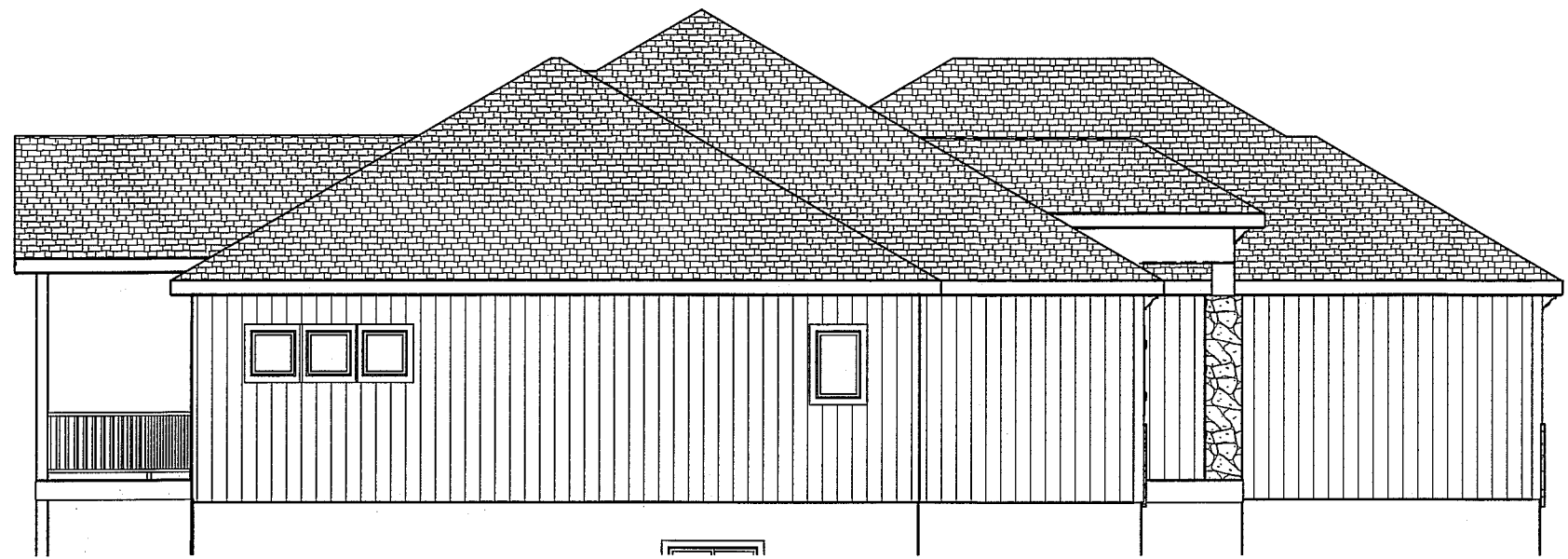
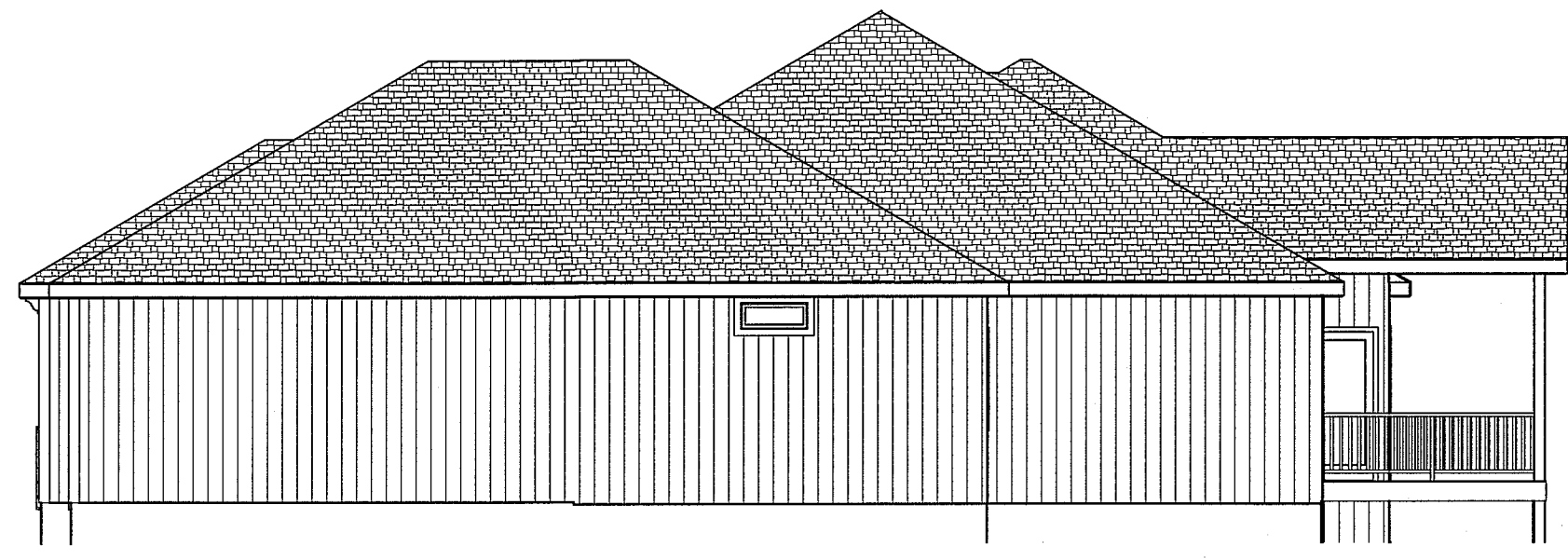




