#2 southern yellow pine (# 1syp)

floor joist		12" o.c.	16"o.c.	24"o.c.
40 psf live load 10 psf dead load (all rooms except sleeping)	2x8	13'-6" @#2 (14'-2" @#1)	11'-10" @#2 (12'-10" @#1)	9'-8" @#2 (11'-3" @#1)
	2x10	16'-2" @#2 (18'-0" @#1)	14'-0" @#2 (16'-1" @#1)	11'-5" @#2 (13'-3" @#1)
30 psf live load 10 psf dead load (sleeping rooms @ L/360)	2x8	11'-11" @#2 (15'-7" @#1)	13'-3" @#2 (14'-2" @#1)	10'-10" @#2 (12'-4" @#1)
	2x10	18'-1" @#2 (19'-10" @#1)	15'-8" @#2 (18'-0" @#1)	12'-10" @#2 (14'-8" @#1)
ceiling joist				
20 psf live load 10 psf dead load (drywall ceiling @ L/240)	2x6	13'-11" @#2 (15'-6" @#1)	12'-0" @#2 (14'-0" @#1)	9'-10" @#2 (11'-5" @#1)
	2x8	17'-7" @#2 (20'-5" @#1)	15'-3" @#2 (17'-9" @#1)	12'-6" @#2 (14'-6" @#1)
rafters				
20 psf live load 10 psf dead load	2x6	14'-9" @#2 (15'-6" @#1)	12'-11" @#2 (14'-1" @#1)	10'-7" @#2 (12'-3" @#1)
	2x8	18'-11" @#2 (20'-5" @#1)	16'-4" @#2 (18'-6" @#1)	13'-4" @#2 (15'-6" @#1)
30 psf live load 10 psf dead load	2x6	12'-11" @#2 (13'-6" @#1)	11'-2" @#2 (12'-3" @#1)	9'-2" @#2 (10'-7" @#1)
	2x8	16'-4" @#2 (17'-10" @#1)	14'-2" @#2 (16'-2" @#1)	11'-7" @#2 (13'-5" @#1)
40 psf live load 10 psf dead load (slope over 3/12 no finished clg @ L/180)	2x6	11'-7" @#2 (12'-3" @#1)	10'-0" @#2 (11'-2" @#1)	8'-2" @#2 (9'-6" @#1)
	2x8	14'-8" @#2 (16'-2" @#1)	12'-8" @#2 (14'-8" @#1)	10'-4" @#2 (12'-0" @#1)

Based on 2015 IRC tables

#2 S-P-F (spruce-pine-fir)

floor joist		12" o.c.	16"o.c.	24"o.c.
40 psf live load 10 psf dead load (all rooms except sleeping)	2x8 2x10	13'-6" 17'-3"	12'-3" 15'-5"	10'-3" 12'-7"
30 psf live load 10 psf dead load (sleeping rooms @ L/360)	2x8 2x10	14'-11" 19'-0"	13'-6" 17'-2"	11'-6" 14'-1"
ceiling joist				
20 psf live load 5 psf dead load (drywall ceiling @ L/240)	2x6 2x8 2x10	14'-9" 18'-9" 22'-11"	12'-10" 16'-3" 19'-10"	10'-6" 13'-3" 16'-3"
rafters				
20 psf live load 7 psf dead load	2x6 2x8	16'-3" 21'-3"	14'-6" 18'-5"	11'-10" 15'-0"
30 psf live load 7 psf dead load	2x6 2x8	14'-3" 18'-2"	12'-5" 15'-8"	10'-1" 12'-10"
40 psf live load 7 psf dead load (slope over 3/12 no finished clg @ L/180)	2x6 2x8	12'-8" 16'-1"	11'-0" 13'-11"	9'-0" 11'-5"

abbreviations

cj	ceiling joist
clg.	ceiling
CMU	concrete masonry unit
C.O	cased opening
conc.	concrete
CT.	ceramic tile
dbl.	double
dj	double joist
ew.	each way
fj	floor joist
ftg.	footing
HVAC	heating/ventilating/air conditioning
jst.	joist
LVL.	laminated veneer lumber - ie. Parallam
mech.	mechanical
mil	.001 inch
min.	minimum
N.T.S.	not to scale
oc	on center
pc	pull cord
pt.	pressure treated
psf	pounds per square foot
R/A	return air
reqd.	required
reinf.	reinforcing
Rm.	room
ro.	rough opening
sf	square feet
syp	southern yellow pine
Shw.	shower
T&G	tongue and groove
vif	verify in field
W.H.	water heater
WWM	welded wire mesh
yp	yellow pine

The Small Print - These house plans are not licensed to anyone other than the party listed on each sheet. They are not transferable to any builder, or subcontractor who is hired to build the house, nor their friends nor their family. If any modifications are made to these plans with a PDF editor, they must include the persons' name who is changing these plans, and the date of the changes. If the type font anywhere on these drawings is different than "this", it has been altered. PDF's are now the industry standard. I appreciate the plan reviewers who have given me feedback on this issue. I try to provide very good house plans and they are very reasonably and fairly priced. I am happy to sell them, and appreciate those who do not steal them, but rather purchase them legally. Thank you, Rick Thompson

Thank you for your purchase of these house plans.

These plans are designed to conform to the 2015 IRC and the 2018 NCRC including local state amendments. National and local building codes vary with location and change from time to time. Therefore it is impossible to warrant compliance to your specific location. It is the responsibility of the purchaser and/or the builder to adapt these plans to the requirements of the individual locale.

Structural Notes

These plans are designed for roof loads of 20 psf live load and 10 psi dead load. The chart to the left can be used to adjust for different requirements. All beams are labeled "LVL" and should be sized locally. Roof loads can vary and have a big impact on the beams carrying accumulated loads. Most lumber suppliers can have this done at no charge, however having a registered engineer is recommended.

Wall Header Notes

Headers 3' or less to be 2-2x6 with 1 jack each side
Headers 4' - 6' to be 2-2x8 with 2 jacks on each side
Beams 4' to 6' to be 2-2x12 with 2 jacks on each side
or 3" min bearing and footing under point loads.

Wall bracing notes

Continuious 7/16" osb sheathing - typical.

Wall bracing shall be in accordance to IRC/NCRC Section 602.10.3. The required length of bracing for each side of a rectangle circumscribed around the plan or a portion of the plan at each story level shall be determined using Table R602.10.3 and Figure R602.10.3(1). The cumulative contributing length of braced wall panels assigned to a rectangle side shall be greater than or equal to the required length of bracing specified in Table R602.10.3. The following additional requirements shall apply.

Limitations - The continuous sheathing requirements of Section R602.10.3 shall be limited to bracing methods CS-WSP and CS-SFB in accordance with Table R602.10.1 with the following conditions of use:

1. Basic design wind speed shall not exceed 115 mph.
2. Wall height at each story level shall not exceed 12 feet.
3. Eave to ridge height shall not exceed 20 feet.
4. Exterior walls shall be sheathed on all sheathable surfaces including infill areas between braced wall panels, above and below wall openings, and on gable end walls.
5. Except when used for bracing method GB, the interior side of exterior walls and both sides of interior walls shall be sheathed continuously with minimum 1/2-inch-thick gypsum wall board interior finish fastened in accordance with Table R702.3.5, or approved interior finish of equivalent or greater shear resistance Unless required for fire separation by Section R302.6, gypsum board shall be permitted to be omitted where the required length of bracing, as determined in Table R602.10.3, is multiplied by 1.40.
6. Floors shall not cantilever more than 24 inches (607 mm) beyond the foundation or bearing wall below.

Requirements - The required length of bracing for each side of a rectangle circumscribed around the plan or a portion of the plan at each story level shall be determined using Table R602.10.3 and Figure R602.10.3(1). The cumulative contributing length of braced wall panels assigned to a rectangle side shall be greater than or equal to the required length of bracing specified in Table R602.10.3. The following additional requirements shall apply.

1. Braced wall panels on exterior or interior walls shall be assigned to the nearest rectangle side as shown in Figure R602.10.3(2) for each story level floor plan.
2. Braced wall panels shall be distributed and installed in accordance with Figure R602.10.3(3).
3. A minimum of one-half the required bracing amount for each rectangle side should be located on exterior walls within 8 feet of the location of the rectangle side.
4. Interior braced wall panels using Method GB shall be assigned to the closest parallel rectangle side and shall contribute 0.5 times their actual length. The narrowest width of braced wall panels allowed for GB is 48", and the 0.5 accounts for GB being half the strength of other methods except LIB.
5. The bracing amount provided on an upper story building side shall be deemed-to-comply where it equals or exceeds the amount of bracing required for the story immediately below.
6. Where the bracing amount provided on an upper story equals or exceeds the amount of bracing required for the story below, an analysis of bracing shall not be required for the upper story.
7. CS-WSP Continuous sheathed WSP method to have - Minimum braced material thickness or size 7/16". Minimum brac panel length or brace angle 24" adjacent to window not more than 67% of wall height; 30" adjacent to door or window greater than 67% and less than 85% of wall height. 48" for taller openings. Fasteners 6d common nail or 8d (2 1/2" long x 0.113" diameter) nails. See table R602.3(3). Space 6" edges and 12" field.

General Notes

- Square footages are for heated floor areas. This does not include fireplace projection or vaulted space. Stairs are counted on the main floor only.
- Dimensions are from the face of the stud wall. Contractor to verify all dimensions and please contact us if an error is present..
- All footings shall be on firm undisturbed soil of no less than 2000 psf and be below frost depth. The exact size and reinforcement of concrete footings must be determined by local soil conditions. Verify design with local engineer.
- HVAC design to be sized according to the local climate conditions including compass direction.

Energy Notes

- Caulk all exterior toe plates with latex caulk.
- Caulk all wire and pipe holes where they penetrate all upper and lower exterior plates.
- Use blown-in wall insulation if at all possible. If batt insulation is used pack behind all electrical boxes.
- Seal all joints in HVAC ducts, with leakage no more than 3%. Three inch fiber mesh tape should be used on all collar to plenum connections and all gaps that are 1/4" or wider. Insulate ducts with R-6.5 or greater.
- Foam insulate between all exterior window and door edges and rough opening frame. Use non-expanding foam.
- Provide back draft damper on kitchen hood vent, dryer vent, and bathroom vents.
- Insulate all hot water pipes.
- Install wrap kit on water heater.

