

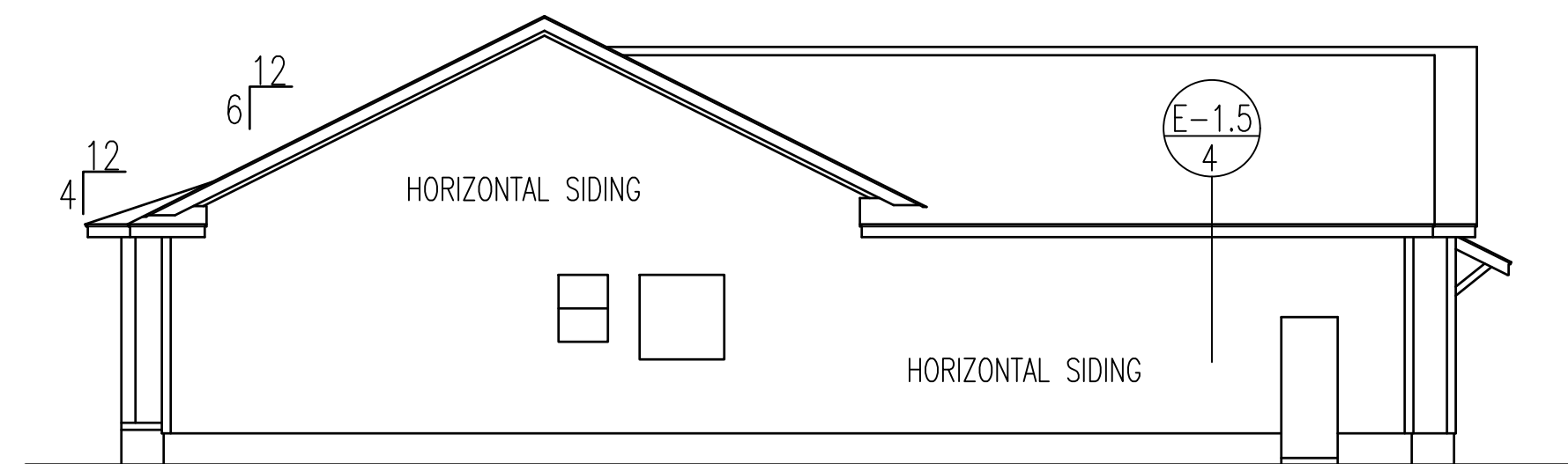
FRONT ELEVATION
SCALE: 1/4" = 1'-0"

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

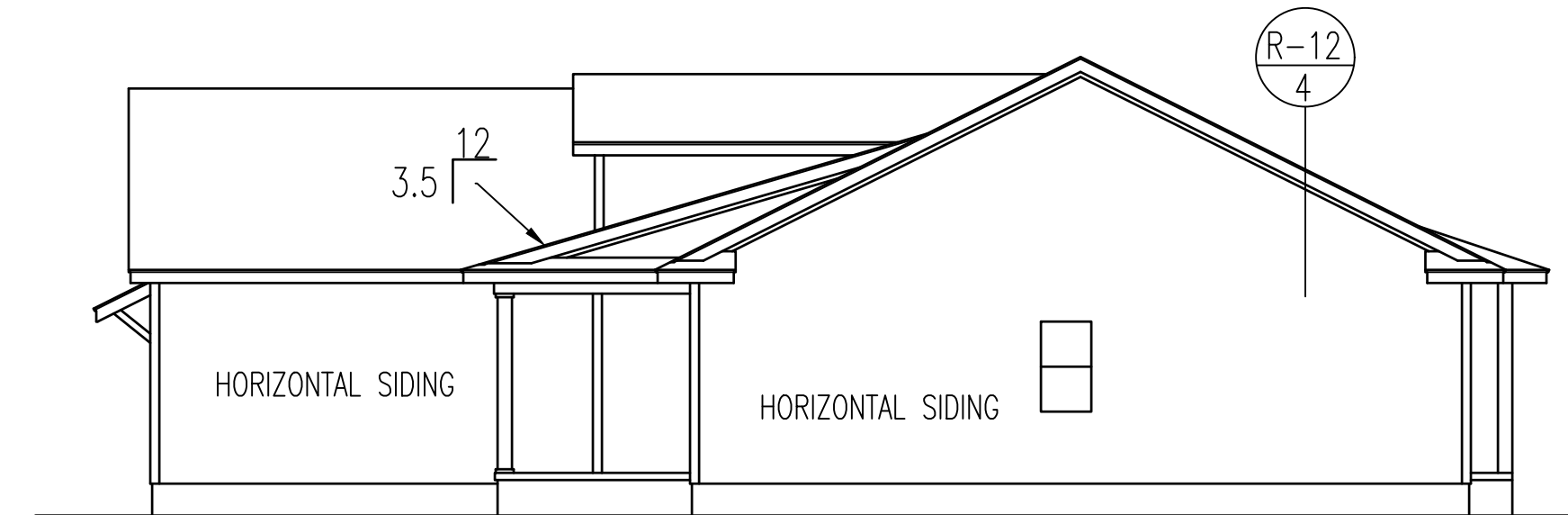
APPROVED
Limited building only review.
Permit holder responsible for full compliance with the code.

