

COMBUSTION AIR CALCULATIONS

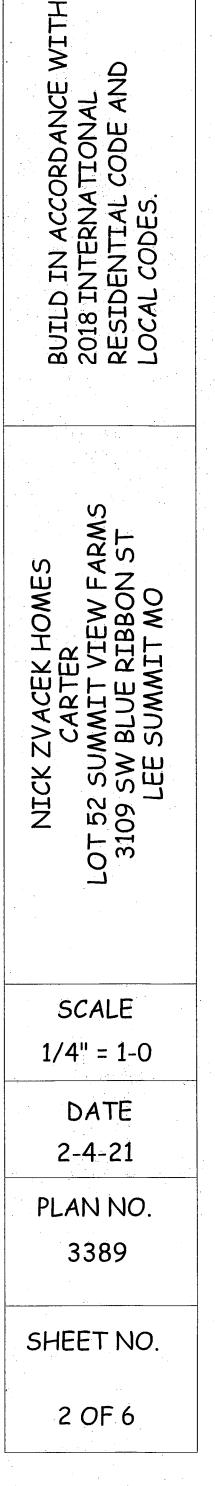
INPUT CAPACITY FURNACE = 100,000 BTU/ HR H.W. HEATER = 50,000 BTU/ HR TOTAL = 150,000 BTU/HR

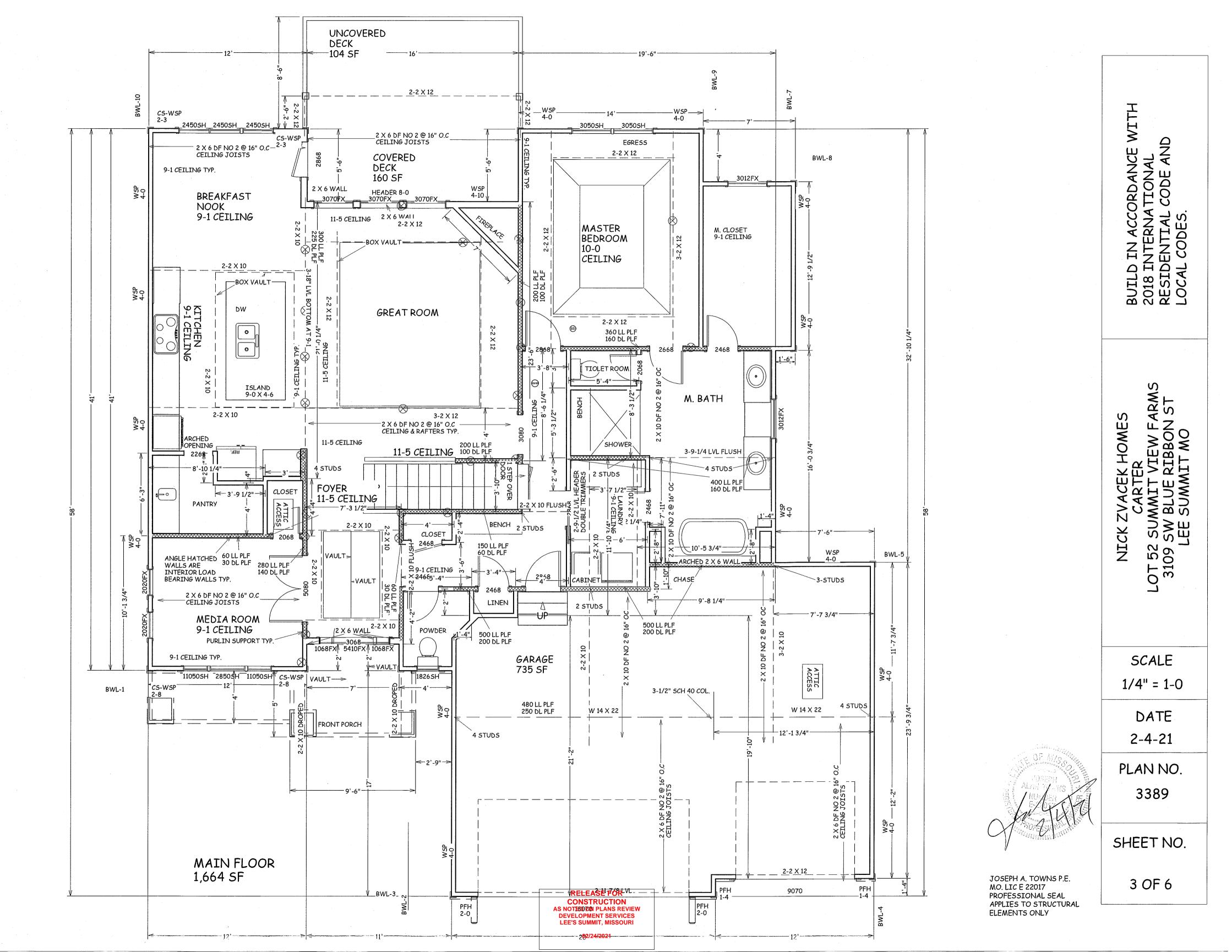
50 CUBIC VOLUME REQ. PER 1,000 BTU/ HR VOLUME IN UNFINISHED 800 X 9 = 7,200 CU. FT.