Index to Drawings

This plan is licensed to Falcon Built

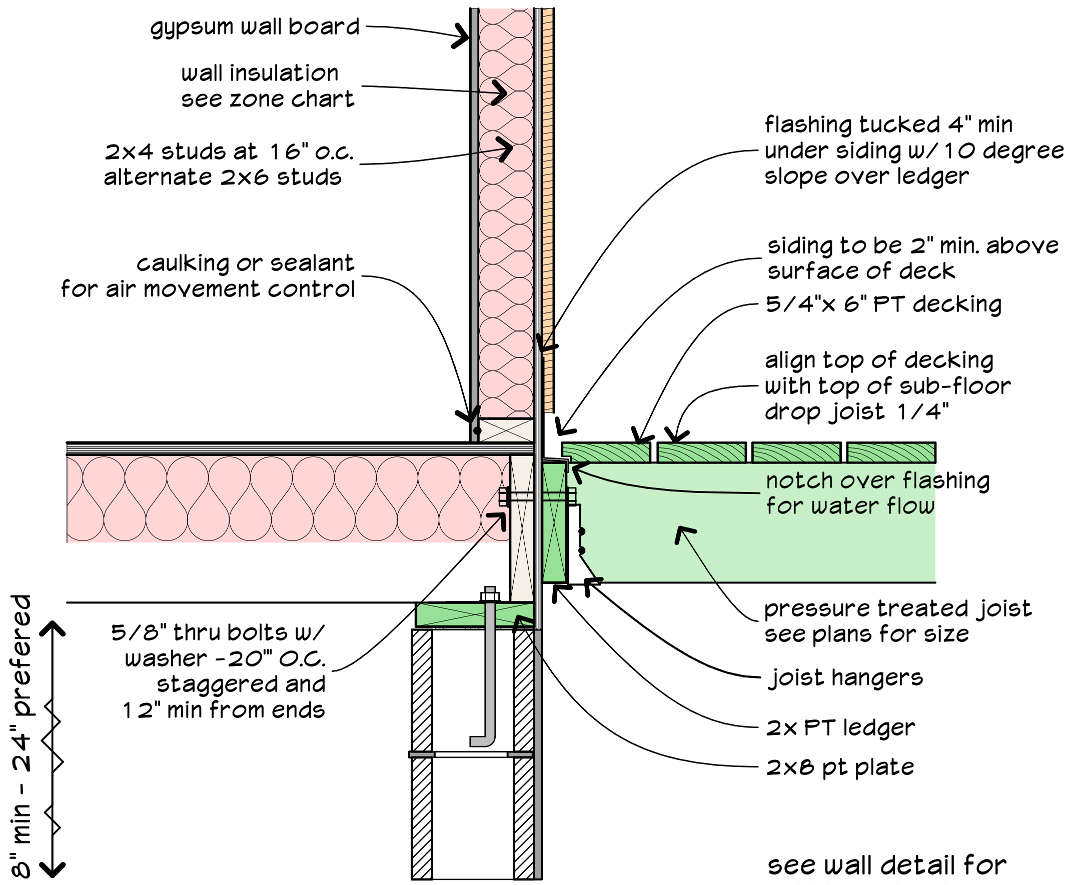
Plan 1416A

www.thompsonplans.com

85 Hiaway Trail
Clyde , NC 28721
828-734-2553

Richard P Thompson
6830
11/11/21

original print date
11/11/21



W5

Wall detail Fl 1

scale 1"= 1'-0"

General crawl notes

Provide 18"x24" min. access door.
Location as per field conditions - side prefered.

Provide foundation vents not less than 1 sqft per 150 sqft under floor space. One vent within 3 feet of each corner. IRC - R408.1

or

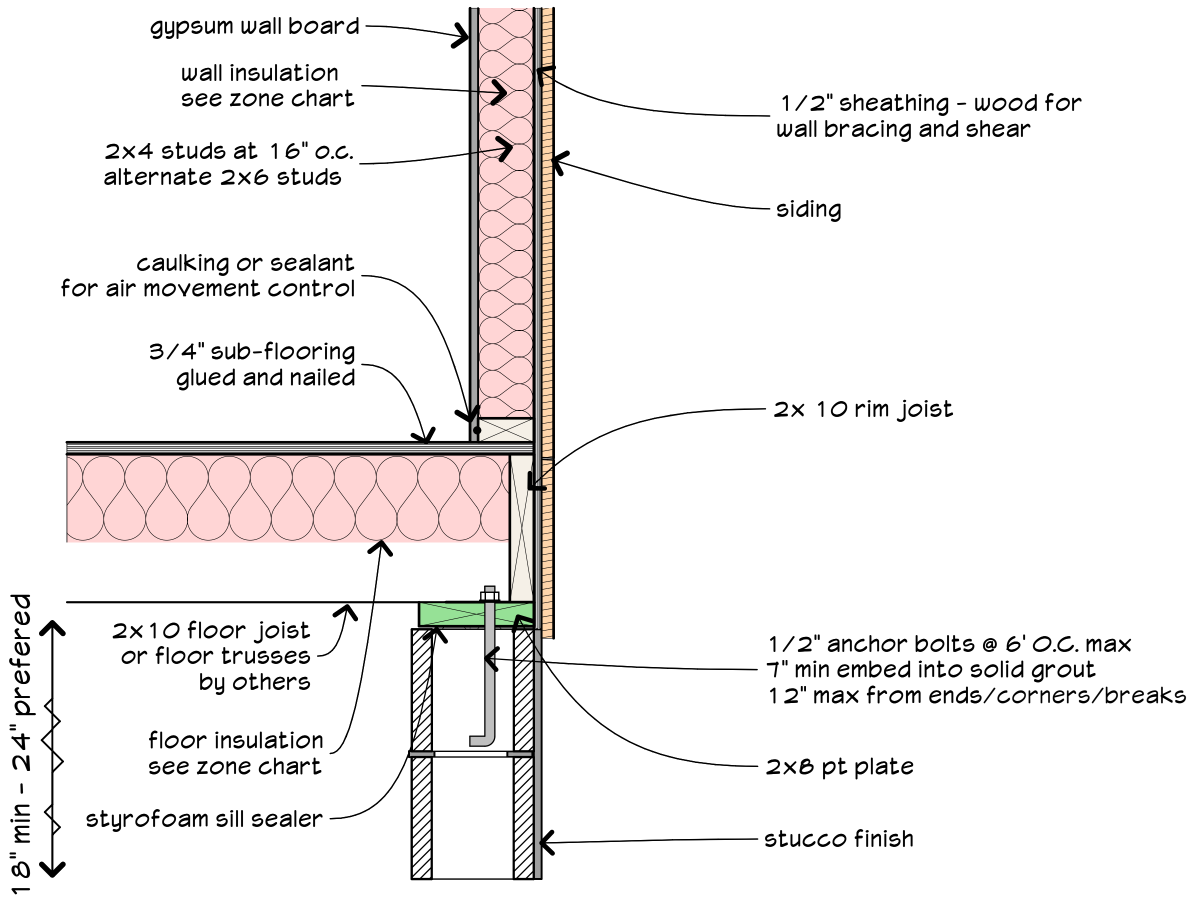
Unvented where exposed earth is covered and and air supplied as per IRC - R409

Fill piers solid with grout. Pier block size shown is minimum. May vary as per foundation height.

Pier spacing may vary dependant on local snow loads, soli bearing capacity and the use of roof trusses.

Footing sizes and reinforcment are assumed. Soil conditions vary and must be taken into account. Inspectors can allow builders to adjust the use of rebar and footing sizes as per local conditions.

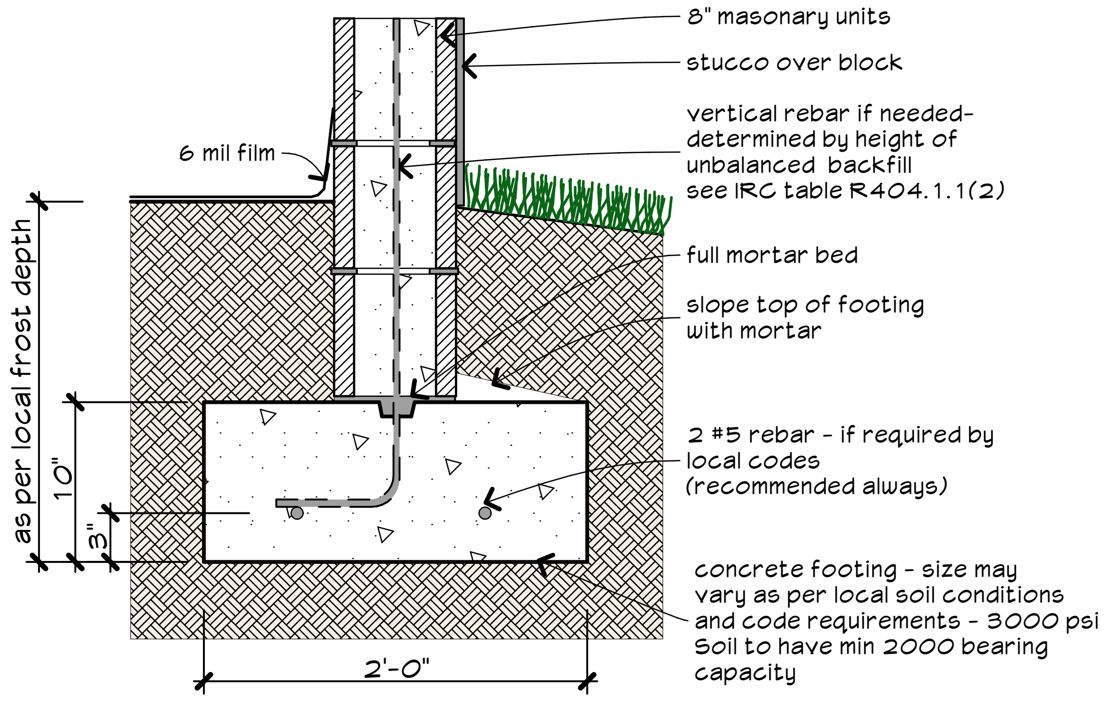
Girders may be sized with LVL's to reduce piers. Up size footing accordingly (30"x30"x10" min w/ 4-#4's each way) and 16"x16" filled piers.



W1

Wall detail Fl 1

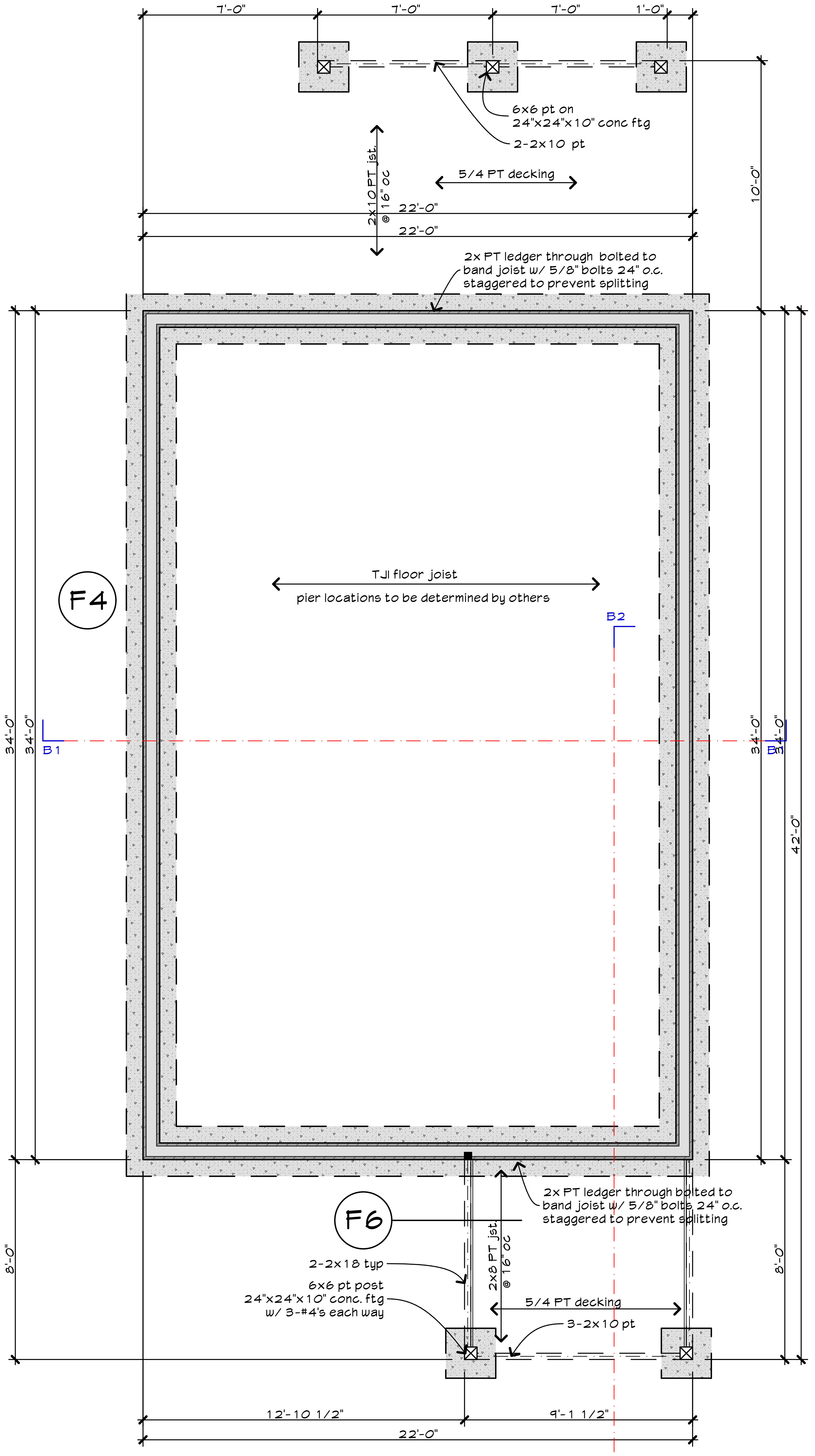
scale 1"= 1'-0"