04/10/2023

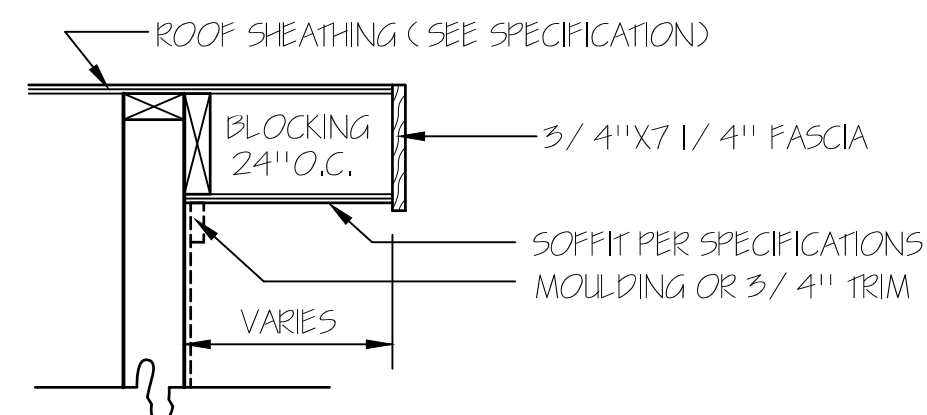




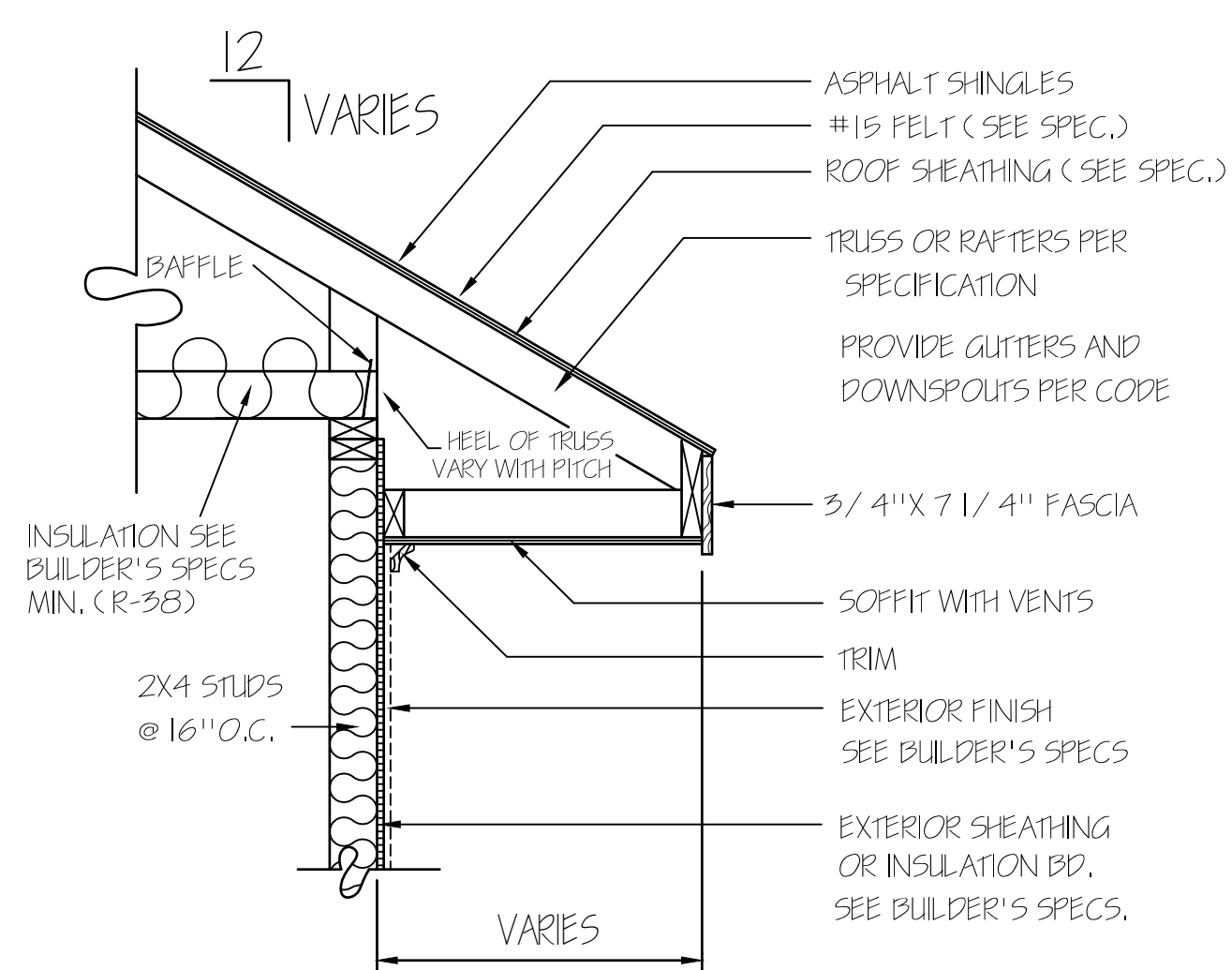
LEFT ELEVATION



RIGHT ELEVATION



RAKE DETAIL FOR GABLE ENDS



REAR ELEVATION
SCALE: 1/8" = 1'-0"

EXCLUSIVE RESIDENCE DESIGN FOR:

WATERMARK HOMES

LOT: 93 SOUTH CREEK
NAME: RED CAMELLIA

TM DESIGNS
RESIDENTIAL PLANS BY TINA MCFADDEN
(910) 354-4736 TMDESIGNS2016@GMAIL.COM

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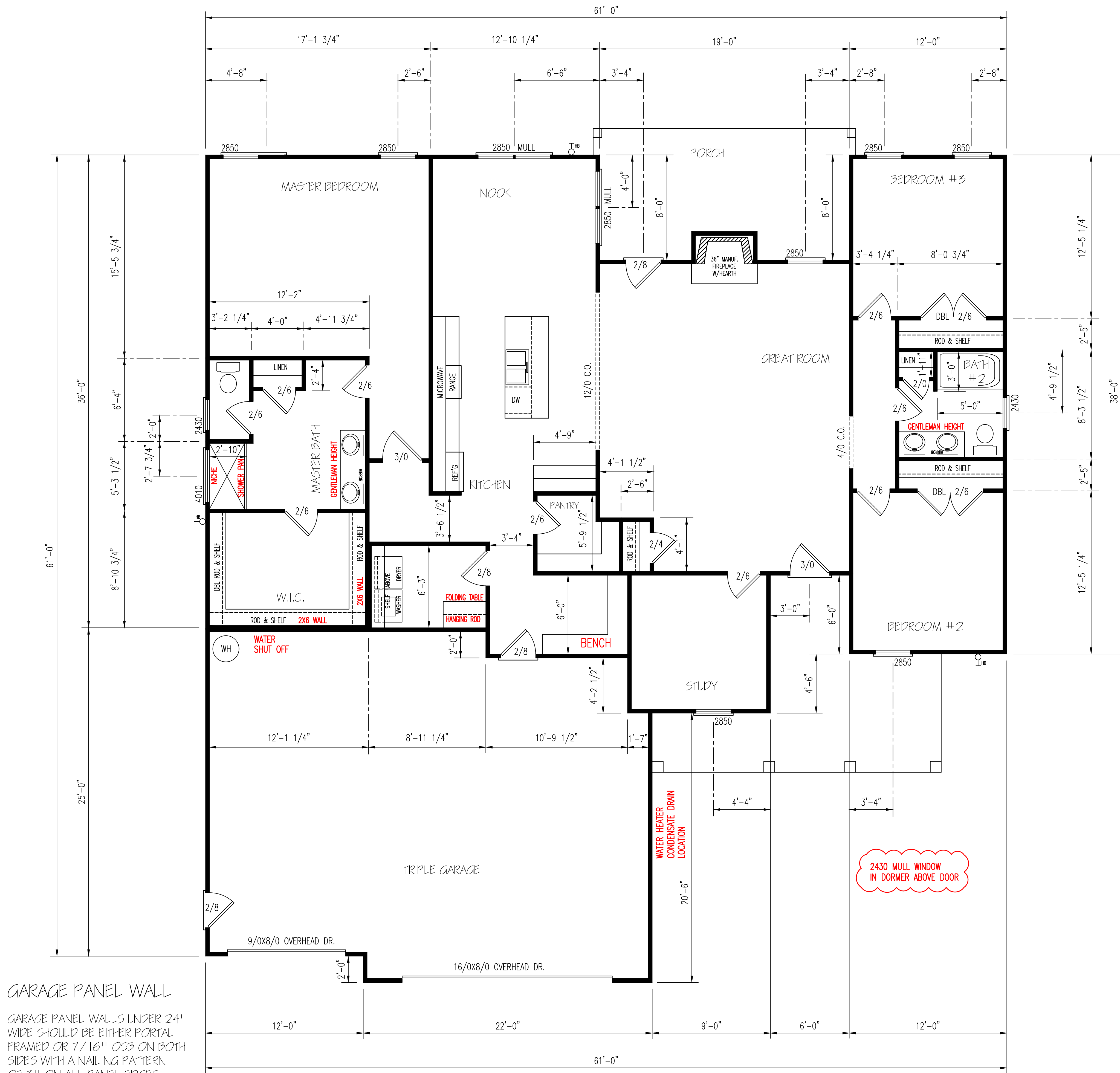
I HEREBY CERTIFY THAT THIS DRAWING MEETS LOCAL CODES, 2018 INTERNATIONAL BUILDING CODES.