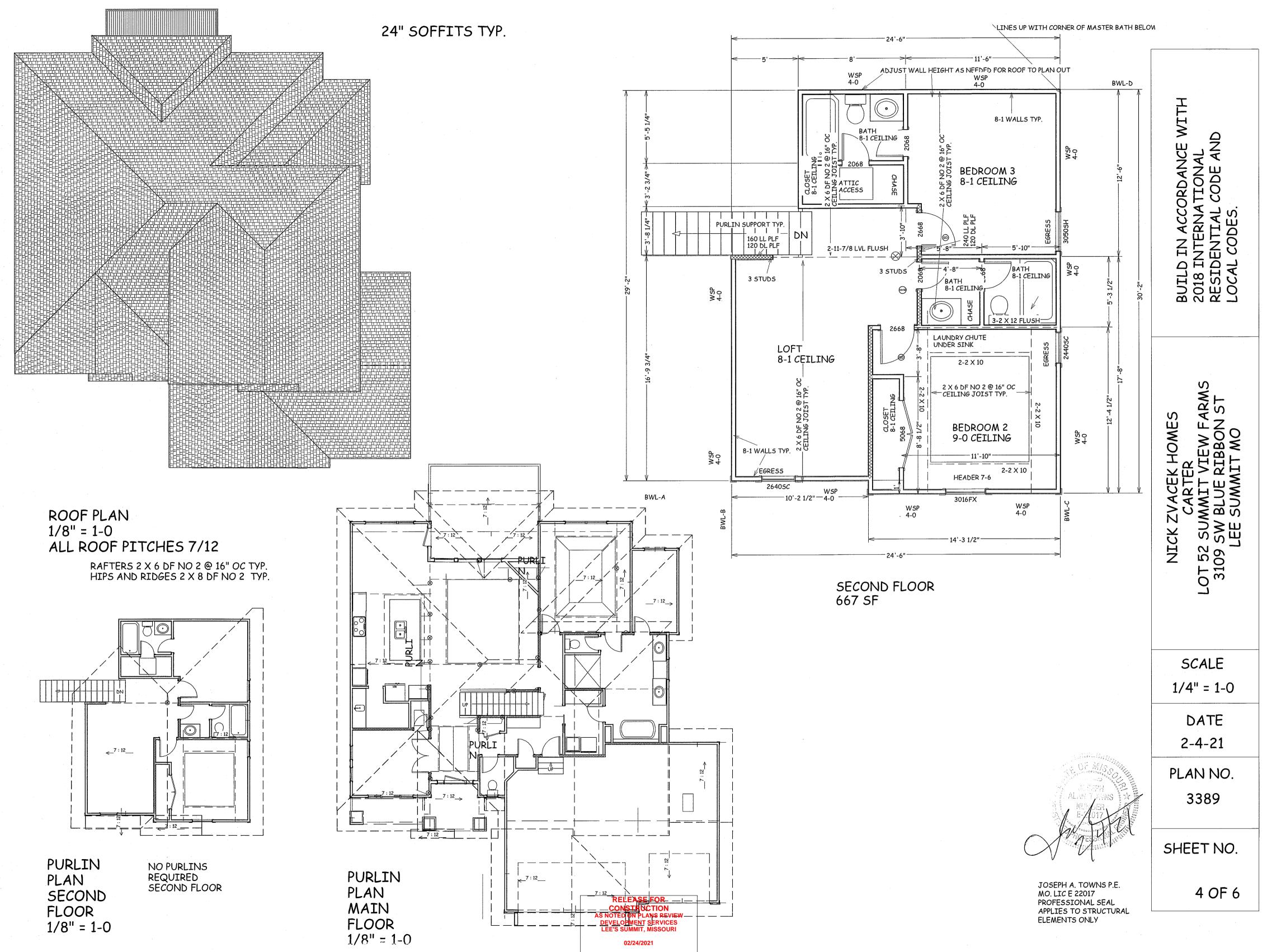
SINCE UNFINISHED AREA DOES NOT PROVIDE SUFFICIANT VOLUME FOR NORMAL INFILTRATION, INSTALL 2 METAL LOUVER VENTS IN WALL BETWEEN FAMILY ROOM AND FURNACE ROOM. ONE VENT SHALL BE @ MIN. WITHIN 12" OF THE TOP OF THE WALL, AND ONE VENT SHALL COMMENCE WITHIN 12" OF THE BOTTOM OF THE WALL. EACH VENT SHALL PROVIDE 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.

