

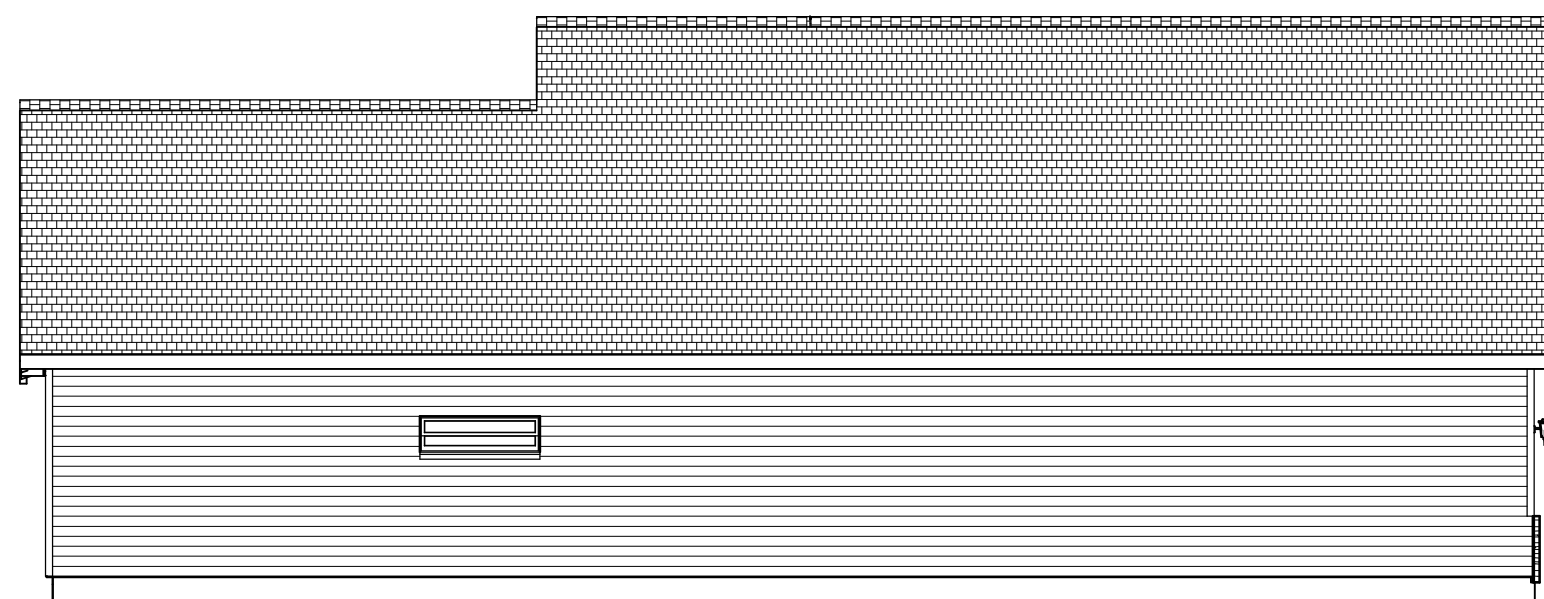
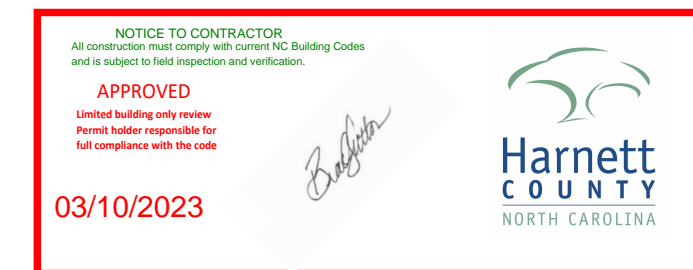


FRONT ELEVATION

Scale: 1/4" = 1'0"

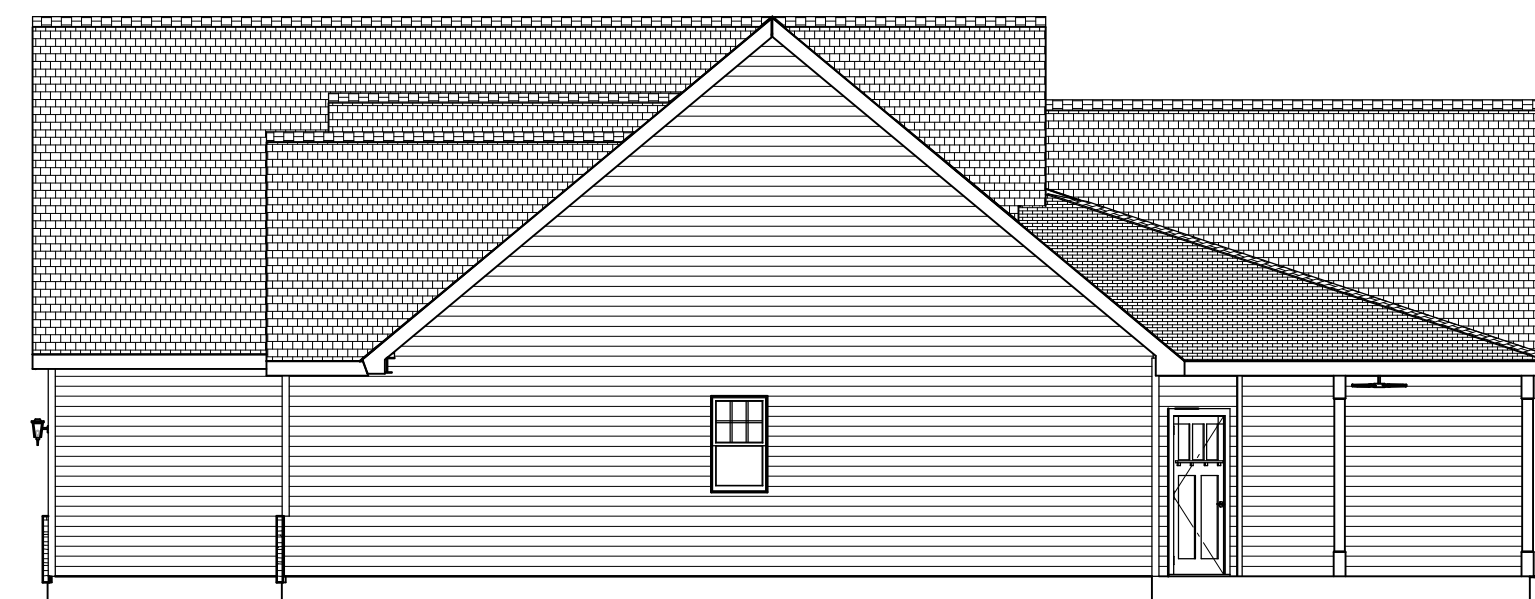
9'0" CEILING HEIGHT FIRST FLOOR
(HEADER HEIGHT 7'6")
8'0" CEILING HEIGHT SECOND FLOOR
(HEADER HEIGHT 7')

FRAME WINDOWS TO HEADER HEIGHT



LEFT ELEVATION

Scale: 1/8" = 1'0"



RIGHT ELEVATION

Scale: 1/8" = 1'0"



REAR ELEVATION

Scale: 1/8" = 1'0"

PLAN:
Menger

SHEET TITLE:
ELEVATIONS

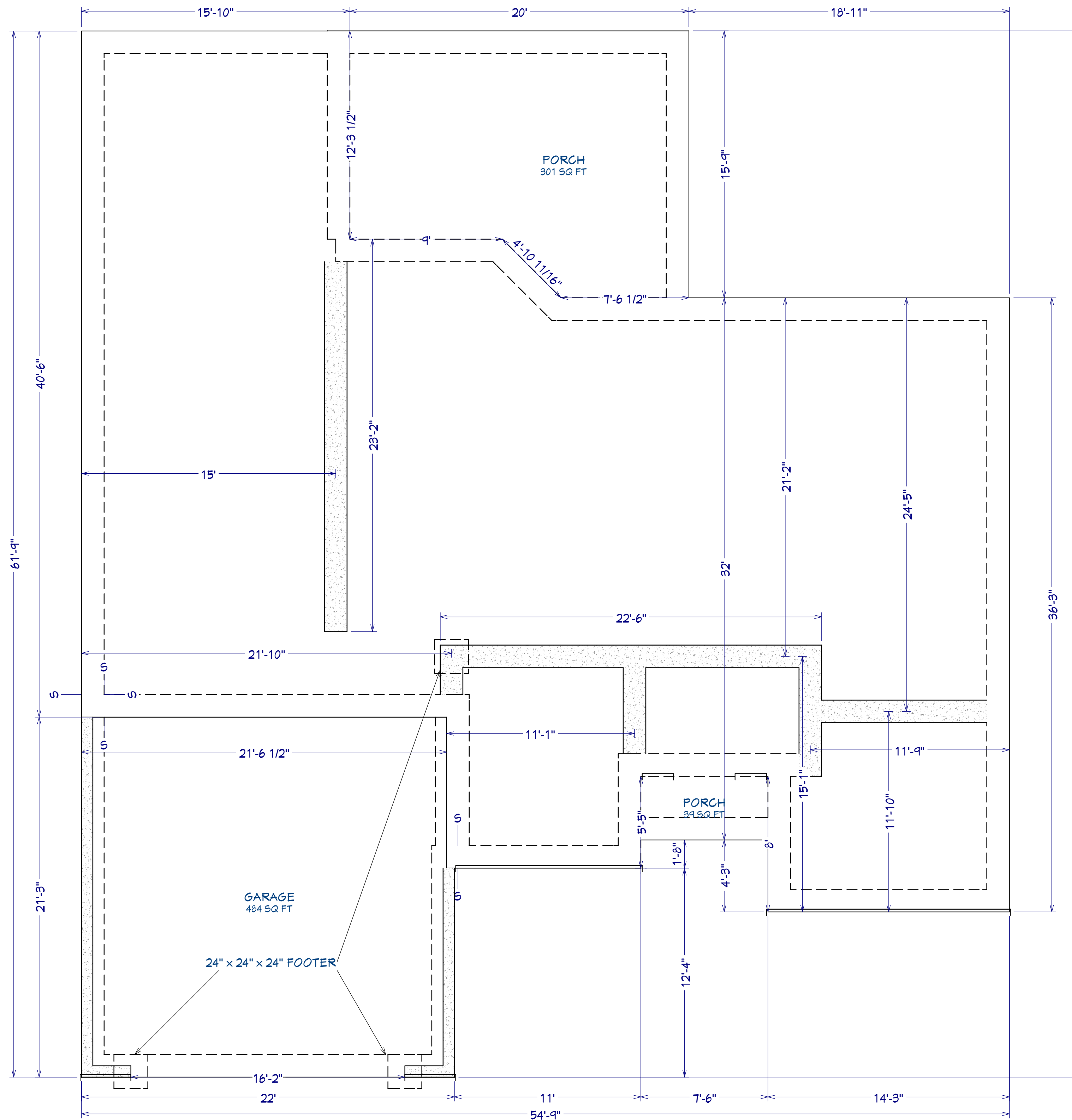
PROJECT ADDRESS:
368 Solomon Dr. (Lot 31)