F4

Foundation - block wall

scale 1"= 1'-0"



Crawl Foundation Plan

scale 1/4"= 1'-0"

plan # 1416A

standard contract document

Richard P Thompson
6830
11/11/21

85 Hiaway Trail Clyde, NC 28721

www.thompsonplans.com
Rick Thompson - Architect
828-734-2553

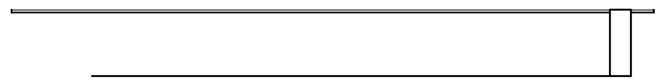
original print date
11/11/21

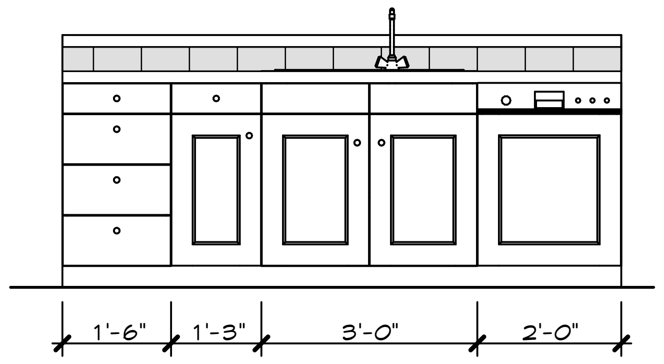
1 - Kitchen Caabinet

Scale 3/8" = 1'-0"

2 - Kitchen Cabinet

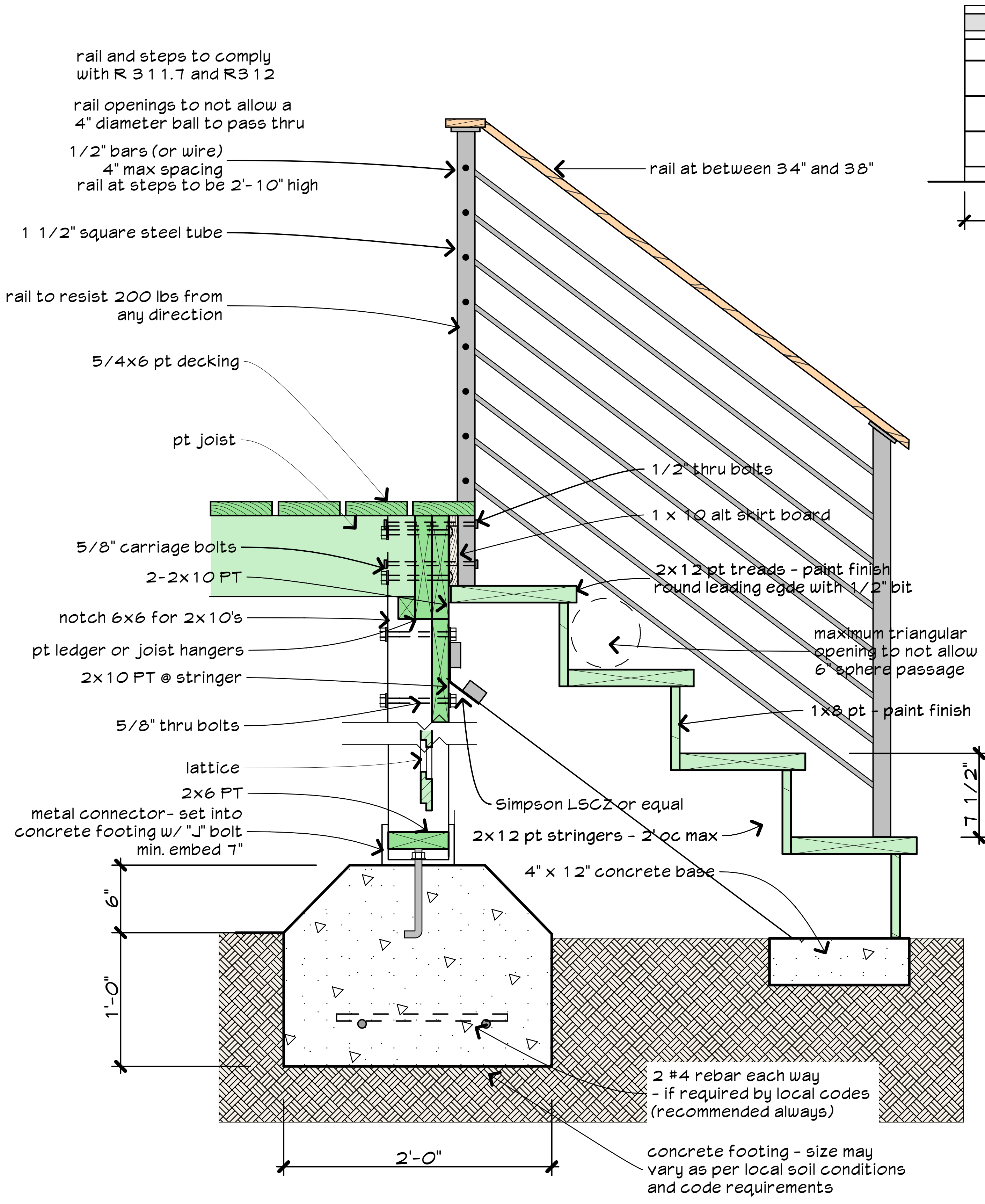
Scale 3/8" = 1'-0"





3- Kitchen Cabinet

Scale 3/8" = 1'-0"



D1 Deck Detail

scale 1"=1'-0"

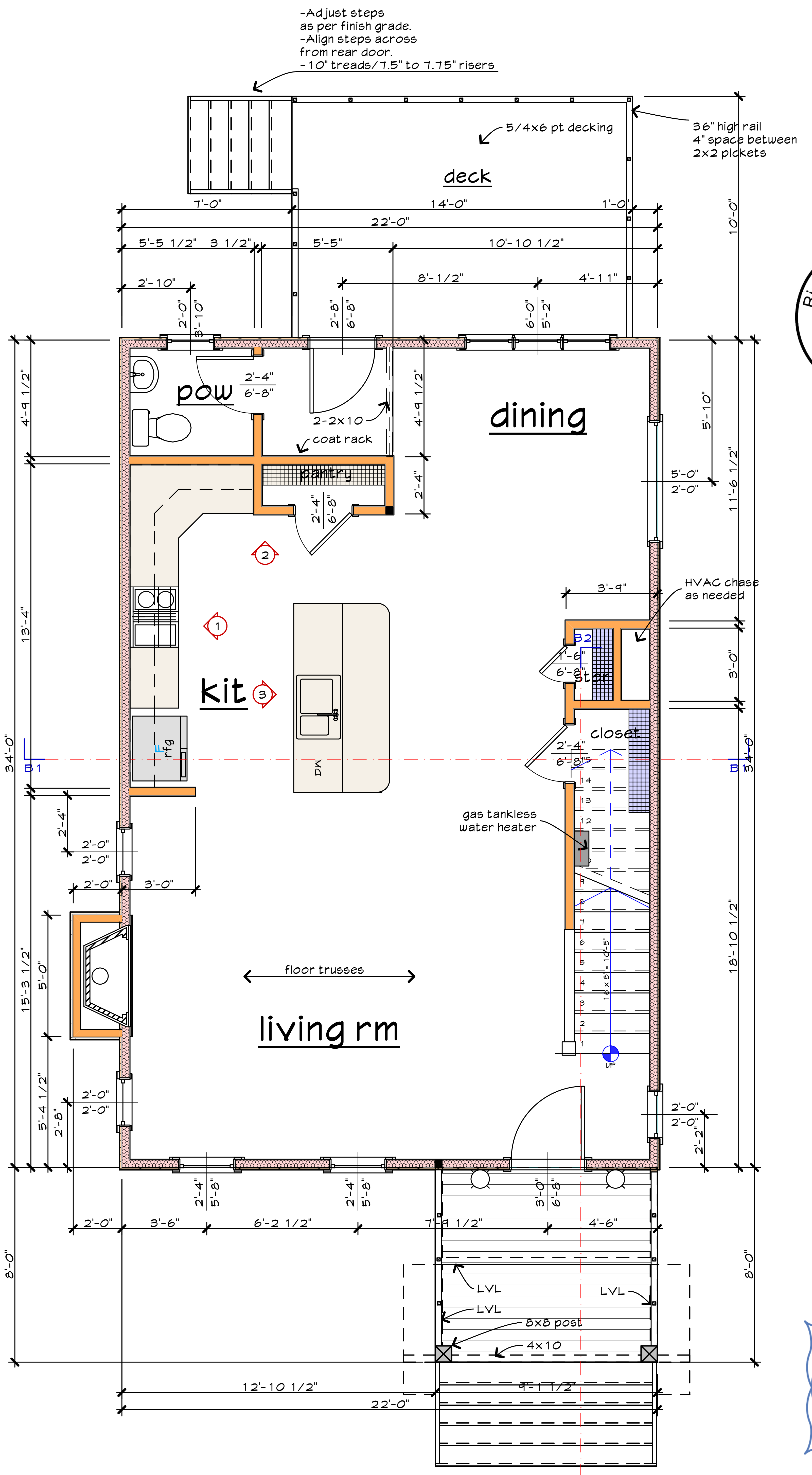
Wall Header Notes

Load bearing - interior and exterior

- spans up to 2'-6"	2-2x6's - 1J/1K
- 2'-7" to 3'-6"	2-2x8's - 2J/1K
- 3'-7" to 5'-0"	2-2x10's - 2J/2K
- 5'-1" to 6'-6"	2-2x10's - 3J/2K
- 6'-7" to 8'-0"	2-2x12's - 3J/3K