FRONT EL.



LEFT EL.
1/8" = 1'-0"



RIGHT EL.
1/8" = 1'-0"



REAR EL.
1/8" = 1'-0"

STATE OF MISSOURI
JOSEPH ALAN TOWNS
REGISTERED PROFESSIONAL ENGINEER
NUMBER 1-22017
APPLIES TO STRUCTURAL ELEMENTS ONLY

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

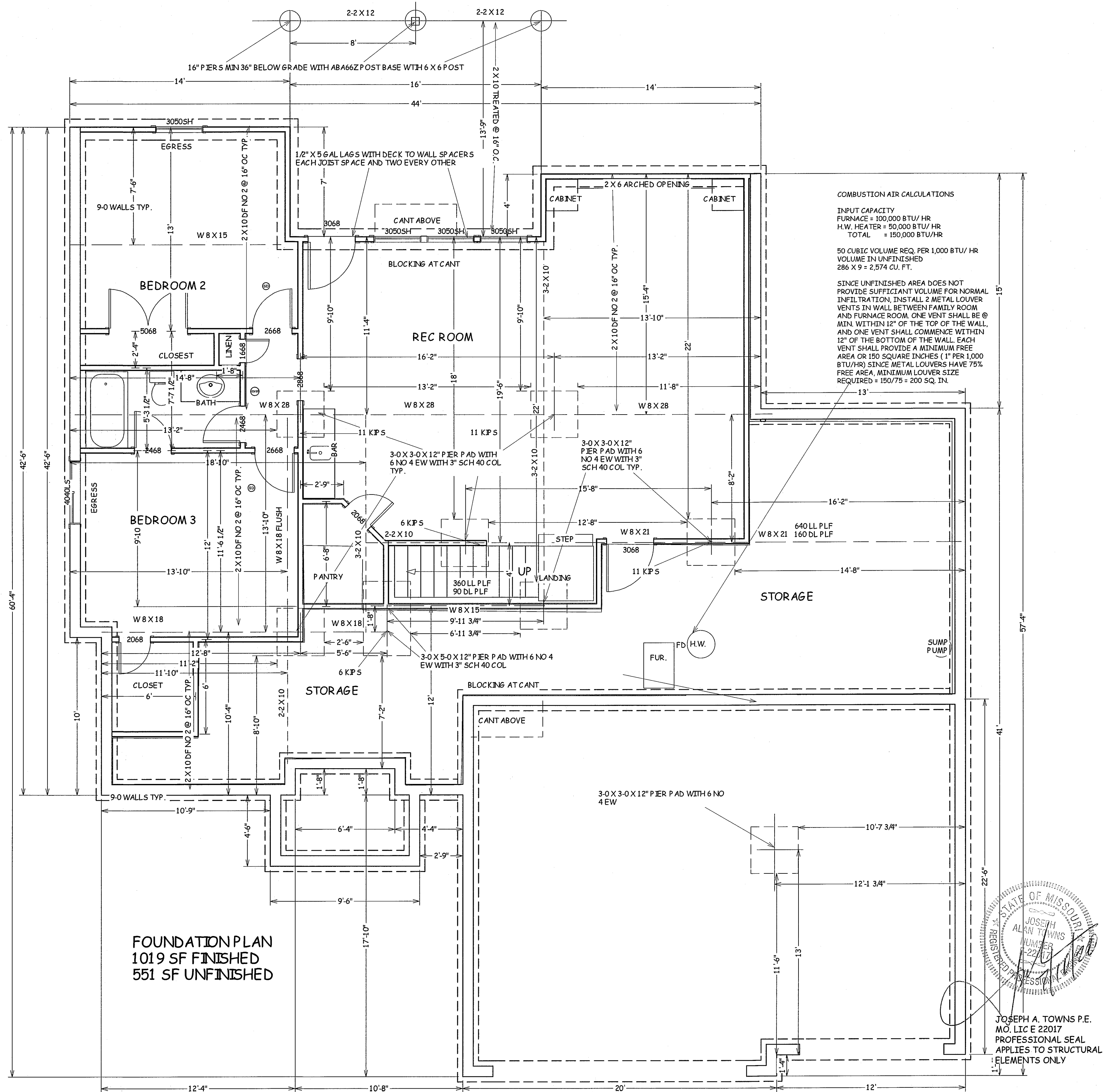
NICK ZVACEK HOMES
BAXTON
LOT 55 SUMMIT VIEW FARMS
3121 SW BLUE RIBBON ST
LEE SUMMIT MO

SCALE
1/4" = 1'-0"

DATE
7-10-20

PLAN NO.
3159

SHEET NO.
1 OF 6



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

NICK ZVACEK HOMES
BAXTON
LOT 55 SUMMIT VIEW FARMS
3121 SW BLUE RIBBON ST
LEE SUMMIT MO

SCALE
1/4" = 1'-0"

DATE
7-10-20

PLAN NO.
3159

SHEET NO.

2 OF 6



JOSEPH A. TOWNS P.E.
MO. LIC E 22017
PROFESSIONAL SEAL
- APPLIES TO STRUCTURAL
ELEMENTS ONLY

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

NICK ZVACEK HOMES
BAXTON
LOT 55 SUMMIT VIEW FARMS
3121 SW BLUE RIBBON ST
LEE SUMMIT MO

SCALE
1/4" = 1'-0"

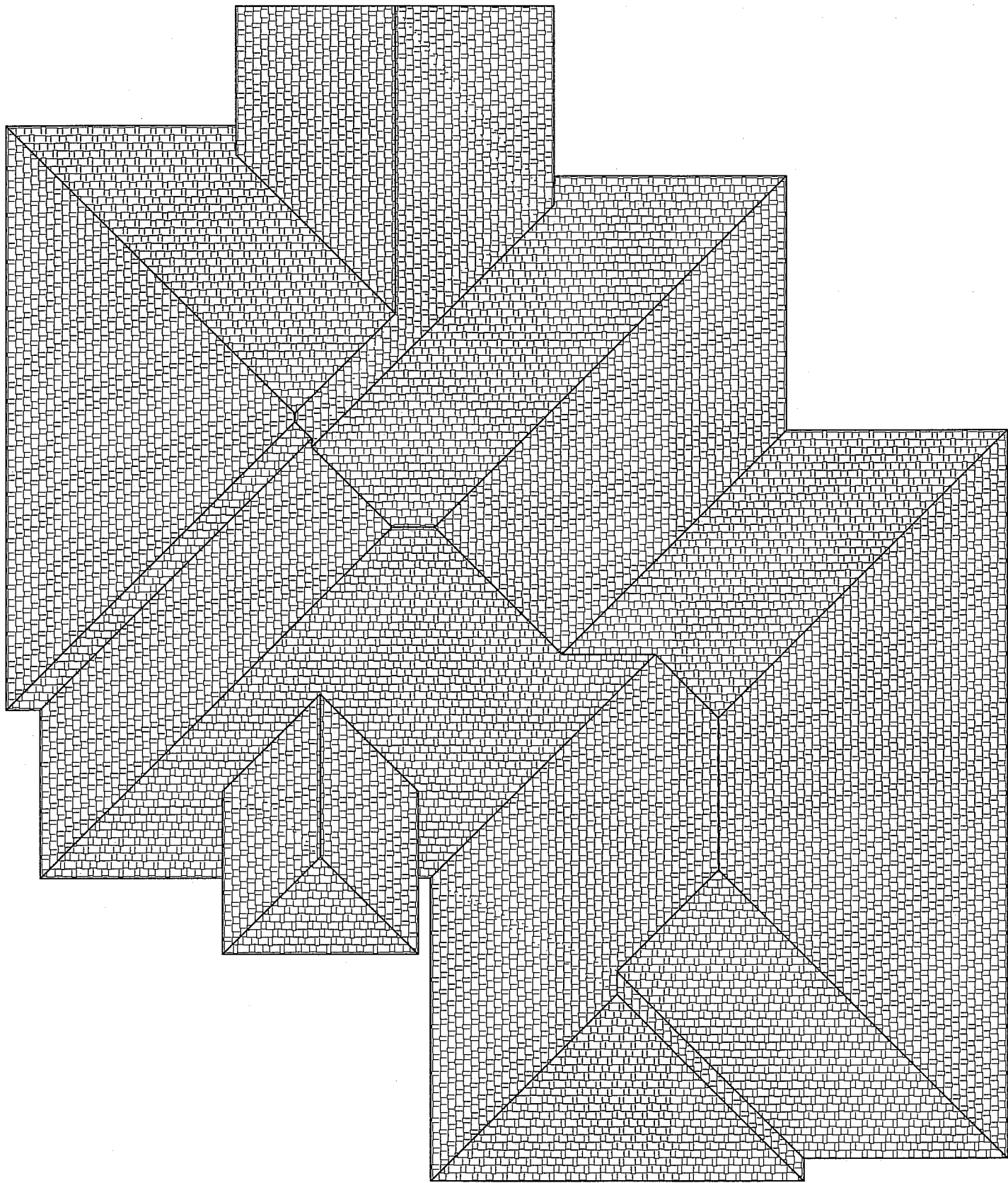
DATE
7-10-20

PLAN NO.
3159

SHEET NO

3 OF 6

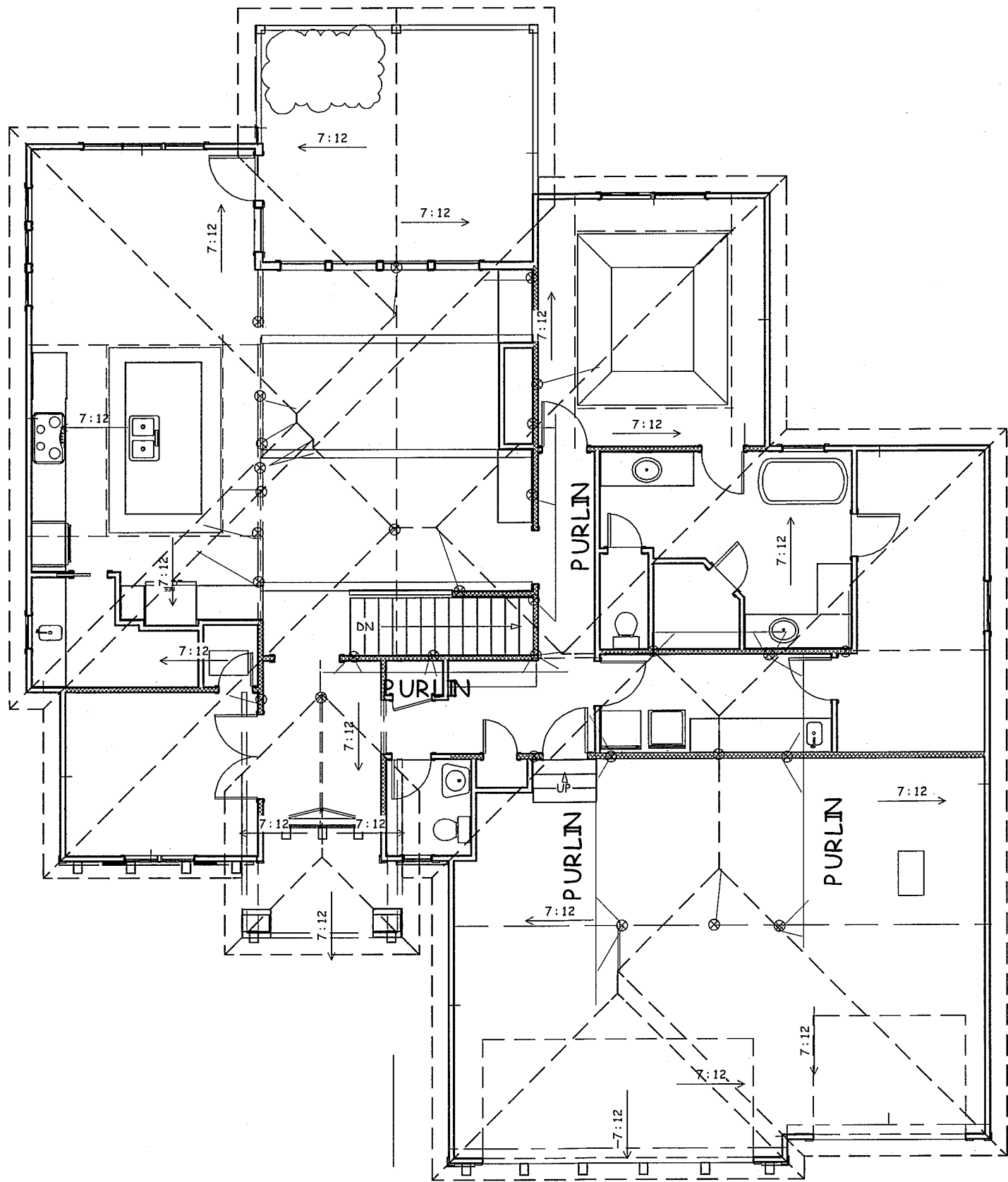
07/23/2020



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

RAFTERS 2 X 6 DF NO 2 @ 16" OC TYP.
HIPS AND RIDGES 2 X 8 DF NO 2 TYP.

