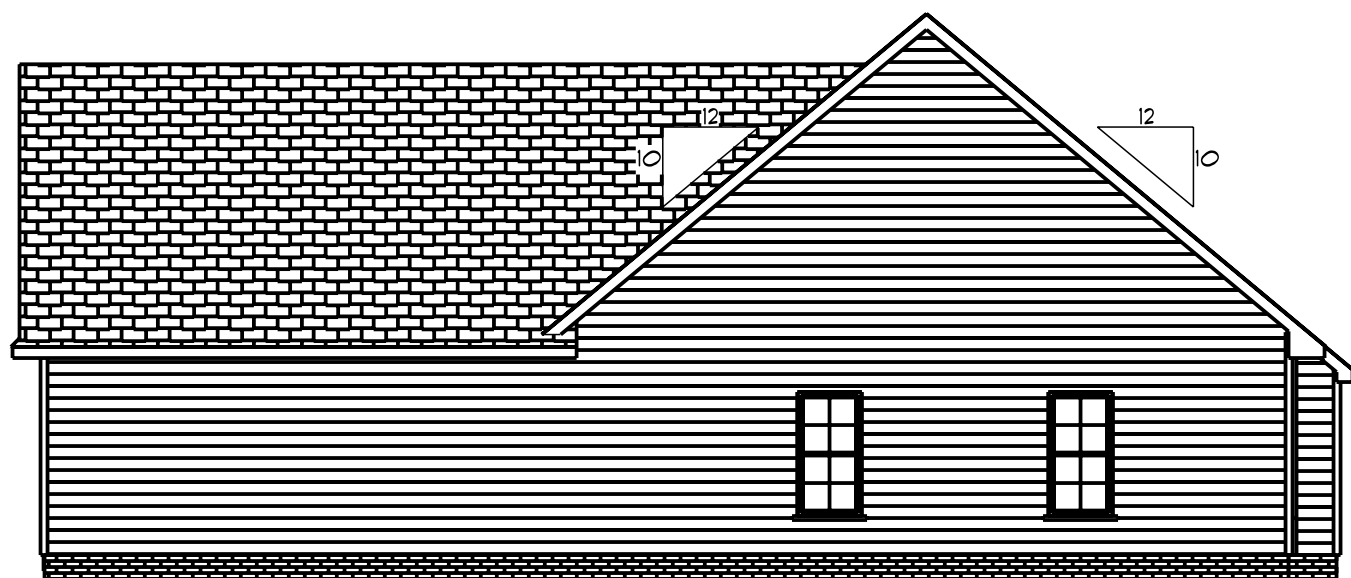




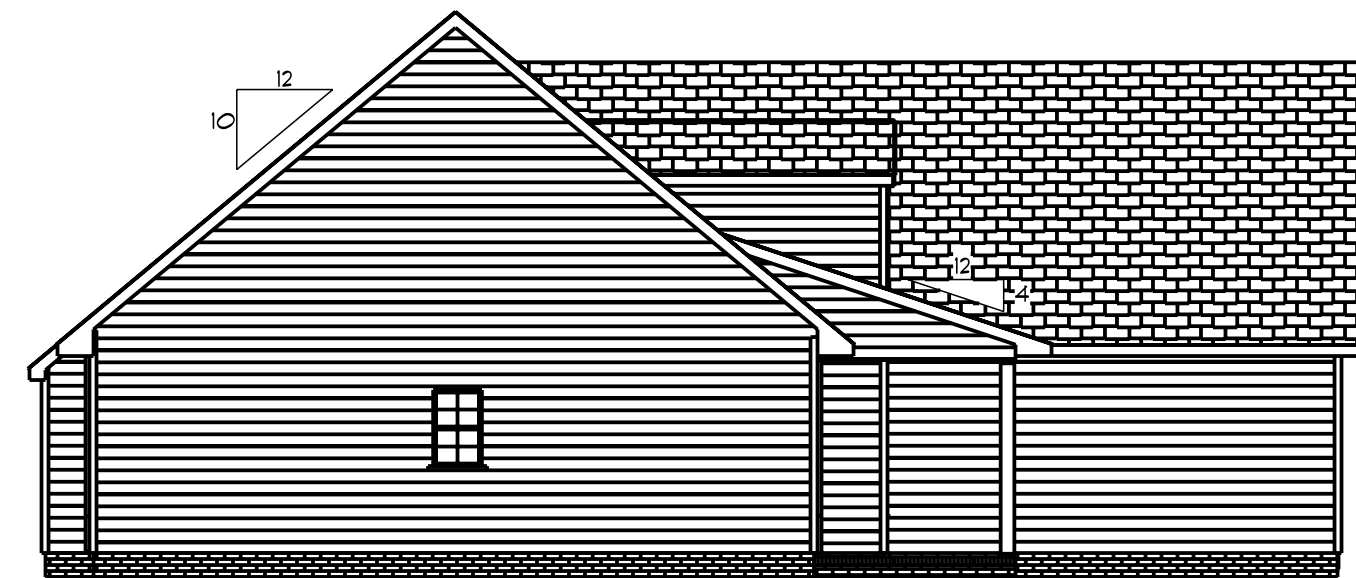
Front Elevation  
Scale: 1/4" = 1'0"



Rear Elevation  
Scale: 1/8" = 1'0"



Right Elevation  
Scale: 1/8" = 1'0"



Left Elevation  
Scale: 1/8" = 1'0"



