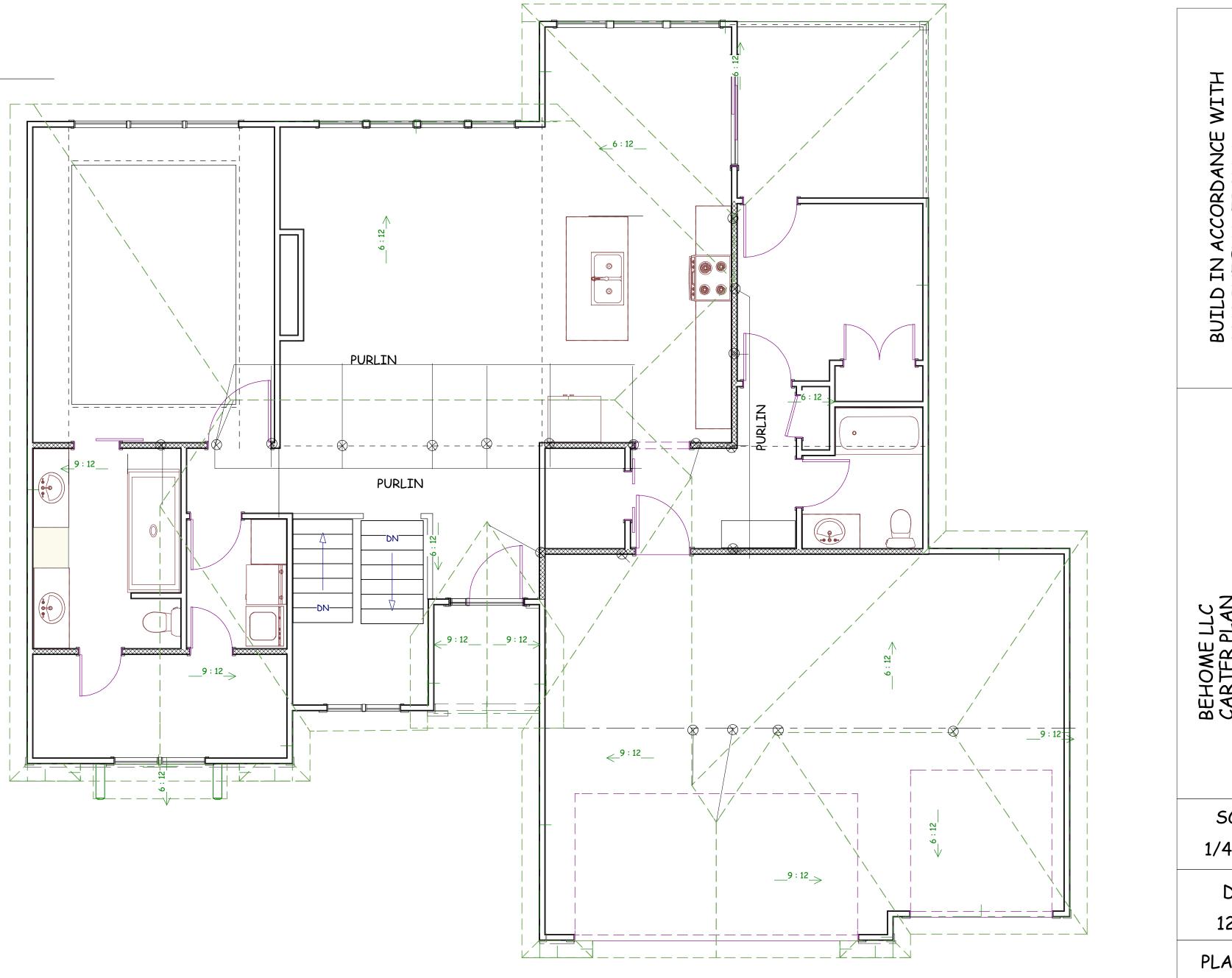
SAFETY GLAZING REQUIRD WHERE THE NEAREST EXPOSED EDGE OF THE GLAZING IS WITHIN 24 INCHES OF EITHER VERTICAL EDGE OF THE DOOR IN A CLOSED POSITION AND WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 60 INCHES ABOVE A WALKING SURFACE, SAFETY OR TEMPERED GLAZING IS REQUIRED.

