



June 5, 2023

Mike Campbell  
25 Burton Street  
Walton, NY 13856  
Email: soup0528@gmail.com



Reference: Engineering Services  
7934 NC-210  
Bunnlevel, NC 28323  
TE&D Project No.: 2301-020499

To Whom It May Concern;

As requested by the client, a representative of Tyndall Engineering & Design, PA (TE&D) was on-site to inspect and observe the existing footing and foundation. We understand the previous home was severely damaged by a fire (as well as the subsequent fire suppression) and was completely removed from the lot. We inspected and observed the following:

- 1) Analysis of the existing soil underlying the existing remaining footing.
- 2) Observe the materials/condition of the existing remaining foundation.

The following conclusions and recommendations were noted:

- 1) The underlying soils were visually observed, qualitatively probed, and subjected to Dynamic Cone Penetrometer (DCP) testing in multiple locations at depths to 2'-0" below existing grade. Hand augers were also advanced to depths of 2'-0" below existing grade. The existing soils were found to equal or be in excess of the minimum 2000 psf bearing capacity required by the 2018 North Carolina Residential Building Code. Based on our observations, analysis, and the results of our field-testing program, the underlying soils are structurally adequate to support the anticipated loading conditions of the existing footing.
- 2) We visually observed the foundation as consisting of 8" x 16" CMU walls at the interior and exterior and 16" x 16" CMU piers at the porches. The foundation was observed to be supported by concrete footings. The existing foundation was visually observed and inspected for damage as well as subjected to non-destructive (Schmidt rebound hammer) testing at the garage slab. The concrete at the garage slab was found to equal or be in excess of the minimum 2500 psi compressive strength required by the 2018 North Carolina Residential Building Code. Based on our observations, analysis, and the results of our field-testing, the existing foundation is to be repaired/enhanced per the following:
  - a. At multiple locations, we observed severe deterioration of the existing mortar joints. Based on our observations and analysis, we recommend the deteriorated mortar joints be removed and repointed with mortar as needed.



- b. At the front porch piers, we observed several piers as being damaged at the top course. Based on our observations and analysis, we recommend the damaged piers be repaired as needed by removing the topmost course and replacing it with new 16" x 16" CMU blocks.
  
- c. We also recommend the remaining sill plates be removed and replaced with new pressure treated 2 x 8 sill plates. New sill plates are to be installed so that the existing anchor bolts are within 1'-0" of plate splices. If this cannot be achieved, or the existing anchor bolts are damaged during removal, the sill plate may be fastened to the existing foundation with 1/2" x 8" Simpson Titen HD screws or 1/2" x 12" threaded rods with nuts and washers. The rods are to be embedded a minimum 10" into the turned down footing with Hilti HIT-HY 200 Epoxy per the manufacturer's specifications. Screws and/or rods are to be installed with spacing no greater than 6'-0" o.c. and within 12" of plate splices.

We appreciate being able to assist you during this phase of the project. If you need further assistance or require additional information, please do not hesitate to contact us.

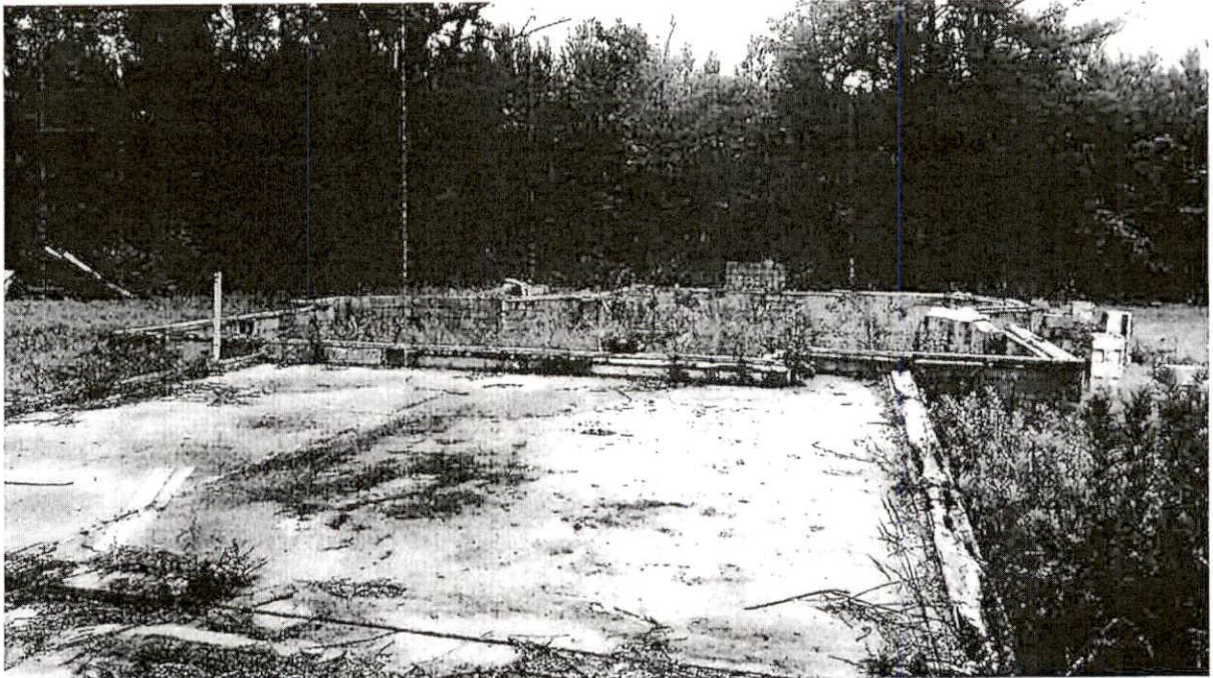
Sincerely,  
Tyndall Engineering & Design

Tripp Amos  
PT III | 2301-020499

Prentice Tyndall Jr., P.E.

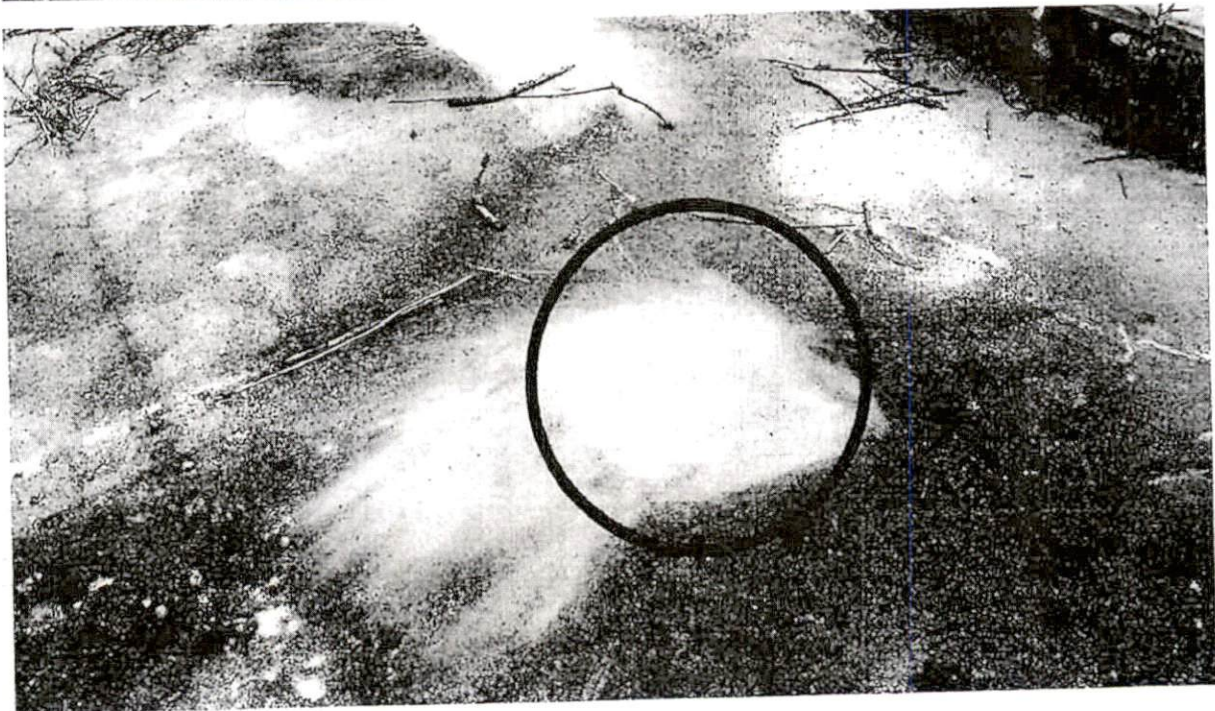
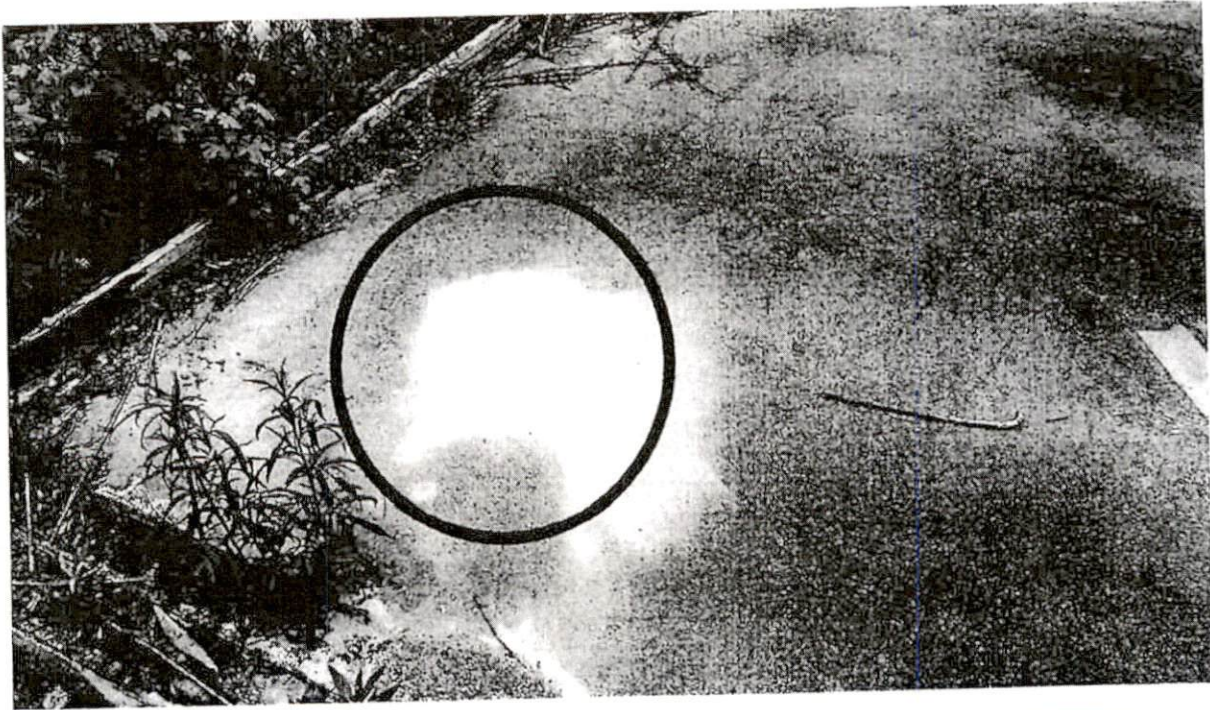