DATE: 12/19/2022

REVISED

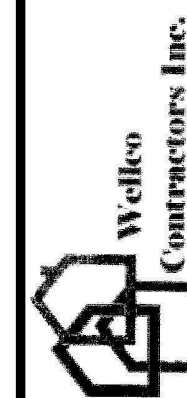
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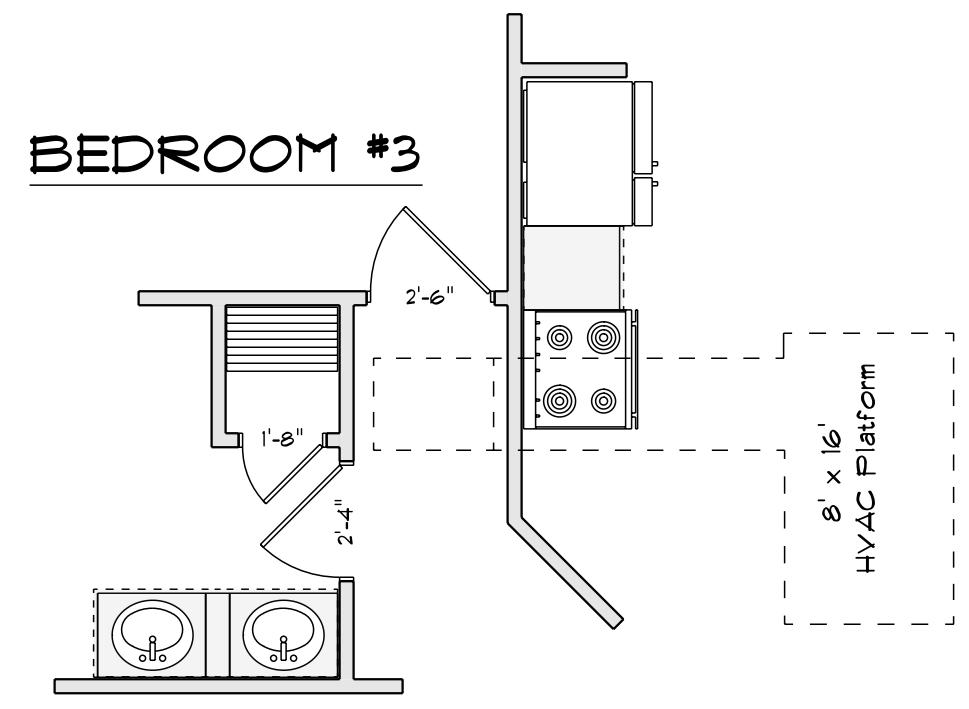
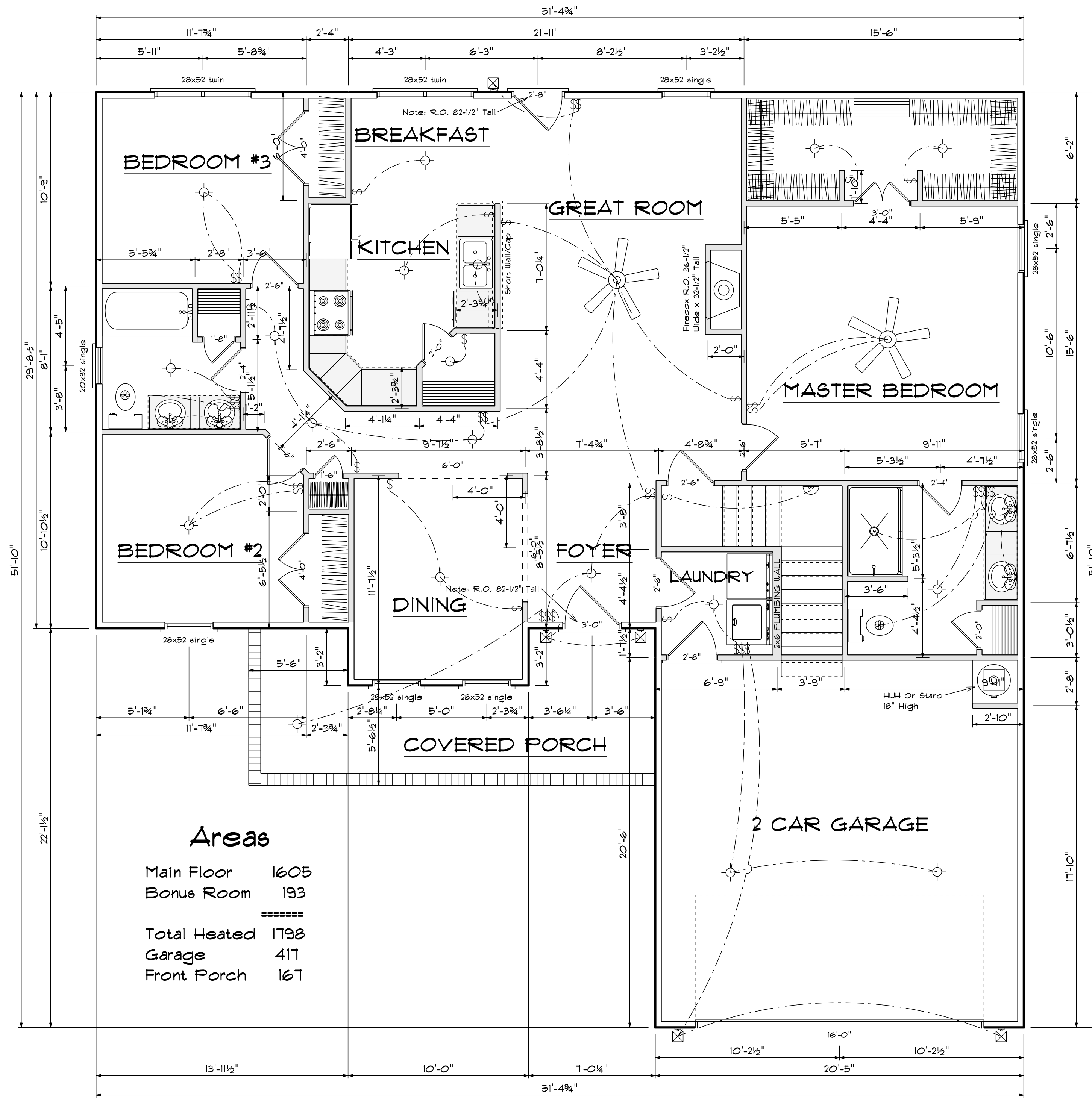
SCALE: 1/4"

