



REAR ELEVATION

NOTICE TO CONTRACTOR
 All construction must comply with current NC Building Codes and is subject to field inspection and verification.

APPROVED
 Limited building only review
 Permit holder responsible for full compliance with the code

01/27/2025

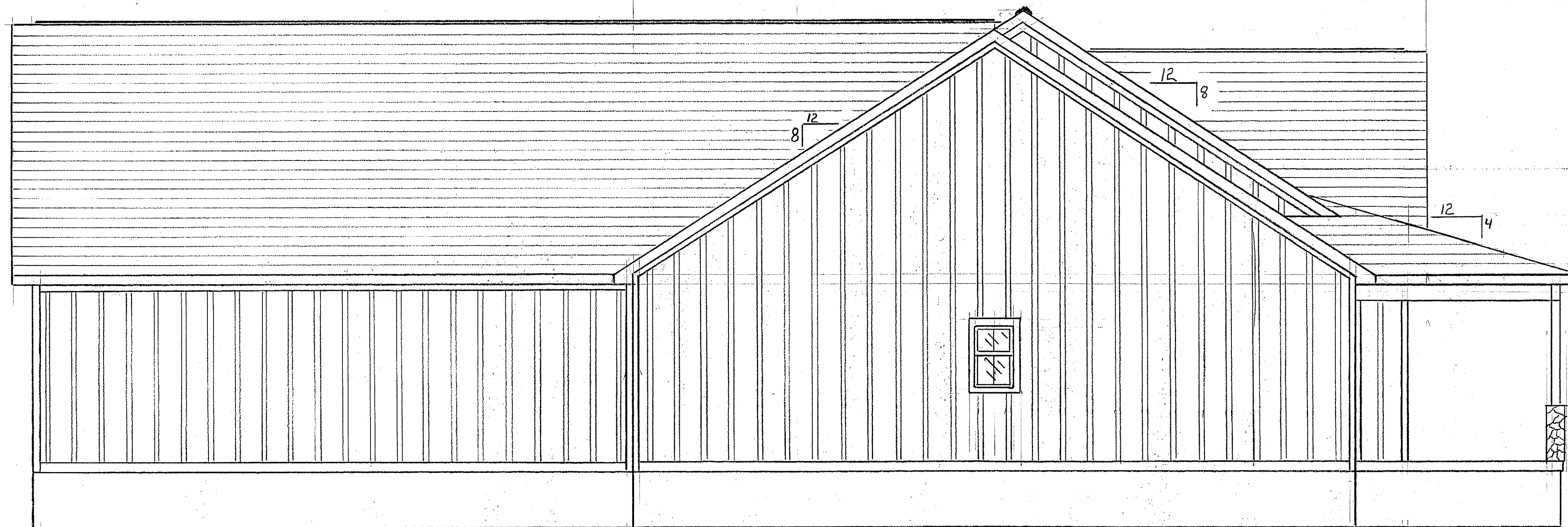

FRONT ELEVATION

THESE PLANS ARE DESIGNED TO MEET THE REQUIREMENTS OF THE NORTH CAROLINA RESIDENTIAL CODE 2018 EDITION.

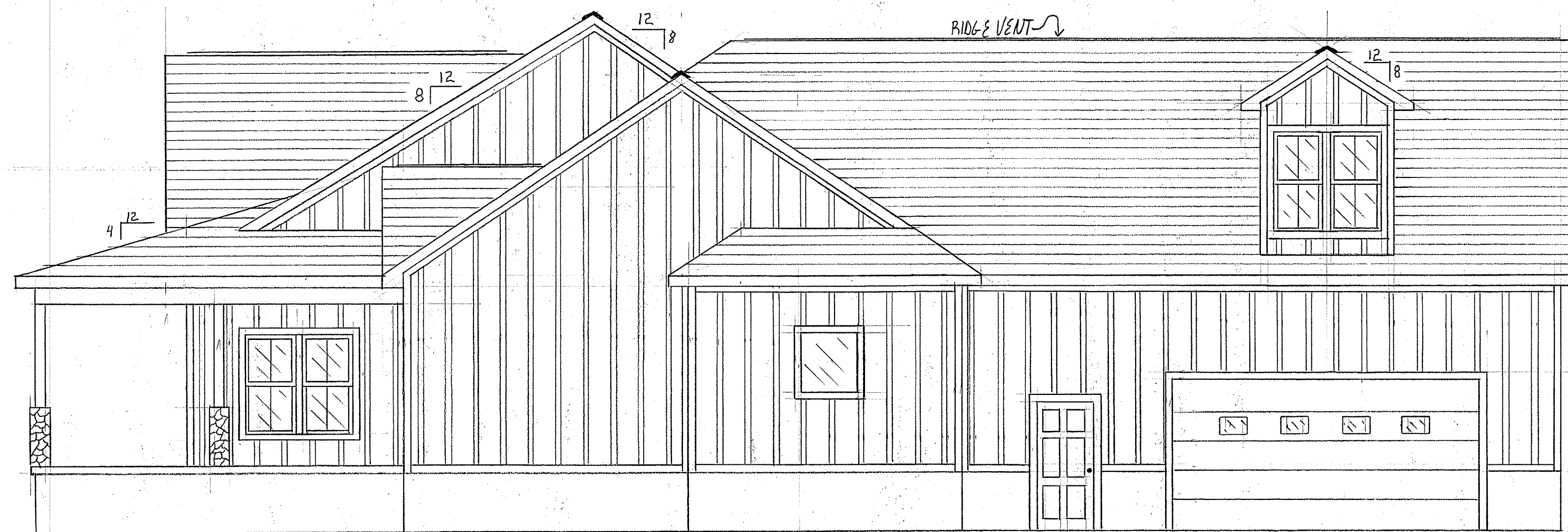
- ENERGY COMPLIANCE;
- 1- CLIMATE ZONE 4
 - 2- WINDOW U-FACTOR: .35
SHGC: .30
 - 3- INSULATION R VALUES: CEILING/ROOF- R38
WALLS- R15
FLOOR- R19
- FIRST LEVEL HEATED: 2126#
 BONUS: 460#
 GARAGE: 748#
 PORCHES: 810#

- 1x8 FIBER CEMENT FASCIA
- 1x4 FIBER CEMENT FIBER BOARD
- 5/4" FIBER CEMENT BORDER BOARDS
- 1x8 BAND BOARD
- PAVED CEMENT BLOCK FOUNDATION

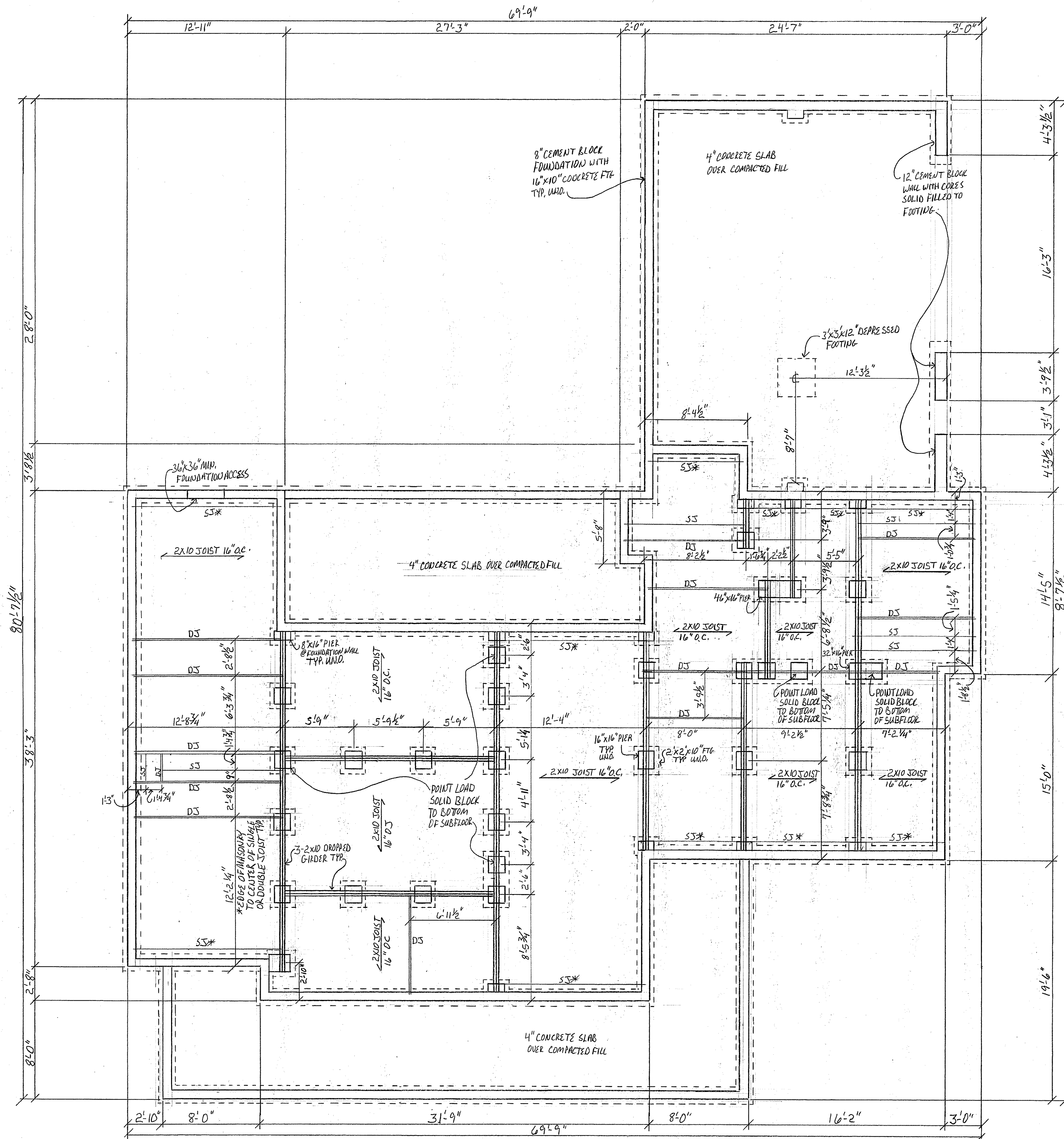
PEYTON & AMBERLY HOME	
ELEVATIONS: FRONT & REAR	
DRAWN BY: WILLIAM JOHNSON	
SCALE: 1/4" = 1'	
DATE: JANUARY 5, 2025	
PAGE: 1 OF 7	