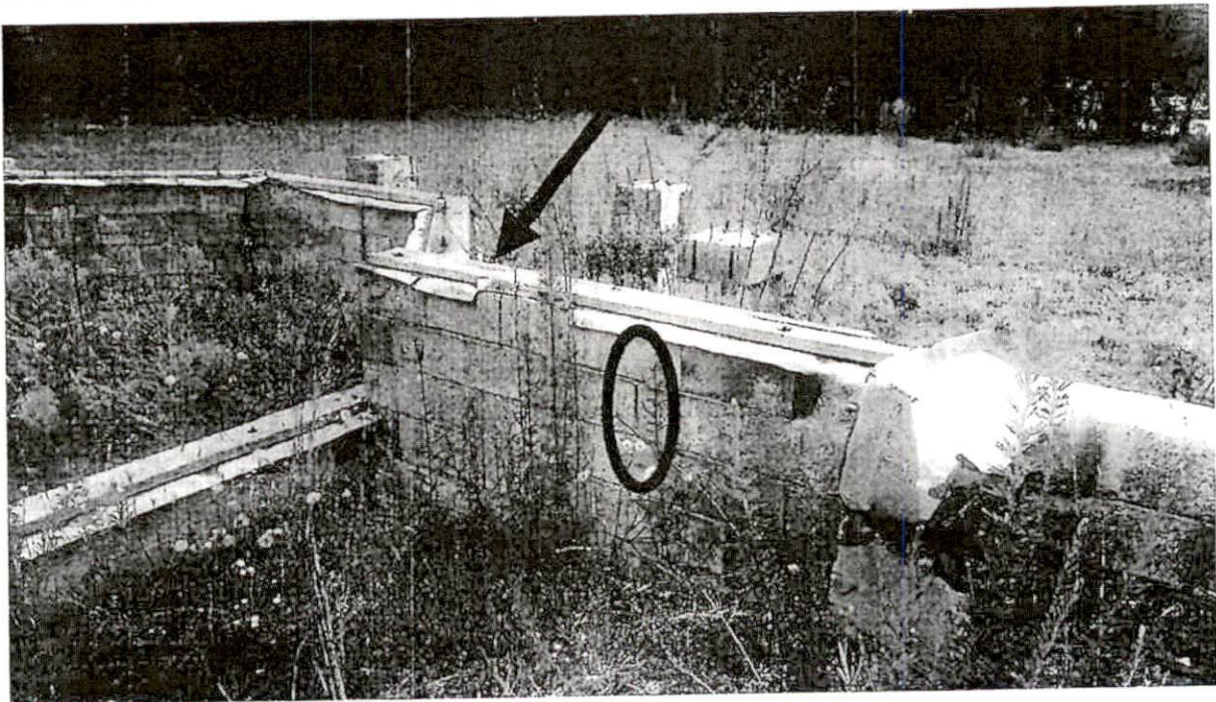
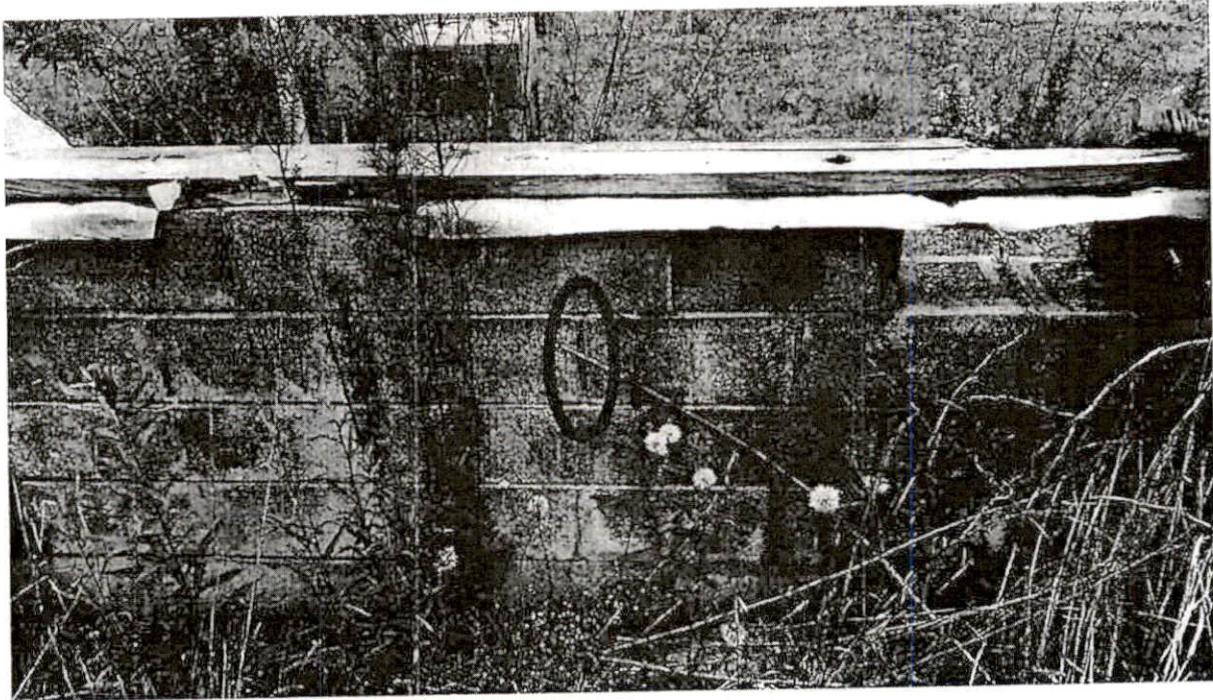
Site of Inspection