DRAWN BY

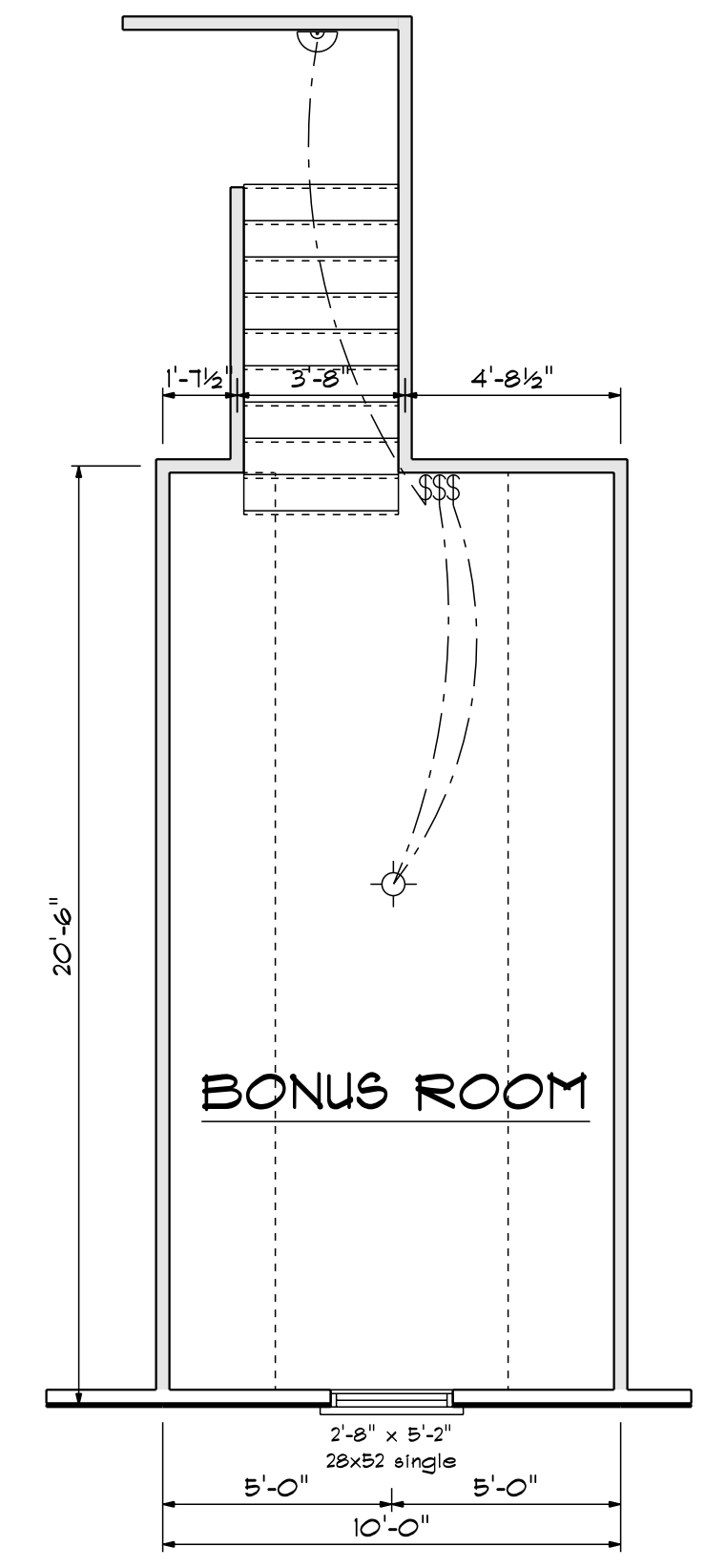
APPROVED

Plan# 8





**Floor Plan**  
Scale: 1/4" = 1'-0"

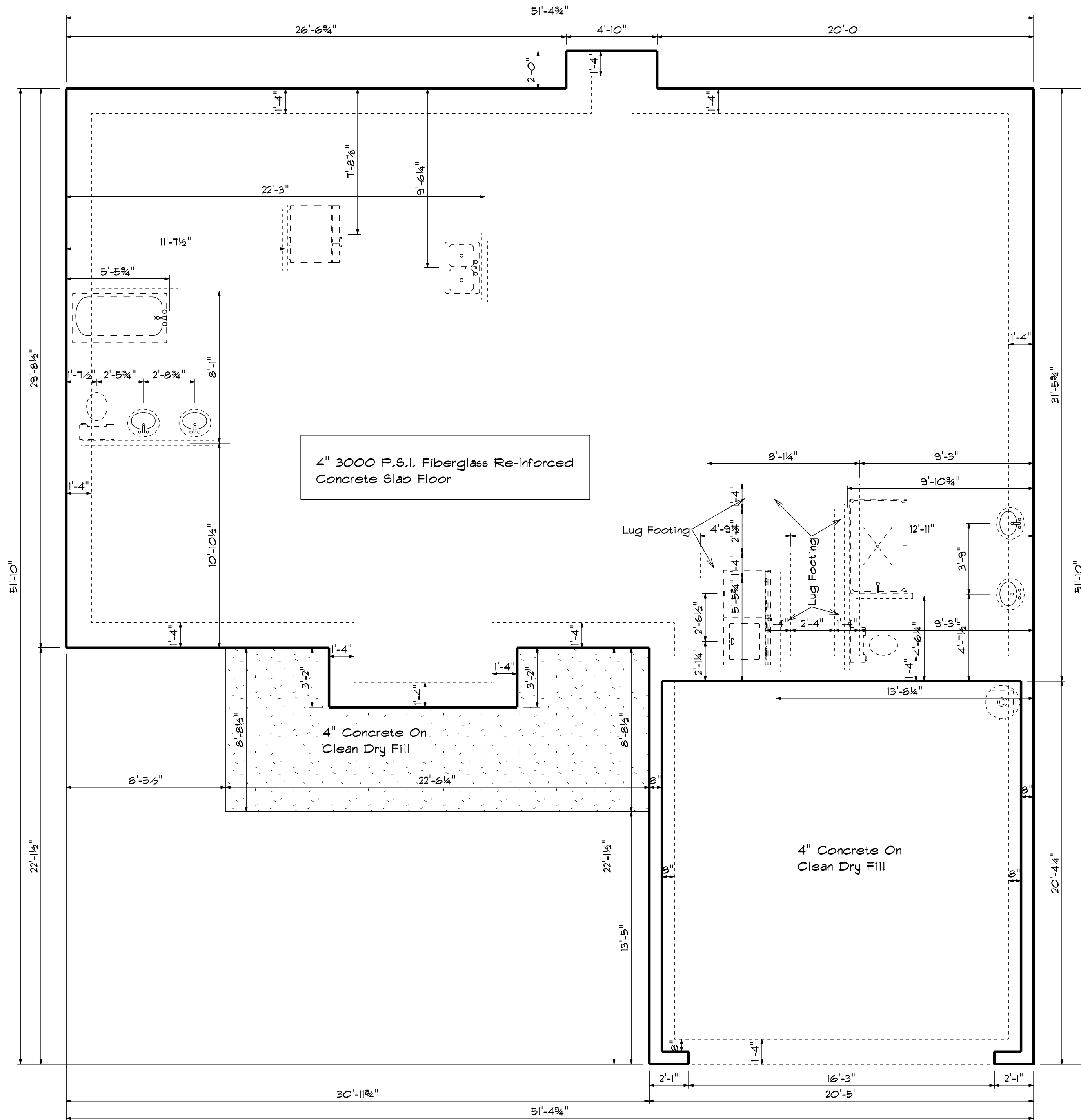


**Areas**

Main Floor	1605
Bonus Room	193
=====	
Total Heated	1798
Garage	417
Front Porch	167

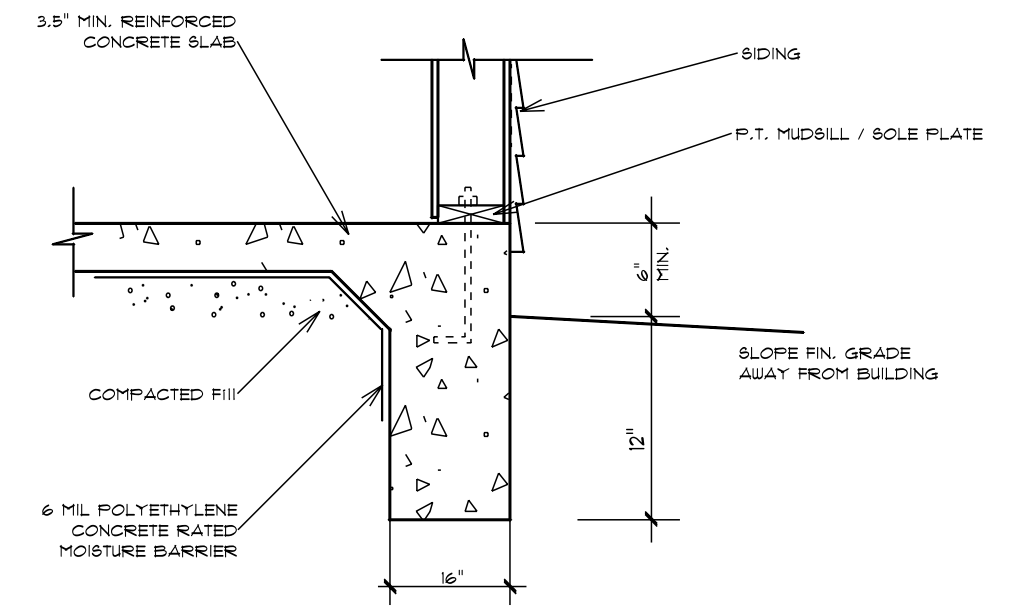
DATE: 12/19/2022  
REVISED  
DRAWING#

SCALE: 1/4"  
DRAWN BY  
APPROVED

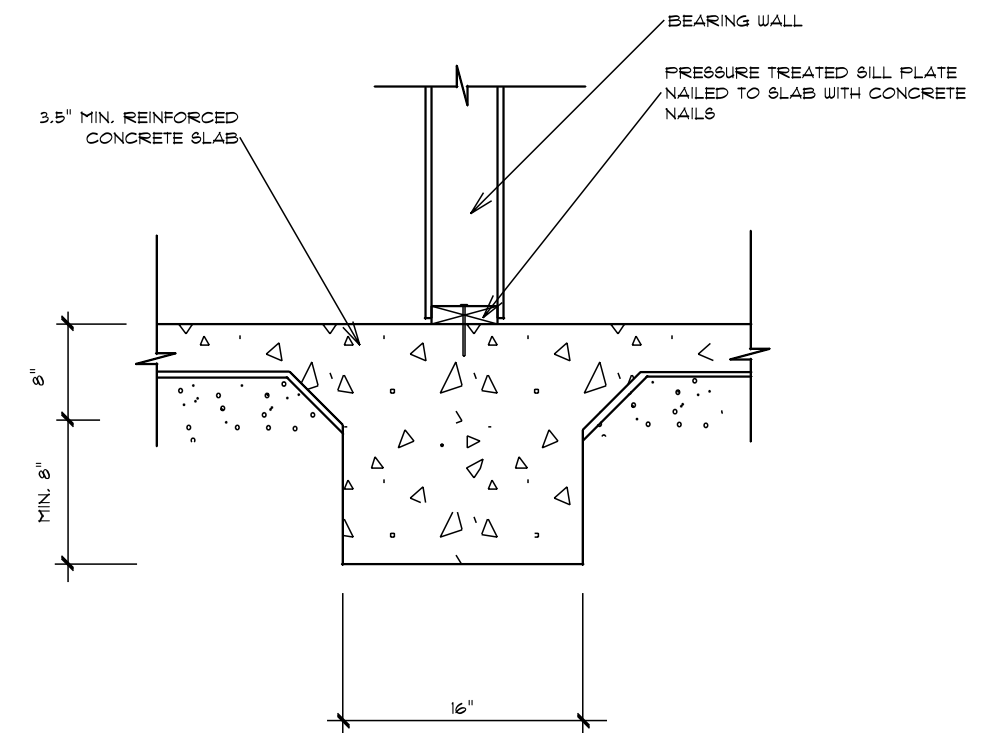


# Foundation Plan

Scale: 1/4" = 1'-0"



TURN-DOWN FOOTING DETAIL

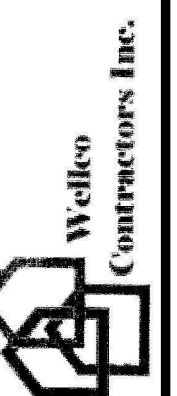


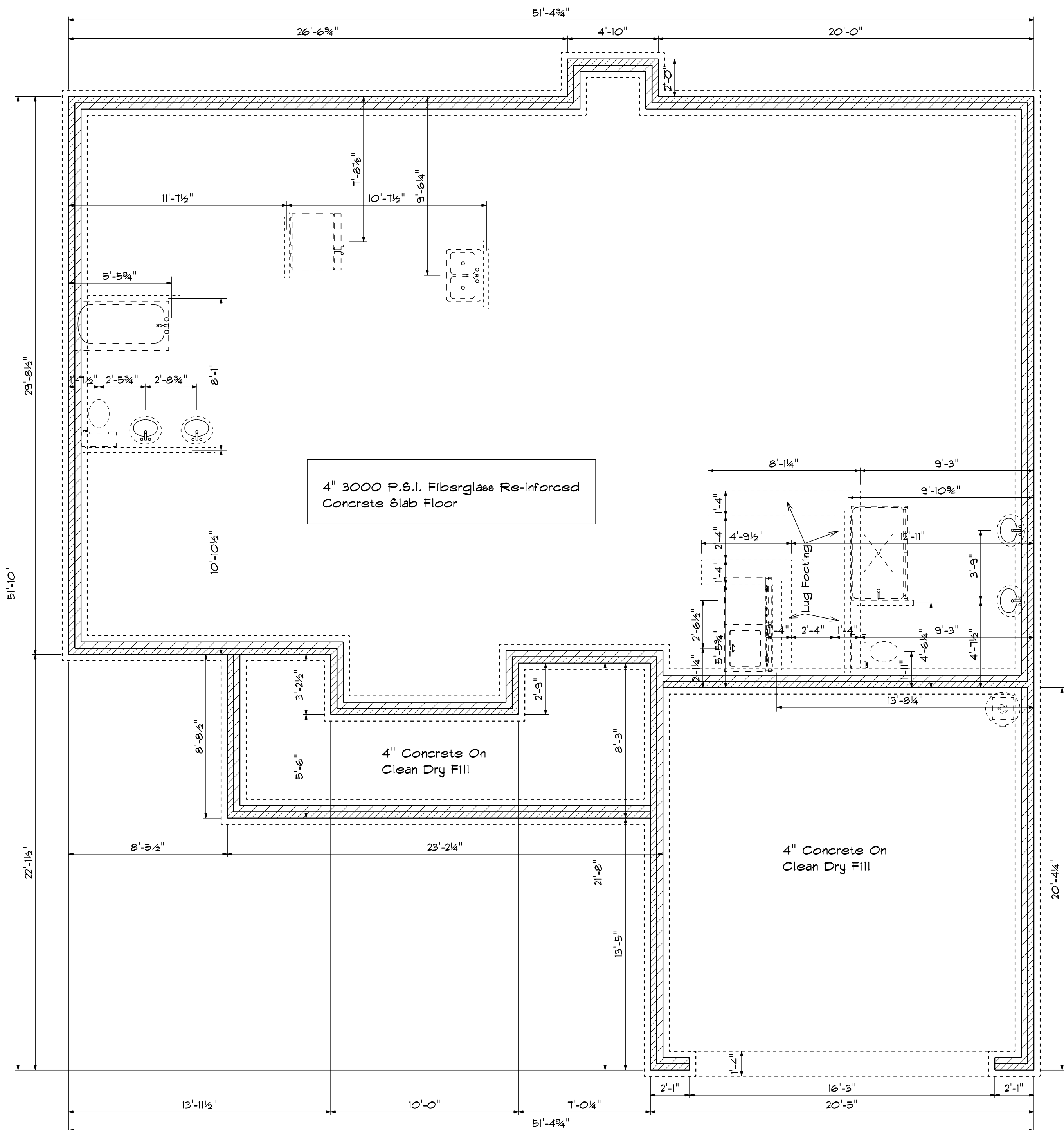
INTEGRAL SLAB FOOTING DETAIL AT BEARING WALL