Non-load bearing interior

- spans up to 3'-6"	2-2x6's - 1J/1K
- 3'-7" to 5'-6"	2-2x8's - 2J/1K
- 5'-7" to 6'-6"	2-2x10's - 2J/2K
- 6'-7" to 8'-0"	2-2x10's - 3J/2K



Floor 1 plan

scale 1/4"=1'-0"

Floor 1 plan	748 sq.ft.
Floor 2 plan	739 sq.ft.
total	1487 sq.ft.

plan # 1416A

original print date
11/11/21

standard contract document

Richard P Thompson
6830
11/11/21

Rick Thompson - Architect
www.thompsonplans.com
828-734-2553
85 Hiaway Trail Clyde, NC 28721

This plan is licensed to Falcon Built

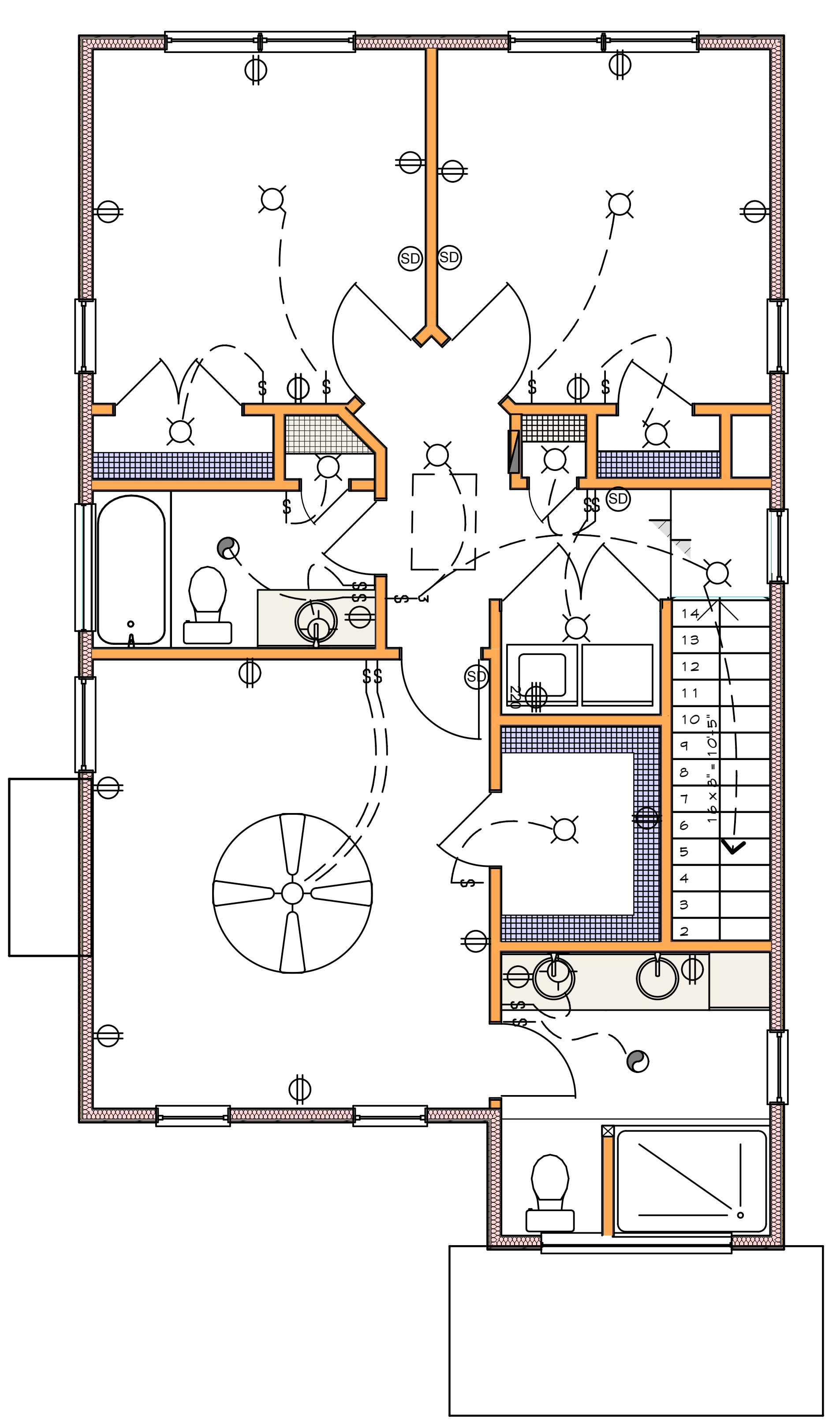
All Federal, State and local codes shall be considered as a part of these documents, and shall take preference over anything shown or implied if differences arise.

Door List

Quantity	Width	Height	Type	Name
1	2'-8"	6'-8"	Exterior	RD01 Door ST
1	3'-0"	6'-8"	Exterior	RD01 Door ST
1	4'-0"	6'-8"	Interior	RD02 Swing
1	5'-0"	6'-8"	Interior	RD02 Swing
3	1'-6"	6'-8"	Interior	RD02 Swing
3	2'-6"	6'-8"	Interior	RD02 Swing
7	2'-4"	6'-8"	Interior	RD02 Swing
17				

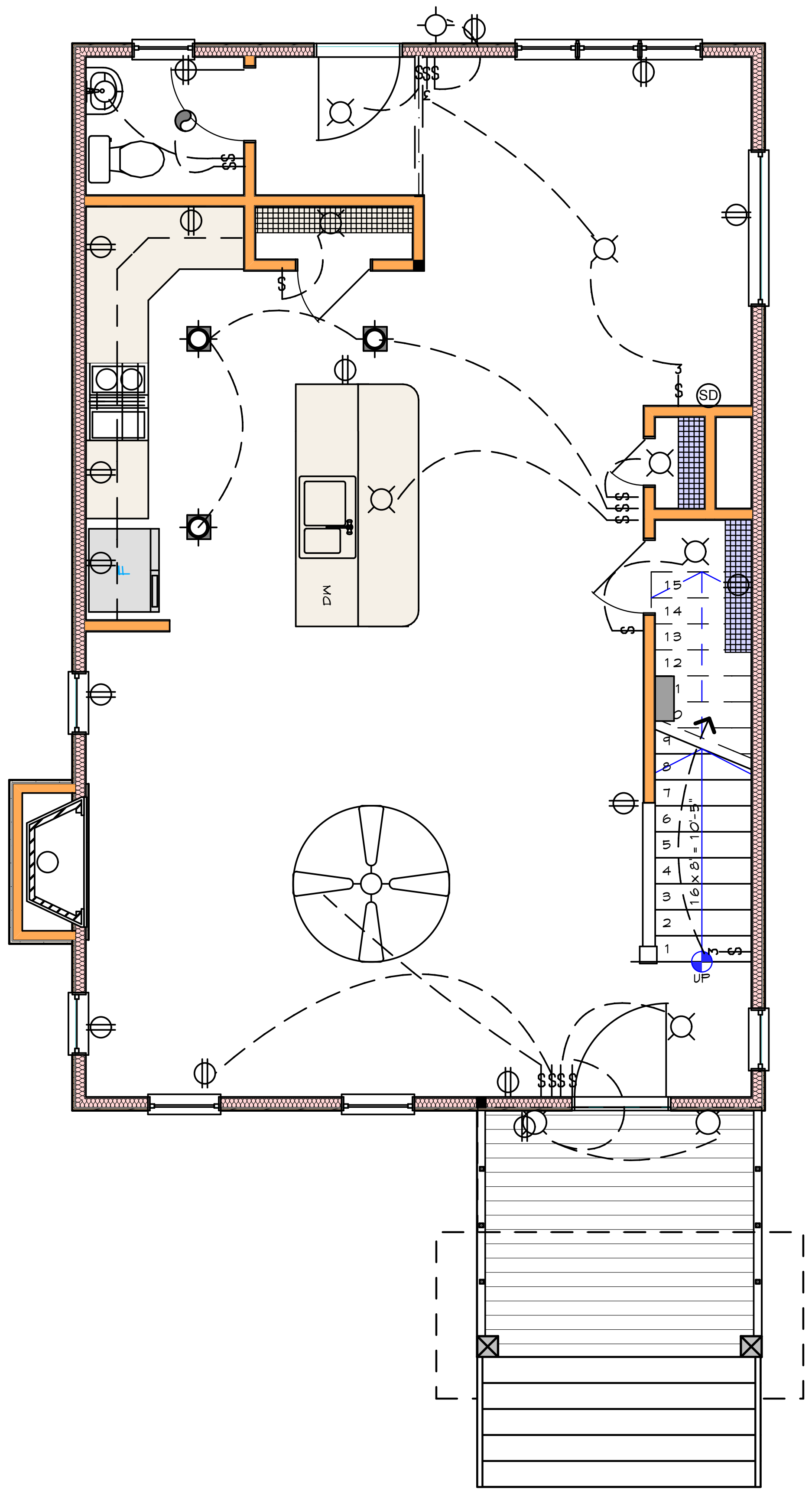
Window List

Quantity	W x H Size	Units	Window Type
1	2'-0"x3'-10"	Single	RW1-4 Doublehung
1	3'-0"x4'-6"	Single	RW1-4 Doublehung
1	4'-0"x1'-0"	Fixed	RW1-1 Stationary
1	5'-0"x2'-0"	Single	RW1-1 Stationary
1	6'-0"x1'-0"	Fixed	RW1-1 Stationary
1	6'-0"x5'-2"	Triple	RW1-4 Doublehung
2	2'-4"x5'-8"	Single	RW1-4 Doublehung
2	6'-0"x4'-6"	Twin	RW1-4 Doublehung
3	2'-0"x2'-0"	Single	RW1-1 Stationary
6	2'-4"x4'-6"	Single	RW1-4 Doublehung
19			