> WINDOWS ARE TO HAVE FALL PROTECTION PER IRC 312.2



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PURLIN PLAN

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BUILD IN ACCORDANCE WI 2018 INTERNATIONAL RESIDENTIAL CODE AND LOCAL CODES.
BEHOME LLC CARTER PLAN LOT 28 HOOK FARMS 2035 SW HOOK FARM DRIVE LEE SUMMIT MO
SCALE 1/4" = 1-0
DATE
12-22-21
PLAN NO.
3675
SHEET NO.
5 OF 6

TABLE R602.10.3(1) BRACING REQUIREMENTS BASED ON WIND SPEED EXPOSURE CATEGORY B 3D-FOOT MEAN ROOF HEI 10-FOOT WALL HEIGHT 2 BRACED WALL LINES MINIMUM TOTAL LENGTH (FEET) OF BRACED WALL PANELS BEQUIDED ALONG EACH BRACED WALL LINE' Methods CS-WSP, CS-G CS-PF Ultimate Design Wind Speed (mph) DWB, WSP, SFB, PBS, PCP, HPS, BV-WSP, ABW, PFH, PFC, CS-SFB Braced Wall Lin Spacing® (feet) Method GB Method LIB^b Story Location 2.0 2.0 3.5 3.5 6.5 6.5 20 5.5 4.5 9.5 9.5 30 \wedge 6.0 12.5 12.5 7.0 40 7.5 15.0 9.0 15.0 50 18.0 10,5 9.0 18.0 60 3.5 4.0 7.0 7.0 10 6.5 7.5 12.5 12.5 20 10.5 9.0 18.0 18.0 30 11.5 ≤ 115 23.5 23.5 13.5 40 14.0 29.0 16.5 29.0 50 17.0 20.0 34.5 34.5 60 5.0 10.0 6,0 N 10 9.0 11.0 18.5 NP 20 15.5 13.0 27.0 30 NP 17.0 35.0 20.0 NP 40 21.0 24.5 43.0 50 NP 51.0 29.0 25.0 NP 60

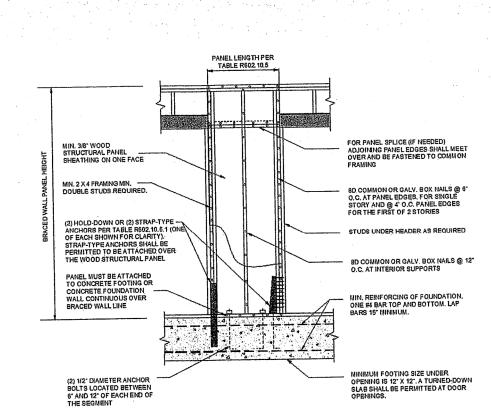
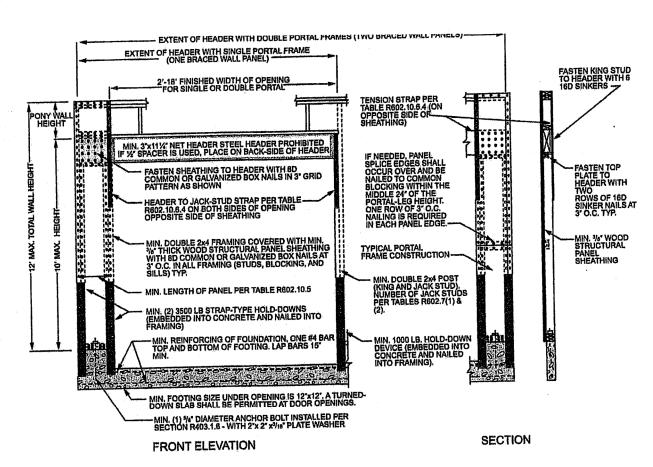


FIGURE R602.10.6.1

METHOD ABW-ALTERNATE BRACED WALL PANEL

25.4 mm.