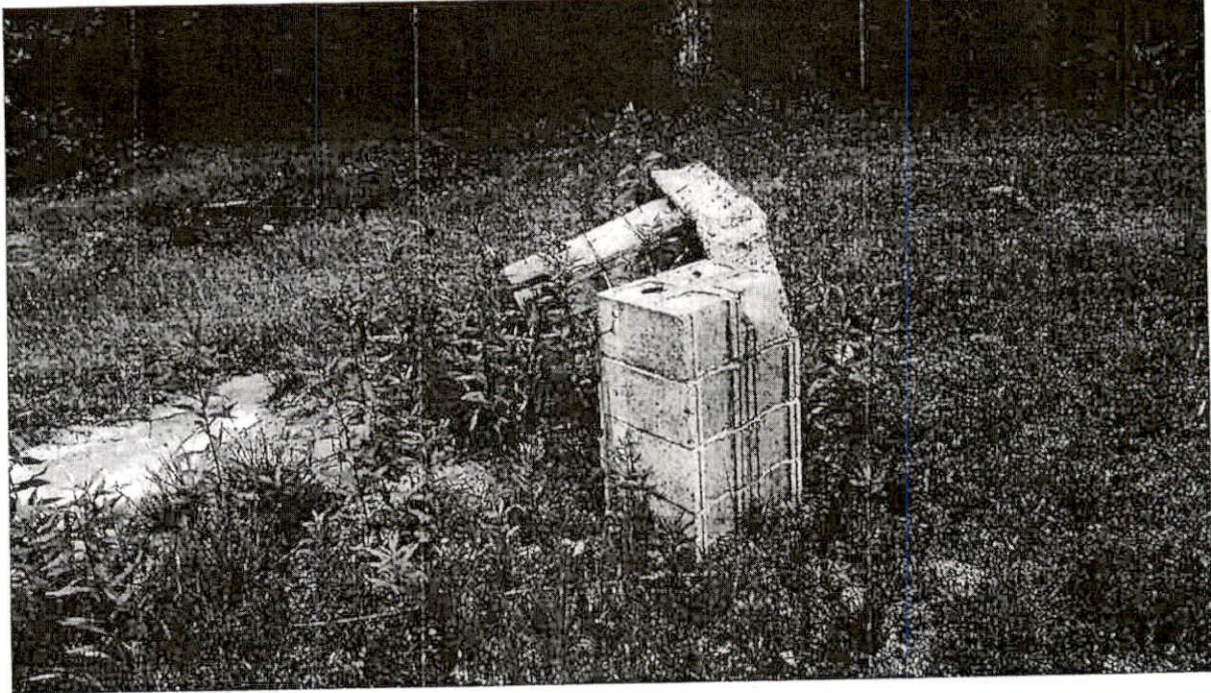
Example of Schmidt rebound hammer testing at garage slab





Items 2a and 2c) Examples of deteriorated mortar joints and sill plates to be replaced





Item 2b) Examples of damaged piers to be repaired

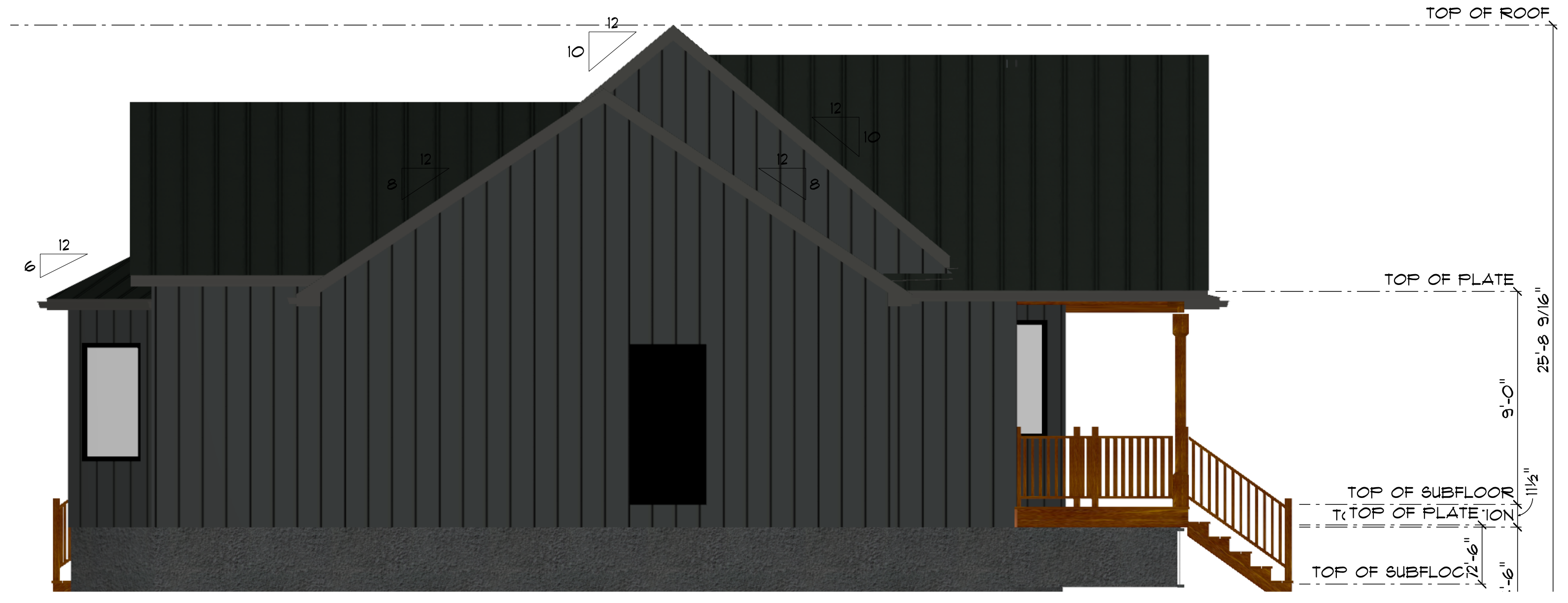




**SOUTH ELEVATION**  
SCALE: 1/4" = 1'-0"



**EAST ELEVATION**  
SCALE: 1/4" = 1'-0"



**WEST ELEVATION**  
SCALE: 1/4" = 1'-0"



**NORTH ELEVATION**  
SCALE: 1/4" = 1'-0"

COPYRIGHT NOTICE: ALL DRAFTING DEPICTED IN THESE DRAWINGS ARE DONE WITH THE EXPRESS PERMISSION OF THE CLIENT. B R DRAFTING AND DESIGN LLC RESERVES THE RIGHT TO MAKE COPIES, SELL OR PUBLICLY DISPLAY THE WORK AS THEY SEE FIT.

**BR DRAFTING & DESIGN LLC**  
 104 SOUTH WHITE STREET SUITE #210  
 WAKE FOREST, NC 27587  
 OH 440-703-8010 / NC 919-635-9500  
 info@brddplans.com / brddplans.com

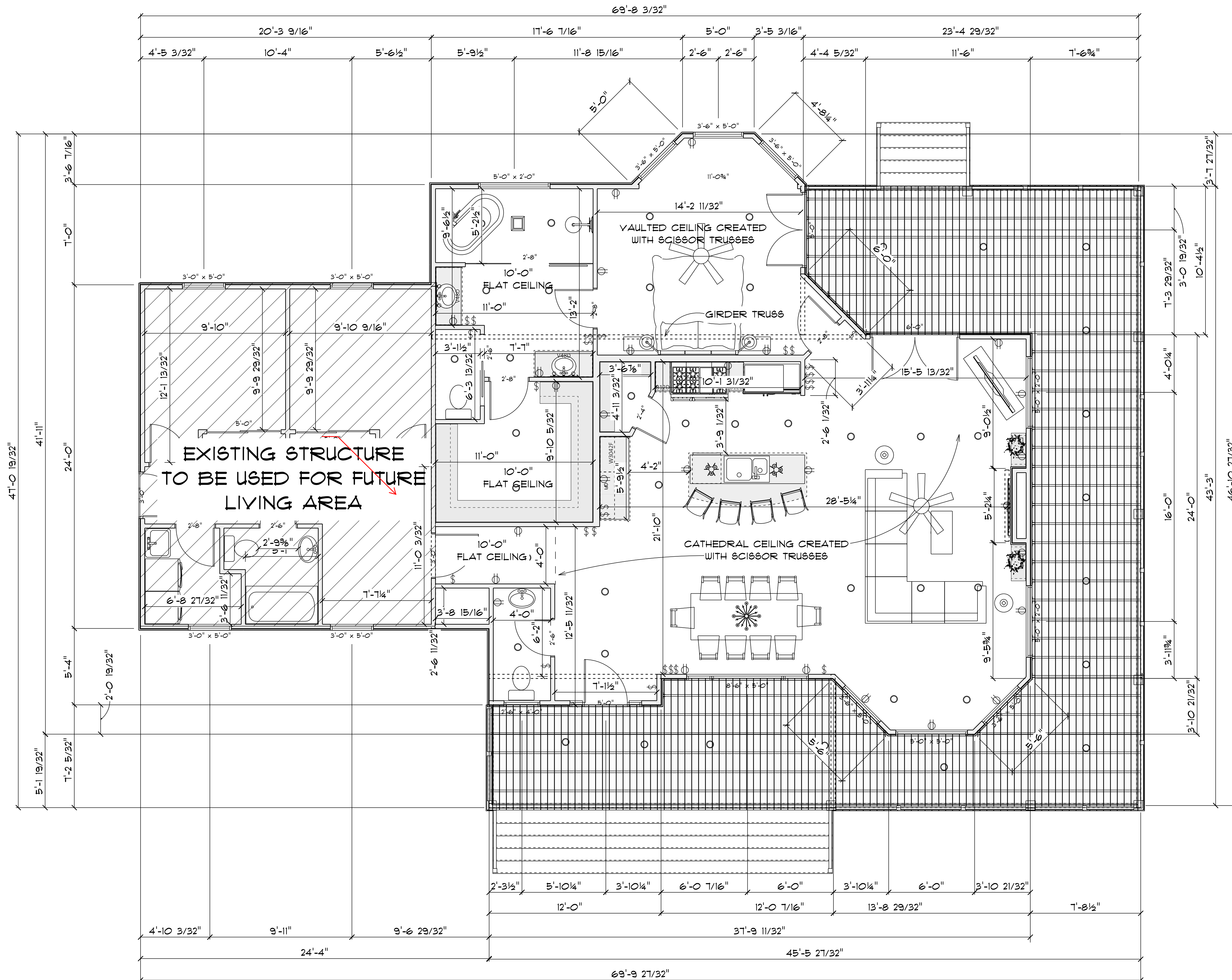
**PRIVATE RESIDENCE**  
 1934 NC-210  
 BUNNLEVEL, NC