THIS IS FOR THE CONSTRUCTION OF ONE HOUSE ON A SINGLE LOT, NOT TO BE REUSED

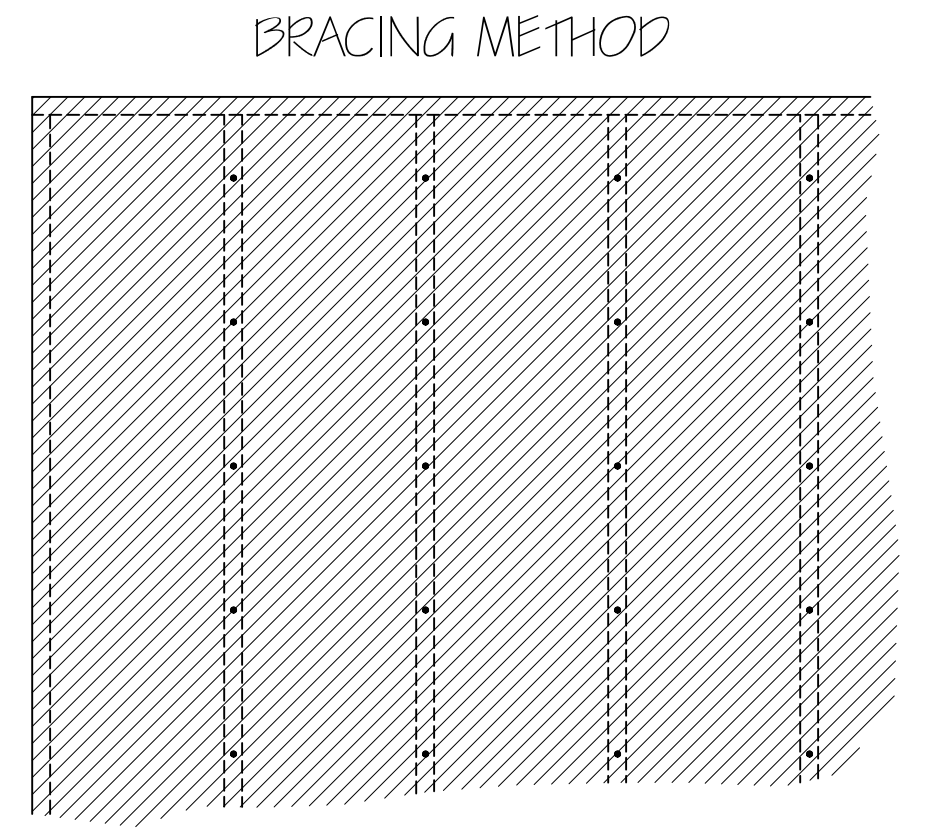
PLAN NUMBER
RG21-A02F

OPTION #1

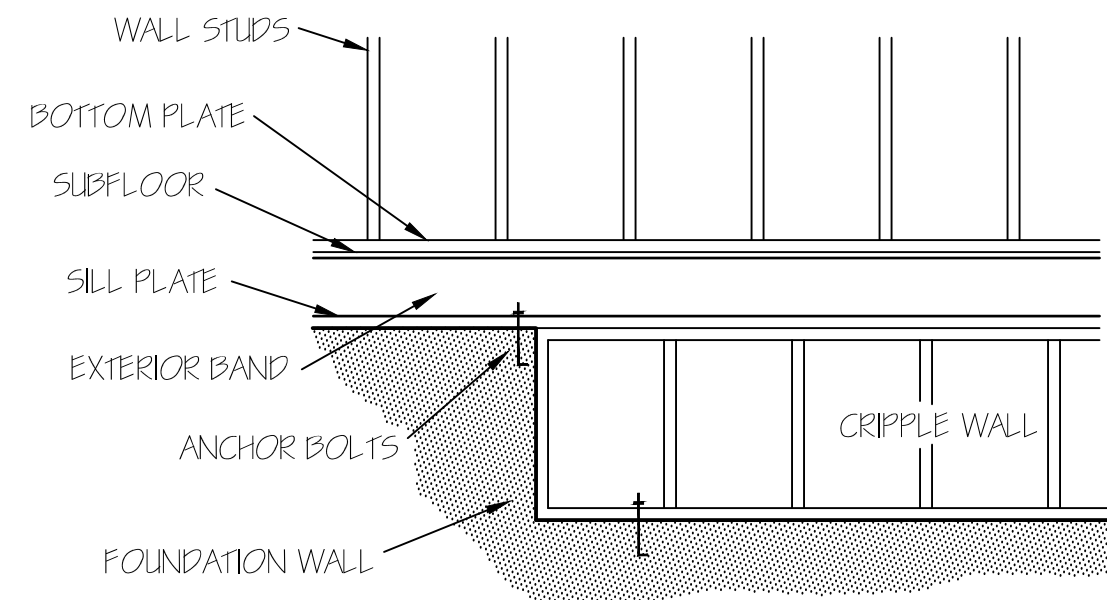
1	GARAGE	F L
	DATE:	3/18/23



ENERGY TABLE
 UFACTOR OF WINDOWS .30
 CLIMATE ZONE 3
 INSULATION: WALLS 15
 CEILING 38
 FLOORS 19



EXTERIOR WALL TO BE FULLY SHEATHED WITH 7/16\"/>



FOUNDATION CRIPPLE WALLS SHALL BE FRAMED OF STUDS NOT SMALLER THAN THE STUDS ABOVE. WHEN EXCEEDING 4 FT. IN HEIGHT, SUCH WALLS SHALL BE FRAMED OF STUDS HAVING THE SIZE REQUIRED FOR AN ADDITIONAL STORY. CRIPPLE WALLS WITH A STUD HEIGHT LESS THAN 14 INCHES SHALL BE CONTINUOUSLY SHEATHED ON ONE SIDE WITH WOOD STRUCTURAL PANELS FASTENED TO BOTH THE TOP AND BOTTOM PLATES IN ACCORDANCE WITH TABLE R602.3(1), OR CRIPPLE WALLS SHALL BE CONSTRUCTED OF SOLID BLOCKING.

EXTERIOR WALLS (2) 2X10 HEADERS		
CLEAR SPAN FOR HEADER	NUMBER OF STUDS	
	JACKS	KINGS
ALL DOOR & C.O. BELOW 4'	1	1
ALL DOOR & C.O. 4' TO 7'-11"	2	2
ALL DOOR & C.O. 8' AND ABOVE	SIZED BY ENGINEER	

****UNLESS NOTED OTHER WISE****

FLOOR PLAN
 SCALE: 1/4" = 1'-0"
 HEATED AREA
 2146 SQ FT
 OTHER AREAS
 GARAGE 851 SQ FT
 P.PORCH 194 SQ FT
 R.PORCH 192 SQ FT

2430 MULL WINDOW IN DORMER ABOVE DOOR

GARAGE PANEL WALL
 GARAGE PANEL WALLS UNDER 24" WIDE SHOULD BE EITHER PORTAL FRAMED OR 7/16" OSB ON BOTH SIDES WITH A NAILING PATTERN OF 3" ON ALL PANEL EDGES AND 6" IN THE FIELD.

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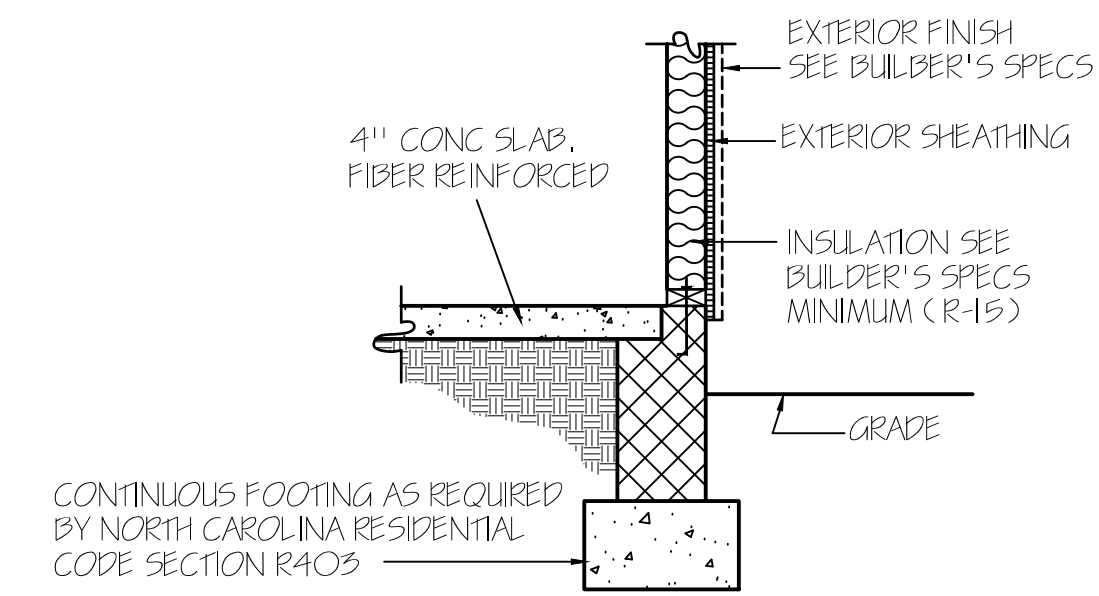
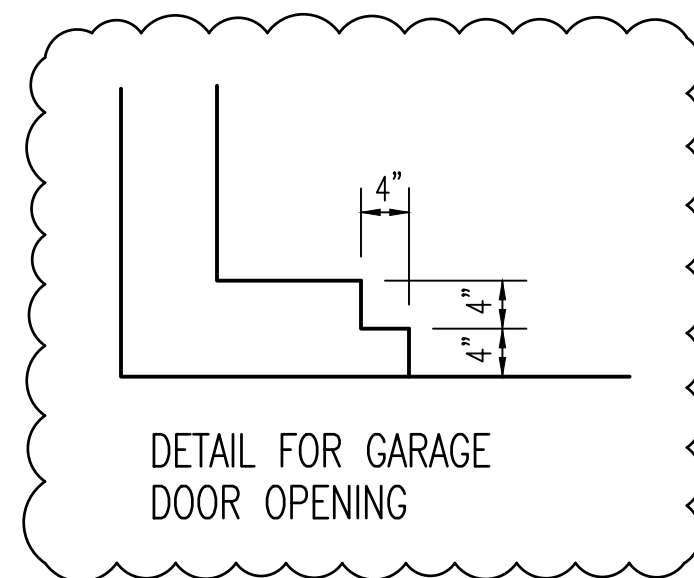
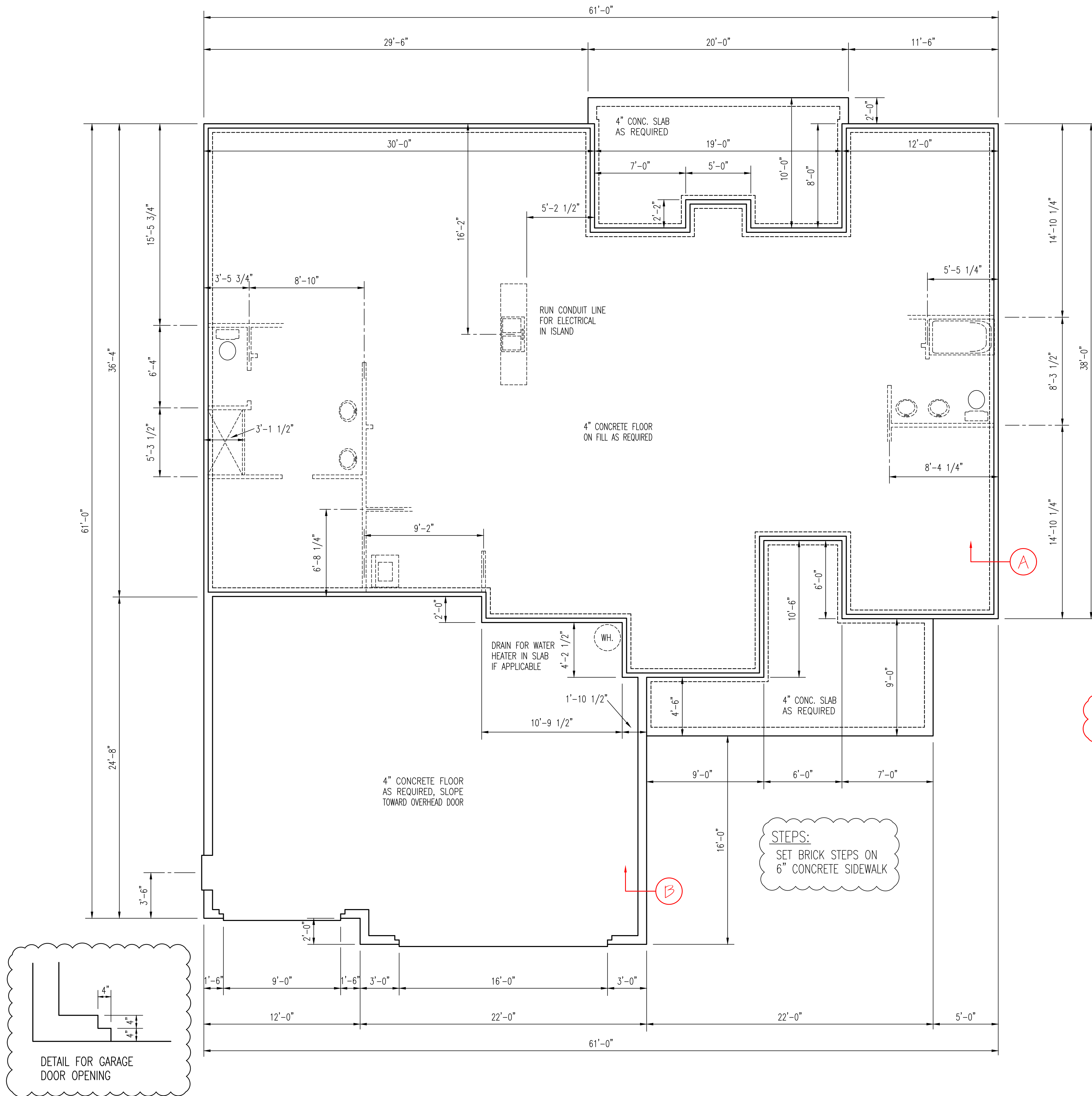
WATERMARK HOMES
 EXCLUSIVE RESIDENCE DESIGN FOR:

LOT: 93 SOUTH CREEK
 NAME: RED CAMELLIA

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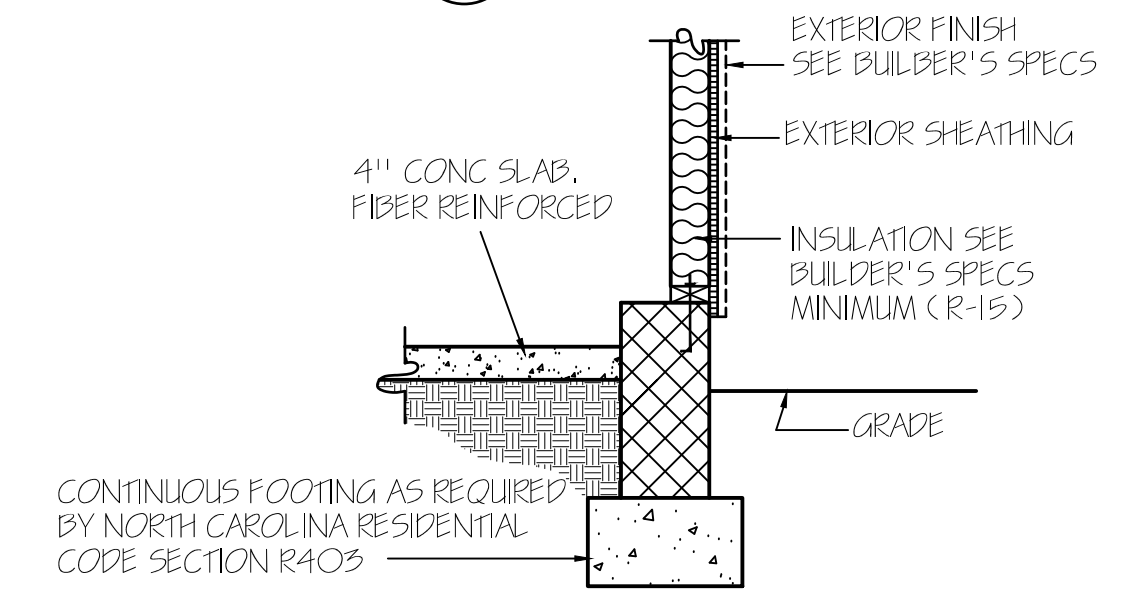
PLAN NUMBER
 RG21-A02
OPTION #1

21 GARAGE | F | L
 DATE: 3/19/23



NOTE: PERIMETER INSL. MAY EXTEND HORIZ. UNDER SLAB 24" OR VERTICAL 24" BELOW SLAB FLOOR

CONCRETE SLAB FLOOR — (A)



NOTE: PERIMETER INSL. MAY EXTEND HORIZ. UNDER SLAB 24" OR VERTICAL 24" BELOW SLAB FLOOR

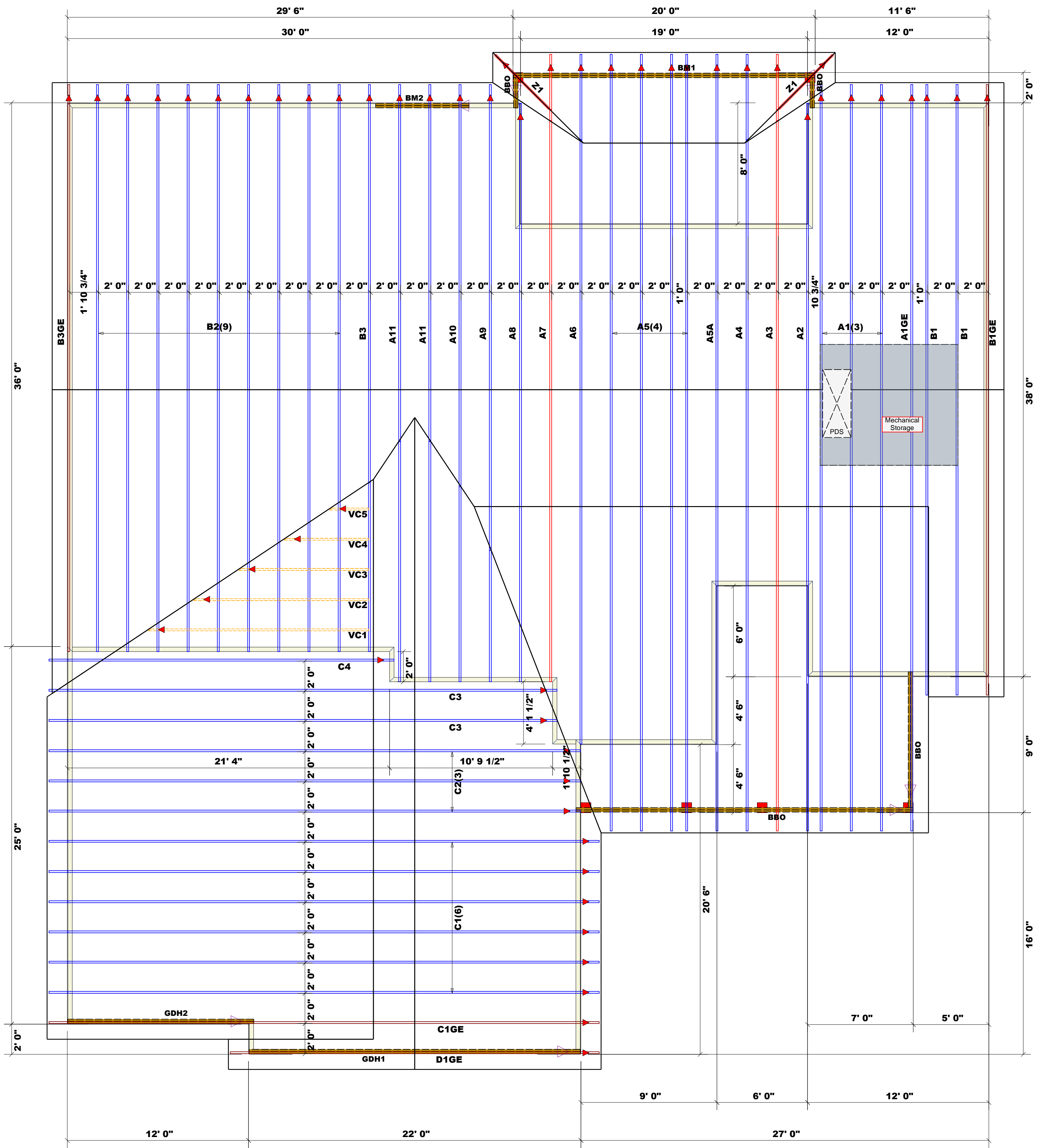
GARAGE WALL — (B)

WALL ANCHOR OPTIONS
 USE ANCHOR BOLTS
 ANCHOR BOLTS: 1/2" DIA. BOLTS AT 6'-0" O.C.
 AND NOT MORE THAN 12" FROM CORNERS, EMBEDDED
 MIN. 7" INTO FOUNDATION. USE A MIN. OF 2 BOLTS
 PER EACH STUD WALL

NOTE:
 FOUNDATION DETAILS SHOWN ARE BASED ON
 ASSUMED SOIL BEARING CAPACITY OF
 2000 PSF. LOCAL SITE CONDITIONS MUST BE
 INVESTIGATED. ALL FOOTING TO BE LOCATED
 BELOW FROST DEPTH.

ALL FOUNDATION WALLS HAVE
 A 16" X 8" FOOTING UNLESS
 NOTED OTHERWISE.

