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

10/01/2024

Harnett COUNTY NORTH CAROLINA

FRONT ELEVATION

Scale: 1/4" = 1'0"

9'0" CEILING HEIGHT FIRST FLOOR
(HEADER HEIGHT 7'6")
8'0" CEILING HEIGHT SECOND FLOOR
(Frame Headers to Top Plates)

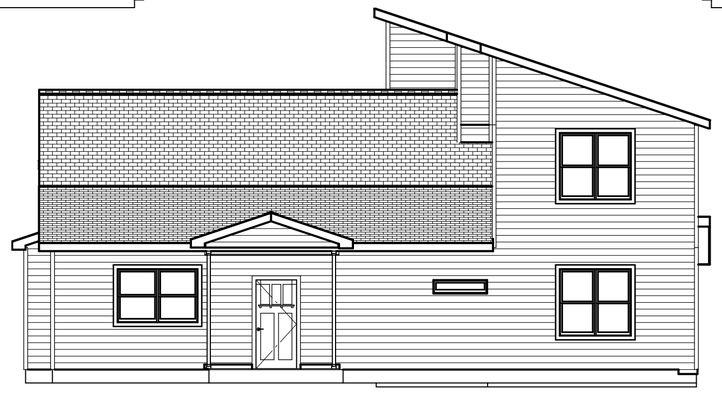
FRAME WINDOWS TO HEADER HEIGHT

LEFT ELEVATION

Scale: 1/8" = 1'0"

RIGHT ELEVATION

Scale: 1/8" = 1'0"



REAR ELEVATION

Scale: 1/8" = 1'0"

PLAN:
Hazlitt w/ Covered Porch

SHEET TITLE:
ELEVATIONS

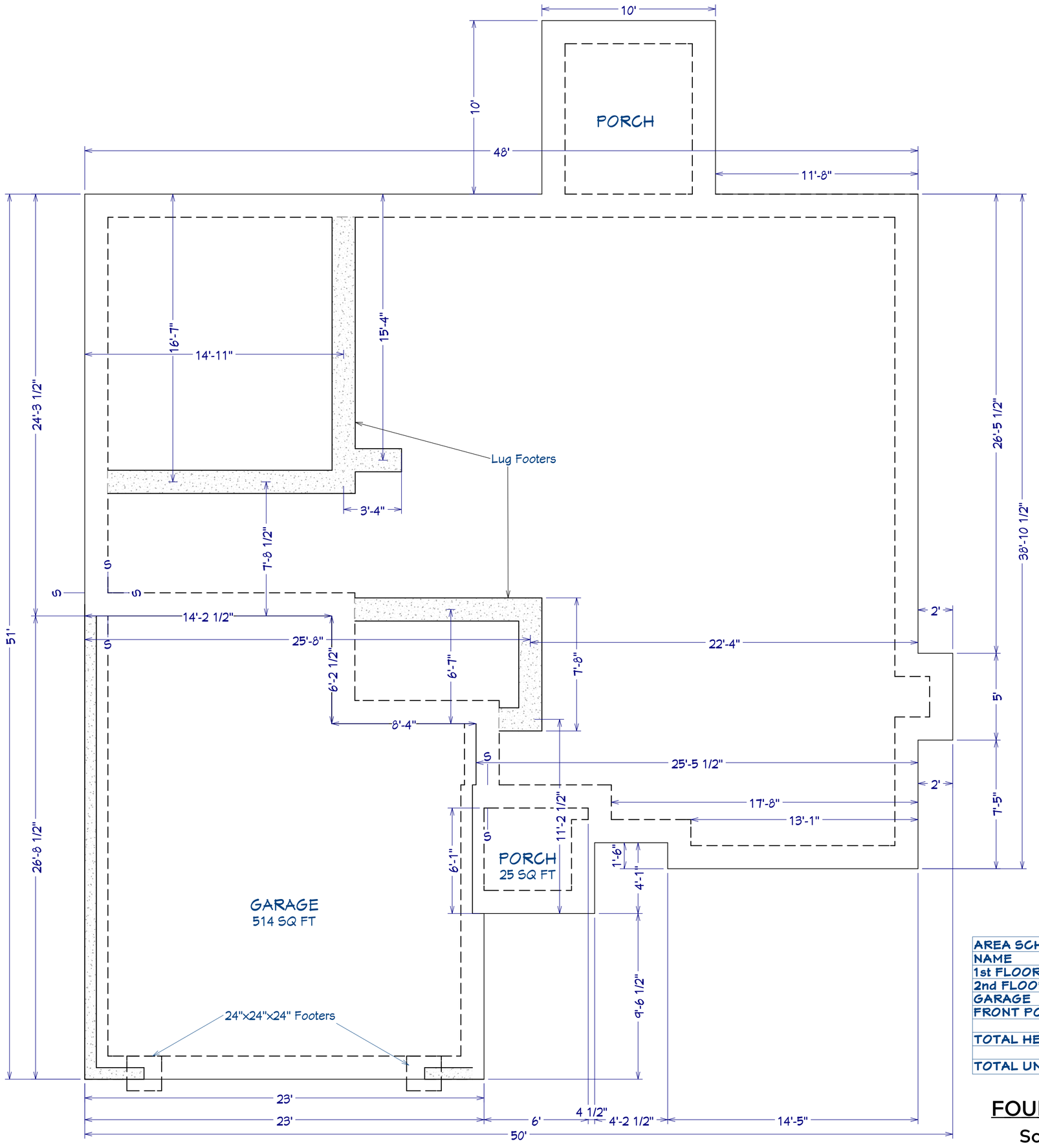
PROJECT ADDRESS:
Magnolia Hills Lot 8

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

DATE:
9/23/24

SCALE:
1/4" = 1'

SHEET:
A-1



AREA SCHEDULE	
NAME	AREA
1st FLOOR	1,564SF
2nd FLOOR	866 SF
GARAGE	560 SF
FRONT PORCH	39 SF
TOTAL HEATED	2,430 SF
TOTAL UNDER ROOF	3,029 SF

FOUNDATION PLAN

Scale: 1/4" = 1'0"

PLAN:
Hazlitt w/ Covered Porch

SHEET TITLE:
FOUNDATION

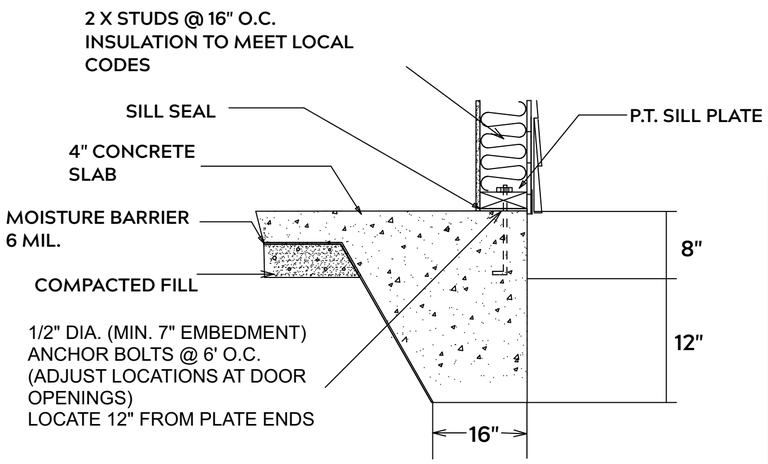
PROJECT ADDRESS:
Magnolia Hills Lot 8

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

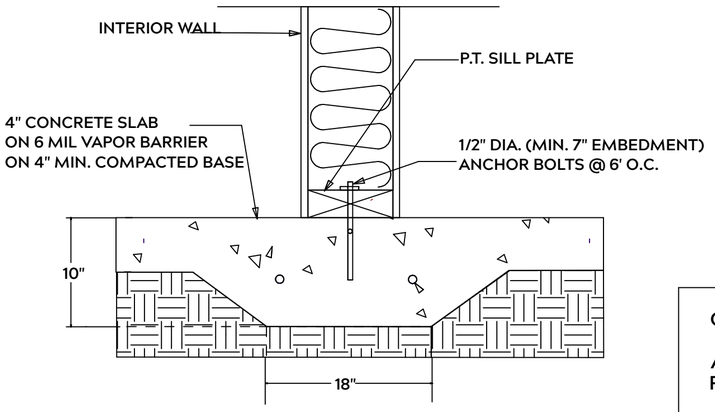
DATE:
9/23/24

SCALE:
1/4" = 1'

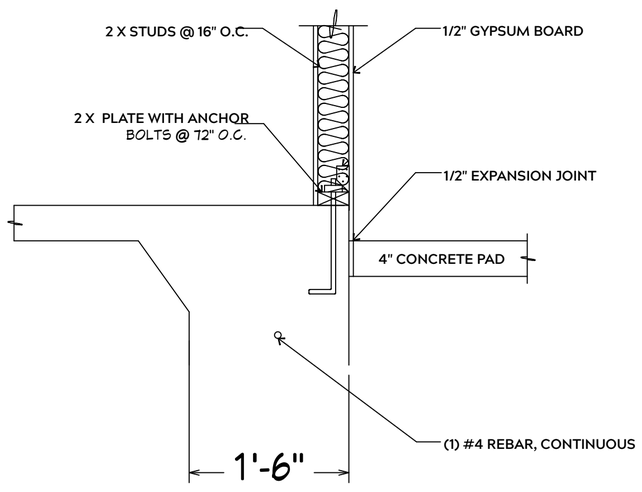
SHEET:
A-2



MONOLITHIC SLAB



LUG FOOTING



INTERIOR WALL @ GARAGE STEP DOWN

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

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.

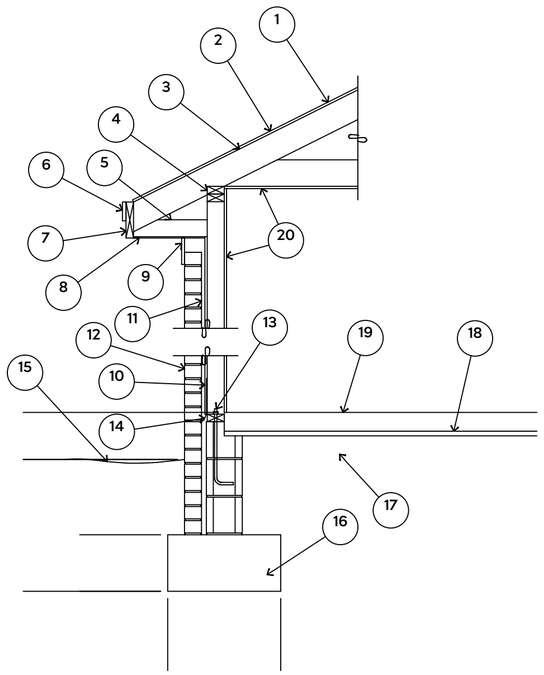
NAIL FLOOR JOISTS TO SILL PLATE WITH WITH 8d TOE NAILS

ALL EXPOSED FRAMING ON PORCHES OR DECKS SHALL BE PRESSURE TREATED

PROVIDE WATERPROOFING AND DRAINS AS REQUIRED

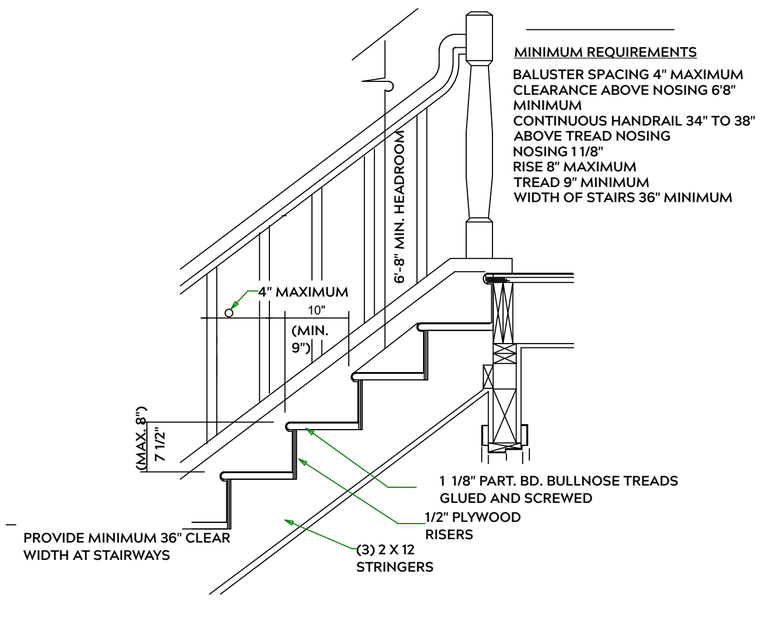
ALL FRAMING TO BE 16" O.C. WALL FRAMING DIMENSIONS ARE BASED ON 2X4 OR 2X6 EXTERIOR WALLS AND 2X4 INTERIOR WALLS. DOULBE / TRIPLE JACK STUDS AS NECESSARY UNDER HEADERS AS REQUIRED

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



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 FREIZE 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



STAIR DETAIL

PLAN: Hazlitt w/ Covered Porch

SHEET TITLE: DETAIL SHEETS

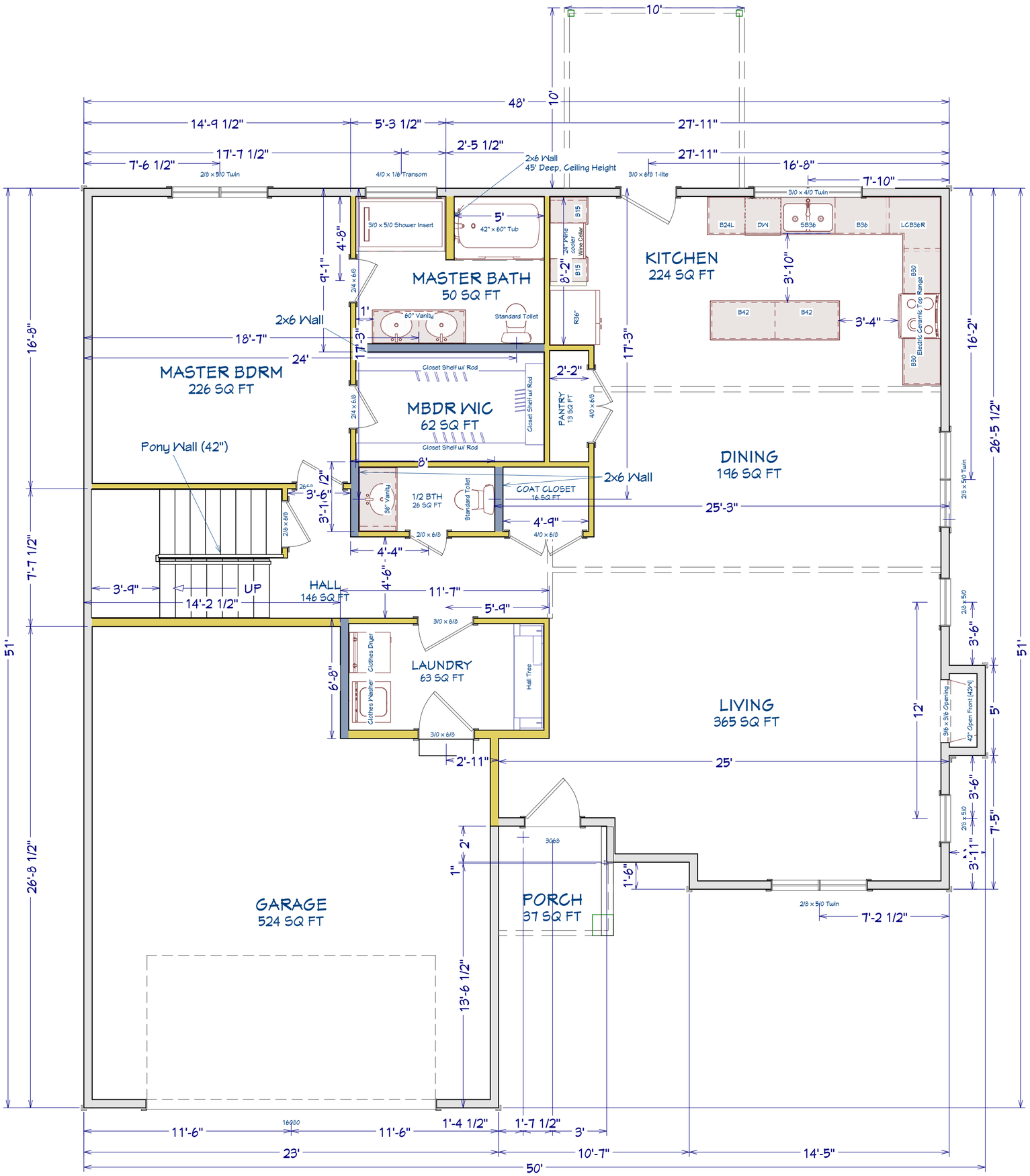
PROJECT ADDRESS: Magnolia Hills Lot 8

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

DATE: 9/23/24

SCALE: 1/4" = 1'

SHEET: A-3



AREA SCHEDULE	
NAME	AREA
1st FLOOR	1,564SF
2nd FLOOR	866 SF
GARAGE	560 SF
FRONT PORCH	39 SF
TOTAL HEATED	2,430 SF
TOTAL UNDER ROOF	3,029 SF

PLAN:
Hazlitt w/ Covered Porch

SHEET TITLE: 1st FLOOR

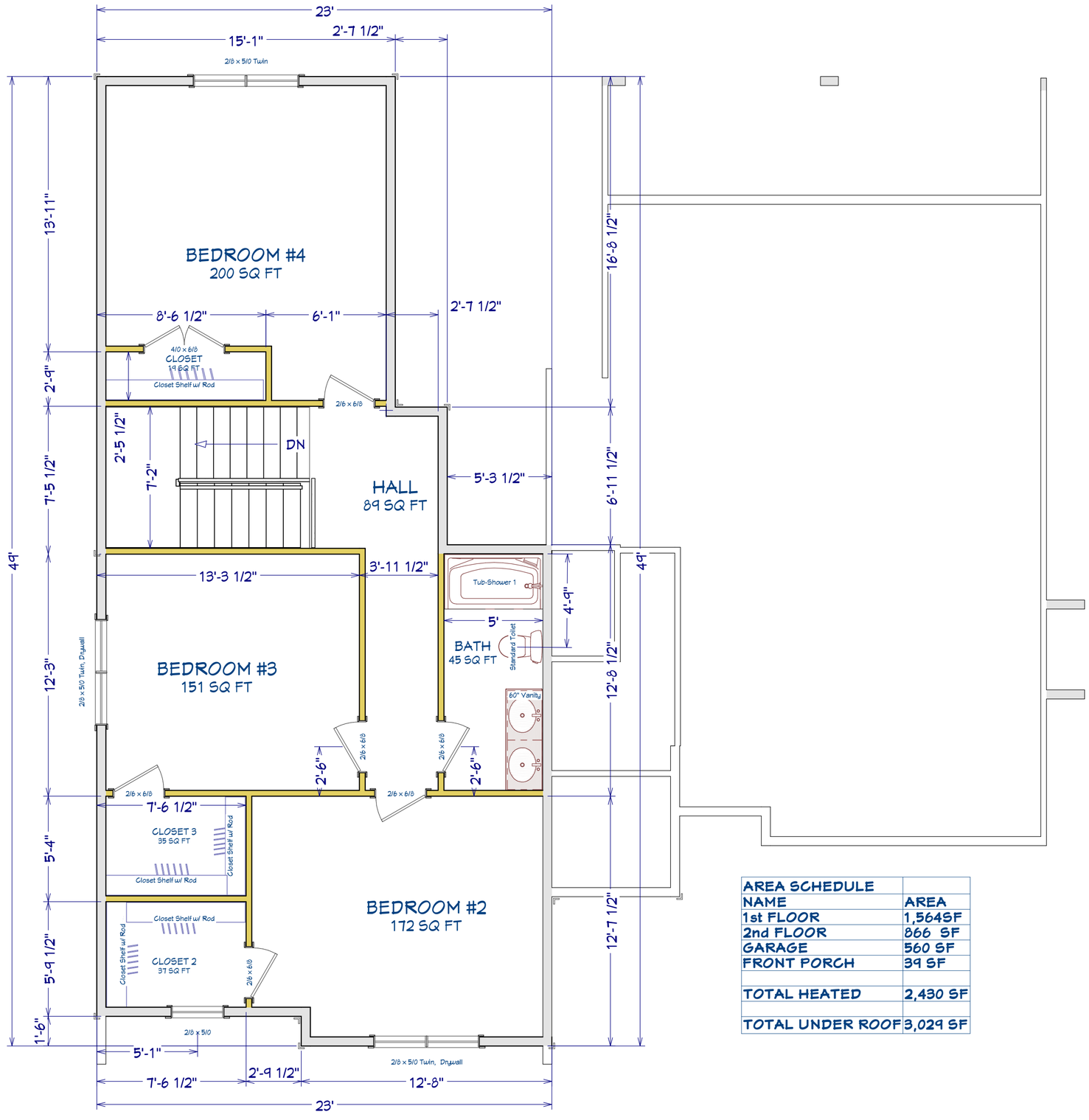
PROJECT ADDRESS:
Magnolia Hills Lot 8

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

DATE:
9/23/24

SCALE:
1/4" = 1'

SHEET:
A-4



AREA SCHEDULE	
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GARAGE	560 SF
FRONT PORCH	39 SF
TOTAL HEATED	2,430 SF
TOTAL UNDER ROOF	3,029 SF

PLAN:
Hazlitt w/ Covered Porch

SHEET TITLE:
2nd FLOOR

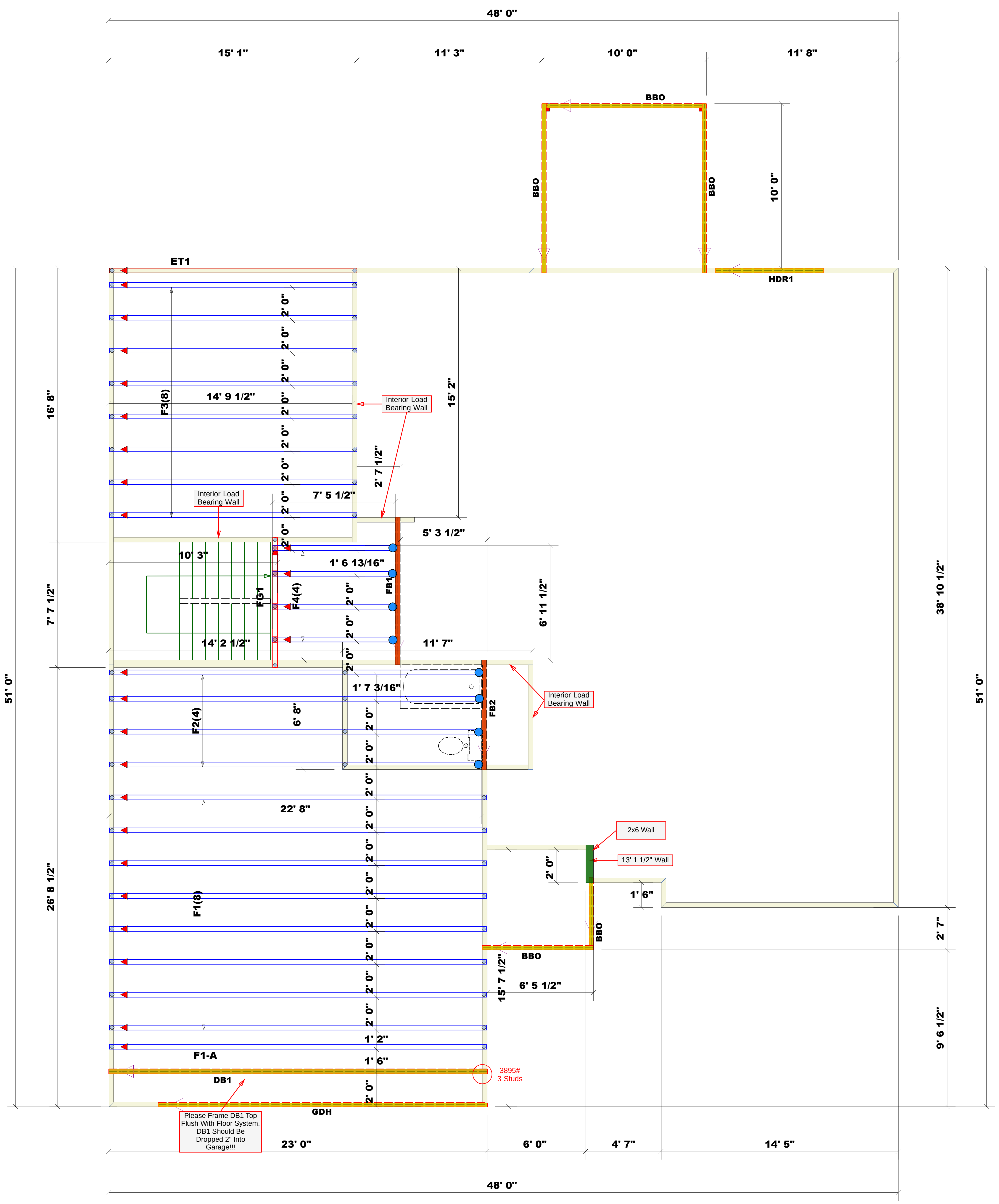
PROJECT ADDRESS:
Magnolia Hills Lot 8

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

DATE:
9/23/24

SCALE:
1/4" = 1'

SHEET:
A-5



Plumbing Drop Notes
1. Plumbing drop locations shown are NOT exact.
2. Contractor to verify ALL plumbing drop locations prior to setting Floor Trusses.
3. Adjust spacing as needed not to exceed 24"oc.

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	= 2909.26 sq.ft.
Ridge Line	= 49.21 ft.
Hip Line	= 0 ft.
Horiz. OH	= 261.17 ft.
Raked OH	= 155.99 ft.
Decking	= 100 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'

Hatch Legend
Padded HVAC
2nd Floor Walls @ 8' 1 1/2" UNO
Wall @ 13' 1 1/2"
Flush Beam
Drop Beam

Products

PlotID	Length	Product	Plies	Net Qty
HDR1	7' 0"	1-3/4"x 9-1/4" LVL Kerto-S	2	2
FB1	9' 0"	1-3/4"x 16" LVL Kerto-S	2	2
FB2	7' 0"	1-3/4"x 16" LVL Kerto-S	2	2
DB1	23' 0"	1-3/4"x 18" LVL Kerto-S	2	2
GDH	20' 0"	2x12 SP No.2	2	2

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

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

Connector Information					Nail Information	
Sym	Product	Manuf	Qty	Supported Member	Header	Truss
●	HUS410	USP	8	Varies	16d/3-1/2"	16d/3-1/2"
■	HUS26	USP	7	Varies	16d/3-1/2"	16d/3-1/2"

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#.

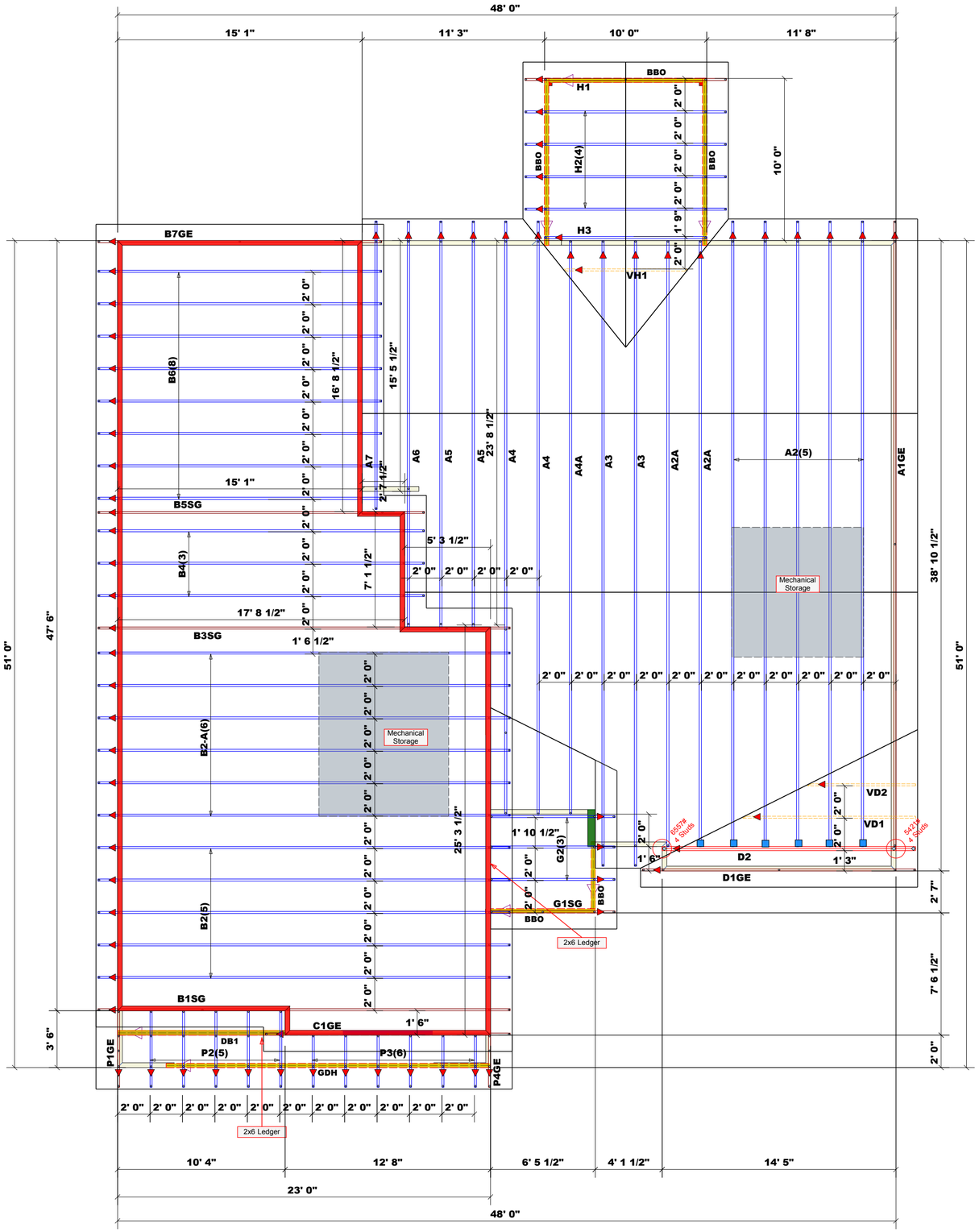
Signature________________
Neil Baggett

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 (2) 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	Precision Custom Homes	COUNTY	Harnett
JOB NAME	Lot 8 Magnolia Hills	ADDRESS	Lot 8 Magnolia Hills
PLAN	Hazlitt w/CP	MODEL	Floor
SEAL DATE	9/11/2024	DATE REV.	9/12/2024
QUOTE #	N/A	DRAWN BY	Neil Baggett
JOB #	J0724-4080	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 BCSI-B1 and BCSI-B3 provided with the truss delivery package or online @ sbcindustry.com



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Ridge Line = 49.21 ft.
Hip Line = 0 ft.
Horiz. OH = 261.17 ft.
Raked OH = 155.99 ft.
Decking = 100 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'

Hatch Legend
Padded HVAC
2nd Floor Walls @ 8' 1 1/2" UNO
Wall @ 13' 1 1/2"
Flush Beam
Drop Beam

Products				
PlotID	Length	Product	Plies	Net Qty
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FB1	9' 0"	1-3/4"x 16" LVL Kerto-S	2	2
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DB1	23' 0"	1-3/4"x 18" LVL Kerto-S	2	2
GDH	20' 0"	2x12 SP No.2	2	2

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

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Connector Information					Nail Information	
Sym	Product	Manuf	Qty	Supported Member	Header	Truss
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Signature_____
Neil Baggett

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

END REACTION (1P TO)	REQ'D # STUDS FOR (2) PLY HEADER	END REACTION (2P TO)	REQ'D # STUDS FOR (3) PLY HEADER	END REACTION (3P 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	Precision Custom Homes
JOB NAME	Lot 8 Magnolia Hills
PLAN	Hazlitt w/CP
SEAL DATE	9/11/2024
QUOTE #	N/A
JOB #	J0724-4079
COUNTY	Harnett
ADDRESS	Lot 8 Magnolia Hills
MODEL	Roof
DATE REV.	9/12/2024
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 BCSI-B1 and BCSI-B3 provided with the truss delivery package or online @ sbcindustry.com

ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: J0724-4079
Lot 8 Magnolia Hills

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Comtech, Inc - Fayetteville.

Pages or sheets covered by this seal: I68187592 thru I68187623

My license renewal date for the state of North Carolina is December 31, 2024.

North Carolina COA: C-0844

September 13,2024

Tony Miller

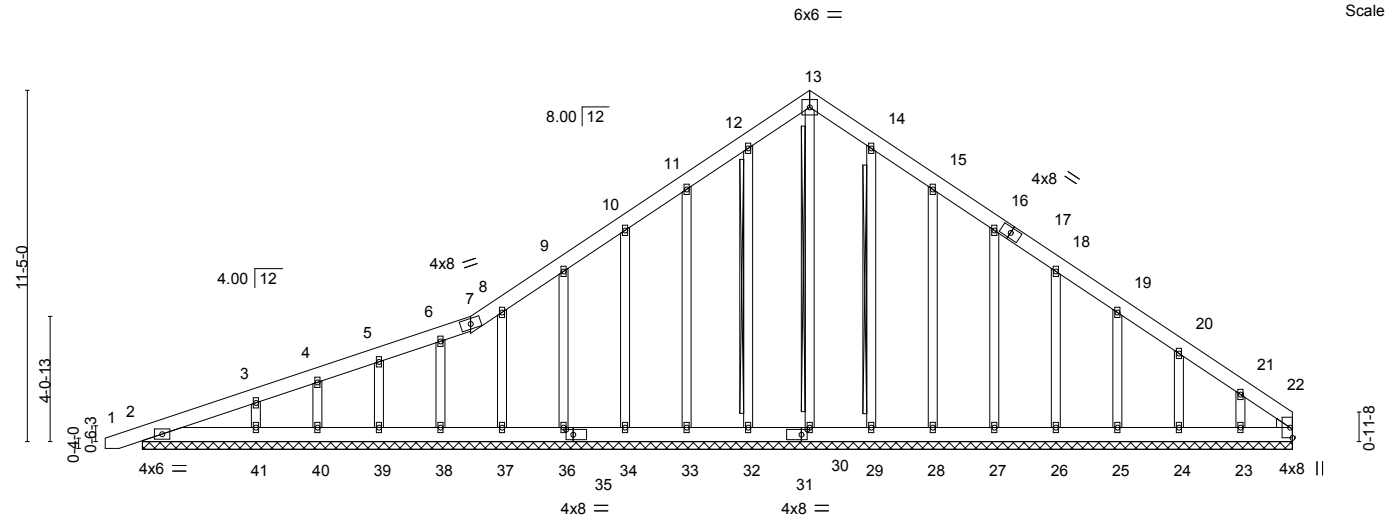
IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to MiTek or TRENCO. Any project specific information included is for MiTek's or TRENCO's customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek or TRENCO has not independently verified the applicability of the design parameters or the designs for any particular building. Before use, the building designer should verify applicability of design parameters and properly incorporate these designs into the overall building design per ANSI/TPI 1, Chapter 2.

Job	Truss	Truss Type	Qty	Ply	Lot 8 Magnolia Hills	I68187592
J0724-4079	A1GE	GABLE	1	1	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Jul 12 2024 MiTek Industries, Inc. Thu Sep 12 14:21:38 2024 Page 1
ID:6CKkadeNkqcH9TlGyVioiByMJNt-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

1-2-8 | 5-11-11 | 10-8-0 | 13-10-9 | 21-8-4 | 29-5-15 | 37-4-8
1-2-8 | 5-11-11 | 4-8-5 | 3-2-9 | 7-9-11 | 7-9-11 | 7-10-9

Scale = 1:74.9



5-11-11 | 16-5-13 | 26-10-11 | 37-4-8
5-11-11 | 10-6-2 | 10-4-14 | 10-5-13

Plate Offsets (X,Y)-- [31:0-2-4,0-2-0], [35:0-2-12,0-2-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	-0.00	1	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	0.00	1	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.18	Horz(CT)	0.01	22	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 323 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
OTHERS 2x4 SP No.2
WEDGE
Right: 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS T-Brace: 2x4 SPF No.2 - 13-30, 12-32, 14-29
Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c.,with 3in minimum end distance.
Brace must cover 90% of web length.

REACTIONS. All bearings 37-4-8.
(lb) - Max Horz 2=354(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 22, 2, 32, 33, 34, 36, 37, 38, 39, 40, 41, 29, 27, 26, 25, 24 except 28=-103(LC 13), 23=-152(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 22, 2, 30, 32, 33, 34, 36, 37, 38, 39, 40, 29, 28, 27, 26, 25, 24, 23 except 41=281(LC 23)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-301/98, 11-12=-223/268, 12-13=-257/295, 13-14=-257/295, 14-15=-223/250, 21-22=-294/193

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 22, 2, 32, 33, 34, 36, 37, 38, 39, 40, 41, 29, 27, 26, 25, 24 except (jt=lb) 28=103, 23=152.
10) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

September 13,2024

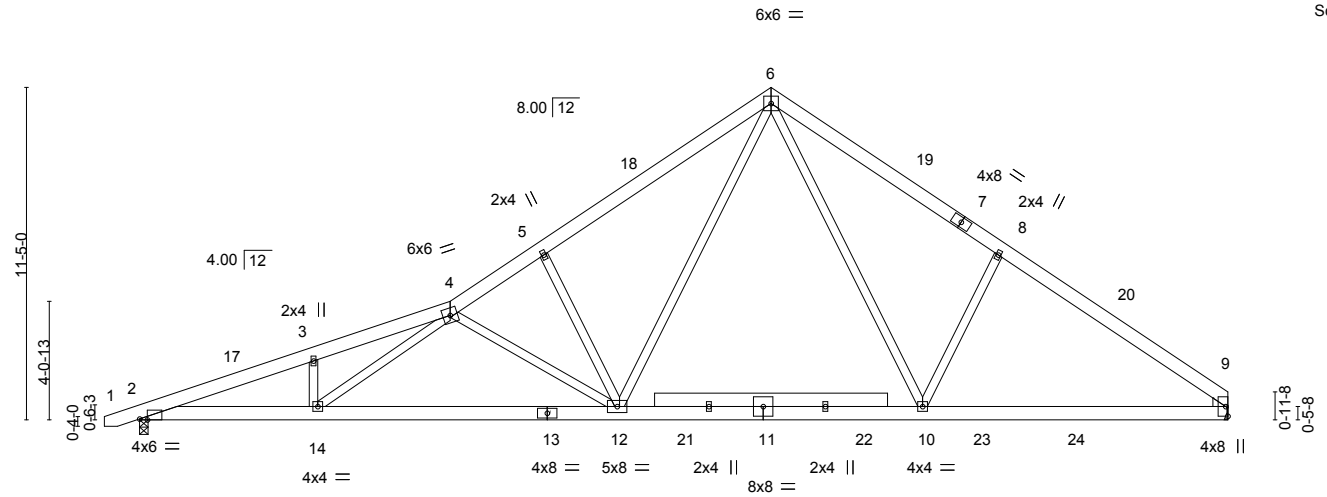
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 8 Magnolia Hills
J0724-4079	A2	ROOF SPECIAL	5	1	I68187593
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Jul 12 2024 MiTek Industries, Inc. Thu Sep 12 14:21:39 2024 Page 1
ID:6CKkadeNkqcH9TlGyVioiByMJNt-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

1-2-8	5-11-11	10-8-0	13-10-9	21-8-4	29-5-15	37-4-8
1-2-8	5-11-11	4-8-5	3-2-9	7-9-11	7-9-11	7-10-9

Scale = 1:79.1



5-11-11	10-8-0	16-5-13	21-8-4	26-10-11	37-4-8
5-11-11	4-8-5	5-9-13	5-2-7	5-2-7	10-5-13

Plate Offsets (X,Y)-- [2:0-3-3,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.42	Vert(LL)	-0.24	10-12	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.38	10-12	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.97	Horz(CT)	0.08	9	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.11	12-14	>999	240	Weight: 285 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2
WEDGE
Right: 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-9-5 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 9=Mechanical, 2=0-3-8
Max Horz 2=272(LC 9)
Max Uplift 9=-66(LC 13), 2=-117(LC 12)
Max Grav 9=1640(LC 20), 2=1555(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3863/666, 3-4=-3820/738, 4-5=-2499/507, 5-6=-2467/599, 6-8=-2219/546, 8-9=-2359/444
BOT CHORD 2-14=-563/3589, 12-14=-480/3136, 10-12=-27/1397, 9-10=-228/1825
WEBS 6-10=-162/976, 8-10=-472/306, 3-14=-262/172, 4-14=-105/691, 6-12=-286/1481, 5-12=-459/276, 4-12=-1250/271

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-11-13 to 3-5-0, Interior(1) 3-5-0 to 21-8-4, Exterior(2) 21-8-4 to 26-1-1, Interior(1) 26-1-1 to 37-3-12 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9 except (jt=lb) 2=117.

September 13,2024

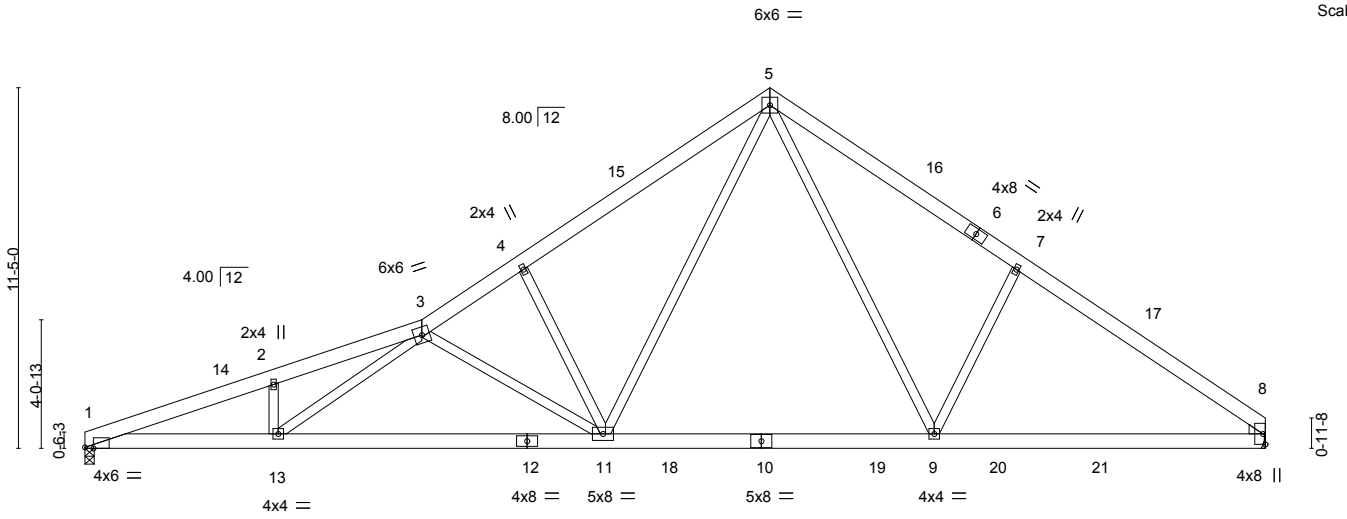
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 8 Magnolia Hills
J0724-4079	A2A	ROOF SPECIAL	2	1	I68187594
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Jul 12 2024 MiTek Industries, Inc. Thu Sep 12 14:21:40 2024 Page 1
ID:6CKkadeNkqcH9TlGyVioiByMJNt-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

5-11-11	10-8-0	13-10-9	21-8-4	29-5-15	37-4-8
5-11-11	4-8-5	3-2-9	7-9-11	7-9-11	7-10-9

Scale = 1:73.0



5-11-11	10-8-0	16-5-13	21-8-4	26-10-11	37-4-8
5-11-11	4-8-5	5-9-13	5-2-7	5-2-7	10-5-13

Plate Offsets (X,Y)-- [1:0-3-3,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.43	Vert(LL)	-0.25	9-11	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.61	Vert(CT)	-0.39	9-11	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.98	Horz(CT)	0.08	8	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S		Wind(LL)	0.12	11-13	>999	240	Weight: 263 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2
WEDGE
Right: 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-8-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 9-10-8 oc bracing.

REACTIONS. (size) 1=0-3-8, 8=Mechanical
Max Horz 1=267(LC 9)
Max Uplift 1=-101(LC 12), 8=-66(LC 13)
Max Grav 1=1487(LC 1), 8=1652(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-3870/721, 2-3=-3842/802, 3-4=-2526/518, 4-5=-2495/611, 5-7=-2242/547, 7-8=-2381/445
BOT CHORD 1-13=-622/3609, 11-13=-504/3166, 9-11=-31/1411, 8-9=-233/1843
WEBS 5-9=-162/988, 7-9=-471/305, 2-13=-272/198, 3-13=-150/708, 5-11=-288/1500, 4-11=-459/276, 3-11=-1255/287

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-1-12 to 4-6-9, Interior(1) 4-6-9 to 21-8-4, Exterior(2) 21-8-4 to 26-1-1, Interior(1) 26-1-1 to 37-3-12 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8 except (jt=lb) 1=101.

September 13,2024

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 8 Magnolia Hills
J0724-4079	A3	ROOF SPECIAL	2	1	I68187595
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Jul 12 2024 MiTek Industries, Inc. Thu Sep 12 14:21:40 2024 Page 1
ID:6CKkadeNkqcH9TlGyVioiByMJNt-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

5-11-11	10-8-0	13-10-9	21-8-4	29-5-15	37-4-8	38-7-0
5-11-11	4-8-5	3-2-9	7-9-11	7-9-11	7-10-9	1-2-8

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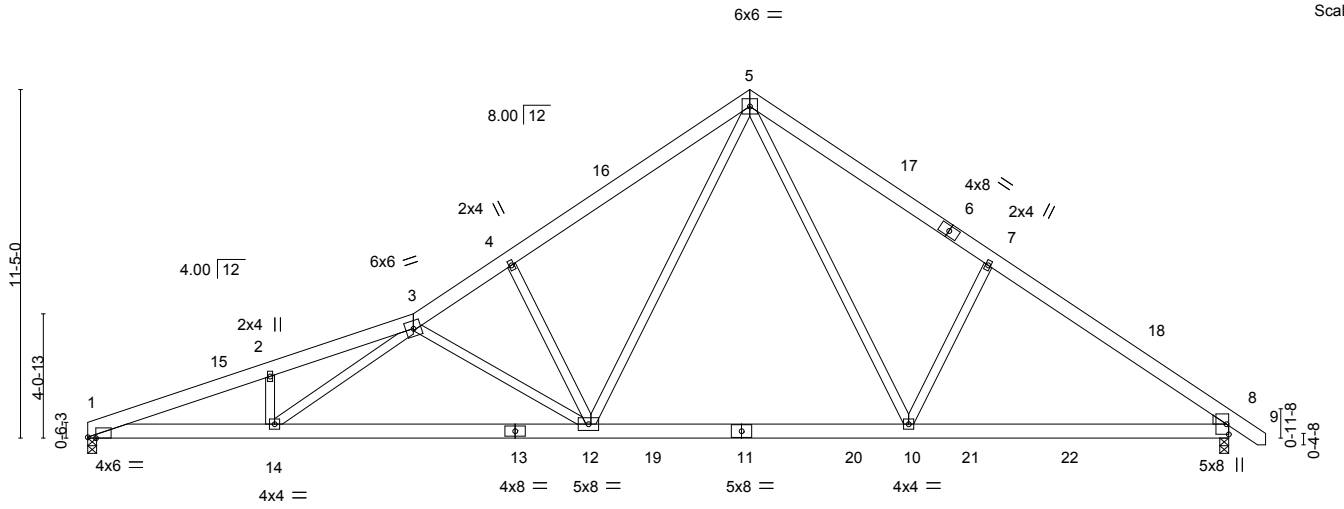


5-11-11	10-8-0	16-5-13	21-8-4	26-10-11	37-4-8
5-11-11	4-8-5	5-9-13	5-2-7	5-2-7	10-5-13

Plate Offsets (X,Y)-- [1:0-3-3,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.45	Vert(LL)	-0.25	10-12	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.61	Vert(CT)	-0.39	10-12	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.97	Horz(CT)	0.08	8	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.11	12-14	>999	240	Weight: 266 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2
WEDGE
Right: 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-9-1 oc purlins.
BOT CHORD Rigid ceiling directly applied or 9-11-9 oc bracing.

REACTIONS. (size) 1=0-3-8, 8=0-3-8
Max Horz 1=269(LC 11)
Max Uplift 1=-101(LC 12), 8=-82(LC 13)
Max Grav 1=1482(LC 1), 8=1719(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-3857/719, 2-3=-3829/799, 3-4=-2514/515, 4-5=-2483/608, 5-7=-2218/529, 7-8=-2359/430
BOT CHORD 1-14=-612/3597, 12-14=-493/3157, 10-12=-22/1406, 8-10=-218/1814
WEBS 5-10=-157/965, 7-10=-458/297, 2-14=-272/198, 3-14=-150/708, 5-12=-285/1498, 4-12=-459/275, 3-12=-1252/286

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-1-12 to 4-6-9, Interior(1) 4-6-9 to 21-8-4, Exterior(2) 21-8-4 to 26-1-1, Interior(1) 26-1-1 to 38-5-7 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8 except (jt=lb) 1=101.

September 13,2024

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 8 Magnolia Hills
J0724-4079	A4	ROOF SPECIAL	2	1	I68187596
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Jul 12 2024 MiTek Industries, Inc. Thu Sep 12 14:21:41 2024 Page 1
ID:6CKkadeNkqcH9TlGyVioiByMJNt-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

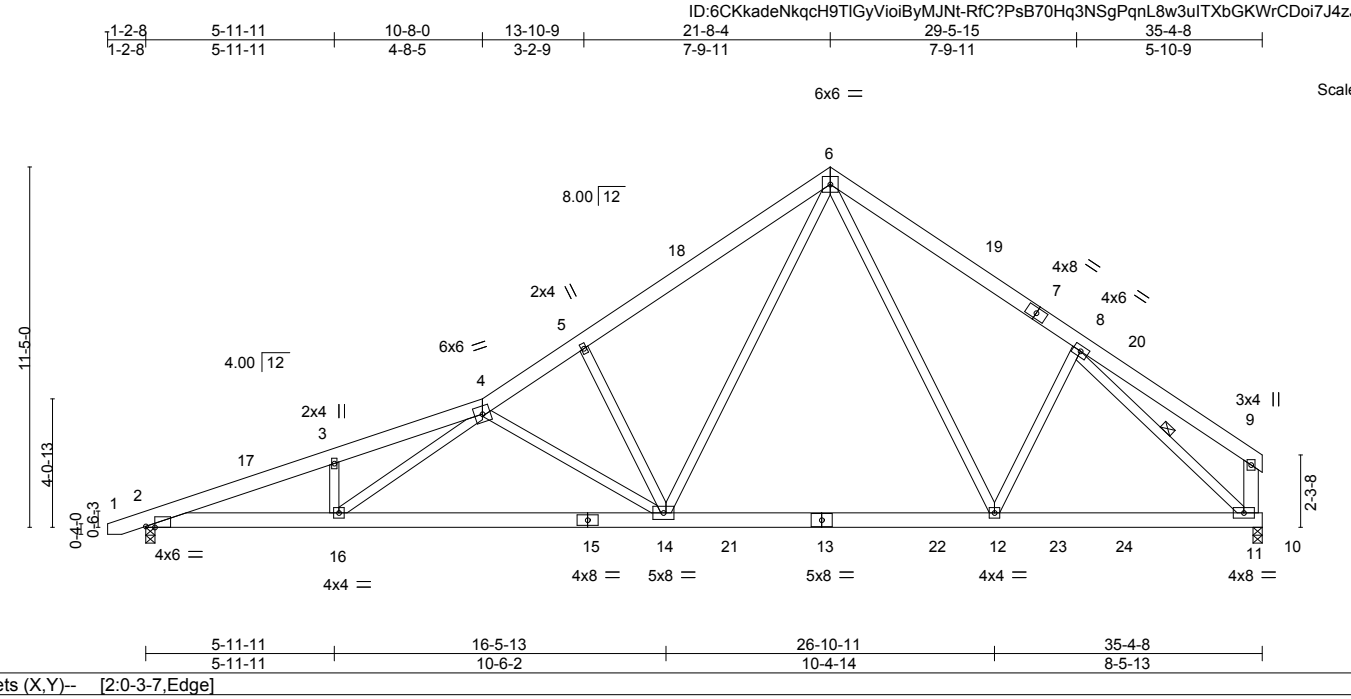


Plate Offsets (X,Y)-- [2:0-3-7,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	-0.24	12-14	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.37	12-14	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.91	Horz(CT)	0.06	11	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.10	14-16	>999	240	Weight: 270 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2 *Except*
9-11: 2x6 SP No.1

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-11-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 9-11-12 oc bracing.
WEBS 1 Row at midpt 8-11

REACTIONS. (size) 11=0-3-8, 2=0-3-8
Max Horz 2=298(LC 9)
Max Uplift 11=-48(LC 13), 2=-115(LC 12)
Max Grav 11=1529(LC 20), 2=1464(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3591/622, 3-4=-3550/693, 4-5=-2250/465, 5-6=-2220/557, 6-8=-1733/457, 8-9=-259/121, 9-11=-253/104
BOT CHORD 2-16=-611/3333, 14-16=-540/2863, 12-14=-109/1200, 11-12=-236/1284
WEBS 6-12=-93/525, 3-16=-267/173, 4-16=-109/697, 6-14=-273/1462, 5-14=-452/273, 8-11=-1687/294, 4-14=-1176/259

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-11-13 to 3-5-0, Interior(1) 3-5-0 to 21-8-4, Exterior(2) 21-8-4 to 26-1-1, Interior(1) 26-1-1 to 35-0-4 zone; end vertical right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11 except (jt=lb) 2=115.

September 13,2024

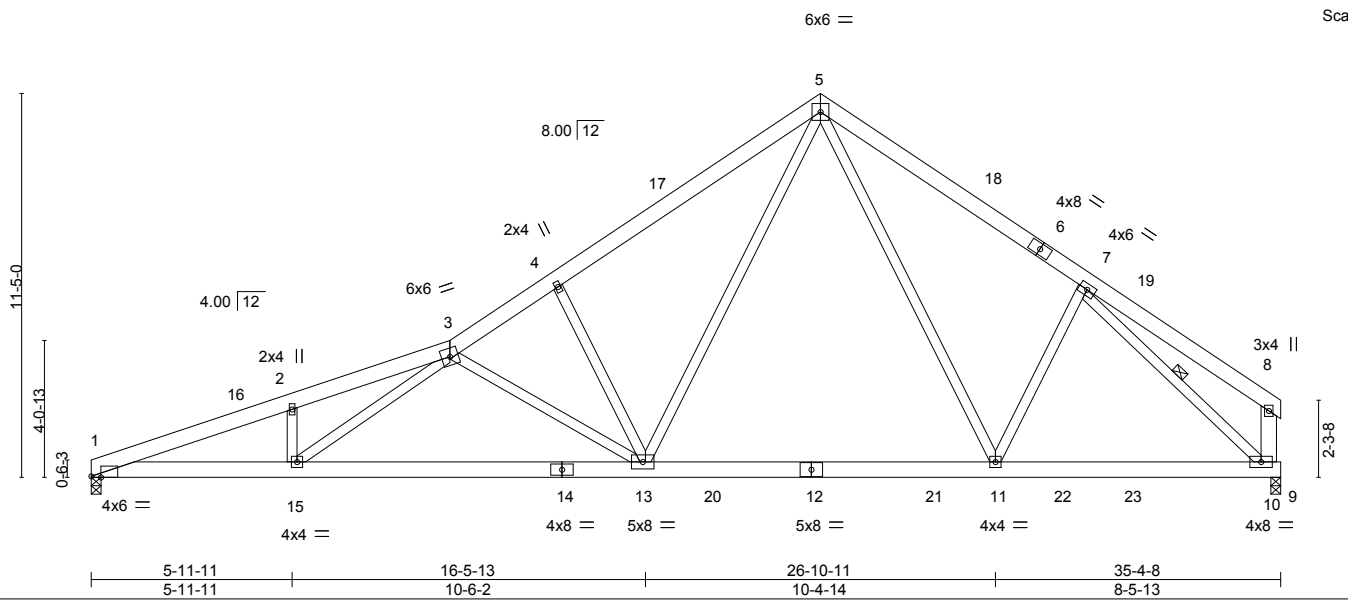
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 8 Magnolia Hills
J0724-4079	A4A	ROOF SPECIAL	1	1	I68187597
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Jul 12 2024 MiTek Industries, Inc. Thu Sep 12 14:21:41 2024 Page 1
ID:6CKkadeNkqcH9TlGyVioiByMJNt-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

5-11-11	10-8-0	13-10-9	21-8-4	29-5-15	35-4-8
5-11-11	4-8-5	3-2-9	7-9-11	7-9-11	5-10-9

Scale = 1:68.5



5-11-11	16-5-13	26-10-11	35-4-8
5-11-11	10-6-2	10-4-14	8-5-13

Plate Offsets (X,Y)-- [1:0-3-7,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	-0.24	11-13	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.37	11-13	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.92	Horz(CT)	0.06	10	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.10	13-15	>999	240	Weight: 267 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2 *Except*
8-10: 2x6 SP No.1

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-10-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 9-11-1 oc bracing.
WEBS 1 Row at midpt 7-10

REACTIONS. (size) 1=0-3-8, 10=0-3-8
Max Horz 1=293(LC 9)
Max Uplift 1=-99(LC 12), 10=-48(LC 13)
Max Grav 1=1395(LC 1), 10=1529(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-3598/676, 2-3=-3581/756, 3-4=-2253/475, 4-5=-2222/567, 5-7=-1734/457, 7-8=-259/121, 8-10=-253/104
BOT CHORD 1-15=-618/3353, 13-15=-542/2866, 11-13=-109/1201, 10-11=-236/1285
WEBS 5-11=-92/525, 2-15=-277/199, 3-15=-154/713, 5-13=-274/1464, 4-13=-452/273, 7-10=-1688/295, 3-13=-1181/275

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-1-12 to 4-6-9, Interior(1) 4-6-9 to 21-8-4, Exterior(2) 21-8-4 to 26-1-1, Interior(1) 26-1-1 to 35-0-4 zone; end vertical right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 10.

September 13,2024

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 8 Magnolia Hills
J0724-4079	A5	ROOF SPECIAL	2	1	I68187598
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Jul 12 2024 MiTek Industries, Inc. Thu Sep 12 14:21:42 2024 Page 1
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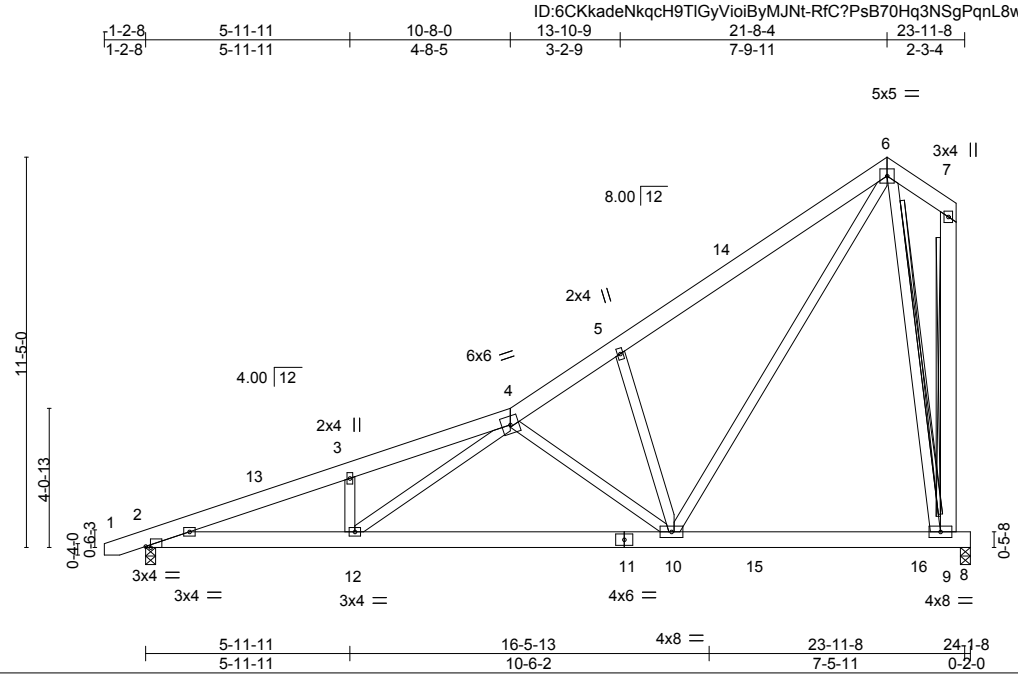

Plate Offsets (X,Y)-- [2:0-1-11,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.35	Vert(LL)	-0.14	9-10	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.42	Vert(CT)	-0.22	9-10	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.76	Horz(CT)	0.03	8	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.06	9-10	>999	240	Weight: 206 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2 *Except*
7-9: 2x6 SP No.1

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-0-2 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS T-Brace: 2x4 SPF No.2 - 6-9, 7-9
Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c.,with 3in minimum end distance. Brace must cover 90% of web length.

REACTIONS. (size) 8=0-3-8, 2=0-3-8
Max Horz 2=338(LC 12)
Max Uplift 8=-142(LC 12), 2=-46(LC 12)
Max Grav 8=1050(LC 19), 2=1022(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2278/165, 3-4=-2258/240, 4-5=-1093/63, 5-6=-1111/199
BOT CHORD 2-12=-460/2096, 10-12=-356/1526
WEBS 6-9=-884/325, 3-12=-296/184, 4-12=-139/720, 6-10=-276/1321, 5-10=-471/284, 4-10=-780/126

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-11-13 to 3-5-0, Interior(1) 3-5-0 to 21-8-4, Exterior(2) 21-8-4 to 23-5-12 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 8=142.
6) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

September 13,2024

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 8 Magnolia Hills
J0724-4079	A6	ROOF SPECIAL	1	1	I68187599
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Jul 12 2024 MiTek Industries, Inc. Thu Sep 12 14:21:42 2024 Page 1
ID:6CKkadeNkqcH9TlGyVioiByMJNt-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

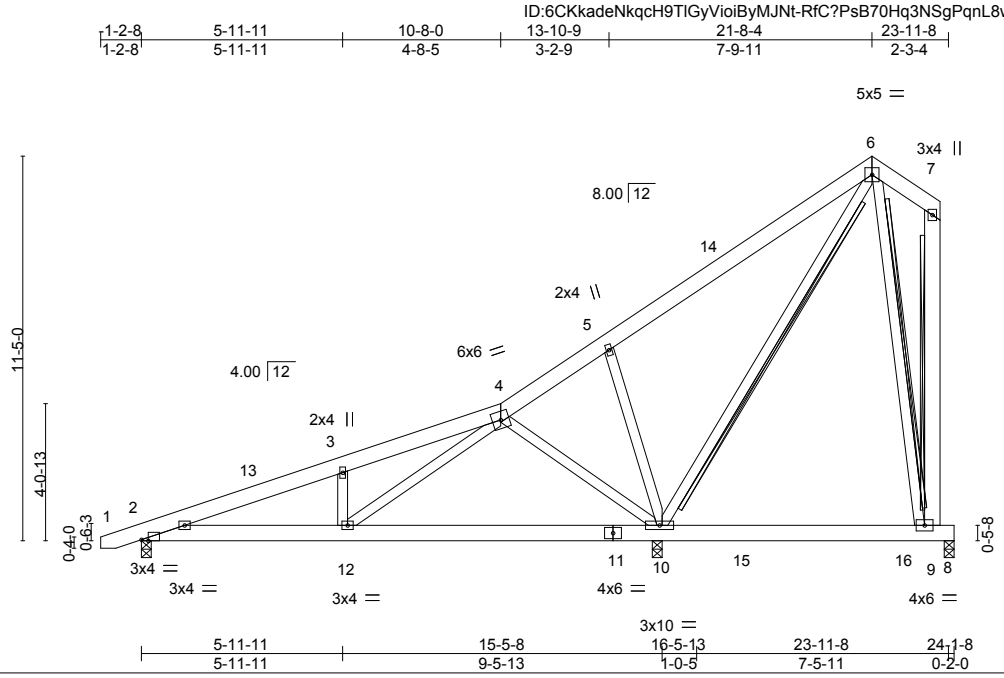

Plate Offsets (X,Y)-- [2:0-2-7,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	-0.09	9-10	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.30	Vert(CT)	-0.12	9-10	>888	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.53	Horz(CT)	0.01	8	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.02	12	>999	240	Weight: 206 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2 *Except*
7-9: 2x6 SP No.1

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS T-Brace: 2x4 SPF No.2 - 6-9, 6-10, 7-9
Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c.,with 3in minimum end distance. Brace must cover 90% of web length.

REACTIONS. (size) 8=0-3-8, 10=0-3-8, 2=0-3-8
Max Horz 2=338(LC 12)
Max Uplift 8=-53(LC 12), 10=-139(LC 12), 2=-91(LC 8)
Max Grav 8=195(LC 19), 10=1343(LC 2), 2=551(LC 23)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-899/70, 3-4=-891/133, 4-5=-203/378, 5-6=-95/455
BOT CHORD 2-12=-227/797
WEBS 3-12=-334/191, 4-12=-155/811, 6-10=-601/64, 5-10=-475/285, 4-10=-398/91

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-11-13 to 3-5-0, Interior(1) 3-5-0 to 21-8-4, Exterior(2) 21-8-4 to 23-5-12 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 2 except (jt=lb) 10=139.
6) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

September 13,2024

ENGINEERING BY TRENCO A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 8 Magnolia Hills
J0724-4079	A7	ROOF SPECIAL	1	1	I68187600
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Jul 12 2024 MiTek Industries, Inc. Thu Sep 12 14:21:43 2024 Page 1
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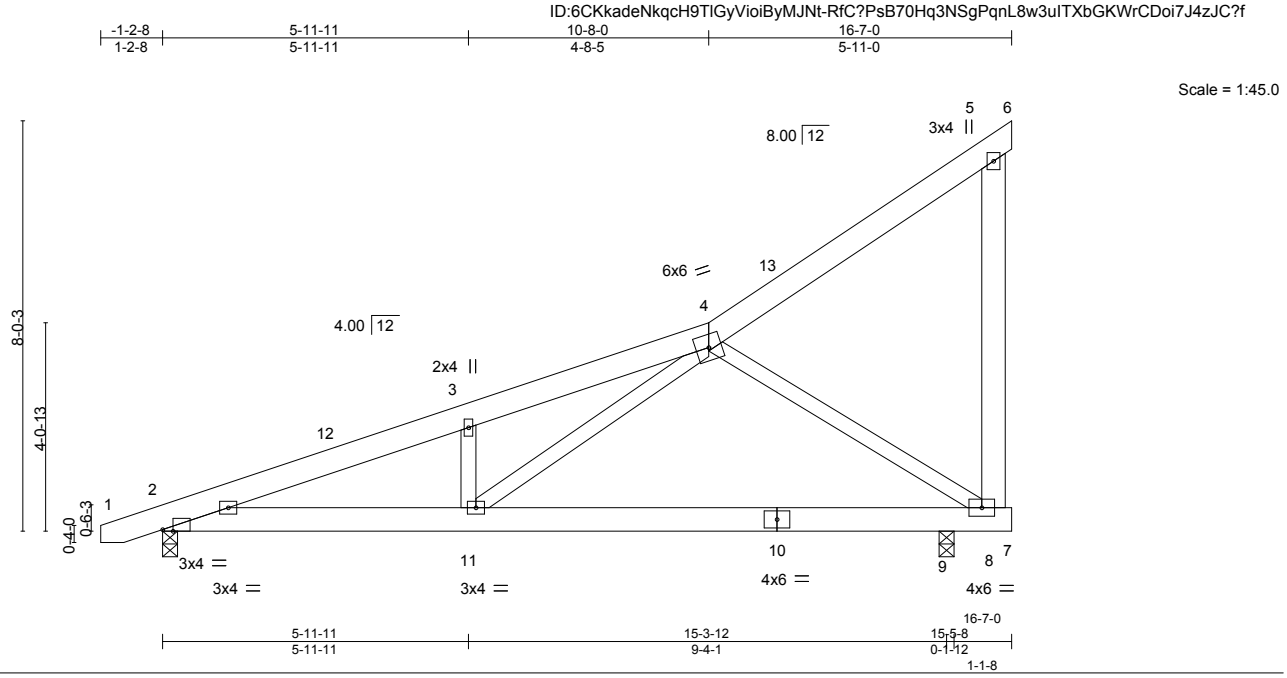

Plate Offsets (X,Y)-- [2:0-2-7,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.15	Vert(LL)	-0.05	9-11	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.34	Vert(CT)	-0.09	9-11	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.47	Horz(CT)	0.01	9	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.03	2-11	>999	240	Weight: 121 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2 *Except*
5-8: 2x6 SP No.1

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 9=0-3-8
Max Horz 2=251(LC 12)
Max Uplift 2=-74(LC 8), 9=-133(LC 12)
Max Grav 2=673(LC 1), 9=710(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1212/13, 3-4=-1196/77
BOT CHORD 2-11=-188/1092, 9-11=-146/547, 8-9=-146/547
WEBS 3-11=-307/180, 4-11=-71/687, 4-8=-665/187

NOTES-
1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-11-13 to 3-5-0, Interior(1) 3-5-0 to 16-7-0 zone; cantilever right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 9=133.

September 13,2024

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 8 Magnolia Hills
J0724-4079	B1SG	GABLE	1	1	I68187601
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Jul 12 2024 MiTek Industries, Inc. Thu Sep 12 14:21:43 2024 Page 1

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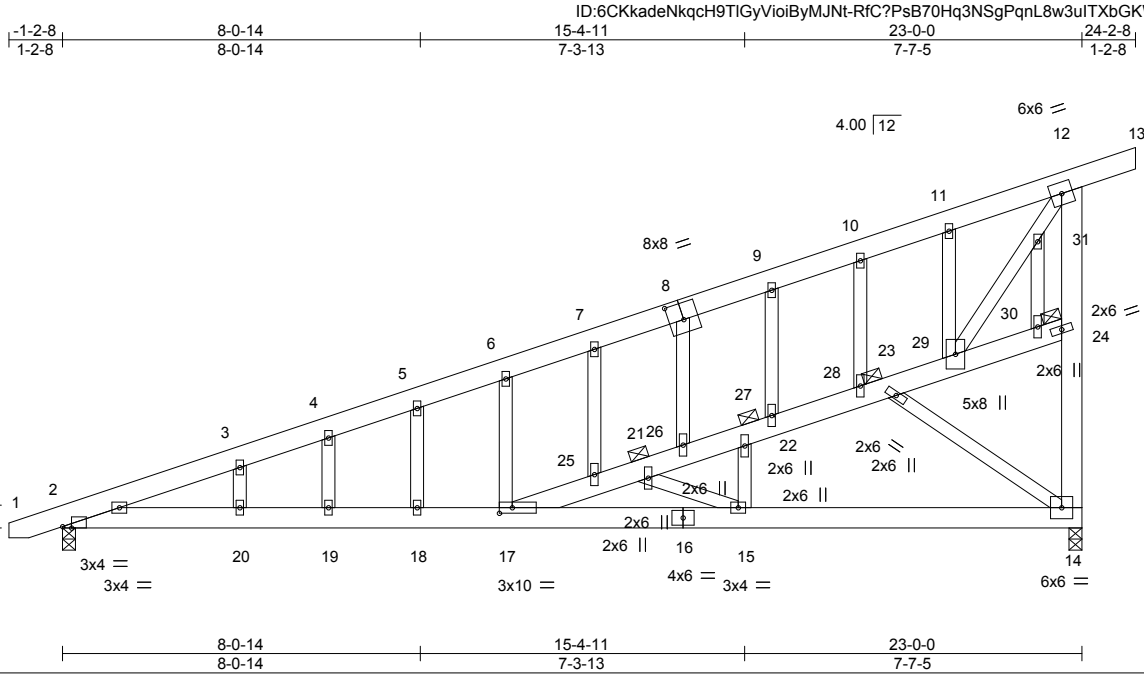

Plate Offsets (X,Y)-- [2:0-2-7,Edge], [8:0-4-0,0-4-8], [17:0-3-8,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.54	Vert(LL)	-0.20	18-19	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.50	Vert(CT)	-0.40	18-19	>678	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.89	Horz(CT)	0.01	14	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.26	18-19	>999	240	Weight: 220 lb	FT = 20%

LUMBER-

TOP CHORD	2x6 SP No.1
BOT CHORD	2x6 SP No.1
WEBS	2x4 SP No.2 *Except* 12-14,17-24: 2x6 SP No.1
OTHERS	2x4 SP No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 4-10-12 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
JOINTS	1 Brace at Jt(s): 21, 22, 23, 24

REACTIONS. (size) 14=0-3-8, 2=0-3-8
Max Horz 2=420(LC 9)
Max Uplift 14=-337(LC 12), 2=-280(LC 8)
Max Grav 14=992(LC 1), 2=972(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD	2-3=-1715/430, 3-4=-1650/468, 4-5=-1624/489, 5-6=-1606/517, 6-7=-1656/576, 7-8=-1674/614, 8-9=-1685/659, 9-10=-1607/670, 10-11=-1520/658, 11-12=-1728/785, 14-24=-1391/722, 12-24=-1494/820
BOT CHORD	2-20=-745/1548, 19-20=-745/1548, 18-19=-745/1548, 17-18=-745/1548, 14-15=-741/453
WEBS	15-21=-822/381, 15-22=-40/481, 14-23=-422/848, 17-25=-713/1630, 21-25=-735/1685, 21-26=-977/2304, 22-26=-1012/2356, 22-27=-1015/2484, 27-28=-1023/2441, 23-28=-1014/2393, 23-29=-842/1886, 6-17=-279/192, 11-29=-776/373, 29-31=-1287/2715, 12-31=-1201/2533

NOTES-

1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) All plates are 2x4 MT20 unless otherwise indicated.
4) Gable studs spaced at 2-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 14=337, 2=280.

September 13,2024

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 8 Magnolia Hills
J0724-4079	B2	MONOPITCH	5	1	I68187602
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Jul 12 2024 MiTek Industries, Inc. Thu Sep 12 14:21:44 2024 Page 1
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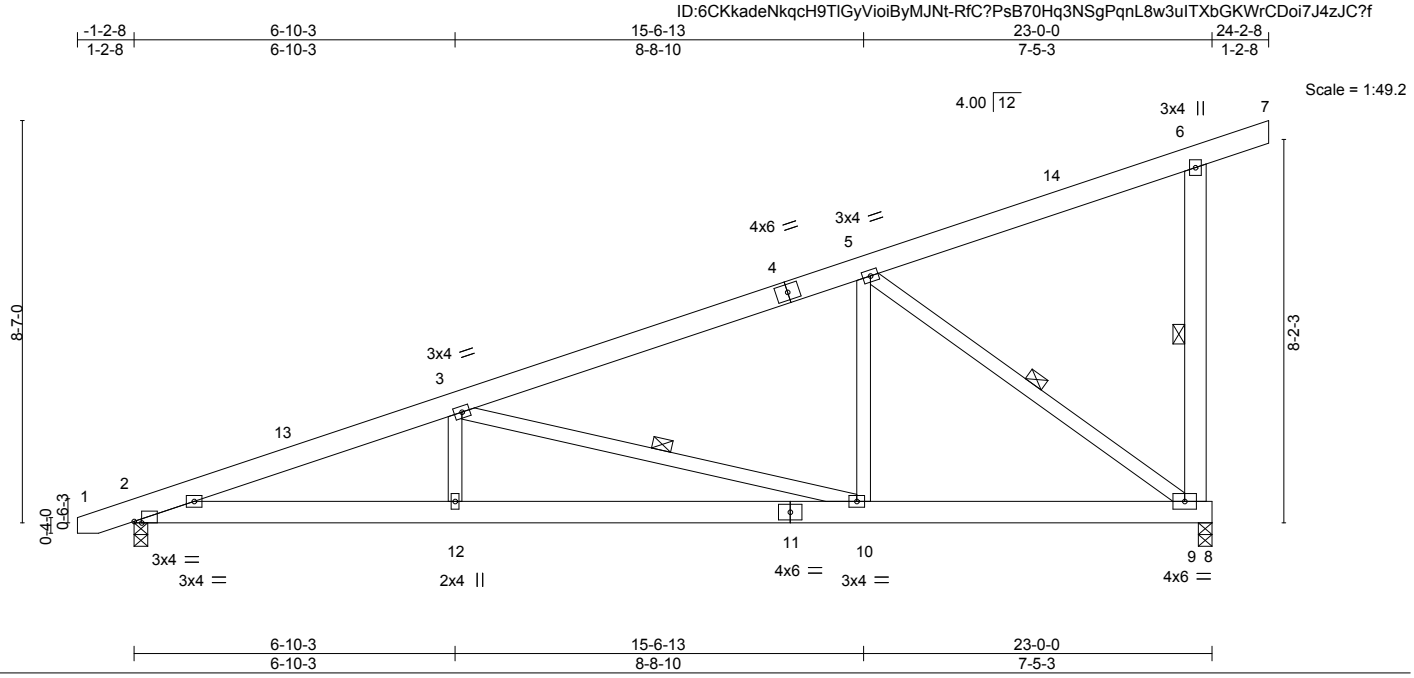

Plate Offsets (X,Y)-- [2:0-1-15,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.26	Vert(LL)	-0.06	10-12	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.31	Vert(CT)	-0.14	10-12	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.39	Horz(CT)	0.03	9	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.05	10-12	>999	240	Weight: 168 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2 *Except*
6-9: 2x6 SP No.1

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-3-2 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 6-9, 3-10, 5-9

REACTIONS. (size) 9=0-3-8, 2=0-3-8
Max Horz 2=318(LC 9)
Max Uplift 9=-138(LC 12), 2=-118(LC 8)
Max Grav 9=1002(LC 1), 2=966(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2096/317, 3-5=-1046/177, 6-9=-268/202
BOT CHORD 2-12=-505/1927, 10-12=-505/1927, 9-10=-286/918
WEBS 3-12=0/320, 3-10=-1044/248, 5-10=0/556, 5-9=-1125/246

NOTES-
1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-11-13 to 3-5-0, Interior(1) 3-5-0 to 24-2-8 zone; end vertical right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=138, 2=118.

September 13,2024

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 8 Magnolia Hills
J0724-4079	B2-A	MONOPITCH	6	1	I68187603
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Jul 12 2024 MiTek Industries, Inc. Thu Sep 12 14:21:44 2024 Page 1
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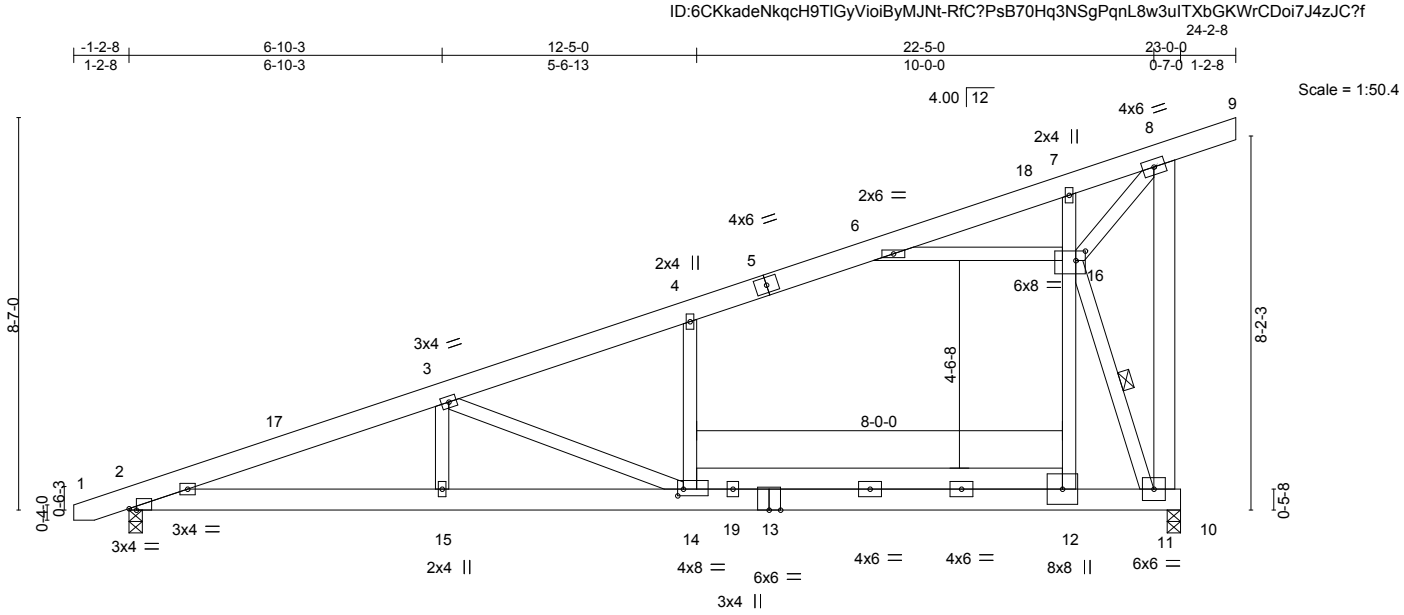


Plate Offsets (X,Y)-- [2:0-1-15,Edge], [14:0-1-8,0-1-12], [16:0-2-8,0-2-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.38	Vert(LL)	-0.24	14-15	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.47	14-15	>577	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.74	Horz(CT)	0.03	11	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.19	14-15	>999	240	Weight: 196 lb	FT = 20%

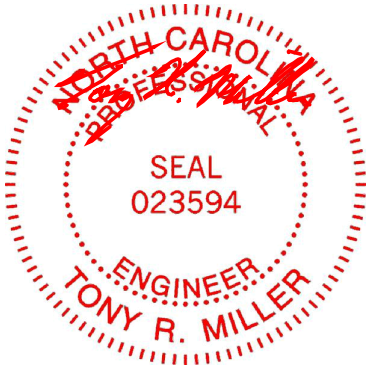
LUMBER-
TOP CHORD 2x6 SP 2400F 2.0E
BOT CHORD 2x6 SP 2400F 2.0E *Except*
12-14: 2x6 SP No.1
WEBS 2x4 SP No.2 *Except*
8-11: 2x6 SP No.1

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 11-16

REACTIONS. (size) 11=0-3-8, 2=0-3-8
Max Horz 2=318(LC 9)
Max Uplift 11=-138(LC 12), 2=-118(LC 8)
Max Grav 11=1122(LC 2), 2=966(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2182/334, 3-4=-1109/158, 4-6=-912/189, 6-7=-444/993, 7-8=-381/1005, 8-11=-132/670
BOT CHORD 2-15=-521/2021, 14-15=-521/2021, 12-14=-289/926, 11-12=-278/897
WEBS 3-15=0/403, 3-14=-1269/277, 4-14=0/363, 12-16=-104/1089, 6-16=-1846/463, 11-16=-2481/534, 8-16=-1481/434

NOTES-
1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-11-13 to 3-5-0, Interior(1) 3-5-0 to 24-2-8 zone; end vertical right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=138, 2=118.



September 13,2024

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 8 Magnolia Hills	I68187604
J0724-4079	B3SG	GABLE	1	1	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Jul 12 2024 MiTek Industries, Inc. Thu Sep 12 14:21:45 2024 Page 1
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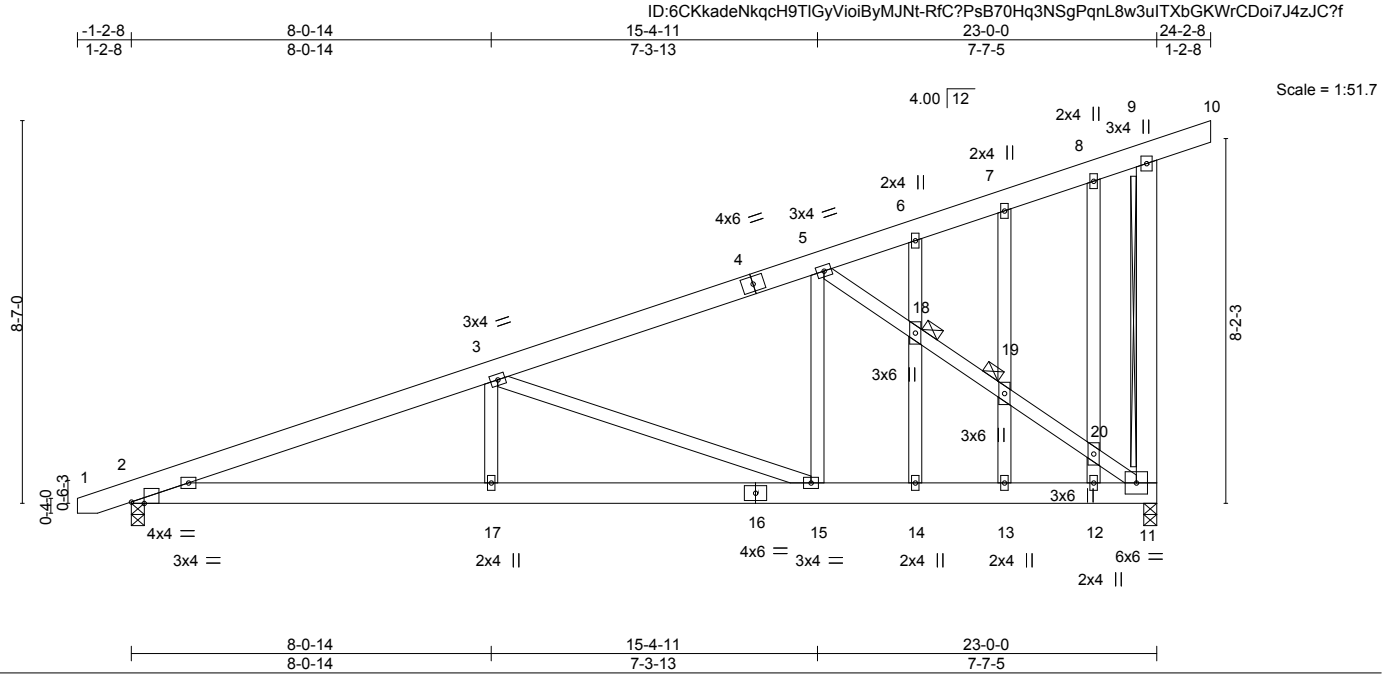

Plate Offsets (X,Y)-- [2:0-3-7,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	-0.06	17	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.35	Vert(CT)	-0.12	2-17	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.98	Horz(CT)	0.03	11	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.07	17	>999	240	Weight: 194 lb	FT = 20%

LUMBER-

TOP CHORD	2x6 SP No.1
BOT CHORD	2x6 SP No.1
WEBS	2x4 SP No.2 *Except* 9-11: 2x6 SP No.1
OTHERS	2x4 SP No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 5-1-8 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 8-5-15 oc bracing.
WEBS	T-Brace: 2x4 SPF No.2 - 9-11 Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c.,with 3in minimum end distance. Brace must cover 90% of web length.
JOINTS	1 Brace at Jt(s): 18, 19

REACTIONS. (size) 11=0-3-8, 2=0-3-8
Max Horz 2=420(LC 9)
Max Uplift 11=-337(LC 12), 2=-280(LC 8)
Max Grav 11=992(LC 1), 2=972(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD	2-3=-1986/582, 3-5=-1053/335, 9-11=-225/255
BOT CHORD	2-17=-853/1811, 15-17=-853/1811, 14-15=-476/932, 13-14=-476/932, 12-13=-476/932, 11-12=-476/932
WEBS	3-17=0/326, 3-15=-938/402, 5-15=-97/533, 5-18=-1125/472, 18-19=-1101/462, 19-20=-1112/468, 11-20=-1139/477

NOTES-

1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable studs spaced at 2-0-0 oc.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=337, 2=280.
7) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

September 13,2024

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 8 Magnolia Hills
J0724-4079	B4	MONOPITCH	3	1	I68187605

Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Jul 12 2024 MiTek Industries, Inc. Thu Sep 12 14:21:45 2024 Page 1

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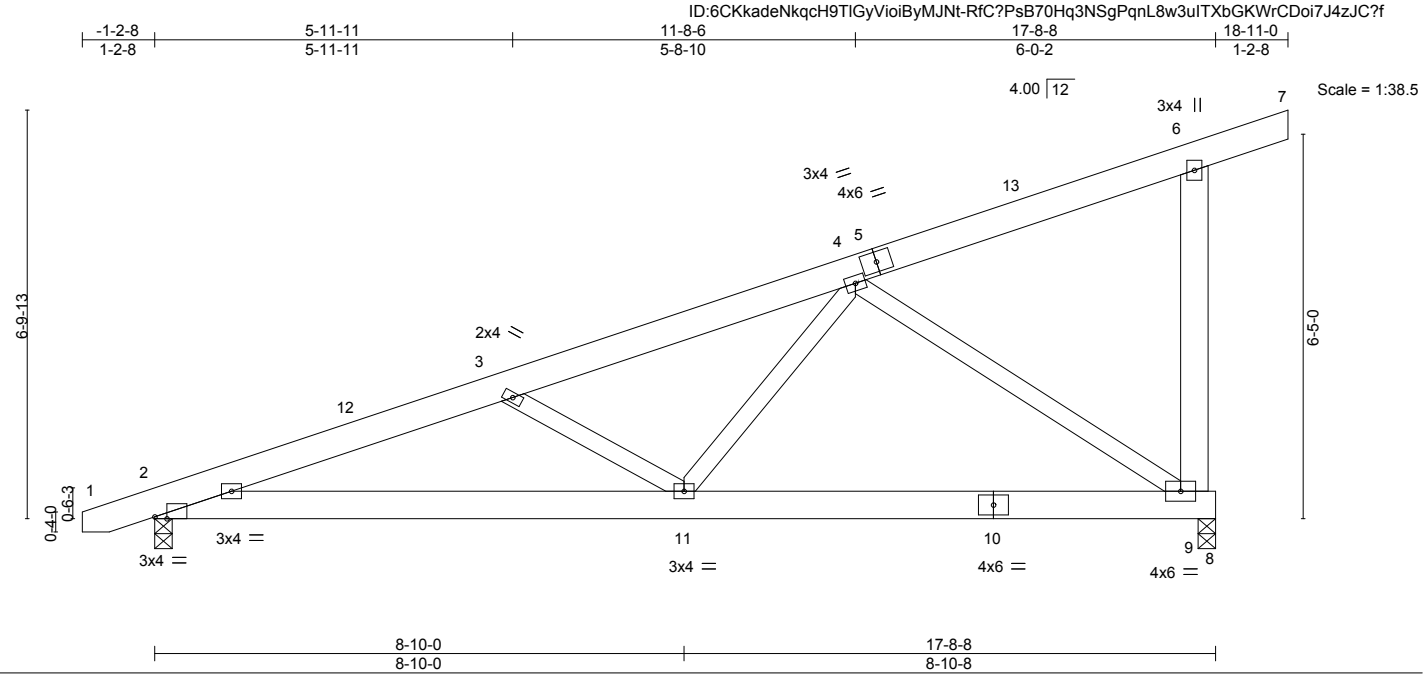

Plate Offsets (X,Y)-- [2:0-2-7,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	-0.04	2-11	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.29	Vert(CT)	-0.08	2-11	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.64	Horz(CT)	0.02	9	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.02	11	>999	240	Weight: 125 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2 *Except*
6-9: 2x6 SP No.1

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 9=0-3-8, 2=0-3-8
Max Horz 2=250(LC 9)
Max Uplift 9=-111(LC 12), 2=-99(LC 8)
Max Grav 9=791(LC 1), 2=754(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1447/263, 3-4=-1085/145
BOT CHORD 2-11=-404/1331, 9-11=-248/677
WEBS 3-11=-417/223, 4-11=-12/578, 4-9=-802/219

NOTES-

1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-11-13 to 3-5-0, Interior(1) 3-5-0 to 18-11-0 zone; end vertical right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 9=111.

September 13,2024

ENGINEERING BY TRENCO
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 8 Magnolia Hills
J0724-4079	B5SG	GABLE	1	1	I68187606
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Jul 12 2024 MiTek Industries, Inc. Thu Sep 12 14:21:46 2024 Page 1
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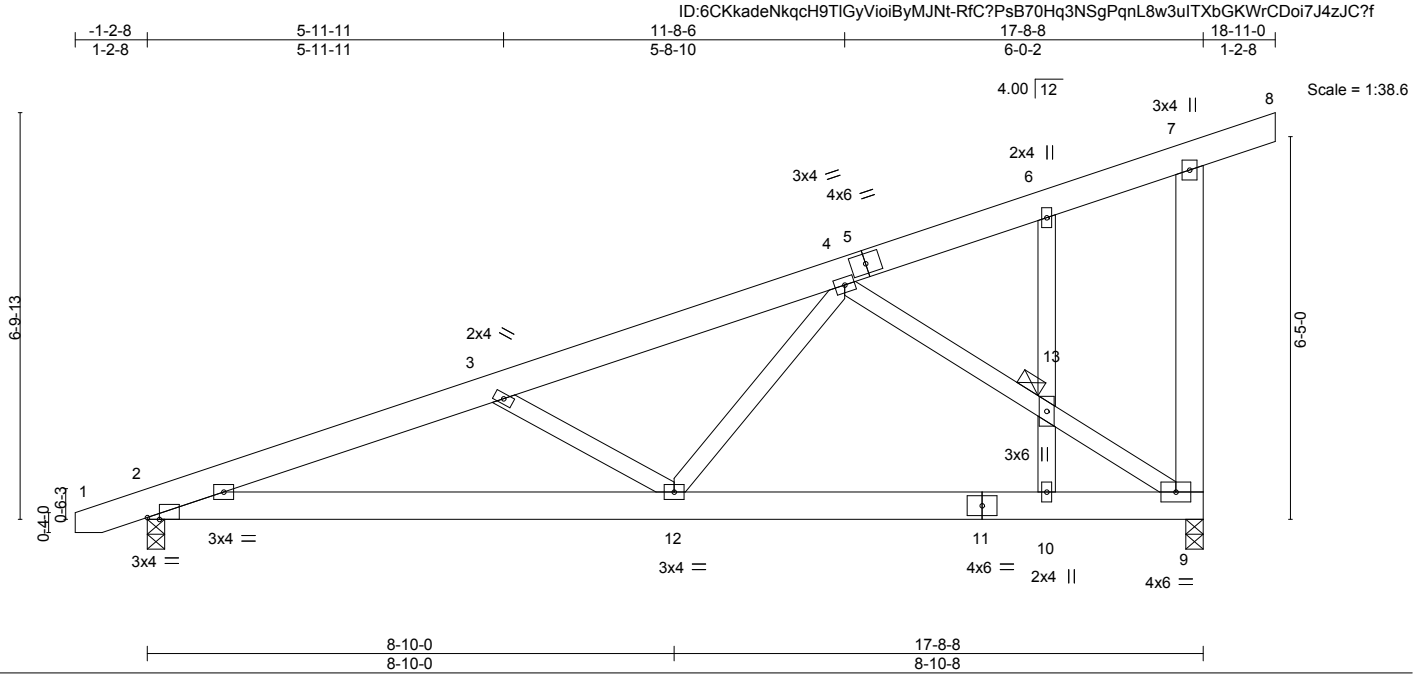

Plate Offsets (X,Y)-- [2:0-2-7,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	-0.04	2-12	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.28	Vert(CT)	-0.09	2-12	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.02	9	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.03	12	>999	240	Weight: 132 lb	FT = 20%

LUMBER-

TOP CHORD	2x6 SP No.1
BOT CHORD	2x6 SP No.1
WEBS	2x4 SP No.2 *Except* 7-9: 2x6 SP No.1
OTHERS	2x4 SP No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 9-4-4 oc bracing.
JOINTS	1 Brace at Jt(s): 13

REACTIONS. (size) 9=0-3-8, 2=0-3-8
Max Horz 2=330(LC 9)
Max Uplift 9=-269(LC 12), 2=-226(LC 8)
Max Grav 9=781(LC 1), 2=760(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1462/479, 3-4=-1102/301, 7-9=-254/200
BOT CHORD 2-12=-708/1344, 10-12=-377/698, 9-10=-377/698
WEBS 3-12=-412/325, 4-12=-94/538, 4-13=-822/367, 9-13=-818/363

NOTES-
1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable studs spaced at 2-0-0 oc.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=269, 2=226.

September 13,2024

ENGINEERING BY TRENCO
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 8 Magnolia Hills
J0724-4079	B6	MONOPITCH	8	1	I68187607

Job Reference (optional)

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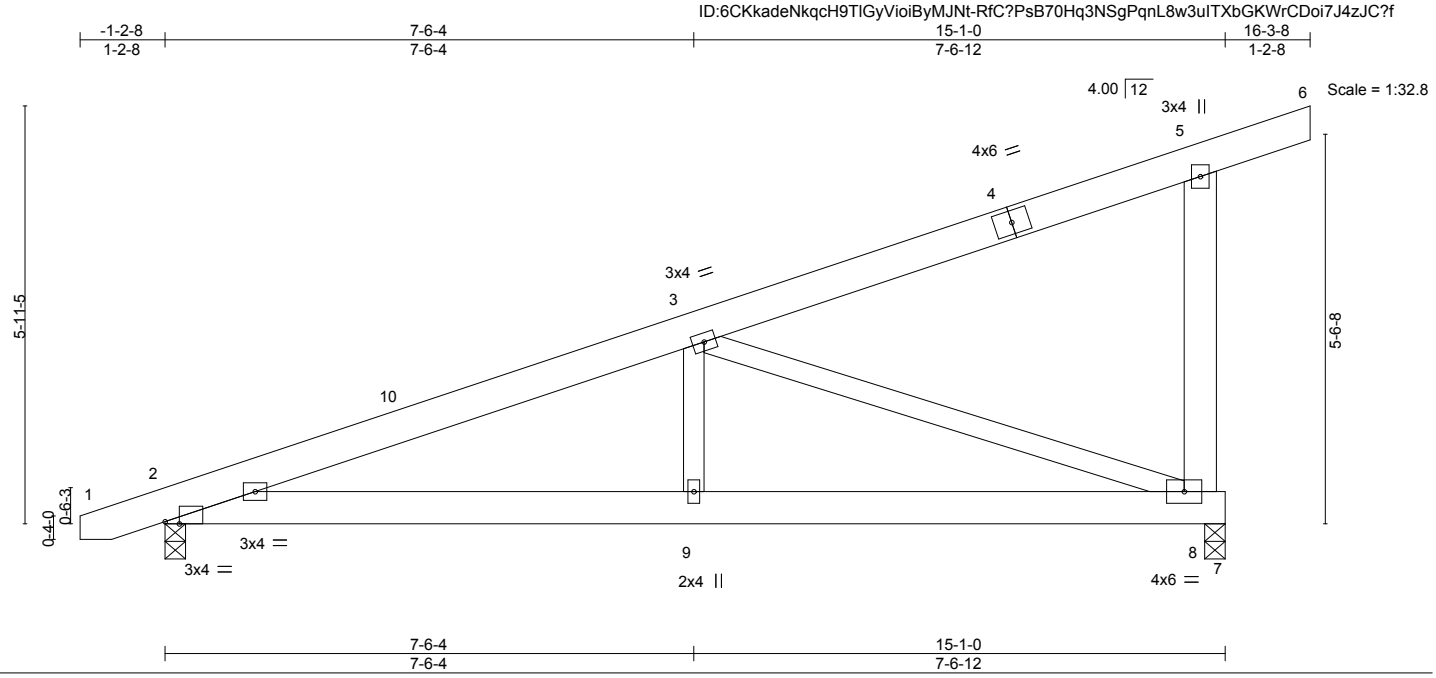

Plate Offsets (X,Y)-- [2:0-2-7,Edge]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.21	Vert(LL)	-0.03	2-9	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.22	Vert(CT)	-0.06	2-9	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.95	Horz(CT)	0.01	8	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.02	2-9	>999	240	Weight: 103 lb	FT = 20%

LUMBER-

TOP CHORD	2x6 SP No.1
BOT CHORD	2x6 SP No.1
WEBS	2x4 SP No.2 *Except* 5-8: 2x6 SP No.1

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 8=0-3-8, 2=0-3-8
Max Horz 2=217(LC 9)
Max Uplift 8=-98(LC 12), 2=-89(LC 8)
Max Grav 8=687(LC 1), 2=649(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1073/150, 5-8=-283/215
BOT CHORD 2-9=-282/954, 8-9=-282/954
WEBS 3-9=0/328, 3-8=-976/224

NOTES-

1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-11-13 to 3-5-0, Interior(1) 3-5-0 to 16-3-8 zone; end vertical right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 2.

September 13,2024

ENGINEERING BY TRENCO
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Job	Truss	Truss Type	Qty	Ply	Lot 8 Magnolia Hills
J0724-4079	B7GE	GABLE	1	1	I68187608
					Job Reference (optional)

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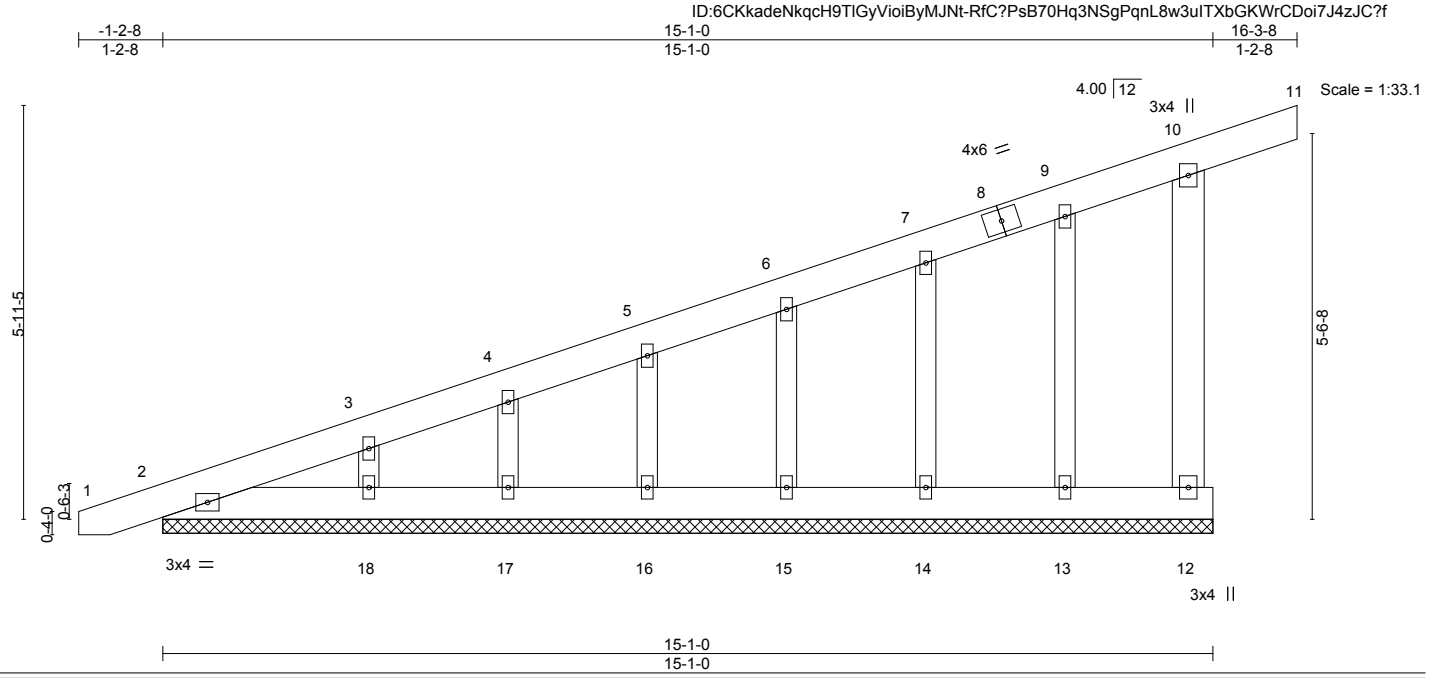

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	0.00	10	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	-0.00	11	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.03	Horz(CT)	-0.00	12	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 110 lb	FT = 20%

LUMBER-

TOP CHORD	2x6 SP No.1
BOT CHORD	2x6 SP No.1
WEBS	2x6 SP No.1
OTHERS	2x4 SP No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. All bearings 15-1-0.
(lb) - Max Horz 2=285(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 2, 13, 14, 15, 16, 17, 18 except 12=-116(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 12, 2, 13, 14, 15, 16, 17, 18

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-351/183, 3-4=-297/158, 4-5=-262/148

NOTES-
1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) All plates are 2x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 2-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 13, 14, 15, 16, 17, 18 except (jt=lb) 12=116.

September 13,2024

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 8 Magnolia Hills
J0724-4079	C1GE	MONOPITCH SUPPORTED	1	1	I68187609
					Job Reference (optional)

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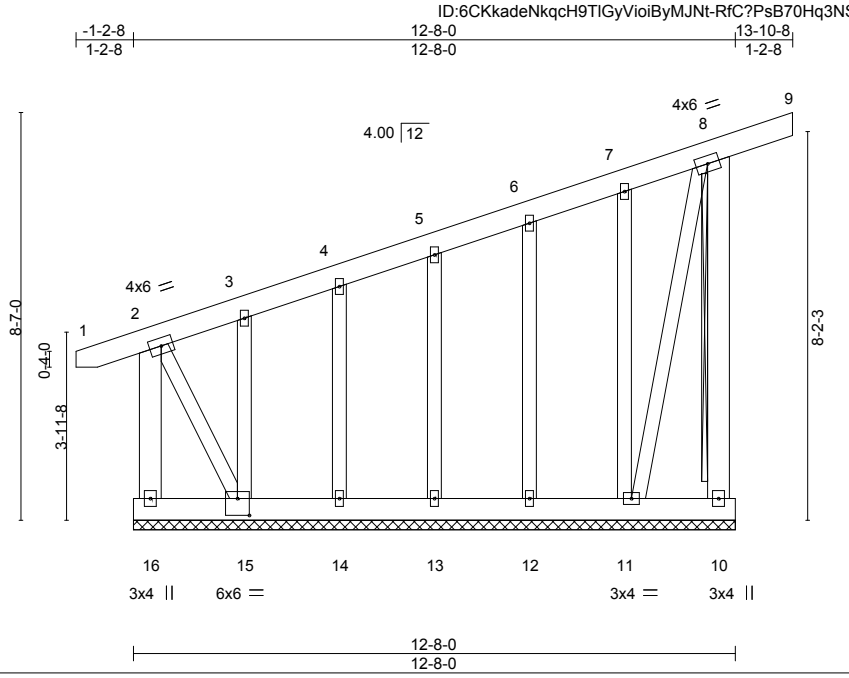

Plate Offsets (X,Y)-- [15:0-3-0,0-4-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.16	Vert(LL)	-0.00	8	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	0.00	8	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.19	Horz(CT)	-0.00	10	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 146 lb	FT = 20%

LUMBER-

TOP CHORD	2x6 SP No.1
BOT CHORD	2x6 SP No.1
WEBS	2x6 SP No.1 *Except* 2-15,8-11: 2x4 SP No.2
OTHERS	2x4 SP No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	T-Brace: 2x4 SPF No.2 - 8-10 Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c.,with 3in minimum end distance. Brace must cover 90% of web length.

REACTIONS. All bearings 12-8-0.
(lb) - Max Horz 16=398(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 13, 14, 12, 11 except 10=-232(LC 9), 15=-470(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 10, 13, 14, 15, 12, 11 except 16=485(LC 9)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-16=-679/388, 2-3=-295/173, 3-4=-264/169, 8-10=-197/301
BOT CHORD 15-16=-532/379
WEBS 2-15=-496/797

NOTES-
1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) All plates are 2x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
5) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
6) Gable studs spaced at 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 13, 14, 12, 11 except (jt=lb) 10=232, 15=470.
10) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

September 13,2024

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 8 Magnolia Hills
J0724-4079	D1GE	GABLE	1	1	I68187610
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Jul 12 2024 MiTek Industries, Inc. Thu Sep 12 14:21:47 2024 Page 1
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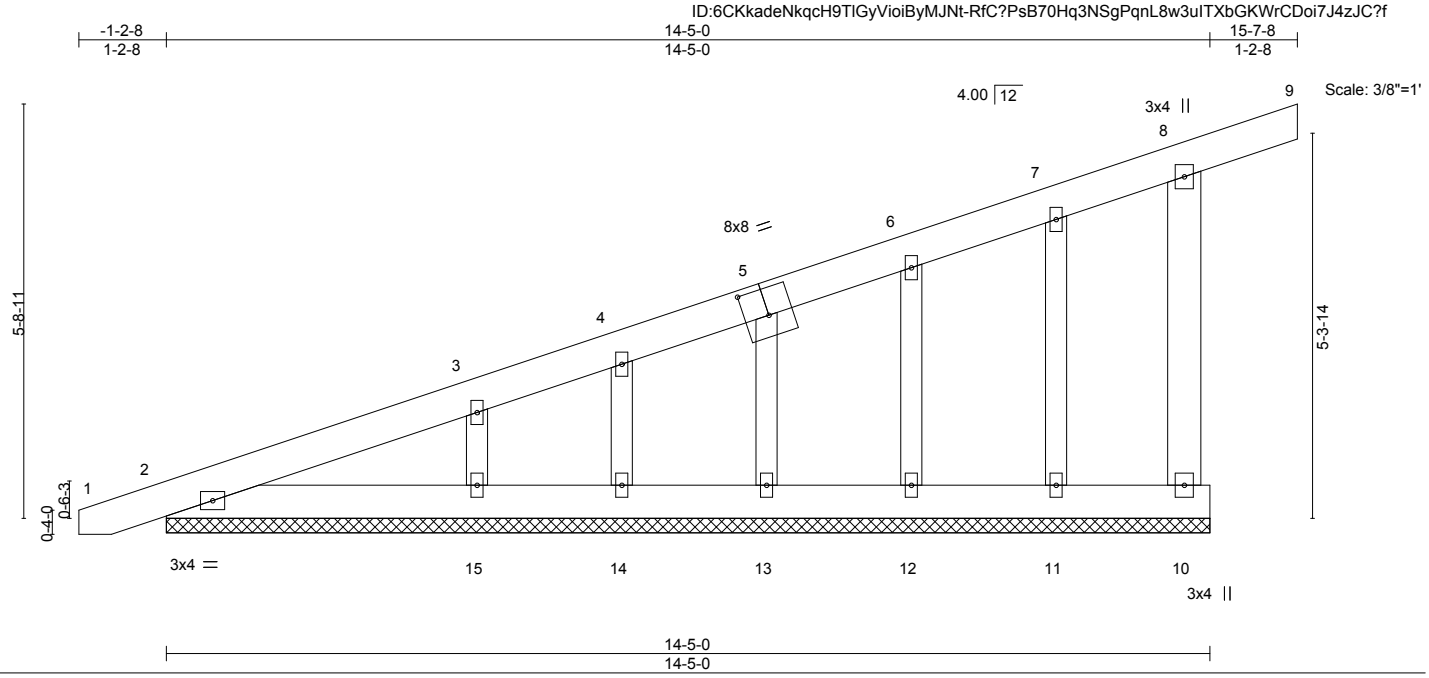


Plate Offsets (X,Y)-- [5:0-4-0,0-4-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	0.00	8	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	-0.00	9	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.03	Horz(CT)	-0.00	10	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 103 lb	FT = 20%

LUMBER-

TOP CHORD	2x6 SP No.1
BOT CHORD	2x6 SP No.1
WEBS	2x6 SP No.1
OTHERS	2x4 SP No.2

BRACING-

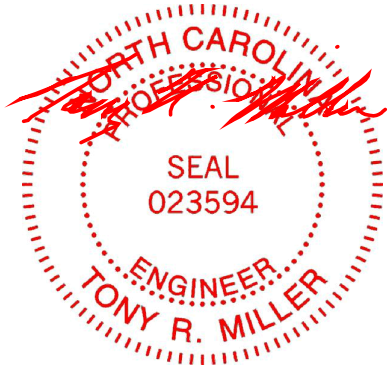
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. All bearings 14-5-0.
(lb) - Max Horz 2=274(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 2, 11, 12, 13, 14 except 10=-115(LC 9), 15=-116(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 10, 2, 11, 12, 13, 14 except 15=334(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-329/177, 3-4=-252/136

NOTES-

1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) All plates are 2x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 2-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 11, 12, 13, 14 except (jt=lb) 10=115, 15=116.



September 13,2024

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A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 8 Magnolia Hills
J0724-4079	D2	MONOPITCH GIRDER	1	2	I68187611
					Job Reference (optional)

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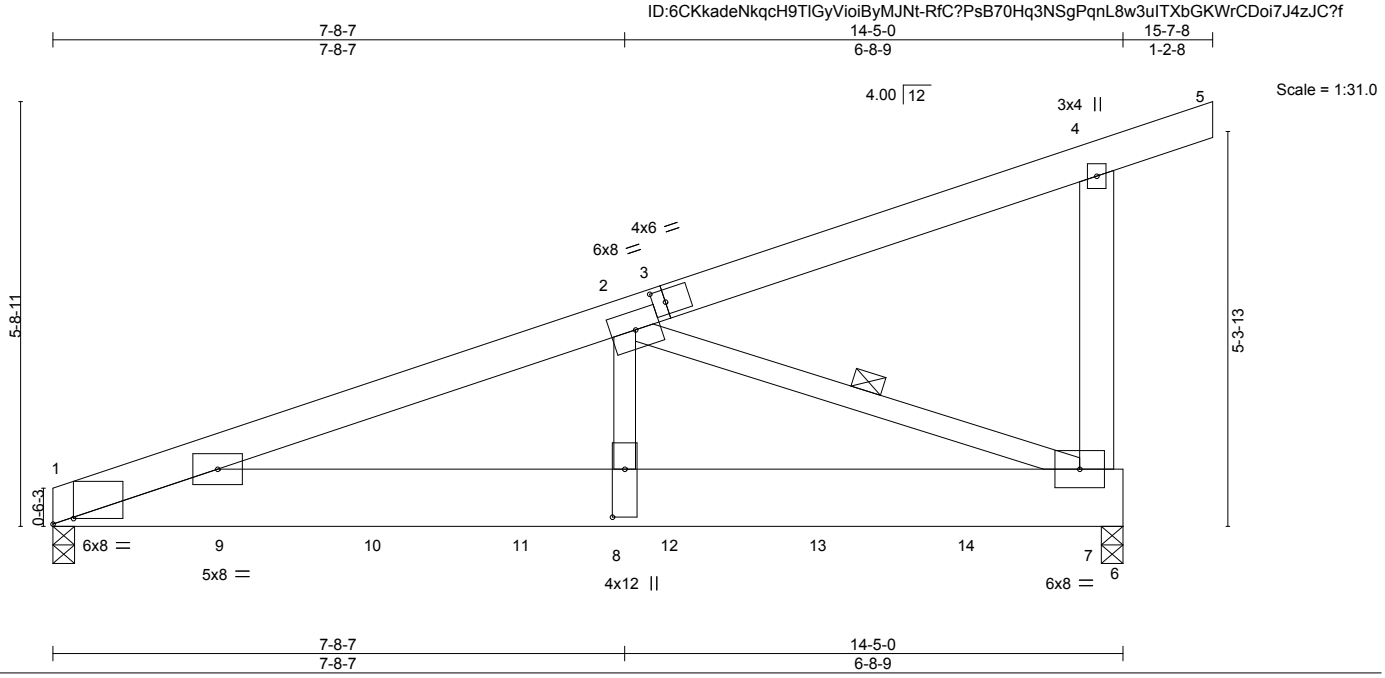

Plate Offsets (X,Y)-- [1:0-3-5,0-0-14], [3:0-2-0,0-2-0], [8:0-7-12,0-2-0]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.41	Vert(LL)	-0.11	1-8	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.55	Vert(CT)	-0.21	1-8	>795	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.85	Horz(CT)	0.03	7	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.07	1-8	>999	240	Weight: 234 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x10 SP 2400F 2.0E
WEBS 2x4 SP No.2 *Except*
4-7: 2x6 SP No.1

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-0-2 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 2-7

REACTIONS. (size) 7=0-3-8, 1=0-3-8
Max Horz 1=197(LC 20)
Max Uplift 7=-335(LC 8), 1=-342(LC 4)
Max Grav 7=5423(LC 2), 1=6581(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-9515/502, 2-4=-272/26, 4-7=-285/103
BOT CHORD 1-8=-501/9007, 7-8=-501/9007
WEBS 2-8=-196/5980, 2-7=-9445/567

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x10 - 2 rows staggered at 0-3-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); end vertical right exposed; Lumber DOL=1.60 plate grip DOL=1.60
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=335, 1=342.
7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1579 lb down and 78 lb up at 0-1-12, 1571 lb down and 86 lb up at 2-4-4, 1559 lb down and 86 lb up at 4-4-4, 1559 lb down and 86 lb up at 6-4-4, 1559 lb down and 86 lb up at 8-4-4, and 1559 lb down and 86 lb up at 10-4-4, and 1559 lb down and 86 lb up at 12-4-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-60, 4-5=-60, 1-6=-20

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Continued on page 2

ENGINEERING BY TRENCO
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Edenton, NC 27932

LOAD CASE(S) Standard

Concentrated Loads (lb)

Vert: 1=-1475(B) 9=-1467(B) 10=-1466(B) 11=-1466(B) 12=-1466(B) 13=-1466(B) 14=-1466(B)

Job	Truss	Truss Type	Qty	Ply	Lot 8 Magnolia Hills
J0724-4079	G1SG	GABLE	1	1	I68187612
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Jul 12 2024 MiTek Industries, Inc. Thu Sep 12 14:21:48 2024 Page 1
ID:6CKkadeNkqcH9TlGyVioiByMJNt-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

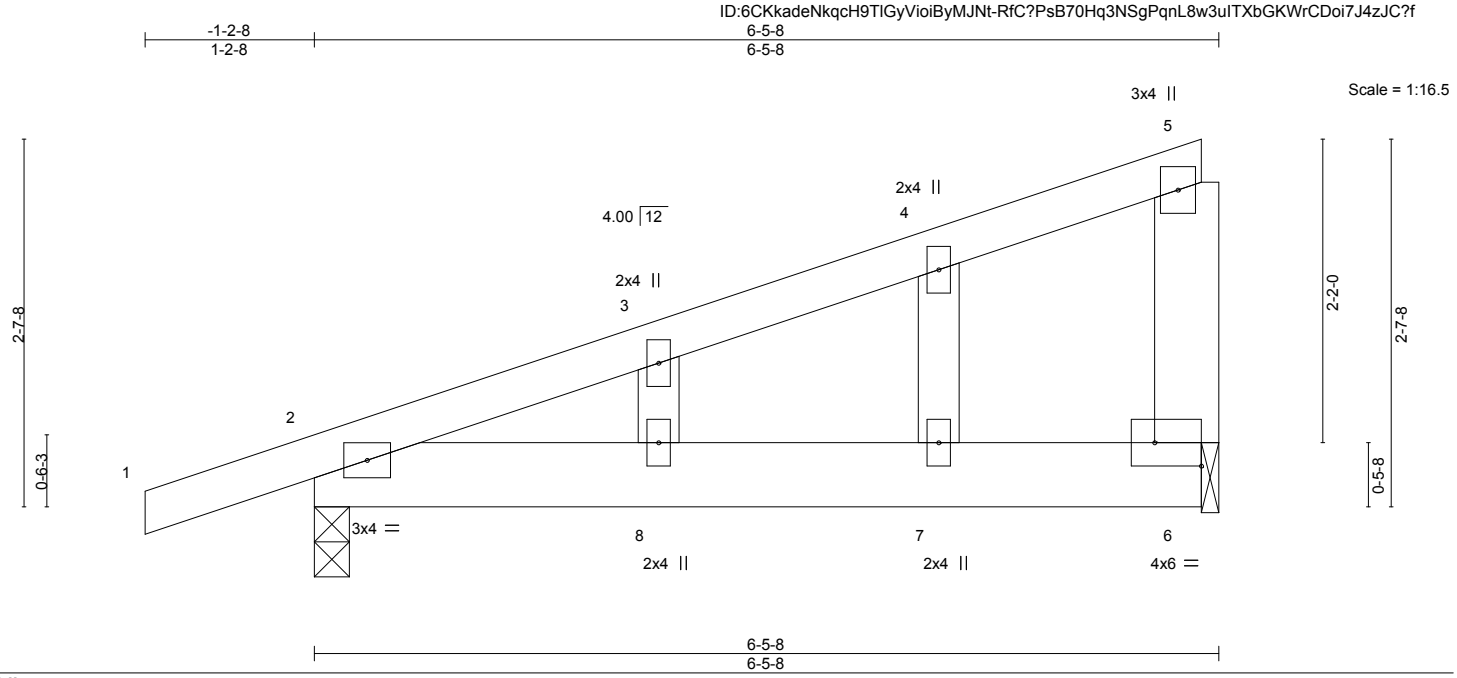

Plate Offsets (X,Y)-- [6:Edge,0-2-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	0.04	7-8	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	-0.03	7-8	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.02	Horz(CT)	-0.00	6	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 34 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.1
BOT CHORD	2x6 SP No.1
WEBS	2x6 SP No.1
OTHERS	2x4 SP No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-0, 6=0-1-8
Max Horz 2=120(LC 8)
Max Uplift 2=-194(LC 8), 6=-149(LC 8)
Max Grav 2=333(LC 1), 6=235(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-

1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable studs spaced at 2-0-0 oc.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 6.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=194, 6=149.

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ENGINEERING BY TRENCO
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Job	Truss	Truss Type	Qty	Ply	Lot 8 Magnolia Hills
J0724-4079	G2	Monopitch	3	1	I68187613
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Jul 12 2024 MiTek Industries, Inc. Thu Sep 12 14:21:49 2024 Page 1
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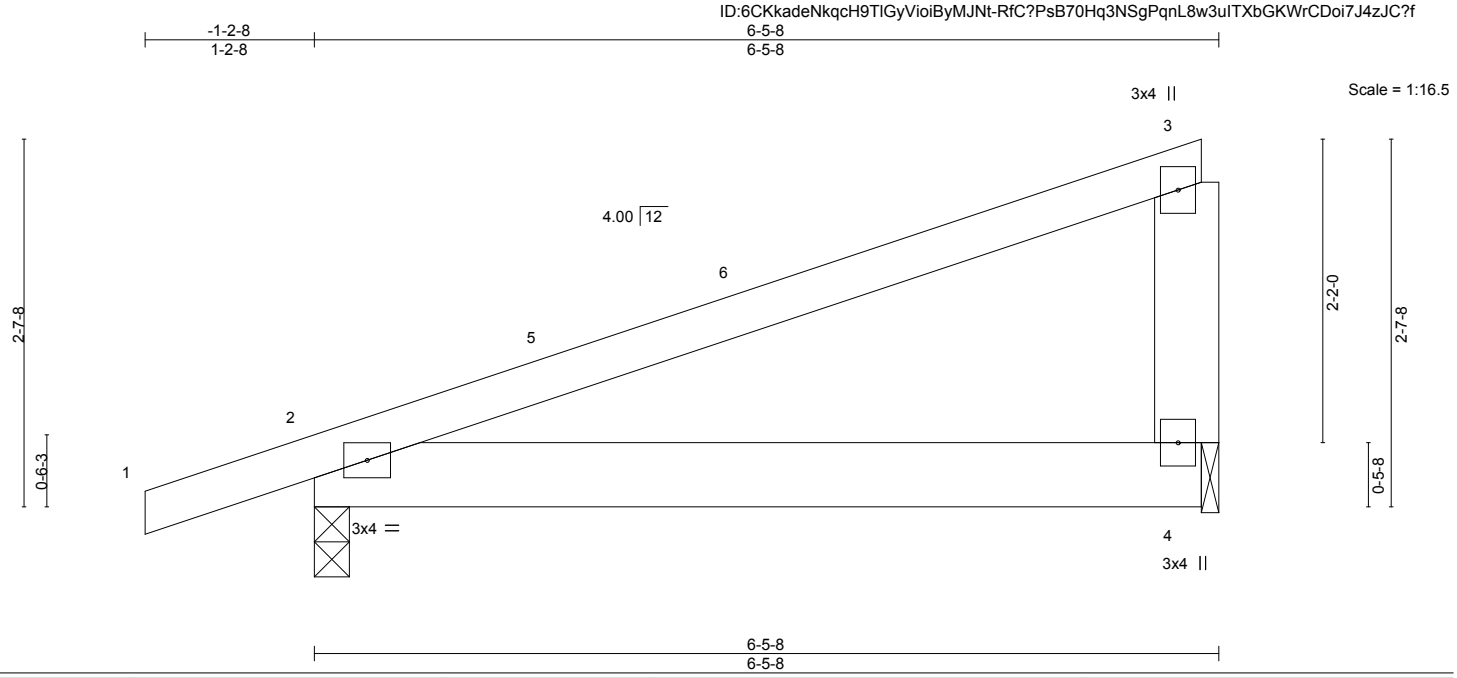

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.50	Vert(LL)	-0.02	2-4	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.15	Vert(CT)	-0.04	2-4	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00		n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P		Wind(LL)	0.04	2-4	>999	240	Weight: 31 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.1
BOT CHORD	2x6 SP No.1
WEBS	2x6 SP No.1

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-0, 4=0-1-8
Max Horz 2=85(LC 8)
Max Uplift 2=-135(LC 8), 4=-102(LC 8)
Max Grav 2=333(LC 1), 4=235(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-

1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-2-8 to 3-2-5, Interior(1) 3-2-5 to 6-2-12 zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=135, 4=102.

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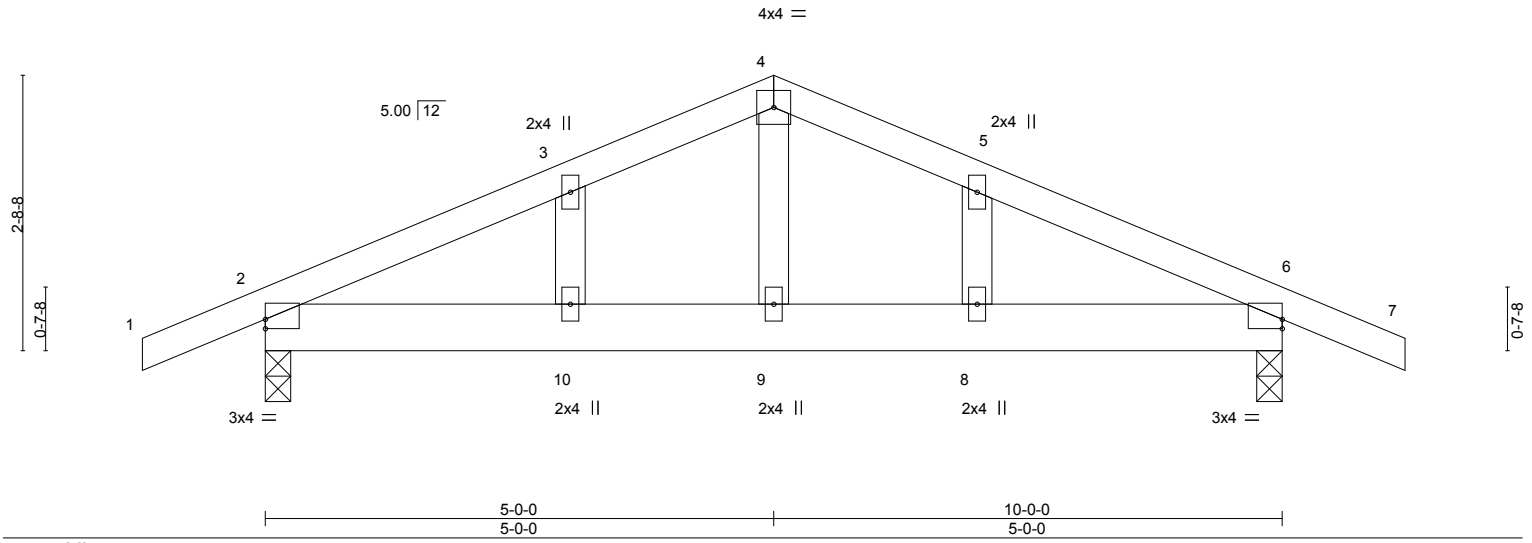
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 8 Magnolia Hills
J0724-4079	H1	GABLE	1	1	I68187614
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Jul 12 2024 MiTek Industries, Inc. Thu Sep 12 14:21:49 2024 Page 1
ID:6CKkadeNkqcH9TlGyVioiByMJNt-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

-1-2-8 / 1-2-8 | 5-0-0 / 5-0-0 | 10-0-0 / 5-0-0 | 11-2-8 / 1-2-8

Scale = 1:22.7



5-0-0 / 5-0-0 | 10-0-0 / 5-0-0

Plate Offsets (X,Y)-- [2:0-0-0,0-1-2], [6:0-0-0,0-1-2]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.16	Vert(LL)	-0.01	10	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.29	Vert(CT)	-0.02	10	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.02	8	>999	240	Weight: 50 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.1
BOT CHORD	2x6 SP No.1
WEBS	2x4 SP No.2
OTHERS	2x4 SP No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-0, 6=0-3-0
Max Horz 2=52(LC 12)
Max Uplift 2=-204(LC 8), 6=-204(LC 9)
Max Grav 2=470(LC 1), 6=470(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD	2-3=-542/623, 3-4=-499/662, 4-5=-499/662, 5-6=-542/624
BOT CHORD	2-10=-482/442, 9-10=-482/442, 8-9=-482/442, 6-8=-482/442
WEBS	4-9=-384/234

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable studs spaced at 2-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=204, 6=204.

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A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 8 Magnolia Hills
J0724-4079	H2	COMMON	4	1	I68187615
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Jul 12 2024 MiTek Industries, Inc. Thu Sep 12 14:21:49 2024 Page 1
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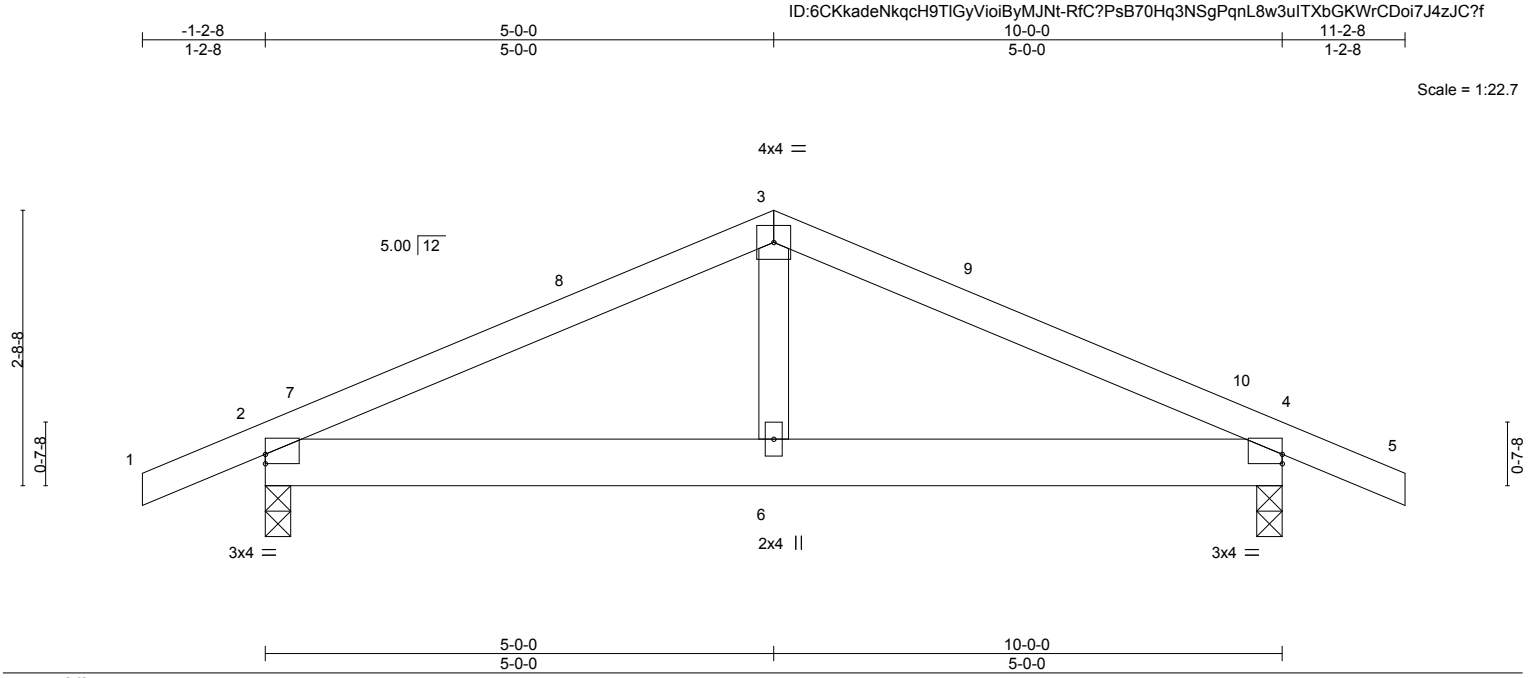

Plate Offsets (X,Y)-- [2:0-0-0,0-1-2], [4:0-0-0,0-1-2]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	-0.01	6	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.38	Vert(CT)	-0.01	2-6	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.02	2-6	>999	240	Weight: 47 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-0, 4=0-3-0
Max Horz 2=31(LC 12)
Max Uplift 2=-147(LC 8), 4=-147(LC 9)
Max Grav 2=470(LC 1), 4=470(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-553/619, 3-4=-553/619
BOT CHORD 2-6=-456/439, 4-6=-456/439
WEBS 3-6=-321/238

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-2-8 to 3-2-5, Interior(1) 3-2-5 to 5-0-0, Exterior(2) 5-0-0 to 9-4-13, Interior(1) 9-4-13 to 11-2-8 zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=147, 4=147.

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A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 8 Magnolia Hills
J0724-4079	H3	COMMON	1	1	I68187616
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Jul 12 2024 MiTek Industries, Inc. Thu Sep 12 14:21:50 2024 Page 1
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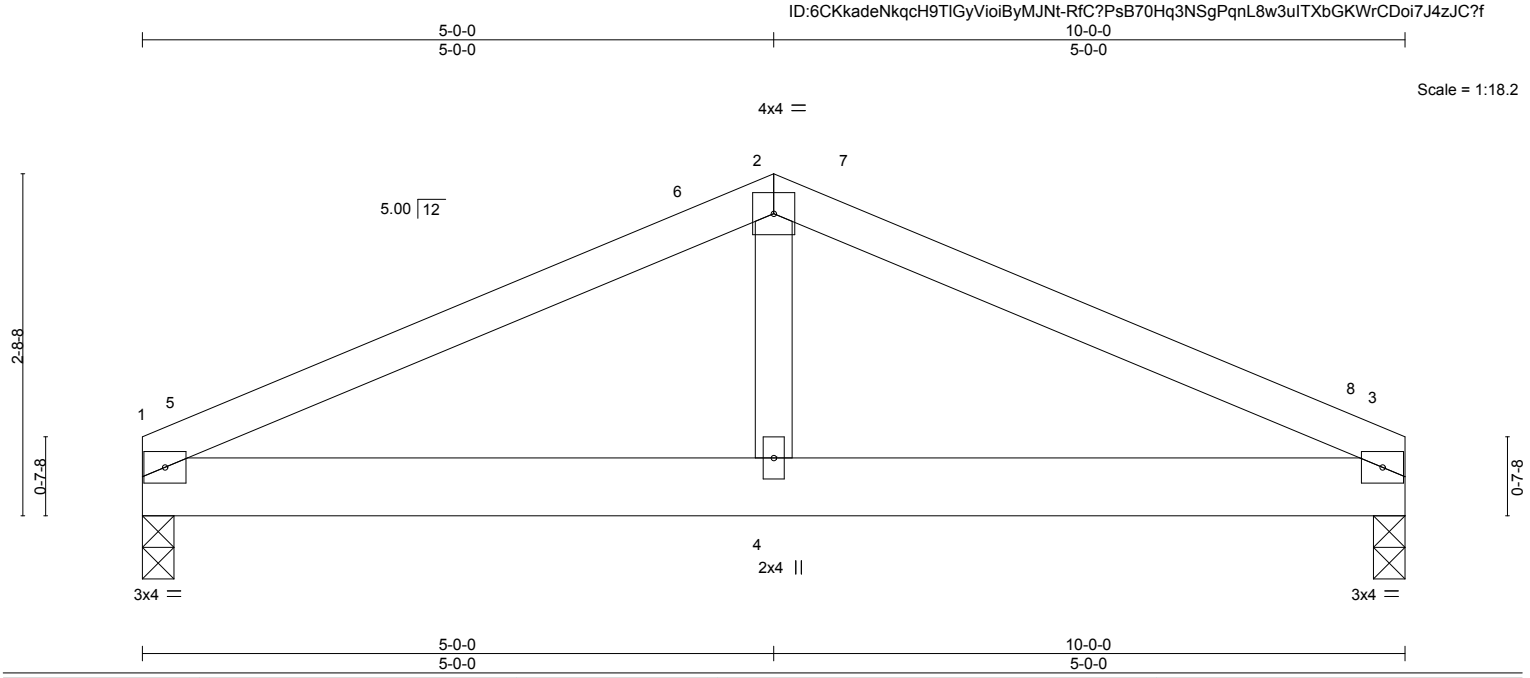


LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	-0.01	4	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.35	Vert(CT)	-0.02	1-4	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S		Wind(LL)	0.02	1-4	>999	240	Weight: 43 lb	FT = 20%

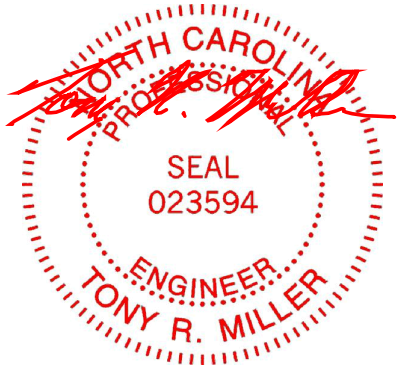
LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=0-3-0, 3=0-3-0
Max Horz 1=-28(LC 17)
Max Uplift 1=-109(LC 9), 3=-109(LC 8)
Max Grav 1=390(LC 1), 3=390(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-579/661, 2-3=-579/661
BOT CHORD 1-4=-518/468, 3-4=-518/468
WEBS 2-4=-320/240

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-1-8 to 4-6-5, Interior(1) 4-6-5 to 5-0-0, Exterior(2) 5-0-0 to 9-4-13, Interior(1) 9-4-13 to 9-10-8 zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=109, 3=109.



September 13,2024

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 8 Magnolia Hills
J0724-4079	P1GE	MONOPITCH	1	1	I68187617
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Jul 12 2024 MiTek Industries, Inc. Thu Sep 12 14:21:50 2024 Page 1
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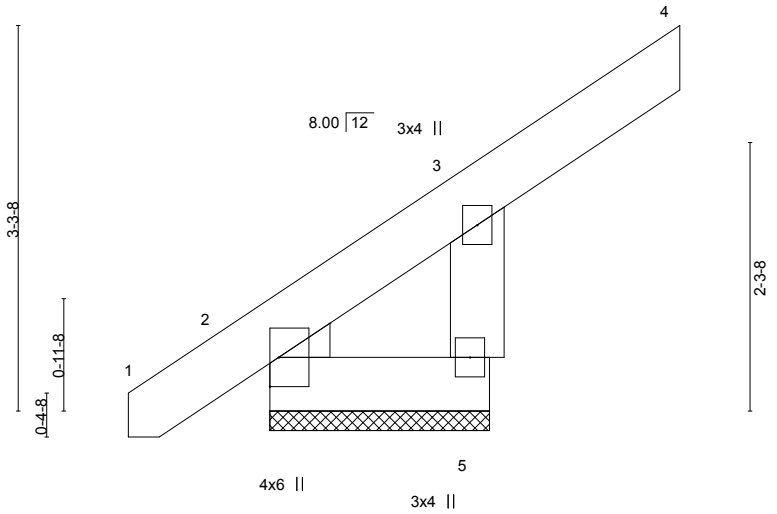
-1-2-8 2-0-0 3-6-0
1-2-8 2-0-0 1-6-0

Scale = 1:19.7



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	0.00	4	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.01	Vert(CT)	0.00	3	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00		n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 22 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x6 SP No.1
WEDGE
Left: 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=1-10-8, 2=1-10-8
Max Horz 2=133(LC 12)
Max Uplift 5=-176(LC 12), 2=-12(LC 8)
Max Grav 5=223(LC 19), 2=113(LC 21)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-5=-253/322

NOTES-
1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Gable requires continuous bottom chord bearing.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 5=176.

September 13,2024

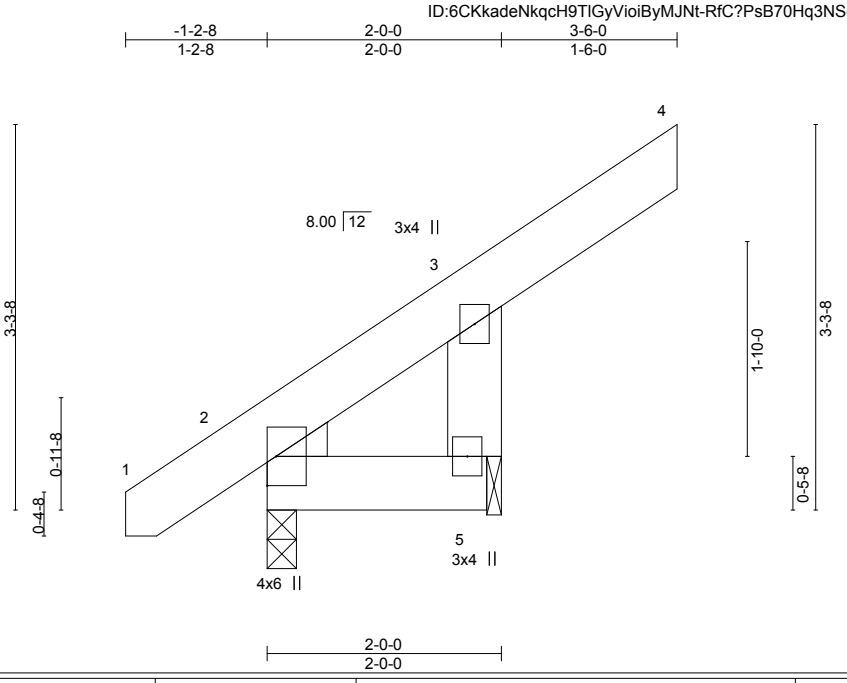
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 8 Magnolia Hills
J0724-4079	P2	MONOPITCH	5	1	I68187618

Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Jul 12 2024 MiTek Industries, Inc. Thu Sep 12 14:21:51 2024 Page 1

ID:6CKkadeNkqcH9TlGyVioiByMJNt-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	-0.00	2	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	-0.00	2	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00		n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P		Wind(LL)	0.00	2	****	240	Weight: 22 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x6 SP No.1
WEDGE
Left: 2x4 SP No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-0, 5=0-1-8
Max Horz 2=90(LC 12)
Max Uplift 2=-11(LC 8), 5=-139(LC 9)
Max Grav 2=106(LC 21), 5=213(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-5=-253/323

NOTES-

1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 5.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 5=139.