SCALE: 1/4" = 1'-0"  
 DRAWN BY: BENJAMIN ROGERS  
 DATE: Monday, July 29, 2024

**BR**  
 RAFTING  
 DESIGN

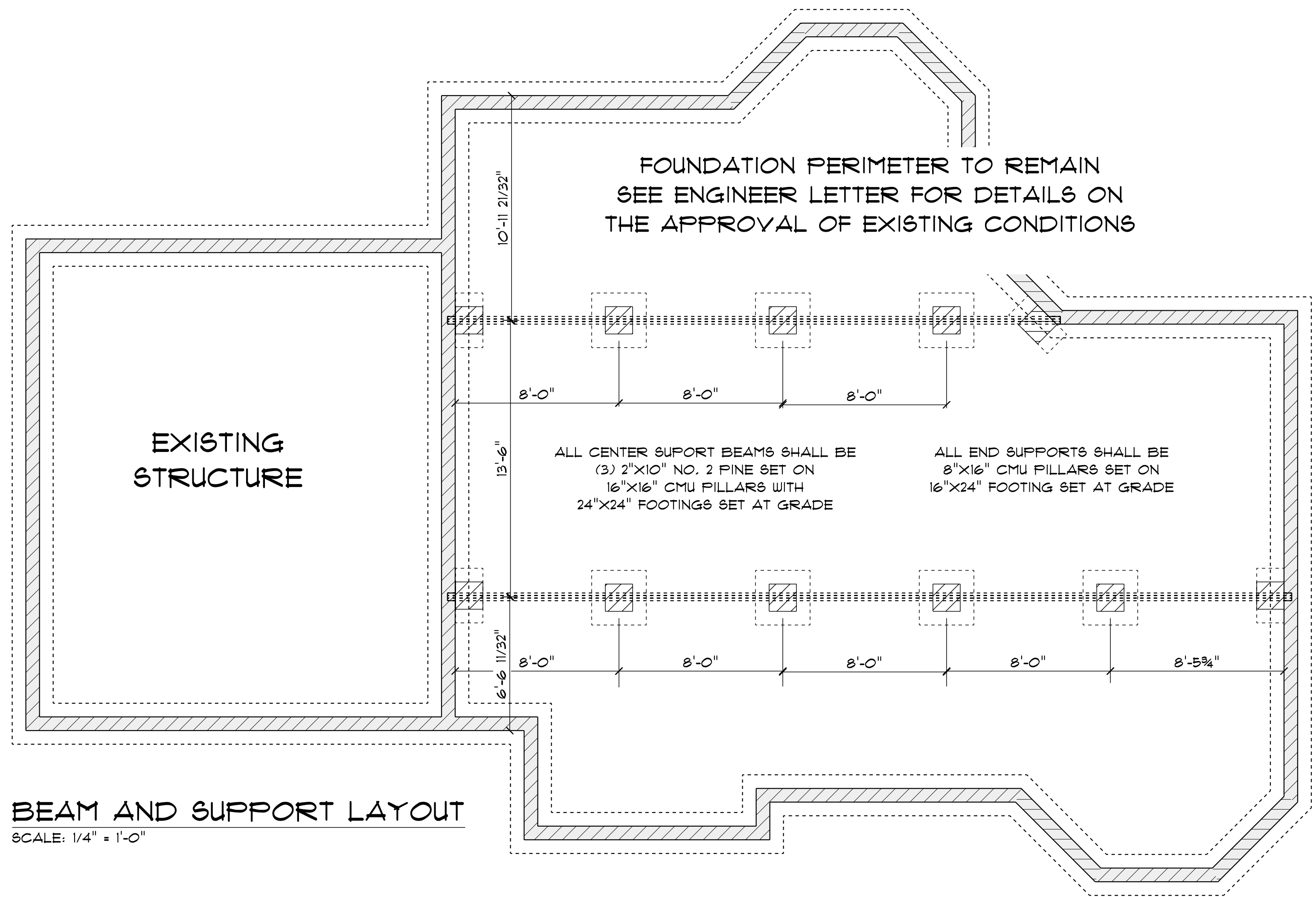
1 / 6  
 ELEVATIONS



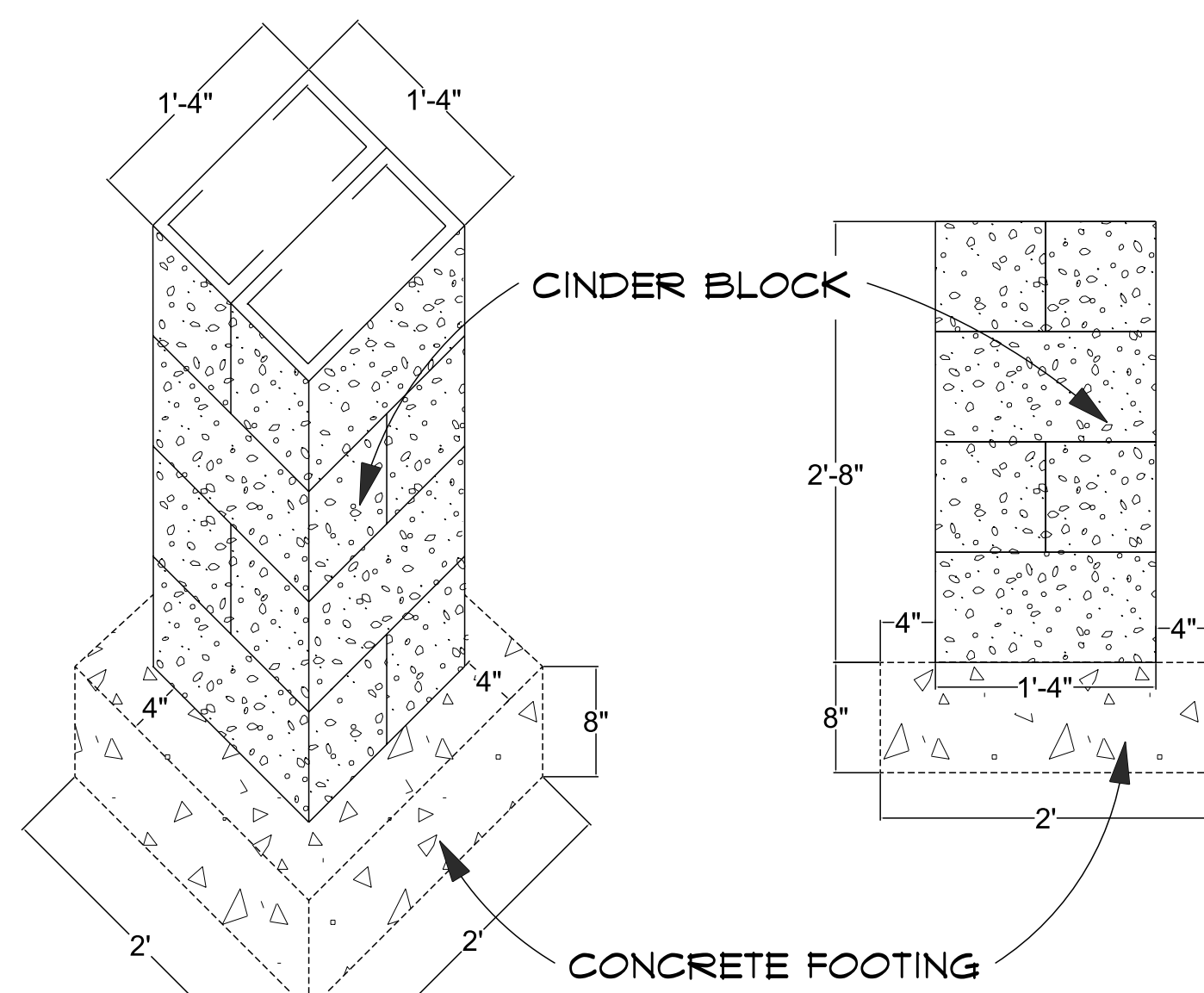


**MAIN FLOOR 2**  
SCALE: 1/4" = 1'-0"

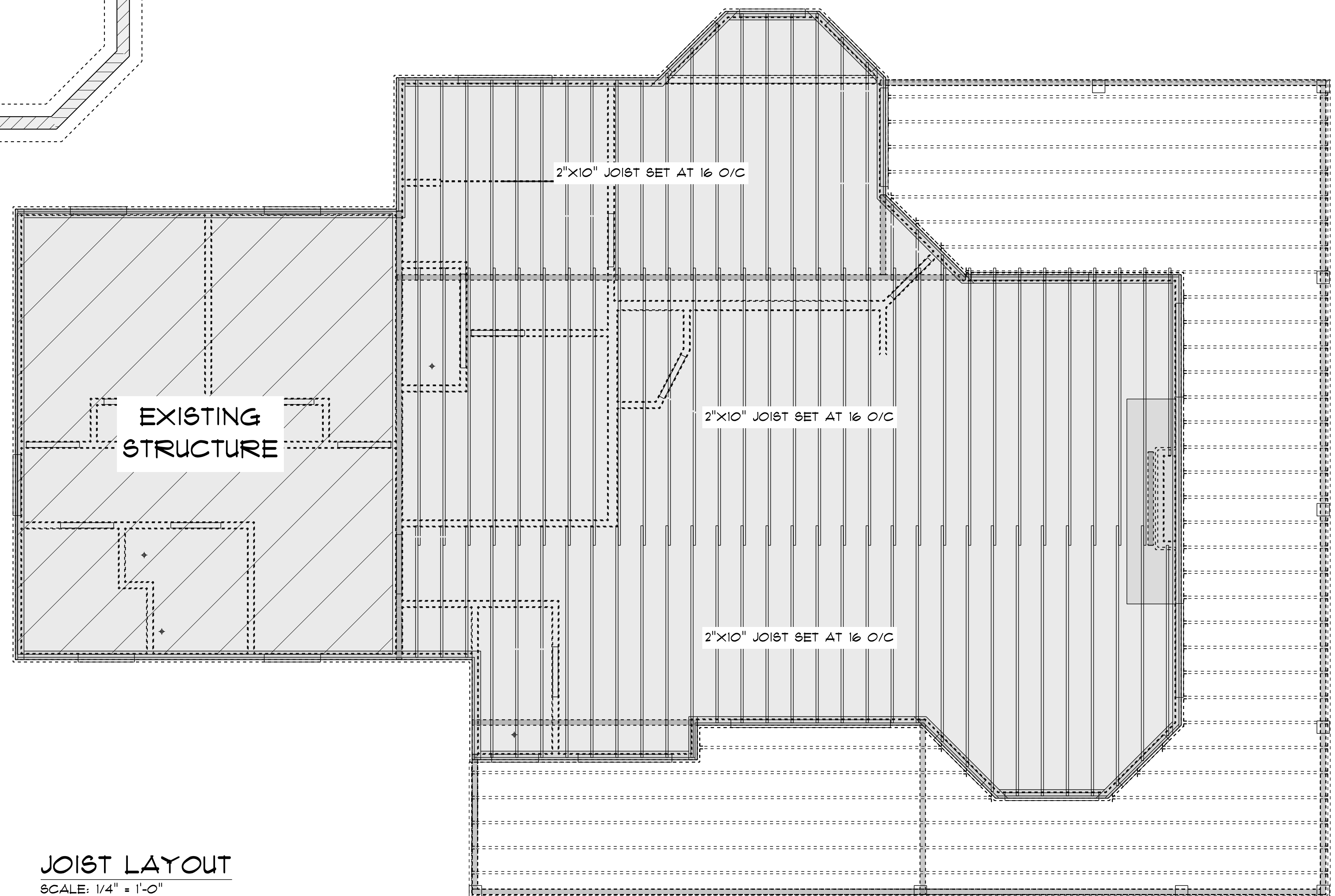




**BEAM AND SUPPORT LAYOUT**  
SCALE: 1/4" = 1'-0"



**PIER DETAIL**  
SCALE: 1" = 1'-0"



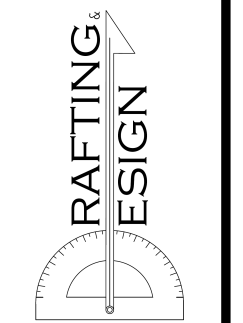
**JOIST LAYOUT**  
SCALE: 1/4" = 1'-0"