LEFT SIDE ELEVATION



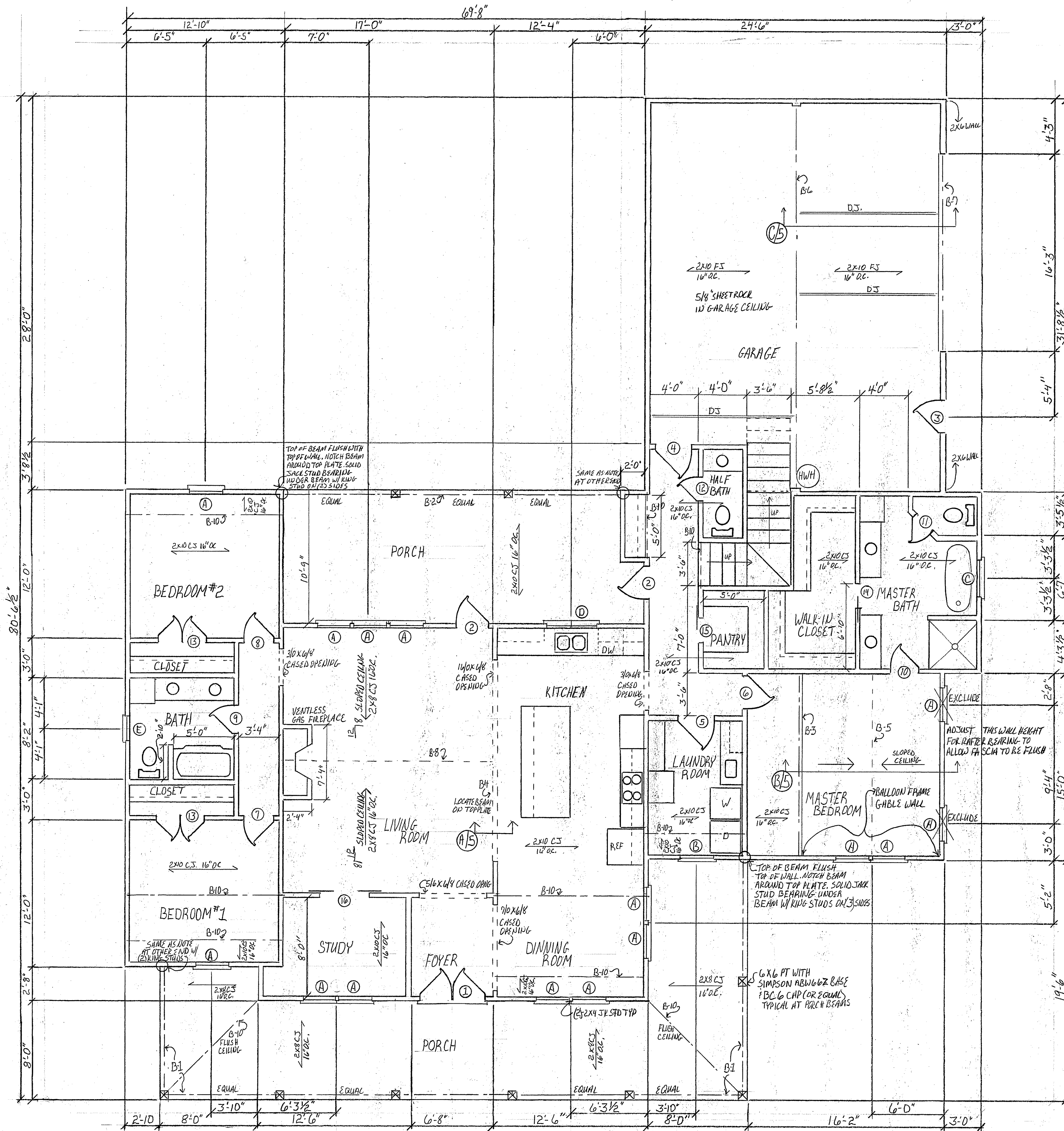
RIGHT SIDE ELEVATION



- FOUNDATION NOTES**
- 4" MIN. PROJECTION BEYOND FOUNDATION/PIERS FOR ALL FOOTINGS
 - PROVIDE FOOTING FOR MASONRY STEPS @ FRONT PORCH
 - * □ 1 1/2" CLEARANCE BETWEEN BAND & PARALLEL JOIST
 - DOUBLE JOIST UNDER ALL WALLS PARALLEL TO JOIST
 - DOUBLE ALL BANDS PARALLEL TO JOIST
 - PROVIDE SOLID BLOCKING FROM FOUNDATION/PIERS TO BOTTOM OF SUBFLOOR
 - PROVIDE 1/2" Ø ANCHOR BOLTS @ 6" O.C. WITHIN 12" OF THE END OF MUDSILL
 - COMPLY WITH DIMENSION PROVIDED FOR LOCATION OF JOIST TO MISS PLUMBING
 - DIMENSION HERE FROM OUTSIDE FACE OF MASONRY FOR FOUNDATION
 - TO CENTER OF PIERS/GIRDERS: SPECIAL JOIST
 - PT. MUDSILL & BLOCKING WITH APPROVED FOAM SEAL GASKET BETWEEN MASONRY & FLOOR SYSTEM FRAMING
 - PT. BAND @ ALL PORCH LOCATIONS
 - ALL PIERS TO BE 9/16" BELOW TOP OF FOUNDATION
 - SEALED CRAWL SPACE DESIGNED BY INSTALLER
 - NO FOUNDATION VENTS
 - #2 SPF OR SYP FOR ALL FRAMING MEMBERS
 - SS = SINGLE JOIST
 - DS = DOUBLE JOIST
 - SEE DETAIL PAGE FOR CLARIFICATIONS

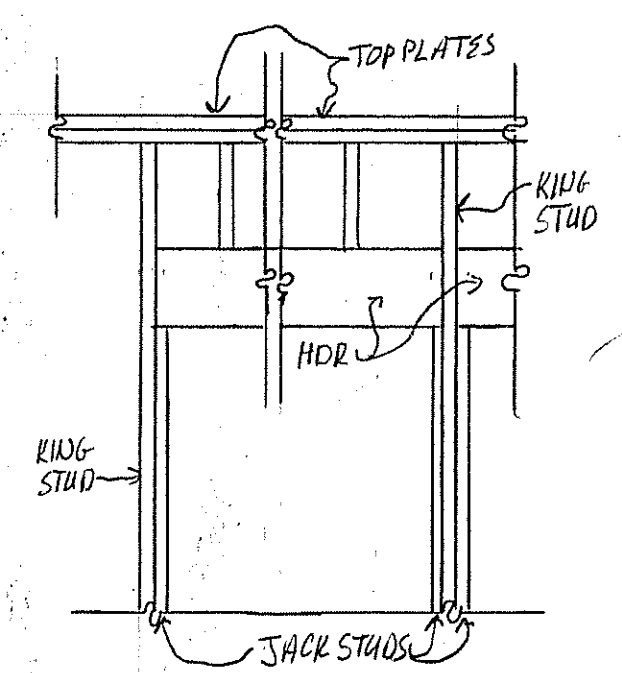
PEYTON & AMBERLY HOME

FOUNDATION PLAN
 DRAWN BY: WILLIAM JOHNSON
 SCALE: 1/4" = 1'
 DATE: JANUARY 5, 2025
 PAGE: 3 OF 7



DOOR		MATERIAL		SCHEDULE		
DOOR#	NOMINAL SIZE	OPERATION	DOOR	FRAME	HEADER	JACK STUD
1	218x108 PR	60°x83°	FRAMING		(2)2x10	20.EE.
2	218x108 PR	34°x83°	R.H. HINGED		(2)2x10	10.EE.
3	218x108 PR	34°x83°	L.H. HINGED		(2)2x10	10.EE.
4	36x108 PR	38°x83°	R.H. HINGED		(2)2x10	10.EE.
5	36x108 PR	38°x83°	R.H. HINGED		(2)2x6	10.EE.
6	36x108 PR	38°x83°	L.H. HINGED		(2)2x10	10.EE.
7	216x108 PR	32°x83°	R.H. HINGED		(2)2x6	10.EE.
8	216x108 PR	32°x83°	R.H. HINGED		(2)2x6	10.EE.
9	216x108 PR	30°x83°	L.H. HINGED		(2)2x6	10.EE.
10	216x108 PR	32°x83°	R.H. HINGED		(2)2x6	10.EE.
11	216x108 PR	26°x83°	R.H. HINGED		(2)2x6	10.EE.
12	216x108 PR	26°x83°	L.H. HINGED		(2)2x6	10.EE.
13	216x108 PR	50°x83°	OUTSWING		(2)2x6	10.EE.
14	216x108 PR	48°x84°	POCKET		(2)2x10	10.EE.
15	216x108 PR	26°x83°	BAR/DOOR		(2)2x6	10.EE.
16	216x108 PR	50°x83°	PR BAR/DOOR		(2)2x10	20.EE.