12" SOFFITS TYP.



PURLIN SUPPORT PLAN
1/8" = 1'-0"
ALL ROOF PITCHES 7/12

BUILD IN ACCORDANCE WITH
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NICK ZVACEK HOMES
BAXTON
LOT 55 SUMMIT VIEW FARMS
3121 SW BLUE RIBBON ST
LEE SUMMIT MO

SCALE
1/4" = 1'-0"

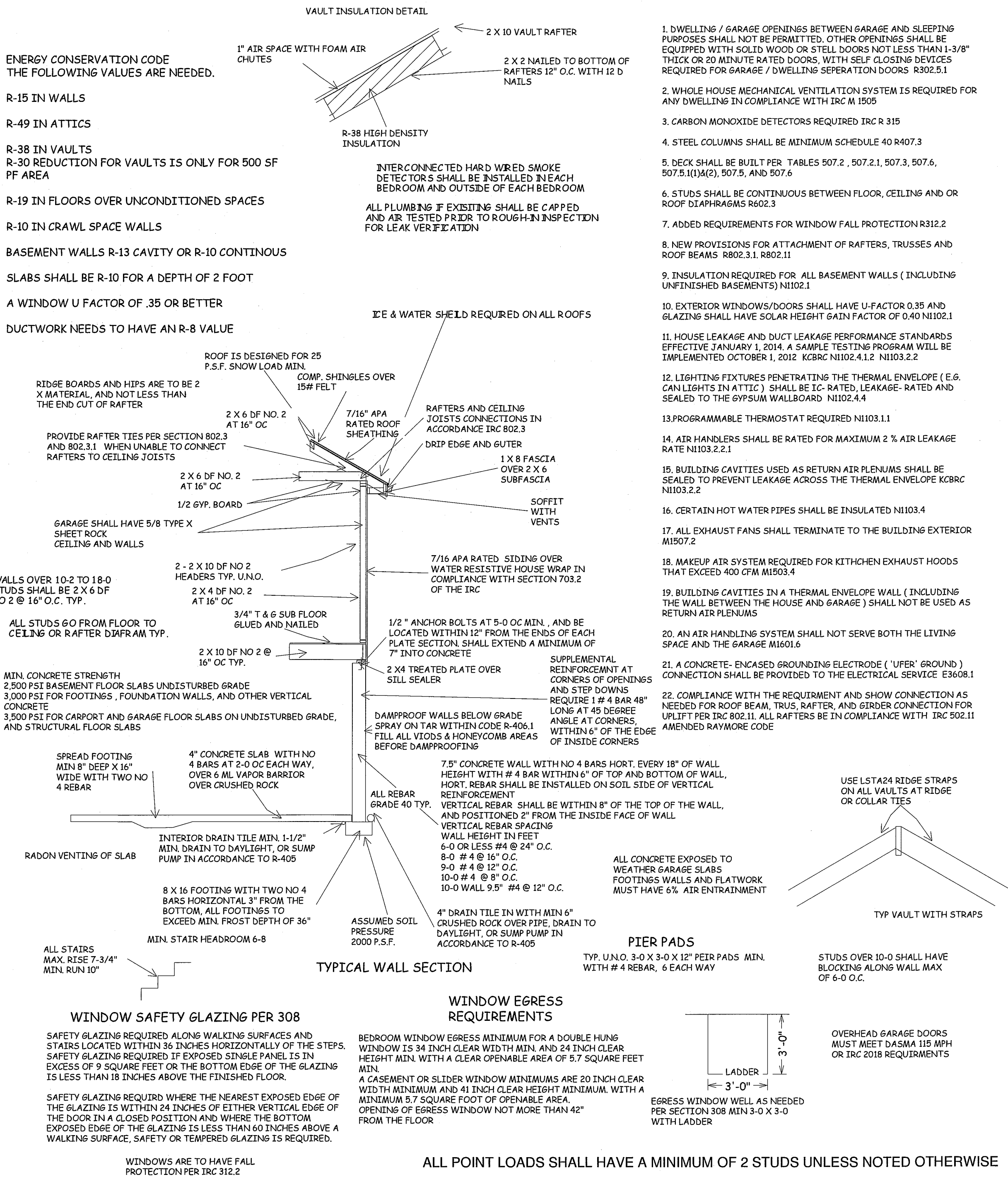
DATE
7-10-20

PLAN NO.
3159

SHEET NO.
4 OF 6

JOSEPH A. TOWNS P.E.
MO. LIC E 22017
PROFESSIONAL SEAL
APPLIES TO STRUCTURAL
ELEMENTS ONLY

07/23/2020



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

NICK ZVACEK HOMES
BAXTON
LOT 55 SUMMIT VIEW FARMS
3121 SW BLUE RIBBON ST
LEE SUMMIT MO

SCALE
1/4" = 1-0

DATE
7-10-20

PLAN NO.
3159

SHEET NO.
5 OF 6

STATE OF MISSOURI
JOSEPH A. TOWNS P.E.
MO. LIC E 22017
PROFESSIONAL SEAL
APPLIES TO STRUCTURAL
ELEMENTS ONLY

12" MAX. TOTAL WALL HEIGHT

10" MAX. HEIGHT

EXTENT OF HEADER WITH DOUBLE PORTAL FRAMES (TWO BRACED WALL PANELS)

EXTENT OF HEADER WITH SINGLE PORTAL FRAME (ONE BRACED WALL PANEL)

2'-18" FINISHED WIDTH OF OPENING FOR SINGLE OR DOUBLE PORTAL

MIN. 3" x 1 1/2" NET HEADER STEEL HEADER PROHIBITED IF 1/2" SPACER IS USED, PLACE ON BACK-SIDE OF HEADER

FASTEN SHEATHING TO HEADER WITH 8D COMMON OR GALVANIZED BOX NAILS IN 3" GRID PATTERN AS SHOWN

HEADER TO JACK STUD STRAP PER TABLE R602.10.4 ON BOTH SIDES OF OPENING OPPOSITE SIDE OF SHEATHING

MIN. DOUBLE 2x4 FRAMING COVERED WITH MIN. 1/4" THICK WOOD STRUCTURAL SHEATHING WITH 8D COMMON OR GALVANIZED BOX NAILS AT 3" O.C. IN ALL FRAMING (STUDS, BLOCKING, AND BILLS) TYP.

MIN. LENGTH OF PANEL PER TABLE R602.10.5

MIN. (2) 3500 LB STRAP-TYPE HOLD-DOWNS (EMBEDDED INTO CONCRETE AND NAILED INTO FRAMING)

MIN. REINFORCING OF FOUNDATION, ONE #4 BAR TOP AND BOTTOM OF FOOTING, LAP BARS 18" MIN.