4 mm, 1 foot = 304.8 mm.



	1	1			
METHODS, MATERIAL		MINIMUM THICKNESS	FIGURE	Fasteners	
	LIB Let-in-bracing	1×4 wood or approved metal straps at 45° to 60° angles for			Wood: op and
		maximum 16" stud spacing		Metal strap: per manufacturer	per
	DWB Diagonal wood boards	³ / ₄ " (1" nominal) for maximum 24" stud spacing		2-8d $(2^{1}/_{2}" \log \times 0.113" \text{ dia.})$ nails or 2 - $1^{3}/_{4}"$ long staples	10 (10 m) 10
	WSP Wood structural panel (See Section R604)	3/8"		Exterior sheathing per Table R602.3(3)	6″ e
				Interior sheathing per Table R602.3(1) or R602.3(2)	Vari
ethods	BV-WSP ^e 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 p 12" at suppor wall p
Intermittent Bracing Methods	SFB Structural fiberboard sheathing	SFB ¹ / ₂ " or ²⁵ / ₃₂ " for Structural maximum 16" fiberboard stud spacing		$1^{1}I_{2}^{"}$ long × 0.12" dia. (for $1^{1}I_{2}^{"}$ thick sheathing) $1^{3}I_{4}^{"}$ long × 0.12" dia. (for $2^{2}I_{32}^{"}$ thick sheathing) galvanized roofing nails	3"
mittent	GB Gypsum board	1/2"		Nails or screws per Table R602.3(1) for exterior locations	panel
Inter				Nails or screws per Table R702.3.5 for interior locations	edges and b field
	PBS Particleboard sheathing (See Section R605	varticleboard maximum 16" sheathing stud spacing		For ³ / ₈ ", 6d common (2" long × 0.113" dia.) nails For ¹ / ₂ ", 8d common (2 ¹ / ₂ " long × 0.131" dia.) nails	3"
	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	6" o.c mem
	HPS Hardboard panel siding	⁷ / ₁₆ " for maximum 16" stud spacing		0.092" dia., 0.225" dia. head nails with length to accommodate $1\frac{1}{2}$ " penetration into studs	4'
	ABW Alternate braced wall	3/ ₈ "		See Section R602.10.6.1	Sec
				فسيترج والمستحد والمستح	

TABLE R602.10.4 BRACING METHODS

CONNECTION CRITERIA"