DATE: 12/19/2022  
REVISED  
DRAWING#

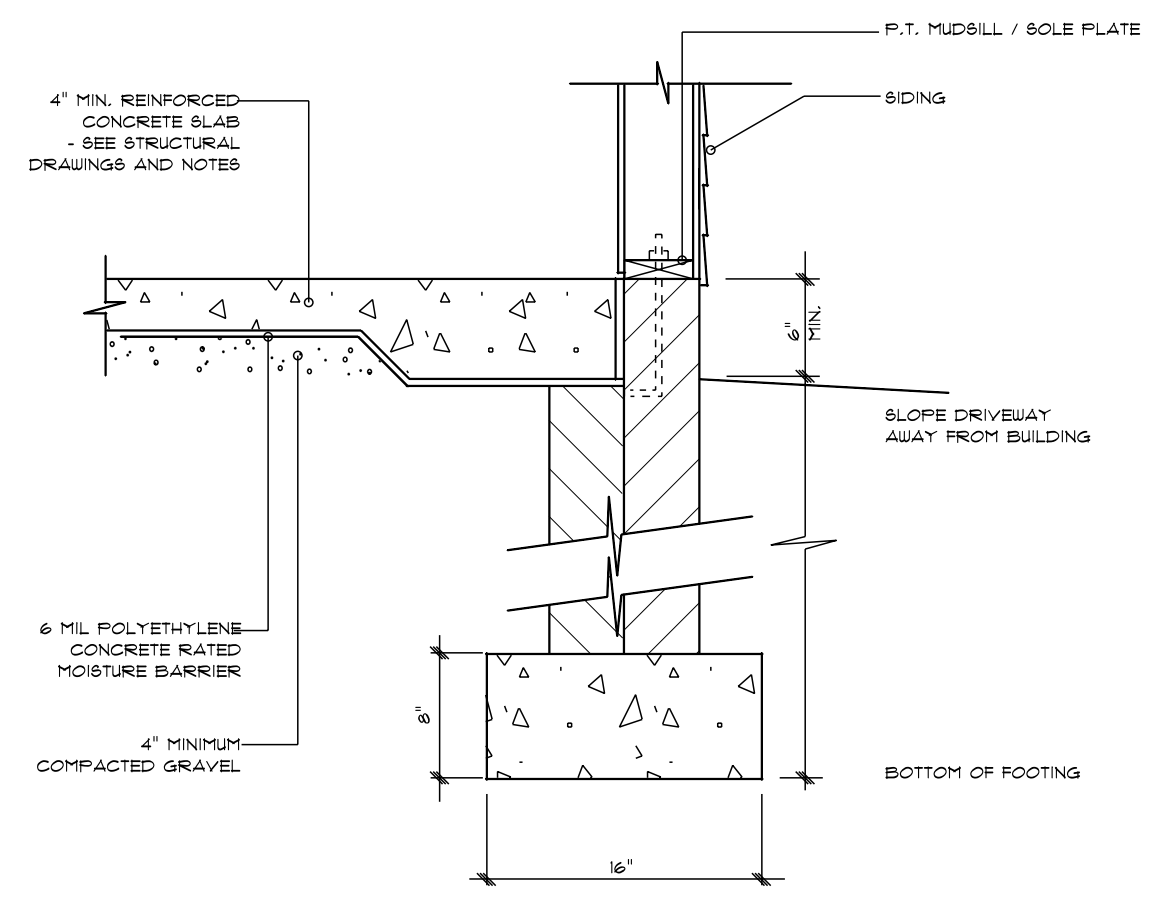
SCALE: 1/4"  
DRAWN BY  
APPROVED

Plan# 8

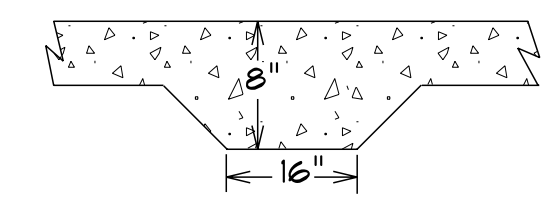




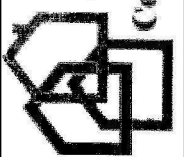
**Foundation Plan**  
 Scale: 1/4" = 1'-0"