COPYRIGHT NOTICE:  
ALL DRAFTING DEPICTED IN THESE DRAWINGS ARE DONE WITH THE EXPRESS PERMISSION OF THE CLIENT. B R DRAFTING AND DESIGN LLC RESERVES THE RIGHT TO MAKE COPIES, SELL OR DISTRIBUTE COPIES, PREPARE DERIVATIVE WORKS, AND PUBLICLY DISPLAY THE WORK AS THEY SEE FIT.

SCALE: As Noted  
DRAWN BY: BENJAMIN ROGERS  
DATE: Monday, July 29, 2024

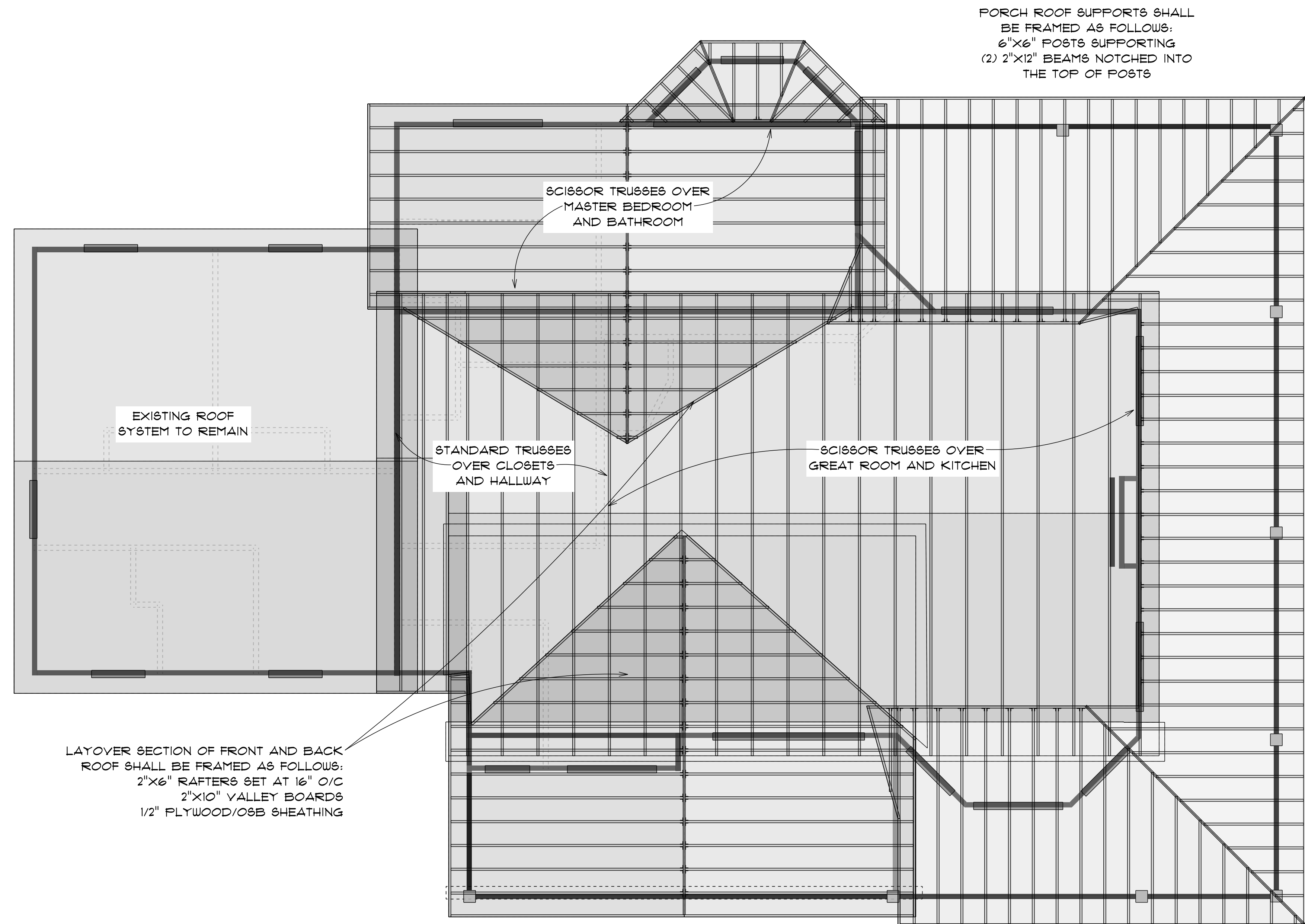
**PRIVATE RESIDENCE**  
1994 NC-210  
BUNNLEVEL, NC