MIN. FOOTING SIZE UNDER OPENING IS 12" x 12"; A TURNED-DOWN SLAB SHALL BE PERMITTED AT DOOR OPENINGS.

MIN. (1) 1/4" DIAMETER ANCHOR BOLT INSTALLED PER SECTION R403.1.6 WITH 2" x 2" x 1/4" PLATE WASHER

TENSION STRAP PER TABLE R602.10.4 (ON OPPOSITE SIDE OF SHEATHING)

IF NEEDED, PANEL SPICE EDGES SHALL OCCUR OVER AND BE NAILED TO COMMON BLOCKING WITHIN THE MIDDLE 2/3 OF THE PORTAL-160 HGT. ONE ROW OF 3" O.C. NAILING IS REQUIRED IN EACH PANEL EDGE.

TYPICAL PORTAL FRAME CONSTRUCTION

MIN. DOUBLE 2x4 POST (KING AND JACK STUDS) NUMBER OF JACK STUDS PER TABLE R602.7(1) & (2)

MIN. 1000 LB. HOLD-DOWN DEVICE (EMBEDDED INTO CONCRETE AND NAILED INTO FRAMING)

FASTEN KING STUD TO HEADER WITH 8D BINKERS

FASTEN TOP PLATE TO HEADER WITH TWO ROWS OF 16D SINKER NAILS 3" O.C. TYP.

MIN. 1/4" WOOD STRUCTURAL PANEL SHEATHING

SECTION

FRONT ELEVATION

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

METHOD (See Table R602.10.4)		MINIMUM LENGTH* (Inches)					CONTRIBUTING LENGTH (Inches)
		Wall Height					
		8 feet	9 feet	10 feet	11 feet	12 feet	
DWB, WSP, SFB, PBC, FCS, HPS, BV-WSP		48	48	48	53	58	Actual^a
GB		48	48	48	53	58	Double sided = Actual Single sided = 0.5 × Actual
LIB		55	62	69	NP	NP	Actual^a
ABW	SDC A, B and C, ultimate design wind speed < 140 mph	28	32	34	38	42	48
	SDC D_s, D_i and D_e, ultimate design wind speed < 140 mph	32	32	34	NP	NP	
CS-G		24	27	30	33	36	Actual^a
CS-WSP, CS-SFB	Adjacent clear opening height (Inches)						Actual^a
	≤ 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)		Partial header height					
		8 feet	9 feet	10 feet	11 feet	12 feet	
FFH	Supporting roof only	16	16	16	Note c	Note c	48
	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	1.5 × Actual ^b
	SDC D_s, D_i and D_e	16	18	20	Note e	Note e	
					Note e	Note e	

