AREAS: FIRST FLOOR = 1742 SF 338 SF BONUS = 564 SF 206 SF 254 SF GARAGE = FRONT PORCH = TOTAL COVERED AREA = 3104 SF

WALL TYPES

2x4'S @ 16" O.C. 2x4'S @ 16" O.C. W/

2x6'S @ 16" O.C. W/ 5 1/2" BATT INSUL.

2x4'S @ 16" O.C. W/ 5/8" GYP. BD. EACH SIDE

3 1/2" BATT INSUL.

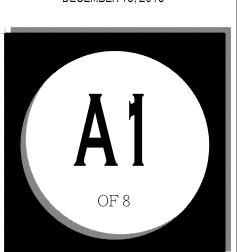
2x6'S a 16" O.C.-BALLOON FRAME

2x6'S @ 16" O.C. W/ BRICK VENEER

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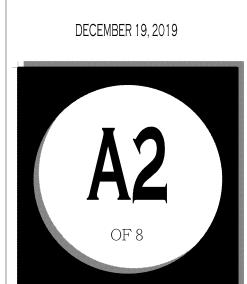
FIRST FLOOR PLAN

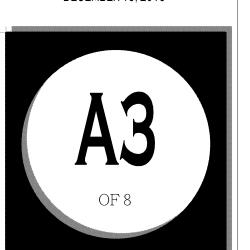
SCALE: 1/4": 1'-0"

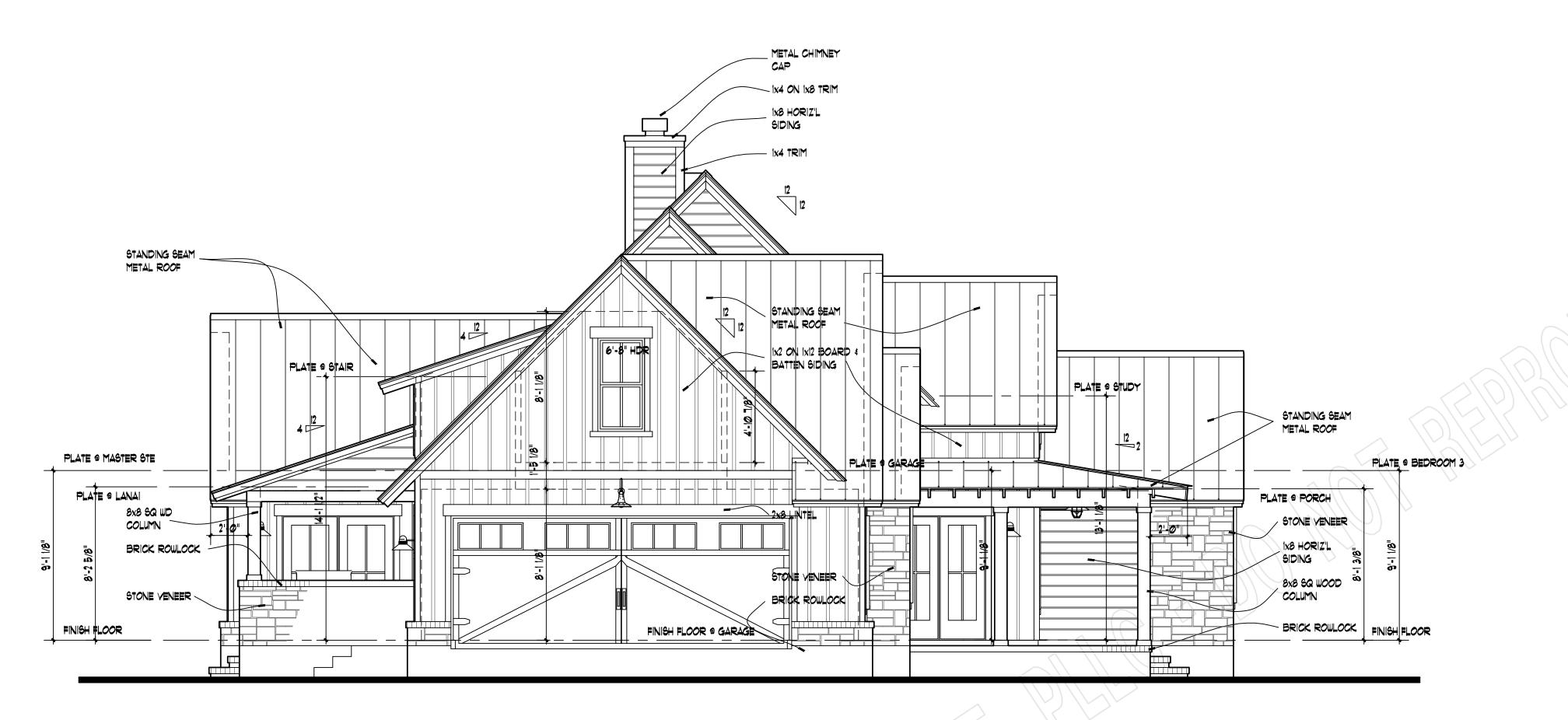
SECOND FLOOR PLAN SCALE: 1/4" : 1'-0"

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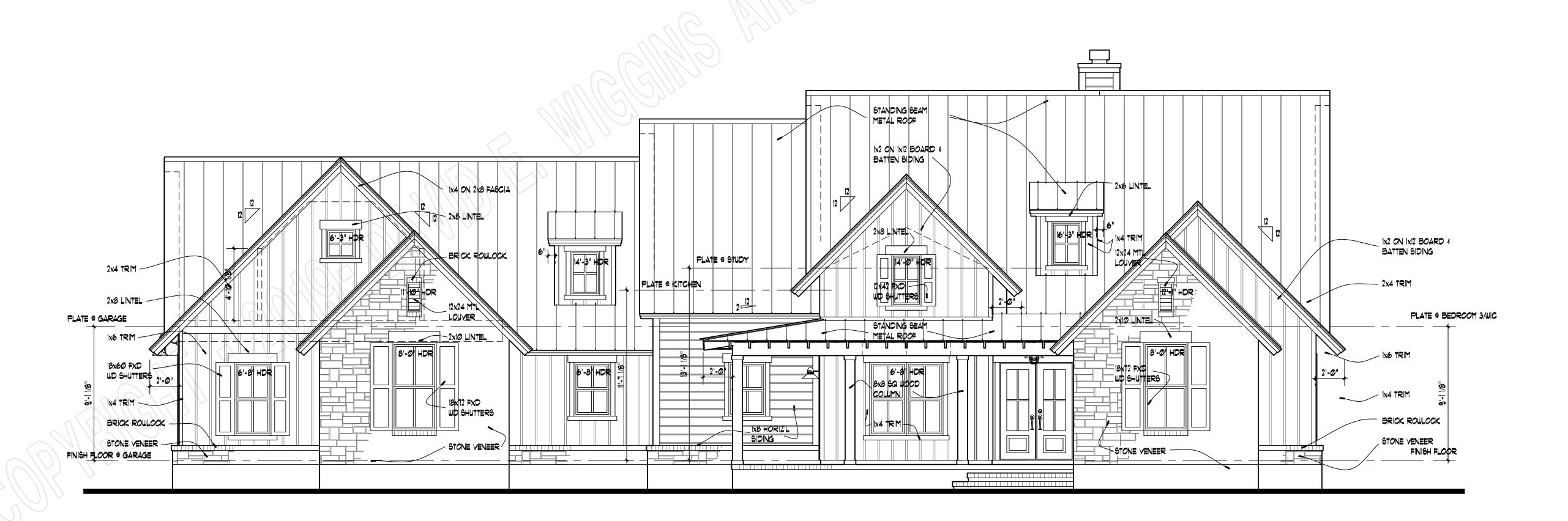
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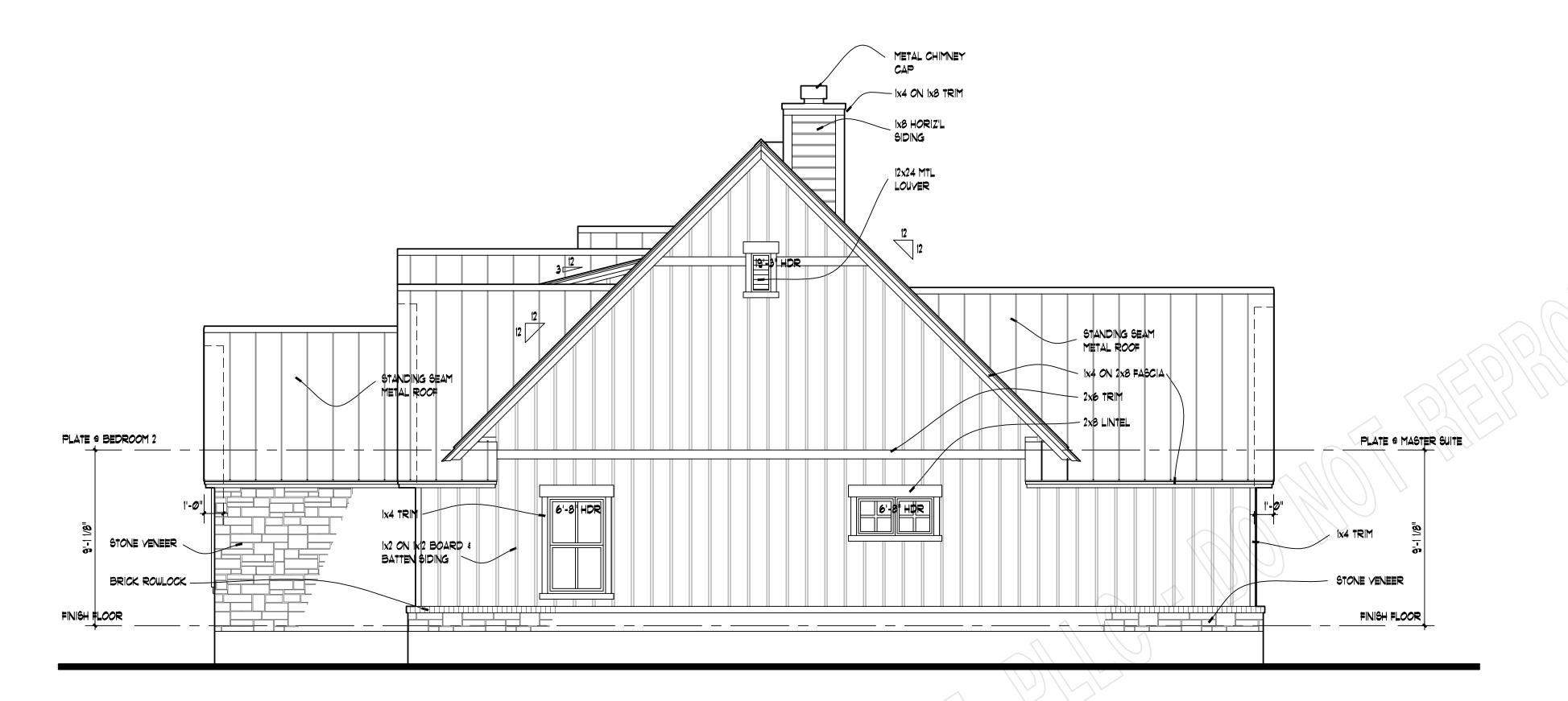




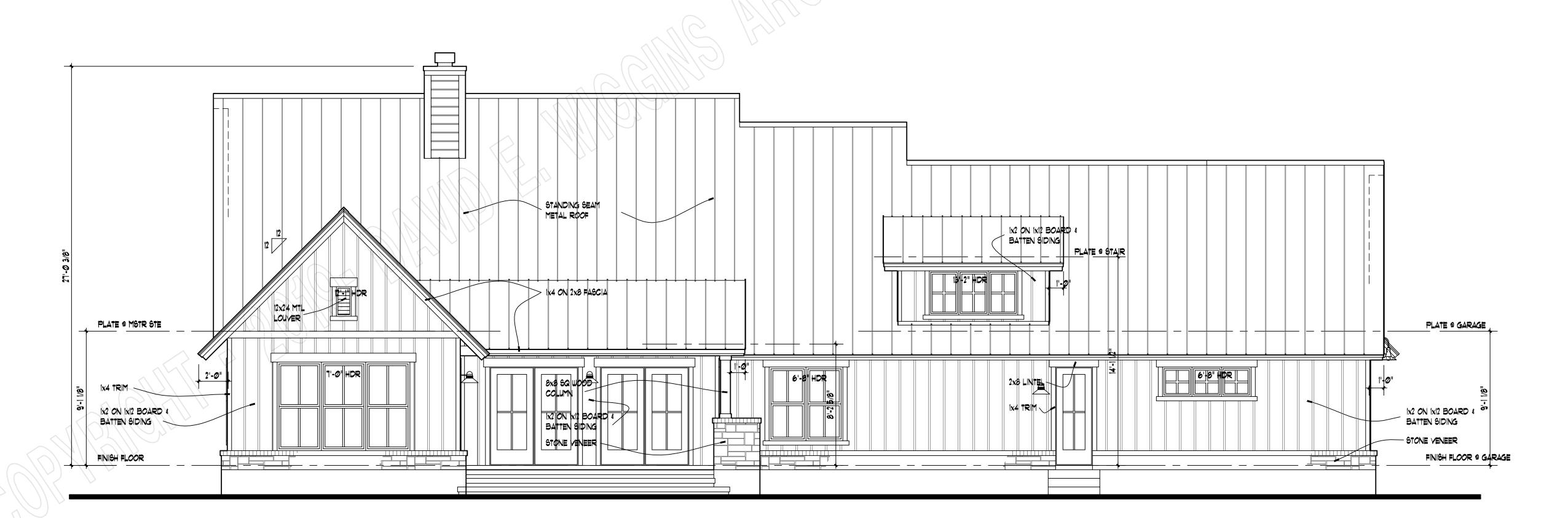


CALE: 1/4" = 1'-0" ELEVATION



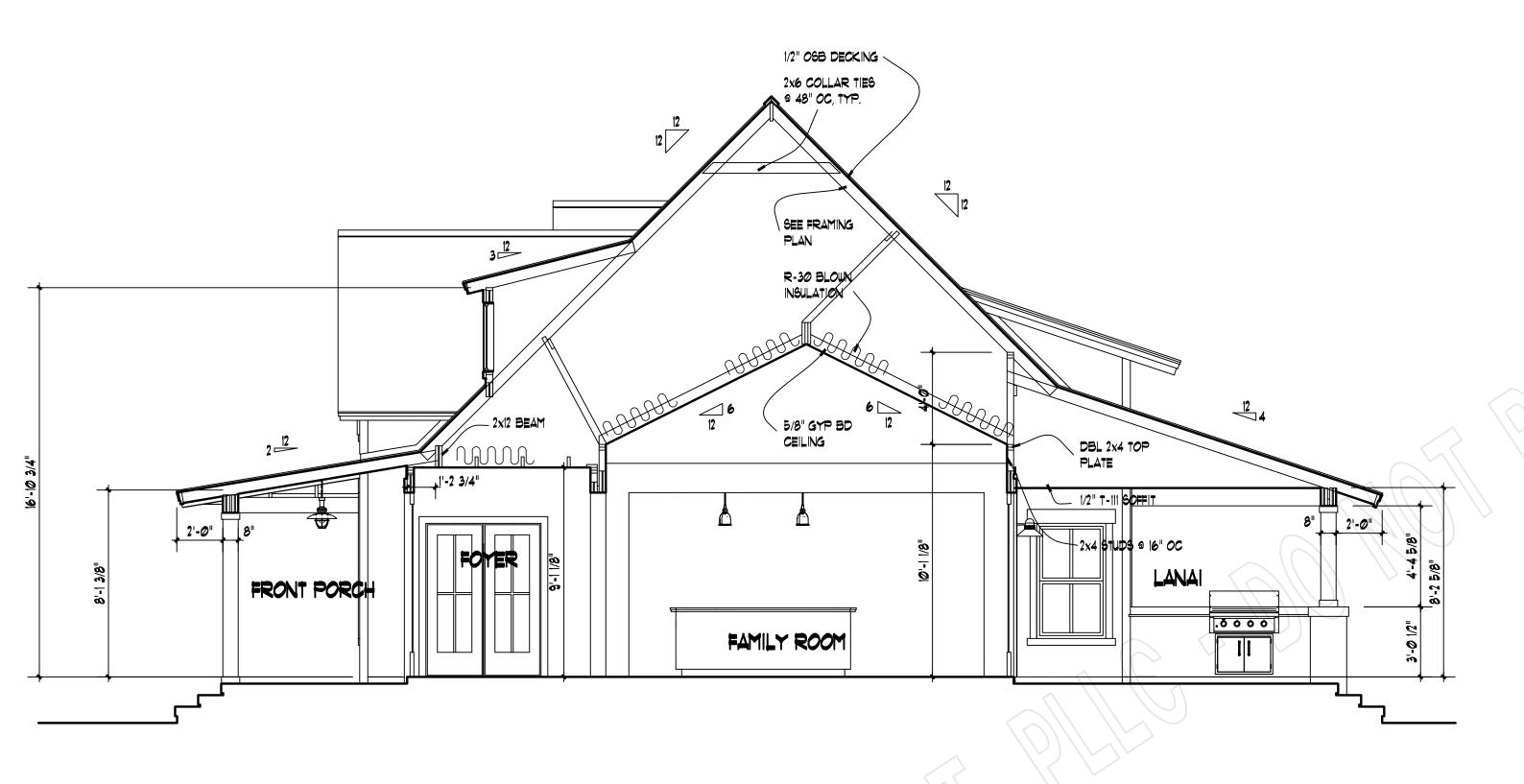


RIGHT ELEVATION SCALE: 1/4" : 1'-0"

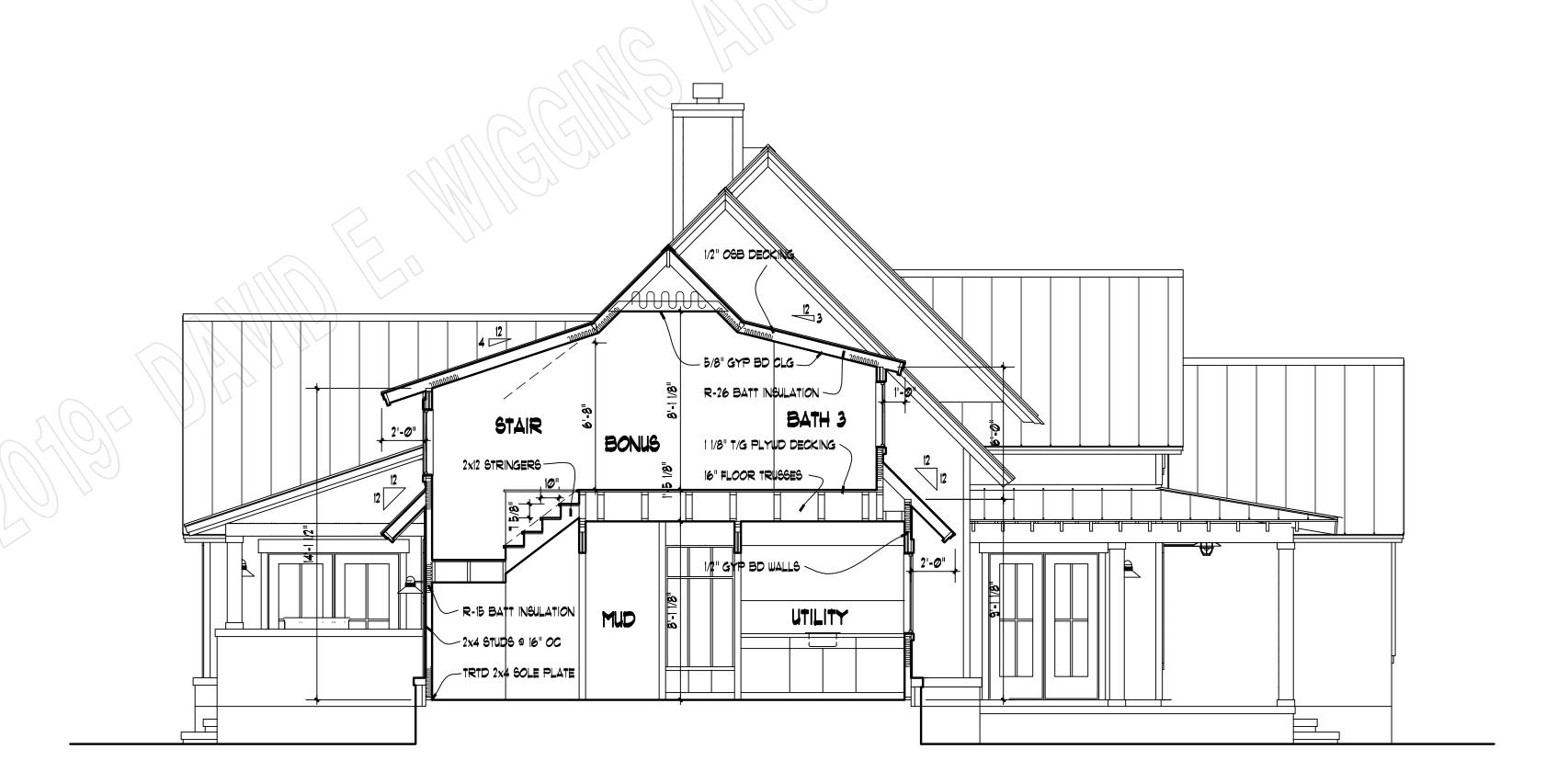


REAR ELEVATION SCALE: 1/4" = 1'-0"

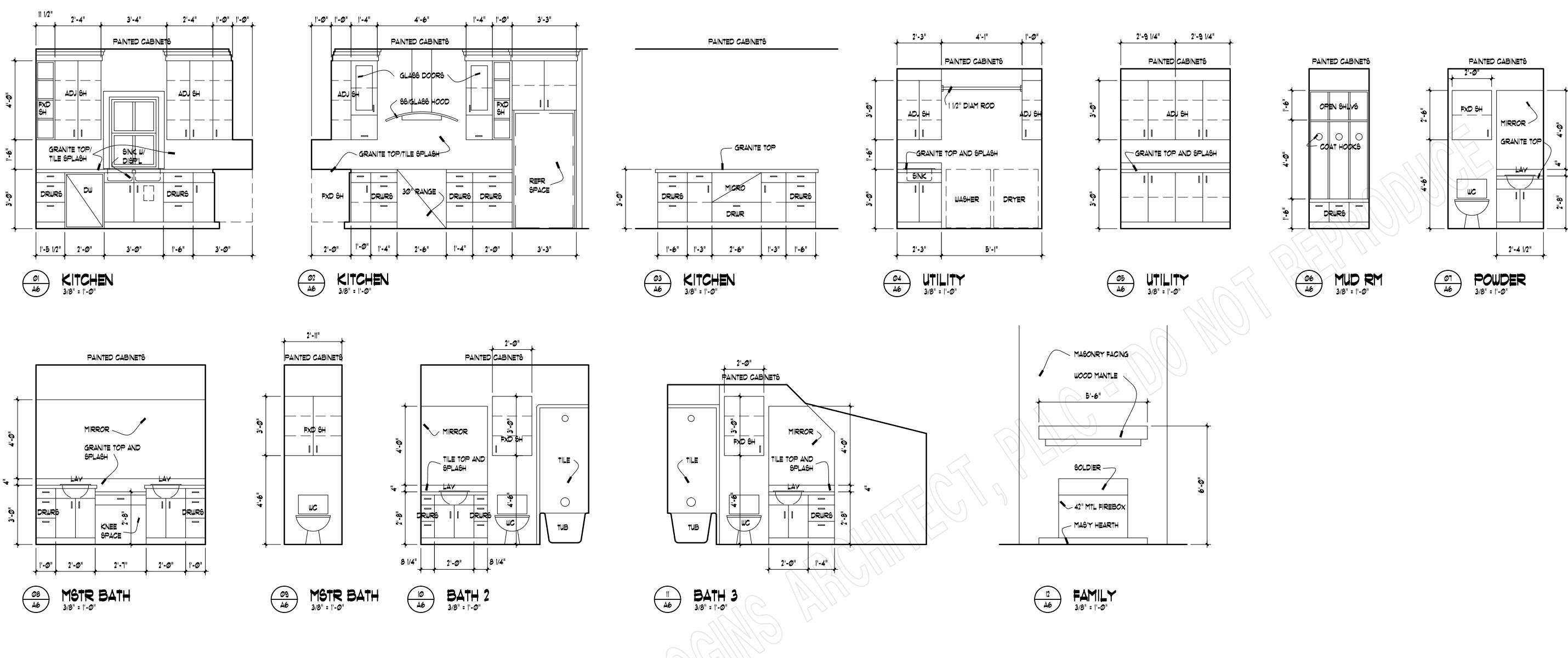
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BUILDING SECTION A-A
SCALE: 1/4" : 1'-0"



BUILDING SECTION B-B SCALE: 1/4" : 1'-0"

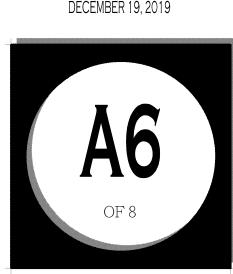


©ABINET 9CALE: 1/4" = 1'-0" ELEVATIONS

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LEGEND

110v. FLOOR OUTLET 110v. DUPLEX OUTLET WATERPROOF OUTLET

220v. Outlet 2 WAY SWITCH 3 WAY SWITCH 4 WAY SWITCH DIMMER SWITCH

GROUND FAULT INSULATED

GENERAL PURPOSE LTG.

RECESSED EYEBALL LTG.

WALL BRACKET LTG.

RECESSED CAN LTG.

FLOURESCENT LTG.

DOUBLE FLOOD LTG.

FLOURESCENT TUBE

SMOKE DETECTOR

GAS CONNECTION

HOSE BIBB

CEILING FAN

EXHAUST FAN

CHIMES

HEATER

CABLE TY

THERMOSTAT

PUSH BUTTON

JUNCTION BOX

PHONE JACK

A/C DISCONNECT

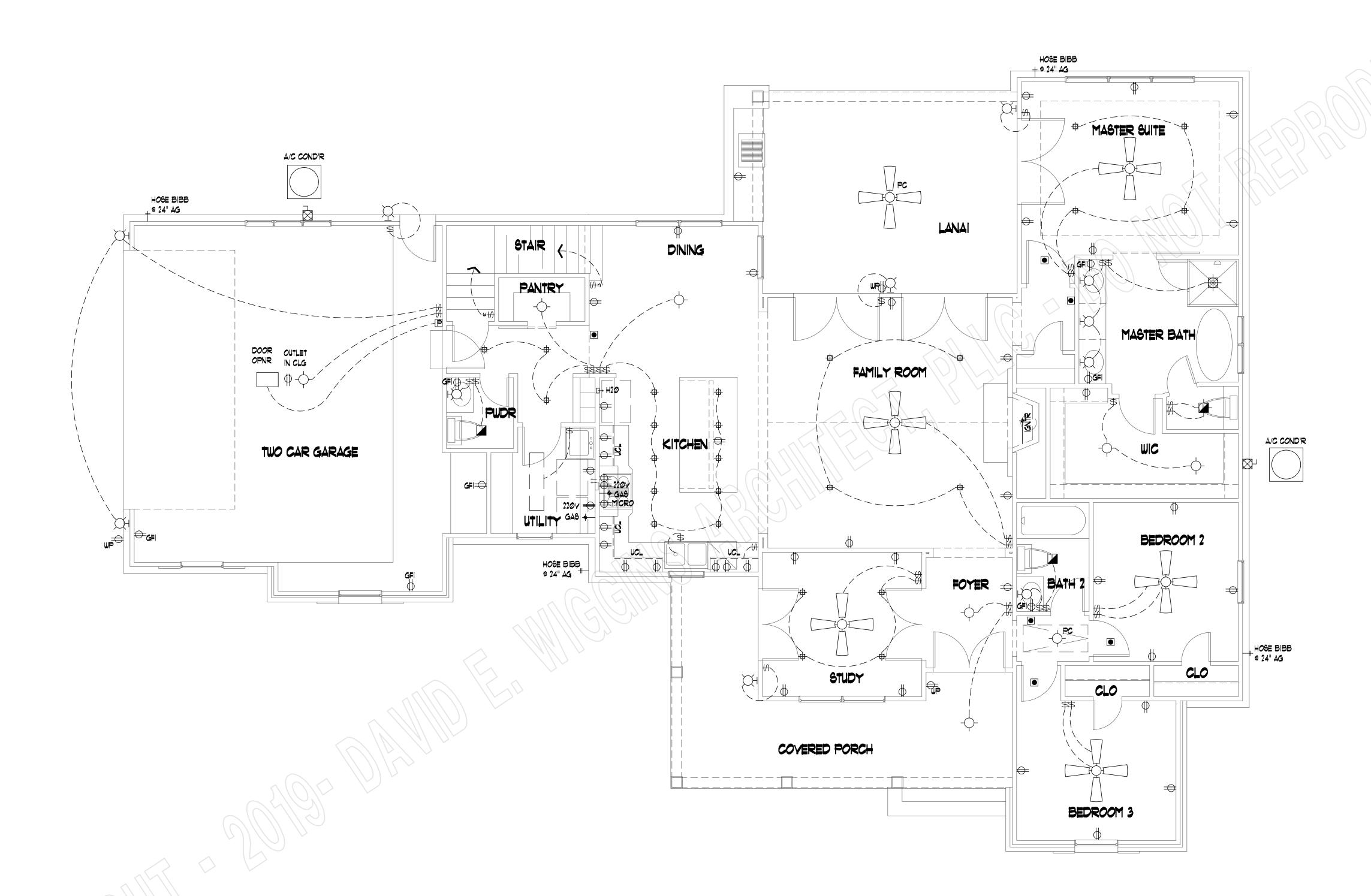
ICE MAKER CONNECTION

WASHER CONNECTIONS

MINI RECESSED CAN LTG.

EXHAUST FAN/LIGHT

DECEMBER 19, 2019



FIRST FLOOR ELECTRICAL PLAN

DECEMBER 19, 2019

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LEGEND ______ FLOURESCENT TUBE CHIMES JUNCTION BOX PHONE JACK

HEATER

CABLE TV

THERMOSTAT

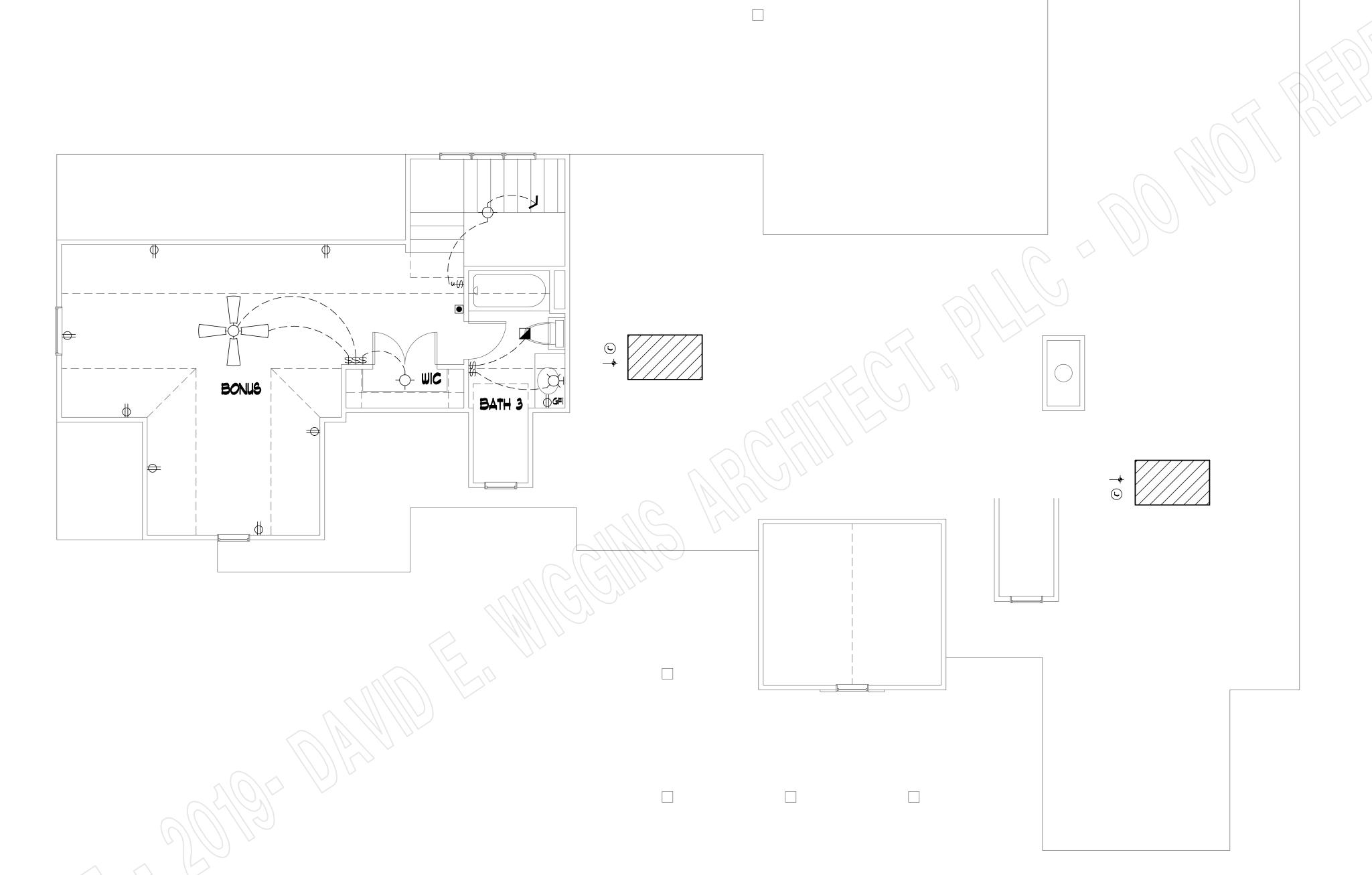
PUSH BUTTON

A/C DISCONNECT

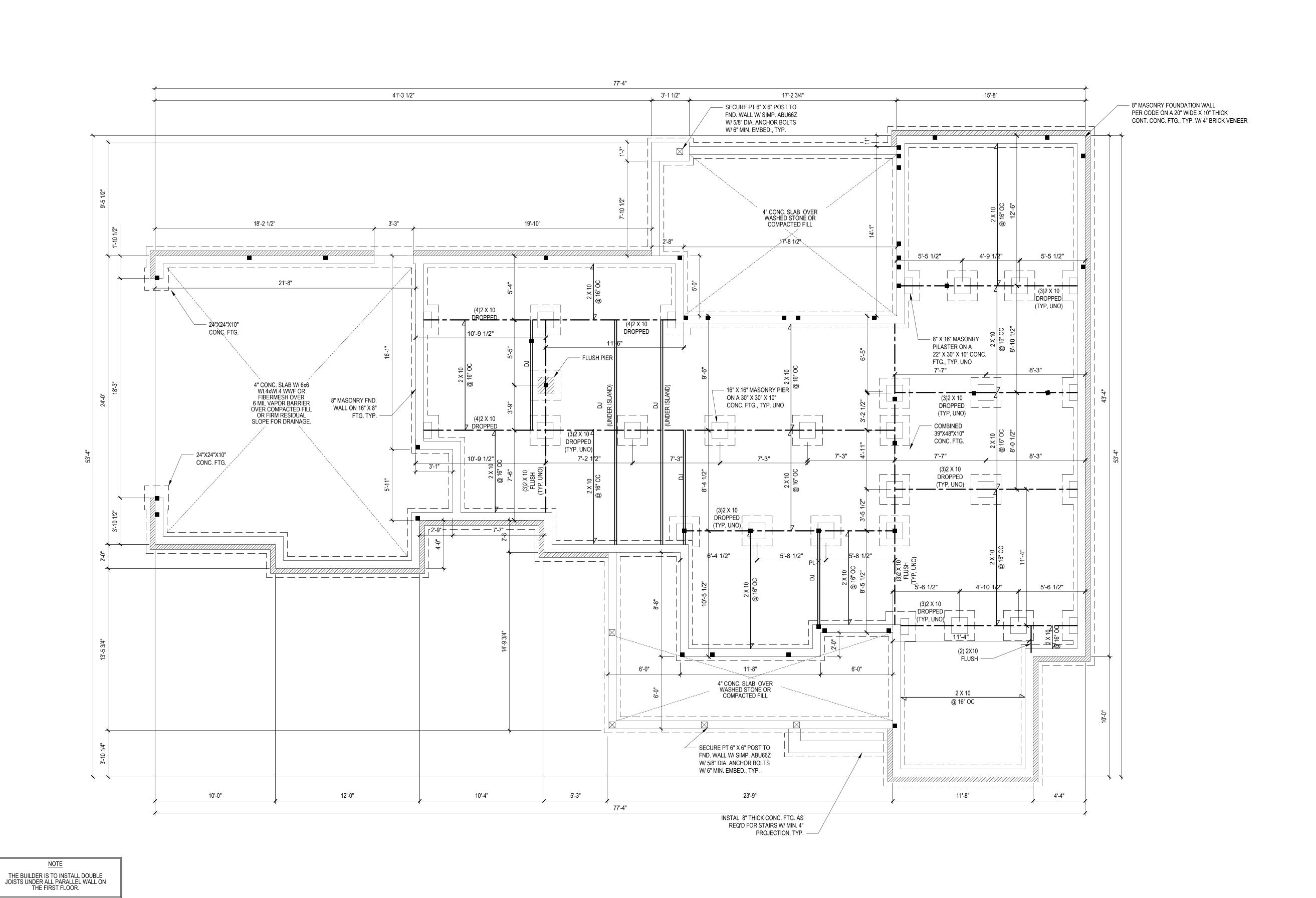
ICE MAKER CONNECTION

WASHER CONNECTIONS

MINI RECESSED CAN LTG.



SECOND FLOOR ELECTRICAL PLAN

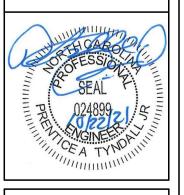


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*Please review these documents carefully.

Tyndall Engineering & Design, P.A. will interpret that all dimensions, recommendations, etc. presented in these documents were deemed acceptable once construction begi



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FOUNDATION PLAN 1/4" = 1'-0"

DESIGN LOADS

	LIVE LOAD (PSF)	DEAD LOAD (PSF)	DEFLE	CTION
	(1 01)	(1 01)	LL	TL
FLOOR (primary)	40	10	L/360	L/240
FLOOR (secondary)	40	10	L/360	L/240
ATTIC (w/ storage)	20	10	L/240	L/180
ATTIC (no access)	10	5	L/240	L/180
EXTERNAL BALCONY	40	10	L/360	L/240
ROOF	20	10	L/240	L/180
ROOF TRUSS	20	20	L/240	L/180
WIND LOAD	BAS	SED ON 120 MPH (E	XPOSURE B)	
SEISMIC	BAS	ED ON SEISMIC ZO	NES A, B & C	

- ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REQUIREMENTS OF "NORTH CAROLINA STATE 2018 RESIDENTIAL BUILDING CODE", IN ADDITION TO ALL LOCAL
- 2) IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND SQUARE FOOTAGE PRIOR TO CONSTRUCTION. TYNDALL ENGINEERING & DESIGN, PA IS NOT RESPONSIBLE FOR DIMENSIONS AND SQUARE FOOTAGE ERRORS ONCE CONSTRUCTION BEGINS.
- 3) ALL LUMBER SHALL BE SYP #2 (UNO) ALL LVL LUMBER TO BE 1.75" WIDE NOMINAL EACH SINGLE MEMBER AND Fb = 2600 PSI, E = 1.9M PSI
- (I.E. iLEVEL MICROLAM)
- ALL LSL LUMBER IS TO BE 1.55E (Fb = 2325 PSI)

 4) ALL LOAD BEARING EXTERIOR WINDOW HEADERS ARE TO BE (2) 2x10 w/ (1) 2x4 JACK STUD (U.N.O.) AND KING STUDS PER TABLE R602.7.5, AND TOGETHER W (2) 10d NAILS @ 8" O.C., PROVIDED THAT THE TOP OF THE WINDOW HEIGHT IS 6"-8", MINIMUM BOTTOM OF THE WINDOW HEIGHT IS 1'-6". OTHERWISE REFER TO TABLES R602.7(1) AND R602.7(2).
- 5) ALL INTERIOR LOAD BEARING HEADERS TO BE (2) 2x10 (U.N.O.) REFER TO TABLES R602.7(1) AND R602.7(2) FOR JACK STUD REQUIREMENTS FOR HEADER SPANS FOR
- INTERIOR AND EXTERIOR LOAD CONDITIONS (UNO) 6) REFER TO 2018 NC BUILDING CODE SECTION R602 FOR CONSTRUCTION OF ALL
- WALLS OVER 10'-0" IN HEIGHT. 7) ALL STRUCTURAL STEEL SHALL BE ASTM A992 GRADE 50
- Fy = 50 KSI MIN. (UNO) 8) ALL EXTERIOR LUMBER TO BE #2 SYP PT
- ALL CONCRETE, fc = 3000 PSI MIN.
- PRESUMPTIVE BEARING CAPACITY = 2000 PSF 11) 1/2"Ø ANCHOR BOLTS SPACED AT MAXIMUM OF 6'-0" O.C. AND NOT MORE THAN 12" FROM THE CORNER. THERE SHALL BE A MINIMUM OF (2) BOLTS PER PLATE SECTION. ANCHOR BOLTS SHALL BE SPACED AT 3'-0" O.C. FOR BASEMENTS. ANCHOR BOLT SHALL EXTEND 7" INTO CONCRETE OR MASONRY.

 12) PSL COLUMNS DESIGNED WITH MAX. HEIGHT OF 9'-0" (UNO)
- 13) PROVIDE A MINIMUM OF 500# UPLIFT & LATERAL CONNECTION AT TOP AND BOTTOM OF PORCH COLUMNS. (U.N.O.)
- 14) PROVIDE CONTINUOUS SHEATHING PER SECTION 602.10.4 OF THE 2018 IRC. 15) MAXIMUM MASONRY PIER HEIGHT SHALL NOT EXCEED FOUR TIMES ITS LEAST
- HORIZONTAL DIMENSION. 16) UPLIFT LOADS GREATER THAN 500# SHALL BE CONTINUOUSLY ANCHORED TO THE FOUNDATION.
- 17) METAL HANGERS SHALL BE SIMPSON OR APPROVED EQUAL.

STRUCTURAL SHEATHING NOTES

- 1) DESIGNED FOR SEISMIC ZONE A-C AND WIND SPEEDS OF 120 MPH OR
- 2) WALLS SHALL BE BRACED IN ACCORDANCE WITH SECTION R602.10 OF THE 2018 NCRC. 3) BRACING REQUIREMENTS SHALL BE PER TABLE R602.10.3.
- REFER TO SECTION R602.10.4 FOR LOAD PATH DETAILS INCLUDING CONNECTIONS & SUPPORT OF BRACED WALL PANELS.
- 1 REFERENCE FIGURE R602.10.4.3 OF THE 2018 NCRC. 4) INTERIOR BRACED WALL PANELS (BWP) INDICATED SHALL BE SHEATHED IN ACCORDANCE WITH THE GB METHOD OR WSP METHOD AS
- PRESCRIBED IN SECTION R602.10.1 (UNO) 2 1/2" GYPSUM BOARD (GB) MINIMUM LENGTH OF 8'-0" (ISOLATED PANELS) OR 4'-0" (CONTINUOUS SHEATHING). SECURE w/ 5d COOLER NAILS (OR EQUAL PER TABLE R702.3.5)
- SPACED @ 7" O.C. AT PANEL EDGES, INCLUDING TOP AND BOTTOM PLATES & 7" O.C. AT INTERMEDIATE SUPPORTS 3)8" WOOD STRUCTURAL PANEL (WSP) SECURE w/ 6d COMMON NAILS SPACED AT 6" O.C. AT PANEL EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS
- 5) EXTERIOR BRACED WALL PANELS (BWP) SHALL BE CONSTRUCTED IN ACCORDANCE WITH CS-WSP METHOD AS PRESCRIBED IN SECTION
- R602.10.3 (UNO) 6) ALL SHEATHABLE SURFACES OF EXTERIOR WALLS (INCLUDING AREAS ABOVE AND BELOW OPENINGS AND GABLE END WALLS) SHALL BE
- CONTINUOUSLY SHEATHED WITH WOOD STRUCTURAL PANEL (WSP) SHEATHING WITH A MINIMUM THICKNESS OF 3/8". SHEATHING SHALL BE SECURED WITH MINIMUM 6d COMMON NAILS SPACED AT 6" O.C. AT PANEL EDGES AND SPACED AT 12" O.C. AT INTERMEDIATE SUPPORTS.

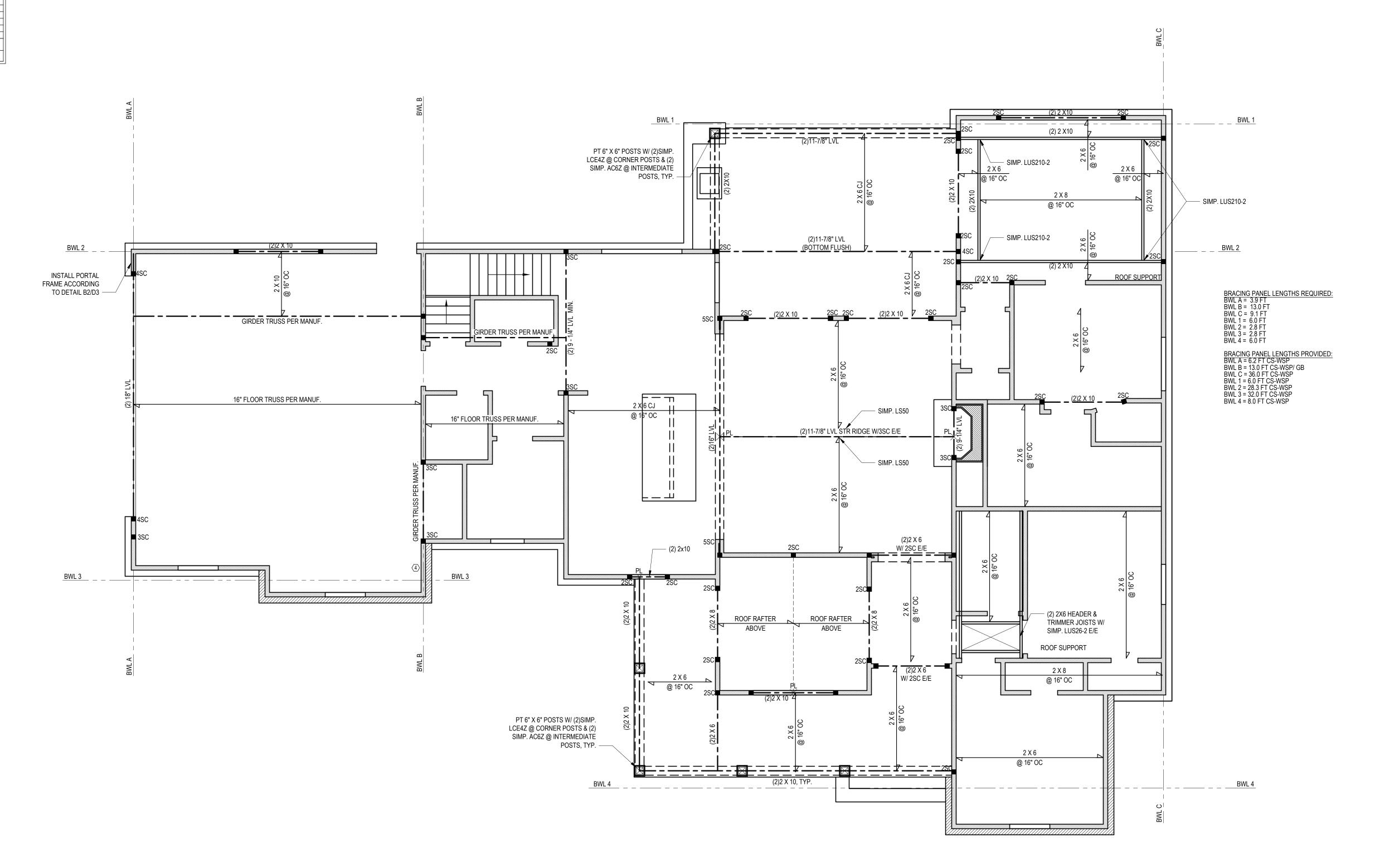
') MINIMUM BRACED WALL PANEL LENGTHS WITH CS-WSP METHOD SHALL

BE AS FOLLOWS: - 24" ADJACENT TO OPENINGS NOT MORE THAN - 24 ADJACENT TO OPENINGS NOT MORE THAN
 67% OF WALL HEIGHT
 - 30" ADJACENT TO OPENINGS GREATER THAN
 67% AND LESS THAN 85% OF WALL HEIGHT.
 - 48" FOR OPENINGS GREATER THAN 85% OF

WALL HEIGHT

4 SHEATH INTERIOR & EXTERIOR

- 8) FOR CS-WSP METHOD, A MINIMUM 24" BRACED WALL PANEL CORNER RETURN SHALL BE PROVIDED AT BOTH ENDS OF A BRACED WALL LINE IN ACCORDANCE WITH FIGURE R602.10.3(4). IN LIEU OF A CORNER RETURN, EITHER A MIN. 48" BRACED WALL PANEL SHALL BE PROVIDED AT THE CORNER OR A HOLD-DOWN DEVICE WITH A MINIMUM UPLIFT DESIGN VALUE OF 800# SHALL BE FASTENED TO THE EDGE OF THE BRACED WALL PANEL CLOSEST TO THE CORNER AND TO THE FOUNDATION OR
- FRAMING BELOW. (5) MINIMUM 800# HOLD-DOWN DEVICE

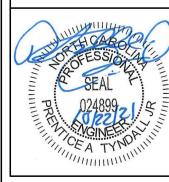


FIRST FLOOR PLAN

1/4" = 1'-0"

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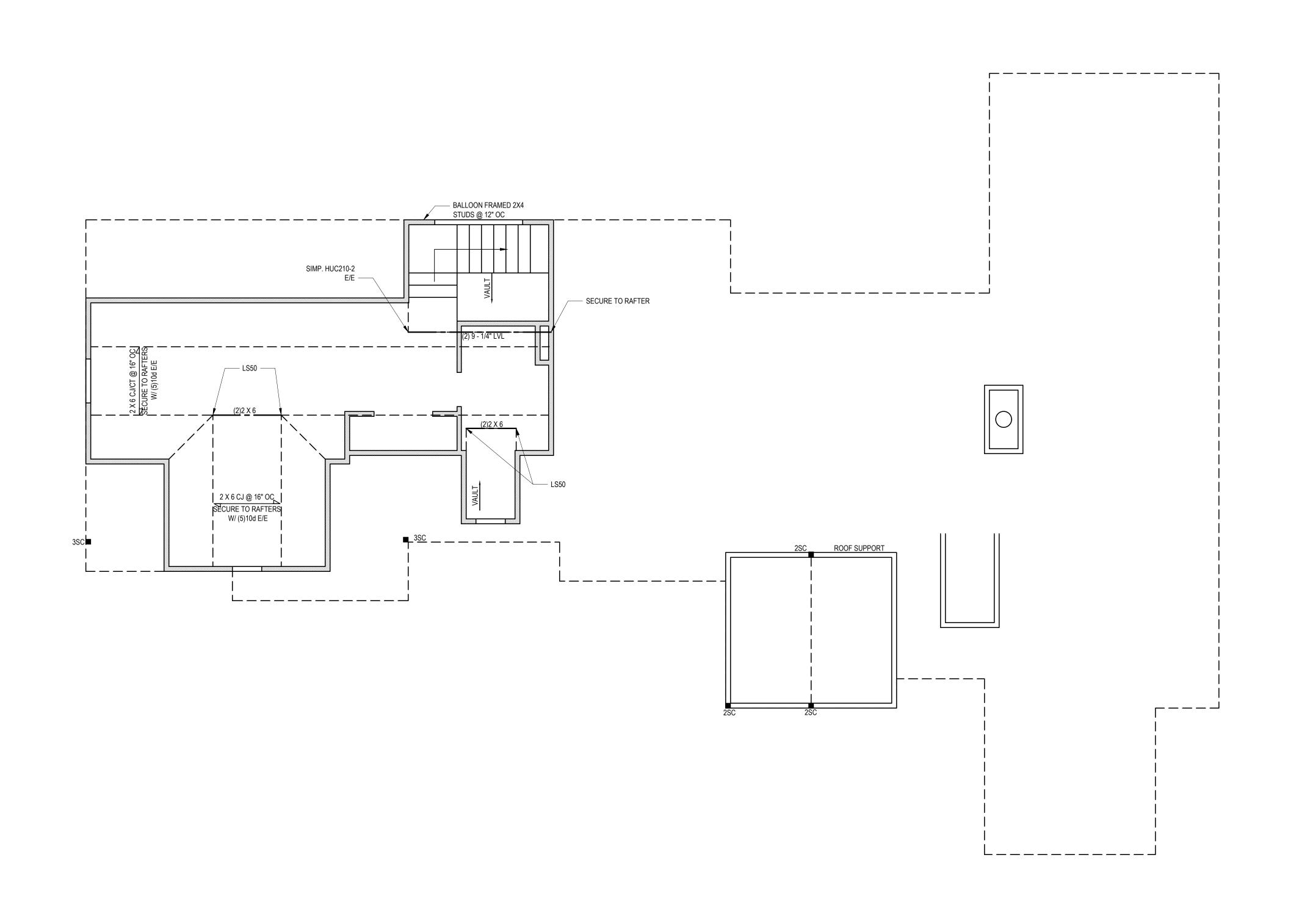


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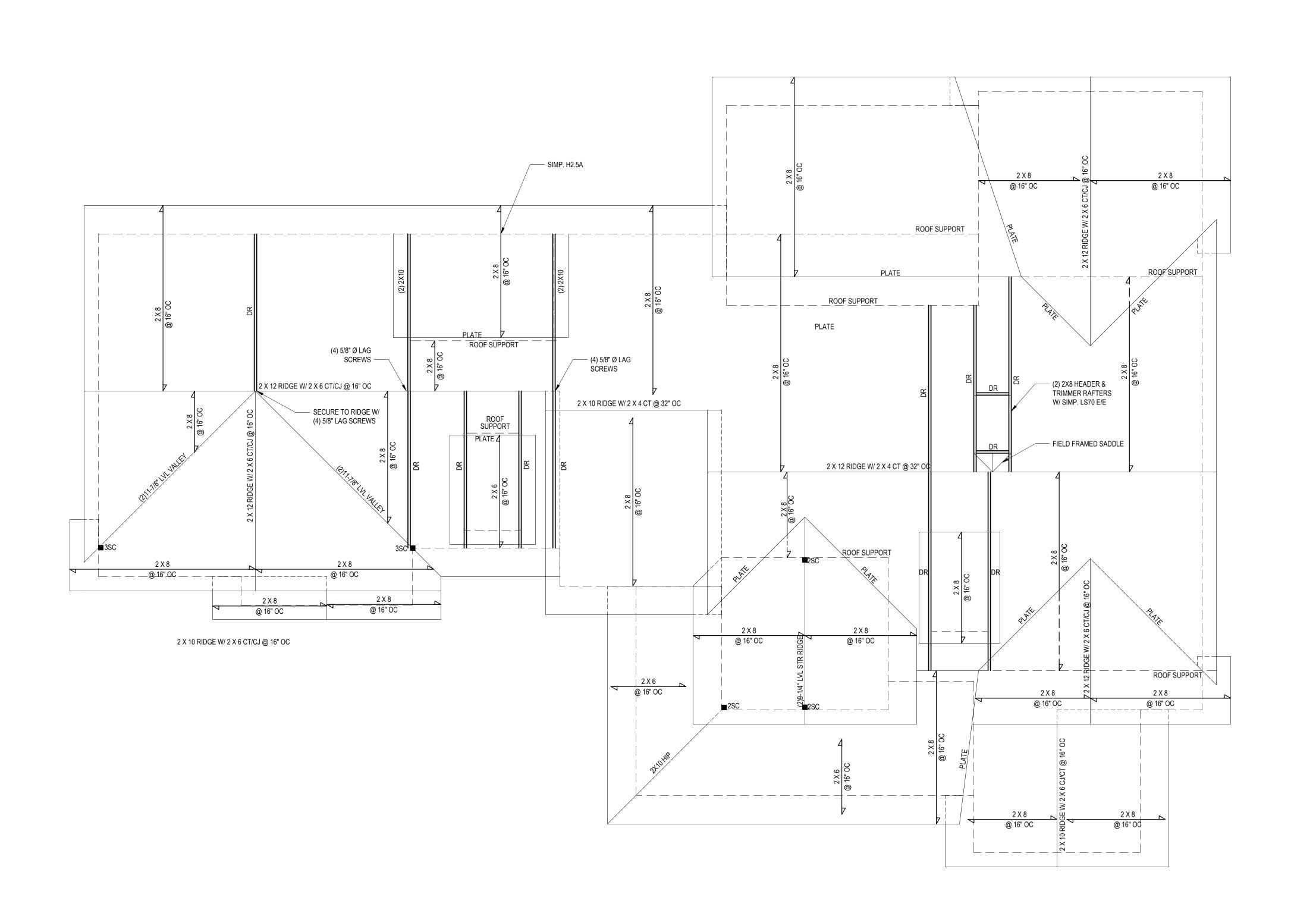


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DWG. Checked By:

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ROOF PLAN 1/4" = 1'-0"

STRUCTURAL NOTES

1) ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REQUIREMENTS OF "NORTH CAROLINA STATE 2018 RESIDENTIAL BUILDING CODE", IN ADDITION TO ALL LOCAL CODES AND REGULATIONS.

	LIVE LOAD (PSF)	DEAD LOAD (PSF)	DEFLE	CTION
	(. 5.)	(. 5.)	LL	TL
ALL FLOORS	40	10	L/360	L/240
ATTIC (w/ walk up stairs)	30	10	L/360	L/240
ATTIC (pull down access)	20	10	L/240	L/180
ATTIC (no access)	10	5	L/240	L/180
EXTERNAL BALCONY	40	10	L/360	L/240
ROOF	20	10	L/240	L/180
ROOF TRUSS	20	20	L/240	L/180
WIND LOAD		BASED ON 120 MF	PH (EXPOSURE B)	
SEISMIC		SEISMIC ZOI	NES A, B & C	

- 3) MINIMUM ALLOWABLE SOIL BEARING PRESSURE = 2000 PSF
- 4) CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI AND A MAXIMUM SLUMP OF FIVE INCHES
- MAXIMUM DEPTH OF UNBALANCED FILL AGAINST FOUNDATION WALLS TO BE LESS THAN 4'-0" WITHOUT USING SUFFICIENT WALL BRACING. REFER TO SECTION R404 OF 2018 NC BUILDING CODE FOR BACKFILL LIMITATIONS BASED ON WALL HEIGHT, WALL THICKNESS, SOIL TYPE, AND UNBALANCED BACKFILL HEIGHT.
- 6) ALL FRAMING LUMBER SHALL BE SYP #2 (Fb = 800 PSI, BASED ON 2x10) UNO. ALL FRAMING LUMBER EXPOSED TO THE ELEMENTS SHALL BE TREATED MATERIAL ALL LVL LUMBER TO BE 1.75" WIDE NOMINAL EACH SINGLE MEMBER AND Fb = 2600 PSI, E = 1.9M PSI (U.N.O.) ALL LSL LUMBER TO BE 3.5" WIDE NOMINAL EACH SINGLE MEMBER AND Fb = 2325 PSI, E = 1.6M PSI (U.N.O.) ALL PSL LUMBER TO BE 3.5" WIDE NOMINAL EACH SINGLE MEMBER AND Fb = 2400 PSI, E = 1.8M PSI (U.N.O.)
- 7) ALL LOAD BEARING EXTERIOR HEADERS SHALL BE AT (2) 2x10. (U.N.O.) REFER TO TABLE R602.7(1) & (2) FOR JACK STUD REQUIREMENTS FOR HEADER SPANS FOR INTERIOR AND EXTERIOR LOAD CONDITIONS UNLESS SPECIFICALLY NOTED ON PLANS.
- 8) ALL STRUCTURAL STEEL W-SHAPES (I-BEAMS) SHALL BE ASTM A992 GRADE 50. ALL STEEL ANGLES, PLATES, AND C-CHANNELS SHALL BE ASTM A36. ALL STEEL PIPE SHALL BE ASTM A53 GRADE B.
- 9) STEEL BEAMS SHALL BE SUPPORTED AT EACH END WITH A MINIMUM BEARING LENGTH OF 3-1/2" AND FULL FLANGE WIDTH. PROVIDE SOLID BEARING FROM BEAM SUPPORT TO FOUNDATION. BEAMS SHALL BE ATTACHED TO EACH SUPPORT WITH TWO (2) LAG SCREWS (1/2"Ø x 4" LONG). LATERAL SUPPORT IS CONSIDERED ADEQUATE PROVIDED THE JOISTS ARE TOE NAILED TO THE SOLE PLATES, AND THE SOLE PLATES ARE NAILED OR BOLTED TO THE BEAM FLANGES @ 48" O.C.
- 10) PROVIDE ANCHOR BOLT PLACEMENT PER SECTION 403.1.6: 1/2"Ø ANCHOR BOLTS SPACED AT 6'-0" O.C. AND PLACED 12" FROM THE END OF EACH PLATE SECTION. ANCHOR BOLTS SHALL BE SPACED AT 3'-0" O.C. FOR BASEMENTS. ANCHOR BOLT SHALL EXTEND 7" INTO CONCRETE OR MASONRY. THE BOLTS SHALL BE LOCATED IN THE MIDDLE THIRD OF THE WIDTH OF THE PLATE. THERE SHALL BE A MINIMUM TWO ANCHOR BOLTS PER PLATE SECTION.
- 11) FOUNDATION DRAINAGE-DAMP PROOFING OR WATERPROOFING PER SECTION 405 AND 406 OF NC BUILDING CODE.
- 12) WALL AND ROOF CLADDING VALUES: WALL CLADDING SHALL BE DESIGNED FOR 28.0 POUNDS PER SQUARE FOOT (LBS/SQFT) OR GREATER POSITIVE AND NEGATIVE PRESSURE. ROOF VALUES BOTH POSITIVE AND NEGATIVE SHALL BE AS FOLLOWS: 39.0 LBS/SQFT FOR ROOF PITCHES 0/12 TO 1.5/12 36.0 LBS/SQFT FOR ROOF PITCHES 1.5/12 TO 6/12 18.0 LBS/SQFT FOR ROOF PITCHES 6/12 TO 12/12
- 13) FOR ROOF SLOPES FROM 2/12 THROUGH 4/12, BUILDER TO INSTALL 2 LAYERS OF 15# FELT PAPER.
- 14) REFER TO SECTION R602.3 FOR FRAMING OF ALL WALLS OVER 10'-0" IN HEIGHT.
- 15) PROVIDE CONTINUOUS SHEATHING PER SECTION 602.10.3 OF THE 2018 NCRC.
- 16) UPLIFT LOADS GREATER THAN 500# SHALL BE CONTINUOUSLY ANCHORED TO THE FOUNDATION.
- 17) REFER TO TABLE N1102.1 FOR PRESCRIPTIVE BUILDING ENVELOPE THERMAL COMPONENT CRITERIA.
- 18) PSL COLUMNS DESIGNED WITH MAXIMUM HEIGHT OF 9'-0" (U.N.O.)

**MEAN ROOF HEIGHT 30'-0" OR LESS

- 19) PROVIDE A MINIMUM OF 500# UPLIFT & LATERAL CONNECTION AT TOP AND BOTTOM OF PORCH COLUMNS. (U.N.O.)
- 20) MAXIMUM MASONRY PEIR HEIGHT SHALL NOT EXCEED FOUR TIMES ITS LEAST HORIZONTAL DIMENSION.
- 21) IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND SQUARE FOOTAGE PRIOR TO CONSTRUCTION. TYNDALL ENGINEERING & DESIGN, PA IS NOT RESPONSIBLE FOR DIMENSION OR SQUARE FOOTAGE ERRORS ONCE CONSTRUCTION BEGINS.

								T.		
			GLAZED		WOOD	MASS		BASEMENT ^{c,} o	SLAB ^d	CRAWL SPACE °
CLIMATE	FENESTRATION	SKYLIGHT b	FENESTRATION	CEILING ^m	FRAMED WALL	WALL :	FLOOR	WALL	R-VALUE	WALL
ZONES	U-FACTOR B, J	U-FACTOR	SHGC b,k	R-VALUE	R-VALUE	R-VALUE '	R-VALUE	R-VALUE	AND DEPTH	R-VALUE
3	0.35	0.55	0.30	38 or 30 cont	15 or 13 + 2.5	<u>5/13 or</u> <u>5/10 cont</u>	19	<u>5/13</u> ^f	0	5/13
4	0.35	0.55	0.30	38 or 30 cont	15 or 13 + <u>2.5</u> h	5/13 or 5/10 cont	19	10/15	10	10/15
5	0.35	0.55	NR	38 or 30 cont	ⁿ 19, or 13 + 5 or 15 + 3	13/17 <u>or</u> 13/12.5 cont	30 ^g	<u>10/15</u>	10	10/19

- * TABLE N1102.1 CLIMATE ZONES 3-5
- a. R-VALUES ARE MINIMUMS. U-FACTORS AND SHGC ARE MAXIMUMS. WHEN INSULATION IS INSTALLED IN A CAVITY WHICH IS LESS THAN THE LABEL OR DESIGN THICKNESS OF THE INSULATION, THE INSTALLED R-VALUE OF THE INSULATION SHALL NOT BE LESS THAN THE R-VALUE SPECIFIED IN THE TABLE. b. THE FENESTRATION U-FACTOR COLUMN EXCLUDED SKYLIGHTS. THE SOLAR HEAT GAIN COEFFICIENT
- (SHGC) COLUMN APPLIES TO ALL GLAZED FENESTRATION. c. "10/15" MEANS R-10 CONTINUOUS INSULATED SHEATHING ON THE INTERIOR OR EXTERIOR OF THE HOME
- OR R-15 CAVITY INSULATION AT THE INTERIOR OF THE BASEMENT WALL OR CRAWL SPACE WALL.

 d. FOR MONOLITHIC SLABS, INSULATION SHALL BE APPLIED FROM THE INSPECTION GAP DOWNWARD TO THE BOTTOM
- OF THE FOOTING OR A MAXIMUM OF 24" BELOW GRADE WHICHEVER IS LESS. FOR FLOATING SLABS, INSULATION SHALL EXTEND TO THE BOTTOM OF THE FOUNDATION WALL OR 24", WHICHEVER IS LESS. R-5 SHALL BE ADDED TO THE REQUIRED SLAB EDGE R-VALUES FOR HEATED SLABS.
- e. DELETED
- f. BASEMENT WALL INSULATION IS NOT REQUIRED IN WARM-HUMID LOCATIONS AS DEFINED BY FIGURE N1101.7 AND TABLE N1101.7.
- g. OR INSULATION SUFFICIENT TO FILL THE FRAMING CAVITY. R-19 MINIMUM. h. THE FIRST VALUE IS CAVITY INSULATION, THE SECOND VALUE IS CONTINUOUS INSULATION, SO "13+5" MEANS R-13 CAVITY INSULATION PLUS R-5 INSULATED
- SHEATHING. *15+3* MEANS R-15 CAVITY INSULATION. PLUS R-3 INSULATED SHEATHING. IF STRUCTURAL SHEATHING COVERS 25% OR LESS OF THE EXTERIOR. $\underline{\textbf{INSULATING SHEATHING IS NOT REQUIRED WHERE THE STRUCTURAL SHEATHING IS USED. IF STRUCTURAL SHEATHING COVERS MORE THAN 25 PERCENT AND ADDRESS MORE THAN 25 PERCENT ADDRESS MORE THAN 25 PERCENT$
- $\underline{\text{OF THE EXTERIOR, SHALL BE SUPPLEMENTED WITH INSULATED SHEATHING OF AT LEAST R-2.}} \ "13 + 2.5" \text{ MEANS R-13 CAVITY}$ i. FOR MASS WALLS, THE SECOND R-VALUE APPLIES WHEN MORE THAN HALF THE INSULATION IS ON THE INTERIOR MASS WALL.
- $\underline{\textbf{PERMITTED TO BE SUBSTITUTED FOR MINIMUM CODE COMPLIANT FENESTRATION PRODUCT ASSEMBLIES WITHOUT PENALTY.}$ k. IN ADDITION TO THE EXEMPTION IN SECTION N1102.3.3, A MAXIMUM OF TWO GLAZED FENESTRATION PRODUCT ASSEMBLIES HAVING A SHGC NO GREATER THAN 0.70 SHALL BE

j. IN ADDITION TO THE EXEMPTION IN SECTION N1102.3.3, A MAXIMUM OF TWO GLAZED FENESTRATION PRODUCT ASSEMBLIES HAVING A U-FACTOR NO GREATER THAN 0.55 SHALL BE

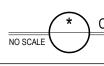
- PERMITTED TO BE SUBSTITUTED FOR MINIMUM CODE COMPLIANT FENESTRATION PRODUCT ASSEMBLIES WITHOUT PENALTY.
- I. R-30 SHALL BE DEEMED TO SATISFY THE CEILING INSULATION REQUIREMENT WHEREVER THE FULL HEIGHT OF UNCOMPRESSED R-30 INSULATION EXTENDS OVER THE WALL TOP PLATE AT THE EAVES. OTHERWISE R-38 INSULATION IS REQUIRED WHERE ADEQUATE CLEARANCE EXISTS OR INSULATION MUST EXTEND TO EITHER THE INSULATION BAFFLE OR WITHIN 1 INCH OF THE ATTIC ROOF DECK.
- m. TABLE VALUE REQUIRED EXCEPT FOR ROOF EDGE WHERE THE SPACE IS LIMITED BY THE PITCH OF THE ROOF; THERE THE INSULATION MUST FILL THE SPACE UP TO THE AIR BAFFLE.

 1. R.-19 FIBERGLASS BATTS COMPRESSED AND INSTALLED IN A NOMINAL 2 × 6 FRAMING CAVITY IS DEEMED TO COMPLY. FIBERGLASS BATTS RATED R-19 OR HIGHER COMPRESSED AND INSTALLED IN A 2X4 WALL IS NOT DEEMED TO COMPLY. 9. BASEMENT WALL MEETING THE MINIMUM MASS WALL SPECIFIC HEAT CONTENT REQUIREMENT MAY USE THE MASS WALL R-VALUE AS THE MINIMUM REQUIREMENT.

1638 SQ. FT. OF CRAWL SPACE / 150 = 10.9 SQ. FT. OF REQ'D VENTILATION WITHOUT CROSS VENTILATION 10.9 SQ. FT. OF VENTILATION REQ'D / 0.88 SQ.FT. PER VENT = 13 VENTS REQ'D1

1638 SQ. FT. OF CRAWL SPACE / 1500 = 1.1 SQ. FT. OF REQ'D VENTILATION WITH CROSS VENTILATION

- 1.1 SQ. FT. OF VENTILATION REQ'D / 0.88 SQ.FT. PER VENT = 2 VENTS REQ'D2 PROVIDE ADEQUATE VENTILATION AT ALL POINTS AND TO PREVENT DEAD AIR POCKETS.
- 2) THE TOTAL AREA OF VENTILATION OPENINGS MAY BE REDUCED TO 1/1500 OF THE CRAWL SPACE GROUND AREA WHERE THE REQUIRED OPENINGS ARE PLACED SO AS TO PROVIDE CROSS VENTILATION OF THE CRAWL SPACE. THE INSTALLATION OF OPERABLE LOUVERS SHALL NOT BE PROHIBITED. ONE FOUNDATION VENT SHALL BE WITHIN 3 FEET OF EACH CORNER OF THE BUILDING. TO PREVENT RAINWATER ENTRY WHEN THE CRAWL SPACE IS BUILT ON A SLOPED SITE, THE UPHILL FOUNDATION WALLS MAY BE CONSTRUCTED WITHOUT WALL VENT OPENINGS. VENT DAMS SHALL BE PROVIDED VHEN THE BOTTOM OF THE FOUNDATION VENT OPENING IS LESS THAN 4 INCHES ABOVE THE FINISHED
- WALL VENTED CRAWL SPACES REQUIRE FULL COVERAGE GROUND VAPOR RETARDERS.



* CRAWL SPACE VENTILATION CALCULATION

1461 SQ. FT. OF ATTIC / 300 = 4.9 SQ. FT. INLETS/OUTLETS REQUIRED

- 1) CALCULATION BASED ON VENTILATORS USED AT LEAST 3'-0" ABOVE THE COMICE VENTS WITH THE BALANCE OF VENTILATION PROVIDED
- CATHEDRAL CEILINGS SHALL HAVE A 1" MINIMUM CLEARANCE BETWEEN THE BOTTOM OF THE ROOF DECK AND THE INSULATION.



DEFINITIONS FOR COMMON ABBREVIATIONS

ALTERNATE CANTILEVER MINIMUM CEILING JOIST = ON CENTER CONCRETE MASONRY UNIT POINT LOAD COL COLUMN CONC CONCRETE PRESSURE TREATED CONTINUOUS REINF REINFORCED COLLAR TIE REQD REQUIRED DOUBLE ROOF SUPPORT DIAMETER = STUD COLUMN DOUBLE JOIST DOUBLE RAFTER SCH = SCHEDULE EACH = SPECIFIED THICK FLOOR JOIST = TRIPLE JOIST FOUNDATION = TREATED TYPICAL FOOTING UNO UNLESS NOTED OTHERWISE GALV GALVANIZED WIDE FLANGE BEAM HORIZ HORIZONTAL HEIGHT WELDED WIRE FABRIC MANUFACTURER EXTRA JOIST

MAXIMUM HEIGHT OF DECK SUPPORT POSTS AS FOLLOWS:

POST SIZE	MAX. POST HEIGHT**
4 x 4	8'-0"
6 x 6	20'-0"
***	OVER 20'-0"

- * THIS TABLE IS BASED ON NO. 2 TREATED SOUTHERN PINE POSTS. MAXIMUM TRIBUTARY AREA IS BASED ON 128 TOTAL SQUARE FEET
- WHICH MAY BE LOCATED AT DIFFERENT LEVELS. ** FROM TOP OF FOOTING TO BOTTOM OF GIRDER
- *** DECKS WITH POST HEIGHTS OVER 20'-0" SHALL BE DESIGNED AND SEALED BY A PROFESSIONAL ENGINEER OR REGISTERED ARCHITECT.
- 2) DECKS SHALL BE BRACED TO PROVIDE LATERAL STABILITY BY ONE OF
- A. THE DECK FLOOR HEIGHT IS LESS THAN 4'-0" AND THE DECK IS
- ATTACHED TO THE STRUCTURE IN ACCORDANCE WITH SECTION (4) ABOVE. LATERAL BRACING IS NOT REQUIRED. B. 4 x 4 WOOD KNEE BRACES MAY BE PROVIDED ON EACH COLUMN IN BOTH DIRECTIONS. THE KNEE BRACES SHALL ATTACH TO EACH POST AT A POINT NOT LESS THAN 1/3 OF THE POST LENGTH FROM THE TOP OF THE POST, AND THE BRACES SHALL BE ANGLED BETWEEN 45° AND 60° FROM THE HORIZONTAL. KNEE BRACES SHALL BE BOLTED
- BOLT AT EACH END OF THE BRACE. C. FOR FREESTANDING DECKS WITHOUT KNEE BRACES OR DIAGONAL BRACING, LATERAL STABILITY MAY BE PROVIDED BY EMBEDDING THE

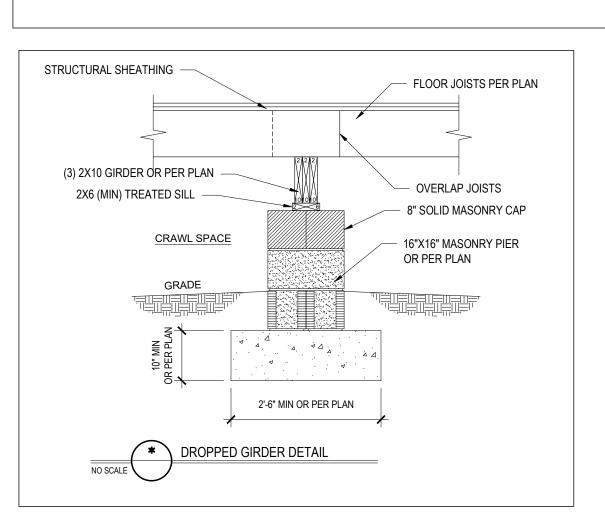
POSTS IN ACCORDANCE WITH THE FOLLOWING:

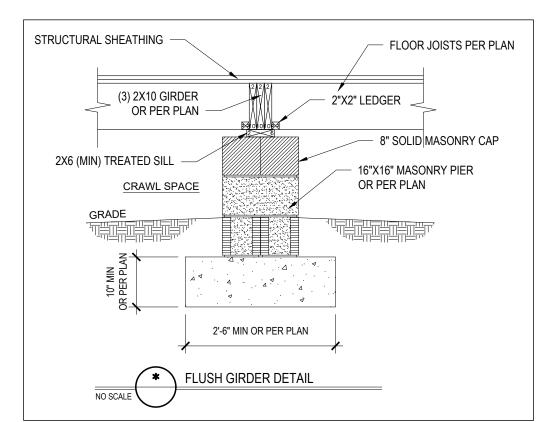
TO THE POST AND GIRDER WITH ONE 5/8"Ø HOT DIPPED GALVANIZED

Г				<u> </u>	
	POST SIZE	MAX. TRIBUTARY AREA	MAX. POST HEIGHT	EMBEDMENT DEPTH	CONCRETE DIAMETER
	4 x 4	48 SQ. FT.	4'-0"	2'-6"	1'-0"
	6 x 6	120 SQ. FT.	6'-0"	3'-6"	1'-8"

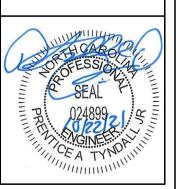
D. 2 x 6 DIAGONAL VERTICAL CROSS BRACING MAY BE PROVIDED IN TWO (2) PERPENDICULAR DIRECTIONS FOR FREESTANDING DECKS OR PARALLEL TO THE STRUCTURE AT THE EXTERIOR COLUMN LINE FOR ATTACHED DECKS. THE 2 x 6s SHALL BE ATTACHED TO THE POSTS WITH ONE 5/8"Ø HOT

DIPPED GALVANIZED BOLT AT EACH END OF EACH BRACING MEMBER. E. FOR EMBEDMENT OF PILES IN COASTAL REGIONS, SEE CHAPTER 46.





rocedures or safety precaution. Any deviations or discrepancies on plans ar to be brought to the immediate attention of Tyndall Engineering & Design, P.A. Failure do so will void Tyndall Engineering & Desig Please review these documents carefully Tyndall Engineering & Design, P.A. will interpret that all dimensions, etc. presented in these documents were



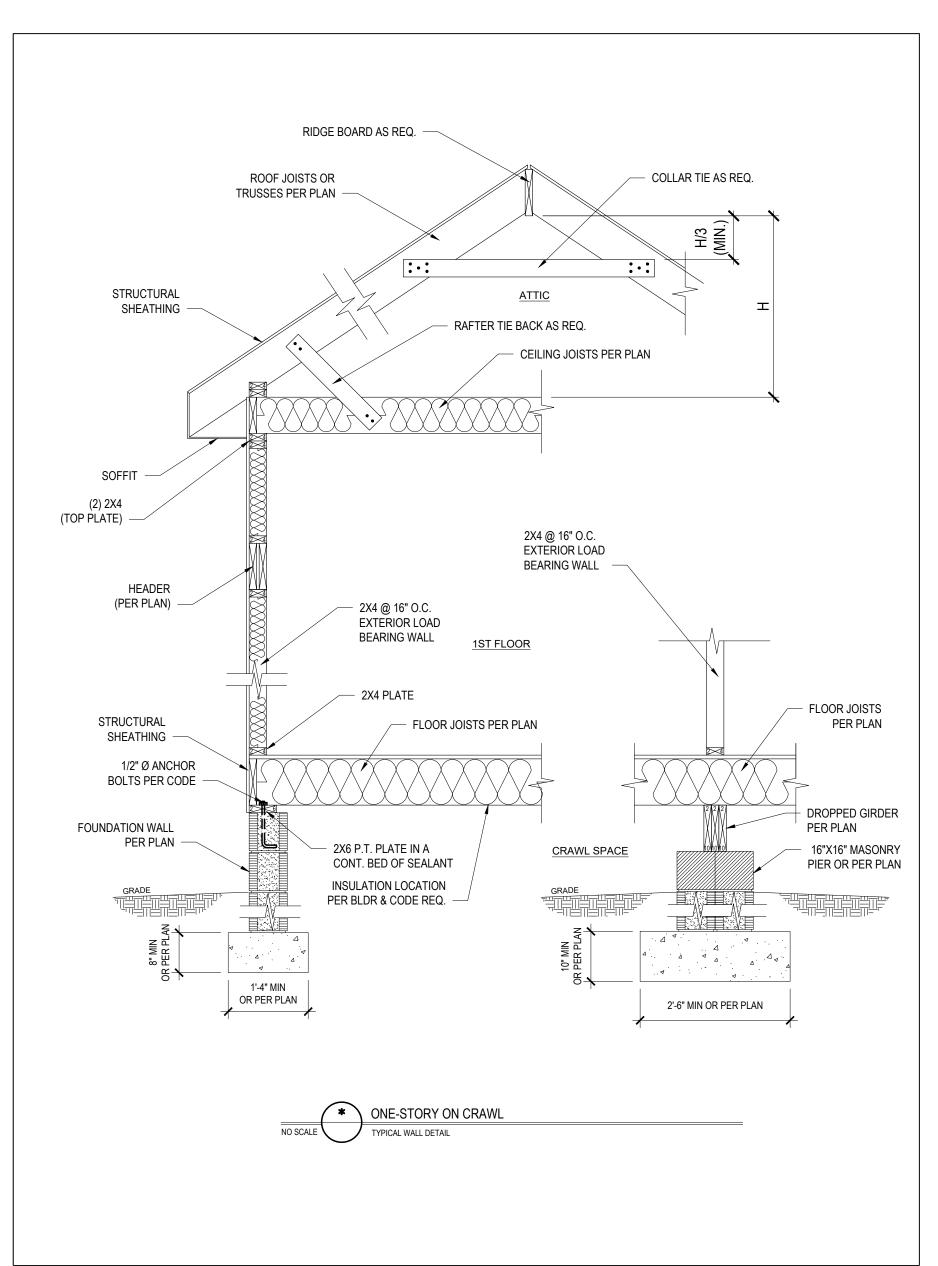


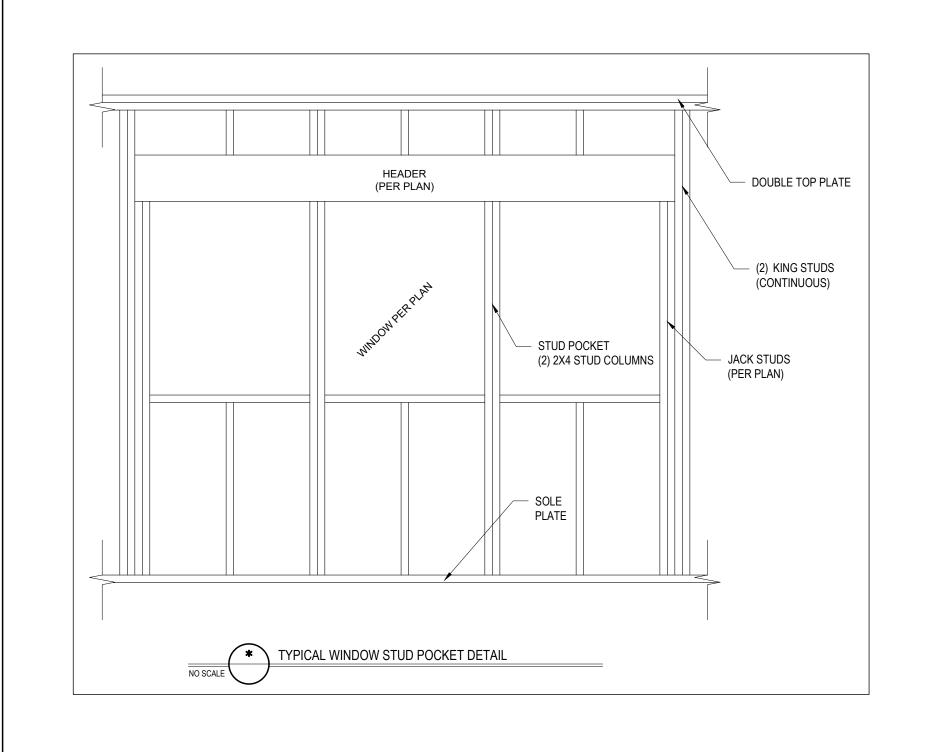
2101-010350 10/20/2021 Drawn/Design By: DWG. Checked By:

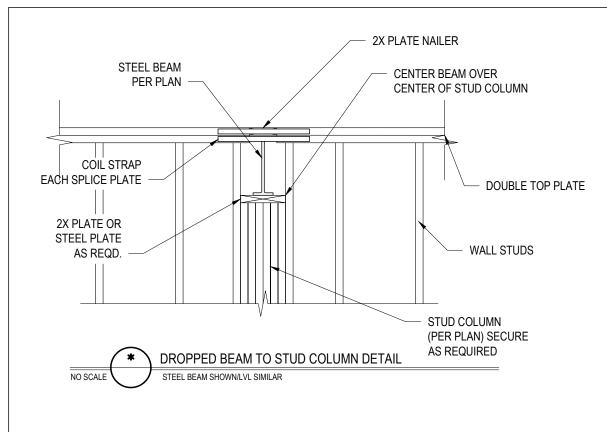
PTII SEE PLAN

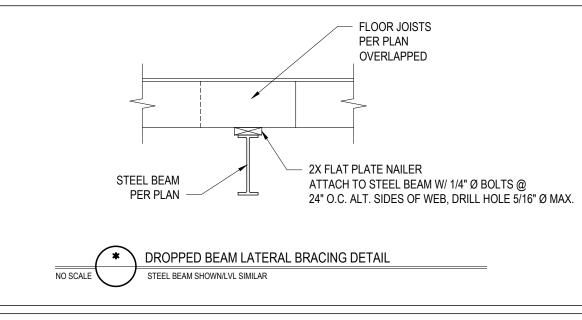
REVISIONS Date:

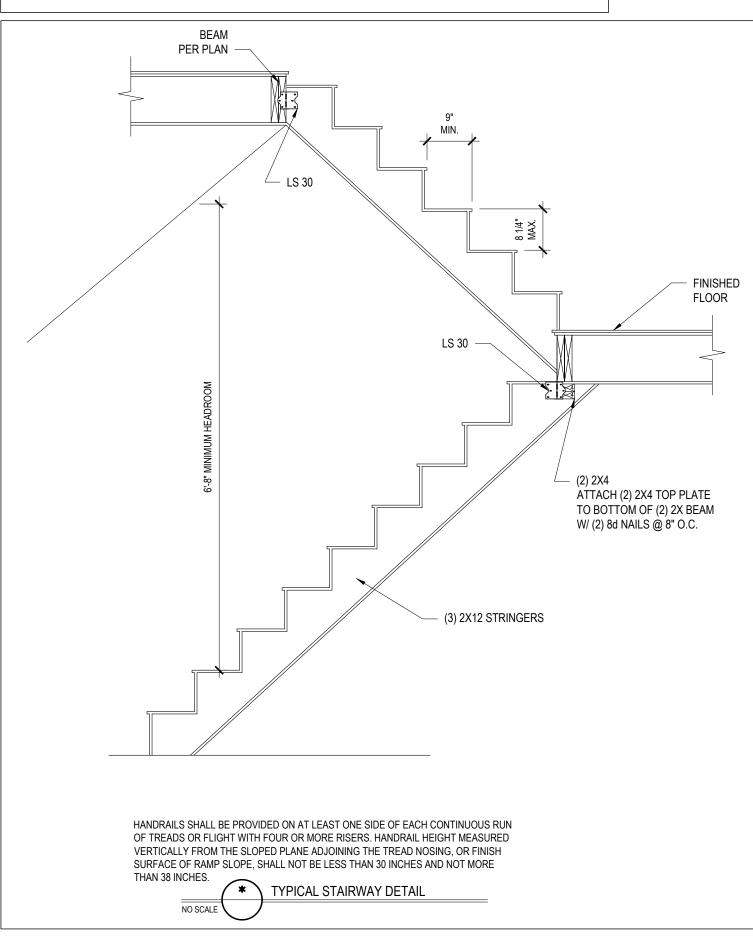
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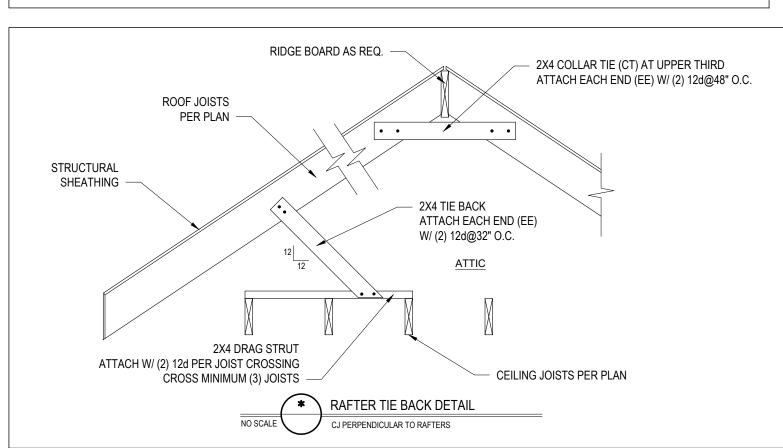




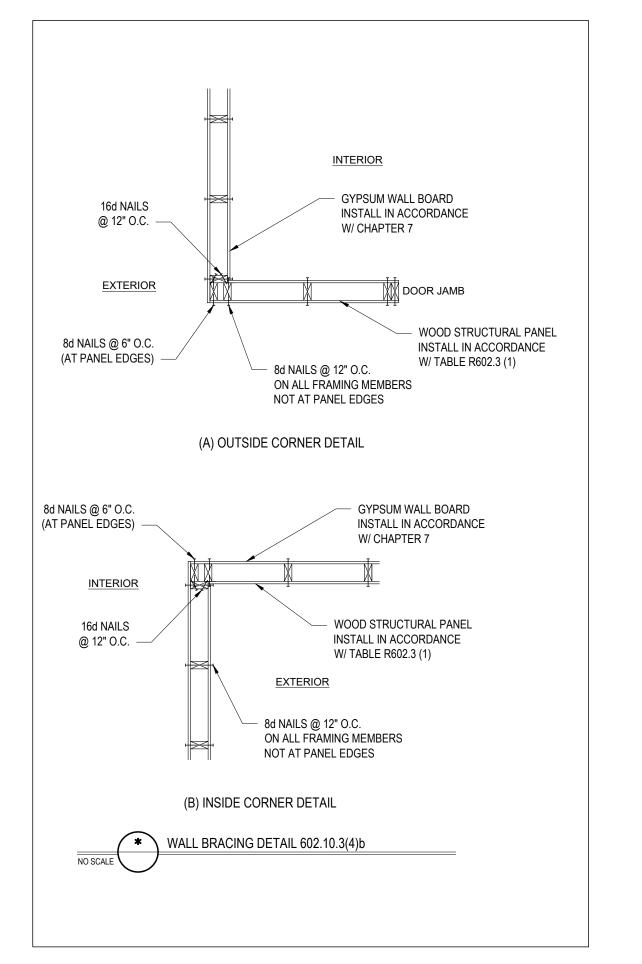








SIMPSON STRONG-TIE	USP STRUCTURAL CONNECTORS
PRODUCT NUMBER	PRODUCT NUMBER
A35	MPA1
ABE	PAE
CBSQ	CBSQ
CCQ	KCCQ
CMSTC16	CMSTC16
CS	RS
H1	RT15
H2.5A	RT7A
H10	RT16
HDQ8-SDS3	UPHD8
HDU2-SDS2.5	PHD2
HDU5-SDS2.5	PHD5
HETA	НТА
HGAM10KTA	HGAM
HHDQ14-SDS2.5	UPHD14
HTS	HTW
нтт	HTT
HUS	HUS
LTA1	LPTA
LTHJA26	HJC26
LTP4	MP4F
LUS	JUS
MAS	FA3
MSTAM	MSTAM
PC	PCM
PHD-SDS3	PHD
SSP	RSPT6
STC	TR1
STHD	STAD



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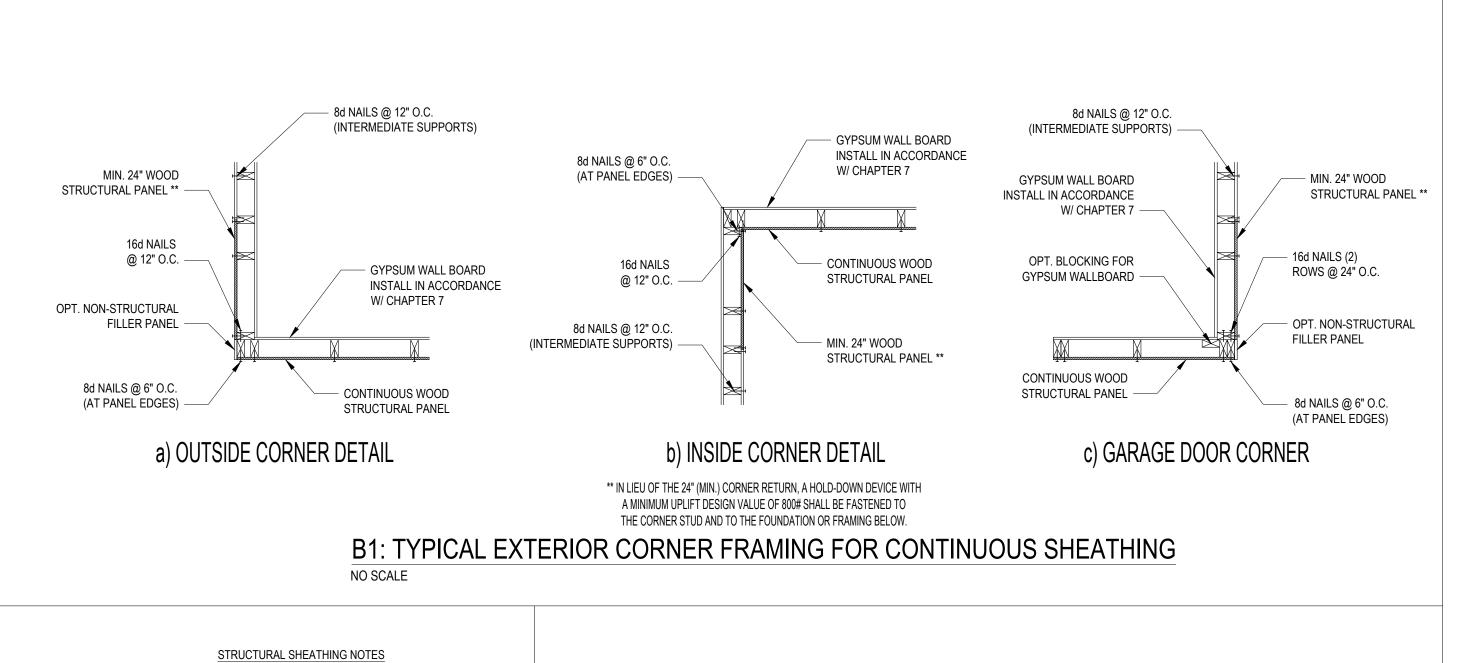
STANDARI DETAILS

2101-010350 10/20/2021 Drawn/Design By:

DWG. Checked By: PTII SEE PLAN

REVISIONS No. Date:

Sheet Number



DESIGNED FOR SEISMIC ZONE A-C AN

 DESIGNED FOR SEISMIC ZONE A-C AND WIND SPEEDS OF 120 MPH OR LESS.

 WALLS SHALL BE BRACED IN ACCORDANCE WITH SECTION R602.10 OF THE 2018 NCRC
 BRACING REQUIREMENTS SHALL BE PER TABLE R602.10.3. REFER TO SECTION R602.10.4 FOR LOAD PATH DETAILS INCLUDING CONNECTIONS & SUPPORT OF BRACED WALL DAMES OF THE PROPERTY OF STATES OF THE PROPERTY OF THE PROPERTY

1 REFERENCE FIGURE R602.10.4.3 OF THE 2018 NCRC.

4. INTERIOR BRACED WALL PANELS (BWP) INDICATED SHALL
BE SHEATHED IN ACCORDANCE WITH THE GB METHOD OR
WSP METHOD AS PRESCRIBED IN SECTION R602.10.1 (UNO)

2. 1/2" CYPSI IM BOARD (CR) MINIMUM LENGTH OF 8" 0"

2 1/2" GYPSUM BOARD (GB) MINIMUM LENGTH OF 8'-0" (ISOLATED PANELS) OR 4'-0" (CONTINUOUS SHEATHING)

3) 3/8" WOOD STRUCTURAL PANEL)WSP) SECURE W/ 6d COMMON NAILS SPACED AT 6" O.C. AT PANEL EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS

EXTERIOR BRACED WALL PANELS (BWP) SHALL BE
 CONSTRUCTED IN ACCORDANCE WITH CS-WSP METHOD
 AS PRESCRIBED IN SECTION R602.10.3 (UNO)
 ALL SHEATHARLE SLIBEACES OF EXTERIOR WALLS.

6. ALL SHEATHABLE SURFACES OF EXTERIOR WALLS
(INCLUDING AREAS ABOVE AND BELOW OPENINGS AND
GABLE END WALLS) SHALL BE CONTINUOUSLY SHEATHED
WITH WOOD STRUCTURAL PANEL (WSP) SHEATHING WITH
A MINIMUM THICKNESS OF 3/8". SHEATHING SHALL BE
SECURED WITH MINIMUM 6d COMMON NAILS SPACED AT 6"
O.C. AT PANEL EDGES AND SPACED AT 12" O.C. AT
INTERMEDIATE SUPPORTS.

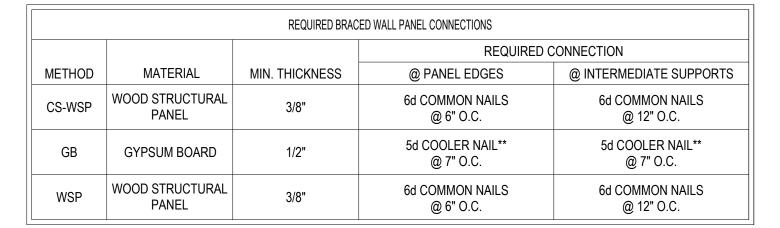
7. MINIMUM BRACED WALL PANEL LENGTHS WITH CS-WSP METHOD SHALL BE AS FOLLOWS:

 24" ADJACENT TO OPENINGS NOT MORE THAN 67% OF WALL HEIGHT
 30" ADJACENT TO OPENINGS GREATER THAN 67% AND LESS THAN 85% OF WALL HEIGHT
 48" FOR OPENINGS GREATER THAN 85% OF WALL

4 SHEATH INTERIOR AND EXTERIOR

8. FOR CS-WSP METHOD, A MINIMUM 24" BRACED WALL PANEL CORNER RETURN SHALL BE PROVIDED AT BOTH ENDS OF A BRACED WALL LINE IN ACCORDANCE WITH FIGURE R602.10.3 (4). IN LIEU OF A CORNER RETURN, EITHER A MINIMUM 48" BRACED WALL PANEL SHALL BE PROVIDED AT THE CORNER OR A HOLD-DOWN DEVICE WITH A MINIMUM UPLIFT DESIGN VALUE OF 800# SHALL BE FASTENED TO THE EDGE OF THE BRACED WALL PANEL CLOSEST TO THE CORNER AND TO THE FOUNDATION OR FRAMING BELOW

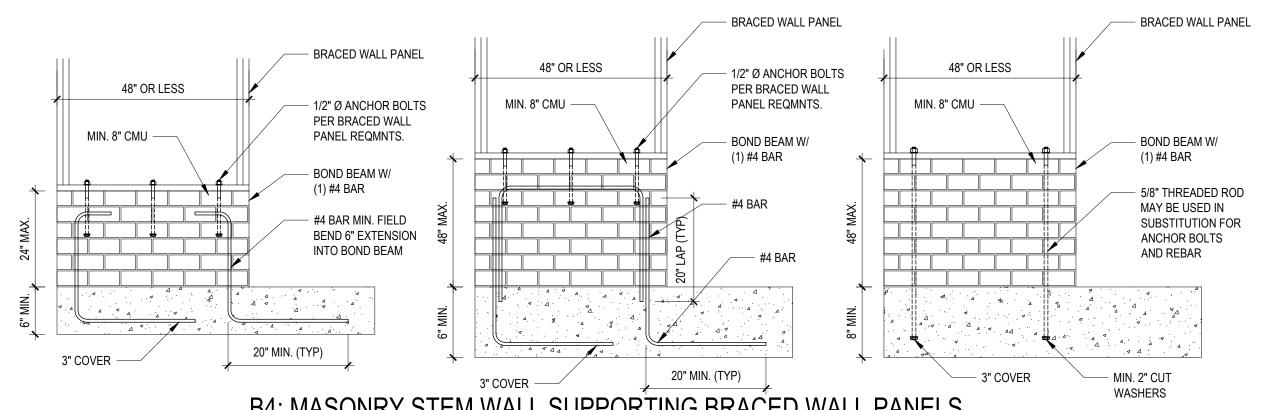
5 MINIMUM 800# HOLD-DOWN DEVICE



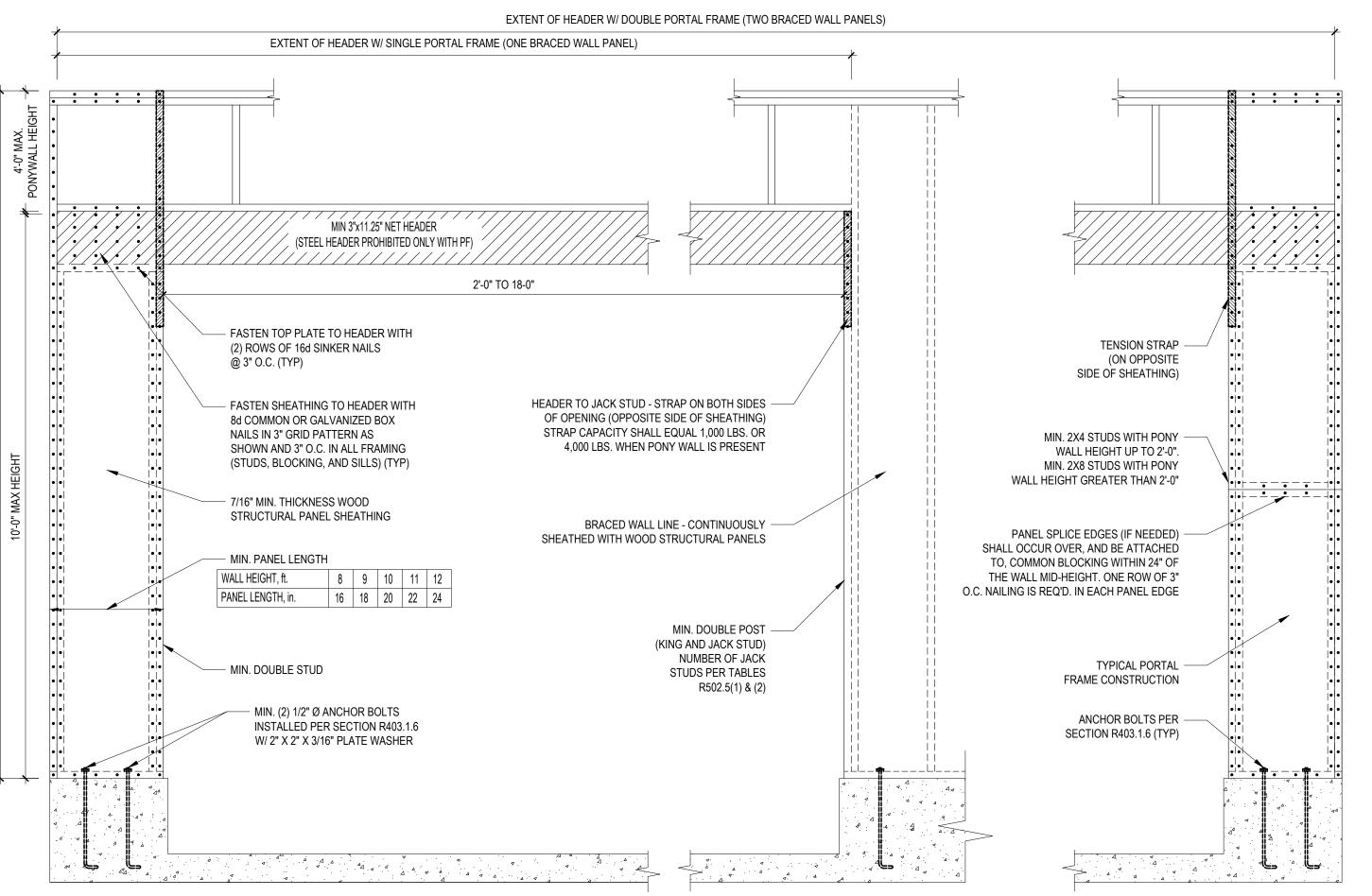
**OR EQUIVALENT PER TABLE R702.3.5

B3: BRACE WALL PANEL CONNECTIONS

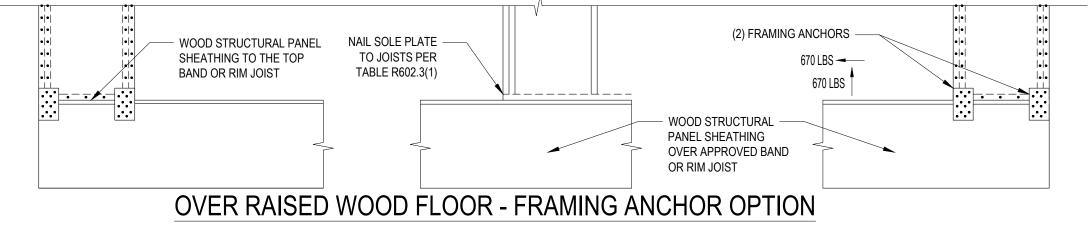
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B4: MASONRY STEM WALL SUPPORTING BRACED WALL PANELS
FIGURE R602.10.4.3 OF THE 2018 NCRC
NOTE: GROUT BOND BEAMS AND ALL CELLS WHICH CONTAIN REBAR, THREADED RODS AND ANCHOR BOLTS



OVER CONCRETE OR MASONRY BLOCK FOUNDATION



(WHEN PORTAL SHEATHING DOES NOT LAP OVER BAND OR RIM JOIST)

ATTACH SHEATHING TO BAND

OR RIM JOIST WITH 8d COMMON

SHEATHING TO THE TOP
BAND OR RIM JOIST

TABLE R602.3(1)

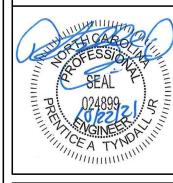
WOOD STRUCTURAL
PANEL SHEATHING
OVER APPROVED BAND
OR RIM JOIST

WOOD STRUCTURAL
PANEL SHEATHING
OVER APPROVED BAND
OR RIM JOIST

OVER RAISED WOOD FLOOR - OVERLAP OPTION
(WHEN PORTAL SHEATHING LAPS OVER BAND OR RIM JOIST)

B2: METHOD CS-PF: CONTINUOUSLY SHEATHED PORTAL FRAME FIGURE R602.10.1

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ENGINEERING & DESIGN, P.A.

F919 773-1200 = 1 919 773-9458

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Plan:
THE COOL MEADOW

SHEATHING DETAILS

Project #:
2101-010350

Date:
10/20/2021

Drawn/Design By:
SAI

DWG. Checked By:
PTII

Scale:
SEE PLAN

REVISIONS

Date: Remarks

Sheet Number

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