**B R DRAFTING & DESIGN LLC**  
104 SOUTH WHITE STREET SUITE #210  
WAKE FOREST, NC 27587  
OH 440-703-8010 / NC 919-635-9900  
info@brddplans.com / brddplans.com



**BR**





PORCH ROOF SUPPORTS SHALL BE FRAMED AS FOLLOWS:  
 6"x6" POSTS SUPPORTING  
 (2) 2"x12" BEAMS NOTCHED INTO THE TOP OF POSTS

LAYOVER SECTION OF FRONT AND BACK ROOF SHALL BE FRAMED AS FOLLOWS:  
 2"x6" RAFTERS SET AT 16" O/C  
 2"x10" VALLEY BOARDS  
 1/2" PLYWOOD/O5B SHEATHING

ENTRY ROOF SYSTEM SHALL BE FRAMED AS FOLLOWS:  
 2"x8" RAFTERS SET AT 16" O/C  
 (2) 2"x12" RIDGE BEAM  
 TIMBER-FRAME TRUSS AT FRONT EDGE  
 12" OVER HANG ON ALL SIDES  
 1/2" PLYWOOD/O5B SHEATHING

LOW SLOPE PORCH ROOF SHALL BE FRAMED AS FOLLOWS:  
 2"x6" RAFTERS SET AT 16" O/C  
 2"x10" LEDGER  
 12" OVER HANG ON ALL SIDES  
 1/2" PLYWOOD/O5B SHEATHING

**ROOF SYSTEM**  
 SCALE: 1/4" = 1'-0"

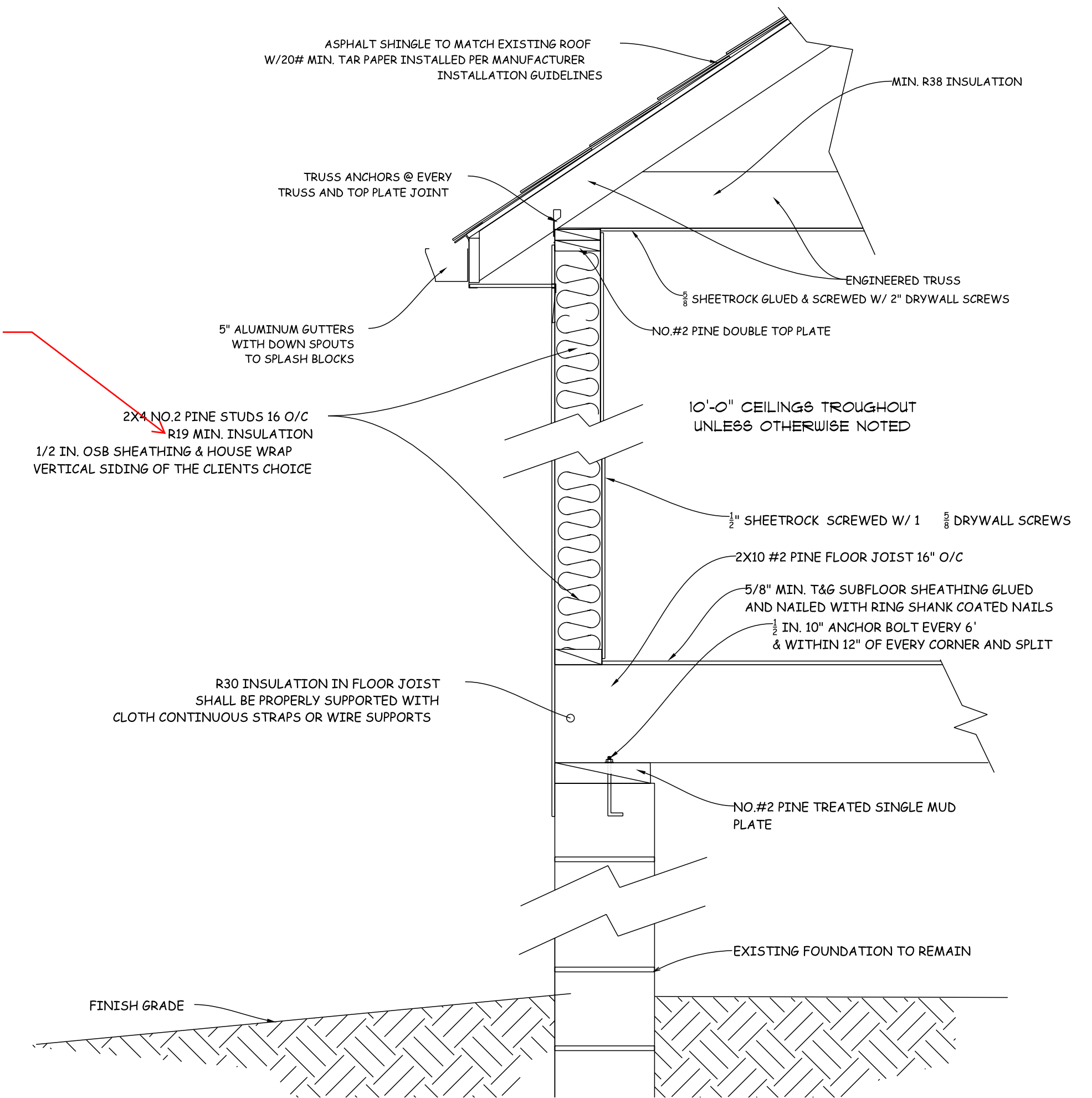
**DOOR SCHEDULE**

PRODUCT CODE	SIZE	HINGE	REVERSED	COUNT
28X80 COLONIAL A 1	2'-4"	R	NO	1
30X80 COLONIAL A 1	2'-6"	R	NO	2
30X80 COLONIAL POCKET 1	2'-6"	N	NO	1
32X80 COLONIAL A 1	2'-8"	L	NO	2
32X80 COLONIAL A 1	2'-8"	R	NO	4
32X80 GLASS SLIDING (SHOWER DOOR)	2'-8"	L	NO	1
36X80 COLONIAL A 1	3'-0"	L	NO	1
60X96 LH ENTRY - 2 SL	5'-0"	L	NA	1
72X96 GLASS FRENCH DOOR	6'-0"	LR	NO	1
60X96 GLASS FRENCH DOOR	5'-0"	LR	NO	1