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

OVER CONCRETE OR MASONRY BLOCK FOUNDATION

EXTENT OF HEADER WITH DOUBLE PORTAL FRAMES (TWO BRACED WALL PANELS)
 EXTENT OF HEADER WITH SINGLE PORTAL FRAME (ONE BRACED WALL PANEL)
 2'-18" FINISHED WIDTH OF OPENING FOR SINGLE OR DOUBLE PORTAL
 12" MAX. TOTAL WALL HEIGHT
 10" MAX. HEIGHT
 PORTAL WALL HEIGHT
 MIN. 2x12x12 NET HEADER STEEL HEADER PROHIBITED IF 1/4" FRAMING IS USED, PLACE ON BACK-SIDE OF HEADER
 FASTEN SHEATHING TO HEADER WITH ED COMMON OR GALVANIZED BOX NAILS IN 3" GRID PATTERN AS SHOWN
 HEADER TO JACK-STUD STRIP PER TABLE R302.10.5.4 ON BOTH SIDES OF OPENING OPPOSITE SIDE OF BREATHING
 MIN. DOUBLE 2x4x4 FRAMING COVERED WITH MIN. 1/4" WOOD STRUCTURAL PANEL SHEATHING WITH ED COMMON OR GALVANIZED BOX NAILS AT 3" O.C. IN ALL FRAMING (GIRDS, BLOCKING, AND BILLS) TYP.
 MIN. LENGTH OF PANEL PER TABLE R302.10.5
 MIN. (1/4" DIAMETER) ANCHOR BOLTS INSTALLED PER SECTION R403.1.6 WITH 2x2 x 1/8" PLATE WASHER
 TENSION STRAP PER TABLE R302.10.5.4 ON OPPOSITE SIDE OF BREATHING
 BRACED WALL LINE CONTINUOUSLY BREATHED WITH WOOD STRUCTURAL PANELS
 IF REQUIRED, PANEL BRACE EDGES SHALL CROSS OVER AND BE NAILED TO COMMON BLOCKING WITHIN THE MIDDLE 1/3 OF THE PORTAL-LEG HEIGHT. ONE ROW OF 3" O.C. NAILING IS REQUIRED IN EACH PANEL EDGE.
 TYPICAL PORTAL FRAME CONSTRUCTION
 MIN. DOUBLE 2x4 POST RING AND JACK STUDS PER TABLE R302.11.1 (2)
 12" MAX. TOTAL WALL HEIGHT
 10" MAX. HEIGHT
 PORTAL WALL HEIGHT
 MIN. 1/4" WOOD STRUCTURAL PANEL SHEATHING
 FASTEN TOP PLATE TO HEADER WITH TWO ROWS OF 16D SINGLER NAILS AT 3" O.C. TYP.
 ANCHOR BOLTS PER SECTION R403.1.6
 (3) FRAMING ANCHORS BRACED ACROSS SHEATHING JOINT WITH A MINIMUM OF 2x4 IN THE HORIZONTAL AND VERTICAL DIRECTIONS
 NAIL BOLTS PLATE TO JOINT PER TABLE R302.11.1
 APPROVED BAND OR RIM JOINT

OVER RAISED WOOD FLOOR - FRAMING ANCHOR OPTION
 (WHERE PORTAL SHEATHING DOES NOT LAP OVER BAND OR RIM JOINT)