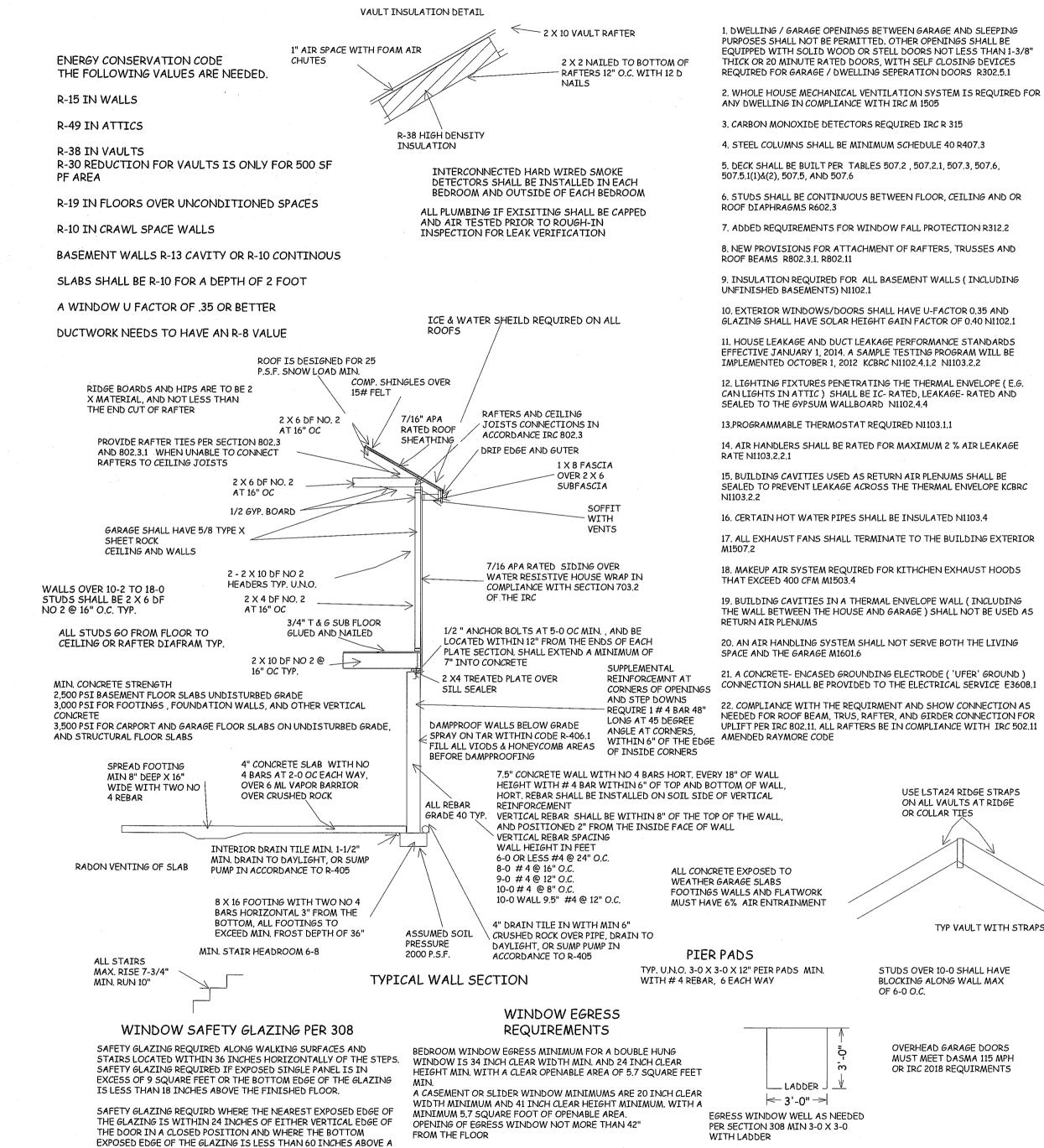


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WINDOWS ARE TO HAVE FALL PROTECTION PER IRC 312.2

WALKING SURFACE, SAFETY OR TEMPERED GLAZING IS REQUIRED.

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

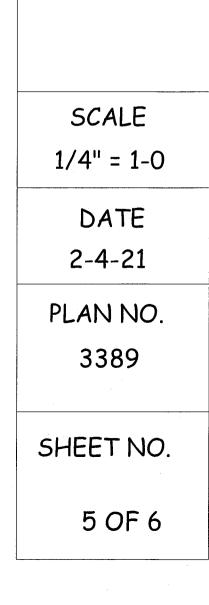
**RELEASE FOR** CONSTRUCTION **AS NOTED ON PLANS REVIEW** DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI

02/24/2021





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18. MAKEUP AIR SYSTEM REQUIRED FOR KITHCHEN EXHAUST HOODS 19. BUILDING CAVITIES IN A THERMAL ENVELOPE WALL (INCLUDING

20. AN AIR HANDLING SYSTEM SHALL NOT SERVE BOTH THE LIVING

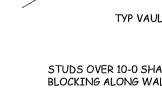
21. A CONCRETE- ENCASED GROUNDING ELECTRODE ('UFER' GROUND ) CONNECTION SHALL BE PROVIDED TO THE ELECTRICAL SERVICE E3608.1

22. COMPLIANCE WITH THE REQUIRMENT 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