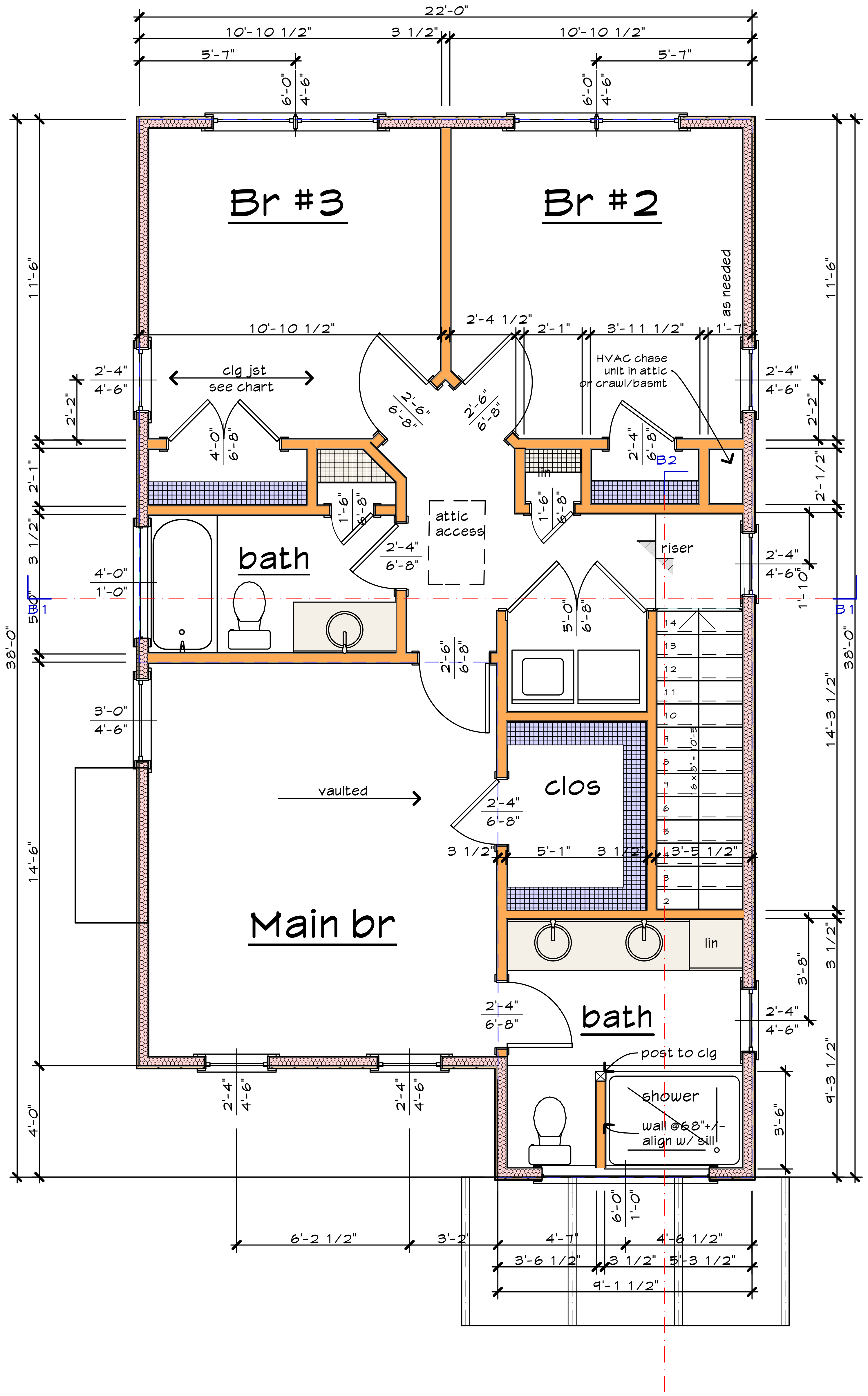
Electrical - Floor 2 Plan

scale 3/16" = 1'-0"



Electrical - Floor 1 Plan

scale 3/16" = 1'-0"



Floor 2 plan

scale 1/4"=1'-0"

B2

standard contract document

Richard P Thompson
Registered Architect
6830
11/11/21
North Carolina
Clyde, NC

85 Hiaway Trail Clyde, NC 28721

Rick Thompson - Architect

www.thompsonplans.com

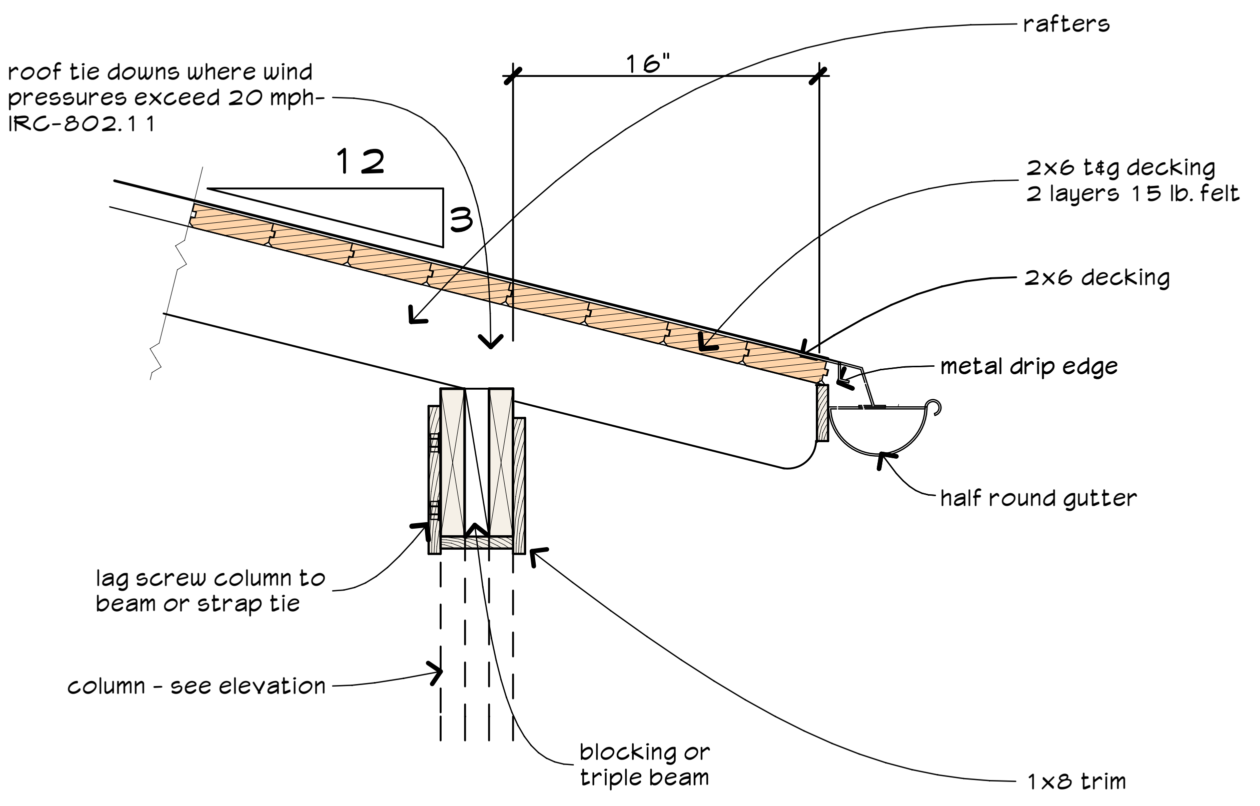
828-734-2553

original print date
11/11/21

All Federal, State and local codes shall be considered as a part of these documents, and shall take preference over anything shown or implied if differences arise.

This plan is licensed to Falcon Built

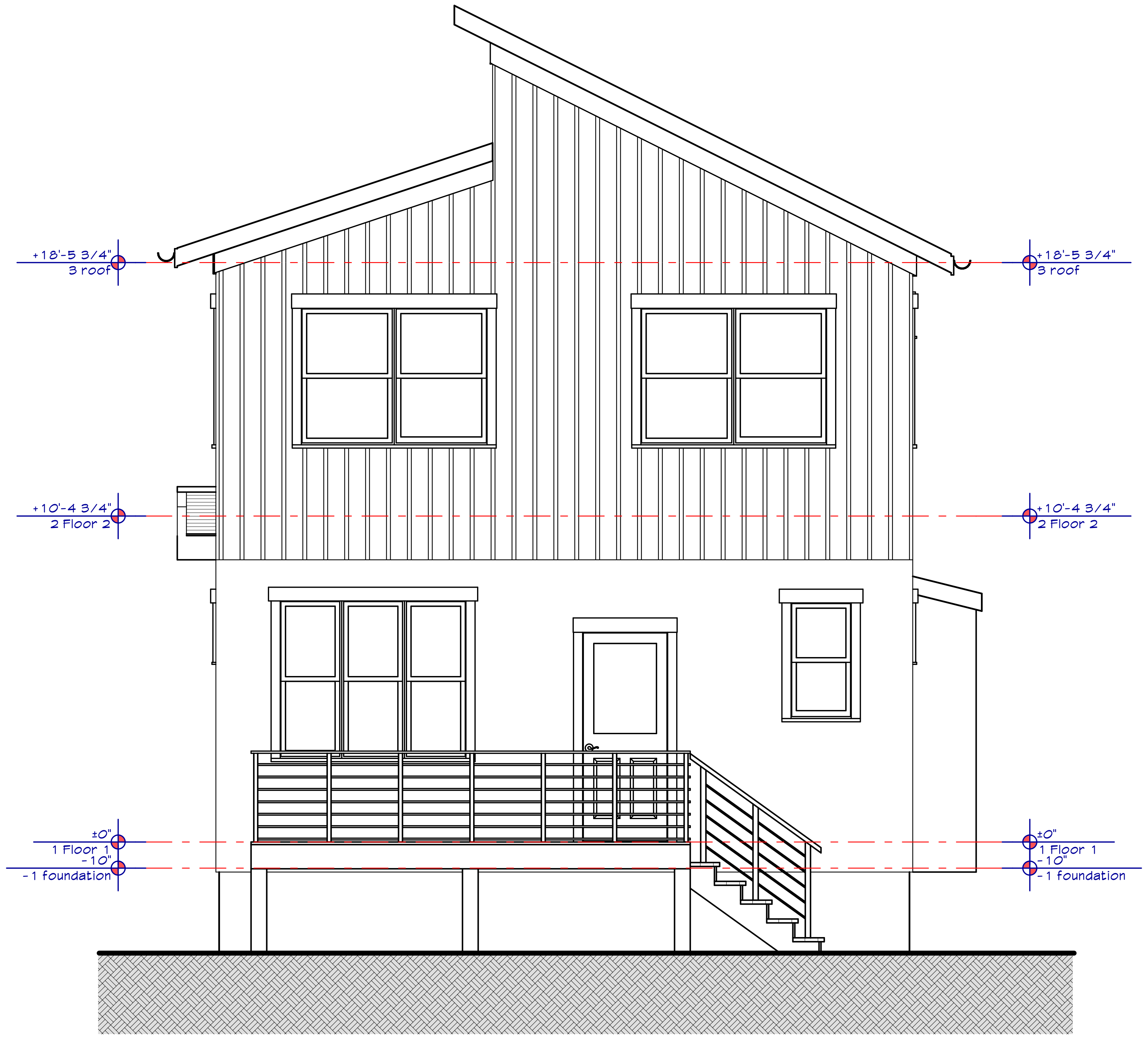
plan # 1416A



See The American Wood Council web site for detailed information using 2x6 t&g decking - http://www.awc.org/Publications/WCD/index.html#WCD2

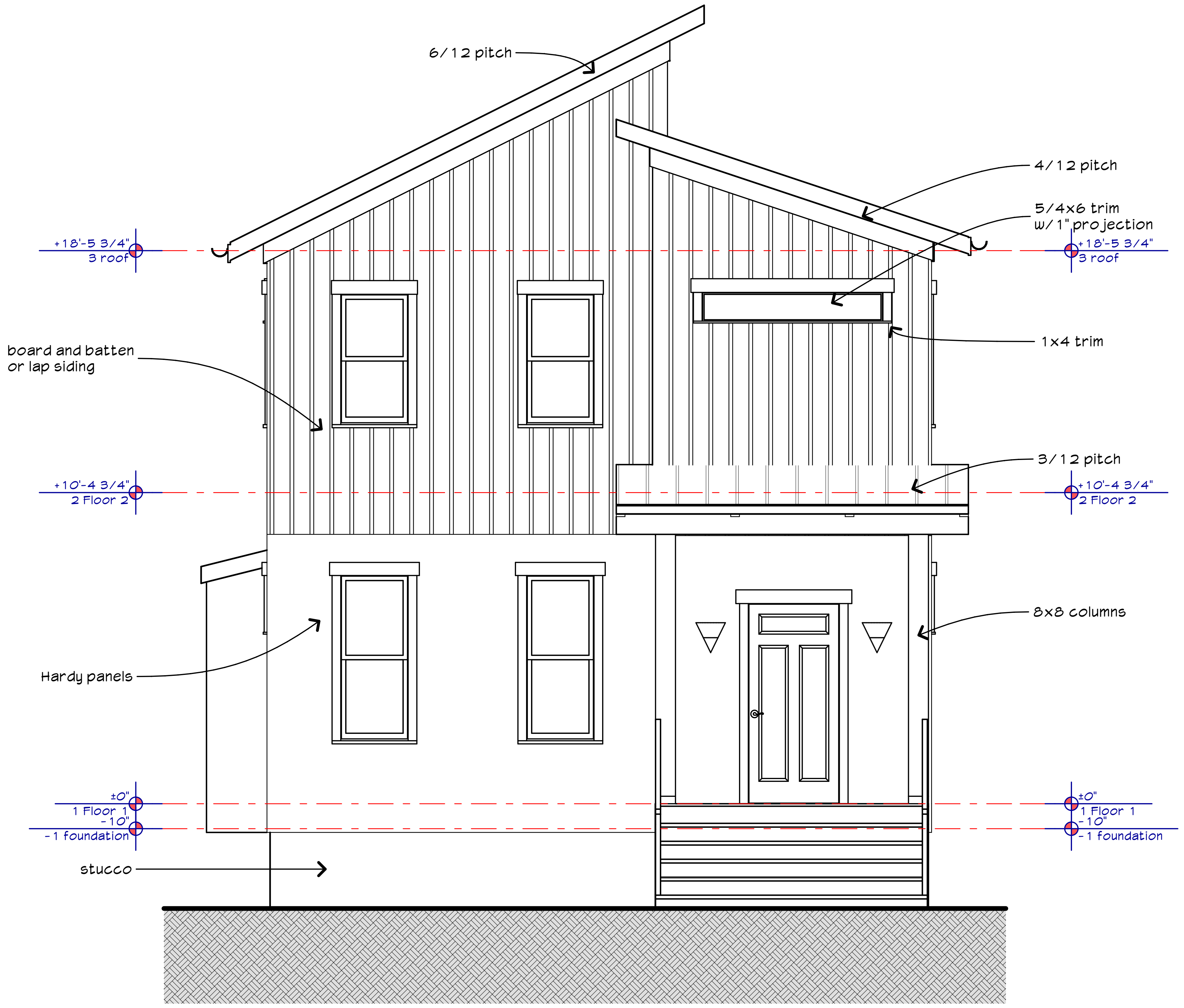
PE2 Exposed Porch Eave

scale 1"=1'-0"



Rear Elevation

scale 1/4" = 1'-0"



Front Elevation

scale 1/4" = 1'-0"

standard contract document

Richard P Thompson
Registered Architect
6830
11/11/21

85 Hiaway Trail Clyde, NC 28721

www.thompsonplans.com

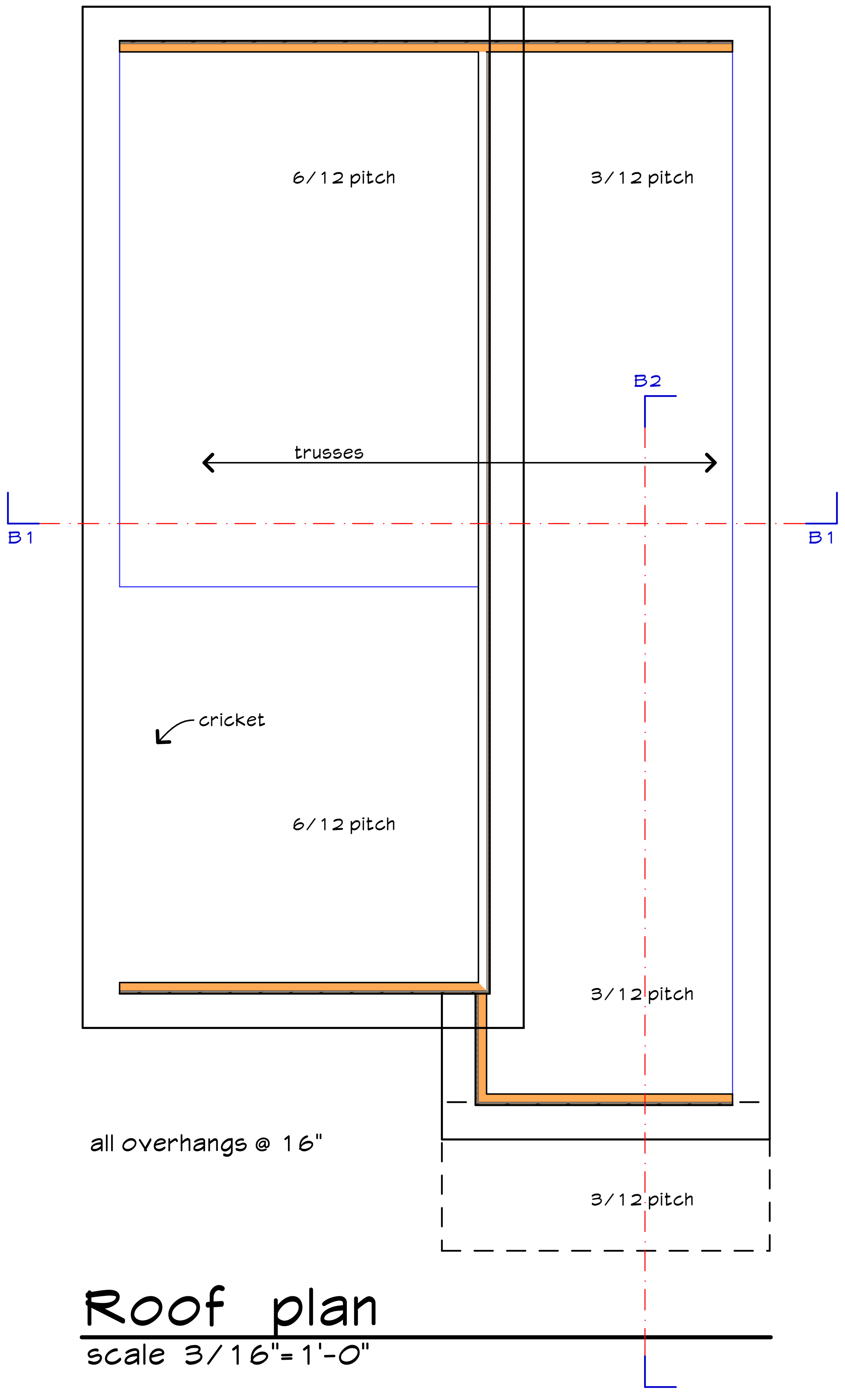
Rick Thompson - Architect

828-734-2553

original print date
11/11/21

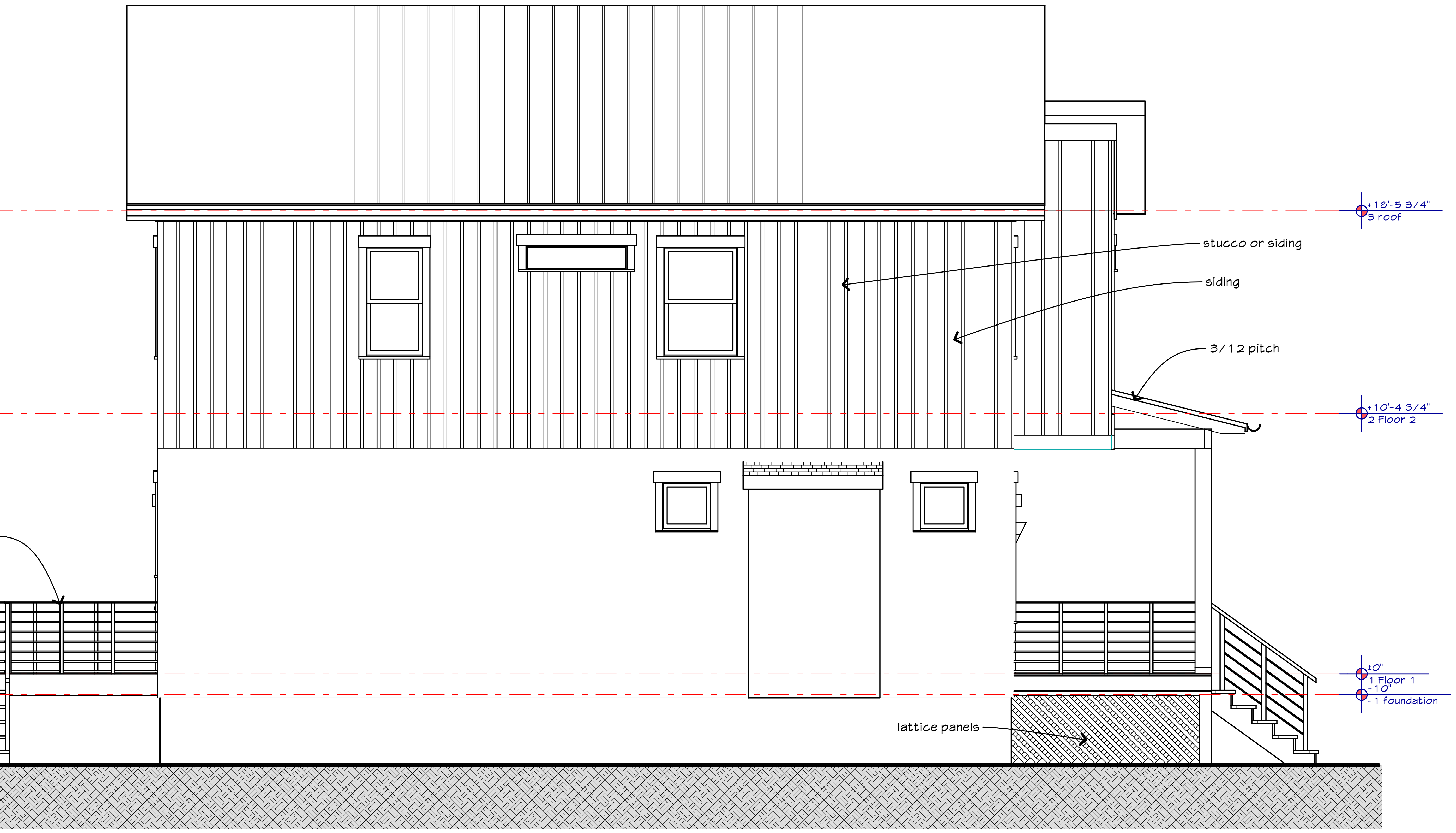
This plan is licensed to Falcon Built

plan # 1416A



all overhangs @ 16"

Roof plan
scale 3/16"=1'-0"



Left Side Elevation
scale 1/4" = 1'-0"

All Federal, State and local codes shall be considered as a part of these documents, and shall take preference over anything shown or implied if differences arise.