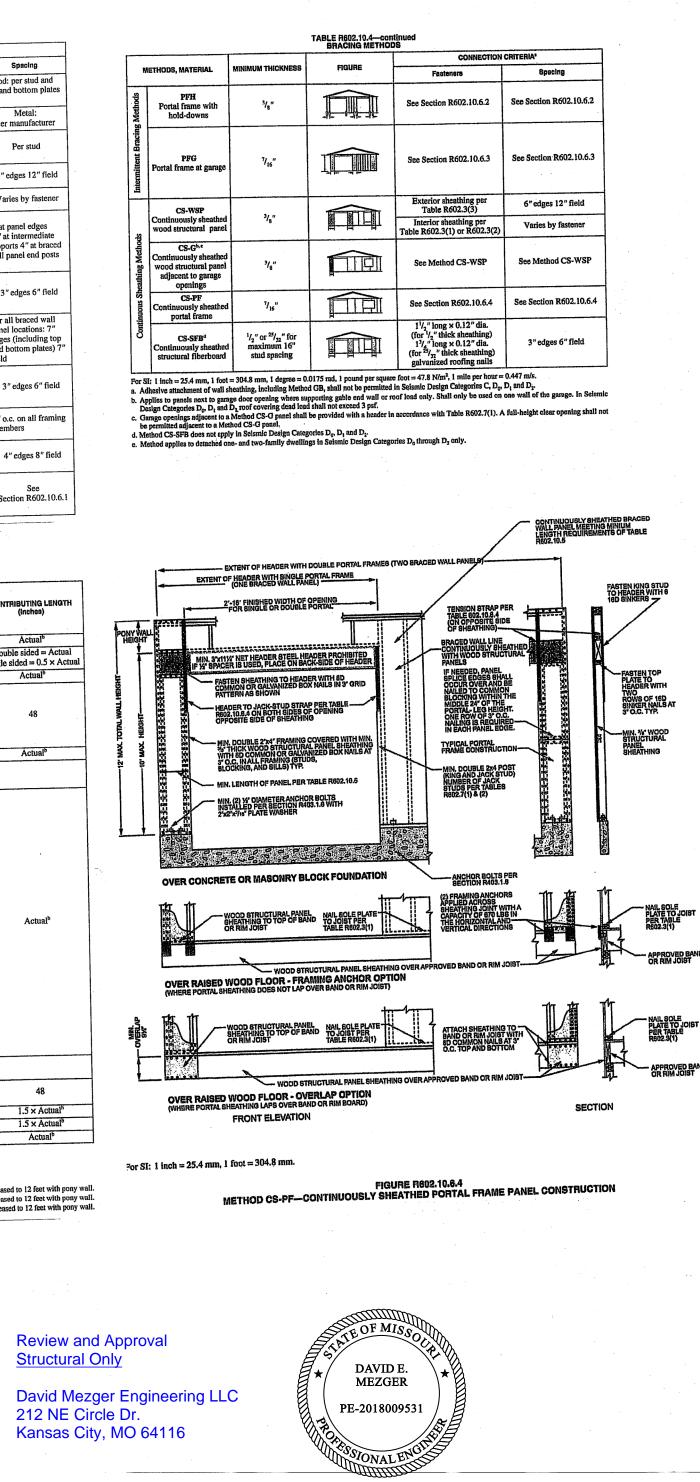
			CONT				
METHOD (See Table R602.10.4)			(inches) Wali Height				
			9 feet	10 feet	11 feet	12 feet	4
DWB, WSP, SFB, PBS, PCP, HPS, BV-WSP		8 feet 48	48	48	53	58	
GB		48	48	48	53	58	Dou Single
		55	62	69	NP	NP	Singic
	LIB	33					
1	SDC A, B and C, ultimate design wind speed < 140 mph	28	32	34	38	42	
ABW	SDC D ₀ , D ₁ and D ₂ , ultimate design	32	32	34	NP	NP	
	wind speed < 140 mph	24	27	30	33	36	
	CS-G	2.4					
	Adjacent clear opening height (inches)						i
	≤ 64	24	27	30	33	36	
	68	26	27	30	33	36	
	72	27	27	30	33	36	
CS-WSP, CS-SFB	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	1
	92	43	37	35	35	36	
	96	48	41	38	36	36	
	100		44	40	38 40	38	4
	104		49	43	40	41	4
	108	-	54	50	45	43	4
	112			55	43	45	4.
	116			60	52	48	-
	120				56	51	-
	124	<u> </u>	+ =	+	61	54	1
	132		+	+	66	58	1
	132	+				62	1
	140					66	1
	144				-	72	٦
METHOD (See Table R602,10.4)		Portal header height					_
		8 feet	9 feet	10 feet	11 feet	12 feet	
DELL	Supporting roof only	16	16	16	Note c	Note c	4
PFH	Supporting one story and root		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	
Contri	SDC D ₀ , D ₁ and D ₂	16	18	20	Note e	Note e	

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.

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 R602.10.6.4, 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.

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

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



BUILD IN ACCORDANCE WITH 2018 INTERNATIONAL RESIDENTIAL CODE AND LOCAL CODES.
BEHOME LLC CARTER PLAN LOT 28 HOOK FARMS 2035 SW HOOK FARM DRIVE LEE SUMMIT MO
SCALE 1/4" = 1-0
DATE 12-22-21
PLAN NO.
3675
SHEET NO.
6 OF 6