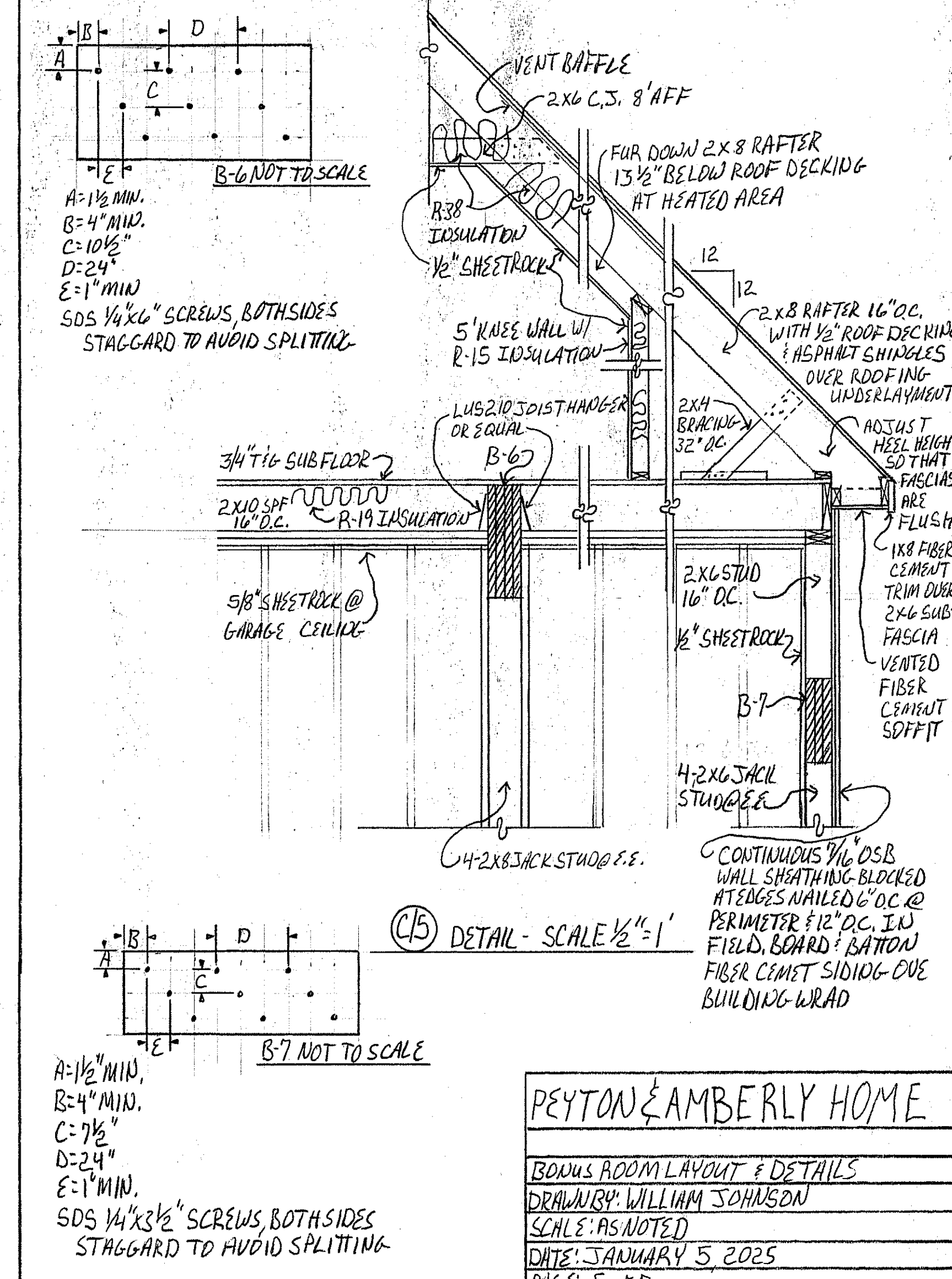
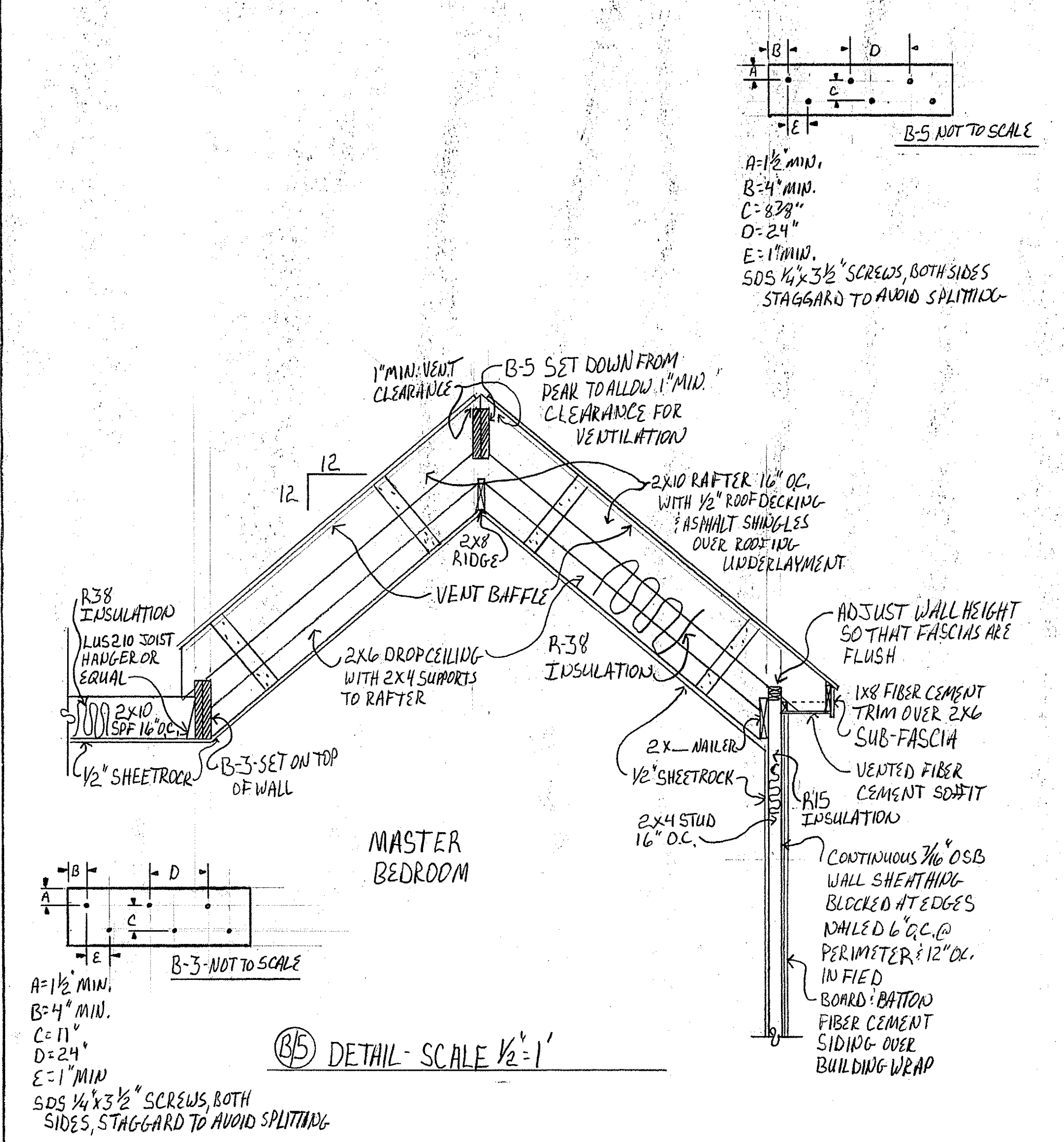
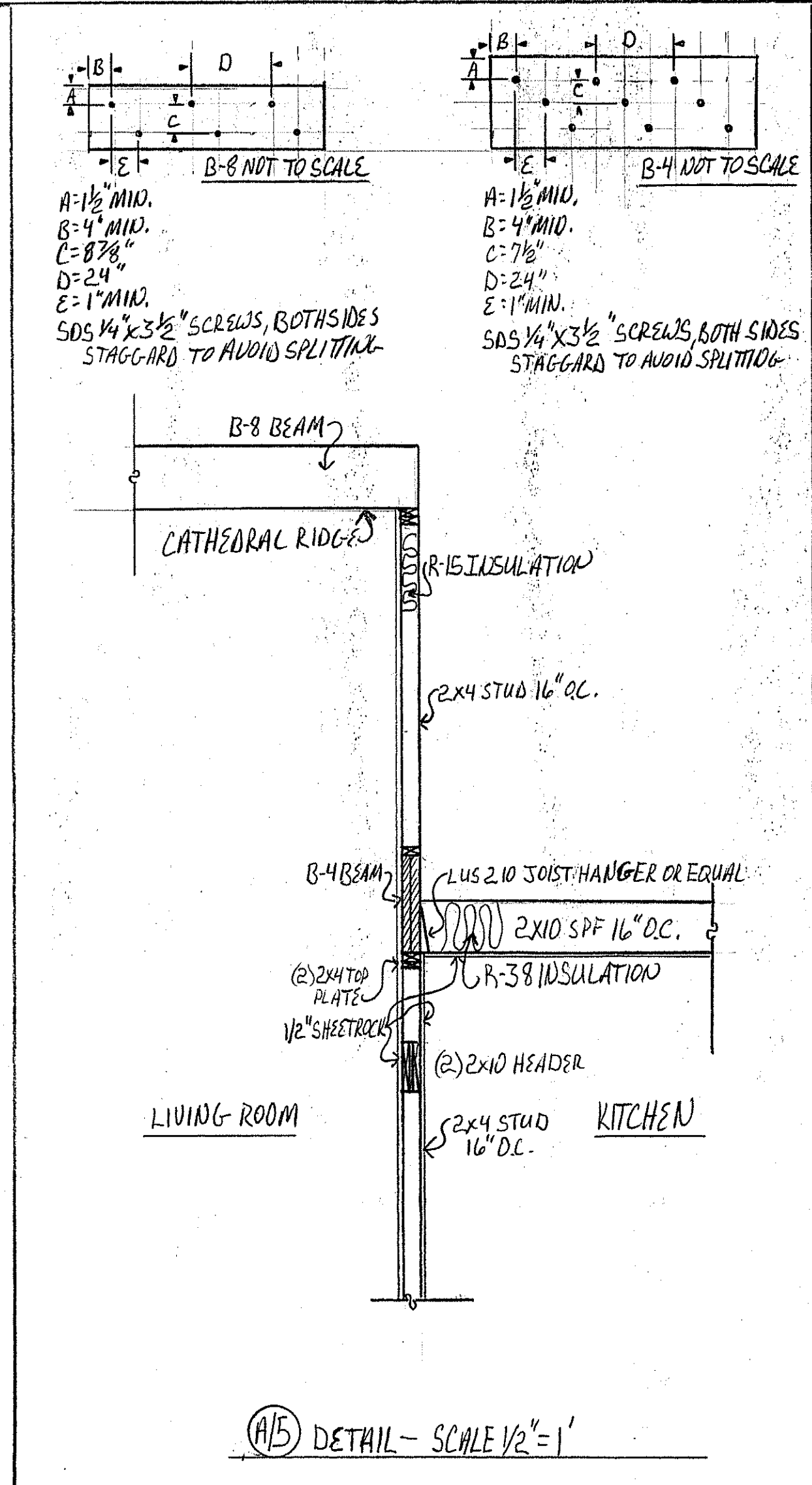
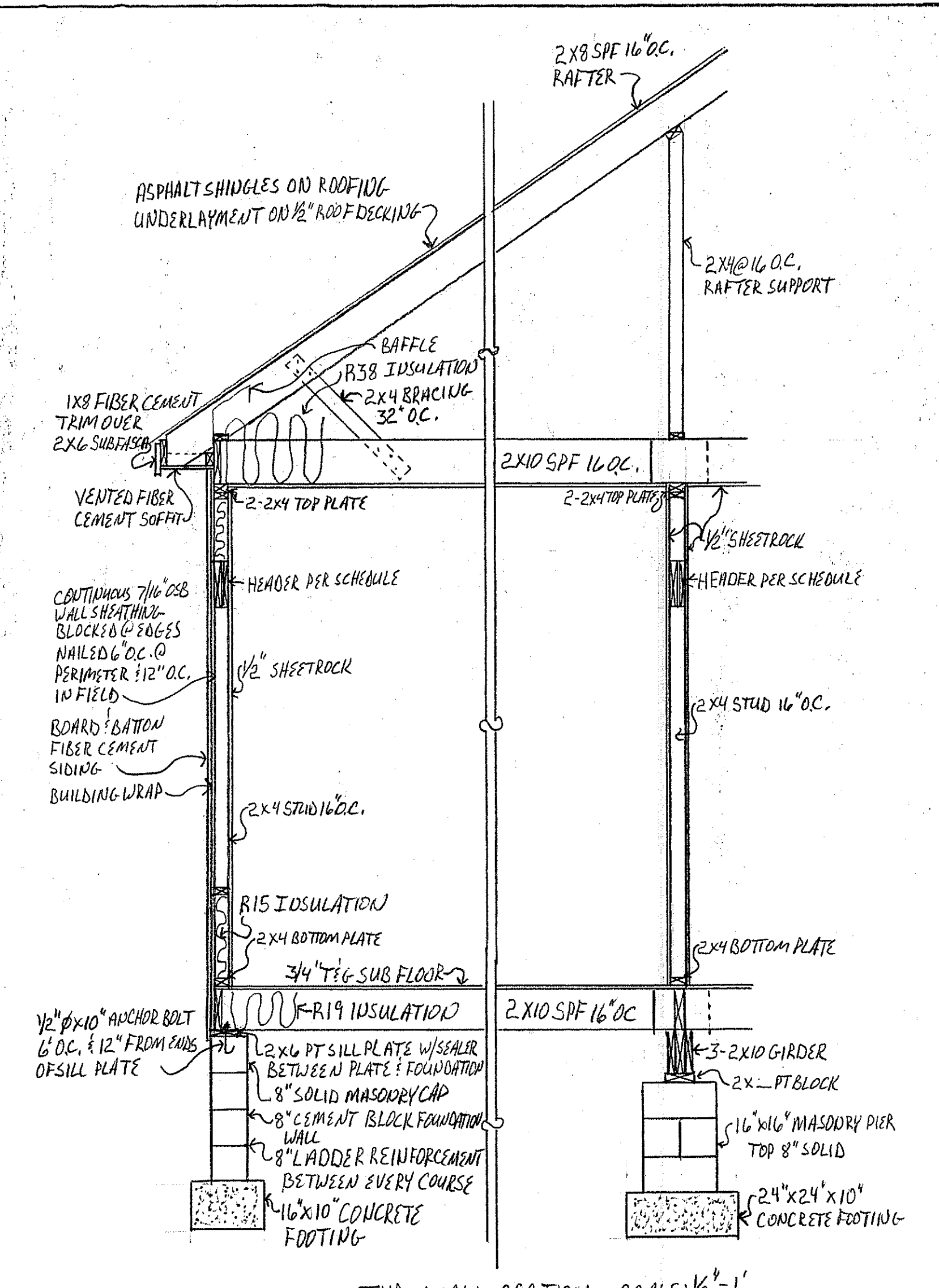
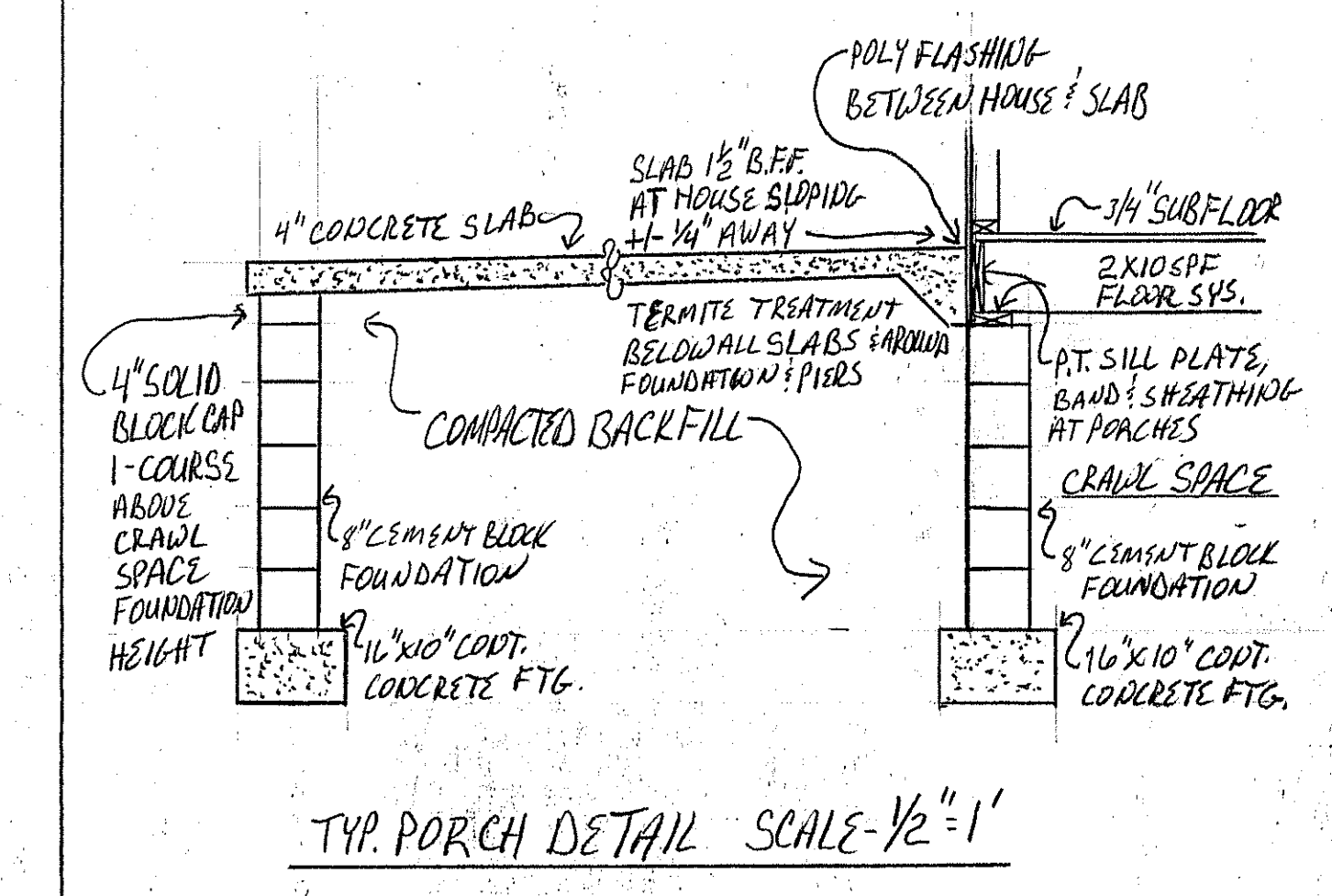
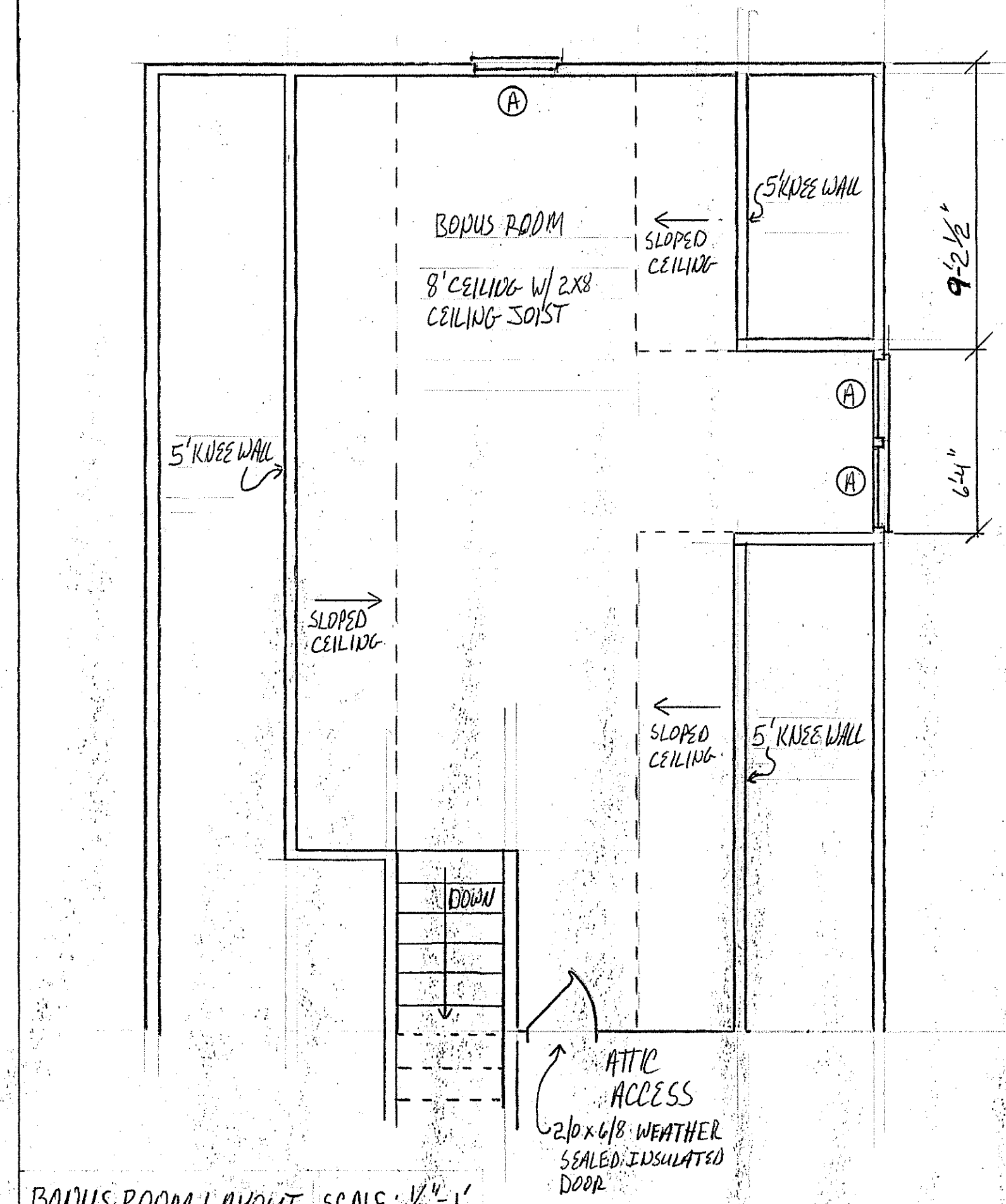
WINDOW		SCHEDULE		
WINDOW#	NOMINAL SIZE	OPERATION	MATERIAL	HEADER
A	218x512	DBL HINGED		(2)2x10
B	218x416	DBL HINGED		(2)2x10
C	310x312	FIXED	OBSCURE GLASS	(2)2x10
D	210x312	DBL HINGED		(2)2x10
E	210x312	DBL HINGED		(2)2x10
F	218x416	DBL HINGED		(2)2x6



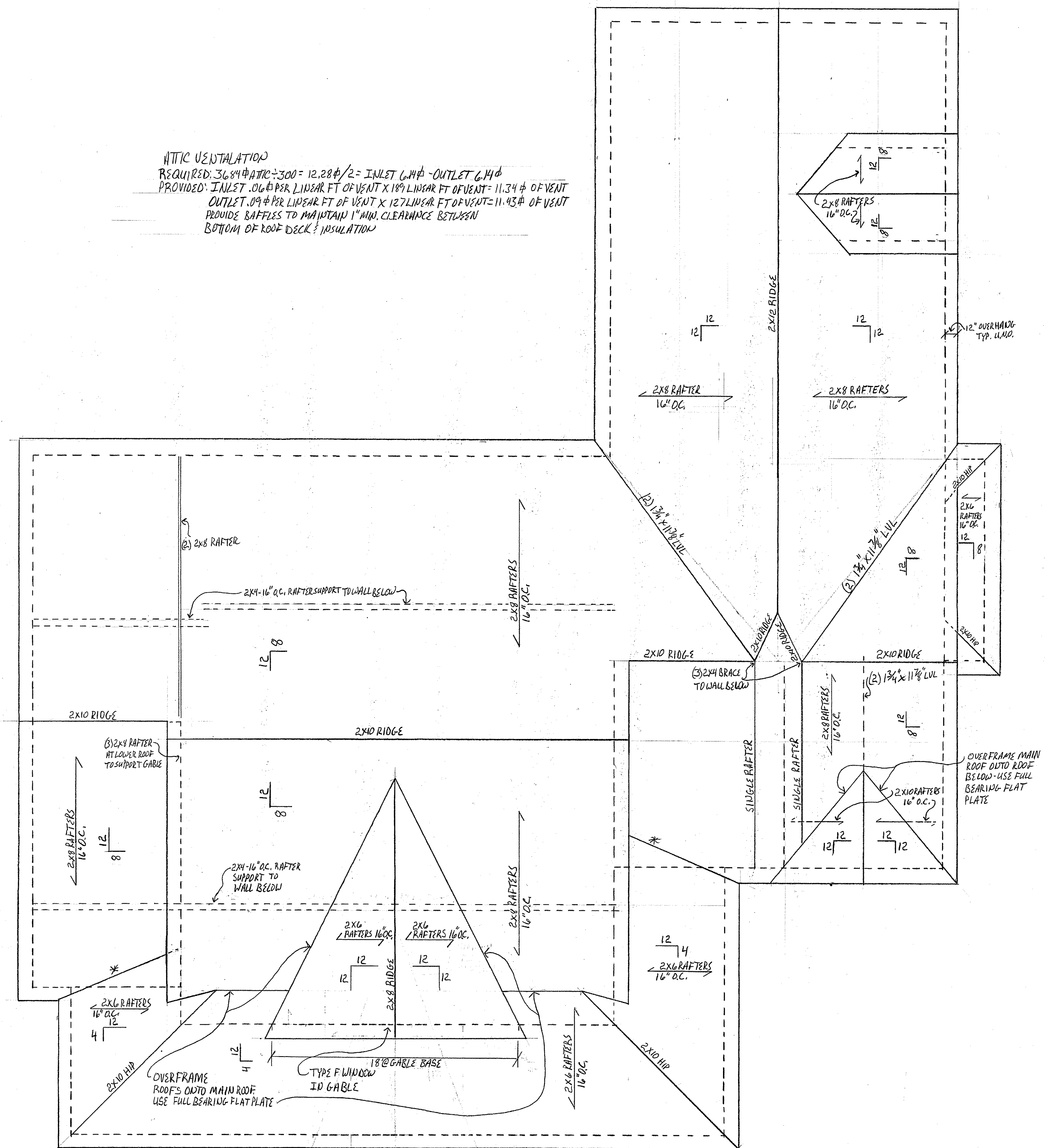
- 9' CEILING HEIGHT TYP. IN HEATED LOCATIONS EXCEPT AT SLOPED CEILINGS
- GARAGE PORCH CEILING LEVEL WITH CEILING IN HEATED LOCATIONS
- DIMENSIONS FACE OF STUD

BEAM SCHEDULE				
BEAM#	MATERIAL/SIZE	JACK STUD	KING STUD	DETAIL
B-1	(3)-2x10	NA	NA	NA
B-2	(3)-2x10	NA	NA	NA
B-3	(2)-1 3/4" x 14" LVL	NA	40.EE.	SEE FRO4
B-4	(2)-1 3/4" x 18" LVL	NA	40.EE.	SEE FRO3
B-5	(2)-1 3/4" x 11 3/8" LVL	NA	30.EE.	SEE FRO2
B-6	(1)-1 3/4" x 24" LVL	(1)2x8	20.EE.	SEE FRO1
B-7	(3)-1 3/4" x 18" LVL	(1)2x6	20.EE.	SEE FRO2
B-8	(2)-1 3/4" x 11 3/8" LVL	NA	30.EE.	SEE FRO1
B-9	(3)-2x10	NA	310x108	
B-10	(2)-2x10	NA	20.EE.	NA

PEYTON & AMBERLY HOME
 FLOOR PLAN
 DRAWN BY: WILLIAM JOHNSON
 SCALE: 1/4" = 1'
 DATE: JANUARY 5, 2025
 PAGE: 4 OF 7

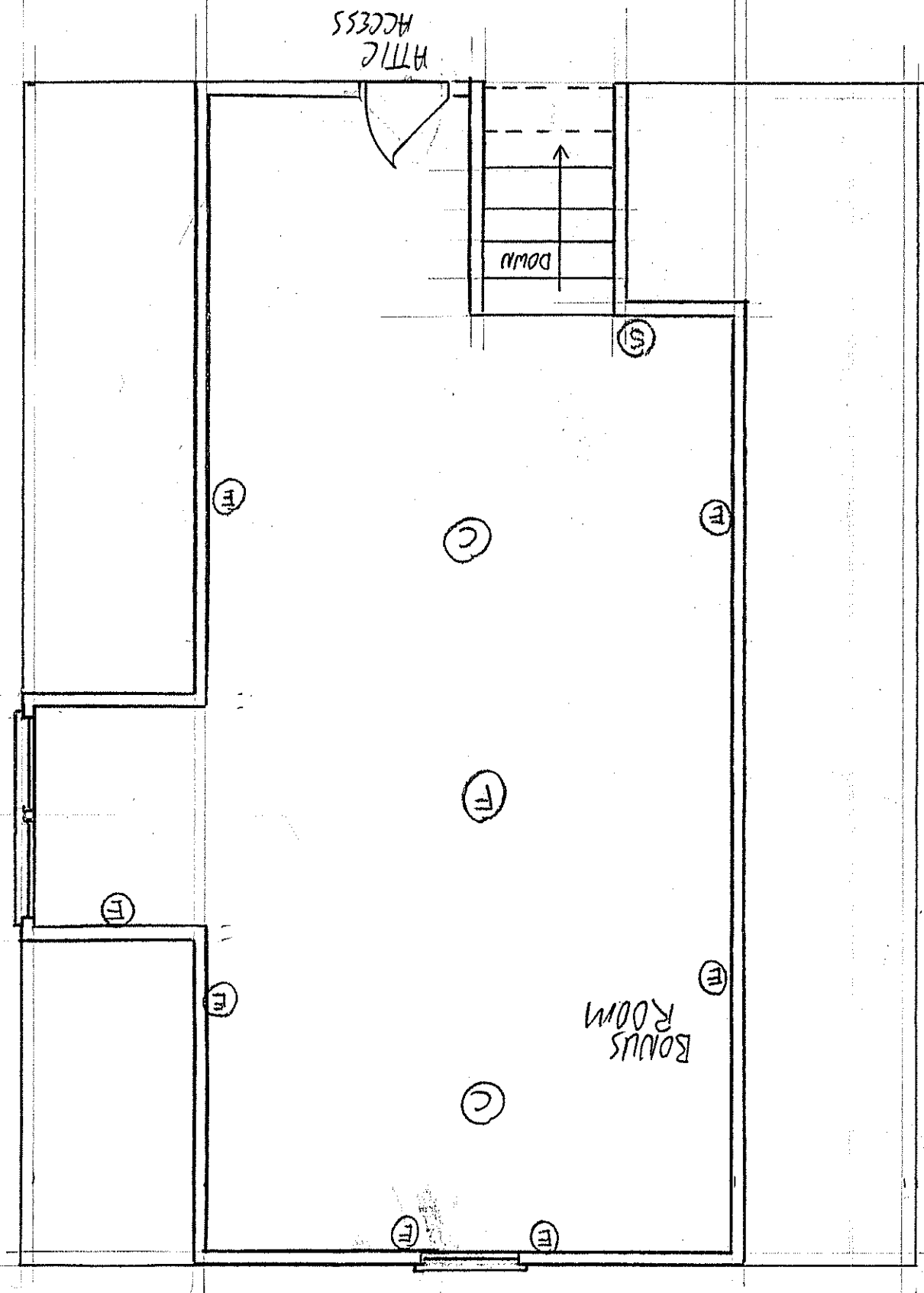
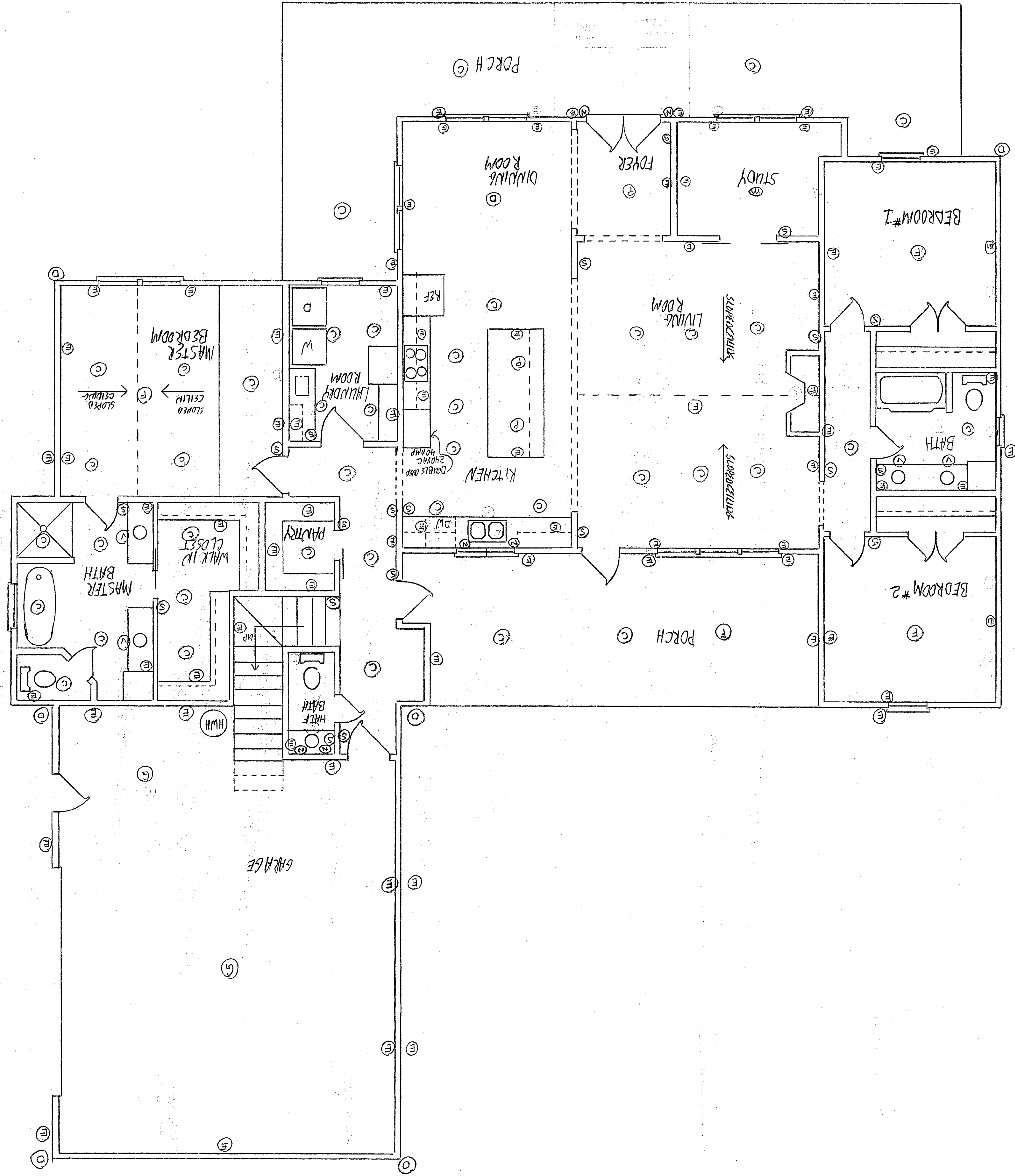


ATTIC VENTILATION
 REQUIRED: $3684 \text{ ft}^2 \text{ ATTIC} \div 300 = 12.28 \text{ ft}^2 = \text{INLET } 6.14 \text{ ft}^2 - \text{OUTLET } 6.14 \text{ ft}^2$
 PROVIDED: INLET .06 ft PER LINEAR FT OF VENT X 189 LINEAR FT OF VENT = 11.34 ft OF VENT
 OUTLET .09 ft PER LINEAR FT OF VENT X 127 LINEAR FT OF VENT = 11.43 ft OF VENT
 PROVIDE BAFFLES TO MAINTAIN 1" MIN. CLEARANCE BETWEEN
 BOTTOM OF ROOF DECK & INSULATION



- ROOF NOTES**
- 2x6 SUBFASCIA AT ALL EAVES & GABLES
 - GABLE OVERHANG SHALL BE BUILT LADDER FRAMED WITH 2x6 BLOCKING NO GREATER THAN 24" O.C. BETWEEN PARALLEL 2x6'S
 - LET-IN 2x4 OUTRIGGERS SHALL BE USED ON GABLES WITH OVERHANGS GREATER THAN 12" AND EXTEND NO LESS THAN 32" INSIDE GABLE
 - RAFTER RIDGE SAT CUTS SHALL BE FULL BEARING TO LIE UP SUBFASCIAS
 - ADJUST HEIGHT AT PLATE OF DIFFERENT PITCH ROOFS
 - NOMINAL 1/2" ROOF DECKING TO BE FASTENED 6" O.C AT EDGES & 12" O.C. IN FIELD WITH 8 PENNY RING SHANK NAILS
 - PROVIDE CONTINUOUS RIDGE VENTILATION UP TO 2' OF THE END OF RIDGE (GABLES HIPS OR VALLEYS)
 - SEE DETAIL FOR RIDGE VENTILATION OVER MASTER BEDROOM

- ELECTRICAL NOTES
- 1. FIXTURE, SWITCH & RECEPTACLE LOCATIONS SHOWN ARE HOME OWNERS REQUESTS. THE NORTH CAROLINA STATE ELECTRICAL CODE SHALL TAKE PRECEDENCE
 - 2. UNDER PLAN LIGHT CODE
 - E = ELECTRIC OUTLET
 - C = CEM LIGHT
 - P = PENDANT LIGHT
 - D = CHANDELER LIGHT
 - V = VARY LIGHT
 - N = SLOPE LIGHT
 - M = 52 MI-MOUNT HUSH FIXTURE
 - F = CELLING HUY LIGHT
 - S = LIGHT SWITCH
 - D = OUT DOOR FLOOD LIGHT
 - Y = YARD LIGHT (LIGHT POLE)
 - G = GARAGE LIGHT



1



Double 1-3/4" x 14" VERSA-LAM® LVL 2.1E 3100 SP

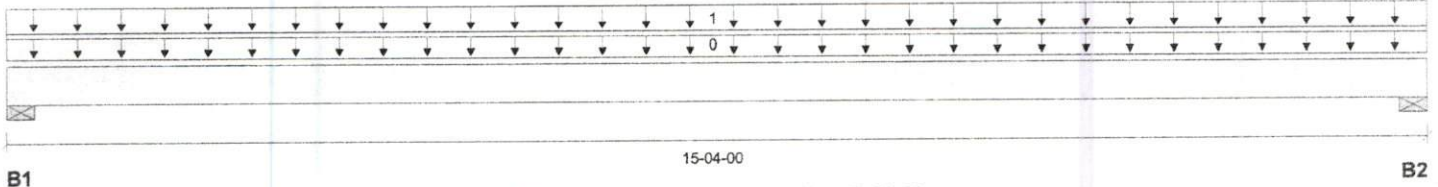
PASSED

FB04 (Flush Beam) B-3
Dry | 1 span | No cant.

October 1, 2024 01:27:58

BC CALC® Member Report
Build 8892
Job name:
Address:
City, State, Zip:
Customer:
Code reports: ESR-1040

File name:
Description:
Specifier:
Designer: William Johnson
Company: Lariat Construction Co., Inc



Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 3-1/2"	1840 / 0	569 / 0			
B2, 3-1/2"	1840 / 0	569 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	15-04-00	Top		14				00-00-00
1		Unf. Area (lb/ft²)	L	00-00-00	15-04-00	Back	40	10				06-00-00

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	8690 ft-lbs	29.9%	100%	1	07-08-00
End Shear	1951 lbs	21.0%	100%	1	01-05-08
Total Load Deflection	L/792 (0.225")	60.6%	n/a	1	07-08-00
Live Load Deflection	L/1037 (0.172")	46.3%	n/a	2	07-08-00
Max Defl.	0.225"	22.5%	n/a	1	07-08-00
Span / Depth	12.8				

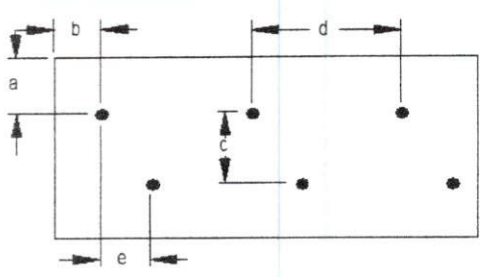
Bearing Supports

	Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate 3-1/2" x 3-1/2"	2409 lbs	n/a	26.2%	Unspecified
B2	Wall/Plate 3-1/2" x 3-1/2"	2409 lbs	n/a	26.2%	Unspecified

Notes

- Design meets User specified (L/480) Total load deflection criteria.
- Design meets User specified (L/480) Live load deflection criteria.
- Design meets arbitrary (1") Maximum Total load deflection criteria.
- Design based on Dry Service Condition.
- BC CALC® analysis is based on IBC 2009.
- Calculations assume member is fully braced.