This plan is licensed to Falcon Built

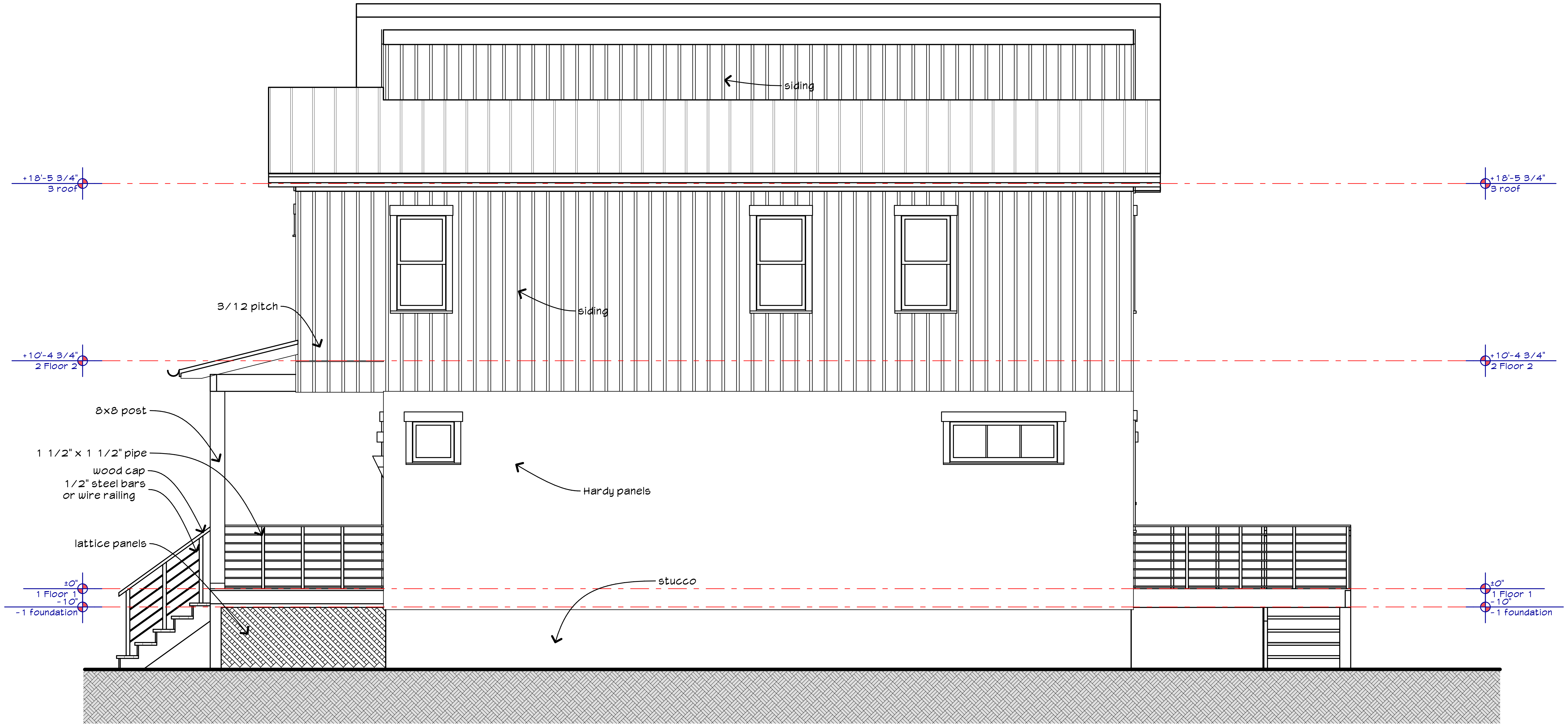
plan # 1416A

standard contract document

Richard P Thompson
6830
11/11/21

Rick Thompson - Architect
85 Hiaway Trail Clyde, NC 28721
www.thompsonplans.com
828-734-2553

original print date
11/11/21



Right Side Elevation

scale 1/4" = 1'-0"

standard contract document

Richard P Thompson
6830
11/11/21

Rick Thompson - Architect

85 Hiaway Trail Clyde, NC 28721

www.thompsonplans.com

828-734-2553

original print date
11/11/21

This plan is licensed to Falcon Built

plan # 1416A

Minimum Insulation Chart

Table N1102.1 - IRC 2015 & (2018 NCRC - in parentheses)
Insulation and fenestration requirements by components [a]

Check appropriate climate zone as determined by local building dept.

	Climate Zone	Glazing U-factor	Glazes fenestration SHGC[b,e]	Ceilings R-value	Wood frame wall R-value	Floors R-value	Basement[c] walls R-value	Slab[d] perimeter R value and depth	Crawl space[c] wall R- value
☐	1	NR	.25	30	13	13	0	0	0
☐	2	.40	.25	38	13	13	0	0	0
☐	3	.35	.25	38 (or 30[ci])	20 or 13+5[h] (15 or 13+2.5[h])	19	5/13[f]	0	5/13
☐	4 except Marine	.35	.40	49 (38 or 30[ci])	20 or 13+5[h] (15 or 13+2.5[h])	19	10/13 (10/15)	10, 2' (10, ~~2'~~)	10/13 (10/15)
☐	5 & Marine	.32 (.35)	NR	49 (38 or 30[ci])	20 or 13+5[h] (19[n] or 13+5[h])	30[g]	10/13 (10/15)	10, 2' (10, ~~2'~~)	10/13 (10/15)
☐	6	.32	NR	49	20 or 13+5[h]	30[g]	15/19	10, 2'	15/19 (10/19)
☐	7	.32	NR	49	20 or 13+5[h]	38[g]	15/19	10, 4'	15/19
☐	8	.32	NR	49	20 or 13+5[h]	38[g]	15/19	10, 4'	15/19

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 excludes skylights. The SGHC column applies to all glazed fenestration.

c - "15/19" means R-15 continuous insulated sheathing on the interior or exterior of the home or R-19 cavity insulation at the interior of the basement wall. "15/19" shall be permitted to be met with R-13 cavity insulation on the interior of the basement wall plus R-5 continuous insulated sheathing on the interior or exterior of the home. "10/13" means R-10 continuous insulated sheathing on the interior or exterior of the home or R-13 cavity insulation at the interior of the basement wall.
("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 - R-5 shall be added to the required slab edge R-values for heated slabs. Insulation depth shall be the depth of the footing or 2 feet, whichever is less in Zones 1 through 3 for heated slabs. For monolithic slabs, insulation shall be applied from the inspection gap downward to the bottom of the footing or a maximum of 24 inches below grade whichever is less. For floating slabs, insulation shall extend to the bottom of the foundation wall or 24 inches, whichever is less.

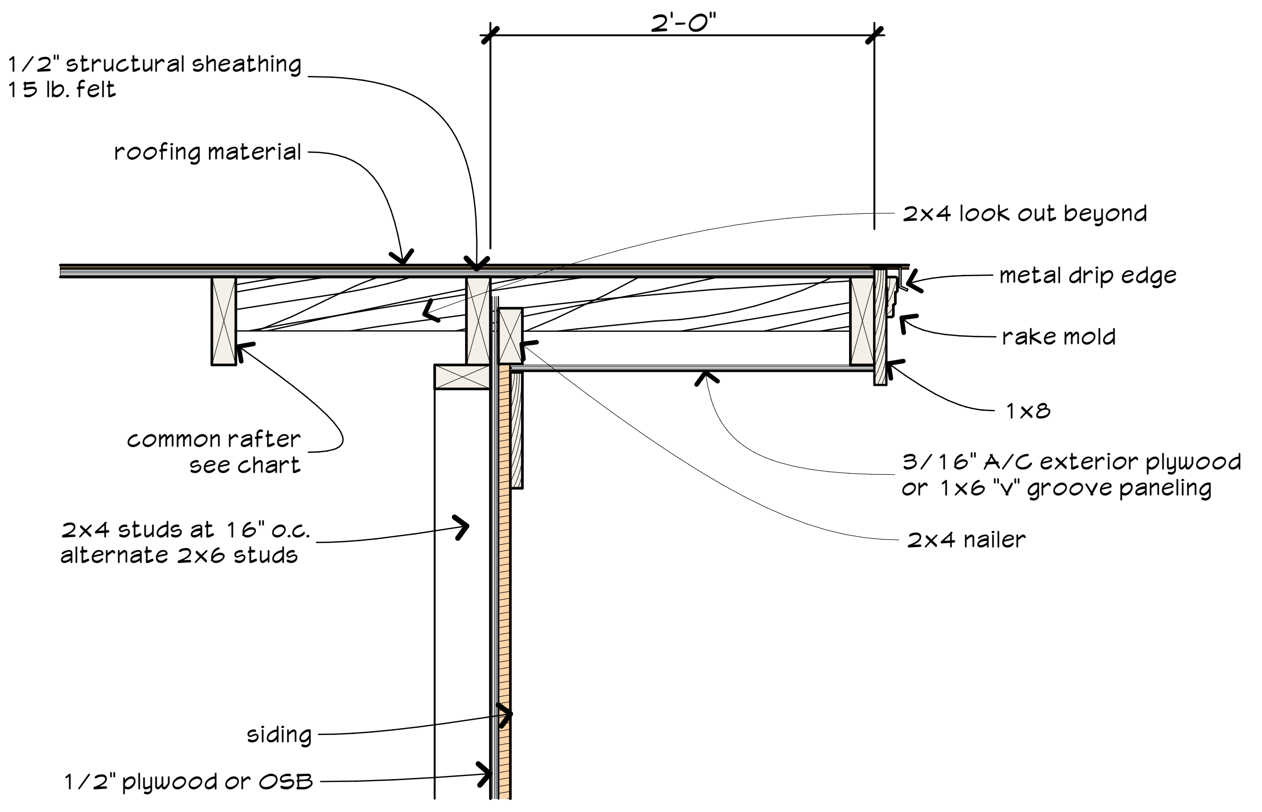
e - There are no solar heat gain coefficient (SGHC) requirements in the Marine Zone.

f - Basement wall insulation is not required in warm-humid locations as defined by Figure 301.1 and Table 301.1.