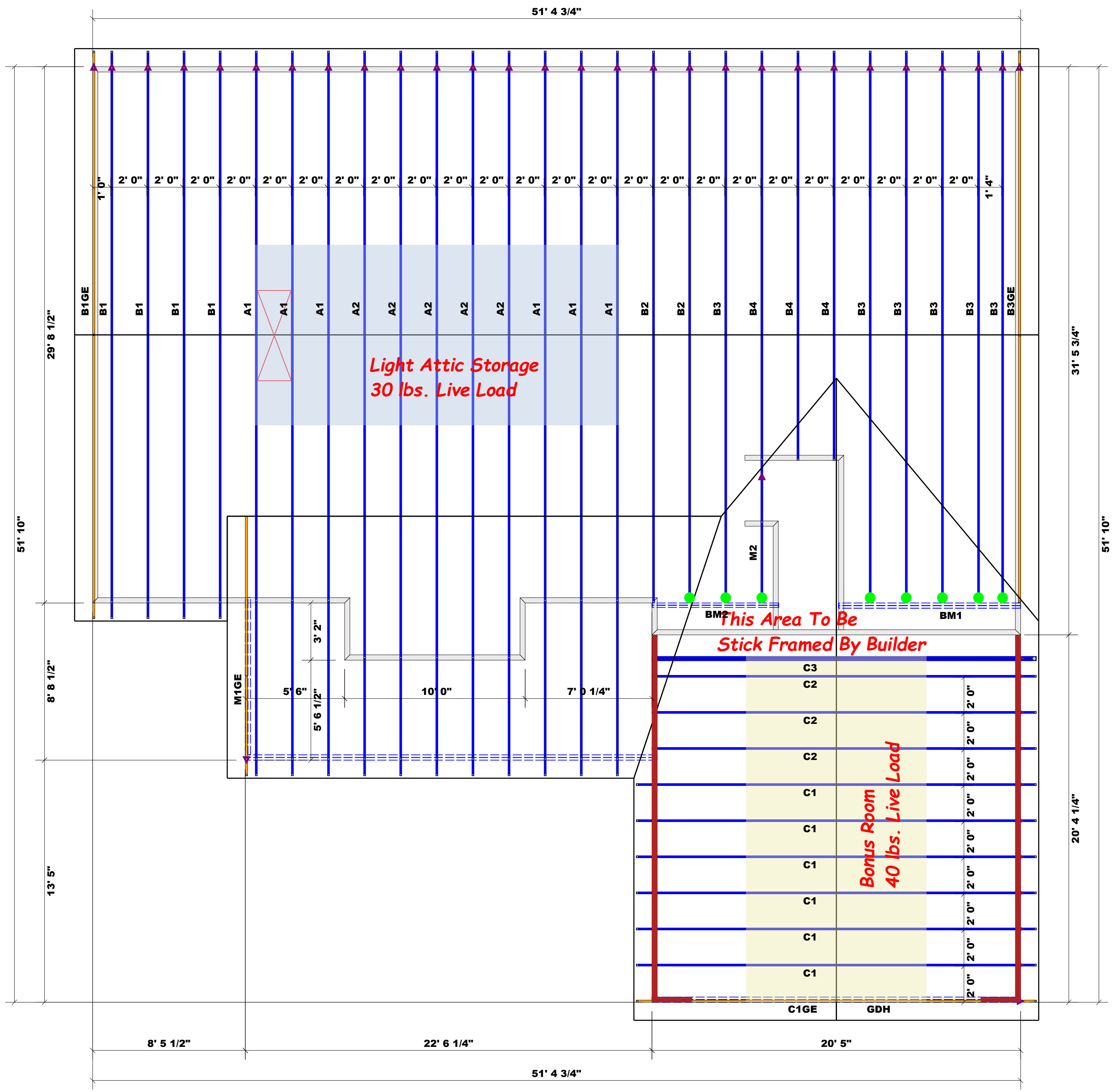


**STEM WALL FOOTING DETAIL**



**LUG FOOTING DETAIL**

 Welco Contractors Inc.	<b>Plan# 8</b>	
	DATE: 12/19/2022 REVISIONS: DRAWING#	SCALE: 1/4" DRAWN BY APPROVED



HANGER LEGEND	
<span style="color: green;">●</span>	= USP HUS26 / Single 2x Hanger

Beam Legend					
PlotID	Length	Product	Plies	Net Qty	Fab Type
BM1	11' 0"	1-3/4"x 9-1/4" LVL Kerto-S	2	2	FF
GDH	21' 0"	1-3/4"x 11-7/8" LVL Kerto-S	2	2	FF
BM2	8' 0"	2x10 SP No.2	2	2	FF

Hatch Legend	
<span style="background-color: red; width: 20px; height: 10px; display: inline-block;"></span>	Garage Walls Dropped 1'

▲ = Denotes Left End of Truss  
 (Reference Engineered Truss Drawing)  
 Do Not Erect Trusses Backwards

**Truss Placement Plan**  
 SCALE: 1/4" = 1'

LOAD CHART FOR JACK STUDS		
(BASED ON TABLES B502.5(1) & (2))		
END REACTION (UP TO) (LBS)	SPACING (FT)	NUMBER OF JACK STUDS REQUIRED @ EA END OF HEADQUARTER
1700	2550	3400
3400	5100	6800
5100	7650	10200
6800	10200	13600
8500	12750	17000
10200	15300	
11900		
13600		
15300		

<b>BUILDER</b>	Wellco Contractors	<b>CITY / CO.</b>	Spring Lake / Harnett
<b>JOB NAME</b>	Lot 116 Hidden Lakes	<b>ADDRESS</b>	Lot 116 Hidden Lakes
<b>PLAN</b>	Plan 8	<b>MODEL</b>	Roof
<b>SEAL DATE</b>	Seal Date	<b>DATE REV.</b>	01/09/23
<b>QUOTE #</b>	Quote #	<b>DRAWN BY</b>	Curtis Quick
<b>JOB #</b>	J0123-0080	<b>SALES REP.</b>	Lenny Norris

**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 truss support structure including headers, beams, walls, and columns is the responsibility of the building designer. For general guidance regarding bracing, consult BCSH-B1 and BCSH-B3 provided with the truss delivery package or online @ sbcindustry.com

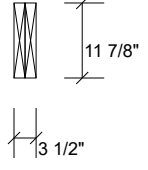
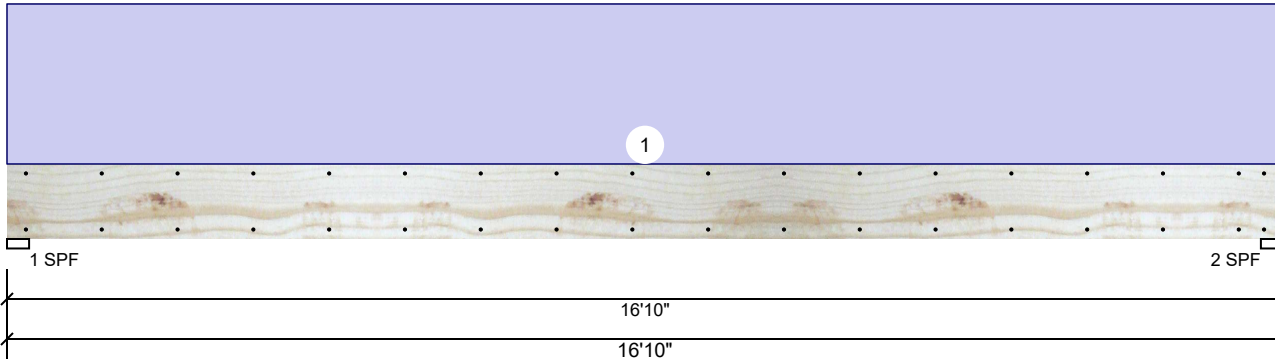
Bearing reactions less than or equal to 3000# are deemed to comply with the prescriptive Code requirements. The contractor shall refer to the attached Tables ( derived from the prescriptive Code requirements ) to determine the minimum foundation size and number of wood studs required to support reactions greater than 3000# but not greater than 15000#. A registered design professional shall be retained to design the support system for any reaction that exceeds those specified in the attached Tables. A registered design professional shall be retained to design the support system for all reactions that exceed 15000#.