USE LSTA24 RIDGE STRAPS ON ALL VAULTS AT RIDGE OR COLLAR TIES

TYP VAULT WITH STRAPS

OVERHEAD GARAGE DOORS MUST MEET DASMA 115 MPH OR IRC 2018 REQUIRMENTS





STUDS OVER 10-0 SHALL HAVE BLOCKING ALONG WALL MAX OF 6-0 O.C.

SPACE AND THE GARAGE M1601.6

THE WALL BETWEEN THE HOUSE AND GARAGE ) SHALL NOT BE USED AS

16. CERTAIN HOT WATER PIPES SHALL BE INSULATED N1103.4 17. ALL EXHAUST FANS SHALL TERMINATE TO THE BUILDING EXTERIOR

13.PROGRAMMABLE THERMOSTAT REQUIRED N1103.1.1 14. AIR HANDLERS SHALL BE RATED FOR MAXIMUM 2 % AIR LEAKAGE

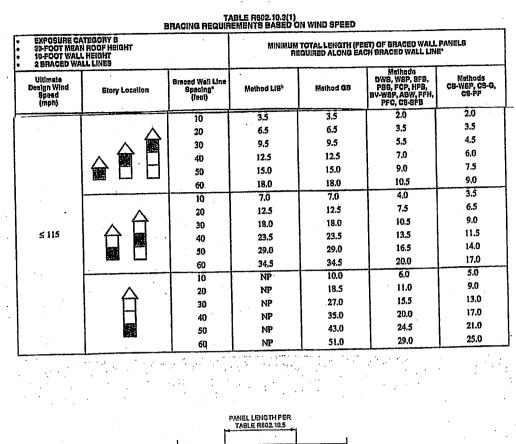
9. INSULATION REQUIRED FOR ALL BASEMENT WALLS (INCLUDING UNFINISHED BASEMENTS) N1102.1 10. EXTERIOR WINDOWS/DOORS SHALL HAVE U-FACTOR 0.35 AND GLAZING SHALL HAVE SOLAR HEIGHT GAIN FACTOR OF 0.40 N1102.1

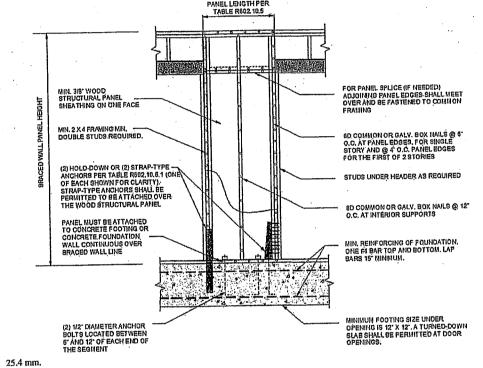
7. ADDED REQUIREMENTS FOR WINDOW FALL PROTECTION R312.2 8. NEW PROVISIONS FOR ATTACHMENT OF RAFTERS, TRUSSES AND

