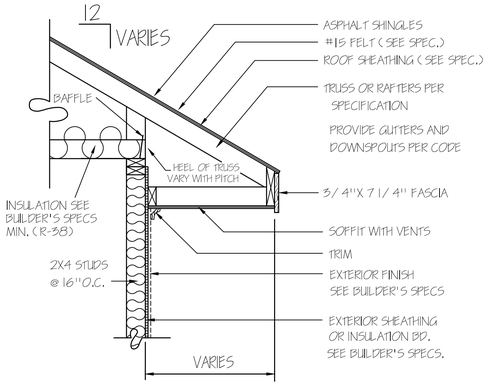
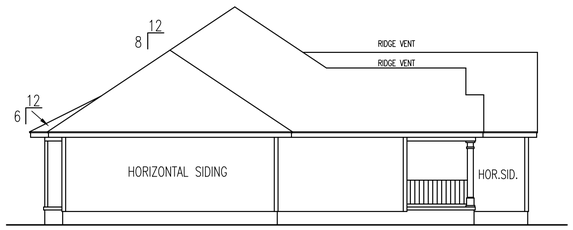
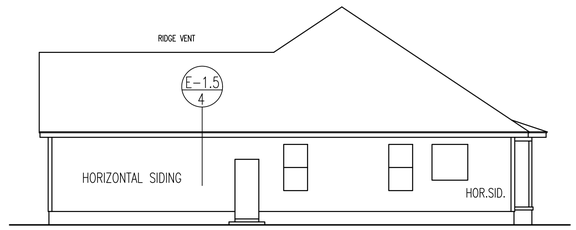


FRONT ELEVATION
SCALE:1/4"=1'-0"

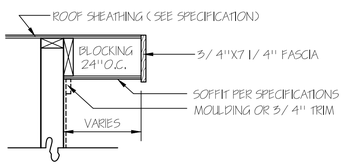
NOTICE TO CONTRACTOR
All construction must comply with current NC Building Codes and is subject to field inspection and verification.
APPROVED
Limited building only review
Permit holder responsible for full compliance with the code
04/10/2023
Harnett COUNTY NORTH CAROLINA



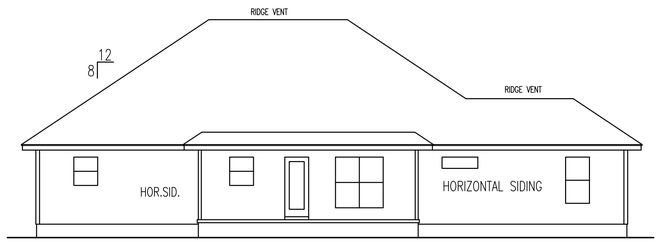
LEFT ELEVATION



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: 104 SOUTH CREEK
NAME: EUCALYPTUS

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.

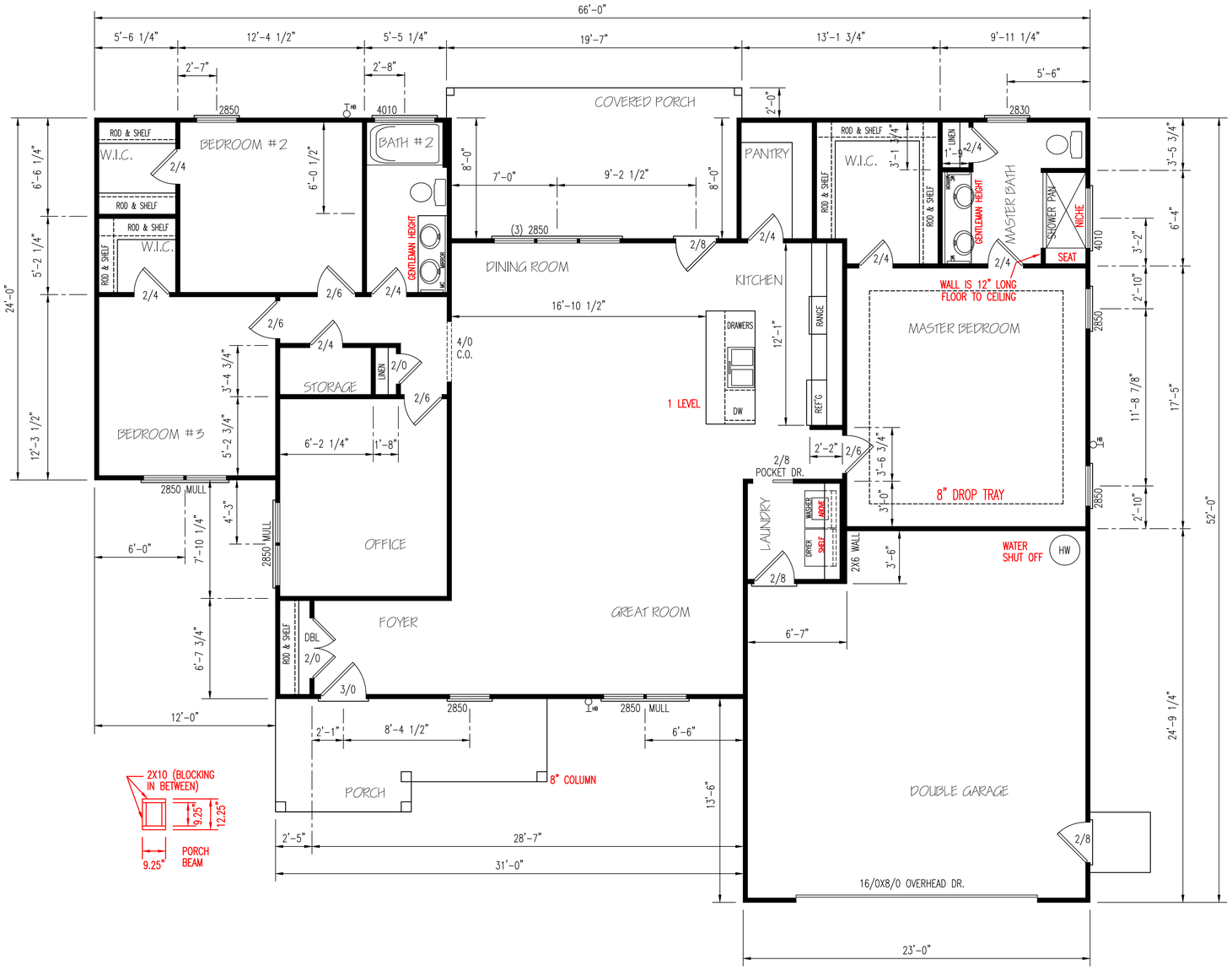
I HEREBY CERTIFY THAT THIS DRAWING MEETS LOCAL CODES, 2012 INTERNATIONAL BUILDING CODES

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

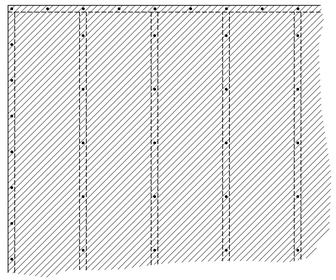
PLAN NUMBER
RG18-A01

OPTION #1

1 | GARAGE | R | F
DATE: 11/4/20



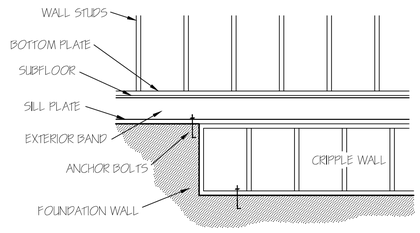
BRACING METHOD



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.

ENERGY TABLE

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



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		

NOTE:
CEILINGS ARE 9'-0" UNLESS NOTED.

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.

FLOOR PLAN

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

HEATED AREA
1986 SQ FT

OTHER AREAS
GARAGE 540 SQ FT
F.PORCH 117 SQ FT
R.PORCH 191 SQ FT
TOTAL 848 SQ FT

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

EXCLUSIVE RESIDENCE DESIGN FOR:
WATERMARK HOMES
LOT: 104 SOUTH CREEK
NAME: ELUCALYPTUS

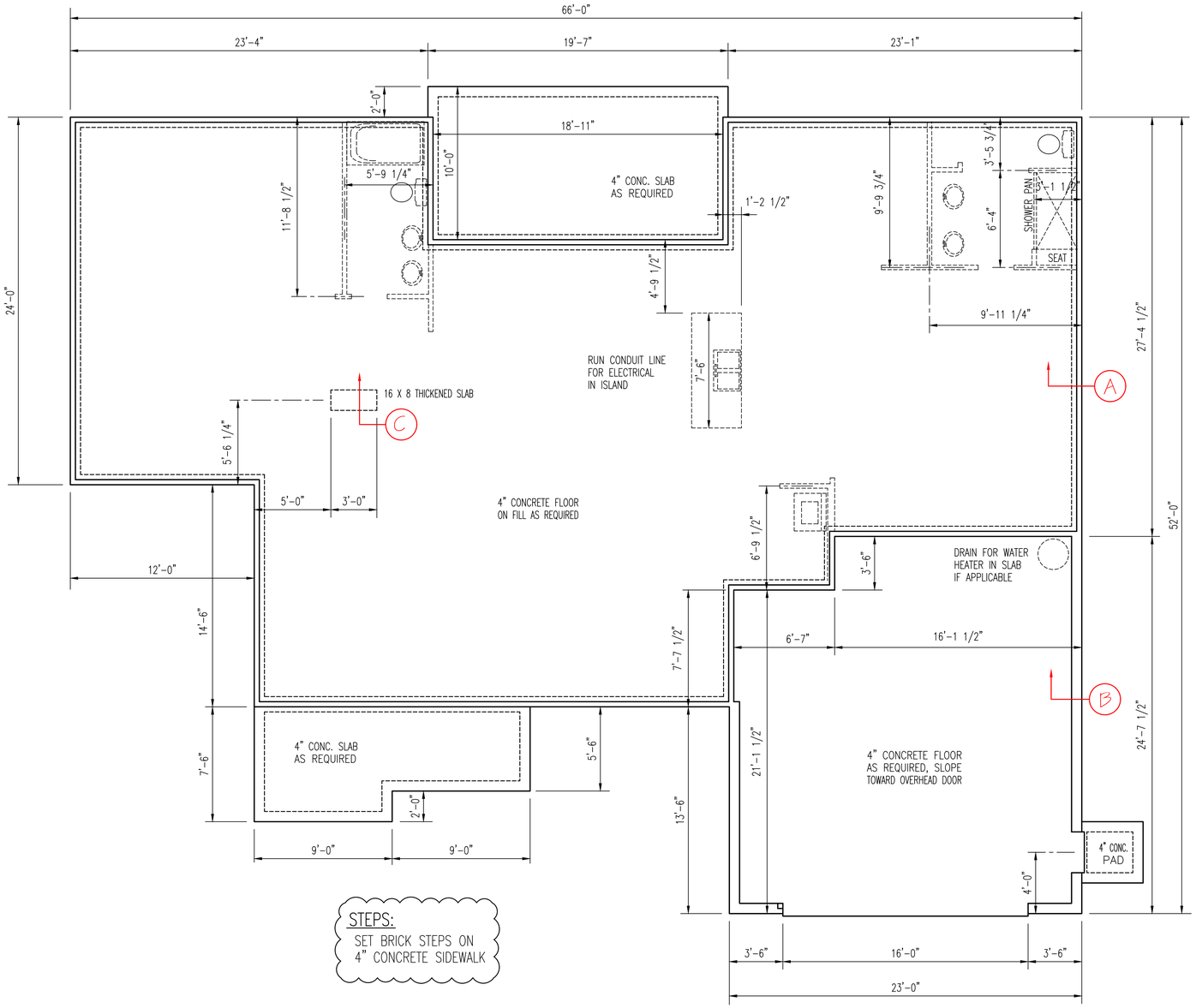
I HEREBY CERTIFY THAT THIS DRAWING MEETS LOCAL CODES, 2012 INTERNATIONAL BUILDING CODES

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

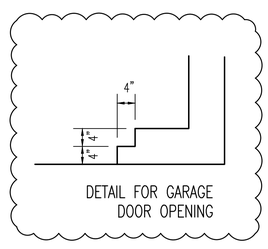
PLAN NUMBER
RG18-A01

OPTION #1

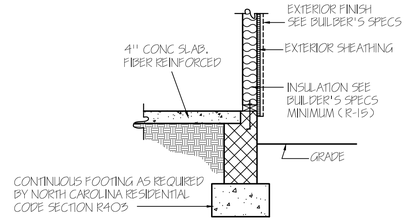
2 A | GARAGE R F | DATE: 11/4/20



STEPS:
SET BRICK STEPS ON
4" CONCRETE SIDEWALK

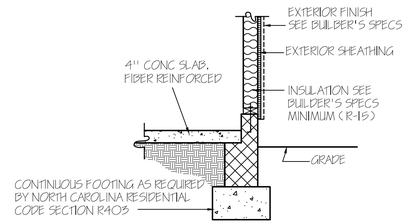


DETAIL FOR GARAGE
DOOR OPENING



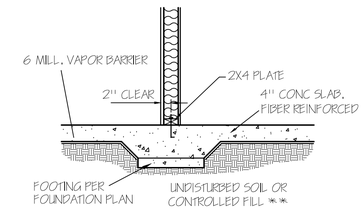
NOTE:
PERIMETER INSUL. MAY EXTEND HORIZ. UNDER SLAB
24" OR VERTICAL 24" BELOW SLAB FLOOR

CONCRETE SLAB FLOOR — (A)



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

GARAGE WALL — (B)



LOAD BEARING WALL THICKENED SLAB — (C)

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

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.

FOUNDATION PLAN

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

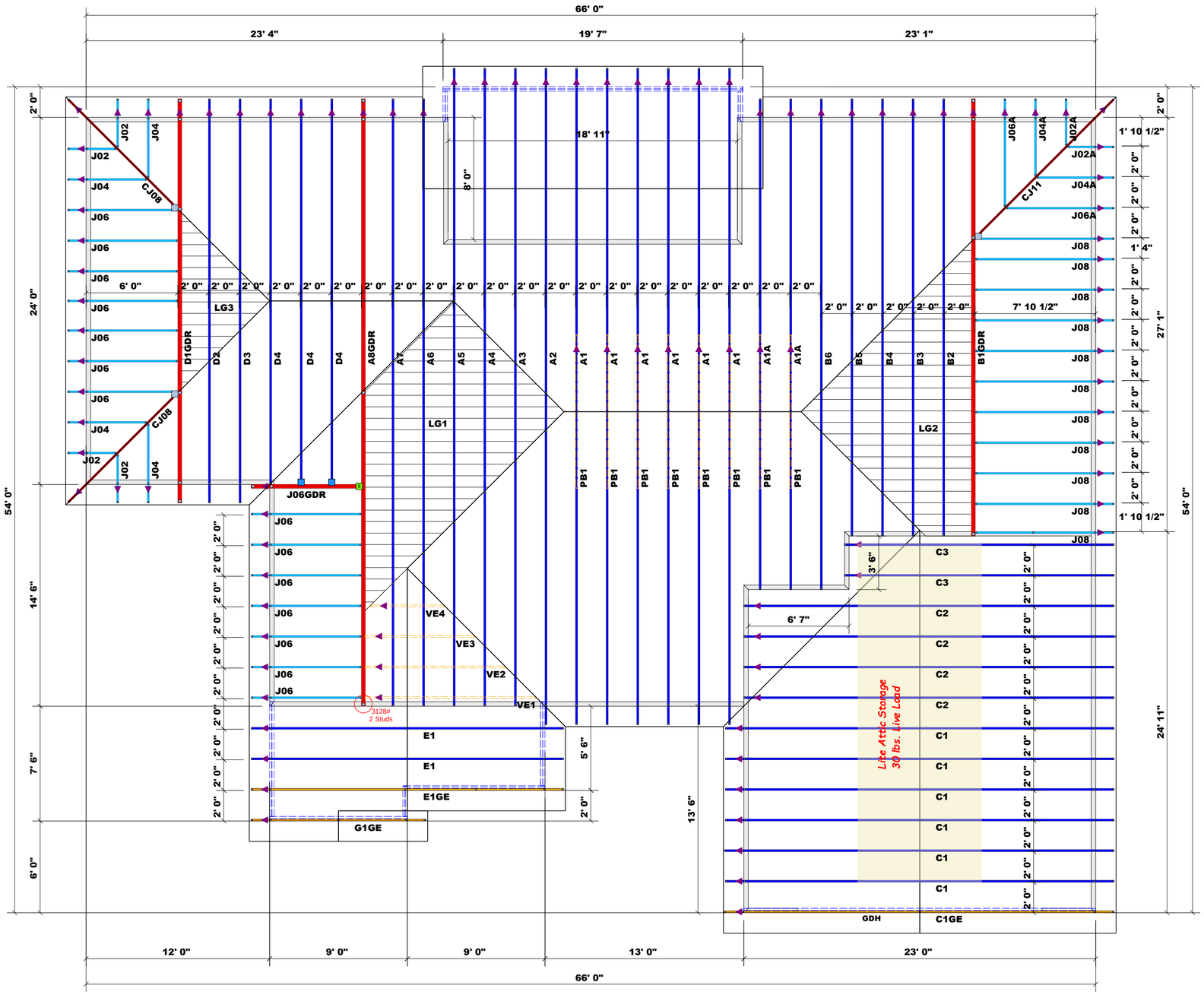
TM DESIGNS
RESIDENTIAL PLANS BY TINA MCFADDEN
(910) 354-4736 TMDESIGNS2016@GMAIL.COM

EXCLUSIVE RESIDENCE DESIGN FOR:
WATERMARK HOMES
NAME: ELICALYPTUS
LOT: 104 SOUTH CREEK

PLAN NUMBER
RG18-A01

OPTION #1

3 | GARAGE | R | F
DATE: 11/4/20



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

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

○ *-- Denotes Reaction Greater than 3,000 lbs.*

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

Connector Information					Nail Information	
Sym	Product	Manuf	Qty	Supported Member	Header	Truss
	HJC26	USP	3	Varies	16d/3-1/2"	10d/3"
	HUS26	USP	2	Varies	16d/3-1/2"	16d/3-1/2"
8	THD28-2	USP	1	Varies	16d/3-1/2"	10d/3"

Beam Legend					
PlotID	Length	Product	Plies	Net Qty	Fab Type
GDH	23' 0"	1-3/4"x 11-7/8" LVL Kerto-S	2	2	FF

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

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

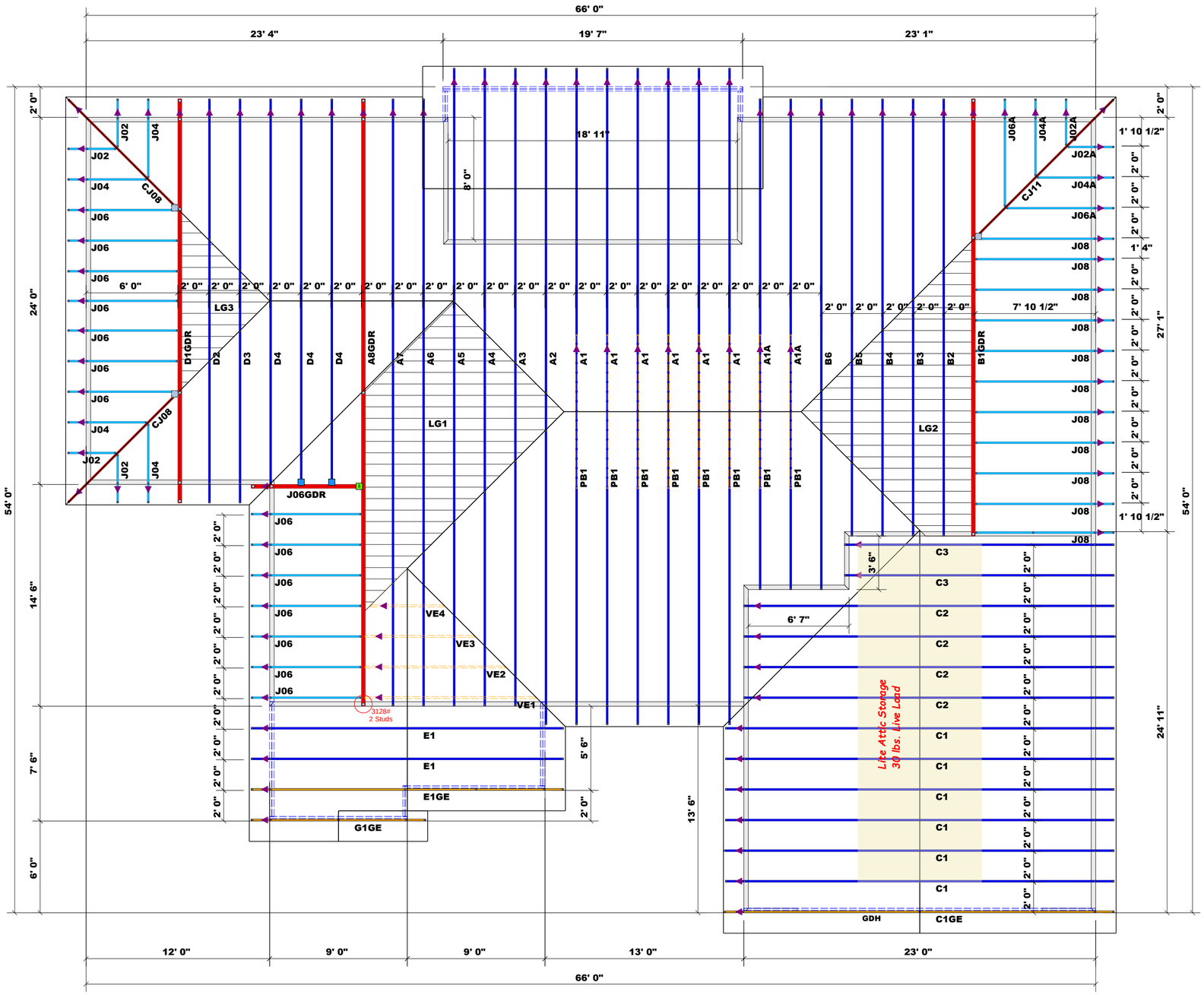
LOAD CHART FOR JACK STUDS

(BASED ON TABLES R502.5(1) & (b))

NUMBER OF JACK STUDS REQUIRED @ EA END OF HEADER/GIRDER

END REACTION (3# TO)	REQ'D STUDS FOR (2) PLY HEADER	END REACTION (6# TO)	REQ'D STUDS FOR (3) PLY HEADER	END REACTION (3# 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
JOB NAME	Lot 104 South Creek
PLAN	The Eucalyptus
SEAL DATE	11/4/20
QUOTE #	Quote #
JOB #	J0323-1474
CITY / CO.	Lillington / Harnett
ADDRESS	Lot 104 South Creek
MODEL	Roof
DATE REV.	03/31/23
DRAWN BY	Curtis Quick
SALES REP.	Anthony Williams



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

Connector Information					Nail Information	
Sym	Product	Manuf	Qty	Supported Member	Header	Truss
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	HUS26	USP	2	Varies	16d/3-1/2"	16d/3-1/2"
8	THD28-2	USP	1	Varies	16d/3-1/2"	10d/3"

Beam Legend					
PlotID	Length	Product	Plies	Net Qty	Fab Type
GDH	23' 0"	1-3/4"x 11-7/8" LVL Kerto-S	2	2	FF

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

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3400	2	5100	2	6800	2
5100	3	7650	3	10200	3
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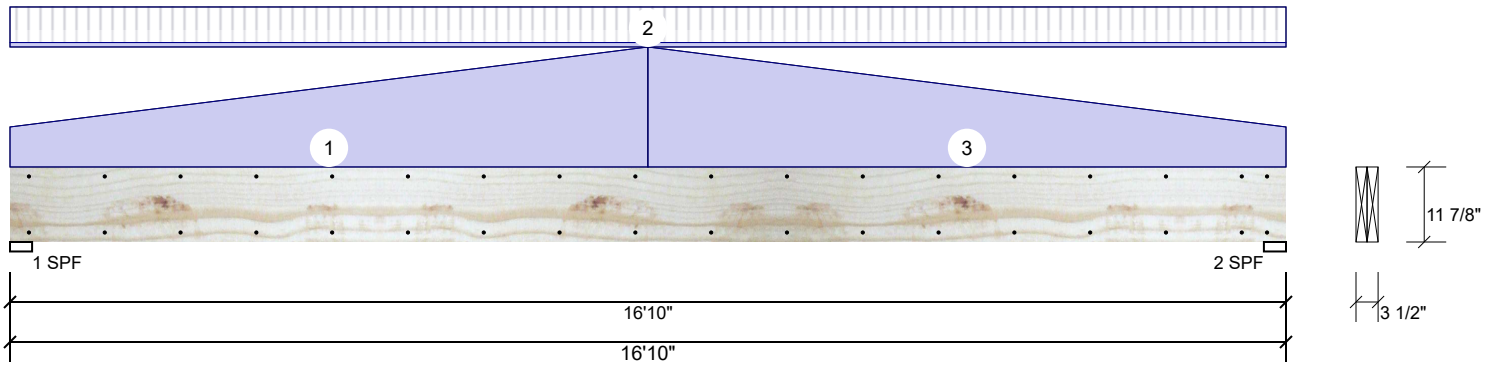
8500	5	12750	5	17000	5
10200	6	15300	6		
11900	7				
13600	8				
15300	9				

BUILDER	Watermark Homes
JOB NAME	Lot 104 South Creek
PLAN	The Eucalyptus
SEAL DATE	11/4/20
QUOTE #	Quote #
JOB #	J0323-1474
CITY / CO.	Lillington / Harnett
ADDRESS	Lot 104 South Creek
MODEL	Roof
DATE REV.	03/31/23
DRAWN BY	Curtis Quick
SALES REP.	Anthony Williams

Client:	Watermark Homes	Date:	3/31/2023
Project:		Input by:	Curtis Quick
Address:		Job Name:	The Eucalyptus Beams
		Project #:	

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 2012
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	337	877	0	0	0
2	Vertical	337	877	0	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	Vert	23%	877 / 337	1214	L	D+L
2 - SPF	3.500"	Vert	23%	877 / 337	1214	L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	5365 ft-lb	8'5"	19911 ft-lb	0.269 (27%)	D+L	L
Unbraced	5365 ft-lb	8'5"	6063 ft-lb	0.885 (88%)	D+L	L
Shear	1087 lb	15'6 5/8"	8867 lb	0.123 (12%)	D+L	L
LL Defl inch	0.070 (L/2809)	8'5 1/16"	0.409 (L/480)	0.171 (17%)	L	L
TL Defl inch	0.276 (L/712)	8'5 1/16"	0.546 (L/360)	0.506 (51%)	D+L	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	Tapered Start	0-0-0		Top	45 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Gable
	End	8-5-0			135 PLF	0 PLF	0 PLF	0 PLF	0 PLF	
2	Tie-In	0-0-0 to 16-10-0	1-0-0	Top	5 PSF	40 PSF	0 PSF	0 PSF	0 PSF	Roof
3	Tapered Start	8-5-0		Top	135 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Gable
	End	16-10-0			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

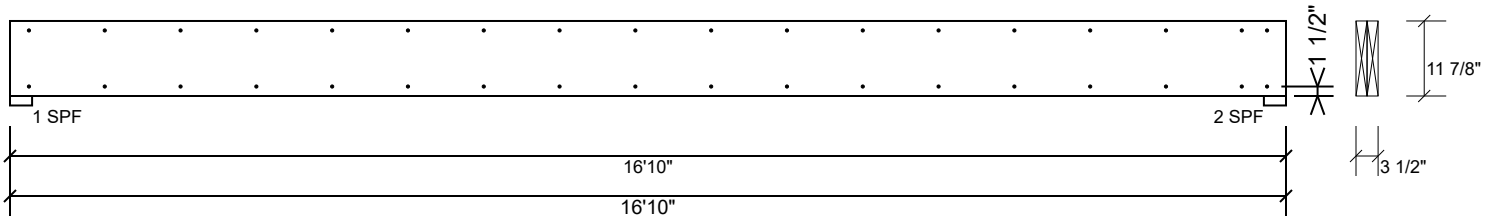
Metsä Wood
301 Merritt 7 Building, 2nd Floor
Norwalk, CT 06851
(800) 622-5850
www.metsawood.com/us

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

Client:	Watermark Homes	Date:	3/31/2023
Project:		Input by:	Curtis Quick
Address:		Job Name:	The Eucalyptus Beams
		Project #:	

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

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2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

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2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
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5. Provide lateral support at bearing points to avoid lateral displacement and rotation
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Manufacturer Info

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