Signature: Curtis Quick  
 Curtis Quick

**comtech**  
**ROOF & FLOOR TRUSSES & BEAMS**  
 Reilly Road Industrial Park  
 Fayetteville, N.C. 28309  
 Phone: (910) 864-8787  
 Fax: (910) 864-4444

**GDH Kerto-S LVL 1.750" X 11.875" 2-Ply - PASSED**

Level: Level



**Member Information**

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		

**Reactions UNPATTERNED lb (Uplift)**

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	2182	0	0	0
2	Vertical	0	2182	0	0	0

**Bearings**

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	Vert	42%	2182 / 0	2182	Uniform	D
2 - SPF	3.500"	Vert	42%	2182 / 0	2182	Uniform	D

**Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	8689 ft-lb	8'5"	17919 ft-lb	0.485 (48%)	D	Uniform
Unbraced	8689 ft-lb	8'5"	8702 ft-lb	0.998 (100%)	D	Uniform
Shear	1859 lb	15'6 5/8"	7980 lb	0.233 (23%)	D	Uniform
LL Defl inch	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		
TL Defl inch	0.453 (L/433)	8'5 1/16"	0.546 (L/360)	0.831 (83%)	D	Uniform

**Design Notes**

- Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
- Refer to last page of calculations for fasteners required for specified loads.
- Girders are designed to be supported on the bottom edge only.
- Top loads must be supported equally by all plies.
- Top must be laterally braced at a maximum of 10'8 15/16" o.c.
- Bottom must be laterally braced at end bearings.
- Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	250 PLF	0 PLF	0 PLF	0 PLF	0 PLF	
	Self Weight				9 PLF					

**Notes**

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

**Lumber**

- Dry service conditions, unless noted otherwise
- LVL not to be treated with fire retardant or corrosive chemicals

**Handling & Installation**

- LVL beams must not be cut or drilled
- Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
- Damaged Beams must not be used
- Design assumes top edge is laterally restrained
- Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

**Manufacturer Info**

Metsä Wood  
 301 Merritt 7 Building, 2nd Floor  
 Norwalk, CT 06851  
 (800) 622-5850  
[www.metsawood.com/us](http://www.metsawood.com/us)

Comtech, Inc.  
 1001 S. Reilly Road, Suite #639  
 Fayetteville, NC  
 USA  
 28314  
 910-864-TRUS



**GDH Kerto-S LVL 1.750" X 11.875" 2-Ply - PASSED**

Level: Level



**Multi-Ply Analysis**

Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6".

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	163.7 PLF
Yield Limit per Fastener	81.9 lb.
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

**Notes**

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

**Lumber**

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive

chemicals

**Handling & Installation**

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
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6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

**Manufacturer Info**

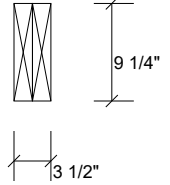
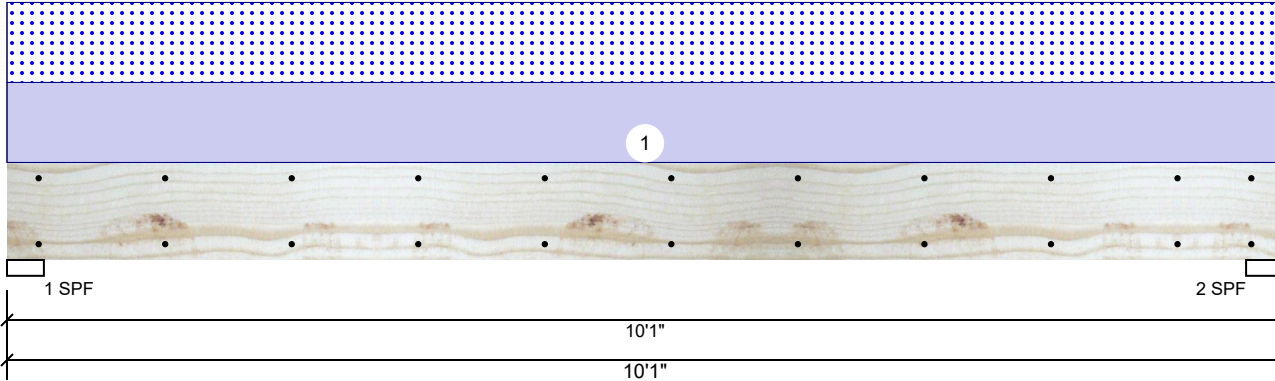
Metsä Wood  
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 28314  
 910-864-TRUS



**BM1 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED**

Level: Level



**Member Information**

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		

**Reactions UNPATTERNED lb (Uplift)**

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	1811	1775	0	0
2	Vertical	0	1811	1775	0	0

**Bearings**

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	Vert	69%	1811 / 1775	3586	L	D+S
2 - SPF	3.500"	Vert	69%	1811 / 1775	3586	L	D+S

**Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	8236 ft-lb	5' 1/2"	14423 ft-lb	0.571 (57%)	D+S	L
Unbraced	8236 ft-lb	5' 1/2"	8246 ft-lb	0.999 (100%)	D+S	L
Shear	2836 lb	1' 3/4"	7943 lb	0.357 (36%)	D+S	L
LL Defl inch	0.162 (L/714)	5' 1/2"	0.321 (L/360)	0.504 (50%)	S	L
TL Defl inch	0.327 (L/353)	5' 1/2"	0.481 (L/240)	0.679 (68%)	D+S	L

**Design Notes**

- Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
- Refer to last page of calculations for fasteners required for specified loads.
- Girders are designed to be supported on the bottom edge only.
- Top loads must be supported equally by all plies.
- Top must be laterally braced at a maximum of 8'8 11/16" o.c.
- Bottom must be laterally braced at end bearings.
- Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	352 PLF	0 PLF	352 PLF	0 PLF	0 PLF	B2
	Self Weight				7 PLF					