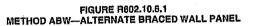
6. STUDS SHALL BE CONTINUOUS BETWEEN FLOOR, CEILING AND OR

5. DECK SHALL BE BUILT PER TABLES 507.2 , 507.2.1, 507.3, 507.6,

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







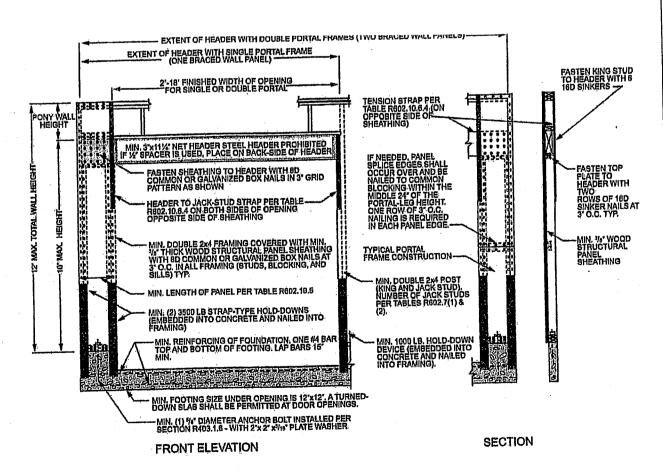
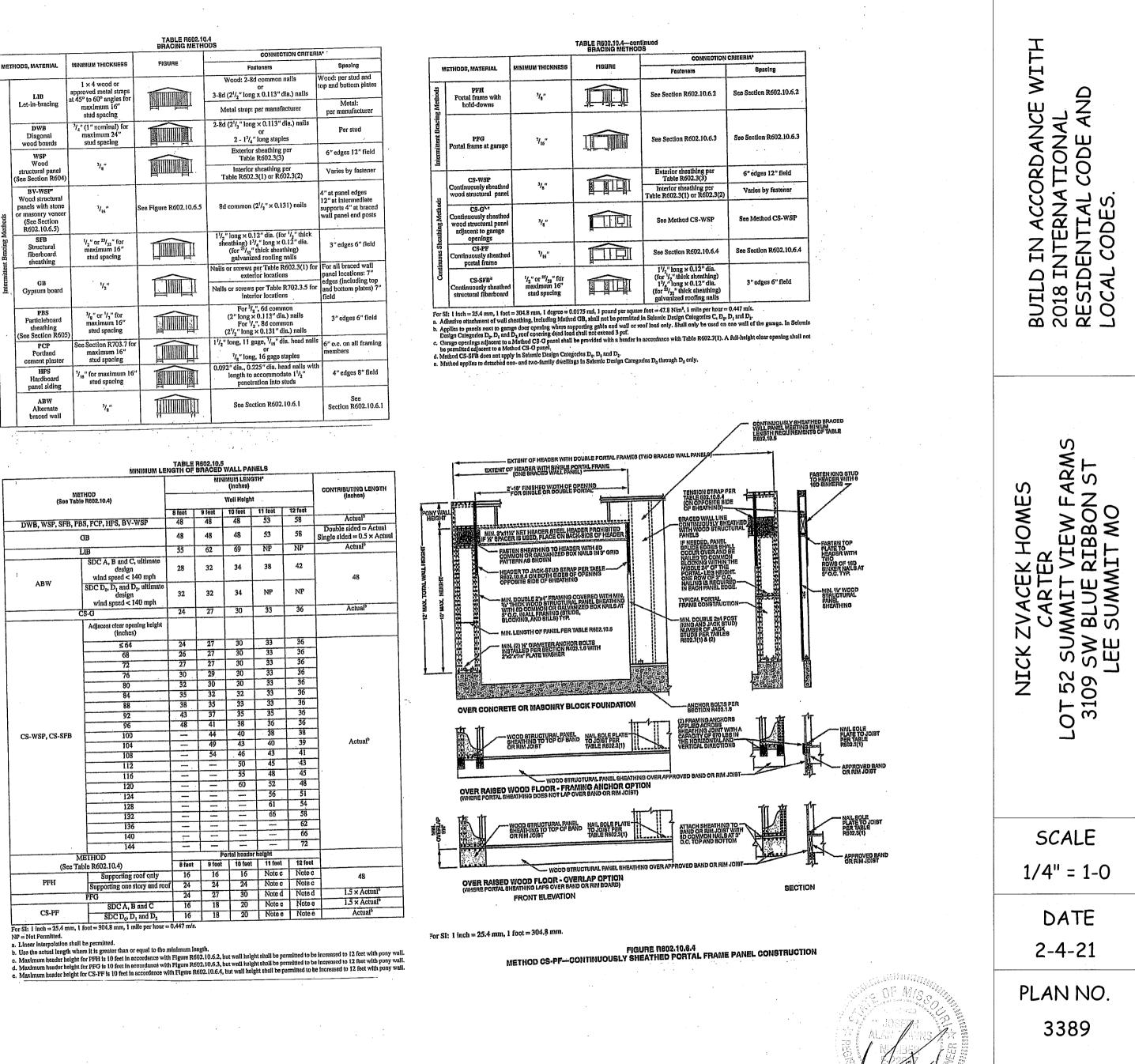


