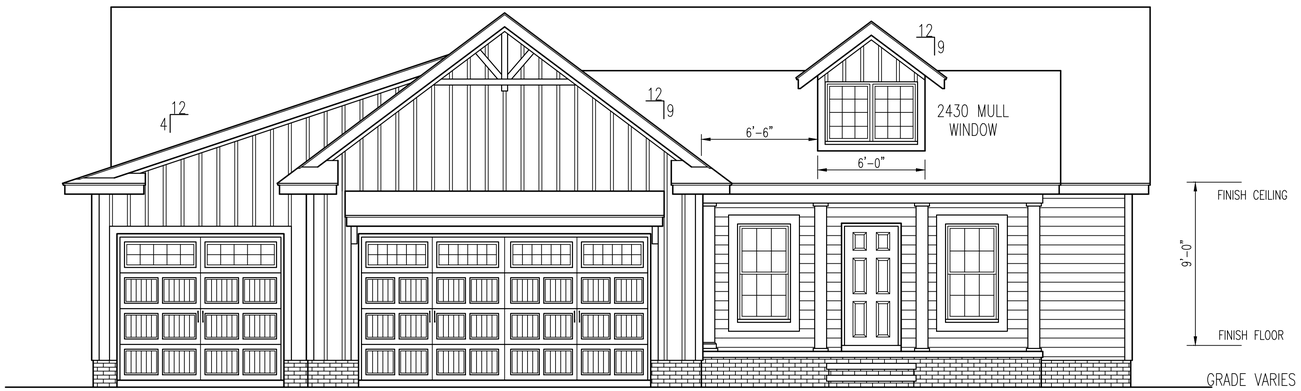


FRONT ELEVATION

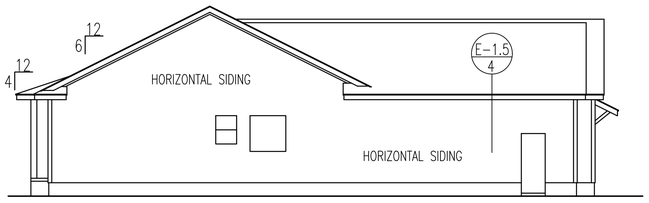
SCALE:1/4"=1'-0"

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

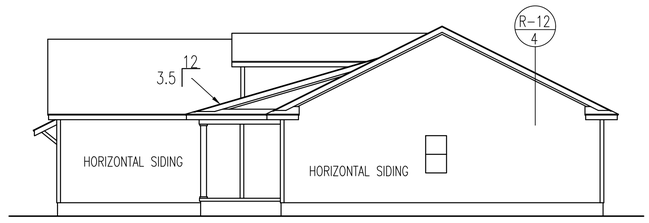
APPROVED
Limited building only review
Permit holder responsible for full compliance with the code

06/24/2021

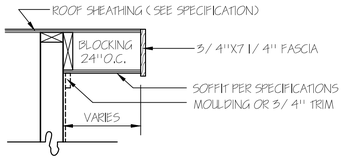
Harnett COUNTY NORTH CAROLINA



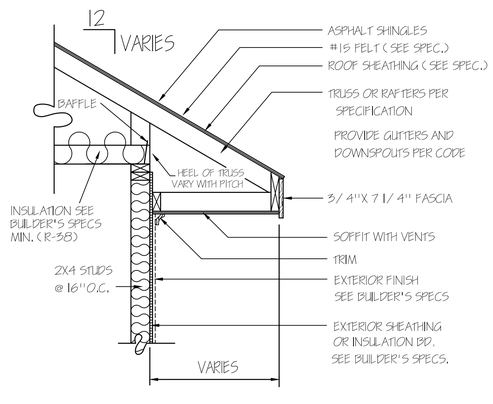
LEFT ELEVATION

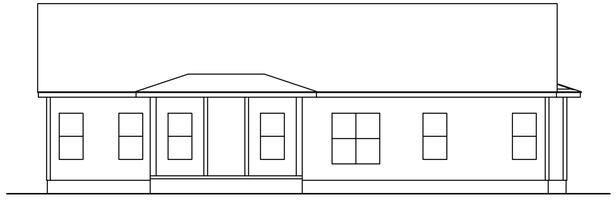


RIGHT ELEVATION



RAKE DETAIL FOR GABLE ENDS





REAR ELEVATION

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

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

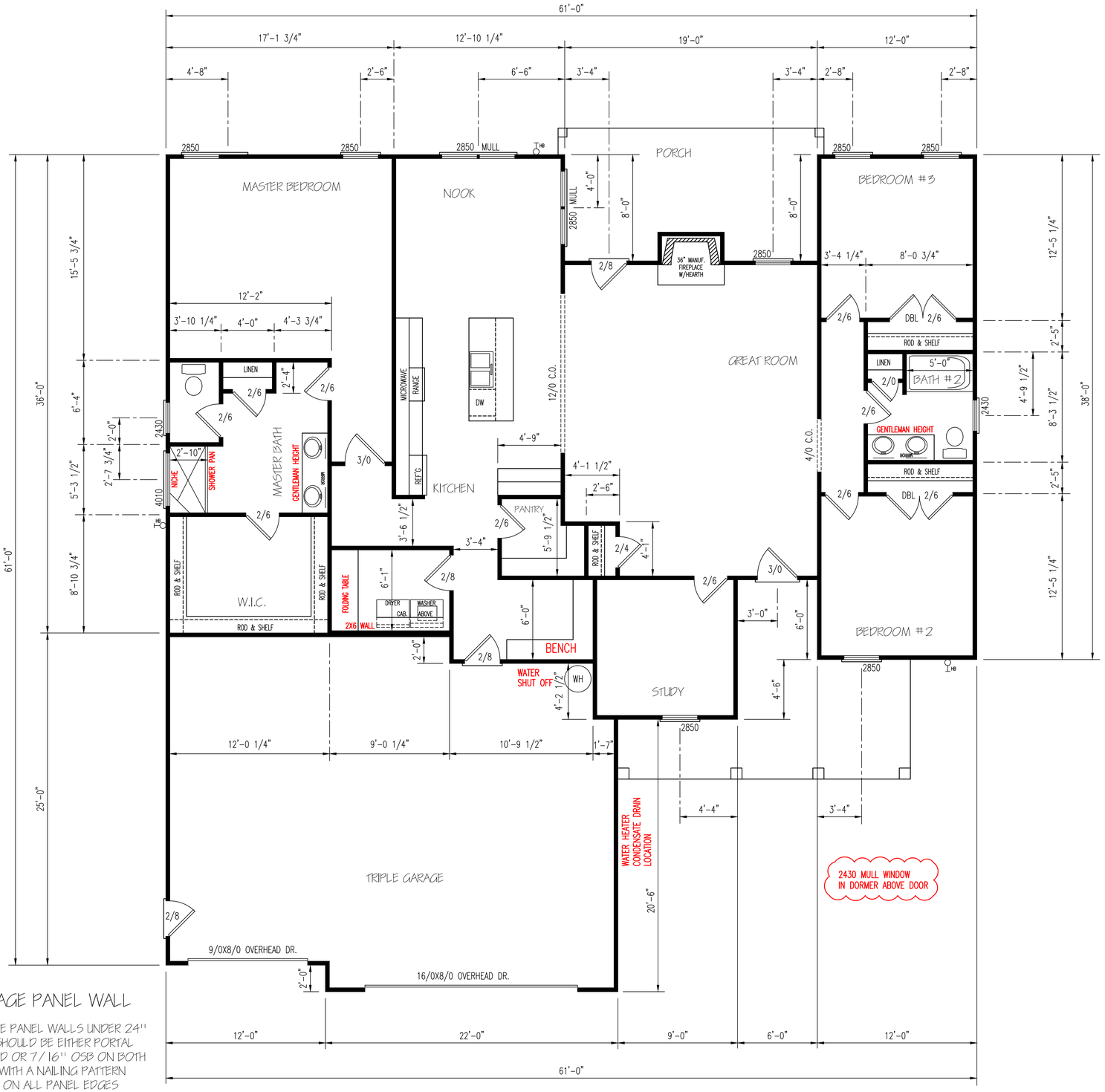
EXCLUSIVE RESIDENCE DESIGN FOR:
WATERMARK HOMES
LOT: 114 BALLARD WOODS
NAME: RED CAMELLIA

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 RESOLD

PLAN NUMBER
RG21-A02F

1	GARAGE	F	L
	DATE: 10/17/20		



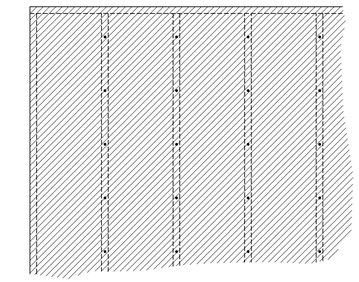
GARAGE PANEL WALL

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.

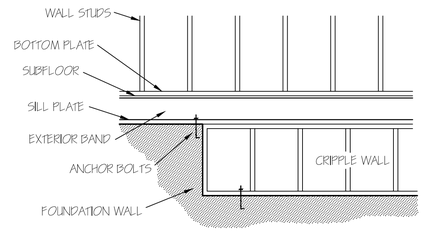
ENERGY TABLE

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

BRACING METHOD



EXTERIOR WALL TO BE FULLY SHEATHED WITH 7/16" OSB. NAILING PATTERN TO BE 8" ON ALL EDGES AND 12" IN FIELD, WITH 8d NAILS.



FOUNDATION CRIPPLE WALLS SHALL BE FRAMED OF STUDS NOT SMALLER THAN THE STUDDING 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.

EXERIOR 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
F.PORCH 194 SQ FT
R.PORCH 192 SQ FT

HERO PACKAGE

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LOT: 114 BALLARD WOODS

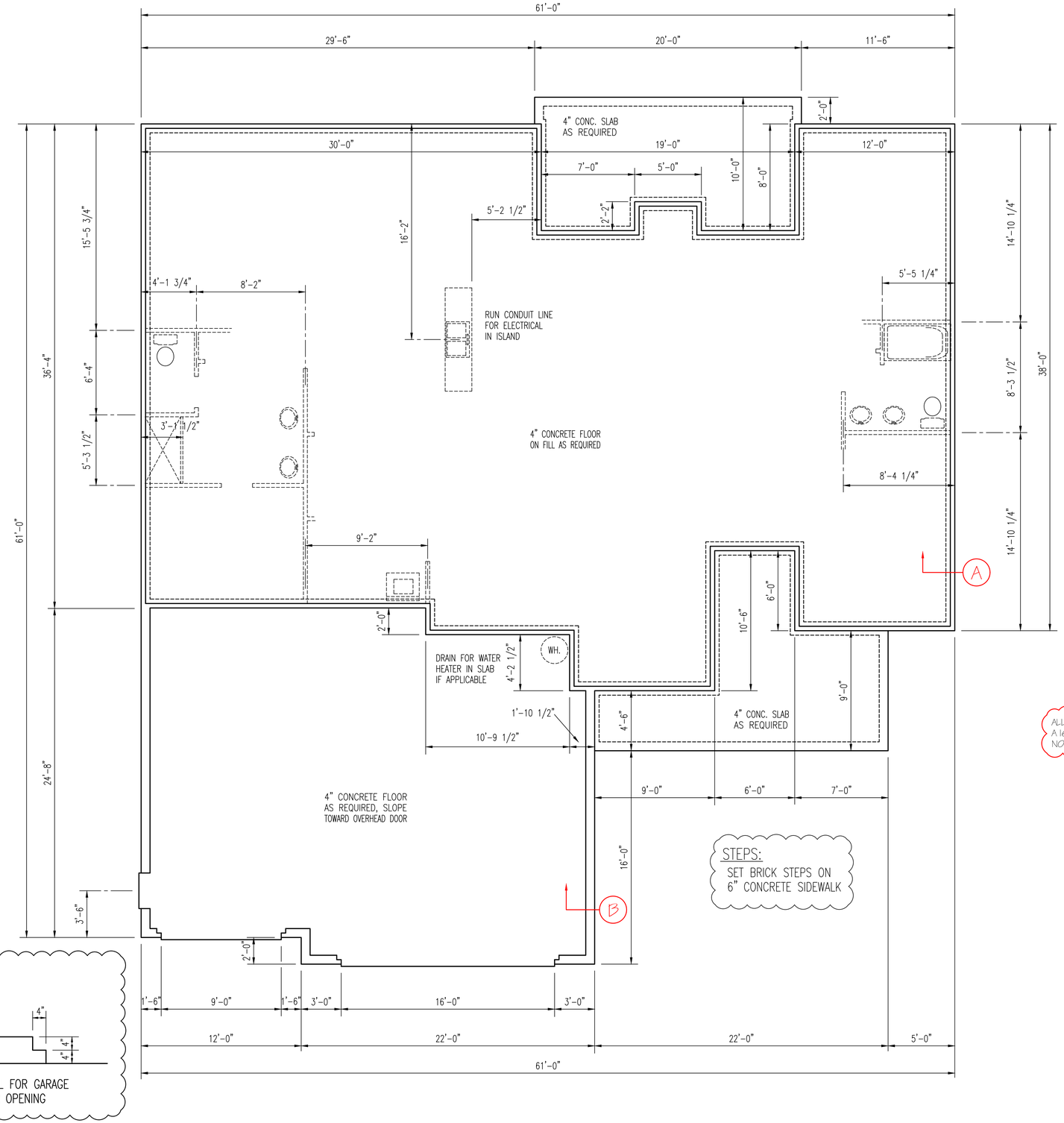
EXCLUSIVE RESIDENCE DESIGN FOR:
WATERMARK HOMES
NAME: RED CAMELLIA

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

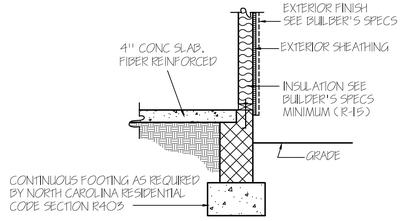
THIS IS FOR THE CONSTRUCTION OF ONE HOUSE ON A SINGLE LOT, NOT TO BE REUSED

PLAN NUMBER
RG21-A02

2 A | GARAGE | F | L
DATE: 10/29/20

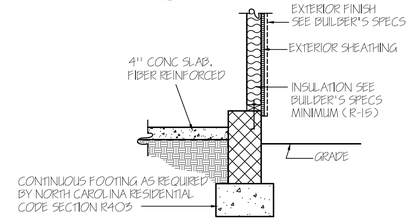


DETAIL FOR GARAGE DOOR OPENING



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

CONCRETE SLAB FLOOR — (A)



NOTE:
PERIMETER INSUL. 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 THAT 12" FROM CORNERS, EMBEDDED MIN. 7" INTO FOUNDATION. USE A MIN. OF 2 BOLTS PER EACH STUD WALL

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

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.

STEPS:
SET BRICK STEPS ON 6" CONCRETE SIDEWALK

FOUNDATION PLAN

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

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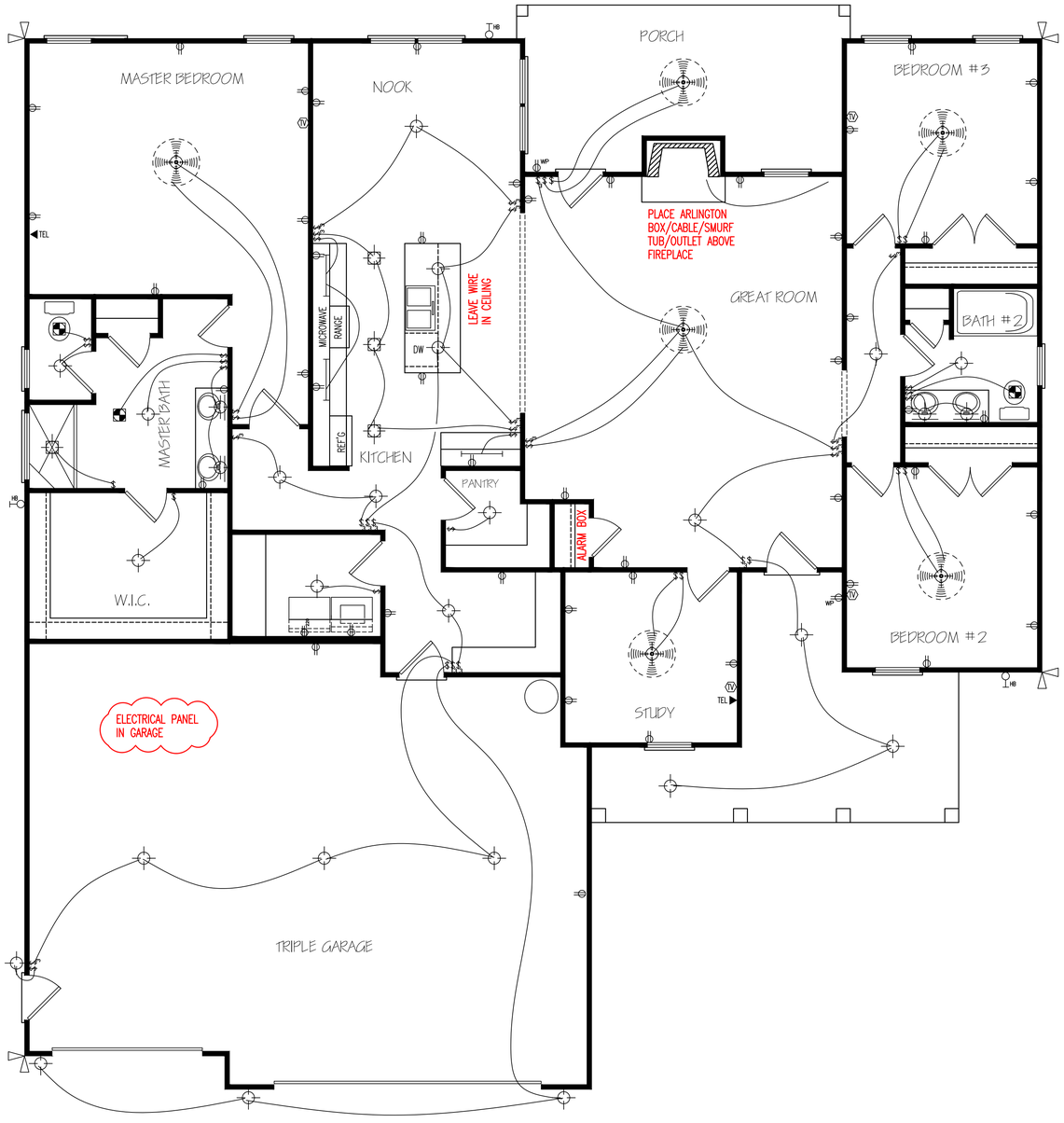
EXCLUSIVE RESIDENCE DESIGN FOR:
WATERMARK HOMES
NAME: RED CAMELLIA
LOT: 114 BALLARD WOODS

PLAN NUMBER
RG21-A02

3	GARAGE	F	L
	DATE: 10/29/20		



** UNDER CABINET LIGHTING
NO SURROUND SOUND
NO PREWIRE FOR CAMERA

HERO PACKAGE

ELECTRICAL LAYOUT

NOTE: SWITCHED RECEPTACLES ARE HOT TOP AND SWITCHED BOTTOM

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EXCLUSIVE RESIDENCE DESIGN FOR:
WATERMARK HOMES
LOT: 114 BALLARD WOODS
NAME: RED CAMELLIA

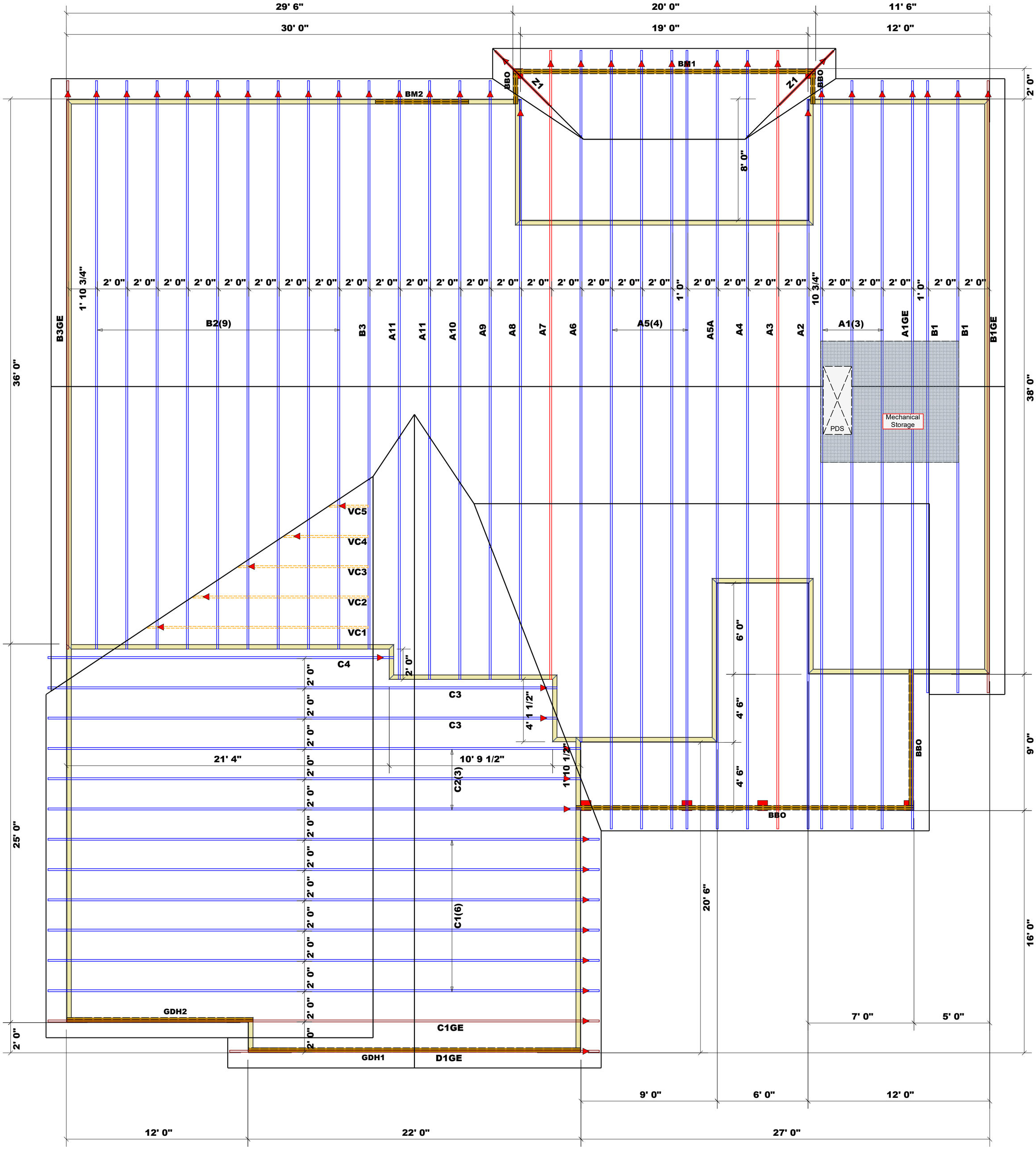
TM DESIGNS WILL NOT BE LIABLE FOR ANY ERRORS NOT BROUGHT TO THEIR ATTENTION PRIOR TO THE START OF CONSTRUCTION. WHILE EVERY EFFORT WAS MADE IN THE PREPARATION OF THESE DRAWINGS AND DIMENSIONS TO AVOID ERRORS THE OWNER AND / OR BUILDER SHALL VERIFY ALL DIMENSIONS, DETAILS, LOCAL AND STATE CODES.

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-A02

E-1 | GARAGE | F | L
DATE: 10/29/20



= 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	20' 0"	BM1
2	2	1-3/4"x 11-7/8" LVL Kerto-S	13' 0"	GDH2

Truss Placement Plan
SCALE: NTS

LOAD CHART FOR JACK STUDS

(BASED ON TABLES R502.5(1) & (b))
NUMBER OF JACK STUDS REQUIRED @ EA END OF HEADER/GIRDER

END REACTION (UP TO)	REQ'D STUDS FOR (3) PLY HEADER	END REACTION (UP TO)	REQ'D STUDS FOR (3) PLY HEADER	END REACTION (UP TO)	REQ'D STUDS FOR (4) PLY HEADER
1700	1	2550	1	3400	1
3400	2	5100	2	6800	2
5100	3	7650	3	10200	3
6800	4	10200	4	13600	4
8500	5	12750	5	17000	5
10200	6	15300	6		
11900	7				
13600	8				
15300	9				

BUILDER	Watermark Homes	**COUNTY**	Harnett
JOB NAME	114 Ballard Woods	**ADDRESS**	Lot 114 Ballard Woods, Lillington, NC
PLAN	Red Camellia GL	**MODEL**	Roof
SEAL DATE	10/17/20	**DATE REV.**	11/01/20
QUOTE #		**DRAWN BY**	Hampton Horrocks
JOB #	J1020-4945	**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#.

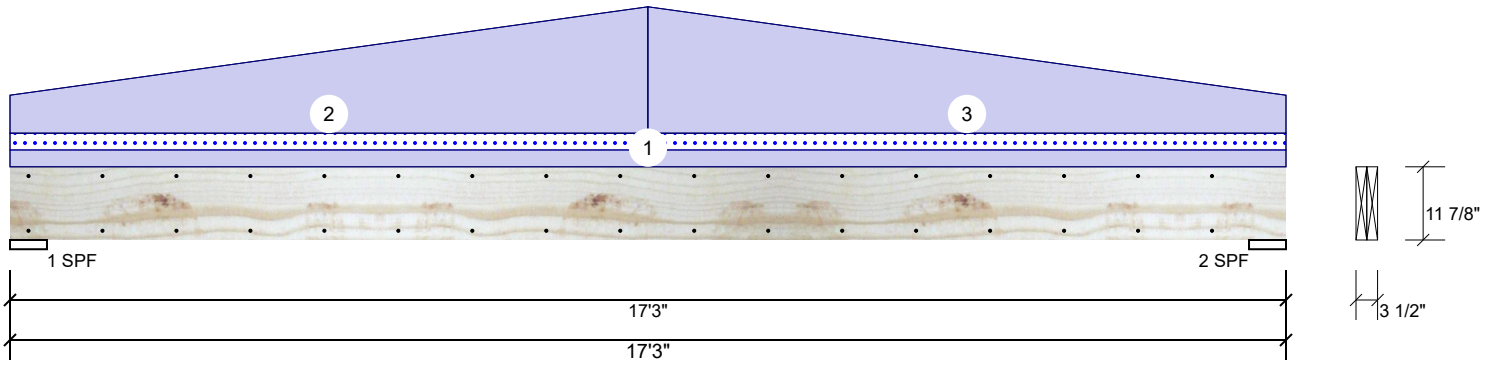
Signature_____
Hampton Horrocks

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

Client:	Watermark Homes	Date:	11/2/2020
Project:		Input by:	Hampton Horrocks
Address:	Harnett County	Job Name:	Lot 114 Ballard Woods
		Project #:	J1020-4945

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		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	0	1093	173	0	0
2	0	1093	173	0	0

Bearings

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	6.000"	14%	1093 / 173	1266	L	D+S
2 - SPF	6.000"	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	975 lb	15'9 7/8"	7980 lb	0.122 (12%)	D	Uniform
LL Defl inch	0.035 (L/5617)	8'7 9/16"	0.409 (L/480)	0.090 (9%)	S	L
TL Defl inch	0.286 (L/687)	8'7 9/16"	0.546 (L/360)	0.520 (52%)	D+S	L

Design Notes

1 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
2 Refer to last page of calculations for fasteners required for specified loads.
3 Girders are designed to be supported on the bottom edge only.
4 Top loads must be supported equally by all plies.
5 Top braced at bearings.
6 Bottom braced at 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	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 11/13/2022

Manufacturer Info

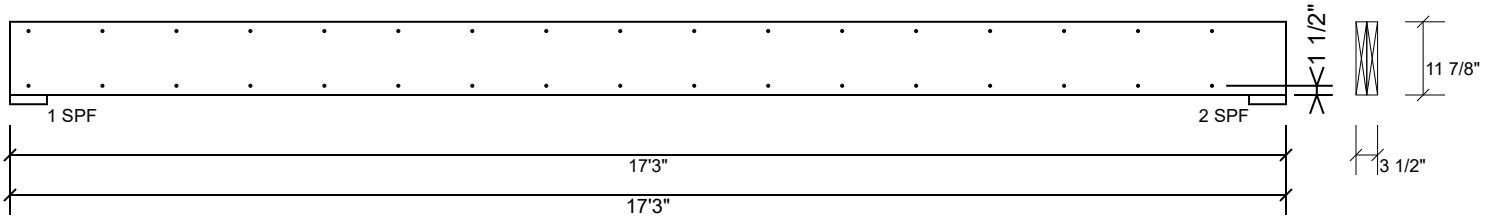
Metsä Wood
301 Merritt 7 Building, 2nd Floor
Norwalk, CT 06851
(800) 622-5850
www.metsawood.com/us
ICC-ES: ESR-3633

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

Client:	Watermark Homes	Date:	11/2/2020
Project:		Input by:	Hampton Horrocks
Address:	Harnett County	Job Name:	Lot 114 Ballard Woods
		Project #:	J1020-4945

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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Manufacturer Info

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(800) 622-5850
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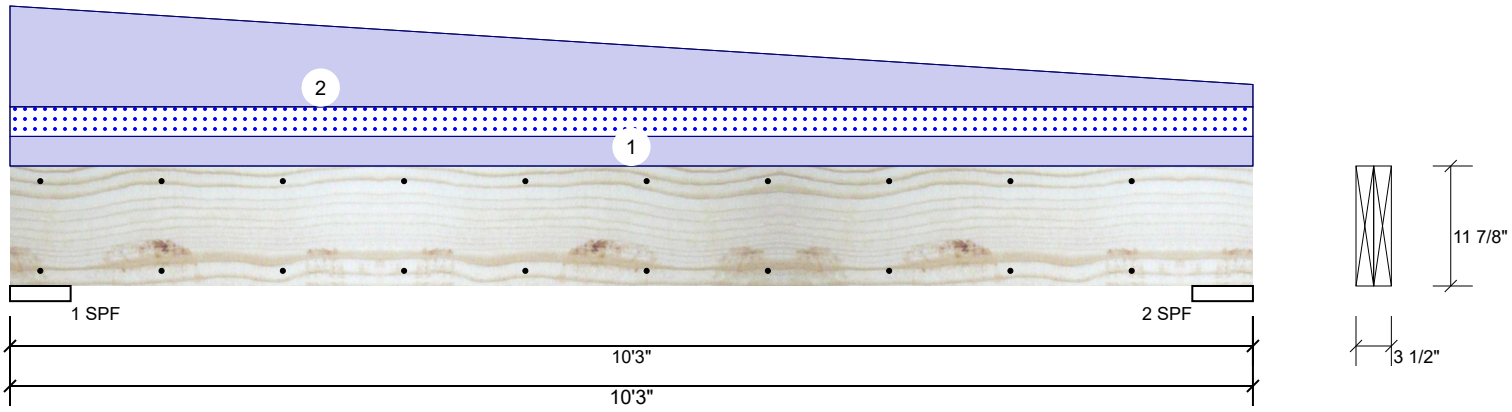
Client:	Watermark Homes	Date:	11/2/2020
Project:		Input by:	Hampton Horrocks
Address:	Harnett County	Job Name:	Lot 114 Ballard Woods
		Project #:	J1020-4945

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		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	0	411	103	0	0
2	0	314	103	0	0

Bearings

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	6.000"	6%	411 / 103	514	L	D+S
2 - SPF	6.000"	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	278 lb	1'5 1/8"	7980 lb	0.035 (3%)	D	Uniform
LL Defl inch	0.004 (L/26994)	5'1 1/2"	0.234 (L/480)	0.020 (2%)	S	L
TL Defl inch	0.019 (L/5948)	5' 11/16"	0.312 (L/360)	0.060 (6%)	D+S	L

Design Notes

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3 Girders are designed to be supported on the bottom edge only.
4 Top loads must be supported equally by all plies.
5 Top braced at bearings.
6 Bottom braced at 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	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

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Handling & Installation

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Client:	Watermark Homes	Date:	11/2/2020
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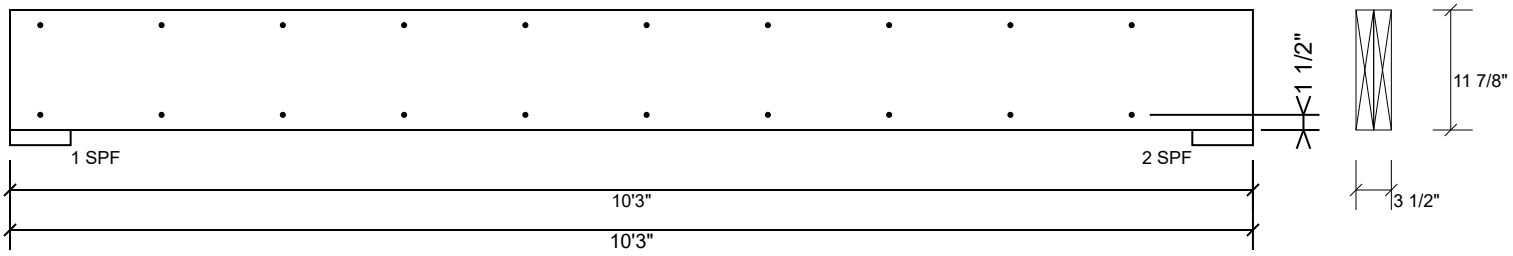
GDH2 Kerto-S LVL 1.750" X 11.875" 2-Ply - PASSED

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 11/13/2022

Manufacturer Info

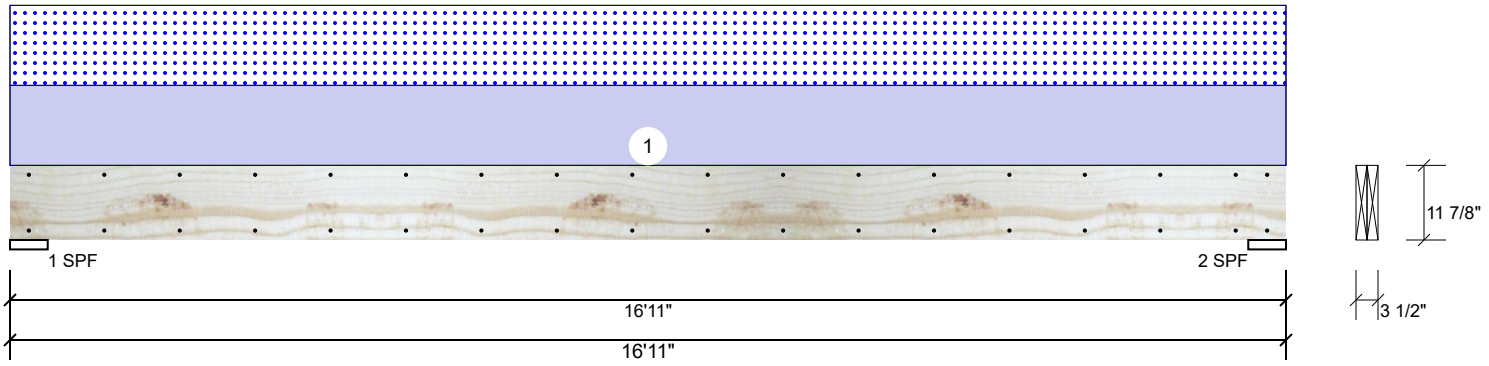
Metsä Wood
301 Merritt 7 Building, 2nd Floor
Norwalk, CT 06851
(800) 622-5850
www.metsawood.com/us
ICC-ES: ESR-3633

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

Client:	Watermark Homes	Date:	11/2/2020
Project:		Input by:	Hampton Horrocks
Address:	Harnett County	Job Name:	Lot 114 Ballard Woods
		Project #:	J1020-4945

BM1 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		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	0	1000	922	0	0
2	0	1000	922	0	0

Bearings

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	6.000"	22%	1000 / 922	1922	L	D+S
2 - SPF	6.000"	22%	1000 / 922	1922	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	7309 ft-lb	8'5 1/2"	22897 ft-lb	0.319 (32%)	D+S	L
Unbraced	7309 ft-lb	8'5 1/2"	7319 ft-lb	0.999 (100%)	D+S	L
Shear	1598 lb	1'5 1/8"	10197 lb	0.157 (16%)	D+S	L
LL Defl inch	0.176 (L/1094)	8'5 9/16"	0.401 (L/480)	0.440 (44%)	S	L
TL Defl inch	0.367 (L/525)	8'5 9/16"	0.535 (L/360)	0.690 (69%)	D+S	L

Design Notes

1 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
2 Refer to last page of calculations for fasteners required for specified loads.
3 Girders are designed to be supported on the bottom edge only.
4 Top loads must be supported equally by all plies.
5 Top must be laterally braced at a maximum of 13'5 5/8" o.c.
6 Bottom braced at 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	109 PLF	0 PLF	109 PLF	0 PLF	0 PLF	A3-6
	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

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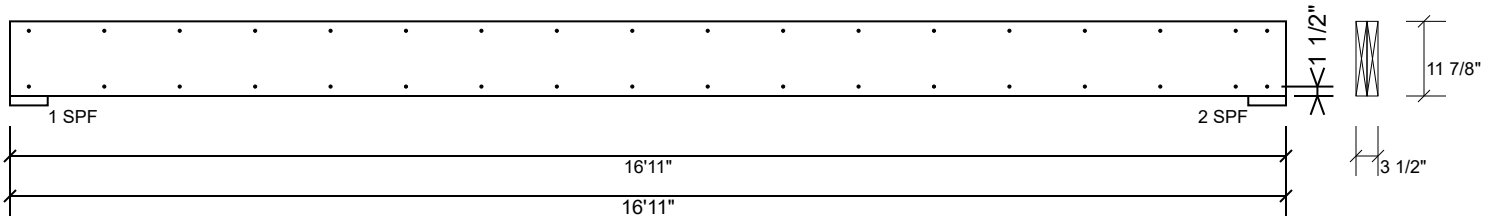
Project:		Input by:	Hampton Horrocks
Address:	Harnett County	Job Name:	Lot 114 Ballard Woods
		Project #:	J1020-4945

BM1 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 11/13/2022

Manufacturer Info

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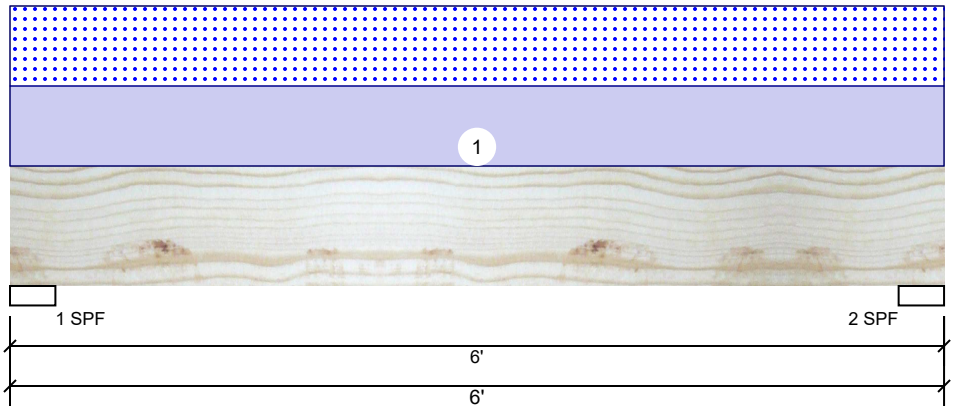
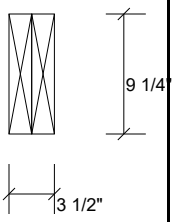
Client:	Watermark Homes	Date:	11/2/2020
Project:		Input by:	Hampton Horrocks
Address:	Harnett County	Job Name:	Lot 114 Ballard Woods
		Project #:	J1020-4945

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:	240	Deck:	Not Checked
Importance:	Normal		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	0	1405	1383	0	0
2	0	1405	1383	0	0

Bearings

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	54%	1405 / 1383	2788	L	D+S
2 - SPF	3.500"	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	1858 lb	5'	7943 lb	0.234 (23%)	D+S	L
LL Defl inch	0.027 (L/2419)	3'	0.139 (L/480)	0.200 (20%)	S	L
TL Defl inch	0.055 (L/1200)	3'	0.277 (L/240)	0.200 (20%)	D+S	L

Design Notes

1 Girders are designed to be supported on the bottom edge only.
2 Multiple plies must be fastened together as per manufacturer's details.
3 Top loads must be supported equally by all plies.
4 Top braced at bearings.
5 Bottom braced at bearings.
6 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

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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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