WOOD STRUCTURAL PANEL SHEATHING TO TOP OF BAND OR RIM JOINT
 NAIL BOLTS PLATE TO JOINT PER TABLE R302.11.1
 WOOD STRUCTURAL PANEL SHEATHING OVER APPROVED BAND OR RIM JOINT
 MIN. DOUBLE 2x4x4 FRAMING COVERED WITH MIN. 1/4" WOOD STRUCTURAL PANEL SHEATHING WITH ED COMMON OR GALVANIZED BOX NAILS AT 3" O.C. IN ALL FRAMING (GIRDS, BLOCKING, AND BILLS) TYP.
 MIN. LENGTH OF PANEL PER TABLE R302.10.5
 MIN. (1/4" DIAMETER) ANCHOR BOLTS INSTALLED PER SECTION R403.1.6 WITH 2x2 x 1/8" PLATE WASHER
 TENSION STRAP PER TABLE R302.10.5.4 ON OPPOSITE SIDE OF BREATHING
 BRACED WALL LINE CONTINUOUSLY BREATHED WITH WOOD STRUCTURAL PANELS
 IF REQUIRED, PANEL BRACE EDGES SHALL CROSS OVER AND BE NAILED TO COMMON BLOCKING WITHIN THE MIDDLE 1/3 OF THE PORTAL-LEG HEIGHT. ONE ROW OF 3" O.C. NAILING IS REQUIRED IN EACH PANEL EDGE.
 TYPICAL PORTAL FRAME CONSTRUCTION
 MIN. DOUBLE 2x4 POST RING AND JACK STUDS PER TABLE R302.11.1 (2)
 12" MAX. TOTAL WALL HEIGHT
 10" MAX. HEIGHT
 PORTAL WALL HEIGHT
 MIN. 1/4" WOOD STRUCTURAL PANEL SHEATHING
 FASTEN TOP PLATE TO HEADER WITH TWO ROWS OF 16D SINGLER NAILS AT 3" O.C. TYP.
 ANCHOR BOLTS PER SECTION R403.1.6
 (3) FRAMING ANCHORS BRACED ACROSS SHEATHING JOINT WITH A MINIMUM OF 2x4 IN THE HORIZONTAL AND VERTICAL DIRECTIONS
 NAIL BOLTS PLATE TO JOINT PER TABLE R302.11.1
 APPROVED BAND OR RIM JOINT

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

WOOD STRUCTURAL PANEL SHEATHING TO TOP OF BAND OR RIM JOINT
 NAIL BOLTS PLATE TO JOINT PER TABLE R302.11.1
 WOOD STRUCTURAL PANEL SHEATHING OVER APPROVED BAND OR RIM JOINT
 MIN. DOUBLE 2x4x4 FRAMING COVERED WITH MIN. 1/4" WOOD STRUCTURAL PANEL SHEATHING WITH ED COMMON OR GALVANIZED BOX NAILS AT 3" O.C. IN ALL FRAMING (GIRDS, BLOCKING, AND BILLS) TYP.
 MIN. LENGTH OF PANEL PER TABLE R302.10.5
 MIN. (1/4" DIAMETER) ANCHOR BOLTS INSTALLED PER SECTION R403.1.6 WITH 2x2 x 1/8" PLATE WASHER
 TENSION STRAP PER TABLE R302.10.5.4 ON OPPOSITE SIDE OF BREATHING
 BRACED WALL LINE CONTINUOUSLY BREATHED WITH WOOD STRUCTURAL PANELS
 IF REQUIRED, PANEL BRACE EDGES SHALL CROSS OVER AND BE NAILED TO COMMON BLOCKING WITHIN THE MIDDLE 1/3 OF THE PORTAL-LEG HEIGHT. ONE ROW OF 3" O.C. NAILING IS REQUIRED IN EACH PANEL EDGE.
 TYPICAL PORTAL FRAME CONSTRUCTION
 MIN. DOUBLE 2x4 POST RING AND JACK STUDS PER TABLE R302.11.1 (2)
 12" MAX. TOTAL WALL HEIGHT
 10" MAX. HEIGHT
 PORTAL WALL HEIGHT
 MIN. 1/4" WOOD STRUCTURAL PANEL SHEATHING
 FASTEN TOP PLATE TO HEADER WITH TWO ROWS OF 16D SINGLER NAILS AT 3" O.C. TYP.
 ANCHOR BOLTS PER SECTION R403.1.6
 (3) FRAMING ANCHORS BRACED ACROSS SHEATHING JOINT WITH A MINIMUM OF 2x4 IN THE HORIZONTAL AND VERTICAL DIRECTIONS
 NAIL BOLTS PLATE TO JOINT PER TABLE R302.11.1
 APPROVED BAND OR RIM JOINT

SECTION

A circular professional engineer seal for the State of Mississippi. The outer ring contains the text "STATE OF MISSISSIPPI" at the top and "REGISTERED PROFESSIONAL ENGINEER" at the bottom. Inside the ring, the name "JOSEPH ALAN TOWNSEND" is written in a larger font, with "No. 15-2217" below it. The seal is stamped over a document with handwritten text.

JOSEPH A. TOWNS P.E.
MO. LIC E 22017
PROFESSIONAL SEAL
APPLIES TO STRUCTURAL
ELEMENTS ONLY

NICK ZVACEK HOMES
BAXTON
LOT 55 SUMMIT VIEW FARMS
3121 SW BLUE RIBBON ST
LEE SUMMIT MO

SCALE
1/4" = 1'-0"

DATE
7-10-20

PLAN NO.

3159

SHEET NO.

6 OF 6