Connection Diagram: Full Length of Member





Double 1-3/4" x 14" VERSA-LAM® LVL 2.1E 3100 SP

PASSED

FB04 (Flush Beam)

Dry | 1 span | No cant.

October 1, 2024 01:27:58

BC CALC® Member Report

Build 8892

Job name:

Address:

City, State, Zip:

Customer:

Code reports: ESR-1040

File name:

Description:

Specifier:

Designer: William Johnson

Company: Lariat Construction Co., Inc

Connection Diagram: Full Length of Member

a minimum = 1-1/2"

c = 11"

b minimum = 4"

d = 24"

e minimum = 1"

Calculated Side Load = 300.0 lb/ft

Install screws from both sides, staggering screws by half of the spacing to avoid splitting.

Connectors are: SDS 1/4 x 3-1/2

Disclosure

Use of the Boise Cascade Software is subject to the terms of the End User License Agreement (EULA). Completeness and accuracy of input must be reviewed and verified by a qualified engineer or other appropriate expert to assure its adequacy, prior to anyone relying on such output as evidence of suitability for a particular application. The output here is based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call (800)232-0788 before installation.

BC CALC®, BC FRAMER®, AJS™, ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,



Double 1-3/4" x 18" VERSA-LAM® LVL 2.1E 3100 SP

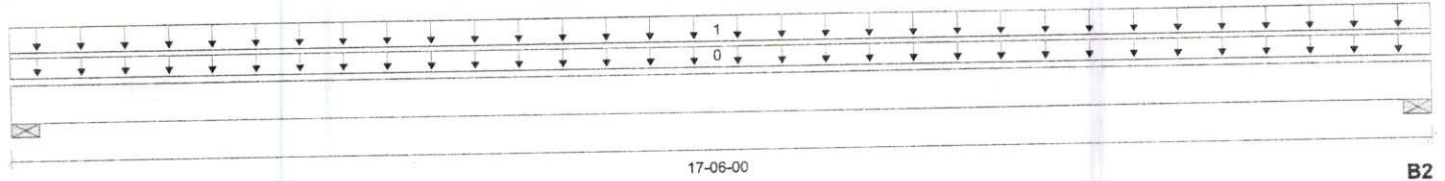
PASSED

FB03 (Flush Beam) 64
Dry | 1 span | No cant.

October 1, 2024 01:08:48

BC CALC® Member Report
Build 8892
Job name:
Address:
City, State, Zip:
Customer:
Code reports: ESR-1040

File name:
Description:
Specifier:
Designer: William Johnson
Company: Lariat Construction Co., Inc



Total Horizontal Product Length = 17-06-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 3-1/2"	2713 / 0	1516 / 0			
B2, 3-1/2"	2713 / 0	1516 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	17-06-00	Top	18					00-00-00
1		Unf. Area (lb/ft²)	L	00-00-00	17-06-00	Back	20	10				15-06-00

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	17543 ft-lbs	37.6%	100%	1	08-09-00
End Shear	3363 lbs	28.1%	100%	1	01-09-08
Total Load Deflection	L/712 (0.287")	67.4%	n/a	1	08-09-00
Live Load Deflection	L/1110 (0.184")	43.3%	n/a	2	08-09-00
Max Defl.	0.287"	28.7%	n/a	1	08-09-00
Span / Depth	11.4				

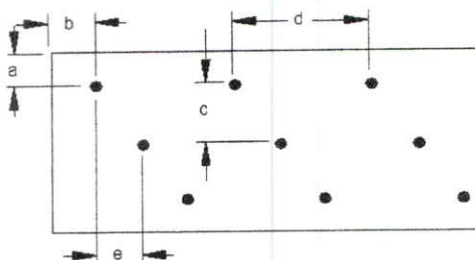
Bearing Supports

	Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate 3-1/2" x 3-1/2"	4228 lbs	n/a	46.0%	Unspecified
B2	Wall/Plate 3-1/2" x 3-1/2"	4228 lbs	n/a	46.0%	Unspecified

Notes

- Design meets User specified (L/480) Total load deflection criteria.
- Design meets User specified (L/480) Live load deflection criteria.
- Design meets arbitrary (1") Maximum Total load deflection criteria.
- Design based on Dry Service Condition.
- BC CALC® analysis is based on IBC 2009.
- Calculations assume unbraced length of Top: 00-00-00, Bottom: 00-00-00.

Connection Diagram: Full Length of Member





Double 1-3/4" x 18" VERSA-LAM® LVL 2.1E 3100 SP

PASSED

FB03 (Flush Beam)
Dry | 1 span | No cant.

October 1, 2024 01:08:48

BC CALC® Member Report
Build 8892
Job name:
Address:
City, State, Zip:
Customer:
Code reports: ESR-1040

File name:
Description:
Specifier:
Designer: William Johnson
Company: Lariat Construction Co., Inc

Connection Diagram: Full Length of Member

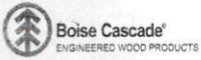
- a minimum = 1-1/2"
- b minimum = 4"
- c = 7-1/2"
- d = 24"
- e minimum = 1"

Calculated Side Load = 300.0 lb/ft
Install screws from both sides, staggering screws by half of the spacing to avoid splitting.
Connectors are: SDS 1/4 x 3-1/2

Disclosure

Use of the Boise Cascade Software is subject to the terms of the End User License Agreement (EULA). Completeness and accuracy of input must be reviewed and verified by a qualified engineer or other appropriate expert to assure its adequacy, prior to anyone relying on such output as evidence of suitability for a particular application. The output here is based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call (800)232-0788 before installation.

BC CALC®, BC FRAMER®, AJS™, ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®



Double 1-3/4" x 11-7/8" VERSA-LAM® LVL 2.1E 3100 SP

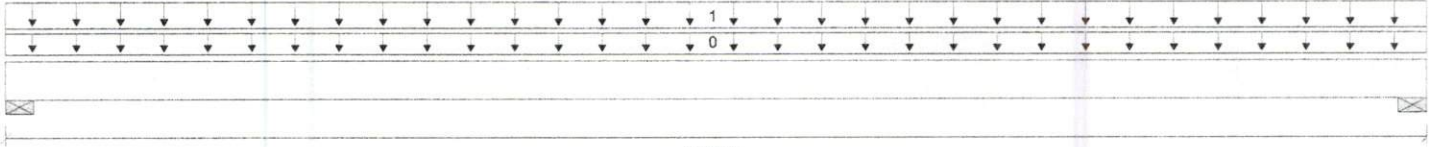
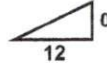
PASSED

RB07 (Roof Flush Beam) 85
Dry | 1 span | No cant.

October 1, 2024 01:20:57

BC CALC® Member Report
Build 8892
Job name:
Address:
City, State, Zip:
Customer:
Code reports: ESR-1040

File name:
Description:
Specifier:
Designer: William Johnson
Company: Lariat Construction Co., Inc



B1 B2
15-04-00
Total Horizontal Product Length = 15-04-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 3-1/2"		552 / 0	920 / 0		
B2, 3-1/2"		552 / 0	920 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	15-04-00	Top		12				00-00-00
1		Unf. Area (lb/ft²)	L	00-00-00	15-04-00	Front		10	20			06-00-00

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	5311 ft-lbs	21.7%	115%	4	07-08-00
End Shear	1226 lbs	13.5%	115%	4	01-03-06
Total Load Deflection	L/810 (0.22")	59.2%	n/a	4	07-08-00
Live Load Deflection	L/1297 (0.138")	37.0%	n/a	5	07-08-00
Max Defl.	0.22"	22.0%	n/a	4	07-08-00
Span / Depth	15.0				

Bearing Supports

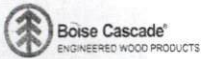
	Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate 3-1/2" x 3-1/2"	1472 lbs	n/a	16.0%	Unspecified
B2	Wall/Plate 3-1/2" x 3-1/2"	1472 lbs	n/a	16.0%	Unspecified

Cautions

For roof members with slope (1/4)/12 or less final design must ensure that ponding instability will not occur.
For roof members with slope (1/2)/12 or less final design must account for Rain-on-Snow surcharge load.

Notes

Design meets User specified (L/480) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1") Maximum Total load deflection criteria.
Design based on Dry Service Condition.
BC CALC® analysis is based on IBC 2009.
Calculations assume member is fully braced.



Double 1-3/4" x 11-7/8" VERSA-LAM® LVL 2.1E 3100 SP

PASSED

RB01 (Roof Flush Beam)

Dry | 1 span | No cant.

October 1, 2024 01:20:57

BC CALC® Member Report

Build 8892

Job name:

Address:

City, State, Zip:

Customer:

Code reports: ESR-1040

File name:

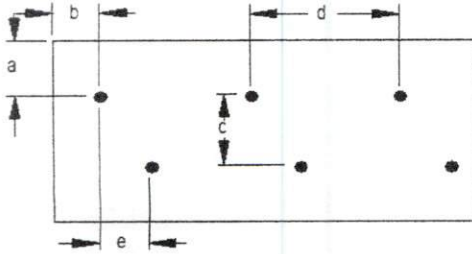
Description:

Specifier:

Designer: William Johnson

Company: Lariat Construction Co., Inc

Connection Diagram: Full Length of Member



a minimum = 1-1/2"

b minimum = 4"

c = 8-7/8"

d = 24"

e minimum = 1"

Calculated Side Load = 180.0 lb/ft

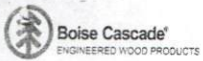
Install screws from both sides, staggering screws by half of the spacing to avoid splitting.

Connectors are: SDS 1/4 x 3-1/2

Disclosure

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Double 1-3/4" x 11-7/8" VERSA-LAM® LVL 1.8E 2650 SP

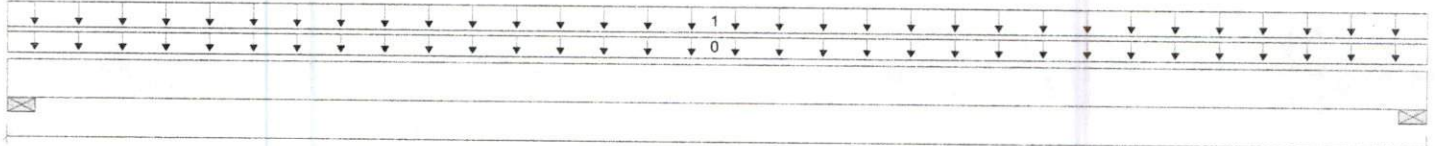
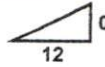
PASSED

RB01 (Roof Flush Beam) *B9*
Dry | 1 span | No cant.

October 1, 2024 00:12:34

BC CALC® Member Report
Build 8892
Job name:
Address:
City, State, Zip:
Customer:
Code reports: ESR-1040

File name:
Description:
Specifier:
Designer: William Johnson
Company: Lariat Construction Co., Inc



B1 18-00-00 B2
Total Horizontal Product Length = 18-00-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 3-1/2"		1188 / 0			
B2, 3-1/2"		1188 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	18-00-00	Top		12				00-00-00
1		Unf. Area (lb/ft ²)	L	00-00-00	18-00-00	Front		10				12-00-00

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	5079 ft-lbs	31.0%	90%	0	09-00-00
End Shear	1019 lbs	14.3%	90%	0	01-03-06
Total Load Deflection	L/522 (0.403")	34.5%	n/a	2	09-00-00
Live Load Deflection	L/999 (0.068")	n/a	n/a	5	09-00-00
Max Defl.	0.403"	40.3%	n/a	2	09-00-00
Span / Depth	17.7				

Bearing Supports

	Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate 3-1/2" x 3-1/2"	1459 lbs	n/a	15.9%	Unspecified
B2	Wall/Plate 3-1/2" x 3-1/2"	1459 lbs	n/a	15.9%	Unspecified

Cautions

Controlling Bearing value was generated by load case 1, using Man Load.
 Controlling Bearing value was generated by load case 3, using Man Load.
 For roof members with slope (1/4)/12 or less final design must ensure that ponding instability will not occur.
 For roof members with slope (1/2)/12 or less final design must account for Rain-on-Snow surcharge load.

Notes

Design meets Code minimum (L/180) Total load deflection criteria.
 Design meets Code minimum (L/240) Live load deflection criteria.
 Design meets arbitrary (1") Maximum Total load deflection criteria.
 Design based on Dry Service Condition.
 BC CALC® analysis is based on IBC 2009.
 Calculations assume member is fully braced.



RB01 (Roof Flush Beam)

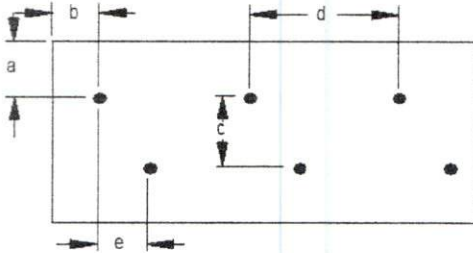
Dry | 1 span | No cant.

October 1, 2024 00:12:34

BC CALC® Member Report
Build 8892
Job name:
Address:
City, State, Zip:
Customer:
Code reports: ESR-1040

File name:
Description:
Specifier:
Designer: William Johnson
Company: Lariat Construction Co., Inc

Connection Diagram: Full Length of Member



a minimum = 1-1/2" c = 8-7/8"
b minimum = 4" d = 24"
e minimum = 1"

Calculated Side Load = 110.0 lb/ft
Install screws from both sides, staggering screws by half of the spacing to avoid splitting.
Connectors are: SDS 1/4 x 3-1/2

Disclosure

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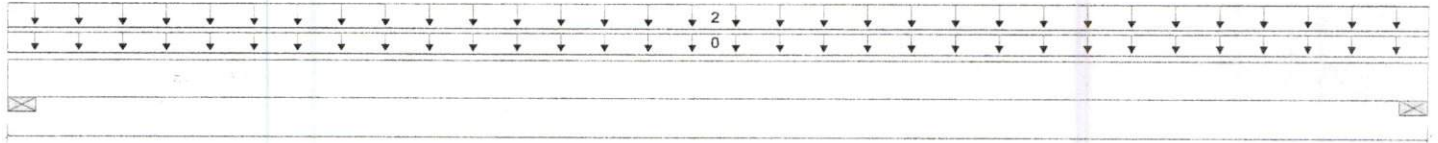


FB02 (Drop Beam) B7
Dry | 1 span | No cant.

October 1, 2024 00:49:00

BC CALC® Member Report
Build 8892
Job name:
Address:
City, State, Zip:
Customer:
Code reports: ESR-1040

File name:
Description:
Specifier:
Designer: William Johnson
Company: Lariat Construction Co., Inc



B1 17-00-00 B2
Total Horizontal Product Length = 17-00-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 3-1/2"	2097 / 0	757 / 0			2097 / 0
B2, 3-1/2"	2097 / 0	757 / 0			2097 / 0

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	17-00-00	Top		27				00-00-00
2		Unf. Area (lb/ft²)	L	00-00-00	17-00-00	Top	40	10			40	06-02-00

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	15700 ft-lbs	84.2%	125%	3	08-06-00
End Shear	3079 lbs	13.7%	125%	3	01-09-08
Total Load Deflection	L/1221 (0.163")	39.3%	n/a	3	08-06-00
Live Load Deflection	L/1515 (0.131")	31.7%	n/a	6	08-06-00
Max Defl.	0.163"	16.3%	n/a	3	08-06-00
Span / Depth	11.0				

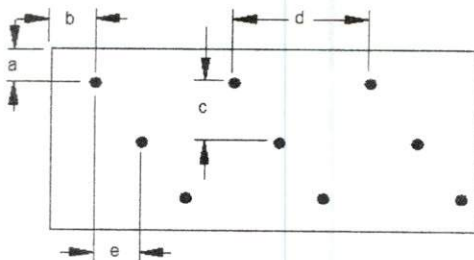
Bearing Supports

	Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate 3-1/2" x 5-1/4"	3902 lbs	n/a	28.3%	Unspecified
B2	Wall/Plate 3-1/2" x 5-1/4"	3902 lbs	n/a	28.3%	Unspecified

Notes

- Design meets User specified (L/480) Total load deflection criteria.
- Design meets User specified (L/480) Live load deflection criteria.
- Design meets arbitrary (1") Maximum Total load deflection criteria.
- Design based on Dry Service Condition.
- BC CALC® analysis is based on IBC 2009.
- Calculations assume member is braced at ends. See engineering report for the unbraced length.

Connection Diagram: Full Length of Member





Triple 1-3/4" x 18" VERSA-LAM® LVL 2.1E 3100 SP

PASSED

FB02 (Drop Beam)
Dry | 1 span | No cant.

October 1, 2024 00:49:00

BC CALC® Member Report
Build 8892

Job name:
Address:
City, State, Zip:
Customer:
Code reports: ESR-1040

File name:
Description:
Specifier:
Designer: William Johnson
Company: Lariat Construction Co., Inc

Connection Diagram: Full Length of Member

a minimum = 1-1/2" c = 7-1/2"
b minimum = 4" d = 24"
 e minimum = 1"

Calculated Side Load = 0.0 lb/ft
Install screws from both sides, staggering screws by half of the spacing to avoid splitting.
Connectors are: SDS 1/4 x 3-1/2

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FB01 (Drop Beam) *SB*
Dry | 1 span | No cant.

September 20, 2024 20:58:09

BC CALC® Member Report
Build 8892
Job name:
Address:
City, State, Zip:
Customer:
Code reports: ESR-1040

File name:
Description:
Specifier:
Designer: William Johnson
Company: Lariat Construction Co., Inc



B1 32-00-00 B2
Total Horizontal Product Length = 32-00-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 3-1/2"	7840 / 0	2738 / 0			
B2, 3-1/2"	7840 / 0	2738 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	32-00-00	Top		49				00-00-00
2		Unf. Area (lb/ft²)	L	00-00-00	32-00-00	Back	40	10				12-03-00

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	82220 ft-lbs	51.2%	100%	1	16-00-00
End Shear	9063 lbs	28.4%	100%	1	02-03-08
Total Load Deflection	L/410 (0.923")	58.5%	n/a	1	16-00-00
Live Load Deflection	L/553 (0.684")	86.8%	n/a	2	16-00-00
Max Defl.	0.923"	92.3%	n/a	1	16-00-00
Span / Depth	15.8				

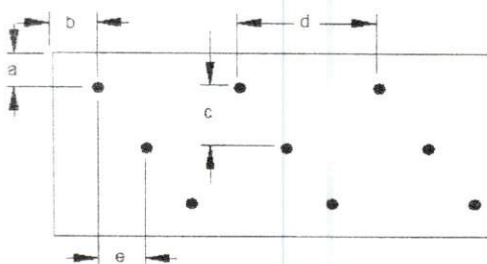
Bearing Supports

	Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate 3-1/2" x 7"	10578 lbs	n/a	57.6%	Unspecified
B2	Wall/Plate 3-1/2" x 7"	10578 lbs	n/a	57.6%	Unspecified

Notes

- Design meets Code minimum (L/240) Total load deflection criteria.
- Design meets User specified (L/480) Live load deflection criteria.
- Design meets arbitrary (1") Maximum Total load deflection criteria.
- Design based on Dry Service Condition.
- BC CALC® analysis is based on IBC 2009.
- To minimize rotation, 7" wide beams should be top-loaded or loaded from each side and properly braced.
- Calculations assume member is fully braced.

Connection Diagram: Full Length of Member





BC CALC® Member Report

Build 8892

Job name:

Address:

City, State, Zip:

Customer:

Code reports: ESR-1040

FB01 (Drop Beam)

Dry | 1 span | No cant.

September 20, 2024 20:58:09

File name:

Description:

Specifier:

Designer: William Johnson

Company: Lariat Construction Co., Inc

Connection Diagram: Full Length of Member

a minimum = 1-1/2"

c = 10-1/2"

b minimum = 4"

d = 24"

e minimum = 1"

Calculated Side Load = 306.3 lb/ft

Install screws from both sides, staggering screws by half of the spacing to avoid splitting.

Connectors are: SDS 1/4 x 6

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