g - Or insulation sufficient to fill the framing cavity, R-19

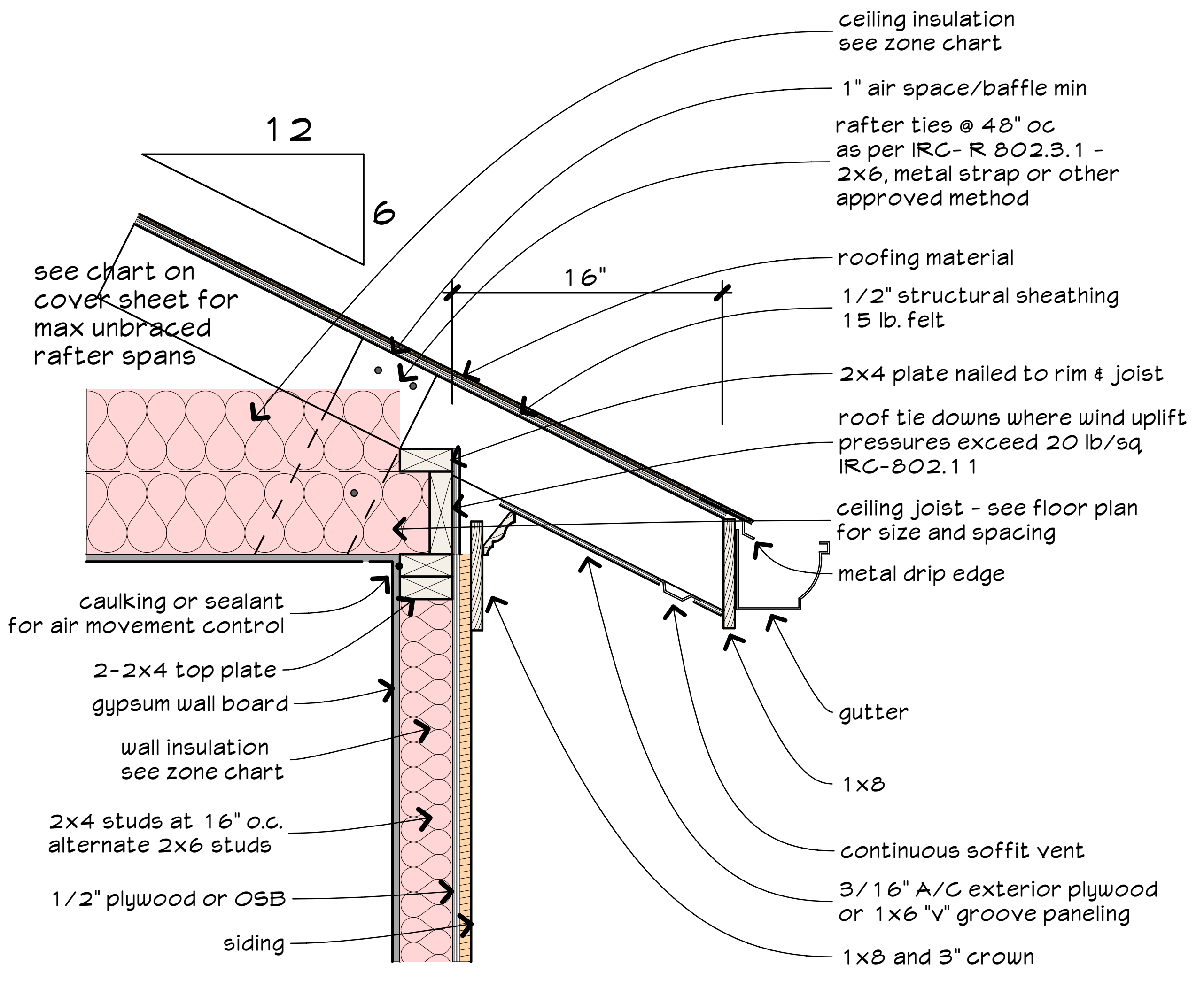
h - "13+5" means R-13 cavity insulation plus R-5 insulated sheathing. If structural sheathing covers 25 % or less of the exterior, insulating sheathing is not required where structural sheathing is used. If structural sheathing covers more than 25 percent of exterior, structural sheathing shall be supplemented with insulated sheathing of at least R-2.

i - The second R-value applies when more than half the insulation is on the interior of the mass wall.



E4 **Typical Rake**

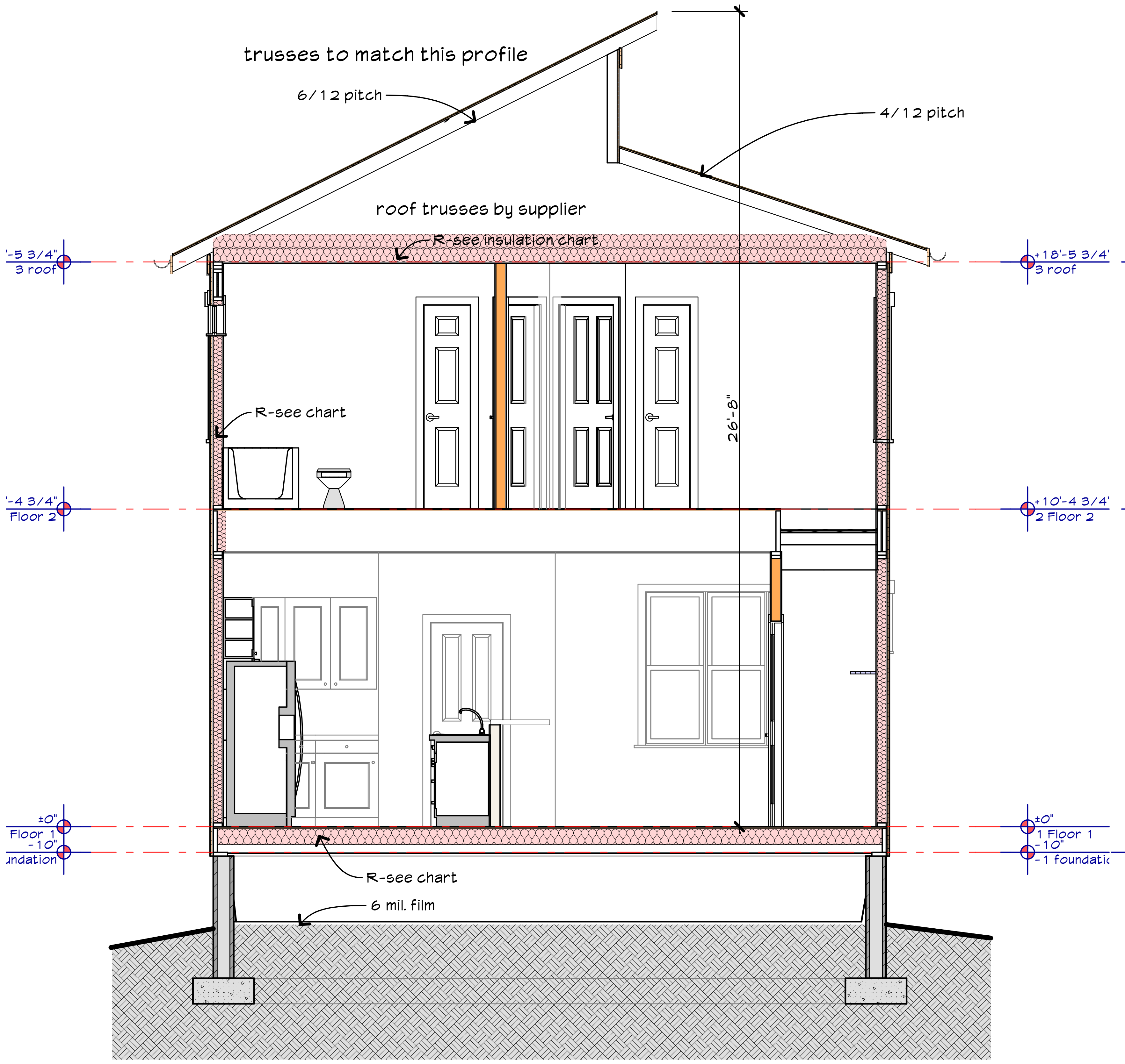
scale 1" = 1'-0"



Alternate roof trusses to be raised chord trusses

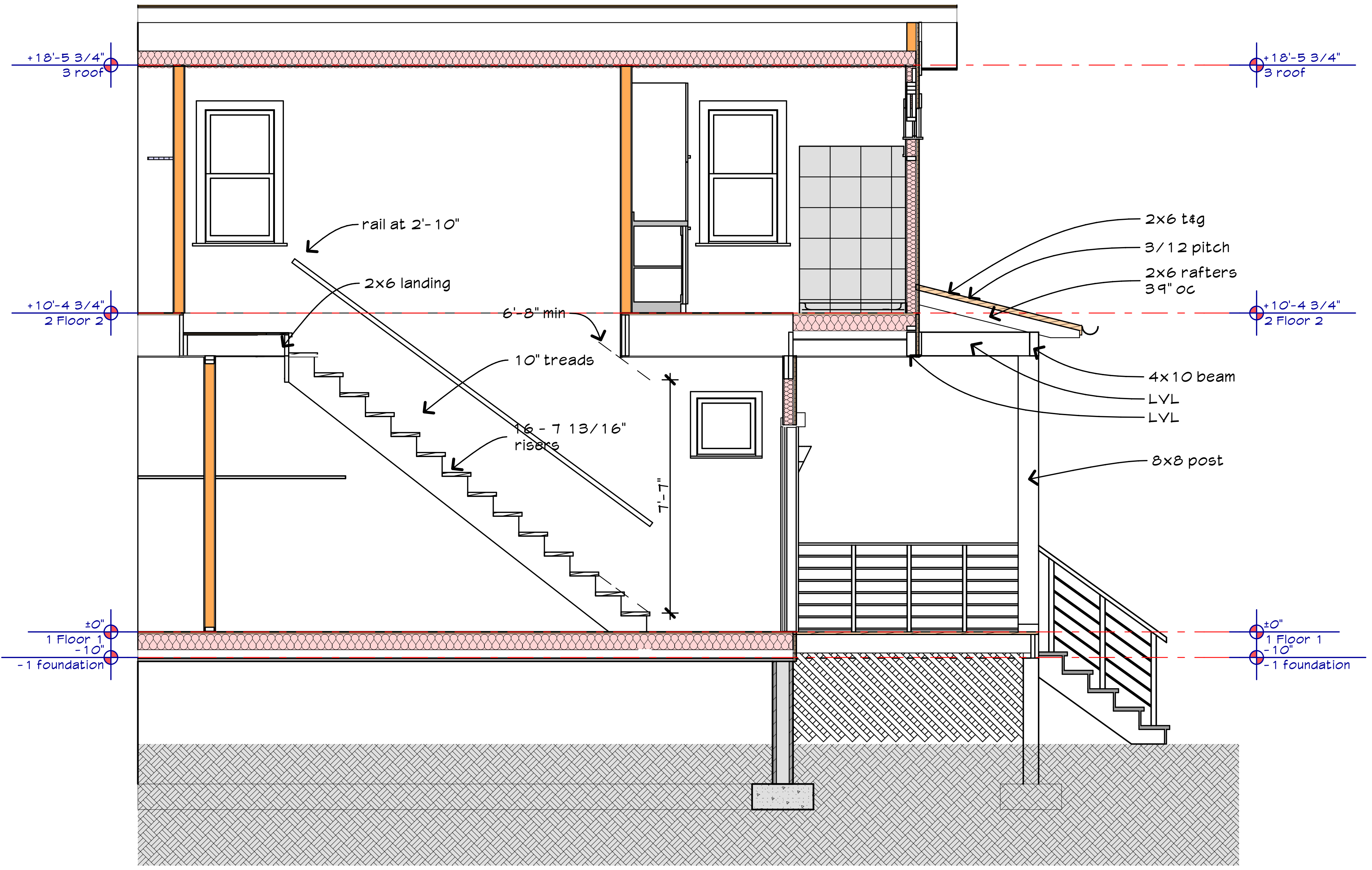
E1 **Typical Boxed Eave** - rafters on joist

scale 1" = 1'-0"



Building section

scale 1/4" = 1'-0"



Building section

scale 1/4" = 1'-0"

All Federal, State and local codes shall be considered as a part of these documents, and shall take preference over anything shown or implied if differences arise.

This plan is licensed to Falcon Built

plan # 1416A

standard contract document

Richard P Thompson
Registered Architect
6830
North Carolina
Clyde, NC
11/11/21

85 Hiaway Trail Clyde, NC 28721

Rick Thompson - Architect

www.thompsonplans.com

828-734-2553

original print date
11/11/21