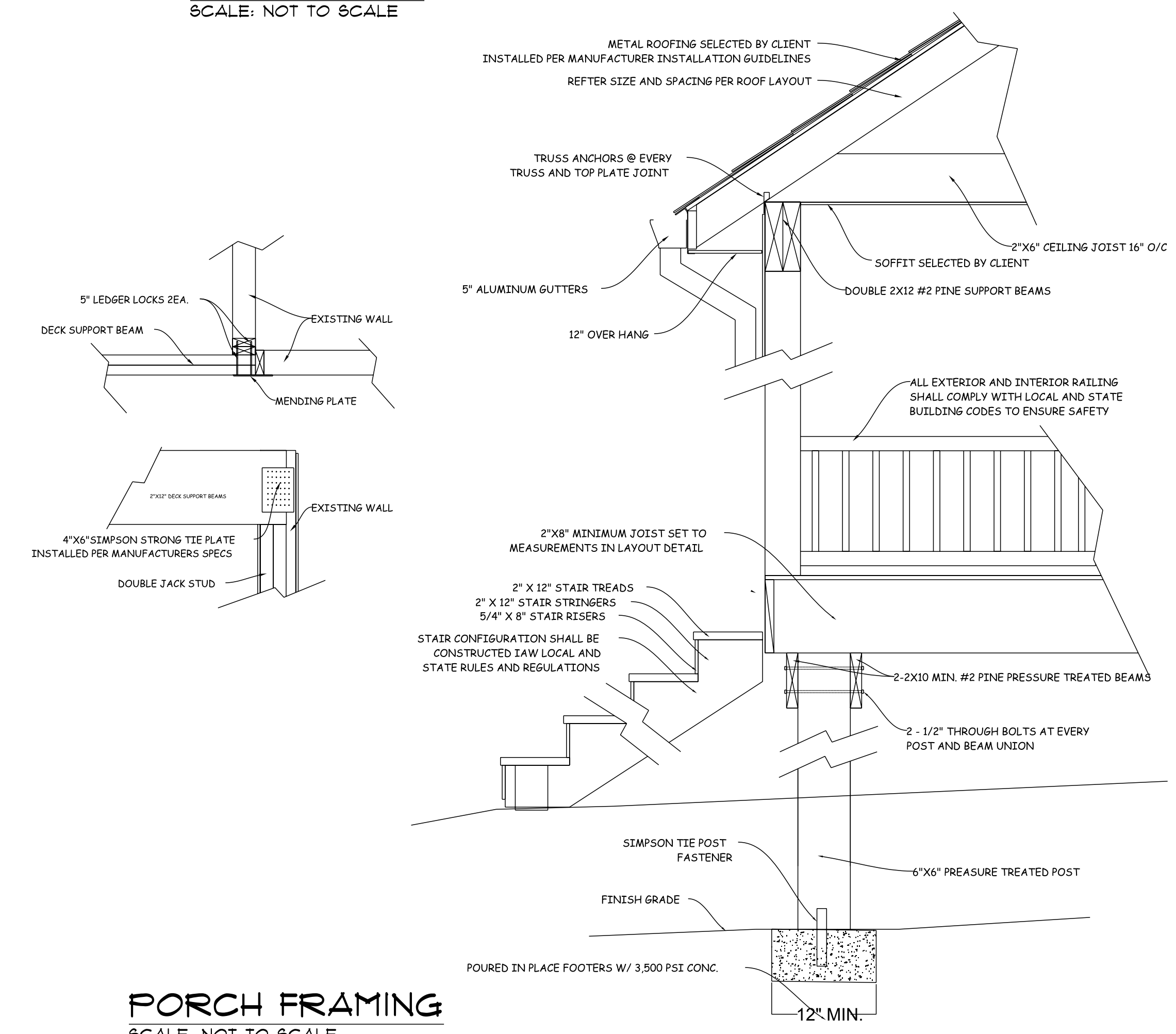
**WINDOW SCHEDULE**

PRODUCT CODE	SIZE	COUNT
30X48 CASEMENT	12'-6" x 4'-0"	1
36X60 CASEMENT	13'-0" x 5'-0"	4
42X60 CASEMENT	13'-6" x 5'-0"	5
60x24 AWNING	5'-0" x 2'-0"	2
60X24 TRANSOM	5'-0" x 2'-0"	1
60X60 CASEMENT	15'-0" x 5'-0"	1
102X60 PICTURE	8'-6" x 5'-0"	1

R19 will not fit in a 2x4 wall. R15 is code minimum

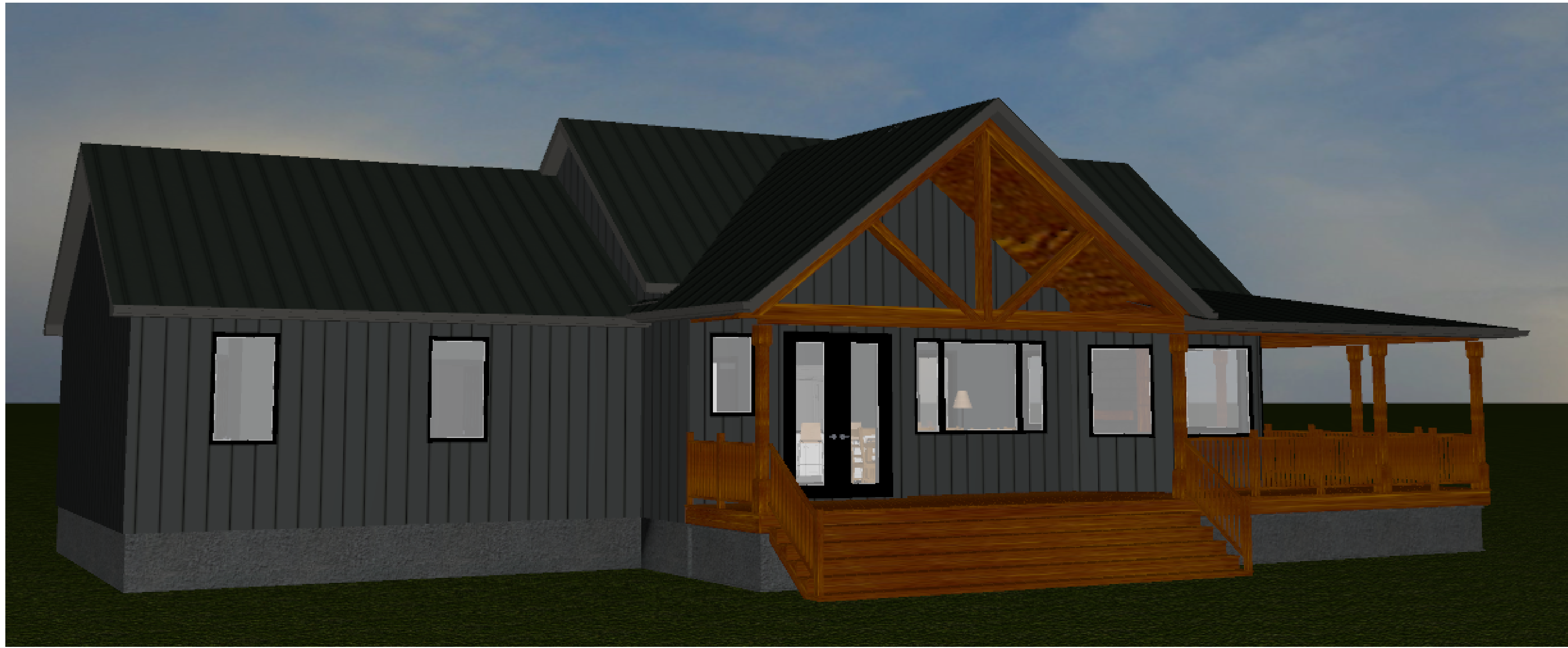


**WALL DETAIL**  
 SCALE: NOT TO SCALE

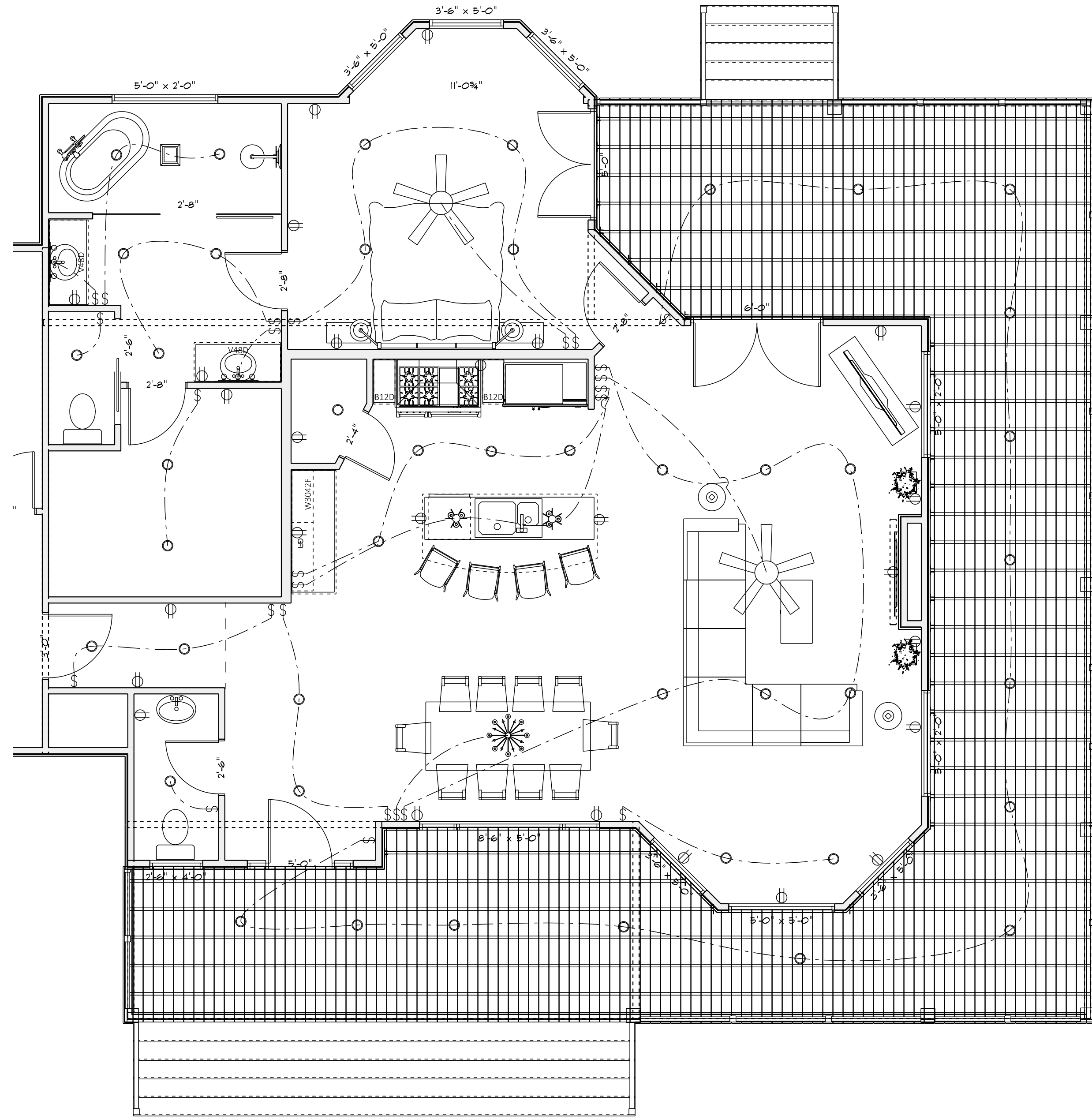


**PORCH FRAMING**  
 SCALE: NOT TO SCALE









**ELECTRICAL**  
SCALE: 1/4" = 1'-0"

ELECTRICAL LEGEND		
ELECTRICAL	COUNT	SYMBOL
can light 6inch	44	○
ceiling classic	1	✱
ceiling fan 5 bladed 04	2	✱
ceiling light 22	2	✱
combination fan and light-square	1	□
outlet	26	⊕
outlet gfi	1	⊕
switch - rocker style	25	⊞
vanity bar light 02	2	⊞