FIGURE R602.10.6.2 METHOD PFH-PORTAL FRAME WITH HOLD-DOWNS

4 mm, 1 foot = 304.8 mm.

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



METHODS, MATERIAL		ANGING IN THE CASE		Fadleners
Intermittent Bracing Methods	LIB Let-in-bracing	1 × 4 wood or approved metal straps at 45° to 60° angles for maximum 16"		Wood: 2-8d common nails or 3-8d (2 <sup>1</sup> / <sub>2</sub> " long x 0.113" dia.) nails Metal strap: per manufacturer
	DWB Diagonal wood boards	stud spacing <sup>3</sup> / <sub>4</sub> " (1" nominal) for maximum 24" stud spacing		2-8d (2 <sup>1</sup> / <sub>2</sub> " long × 0.113" dia.) nails or 2 - $1^{3}$ / <sub>4</sub> " long staples
	WSP Wood structural panel (See Section R604)	3/ <sub>8</sub> "		Exterior sheathing per Table R602.3(3)
				Interior sheathing per Table R602.3(1) or R602.3(2)
	BV-WSP Wood structural panels with stone or masonry veneer (See Section R602.10.6.5)	7/ <sub>16</sub> "	See Figure R602.10.6.5	8d common (2 <sup>1</sup> / <sub>2</sub> " × 0.131) nails
	SFB Structural fiberboard sheathing	<sup>1</sup> / <sub>2</sub> " or <sup>25</sup> / <sub>32</sub> " for maximum 16" stud spacing		$1'J_2''$ long $\times 0.12''$ dia. (for $J_2''$ thic sheathing) $1^JJ_4''$ long $\times 0.12''$ dia. (for $2^JJ_{32}''$ thick sheathing) galvanized roofing nulls
	GB Gypsum board	1/2"		Nails or screws per Table R602.3(1) exterior locations
				Nails or screws per Table R702.3.5 interior locations
	PBS Particleboard sheathing (See Section R605	<sup>3</sup> / <sub>8</sub> " or <sup>1</sup> / <sub>2</sub> " for maximum 16" stud spacing		For <sup>3</sup> / <sub>8</sub> ", 6d common (2" long × 0.113" dia.) nails For '/ <sub>2</sub> ", 8d common (2'/ <sub>2</sub> " long × 0.131" dia.) nails
	PCP Portland cement plaster	See Section R703.7 for maximum 16" stud spacing		$1^{1}/_{2}$ " long, 11 gage, $7_{16}$ " dia. head n or $7_{8}$ " long, 16 gage staples
	HPS Hardboard panel siding	<sup>7</sup> / <sub>16</sub> " for maximum 16' stud spacing		0.092" dia., 0.225" dia. head nails v length to accommodate 1 <sup>1</sup> / <sub>2</sub> " penetration into studs
	ABW Alternate braced wall	3/ <sub>8</sub> ″		See Section R602.10.6.1



**RELEASE FOR** 

SHEET NO.

6 OF 6

JOSEPH A. TOWNS P.E.

PROFESSIONAL SEAL

APPLIES TO STRUCTURAL

MO. LIC E 22017

ELEMENTS ONLY

CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES