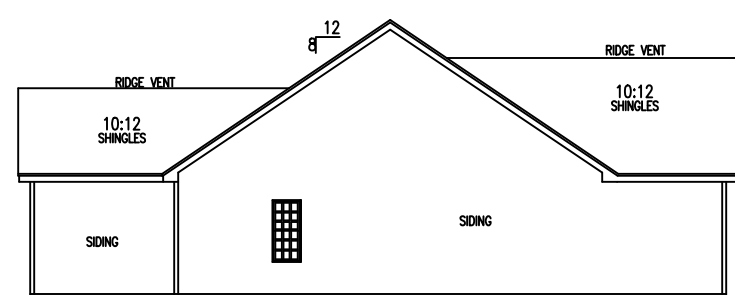
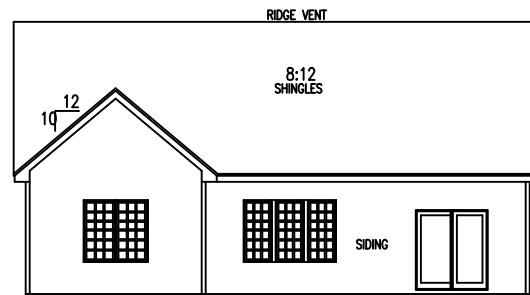




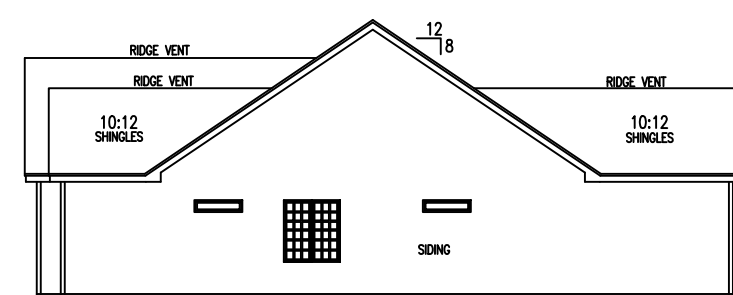
FRONT ELEVATION "B"



LEFT ELEVATION



REAR ELEVATION



RIGHT ELEVATION

ATTIC SPACE VENTILATION	
REQUIRED	
2047	SQ. FT. OF CLG. / 150 = 13.65 SQ. FT. REQUIRED
REFER TO SECTION R806 (ROOF VENTILATION) IN 2012 NORTH CAROLINA STATE; 2009 INTERNATIONAL RESIDENTIAL BUILDING CODES.	

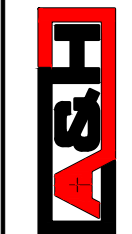
MEAN ROOF HGT.			
Soffit Hgt. From Assumed Grade	+ Highest Ridge Hgt. From Assumed Grade	÷ 2	= Mean Roof Hgt.
9'-10"	+ 23'-2"	÷ 2	= 16'-6" Mean Roof Hgt.

SCALE
24"x36" = 1/4"=1'-0"
11"x17" = 1/8"=1'-0"

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FIRM # C-4187

ADAMS & HODGE
ENGINEERING, P.C.



Elevation "B"

Nicklaus

FILE

DESIGN
ADS

DRAWN
ADS

CHECKED

DATE
03/12/2019

SHEET

1B



1901-010093

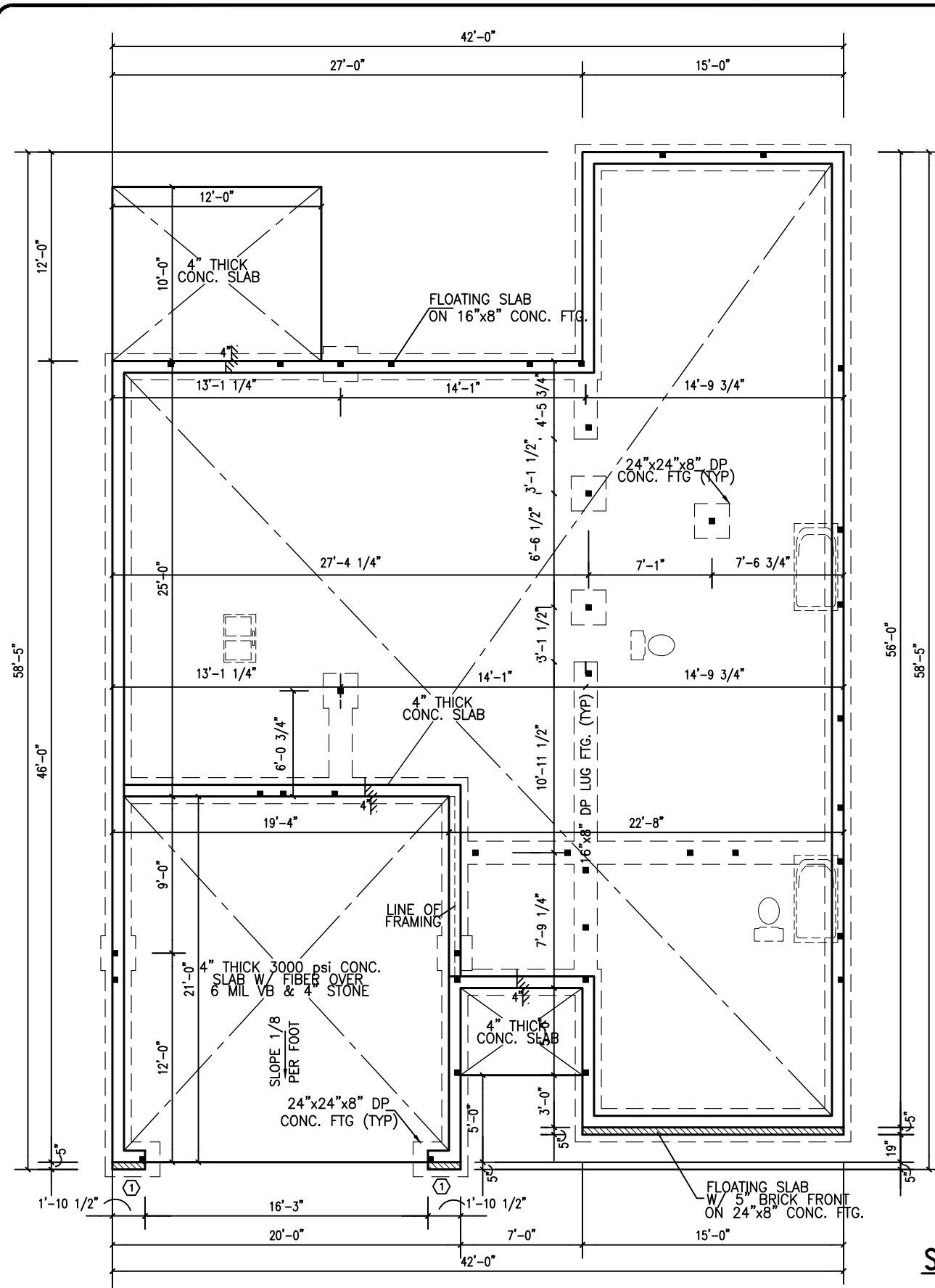
Project Number: 1901-010093
*Structural analysis based on NC Residential Building Code 2018

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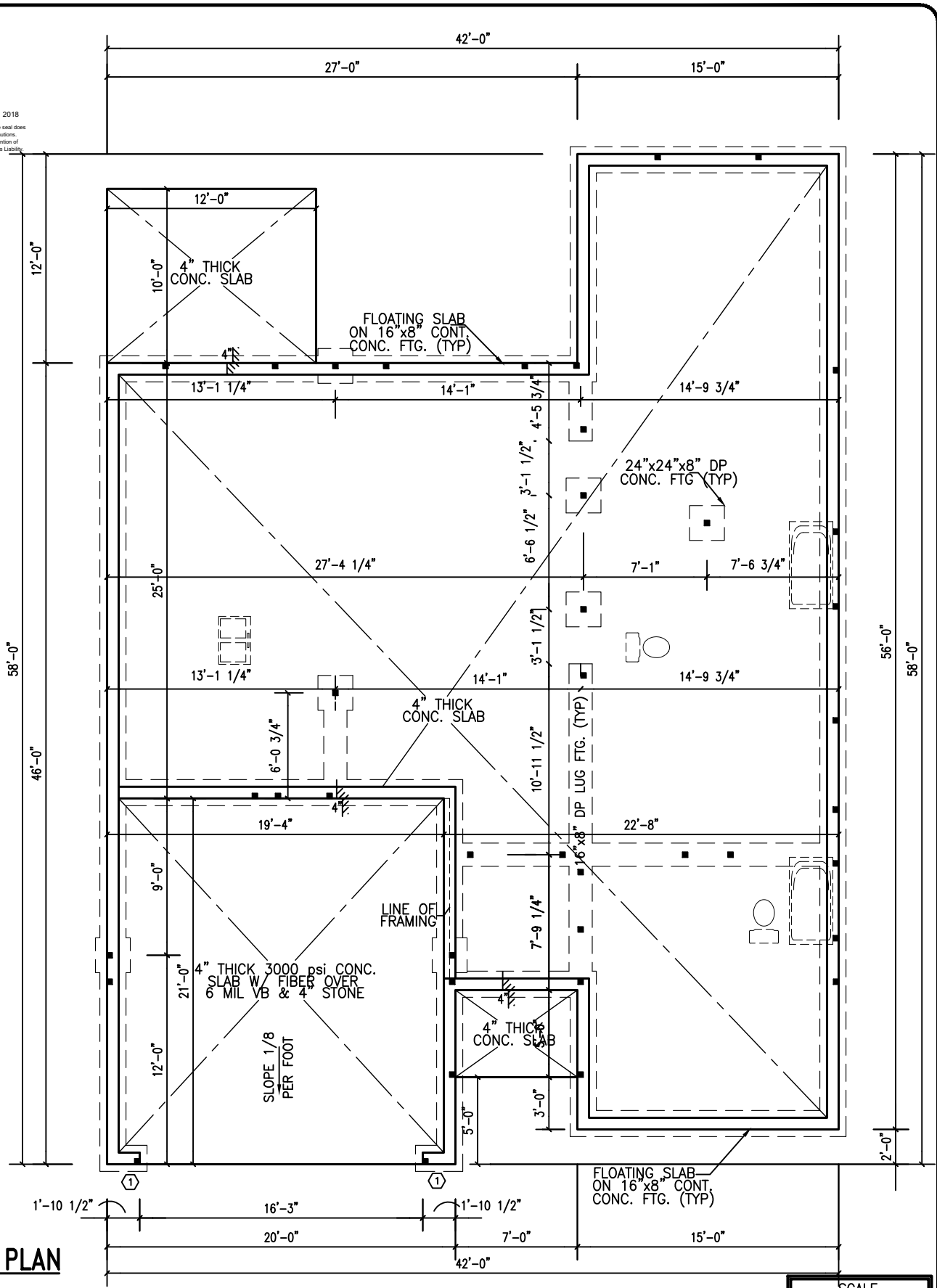
1 REFERENCE R602.10.7



SLAB FOUNDATION PLAN



ELEVATION "B"



ELEVATION "A" & "C"

SCALE	
24"x36" = 1/4"=1'-0"	
11"x17" = 1/8"=1'-0"	

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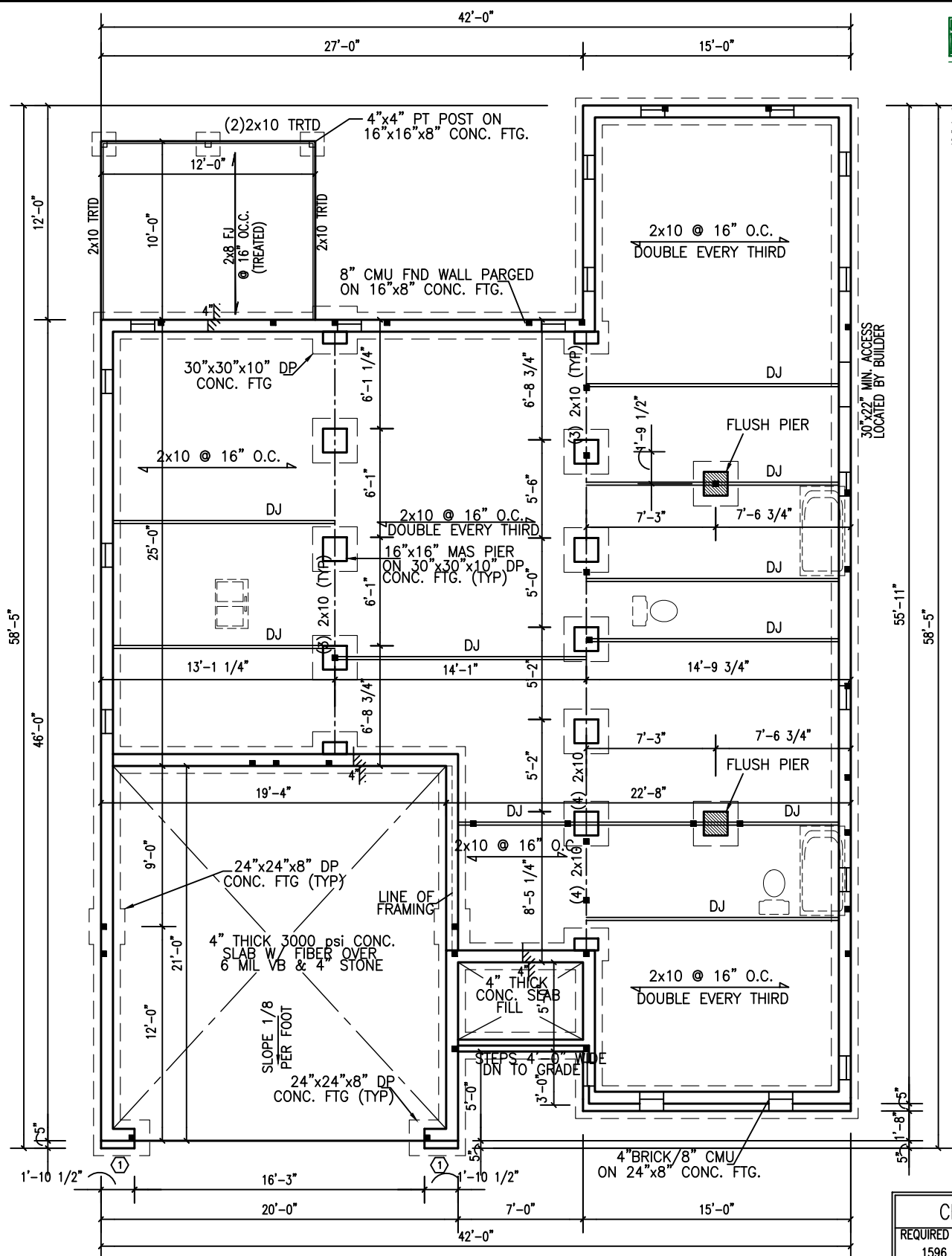


Floating Slab Foundation

Nicklaus

FILE
DESIGN ADS
DRAWN ADS
CHECKED

DATE 03/12/2019
SHEET

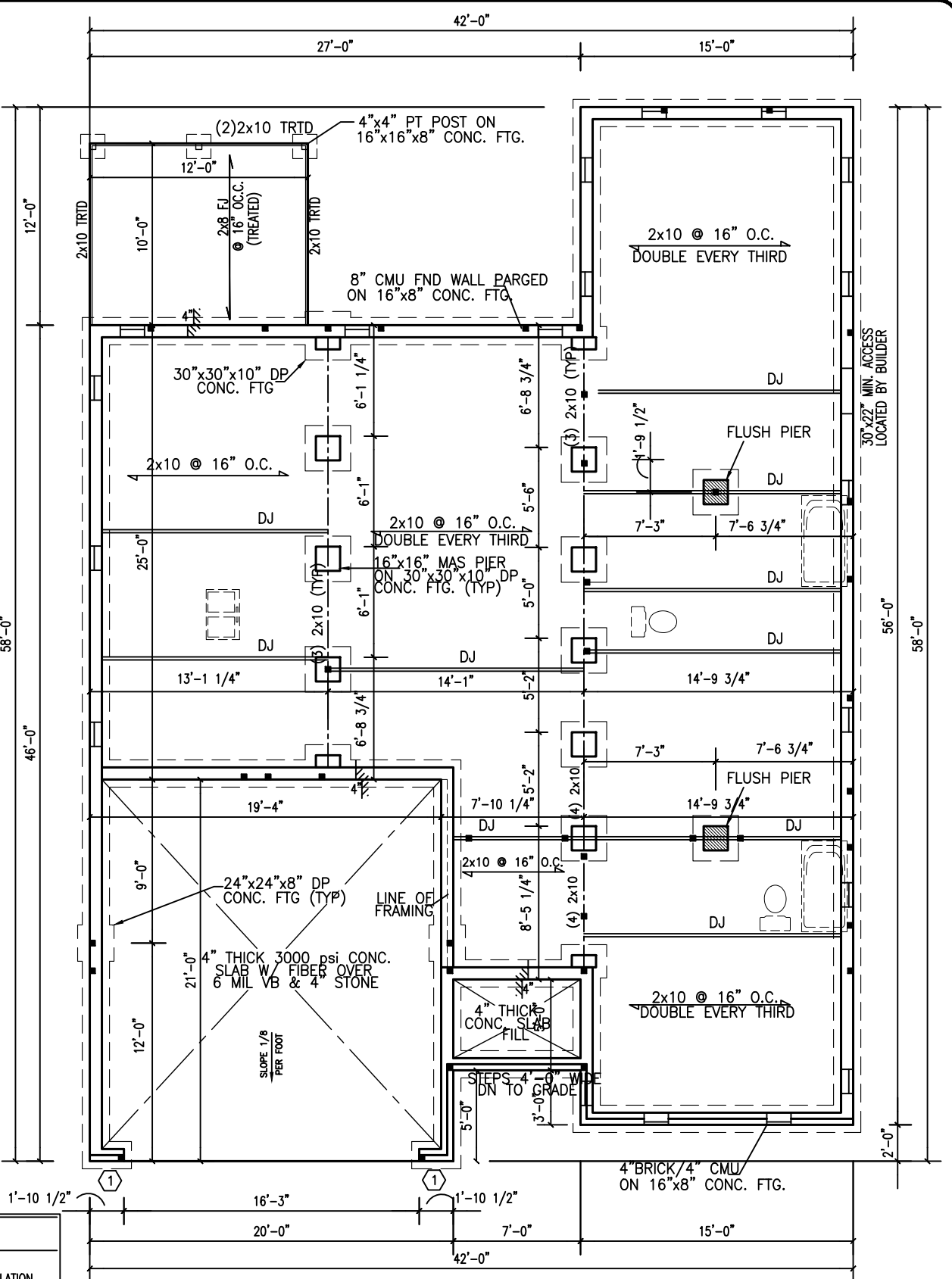


ELEVATION "B"



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 *Structural analysis based on NC Residential Building Code 2018
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1 REFERENCE R602.10.7



ELEVATION "A" & "C"

CRAWL SPACE VENTILATION	
REQUIRED	1596 SQ. FT. / 150 = 10.64 SQ. FT. OF VENTILATION
PROVIDED	0.6 SQ. FT. / VENT = 18 VENTS = 10.8 (SQ. FT. OF VENTILATION)
THE MINIMUM NET AREA OF VENTILATION OPENINGS SHALL NOT BE LESS THAN 1 SQ. FT. FOR EA. 150 SQ. FT. OF UNDER-FLOOR SPACE AREA. ONE SUCH VENTILATING OPENING SHALL BE WITHIN 3 FT. OF EA. CORNER OF SAID BUILDING.	

CRAWLSPACE FOUNDATION PLAN

SCALE	
24"x36"	= 1/4"=1'-0"
11"x17"	= 1/8"=1'-0"

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Crawlspace Foundation

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FILE

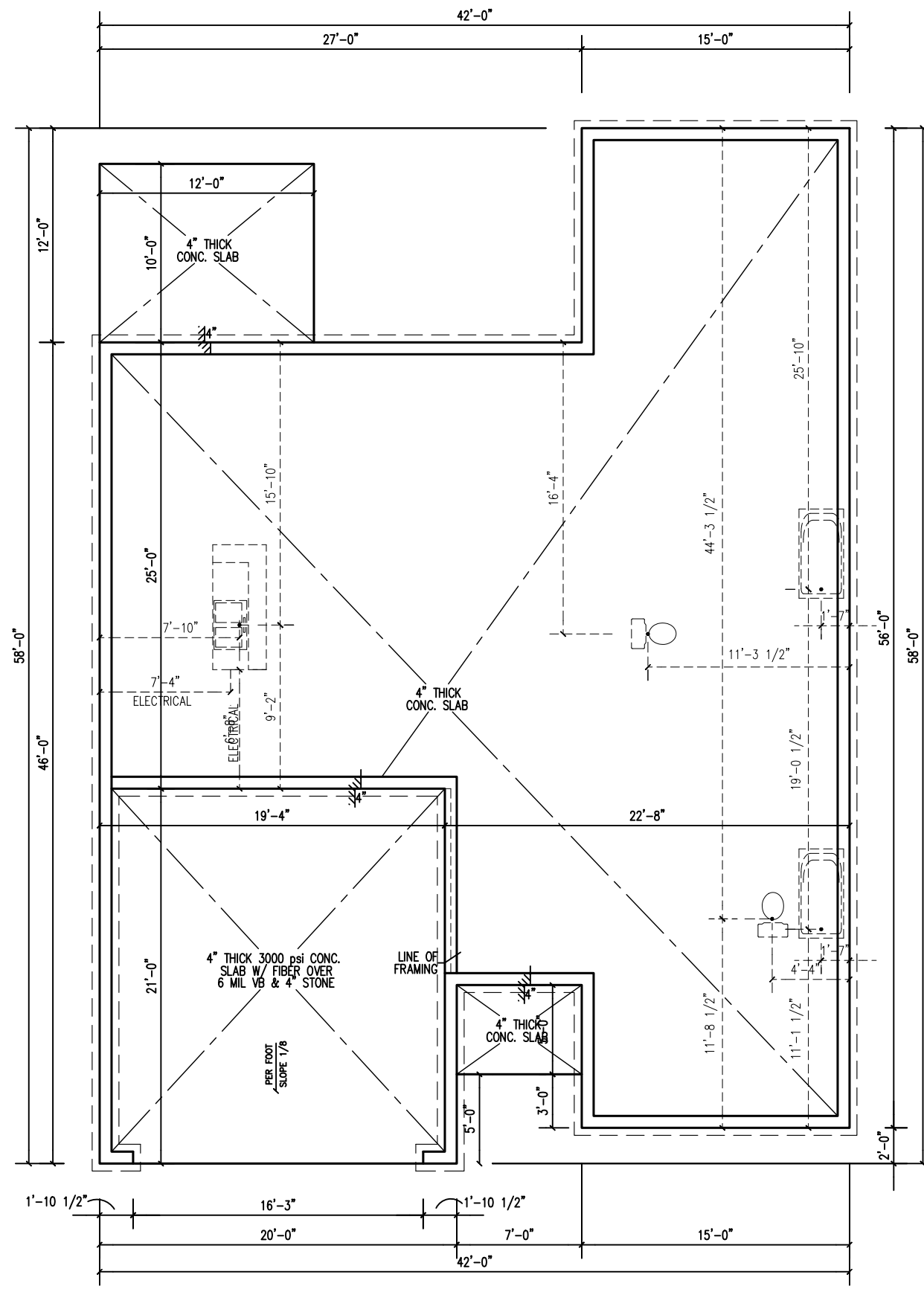
DESIGN ADS

DRAWN ADS

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DATE 03/12/2019

SHEET 2



PLUMBING LAYOUT

SCALE
 24"x36" = 1/4"=1'-0"
 11"x17" = 1/8"=1'-0"

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ADAMS & HODGE ENGINEERING, P.C.	
	
Plumbing Layout	
Nicklaus	
FILE	
DESIGN	ADS
DRAWN	ADS
CHECKED	
DATE	03/12/2019
SHEET	2A



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RS = ROOF SUPPORT

DESIGN LOADS

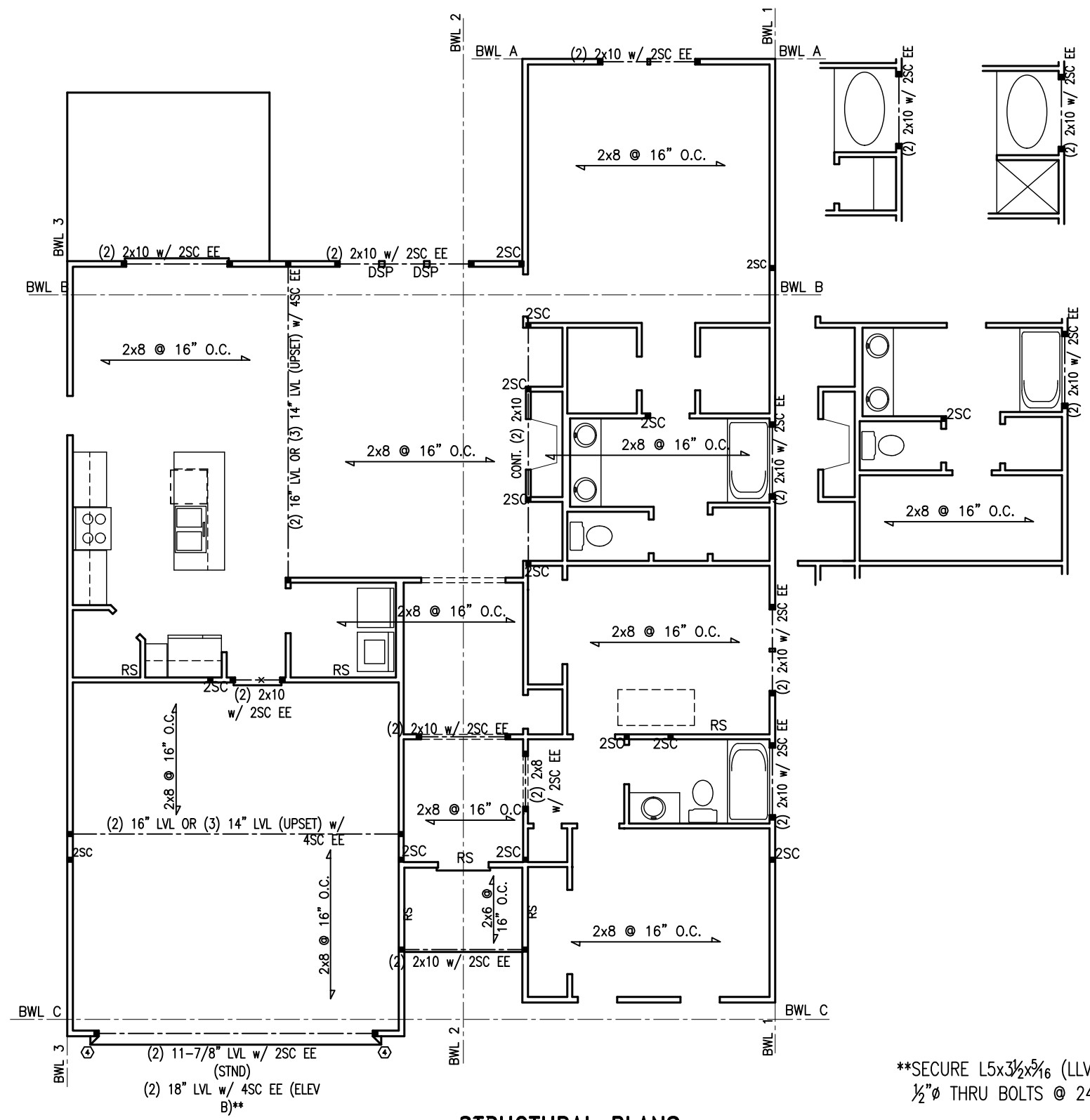
	LIVE LOAD (PSF)	DEAD LOAD (PSF)	DEFLECTION	
			LL	TL
FLOOR (primary)	40	10	L/360	L/240
FLOOR (secondary)	40	10	L/360	L/240
ATTIC (w/ storage)	20	10	L/240	L/180
ATTIC (no access)	10	5	L/240	L/180
EXTERNAL BALCONY	40	10	L/360	L/240
ROOF	20	10	L/240	L/180
ROOF TRUSS	20	20	L/240	L/180
WIND LOAD	BASED ON 120 MPH (EXPOSURE B)			
SEISMIC	BASED ON SEISMIC ZONES A, B & C			

STRUCTURAL SHEATHING NOTES

- 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 NCCRC.
- 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.
 - REFERENCE FIGURE R602.10.4.3 OF THE 2018 NCCRC.
- 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)
 - 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
- EXTERIOR BRACED WALL PANELS (BWP) SHALL BE CONSTRUCTED IN ACCORDANCE WITH CS-WSP METHOD AS PRESCRIBED IN SECTION R602.10.3 (UNO)
- 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 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
- SHEATH INTERIOR & EXTERIOR
 - 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.

BRACING PANEL LENGTHS REQUIRED:
 BWL A = 2.3 FT
 BWL B = 8.3 FT
 BWL C = 6.0 FT
 BWL 1 = 2.7 FT
 BWL 2 = 5.9 FT
 BWL 3 = 3.2 FT

BRACING PANEL LENGTHS PROVIDED:
 BWL A = 9.5 FT CS-WSP
 BWL B = 13.33 FT CS-WSP
 BWL C = 14.08 FT CS-WSP
 BWL 1 = 43.17 FT CS-WSP
 BWL 2 = 27.5 FT CS-WSP/CS-GB
 BWL 3 = 43.67 FT CS-WSP



STRUCTURAL PLANS

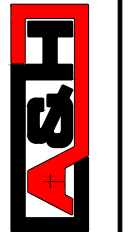
**SECURE L5x3 1/2 x 5/16 (LLV) LINTEL w/ 1/2" THRU BOLTS @ 24" O.C.

SCALE
 24"x36" = 1/4"=1'-0"
 11"x17" = 1/8"=1'-0"

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Structural Plan

Nicklaus

FILE
 DESIGN ADS
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3

PROVIDE SIMPSON H2.5A @ EACH RAFTER
(TYP @ SCREEN PORCHES & VAULTED AREAS)

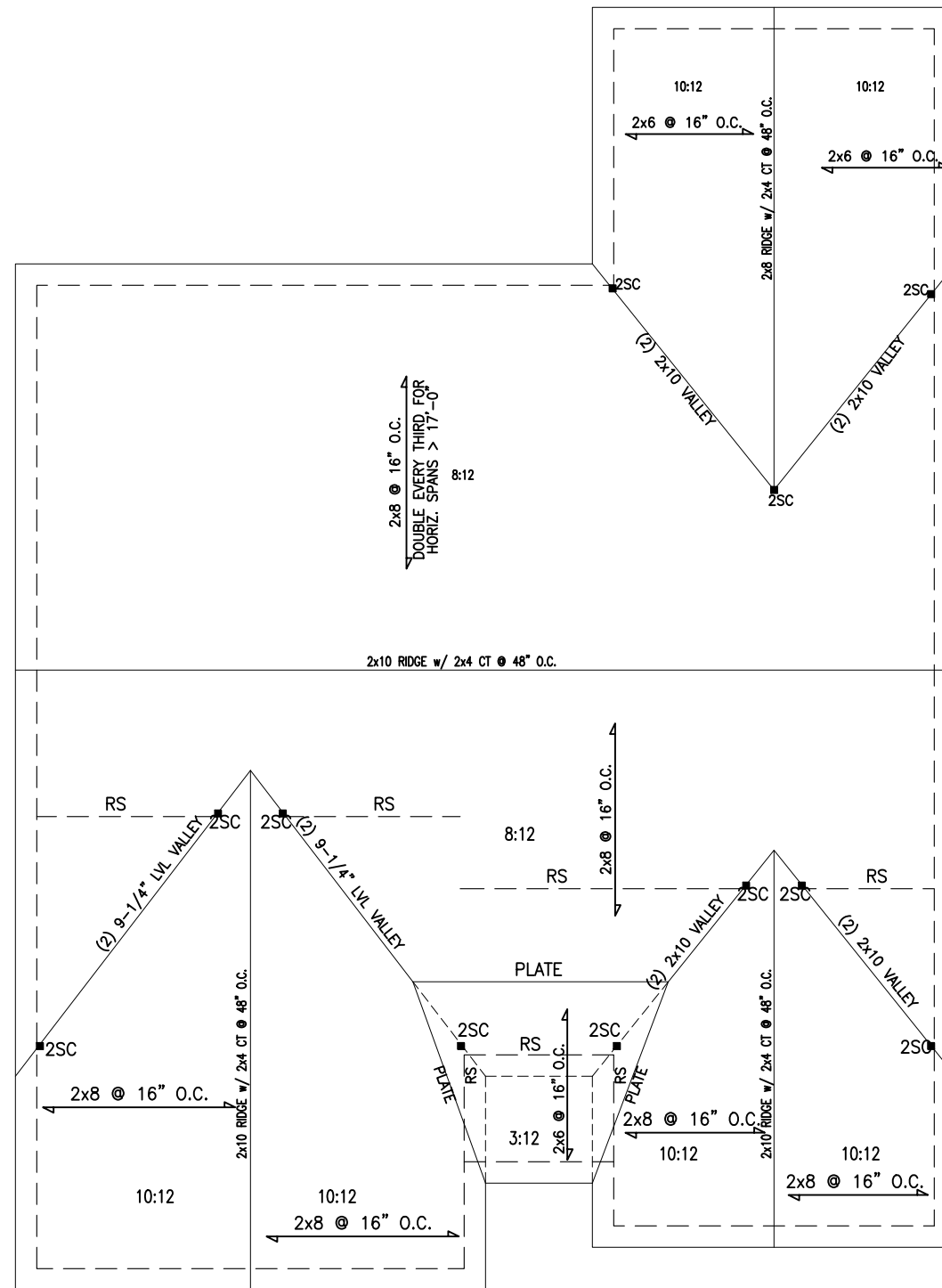
RS = ROOF SUPPORT



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* Structural analysis based on NC Residential Building Code 2018

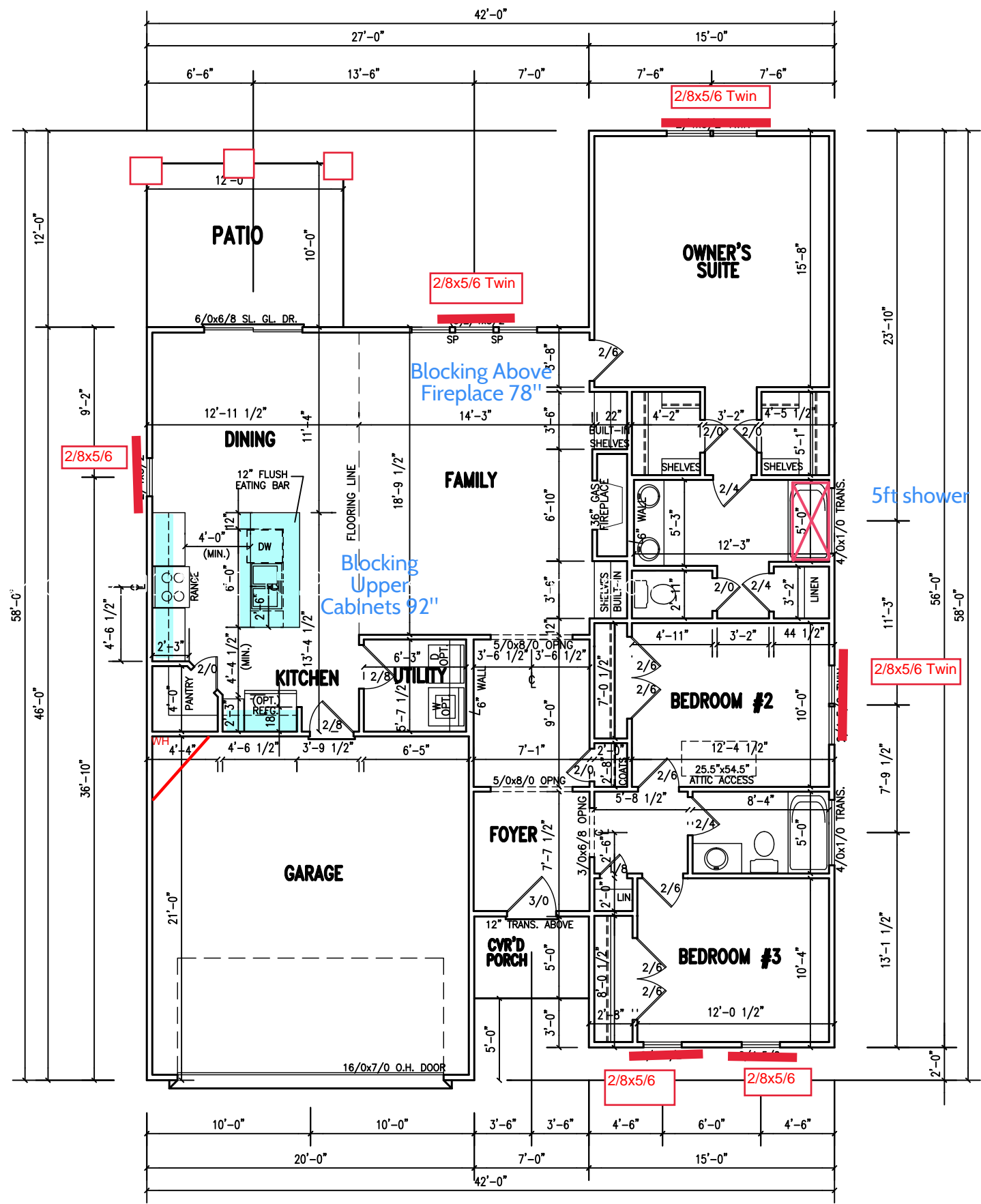
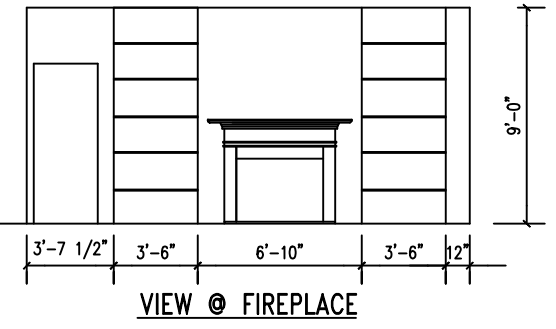
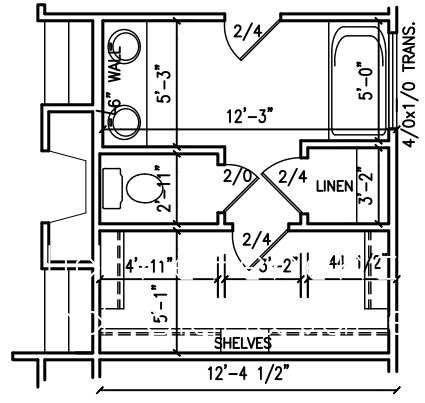
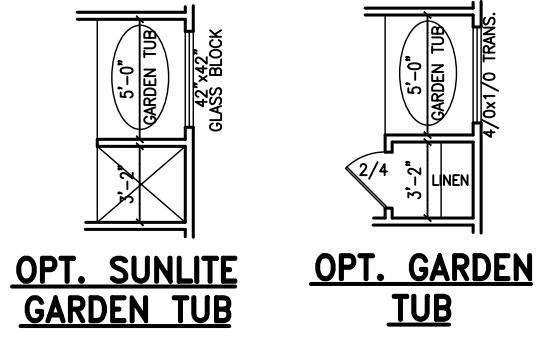
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ROOF FRAMING PLAN

SCALE
24"X36" = 1/4"=1'-0"
11"X17" = 1/8"=1'-0"

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ADAMS & HODGE ENGINEERING, P.C.	
Roof Framing	Nicklaus
FILE	
DESIGN ADS	
DRAWN ADS	
CHECKED	
DATE 03/12/2019	
SHEET	4



SQUARE FOOTAGE	
1ST FLOOR HTD.	1596
TOTAL	1596
GARAGE	416
PATIO	120
ELEVATION "A" PORCH	35
ELEVATION "B" PORCH	35
ELEVATION "C" PORCH	35

- NOTES:**
- 9'-0" CLG. HGT. (9'-1 1/2" PLT. HGT.) UNLESS OTHERWISE NOTED.
 - ALL EXTERIOR WALLS FIGURED AT 4" NOMINAL WIDTHS UNLESS OTHERWISE NOTED.
 - ALL INTERIOR WALLS FIGURED AT 3 1/2" WIDTHS UNLESS OTHERWISE NOTED.
 - SET WINDOWS AT 7'-6" A.F.F. UNLESS OTHERWISE NOTED.
 - DIMENSIONS ARE TO FRAMING UNLESS OTHERWISE NOTED.

SCALE	
24" x 36" = 1/4" = 1'-0"	
11" x 17" = 1/8" = 1'-0"	

REVISIONS:

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 CLAYTON, NC 27527
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 919-763-7278
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A&H

Floor Plan

Nicklaus

FILE

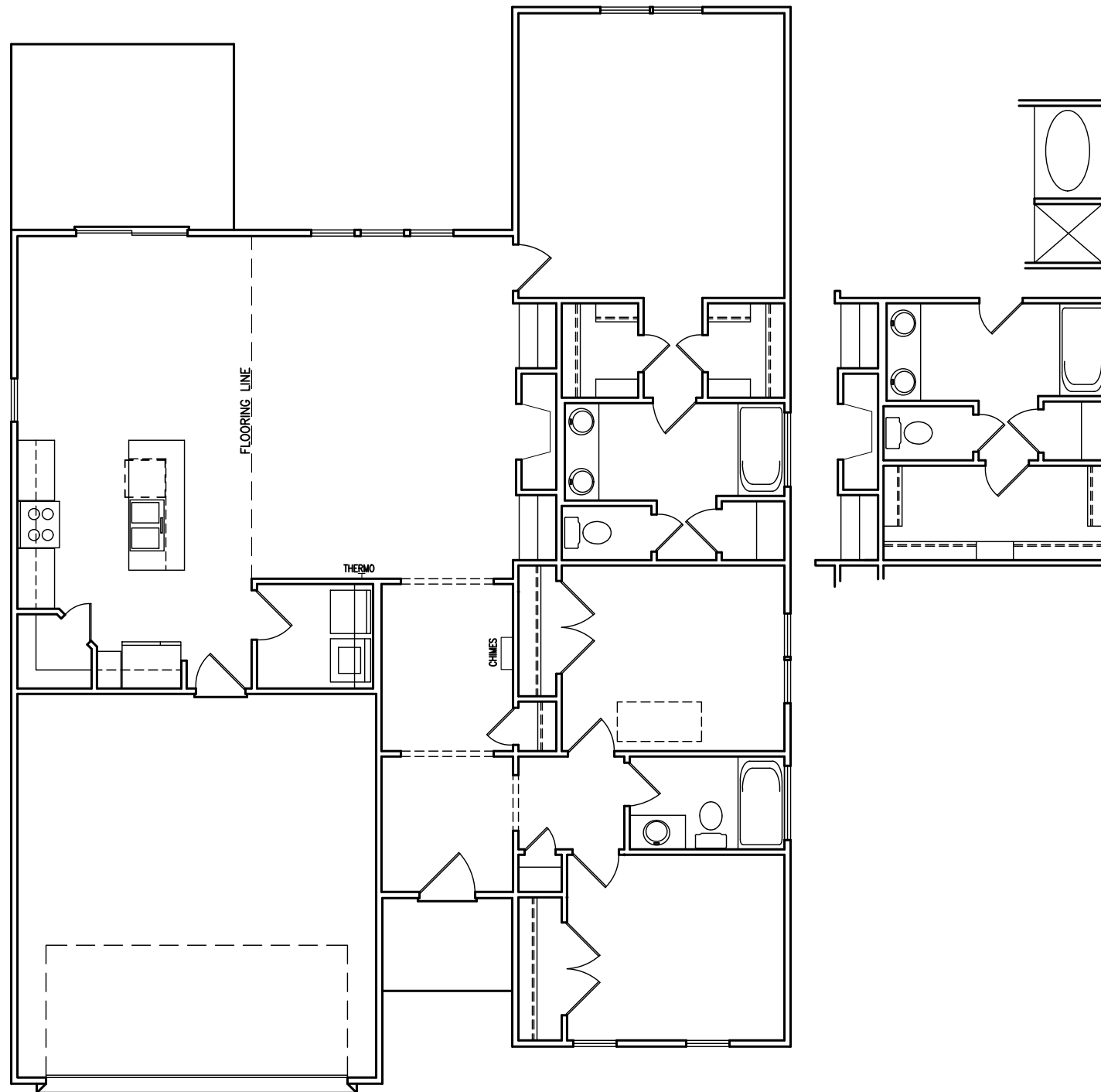
DESIGN ADS

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SHEET 5



ELECTRICAL PLANS

ELECTRICAL SYMBOLS			
⊕	CEILING MOUNTED LIGHT FIXTURE	⊕	SINGLE RECEPTACLE OUTLET
⊕	DIRECTIONAL CLG. LIGHT FIXTURE	⊕	DUPLEX RECEPTACLE OUTLET
○	RECESSED LIGHT FIXTURE	⊕	QUADRUPLX RECEPTACLE OUTLET
○	WALL MOUNTED LIGHT FIXTURE	⊕	FLOOR OUTLET
⊕	EXTERIOR FLOOD LIGHT	⊕	DUPLEX RECEPTACLE OUTLET SPLIT USED
⊕	TRACK LIGHT FIXTURE	⊕	220 VOLT OUTLET
CHIMES	CHIMES	⊕	WATER PROOF OUTLET
⊕	SINGLE POLE WALL SWITCH	⊕	TELEPHONE OUTLET
⊕	3-WAY POLE WALL SWITCH	⊕	TV OUTLET
⊕	FOUR-WAY SWITCH	⊕	GROUND FAULT INTERCEPTOR
⊕	GROUND FAULT INTERCEPTOR	⊕	RECESSED LIGHT FIXTURE ANGLE CUT
⊕	WATER PROOF SWITCH	⊕	PULL CHAIN LIGHT FIXTURE
⊕	DIMMER SWITCH	⊕	FLUORESCENT LIGHT BOX
⊕	TIMER SWITCH	⊕	CEILING FAN
⊕	FLUORESCENT LIGHT	⊕	EXHAUST FAN
⊕	ELECTRICAL OUTLET GARAGE DOOR OPENER	⊕	SMOKE DETECTOR
⊕	HANGING LIGHT FIXTURE	⊕	EXHAUST FAN/LIGHT
⊕	CEILING FAN/LIGHT	⊕	SHOWER LIGHT

NOTE:
 (1) ALL RECEPTACLE PLACEMENT TO CODE.
 (2) PLEASE NOTE RECEPTACLE PLACEMENT PER FSC.

SCALE
 24"x36" = 1/4"=1'-0"
 11"x17" = 1/8"=1'-0"

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Electrical Plan

Nicklaus

FILE

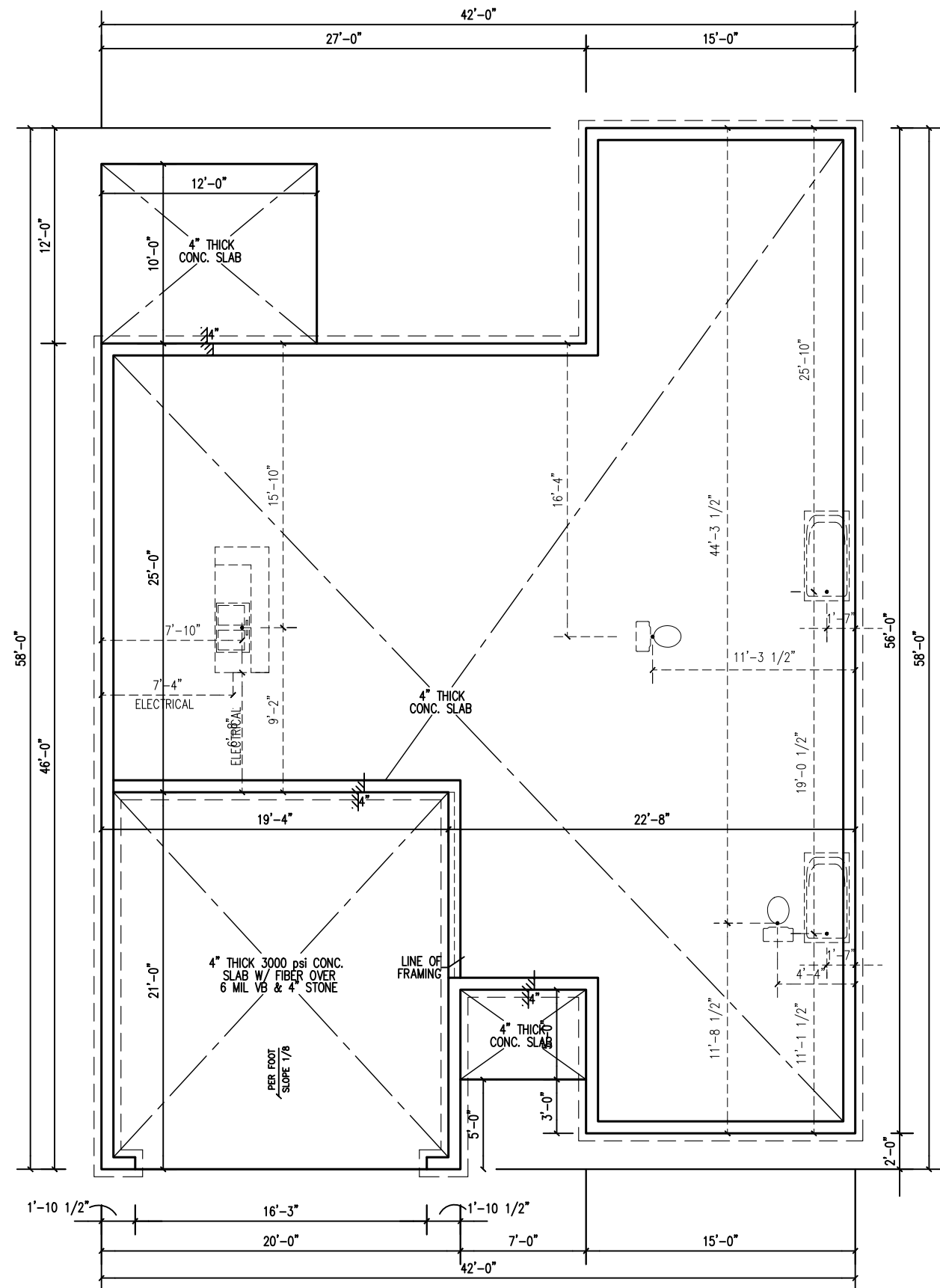
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DRAWN ADS

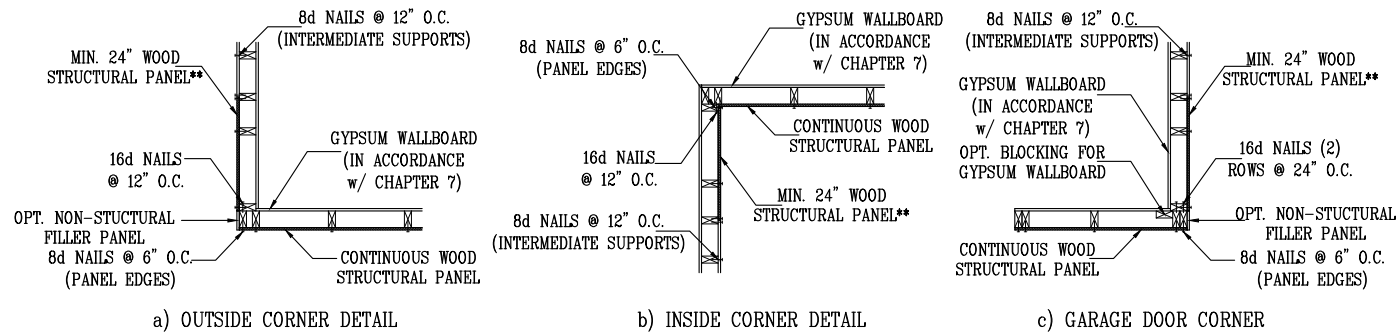
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SHEET 6



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Plumbing Layout	
Nicklaus	
FILE	
DESIGN	ADS
DRAWN	ADS
CHECKED	
DATE	03/12/2019
SHEET	2A



**** IN LIEU OF THE 24" (MIN.) CORNER RETURN, A HOLD-DOWN DEVICE WITH A MINIMUM UPLIFT DESIGN VALUE OF 800# SHALL BE FASTENED TO THE CORNER STUD AND TO THE FOUNDATION OR FRAMING BELOW.**

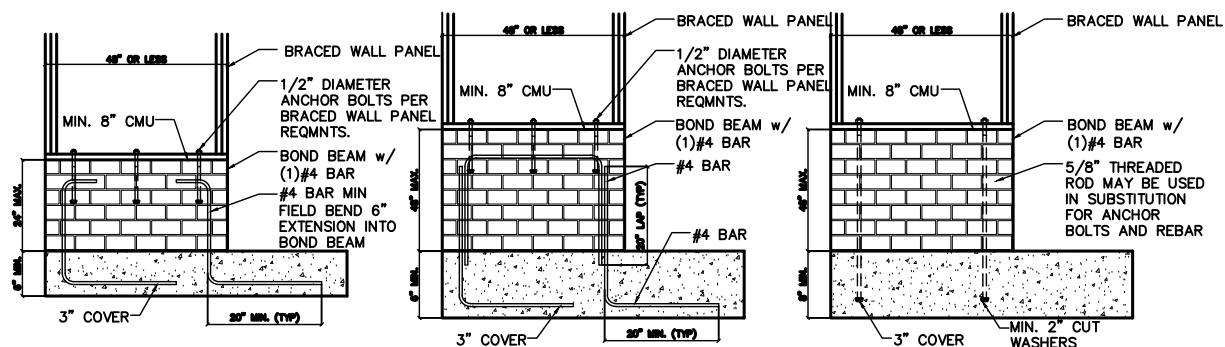
B1: TYPICAL EXTERIOR CORNER FRAMING FOR CONTINUOUS SHEATHING
NO SCALE

STRUCTURAL SHEATHING NOTES

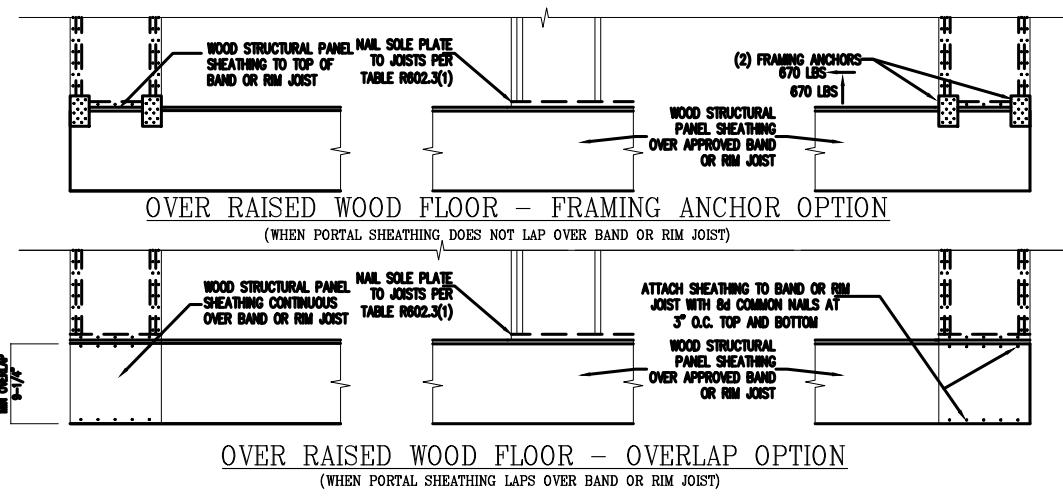
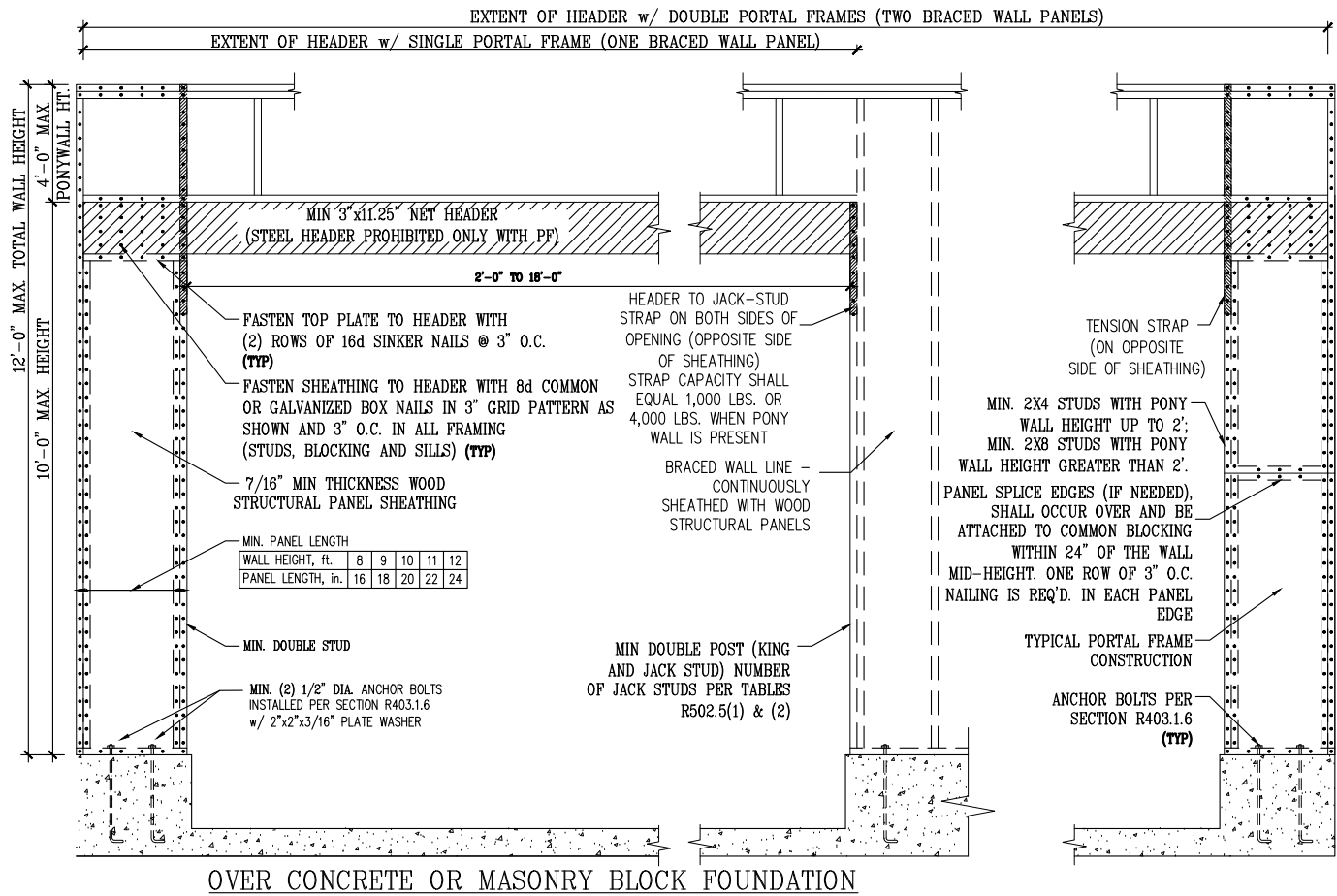
- DESIGNED FOR SEISMIC ZONE A-C AND WIND SPEEDS OF 120 MPH OR LESS.
- WALLS SHALL BE BRACED IN ACCORDANCE WITH SECTION R602.10 OF THE 2018 NRC.
- BRACING REQUIREMENTS SHALL BE PER TABLE R602.10.3. REFER TO SECTION R602.10.4 FOR LOAD PATH DETAILS INCLUDING CONNECTIONS & SUPPORT OF BRACED WALL PANELS.
 - REFERENCE FIGURE R602.10.4.3 OF THE 2018 NRC.
- 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)
 - 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
- EXTERIOR BRACED WALL PANELS (BWP) SHALL BE CONSTRUCTED IN ACCORDANCE WITH CS-WSP METHOD AS PRESCRIBED IN SECTION R602.10.3 (UNO)
- 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.
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 - 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
- SHEATH INTERIOR & EXTERIOR
- 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.
- MINIMUM 800# HOLD-DOWN DEVICE

REQUIRED BRACED WALL PANEL CONNECTIONS				
METHOD	MATERIAL	MIN. THICKNESS	REQUIRED CONNECTION	
			@ PANEL EDGES	@ INTERMEDIATE SUPPORTS
CS-WSP	WOOD STRUCTURAL PANEL	3/8"	6d COMMON NAILS @ 6" O.C.	6d COMMON NAILS @ 12" O.C.
GB	GYPSUM BOARD	1/2"	5d COOLER NAIL** @ 7" O.C.	5d COOLER NAIL** @ 7" O.C.
WSP	WOOD STRUCTURAL PANEL	3/8"	6d COMMON NAILS @ 6" O.C.	6d COMMON NAILS @ 12" O.C.

B3: BRACE WALL PANEL CONNECTIONS
NO SCALE



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



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

TYNDALL
ENGINEERING & DESIGN, P.A.



Project Number: 1901-010093
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ADAMS & HODGE
ENGINEERING, P.C.

A&H

Bracing Details

Nicklaus

FILE

DESIGN ADS

DRAWN ADS

CHECKED

DATE 03/12/2019

SHEET SD1