FOUNDATION PLAN
 SCALE: 1/4" = 1'-0"



= 4094.01 sq.ft. Roof Area
 = 106.17 ft. Ridge Line
 = 17.44 ft. Hip Line
 = 134 ft. Horiz. OH
 = 192.87 ft. Raked OH
 = 141 sheets Decking

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

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

Products					
Net Qty	Plies	Product	Length	PlotID	
2	2	1-3/4"x 9-1/4" LVL Kerto-S	7' 0"	BM2	
2	2	1-3/4"x 11-7/8" LVL Kerto-S	22' 0"	GDH1	
2	2	1-3/4"x 11-7/8" LVL Kerto-S	13' 0"	GDH2	
2	2	1-3/4"x 14" LVL Kerto-S	20' 0"	BM1	

Truss Placement Plan
 SCALE: NTS

LOAD CHART FOR JACK STUDS
(BASED ON TABLES B502.1(1) & (2))
NUMBER OF JACK STUDS REQUIRED @ EA END OF HEADERS/BOARDS

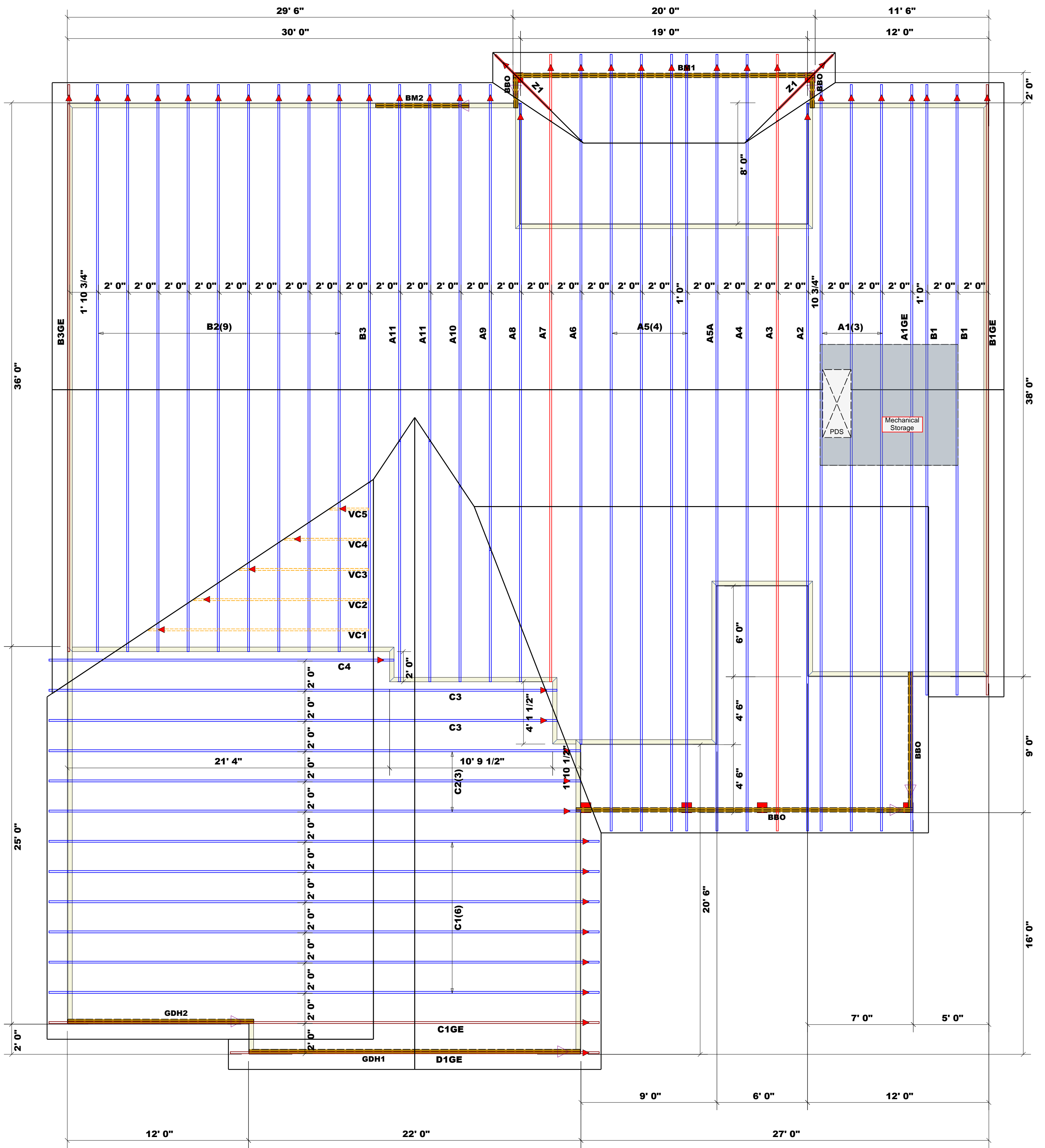
END REACTION (UP TO) (DOWN TO)	HEADERS/BOARDS	END REACTION (UP TO) (DOWN TO)	HEADERS/BOARDS	END REACTION (UP TO) (DOWN TO)	HEADERS/BOARDS
1700	2550	3400	1		
3400	5100	6800	2		
5100	7650	10200	3		
6800	10200	13600	4		
8500	12750	17000	5		
10200	15300		6		
11900			7		
13600			8		
15300			9		

BUILDER	Watermark Homes	COUNTY	Harnett
JOB NAME	Lot 93 South Creek	ADDRESS	Lot 93 South Creek
PLAN	Red Camellia GL	MODEL	Roof
SEAL DATE	03/19/23	DATE REV.	03/30/23
QUOTE #		DRAWN BY	Hampton Horrocks
JOB #	J0323-1467	SALESMAN	Anthony Williams

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 BCSI-B1 and BCSI-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: _____
Anthony Williams

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



= 4094.01 sq.ft. Roof Area
 = 106.17 ft. Ridge Line
 = 17.44 ft. Hip Line
 = 134 ft. Horiz. OH
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 (Reference Engineered Truss Drawing)
 Do Not Erect Trusses Backwards

Products					
Net Qty	Plies	Product	Length	PlotID	
2	2	1-3/4"x 9-1/4" LVL Kerto-S	7' 0"	BM2	
2	2	1-3/4"x 11-7/8" LVL Kerto-S	22' 0"	GDH1	
2	2	1-3/4"x 11-7/8" LVL Kerto-S	13' 0"	GDH2	
2	2	1-3/4"x 14" LVL Kerto-S	20' 0"	BM1	

Truss Placement Plan
 SCALE: NTS

LOAD CHART FOR JACK STUDS
(BASED ON TABLES B502.1(1) & (2))
NUMBER OF JACK STUDS REQUIRED @ EA END OF HEADERS/BOARDS

END REACTION (UP TO) (DOWN TO)	HEADERS/BOARDS	END REACTION (UP TO) (DOWN TO)	HEADERS/BOARDS	END REACTION (UP TO) (DOWN TO)	HEADERS/BOARDS
1700	2550	3400	1	1700	2550
3400	5100	6800	2	3400	5100
5100	7650	10200	3	5100	7650
6800	10200	13600	4	6800	10200
8500	12750	17000	5	8500	12750
10200	15300		6	10200	15300
11900			7		
13600			8		
15300			9		

BUILDER	Watermark Homes	COUNTY	Harnett
JOB NAME	Lot 93 South Creek	ADDRESS	Lot 93 South Creek
PLAN	Red Camellia GL	MODEL	Roof
SEAL DATE	03/19/23	DATE REV.	03/30/23
QUOTE #		DRAWN BY	Hampton Horrocks
JOB #	J0323-1467	SALESMAN	Anthony Williams

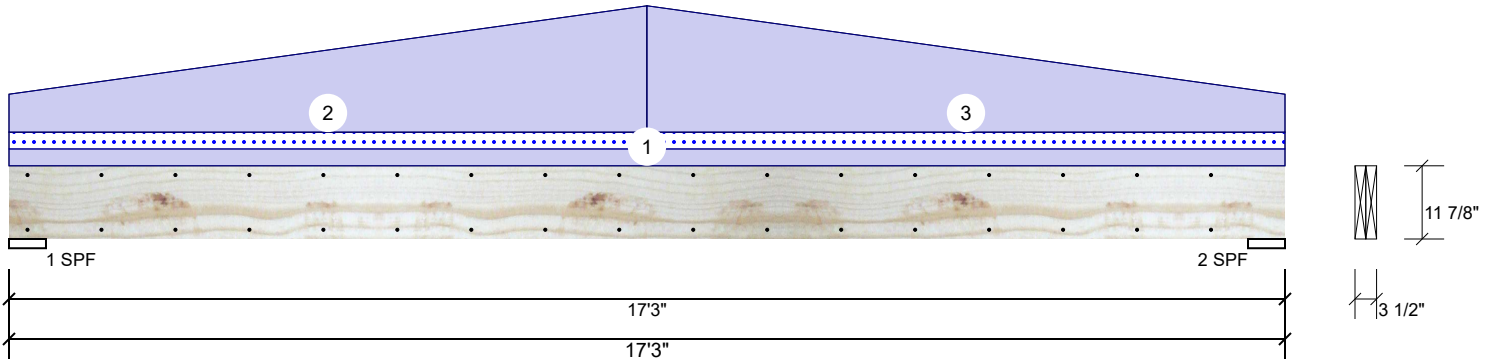
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 Phone: (910) 864-8787
 Fax: (910) 864-4444

GDH1 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	1093	173	0	0
2	Vertical	0	1093	173	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	6.000"	Vert	14%	1093 / 173	1266	L	D+S
2 - SPF	6.000"	Vert	14%	1093 / 173	1266	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	4894 ft-lb	8'7 1/2"	17919 ft-lb	0.273 (27%)	D	Uniform
Unbraced	5564 ft-lb	8'7 1/2"	6086 ft-lb	0.914 (91%)	D+S	L
Shear	978 lb	15'9 1/8"	7980 lb	0.123 (12%)	D	Uniform
LL Defl inch	0.035 (L/5617)	8'7 9/16"	0.409 (L/480)	0.085 (9%)	S	L
TL Defl inch	0.286 (L/687)	8'7 9/16"	0.546 (L/360)	0.524 (52%)	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	20 PLF	0 PLF	20 PLF	0 PLF	0 PLF	roof
2	Tapered Start	0-0-0		Top	45 PLF	0 PLF	0 PLF	0 PLF	0 PLF	wall
	End	8-7-8			150 PLF	0 PLF	0 PLF	0 PLF	0 PLF	
3	Tapered Start	8-7-8		Top	150 PLF	0 PLF	0 PLF	0 PLF	0 PLF	wall
	End	17-3-0			45 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

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

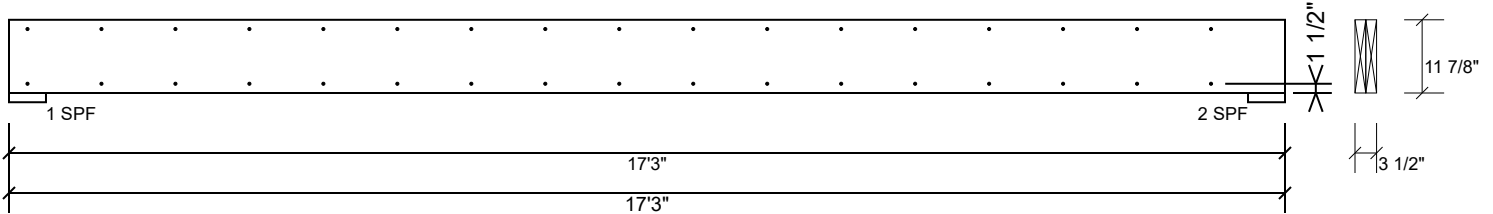
Metsä Wood
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 Norwalk, CT 06851
 (800) 622-5850
www.metsawood.com/us

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



GDH1 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

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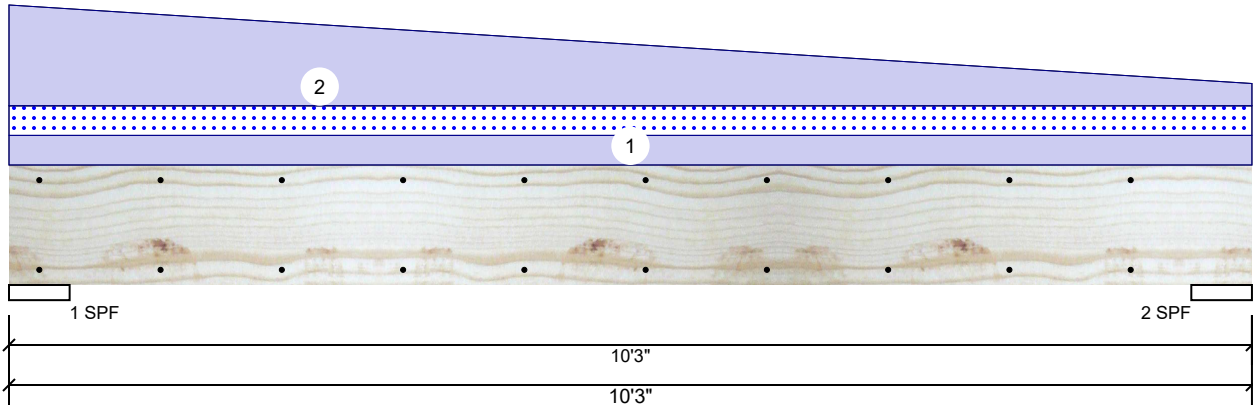
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 910-864-TRUS



GDH2 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	411	103	0	0
2	Vertical	0	314	103	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	6.000"	Vert	6%	411 / 103	514	L	D+S
2 - SPF	6.000"	Vert	5%	314 / 103	416	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	999 ft-lb	4'11"	22897 ft-lb	0.044 (4%)	D+S	L
Unbraced	999 ft-lb	4'11"	9857 ft-lb	0.101 (10%)	D+S	L
Shear	282 lb	1'5 7/8"	7980 lb	0.035 (4%)	D	Uniform
LL Defl inch (L/26994)	0.004	5'1 1/2"	0.234 (L/480)	0.018 (2%)	S	L
TL Defl inch (L/5948)	0.019	5' 11/16"	0.312 (L/360)	0.061 (6%)	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 end bearings.
- 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	20 PLF	0 PLF	20 PLF	0 PLF	0 PLF	roof
2	Tapered Start	0-0-0		Top	68 PLF	0 PLF	0 PLF	0 PLF	0 PLF	wall
	End	10-3-0			15 PLF	0 PLF	0 PLF	0 PLF	0 PLF	
	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

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- LVL not to be treated with fire retardant or corrosive chemicals

chemicals

Handling & Installation

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- Damaged Beams must not be used
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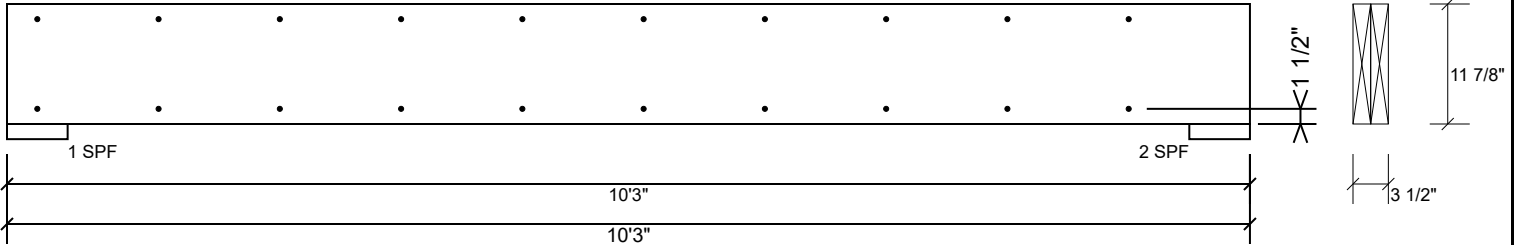
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Level: Level



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

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This design is valid until 11/3/2024

Manufacturer Info

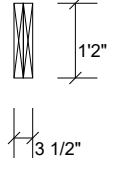
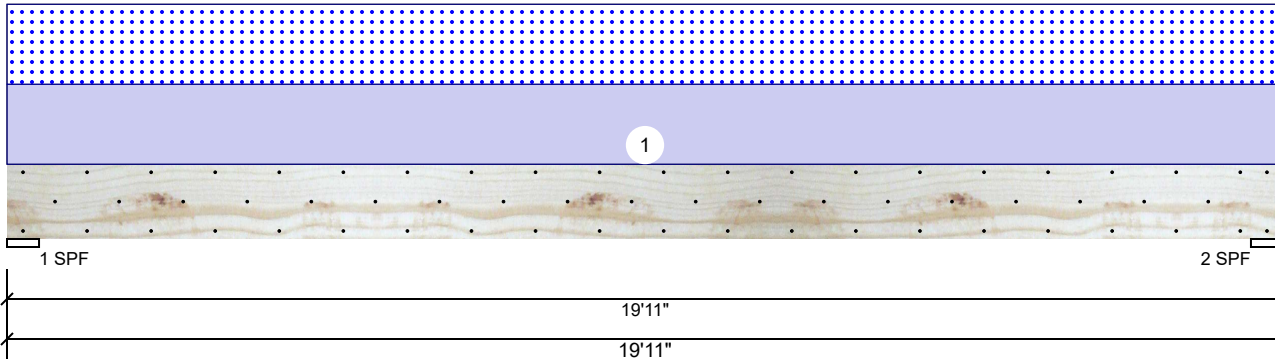
Metsä Wood
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 Norwalk, CT 06851
 (800) 622-5850
www.metsawood.com/us

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



BM1 Kerto-S LVL 1.750" X 14.000" 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	1104	996	0	0
2	Vertical	0	1104	996	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	6.000"	Vert	24%	1104 / 996	2100	L	D+S
2 - SPF	6.000"	Vert	24%	1104 / 996	2100	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	9558 ft-lb	9'11 1/2"	31049 ft-lb	0.308 (31%)	D+S	L
Unbraced	9558 ft-lb	9'11 1/2"	9561 ft-lb	1.000 (100%)	D+S	L
Shear	1761 lb	18'3"	12021 lb	0.147 (15%)	D+S	L
LL Defl inch	0.195 (L/1169)	9'11 9/16"	0.476 (L/480)	0.411 (41%)	S	L
TL Defl inch	0.412 (L/554)	9'11 9/16"	0.635 (L/360)	0.649 (65%)	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 3 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 11'8 1/8" 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	100 PLF	0 PLF	100 PLF	0 PLF	0 PLF	A3-6
	Self Weight				11 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

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

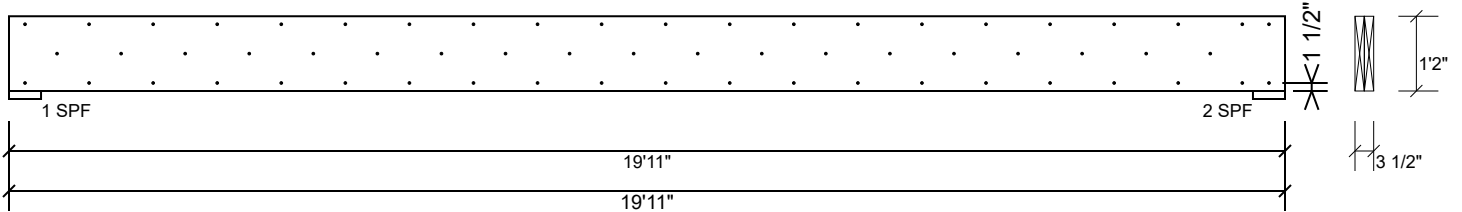
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BM1 Kerto-S LVL 1.750" X 14.000" 2-Ply - PASSED

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	0.0 %
Load	0.0 PLF
Yield Limit per Foot	245.6 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

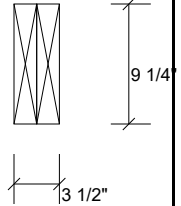
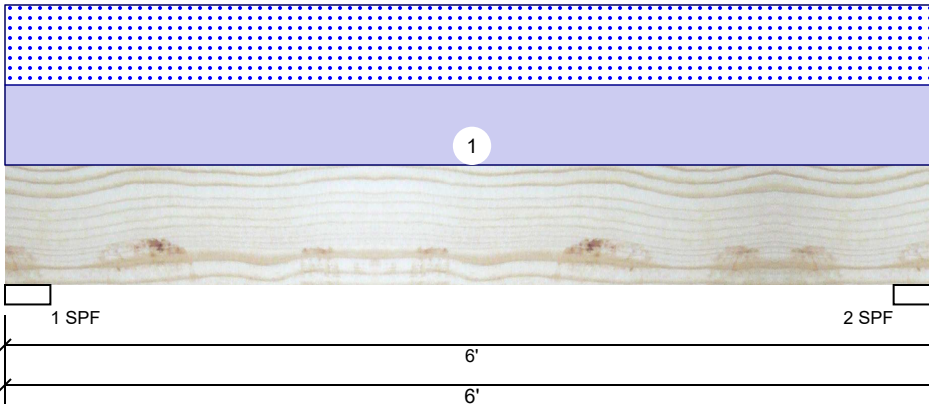
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BM2 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED

Level: Level



Member Information

Type:	Girder
Plies:	2
Moisture Condition:	Dry
Deflection LL:	480
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	1405	1383	0	0
2	Vertical	0	1405	1383	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	Vert	54%	1405 / 1383	2788	L	D+S
2 - SPF	3.500"	Vert	54%	1405 / 1383	2788	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3567 ft-lb	3'	14423 ft-lb	0.247 (25%)	D+S	L
Unbraced	3567 ft-lb	3'	11027 ft-lb	0.323 (32%)	D+S	L
Shear	1806 lb	4'11 1/4"	7943 lb	0.227 (23%)	D+S	L
LL Defl inch	0.027 (L/2419)	3'	0.139 (L/480)	0.198 (20%)	S	L
TL Defl inch	0.055 (L/1200)	3'	0.277 (L/240)	0.200 (20%)	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 Girders are designed to be supported on the bottom edge only.
- 3 Multiple plies must be fastened together as per manufacturer's details.
- 4 Top loads must be supported equally by all plies.
- 5 Top must be laterally braced at end bearings.
- 6 Bottom must be laterally braced at end bearings.
- 7 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	461 PLF	0 PLF	461 PLF	0 PLF	0 PLF	A10-A11
	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

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

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