DESIGNED BY:
Precision Custom Homes
Raeford, NC
Shaun@PrecisionCustomHomesNC.com

DATE:
2/28/23

SCALE:
1/4" = 1'

SHEET:
A-1



AREA SCHEDULE	
NAME	AREA
1st FLOOR	1,950 SF
2nd FLOOR	424 SF
GARAGE	467 SF
FRONT PORCH	28 SF
BACK PORCH	275 SF
TOTAL HEATED	2,374 SF
TOTAL UNDER ROOF	3,144 SF

FOUNDATION PLAN
Scale: 1/4" = 1'0"

PLAN:
Menger

SHEET TITLE:
FOUNDATION

PROJECT ADDRESS:
368 Solomon Dr. (Lot 31)

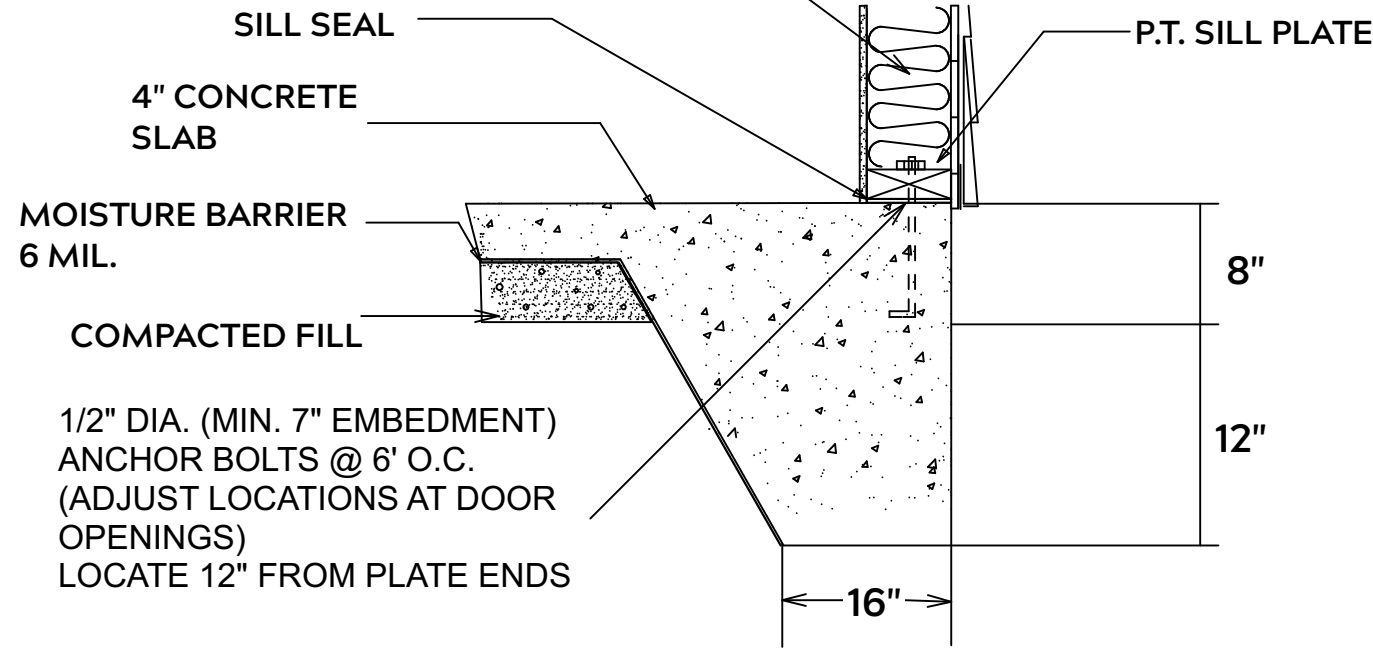
DESIGNED BY:
Precision Custom Homes
Rae ford, NC
Shaun@PrecisionCustomHomesNC.com

DATE:
2/28/23

SCALE:
1/4" = 1'

SHEET:
A-2

2 X STUDS @ 16" O.C.
INSULATION TO MEET LOCAL
CODES



MONOLITHIC SLAB

FOUNDATION NOTES:

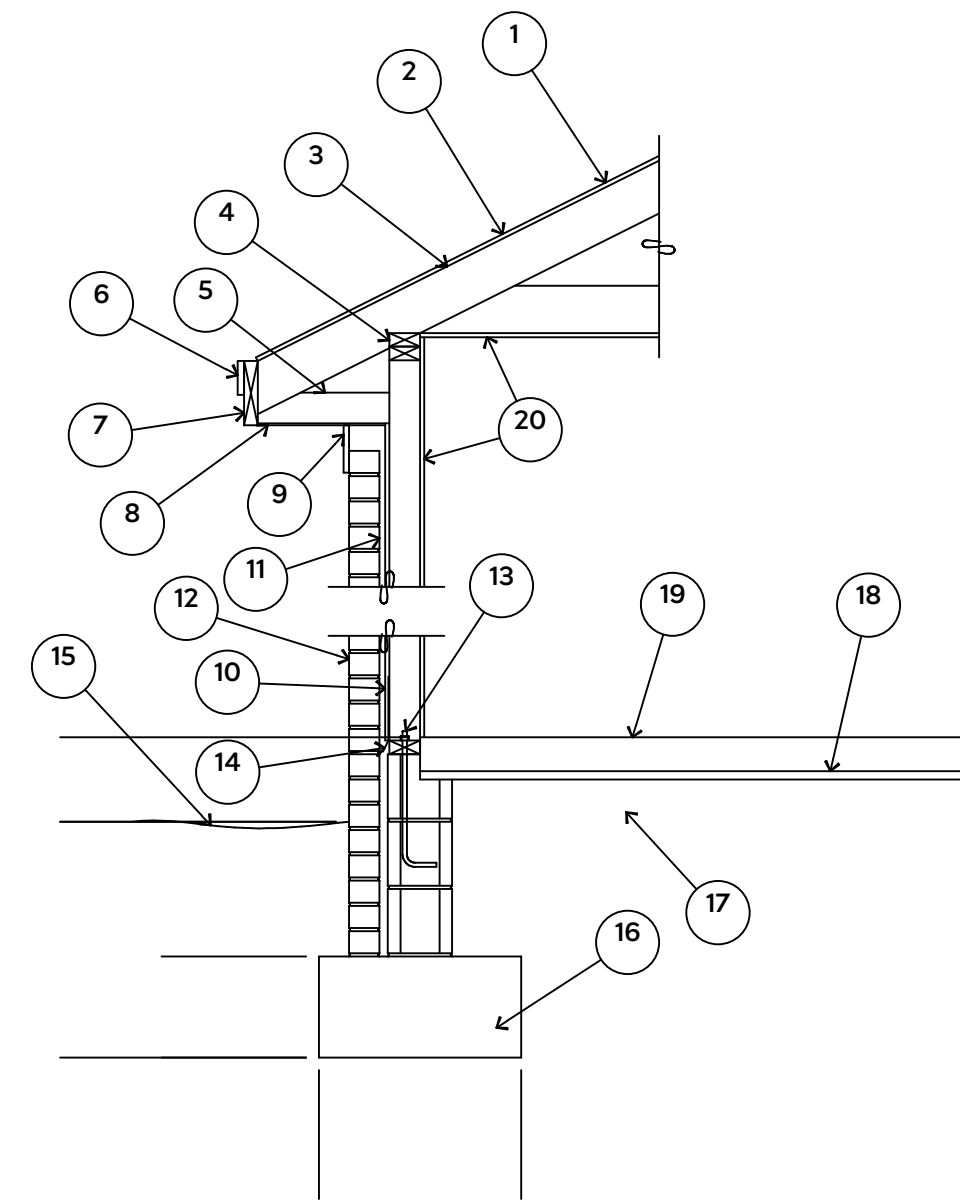
ALL FOOTINGS SHALL BEAR ON ORIGINAL UNDISTURBED SOIL
THE 28 DAY COMPRESSIVE STRENGTH OF ALL FOOTINGS IS 3000 PSI

PROVIDE WATER PROOFING AND PERIMTER DRAINS AS REQUIRED

FOOTING WIDTHS ARE BASED ON A LOAD BEARING SOIL CAPACITY OF 2000 PSI

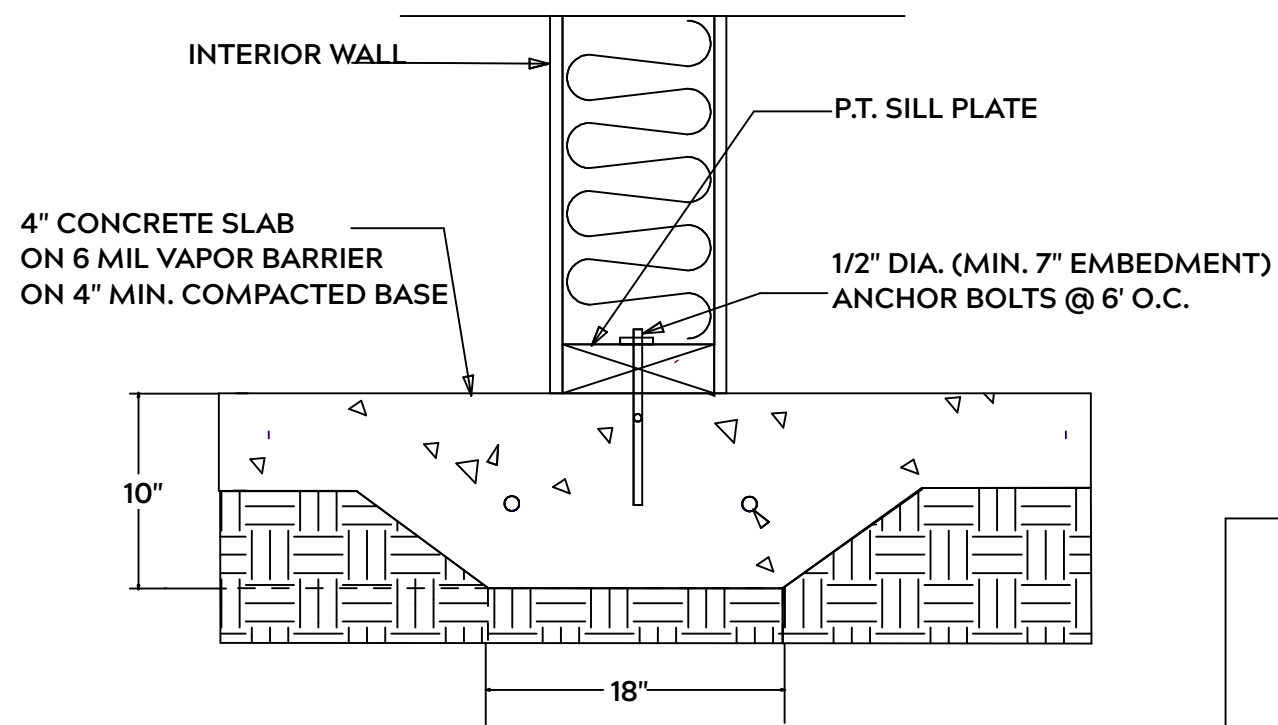
PROVIDE 6 MIL POLY VAPOR BARRIER TO COVER GROUND IN CRAWL SPACE AND GROUND UNDER POURED CONCRETE

ALL ANCHOR BOLTS TO BE 1/2" X 12" LONG. ANCHOR BOLTS SHALL BE SPACED AT A MAXIMUM OF 6' ON CENTER AND NO MORE THEN 1' FROM EACH CORNER



1. 15# FELT UNDERLAYMENT UNDER COMPOSITION SHINGLES.
2. ROOF DECKING.
3. 2 X RAFTERS / ENGINEERED TRUSSES
4. DOUBLE TOP PLATE.
5. 2 X 4 RETURN.
6. 3/4" FASCIA OR PVC TRIM COIL
7. 2 X FASCIA
8. 1/4" PLYWOOD OR VINYL SOFFIT
9. 1 X FREEZE BOARD (TO BE USED WITH BRICK VENEERS)
10. INSULATION BOARD OR HOUSE WRAP
11. AIR SPACE.
12. BRICK WITH BRICK TIES PER MANUFACTURER'S SPECIFICATIONS.
13. 1/2" X 12" ANCHOR BOLTS, 6'-0" O.C., 12" FROM CORNERS.
14. FLASHING WITH WEEP HOLES @ 48" O.C.
15. FINISHED GRADE.
16. FOOTING
17. COMPACTED EARTH FILL.
18. 6 MIL. VAPOR BARRIER
19. 4" CONCRETE SLAB, 3,000 P.S.I. WITH 6" X 6" 10 GA. X 10 GA. WELDED WIRE FABRIC.
20. 1/2" GYPSUM BOARD.

EXTERIOR WALL SECTION



LUG FOOTING

GENERAL FRAMING NOTES:

ALL LUMBER IN CONTACT WITH CONCRETE OR MASONRY SHALLE BE PRESSURE TREATED

FRAMING LUMBER SHALL BE SYP #2 GRADE AND / OR SPRUCE PINE FIR #1 AND / OR KILN DRIED

WHERE PRE-ENGINEERED JOISTS AND TRUSSES ARE USED, MANUFACTURER SHALL PROVIDE DRAWINGS / SCHEMATICS, WHICH SHALL BEAR OF A N.C. ENGINEER

STUDS AND JOISTS SHALL NOT BE CUT TO INSTALL PLUMBING OR WIRING WITHOUT ADDING METAL OR WOOD SIDE PANELS TO STRENGTHEN MEMBER TO ITS ORIGINAL CAPACITY

NAIL MULTIPLE MEMBERS WITH 2 ROWS OF 16d NAILS STAGGERED 32" O.C. AND USE 3 X 16d NAILS 2" IN AT EACH END.

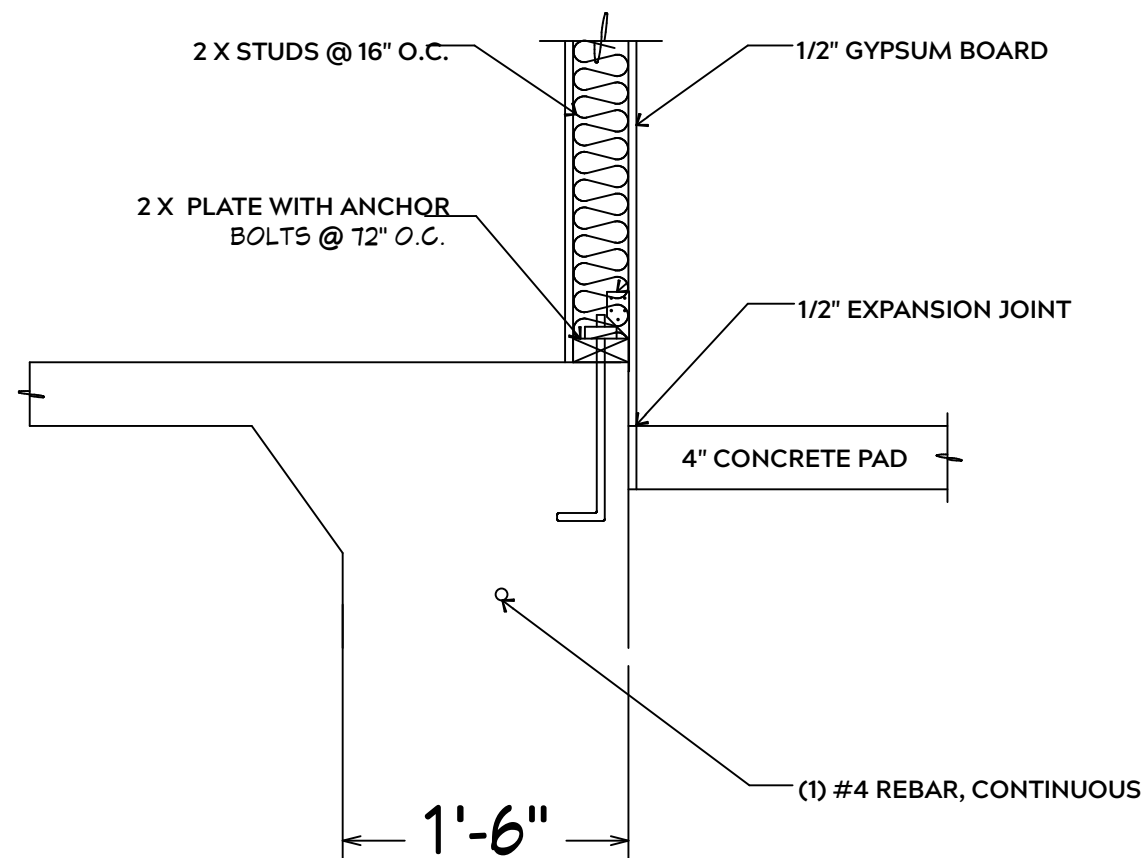
NAIL FLOOR JOISTS TO SILL PLATE WITH WITH 8d TOE NAILS

ALL EXPOSED FRAMING ON PORCHES OR DECKS SHALL BE PRESSURE TREATED

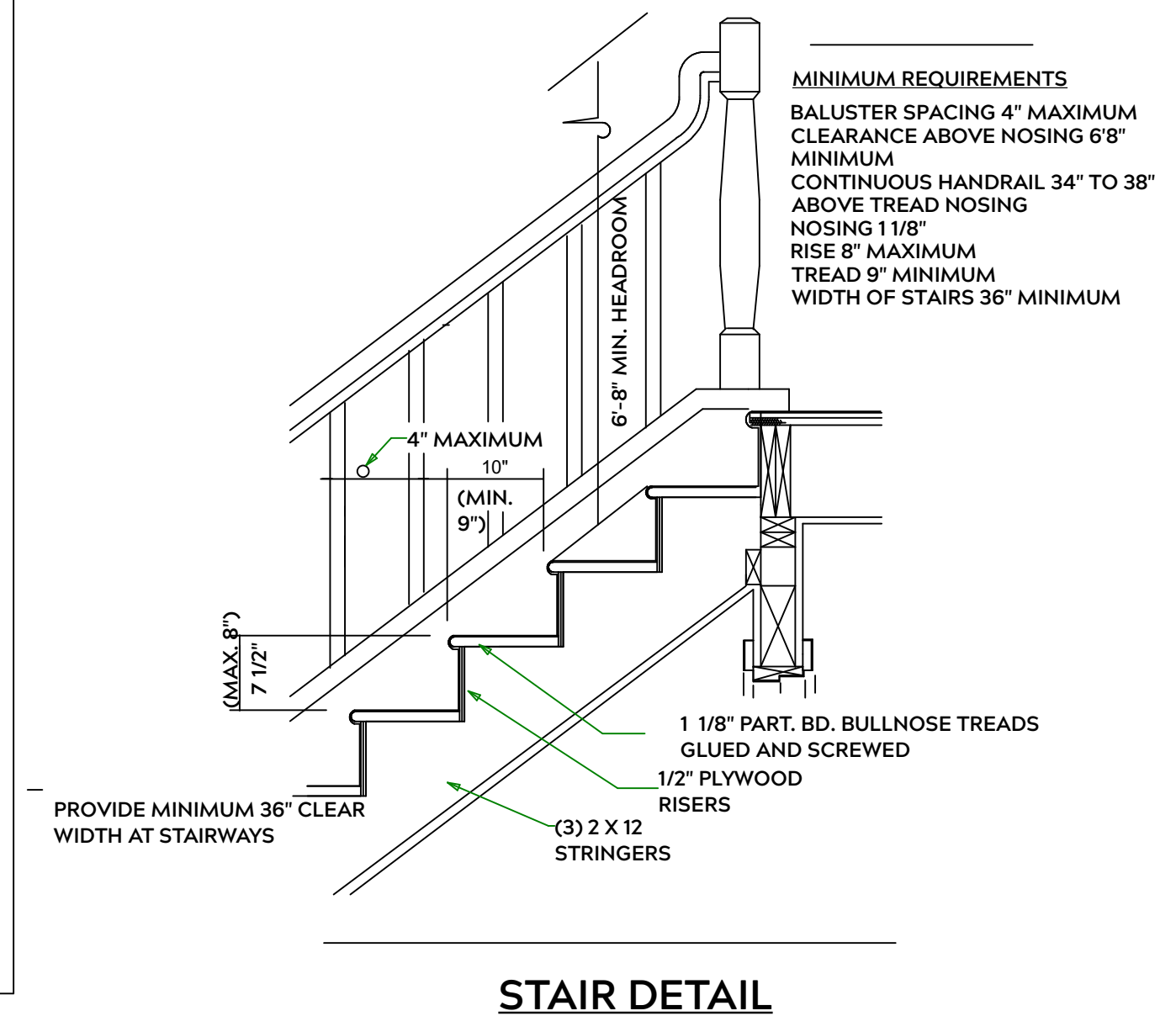
PROVIDE WATERPROOFING AND DRAINS AS REQUIRED

ALL FRAMING TO BE 16" O.C. WALL FRAMING DIMENSIONS ARE BASED ON 2X4 OR 2X6 EXTERIOR WALLS AND 2X4 INTERIOR WALLS. DOULBE / TRIPLE JACK STUDS AS NECESSARY UNDER HEADERS AS REQUIRED

LVL'S TO BE SIZED BY OTHERS (TRUSS MANUFACTURER)



INTERIOR WALL @ GARAGE STEP DOWN



- MINIMUM REQUIREMENTS**
- BALUSTER SPACING 4" MAXIMUM
 - CLEARANCE ABOVE NOSING 6"8"
 - MINIMUM CONTINUOUS HANDRAIL 34" TO 38" ABOVE TREAD NOSING
 - NOSING 1 1/8"
 - RISE 8" MAXIMUM
 - TREAD 9" MINIMUM
 - WIDTH OF STAIRS 36" MINIMUM

STAIR DETAIL

PLAN:
Menger

SHEET TITLE:
DETAIL SHEETS

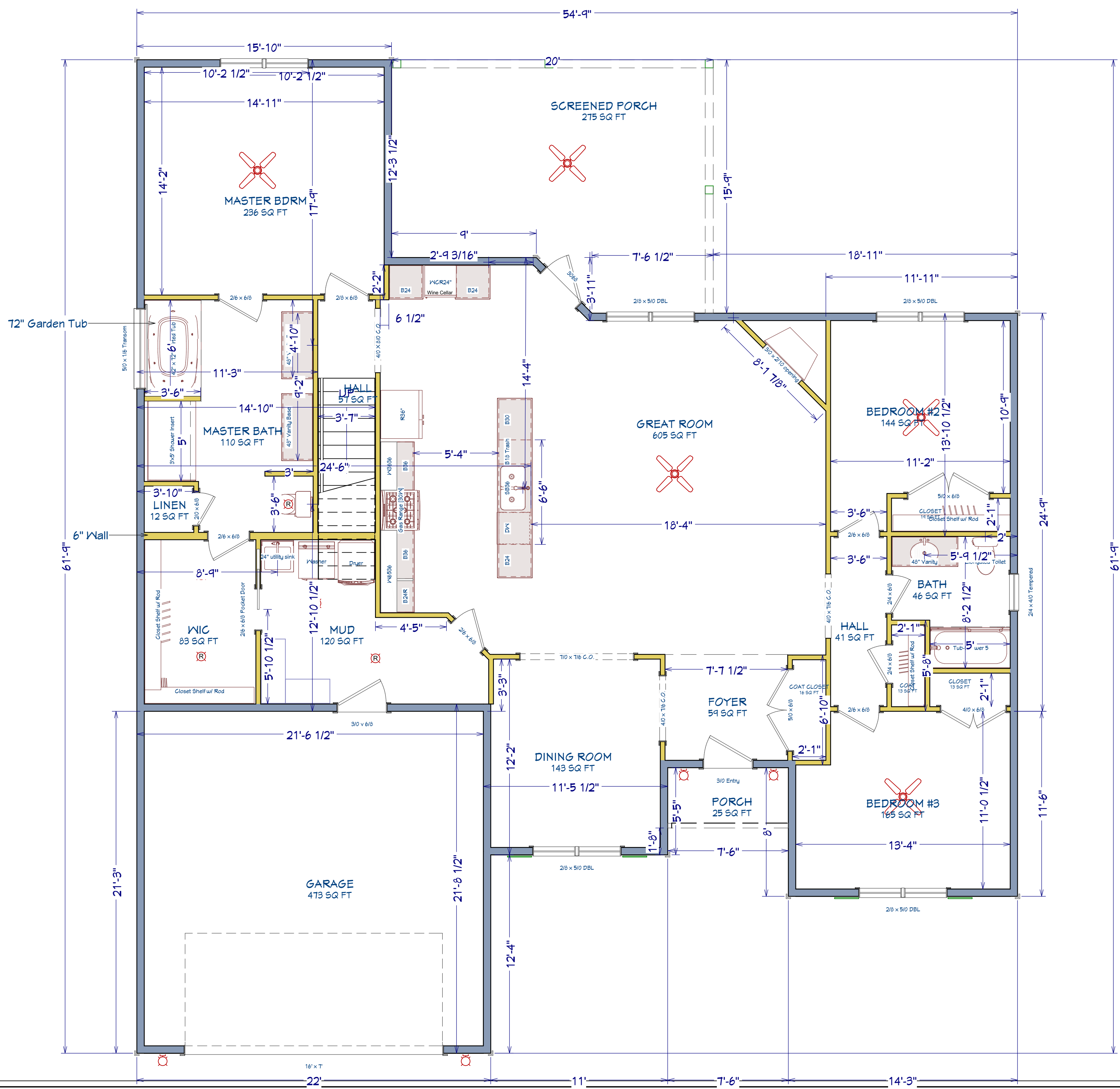
PROJECT ADDRESS:
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DESIGNED BY:
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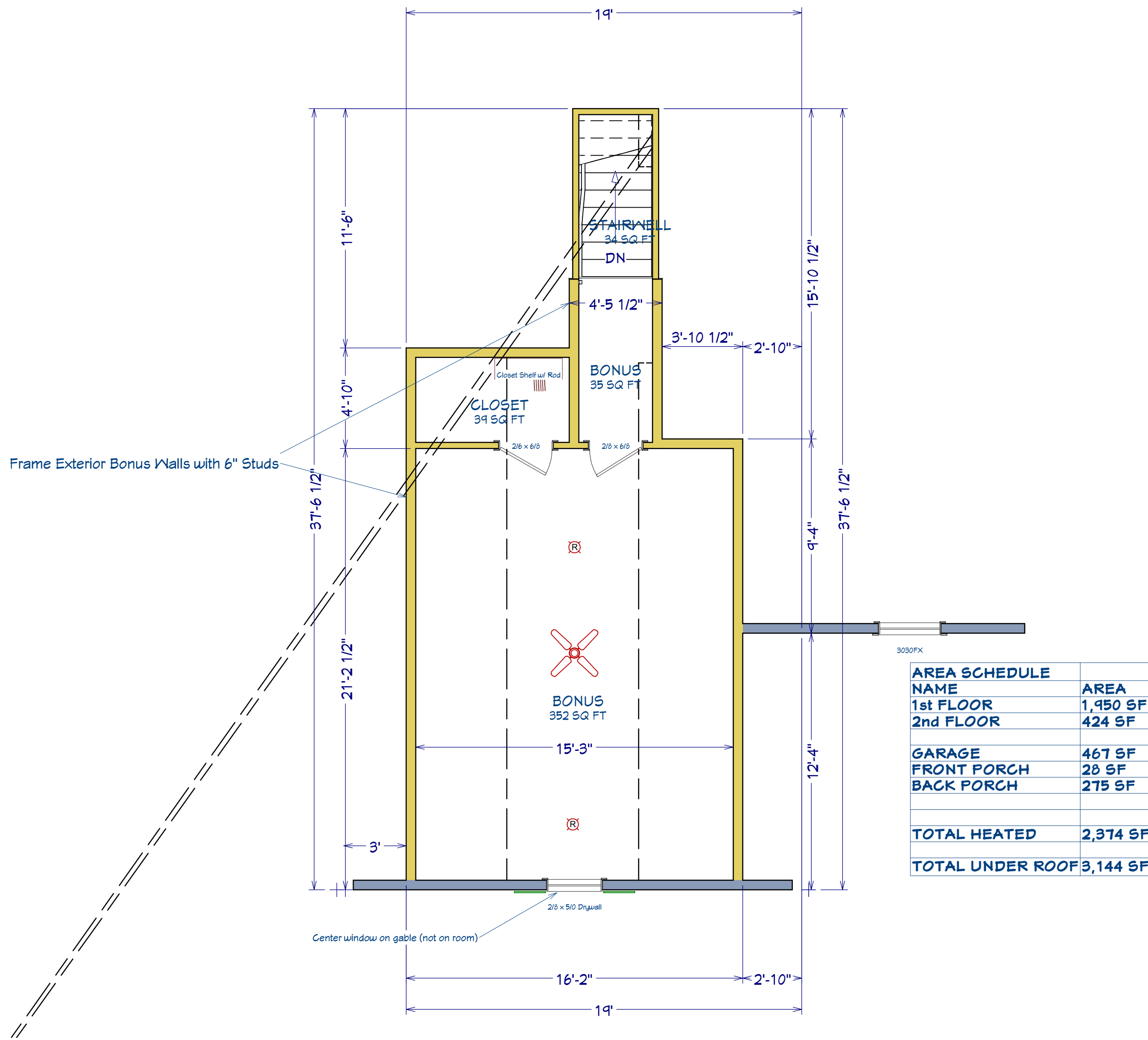
DATE:
2/28/23

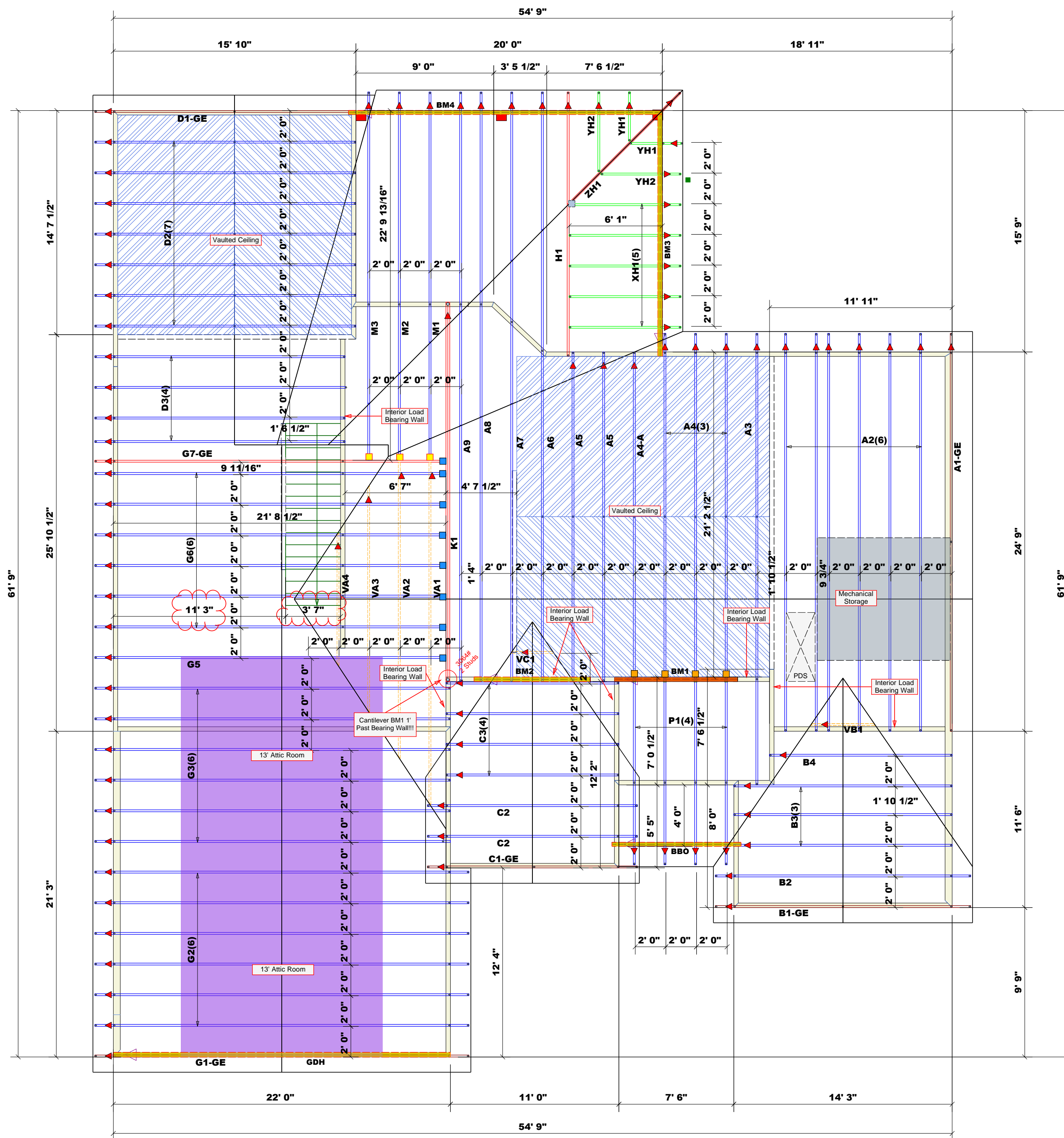
SCALE:
1/4" = 1'

SHEET:
A-3



AREA SCHEDULE	
NAME	AREA
1st FLOOR	1,950 SF
2nd FLOOR	424 SF
GARAGE	467 SF
FRONT PORCH	28 SF
BACK PORCH	275 SF
TOTAL HEATED	2,374 SF
TOTAL UNDER ROOF	3,144 SF





Hatch Legend

[Hatched]	Padded HVAC
[Diagonal Lines]	Vaulted Ceiling
[Orange]	Flush Beam
[Yellow]	Drop Beam

Dimension Notes

- All exterior wall to wall dimensions are to face of stud unless noted otherwise
- All interior wall dimensions are to face of stud unless noted otherwise
- All exterior wall to truss dimensions are to face of stud unless noted otherwise

Roof Area = 3933.66 sq.ft.
 Ridge Line = 141.05 ft.
 Hip Line = 33.43 ft.
 Horiz. OH = 228.43 ft.
 Raked OH = 185.86 ft.
 Decking = 135 sheets

All Walls Shown Are Considered Load Bearing

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

1 Truss Placement Plan Scale: 3/16"=1'

Products					
PlotID	Length	Product	Piles	Net Qty	Fab Type
BM1	9' 0"	1-3/4"x 9-1/4" LVL Kerto-S	2	2	FF
BM2	8' 0"	1-3/4"x 9-1/4" LVL Kerto-S	2	2	FF
GDH	22' 0"	1-3/4"x 11-7/8" LVL Kerto-S	2	2	FF
BM3	16' 0"	1-3/4"x 11-7/8" LVL Kerto-S	2	2	FF
BM4	22' 0"	2x12 SP No.2	2	2	FF

Connector Information				Nail Information	
Sym	Product	Manuf	Qty	Supported Member	Header / Truss
[Symbol]	HJC26	USP	1	Varies	16d/3-1/2" / 10d/3"
[Symbol]	HUS26	USP	8	Varies	16d/3-1/2" / 16d/3-1/2"
[Symbol]	JUS24	USP	3	Varies	10d/3" / 10d/3"
[Symbol]	LSSH210	USP	4	Varies	10d/1-1/2" / 10d/1-1/2"

All Truss Reactions are Less than 3,000 lbs. Unless Noted Otherwise.