NC 1-919-787-8787 / 1-800-473-8787  
Fax 1-919-783-0617

VA 1-757-833-5300 / 1-800-858-8787  
Fax 1-757-833-5400

**THIS IS A TRUSS PLACEMENT DIAGRAM ONLY.**

These trusses are designed as individual building components to be incorporated into the building design at the specification of the building designer. See individual design sheets for each truss design identified on the placement drawing. The building designer is responsible for temporary and permanent bracing of the roof and floor system and for the overall structure. The design of the entire truss support structure including, but not limited to headers, beams, walls, and columns is the responsibility of the building designer. For general guidance regarding bracing, consult "Bracing of wood trusses" available from the Truss Plate Institute, 583 D'Onifrio Drive, Madison, WI 53179

**TRUSS TO BEARING DESIGN RESPONSIBILITY.**

Truss to bearing connections if shown on this layout are suggested by Truswood based solely on the uplift reactions and considerations for the truss component. All truss to bearing connections must be specified or approved by the Building Designer to adequately transfer all loads to the building system and foundation. Consult hardware manufacturer's specifications for all installation requirements.

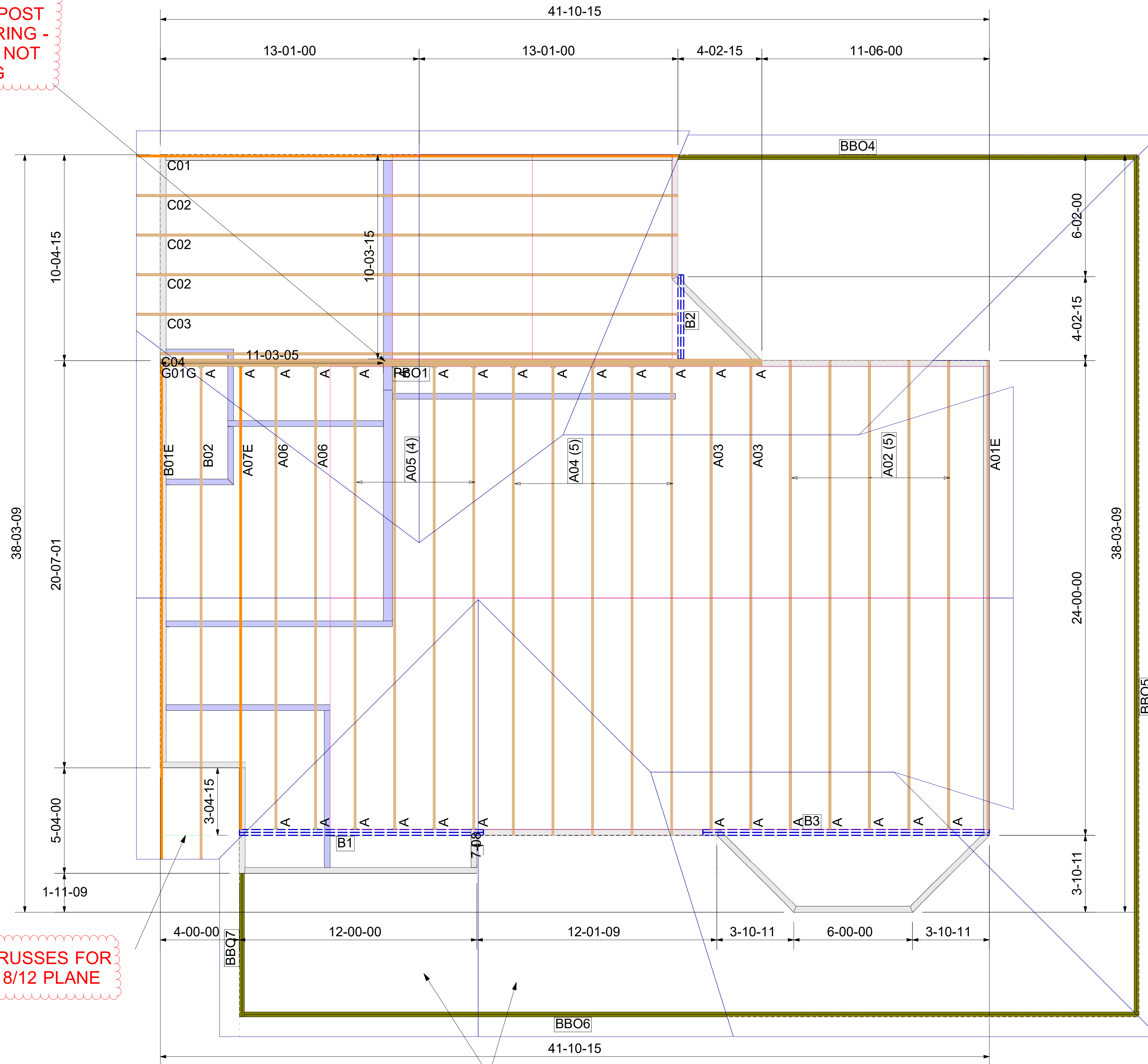
**GENERAL NOTES:**

- 1.) REFER TO INDIVIDUAL TRUSS DRAWINGS FOR ADDITIONAL INFO.
- 2.) DIMENSIONS SHOWN ARE FROM FACE OF STUD OF BEARING WALL U.N.O.
- 3.) DIMENSIONAL VERIFICATION IS THE RESPONSIBILITY OF THE SITE CONTRACTOR AND/OR ARCHITECT.
- 4.) ALL INTERIOR HEADERS TO BE DROPPED EXCEPT AS NOTED.
- 5.) ALL TRUSSES MUST BE SPACED AT A MAXIMUM OF 24" OC UNLESS OTHERWISE NOTED.
- 6.) \*DO NOT CUT, DRILL, OR ALTER ANY TRUSS WITHOUT THE WRITTEN CONSENT FROM A REGISTERED ENGINEER.

CONTINUE 2X6 WALL, 2X6 POST NEEDED FOR GIRDER BEARING - REST OF THE WALL DOES NOT NEED TO BE BEARING

Products					
PlotID	Length	Product	Plies	Net Qty	Fab Type
B1	14-00-00	1 3/4" x 11 7/8" (2.0E 3100) LVL	2	2	FF
B2	6-00-00	1 3/4" x 11 7/8" (2.0E 3100) LVL	2	2	FF
B3	16-00-00	1 3/4" x 14" (2.0E 3100) LVL	2	2	FF
BBO6	46-00-00	1-08 x 11-04 Generic Material	2	2	FF
BBO5	44-00-00	1-08 x 11-04 Generic Material	2	2	FF
BBO4	24-00-00	1-08 x 11-04 Generic Material	2	2	FF
BBO7	8-00-00	1-08 x 11-04 Generic Material	2	2	FF

Truss Connector Total List		
Manuf	Product	Qty
Simpson	MUS28	32
Simpson	HU412	1



CANTILEVER TRUSSES FOR CONTINUOUS 8/12 PLANE

RECOMMEND 8/12 PITCH, 9/12 PITCH WILL NOT WORK NOW THAT MAIN HOUSE IS 8/12

CUSTOMER NAME: **MIKE CAMPBELL**

PROJECT: **7934 NC 210 HWY ADDITION - TRUSS LAYOUT**

DATE: 8.20.2024

SCALE: SCALE

REVISION: \_\_\_\_\_

REVISION: \_\_\_\_\_

REVISION: \_\_\_\_\_

DESIGNED BY: \_\_\_\_\_

CHECKED BY: \_\_\_\_\_

FILENAME: \_\_\_\_\_

LOT: \_\_\_\_\_

DATE: \_\_\_\_\_

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

BY: \_\_\_\_\_

JOB NUMBER: 2400750