**Notes**

Calculated Structural Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

**Lumber**

- Dry service conditions, unless noted otherwise
- LVL not to be treated with fire retardant or corrosive

chemicals

**Handling & Installation**

- LVL beams must not be cut or drilled
- Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
- Damaged Beams must not be used
- Design assumes top edge is laterally restrained
- Provide lateral support at bearing points to avoid lateral displacement and rotation

- For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

**Manufacturer Info**

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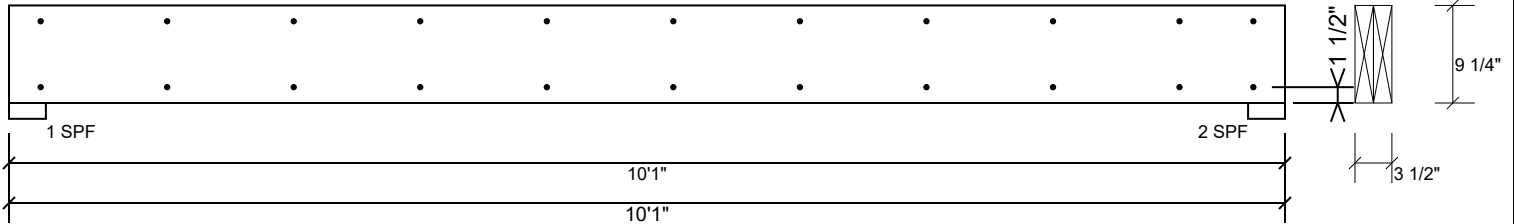
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 Fayetteville, NC  
 USA  
 28314  
 910-864-TRUS





**BM1 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED**

Level: Level



**Multi-Ply Analysis**

Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6".

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	163.7 PLF
Yield Limit per Fastener	81.9 lb.
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

**Notes**

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

**Lumber**

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive

chemicals

**Handling & Installation**

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

**Manufacturer Info**

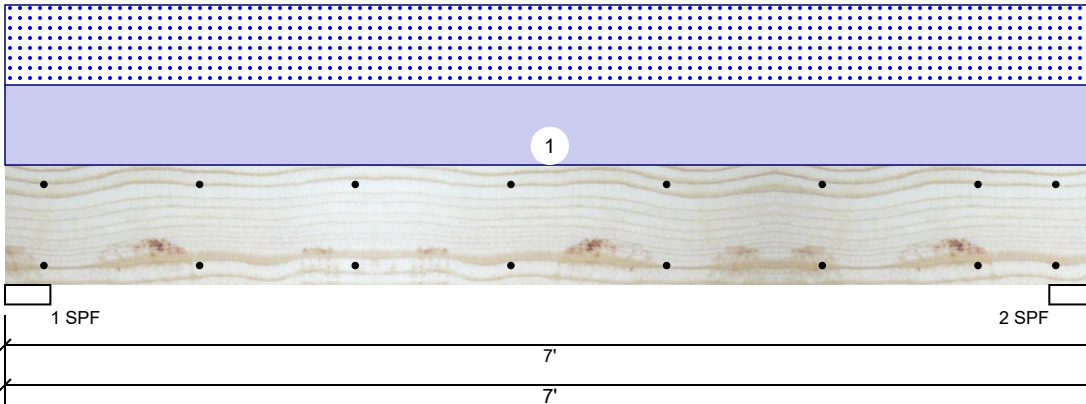
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**BM2 S-P-F #2 2.000" X 10.000" 2-Ply - PASSED**

Level: Level



**Member Information**

Type:	Girder
Plies:	2
Moisture Condition:	Dry
Deflection LL:	360
Deflection TL:	240
Importance:	Normal - II
Temperature:	Temp <= 100°F

Application:	Floor
Design Method:	ASD
Building Code:	IBC/IRC 2015
Load Sharing:	No
Deck:	Not Checked

**Reactions UNPATTERNED lb (Uplift)**

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	1232	1232	0	0
2	Vertical	0	1232	1232	0	0

**Bearings**

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	Vert	55%	1232 / 1232	2464	L	D+S
2 - SPF	3.500"	Vert	55%	1232 / 1232	2464	L	D+S

**Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3766 ft-lb	3'6"	3946 ft-lb	0.954 (95%)	D+S	L
Unbraced	3766 ft-lb	3'6"	3766 ft-lb	1.000 (100%)	D+S	L
Shear	1716 lb	1' 3/4"	2872 lb	0.597 (60%)	D+S	L
LL Defl inch	0.052 (L/1499)	3'6"	0.218 (L/360)	0.240 (24%)	S	L
TL Defl inch	0.105 (L/750)	3'6"	0.327 (L/240)	0.320 (32%)	D+S	L

**Design Notes**

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
- 3 Refer to last page of calculations for fasteners required for specified loads.
- 4 Girders are designed to be supported on the bottom edge only.
- 5 Top loads must be supported equally by all plies.
- 6 Top must be laterally braced at a maximum of 3'10 5/8" o.c.
- 7 Bottom must be laterally braced at end bearings.
- 8 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	352 PLF	0 PLF	352 PLF	0 PLF	0 PLF	B2

**Manufacturer Info**

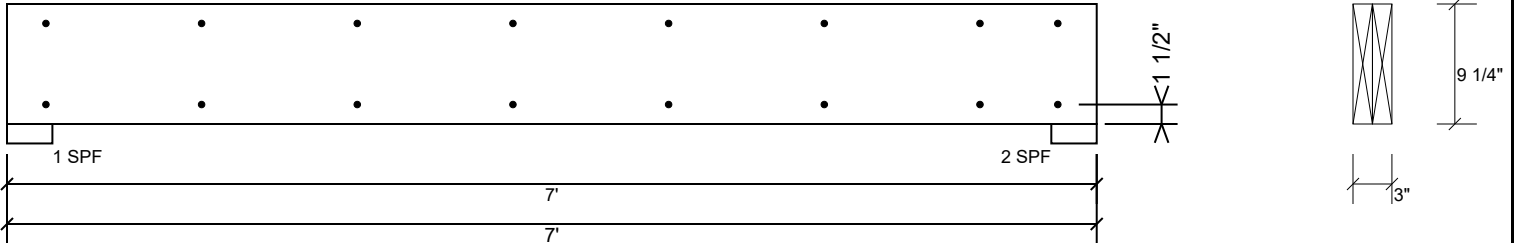
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 USA  
 28314  
 910-864-TRUS



This design is valid until 11/3/2024

**BM2 S-P-F #2 2.000" X 10.000" 2-Ply - PASSED**

Level: Level



**Multi-Ply Analysis**

Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6".

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	157.4 PLF
Yield Limit per Fastener	78.7 lb.
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

<b>Manufacturer Info</b>	Comtech, Inc. 1001 S. Reilly Road, Suite #639 Fayetteville, NC USA 28314 910-864-TRUS

This design is valid until 11/3/2024