○ -- Denotes Reaction Greater than 3,000 lbs. Reaction / # of Studs

LOAD CHART FOR JACK STUDS
 (BASED ON TABLES R502.5(1) & (2))
 NUMBER OF JACK STUDS REQUIRED @ EA END OF HEADERS/CHOLE

IRG REACTION (UP TO)	IRG REACTION (UP TO)	IRG REACTION (UP TO)
1 (DOWN)	2 (DOWN)	3 (DOWN)
1700	2550	3400
3400	5100	6800
5100	7650	10200
6800	10200	13600
8500	12750	17000
10200	15300	
11900		
13600		
15300		

BUILDER	Precision Custom Homes	COUNTY	Harnett
JOB NAME	31 Liberty Meadows	ADDRESS	368 Soloman Dr., Cameron, NC
PLAN	Menger	MODEL	Roof
SEAL DATE	2/21/2023	DATE REV.	2/21/2023
QUOTE #	N/A	DRAWN BY	Neil Baggett
JOB #	J0322-1318	SALESMAN	Neil Baggett

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 BC3-B1 and BC3-B3 provided with the truss delivery package or online @ sbcondustry.com

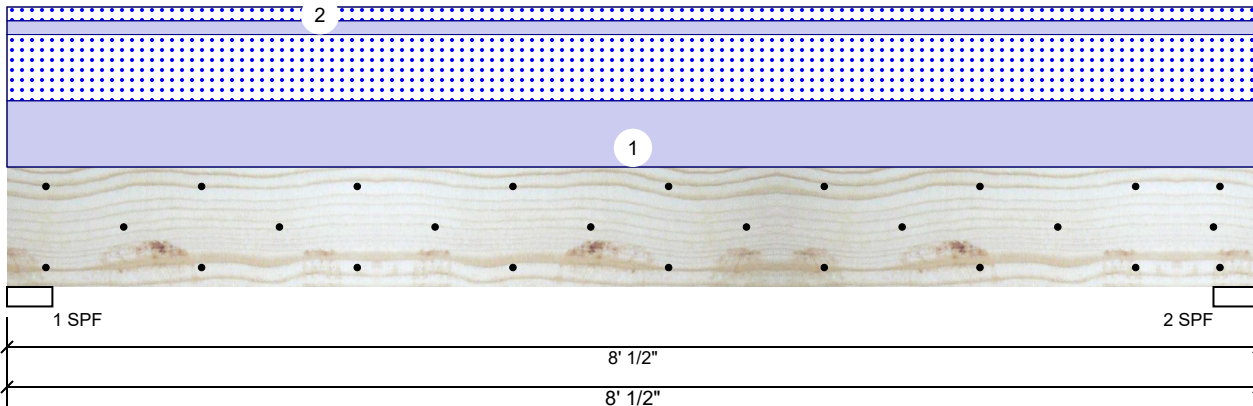
Bearing reactions less than or equal to 3000# are deemed to comply with the prescriptive Code requirements. The contractor shall refer to the attached Tables (derived from the prescriptive Code requirements) to determine the minimum foundation size and number of wood studs required to support reactions 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: **Neil Baggett**

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

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:	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	1034	1005	0	0
2	Vertical	0	1034	1005	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	Vert	39%	1034 / 1005	2039	L	D+S
2 - SPF	3.500"	Vert	39%	1034 / 1005	2039	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3646 ft-lb	4' 1/4"	14423 ft-lb	0.253 (25%)	D+S	L
Unbraced	3646 ft-lb	4' 1/4"	9125 ft-lb	0.400 (40%)	D+S	L
Shear	1825 lb	1' 3/4"	7943 lb	0.230 (23%)	D+S	L
LL Defl inch	0.047 (L/1949)	4' 5/16"	0.190 (L/480)	0.246 (25%)	S	L
TL Defl inch	0.095 (L/961)	4' 5/16"	0.253 (L/360)	0.375 (37%)	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 3 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 end bearings.
- 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			Far Face	207 PLF	0 PLF	207 PLF	0 PLF	0 PLF	A4
2	Uniform			Top	43 PLF	0 PLF	43 PLF	0 PLF	0 PLF	P1
	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

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

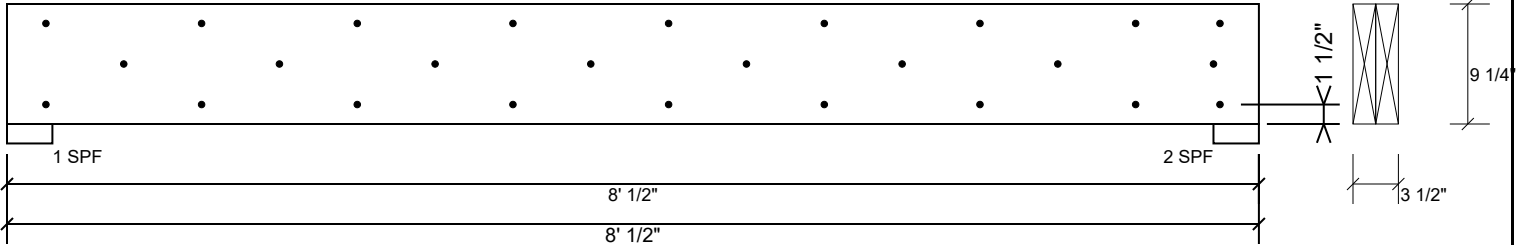
Metsä Wood
301 Merritt 7 Building, 2nd Floor
Norwalk, CT 06851
(800) 622-5850
www.metsawood.com/us

Comtech, Inc.
1001 S. Reilly Road, Suite #639
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 3 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6".

Capacity	73.3 %
Load	207.0 PLF
Yield Limit per Foot	282.4 PLF
Yield Limit per Fastener	94.1 lb.
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	D+S
Duration Factor	1.15

Notes

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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
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6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

Manufacturer Info

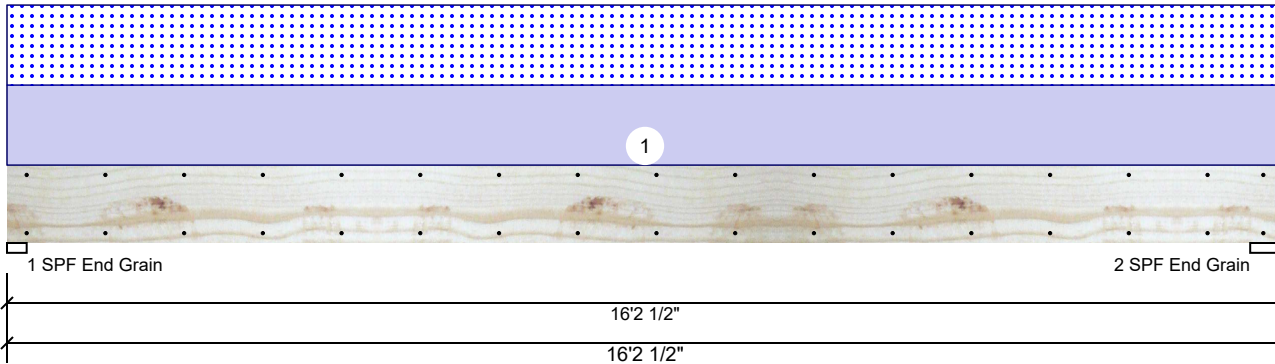
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BM3 Kerto-S LVL 1.750" X 11.875" 2-Ply - PASSED

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	732	658	0	0
2	Vertical	0	747	671	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	Vert	16%	732 / 658	1389	L	D+S
2 - SPF End Grain	5.000"	Vert	10%	747 / 671	1418	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	5315 ft-lb	8' 1/4"	22897 ft-lb	0.232 (23%)	D+S	L
Unbraced	5315 ft-lb	8' 1/4"	6354 ft-lb	0.836 (84%)	D+S	L
Shear	1184 lb	14'9 5/8"	10197 lb	0.116 (12%)	D+S	L
LL Defl inch	0.121 (L/1557)	8' 5/16"	0.392 (L/480)	0.308 (31%)	S	L
TL Defl inch	0.255 (L/737)	8' 5/16"	0.522 (L/360)	0.489 (49%)	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 end bearings.
- 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	82 PLF	0 PLF	82 PLF	0 PLF	0 PLF	XH1
	Self Weight				9 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

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

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

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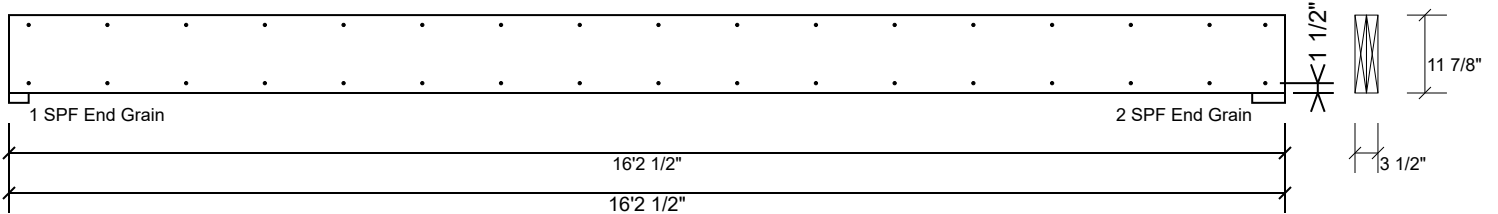
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BM3 Kerto-S LVL 1.750" X 11.875" 2-Ply - PASSED

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
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

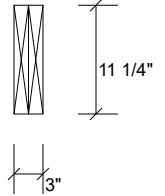
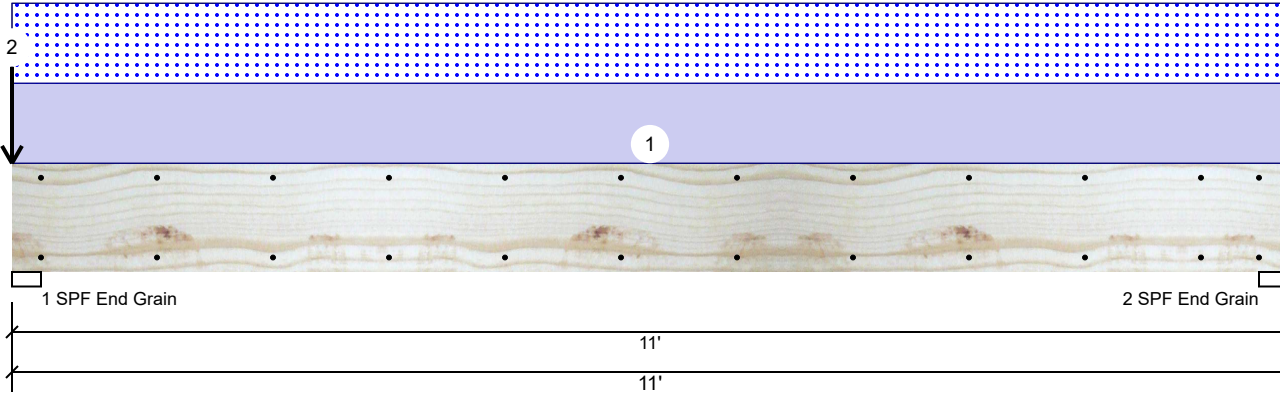
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910-864-TRUS



BM4 SP #2 2.000" X 12.000" 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	1359	1359	0	0
2	Vertical	0	770	770	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	Vert	53%	1359 / 1359	2718	L	D+S
2 - SPF End Grain	3.000"	Vert	30%	770 / 770	1540	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3951 ft-lb	5'6"	4548 ft-lb	0.869 (87%)	D+S	L
Unbraced	3951 ft-lb	5'6"	3954 ft-lb	0.999 (100%)	D+S	L
Shear	1208 lb	1'2 1/4"	4528 lb	0.267 (27%)	D+S	L
LL Defl inch	0.081 (L/1583)	5'6"	0.266 (L/480)	0.303 (30%)	S	L
TL Defl inch	0.161 (L/791)	5'6"	0.354 (L/360)	0.455 (45%)	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 7' 3/16" o.c.
- 7 Bottom must be laterally braced at end bearings.
- 8 Lateral slenderness ratio based on single ply width.

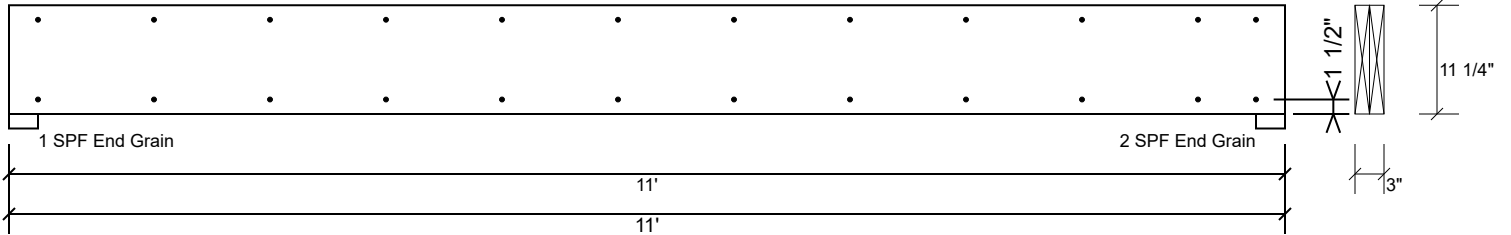
ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	140 PLF	0 PLF	140 PLF	0 PLF	0 PLF	A5
2	Point	0-0-0		Top	589 lb	0 lb	589 lb	0 lb	0 lb	H1

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

This design is valid until 11/3/2024

BM4 SP #2 2.000" X 12.000" 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	202.6 PLF
Yield Limit per Fastener	101.3 lb.
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

Manufacturer Info

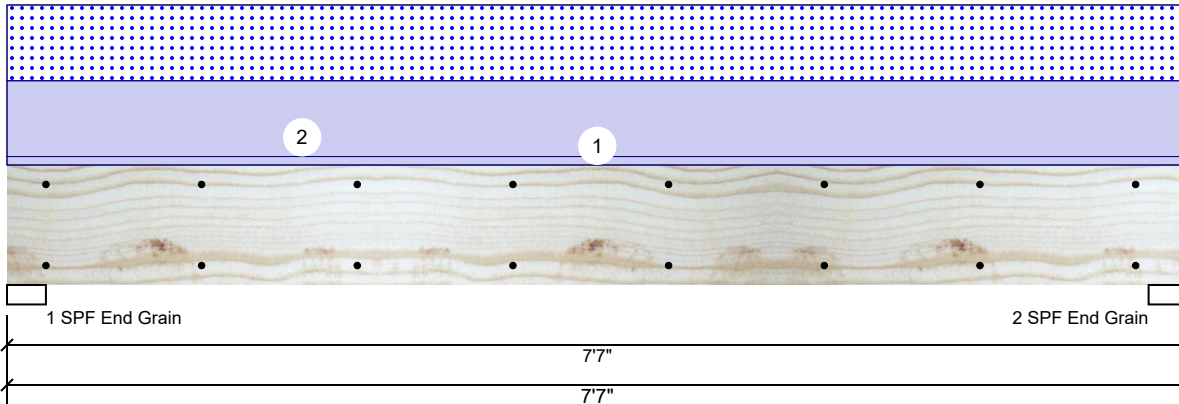
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1001 S. Reilly Road, Suite #639
Fayetteville, NC
USA
28314
910-864-TRUS



This design is valid until 11/3/2024

BM2 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:	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	1157	1016	0	0
2	Vertical	0	1157	1016	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	Vert	25%	1157 / 1016	2173	L	D+S
2 - SPF End Grain	3.000"	Vert	25%	1157 / 1016	2173	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3723 ft-lb	3'9 1/2"	14423 ft-lb	0.258 (26%)	D+S	L
Unbraced	3723 ft-lb	3'9 1/2"	9445 ft-lb	0.394 (39%)	D+S	L
Shear	1594 lb	1' 1/4"	7943 lb	0.201 (20%)	D+S	L
LL Defl inch	0.041 (L/2087)	3'9 9/16"	0.180 (L/480)	0.230 (23%)	S	L
TL Defl inch	0.089 (L/976)	3'9 9/16"	0.240 (L/360)	0.369 (37%)	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 end bearings.
- 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	30 PLF	0 PLF	0 PLF	0 PLF	0 PLF	WALL
2	Uniform			Top	268 PLF	0 PLF	268 PLF	0 PLF	0 PLF	A TRUSSES
	Self Weight				7 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

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

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

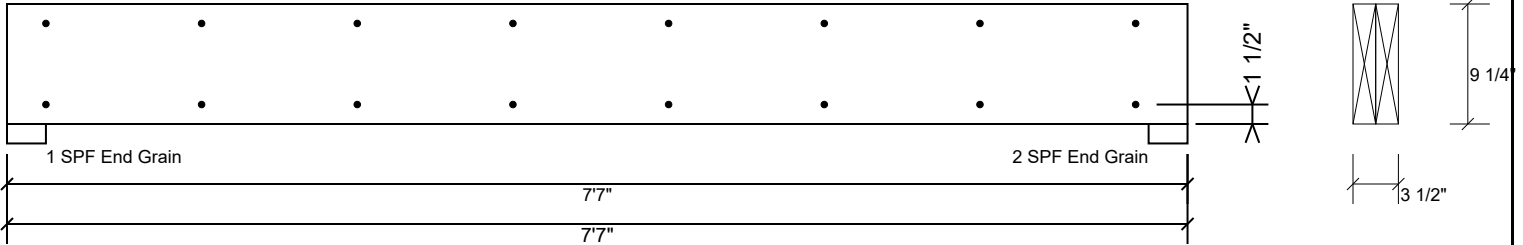
Metsä Wood
301 Merritt 7 Building, 2nd Floor
Norwalk, CT 06851
(800) 622-5850
www.metsawood.com/us

Comtech, Inc.
1001 S. Reilly Road, Suite #639
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910-864-TRUS



BM2 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

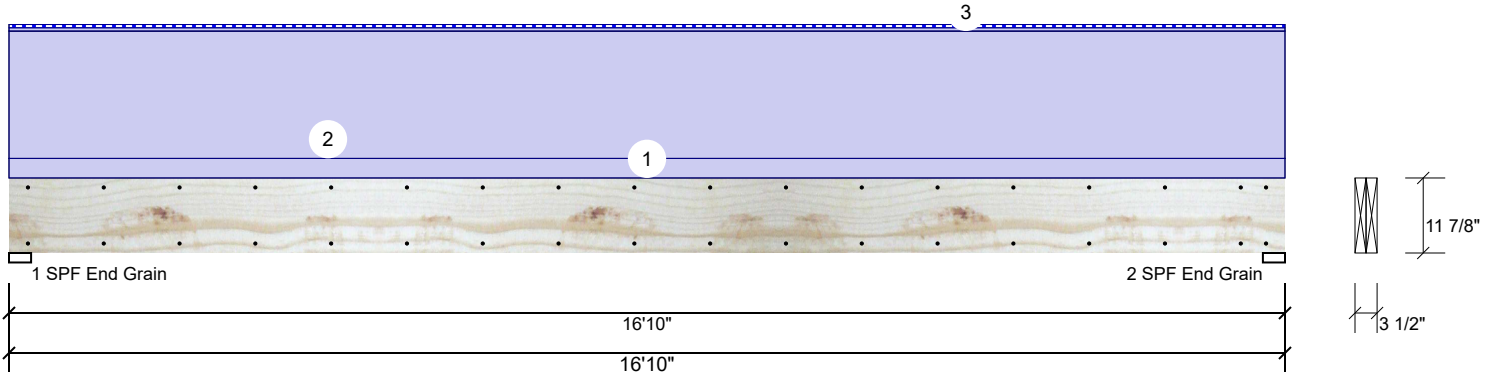
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Comtech, Inc.
1001 S. Reilly Road, Suite #639
Fayetteville, NC
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GDH Kerto-S LVL 1.750" X 11.875" 2-Ply - PASSED

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	2056	84	0	0
2	Vertical	0	2056	84	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	21%	2056 / 84	2140	L	D+S
2 - SPF End Grain	3.500"	Vert	21%	2056 / 84	2140	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	8186 ft-lb	8'5"	17919 ft-lb	0.457 (46%)	D	Uniform
Unbraced	8521 ft-lb	8'5"	8525 ft-lb	1.000 (100%)	D+S	L
Shear	1762 lb	15'6 5/8"	7980 lb	0.221 (22%)	D	Uniform
LL Defl inch	0.017 (L/11235)	8'5 1/16"	0.409 (L/480)	0.043 (4%)	S	L
TL Defl inch	0.445 (L/442)	8'5 1/16"	0.546 (L/360)	0.815 (81%)	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 11'2 11/16" 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	30 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall
2	Uniform			Top	195 PLF	0 PLF	0 PLF	0 PLF	0 PLF	G1-GE
3	Tie-In Far	0-0-0 to 16-10-0	0-6-0	Far Face	20 PSF	0 PSF	20 PSF	0 PSF	0 PSF	RAKE OH
3	Tie-In Near	0-0-0 to 16-10-0	0-0-0	Top	20 PSF	0 PSF	20 PSF	0 PSF	0 PSF	RAKE OH
	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

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

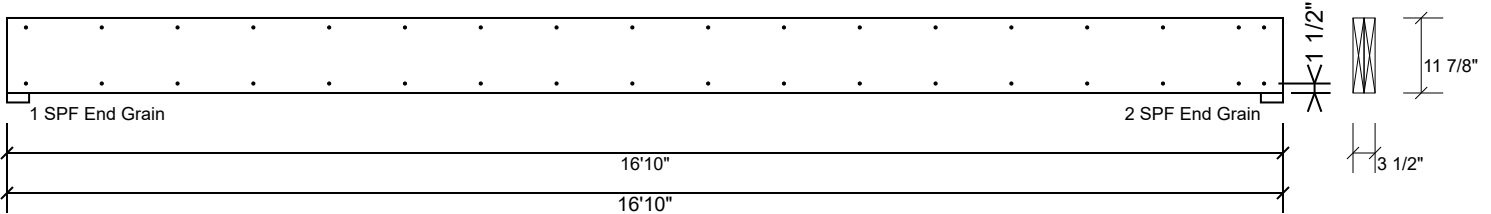
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GDH Kerto-S LVL 1.750" X 11.875" 2-Ply - PASSED

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	5.3 %
Load	10.0 PLF
Yield Limit per Foot	188.3 PLF
Yield Limit per Fastener	94.1 lb.
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	D+S
Duration Factor	1.15

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
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chemicals

Handling & Installation

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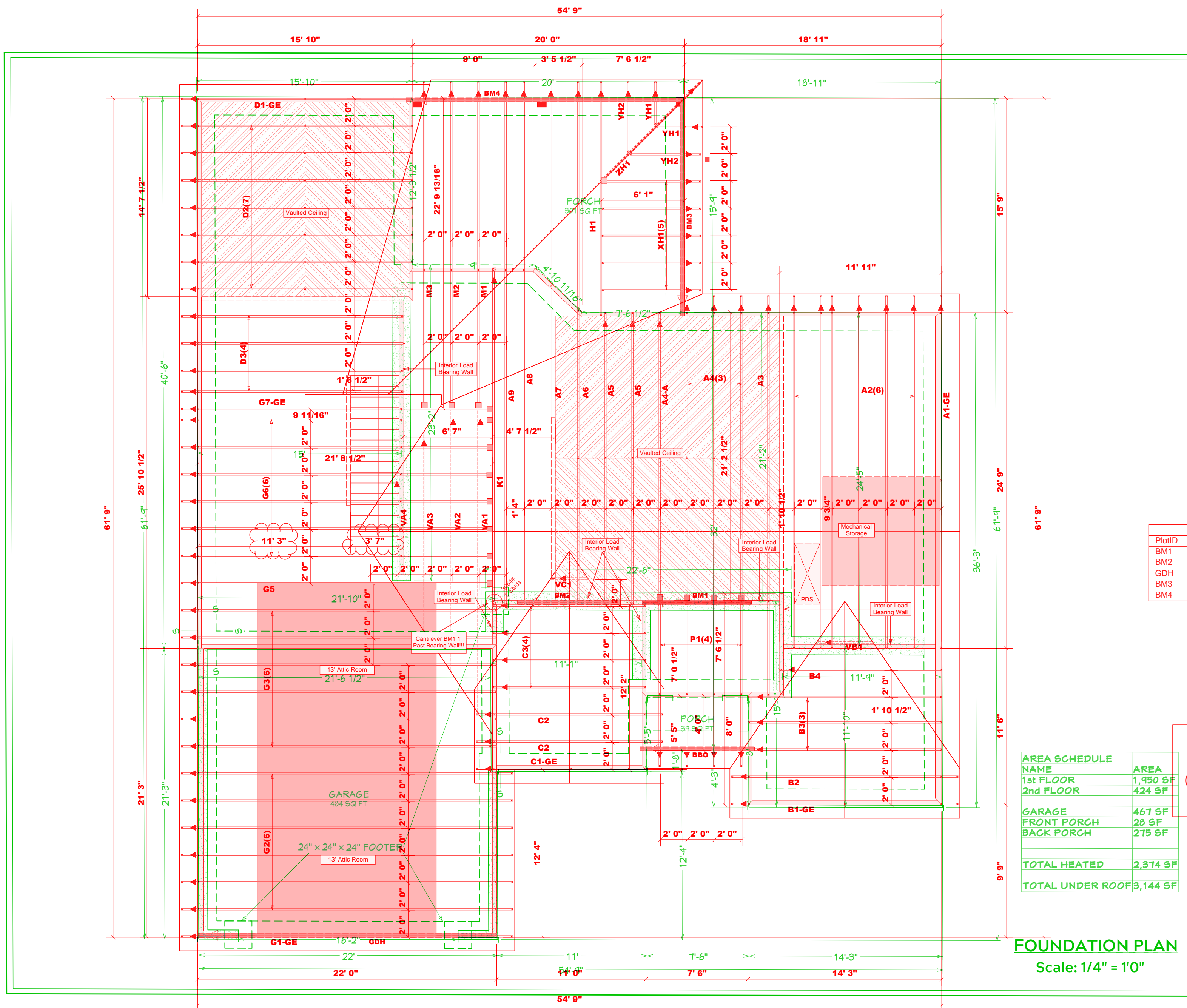
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Metsä Wood
301 Merritt 7 Building, 2nd Floor
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PLAN: Menger

Hatch Legend
Padded HVAC
Vaulted Ceiling
Flush Beam
Drop Beam

- Dimension Notes
1. All exterior wall to wall dimensions are to face of stud unless noted otherwise
 2. All interior wall dimensions are to face of stud unless noted otherwise
 3. All exterior wall to truss dimensions are to face of stud unless noted otherwise

Roof Area = 3933.66 sq.ft.
 Ridge Line = 141.05 ft.
 Hip Line = 33.43 ft.
 Horiz. OH = 228.43 ft.
 Naked OH = 185.86 ft.
 Decking = 135 sheets

All Walls Shown Are Considered Load Bearing

▲ Indicates Left End of Truss
 Reference Engineered Truss Drawing)
 Do Not Erect Trusses Backwards

Truss Placement Plan
 Scale: 3/16"=1'

PlotID	Length	Product	Plies	Net Qty	Fab Type
BM1	9' 0"	3/4" x 9-1/4" LVL Kerto-S	2	2	FF
BM2	8' 0"	3/4" x 9-1/4" LVL Kerto-S	2	2	FF
GDH	22' 0"	3/4" x 11-7/8" LVL Kerto-S	2	2	FF
BM3	18' 0"	3/4" x 11-7/8" LVL Kerto-S	2	2	FF
BM4	22' 0"	1/2" SP No.2	2	2	FF

Sym	Product	Manuf	Qty	Supported Member	Header	Truss
HJC26	USP	1	Varies	16d/3-1/2"	10d/3"	
HUS26	USP	8	Varies	16d/3-1/2"	16d/3-1/2"	
JUS24	USP	3	Varies	10d/3"	10d/3"	
LSSH210	USP	4	Varies	10d/1-1/2"	10d/1-1/2"	

AREA SCHEDULE	
NAME	AREA
1st FLOOR	1,450 SF
2nd FLOOR	424 SF
GARAGE 467 SF	
FRONT PORCH 28 SF	
BACK PORCH 275 SF	
TOTAL HEATED	2,974 SF
TOTAL UNDER ROOF	3,144 SF

DESIGNED BY: Precision Custom Homes
 Shaughnessy.com

▲ Truss Reactions are Less than 3,000 lbs. Unless Noted Otherwise.

● Denotes Reaction Greater than 3,000 lbs. Reaction / # of Studs

DATE: 2/28/23

SCALE: 1/4" = 1'

SHEET: A-2

LOAD CHART FOR JACK STUDS		
(BASED ON TABLES R002.011) & (B)		
NUMBER OF JACK STUDS REQUIRED @ EA END OF HEAD/CORNER		
RD REACTION (UP TO) 1700	2550	3400
5100	5100	6800
6800	7650	10200
8500	10200	13600
10200	12750	17000
11900	15300	
13600		
15300		

BUILDER	Precision Custom Homes
JOB NAME	31 Liberty Meadows
PLAN	Menger
SEAL DATE	2/21/2023
QUOTE #	N/A
JOB #	J0322-1318

COUNTY	Harnett
ADDRESS	368 Soloman Dr., Cameron, NC
MODEL	Roof
DATE REV.	2/21/2023
DRAWN BY	Neil Baggett
SALESMAN	Neil Baggett

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 BC-SI-81 and BC-SI-83 provided with the truss delivery package or online @ sbcondustry.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: _____
 Neil Baggett

comTECH

ROOF & FLOOR TRUSSES & BEAMS

Reilly Road Industrial Park
 Fayetteville, N.C. 28309
 Phone: (910) 864-8787
 Fax: (910) 864-4444