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ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 8 Magnolia Hills
J0724-4079	P3	MONOPITCH	6	1	I68187619

Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Jul 12 2024 MiTek Industries, Inc. Thu Sep 12 14:21:51 2024 Page 1

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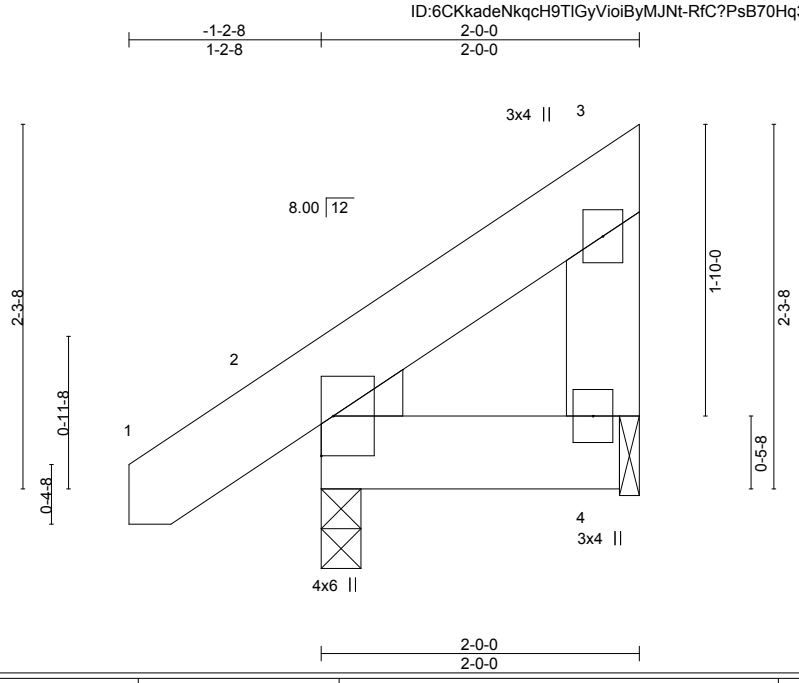

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.03	Vert(LL)	-0.00	2	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	-0.00	2	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00		n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P		Wind(LL)	0.00	2	****	240	Weight: 18 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x6 SP No.1
WEDGE
Left: 2x4 SP No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-0, 4=0-1-8
Max Horz 2=60(LC 12)
Max Uplift 2=-3(LC 12), 4=-27(LC 12)
Max Grav 2=157(LC 1), 4=60(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-

1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.

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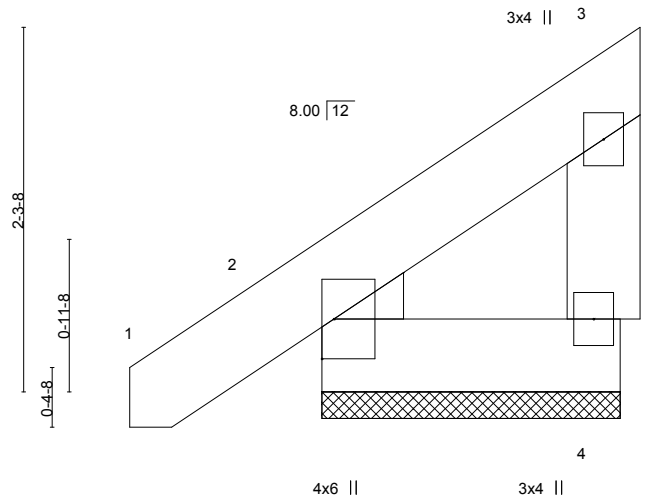
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 8 Magnolia Hills
J0724-4079	P4GE	MONOPITCH	1	1	I68187620
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Jul 12 2024 MiTek Industries, Inc. Thu Sep 12 14:21:51 2024 Page 1
ID:6CKkadeNkqcH9TlGyVioiByMJNt-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

-1-2-8 2-0-0
1-2-8 2-0-0

Scale = 1:14.5



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.03	Vert(LL)	0.00	1	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.01	Vert(CT)	-0.00	1	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00		n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 18 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x6 SP No.1
WEDGE
Left: 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 4=1-10-8, 2=1-10-8
Max Horz 2=87(LC 12)
Max Uplift 4=-46(LC 12), 2=-25(LC 12)
Max Grav 4=64(LC 19), 2=155(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Gable requires continuous bottom chord bearing.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.

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ENGINEERING BY TRENCO A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 8 Magnolia Hills
J0724-4079	VD1	GABLE	1	1	I68187621
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Jul 12 2024 MiTek Industries, Inc. Thu Sep 12 14:21:52 2024 Page 1
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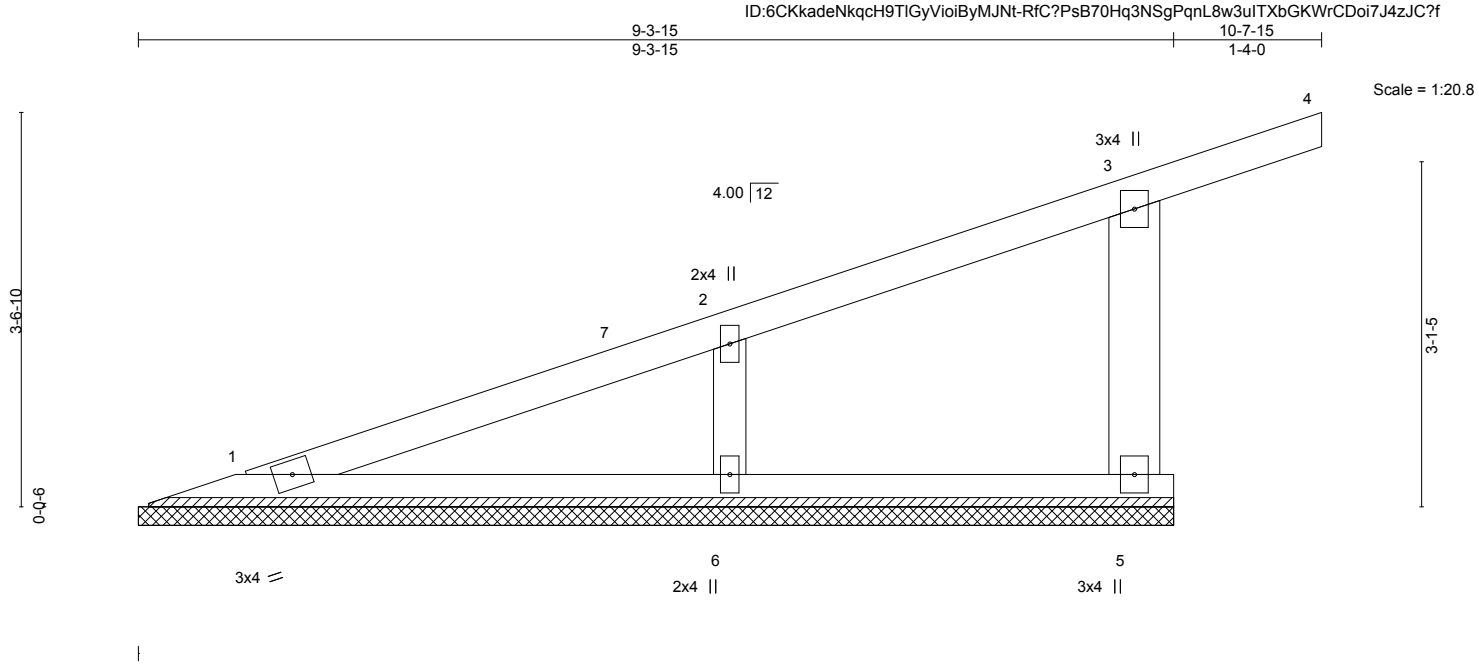

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.17	Vert(LL)	0.00	4	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	-0.00	4	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 37 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.1
BOT CHORD	2x4 SP No.1
WEBS	2x6 SP No.1
OTHERS	2x4 SP No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. (size) 1=9-3-15, 5=9-3-15, 6=9-3-15
Max Horz 1=102(LC 8)
Max Uplift 5=-68(LC 9), 6=-55(LC 8)
Max Grav 1=137(LC 1), 5=226(LC 1), 6=378(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-6=-272/205

NOTES-

1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-11-11 to 5-3-15, Interior(1) 5-3-15 to 10-7-15 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Gable requires continuous bottom chord bearing.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 6.

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A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 8 Magnolia Hills
J0724-4079	VD2	VALLEY	1	1	I68187622
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Jul 12 2024 MiTek Industries, Inc. Thu Sep 12 14:21:52 2024 Page 1
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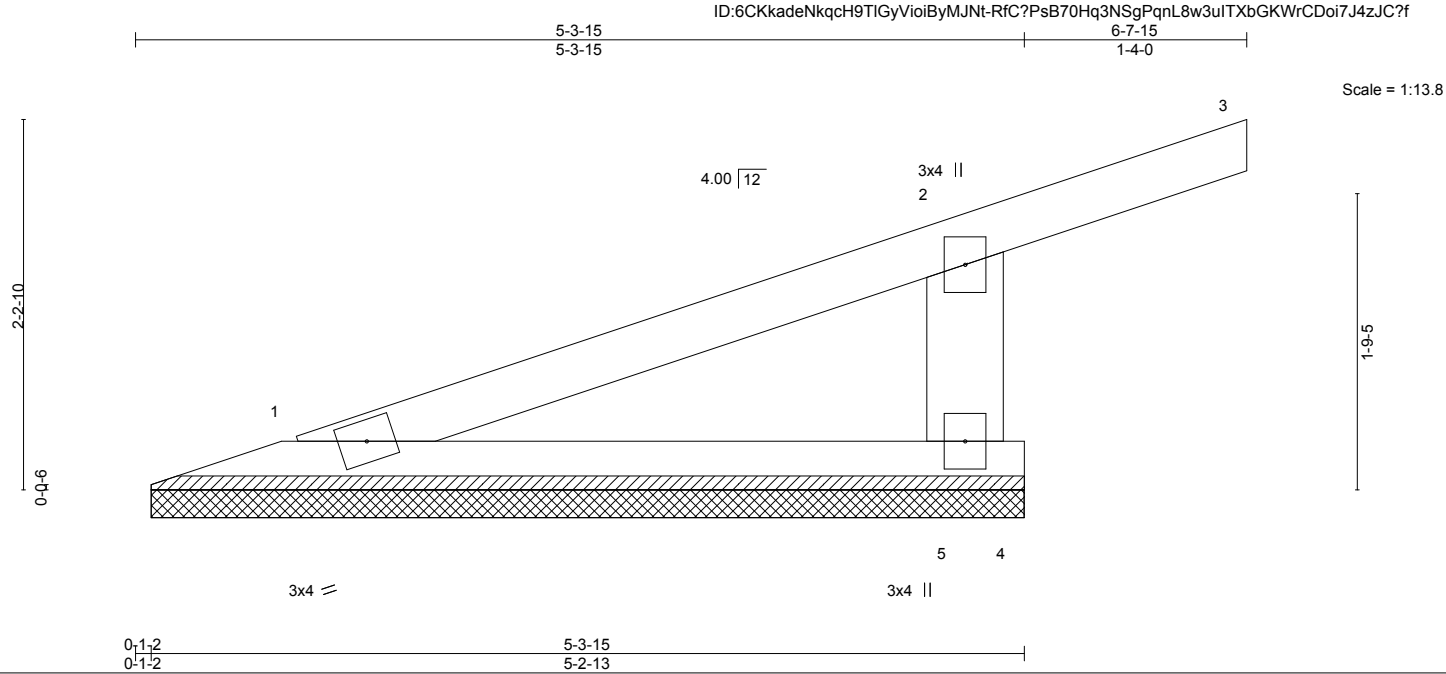

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.15	Vert(LL)	0.00	3	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	0.01	3	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00		n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 19 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x6 SP No.1

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-3-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=5-2-13, 5=5-2-13
Max Horz 1=59(LC 8)
Max Uplift 5=-68(LC 9)
Max Grav 1=138(LC 1), 5=290(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-243/295

NOTES-
1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-11-11 to 5-4-8, Interior(1) 5-4-8 to 6-7-15 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5.
5) Non Standard bearing condition. Review required.

September 13,2024

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 8 Magnolia Hills
J0724-4079	VH1	VALLEY	1	1	I68187623

Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Jul 12 2024 MiTek Industries, Inc. Thu Sep 12 14:21:53 2024 Page 1

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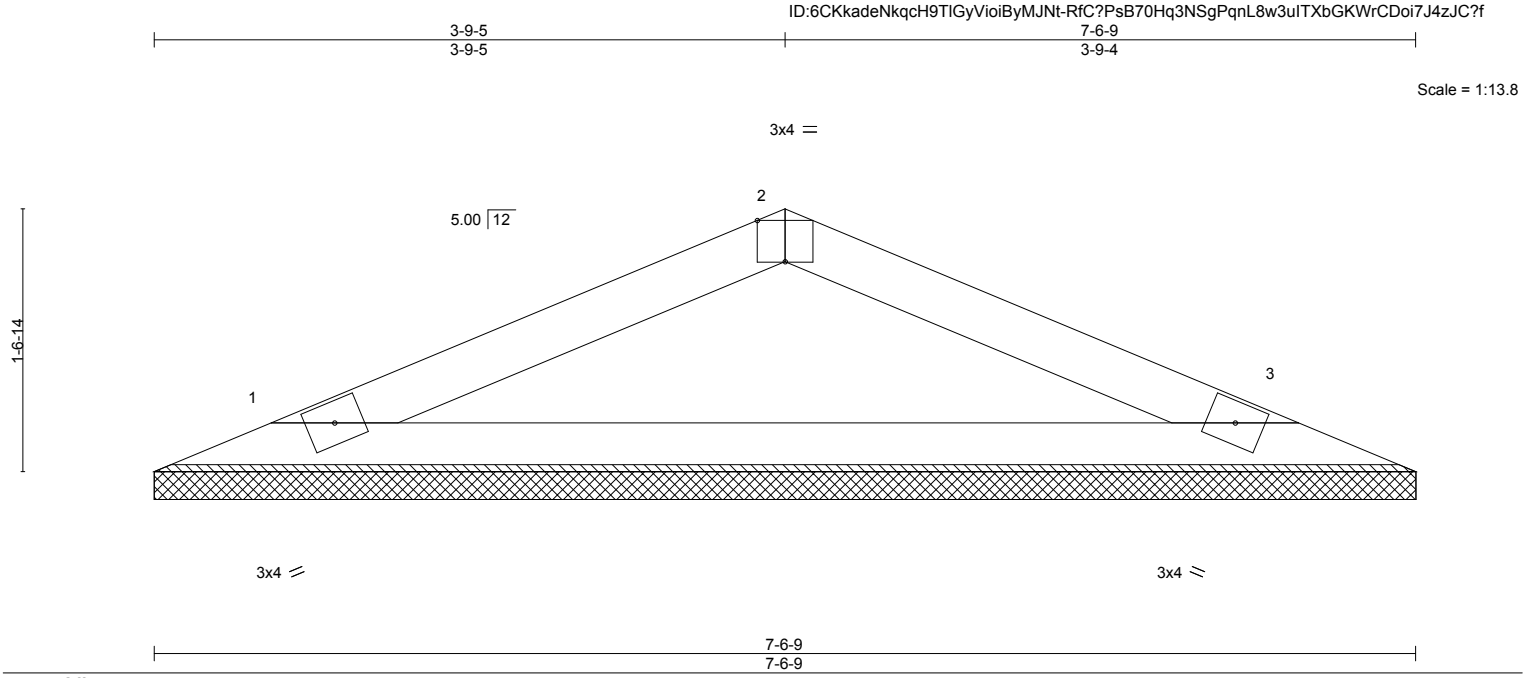

Plate Offsets (X,Y)-- [2:0-2-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.36	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 21 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=7-6-9, 3=7-6-9
Max Horz 1=15(LC 16)
Max Uplift 1=-15(LC 12), 3=-15(LC 13)
Max Grav 1=244(LC 1), 3=244(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-266/216, 2-3=-266/216

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.

September 13,2024

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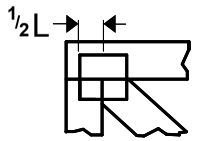
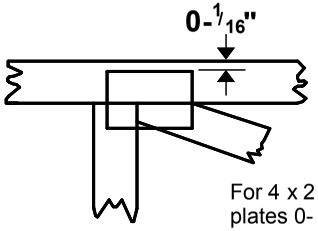
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Symbols

PLATE LOCATION AND ORIENTATION



Center plate on joint unless x, y offsets are indicated. Dimensions are in ft-in-sixteenths. Apply plates to both sides of truss and fully embed teeth.



For 4 x 2 orientation, locate plates 0- 1/16" from outside edge of truss.

This symbol indicates the required direction of slots in connector plates.

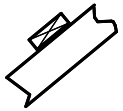
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

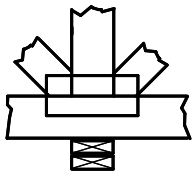
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



Indicated by symbol shown and/or by text in the bracing section of the output. Use T or I bracing if indicated.

BEARING

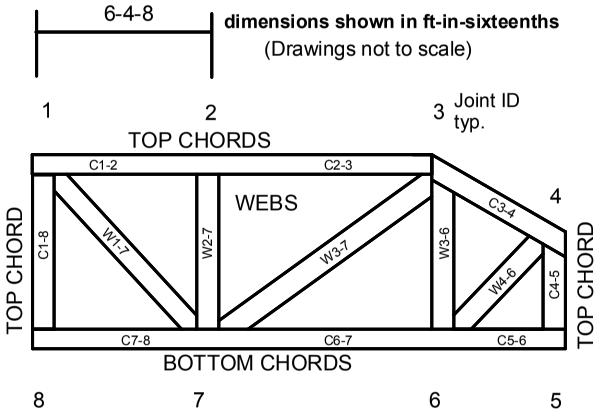


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-22: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.

Product Code Approvals

ICC-ES Reports:

ESR-1988, ESR-2362, ESR-2685, ESR-3282
ESR-4722, ESL-1388

Design General Notes

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.

Lumber design values are in accordance with ANSI/TPI 1 section 6.3 These truss designs rely on lumber values established by others.

MiTek®

ENGINEERING BY TRENCO
A MiTek Affiliate

MiTek Engineering Reference Sheet: MII-7473 rev. 1/2/2023

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.

ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: J0724-4080
Lot 8 Magnolia Hills

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Comtech, Inc - Fayetteville.

Pages or sheets covered by this seal: I68196596 thru I68196602

My license renewal date for the state of North Carolina is December 31, 2024.

North Carolina COA: C-0844

September 13,2024

Gilbert, Eric

IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to MiTek or TRENCO. Any project specific information included is for MiTek's or TRENCO's customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek or TRENCO has not independently verified the applicability of the design parameters or the designs for any particular building. Before use, the building designer should verify applicability of design parameters and properly incorporate these designs into the overall building design per ANSI/TPI 1, Chapter 2.

Job	Truss	Truss Type	Qty	Ply	Lot 8 Magnolia Hills
J0724-4080	ET1	GABLE	1	1	I68196596
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Jul 12 2024 MiTek Industries, Inc. Fri Sep 13 05:02:30 2024 Page 1
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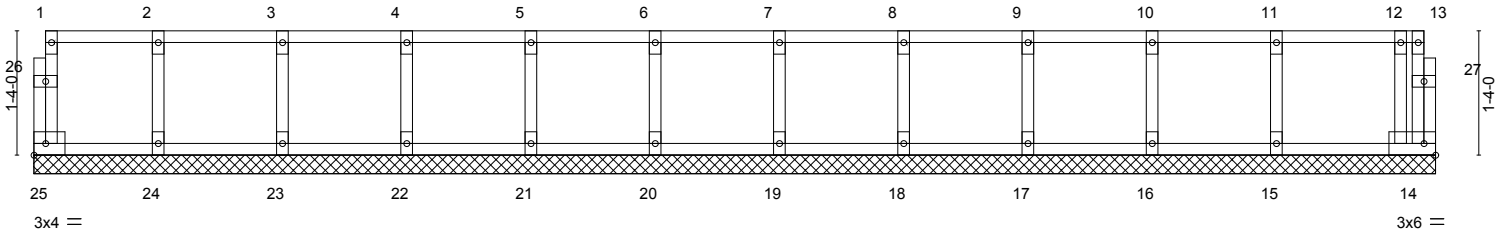

1-4-0	2-8-0	4-0-0	5-4-0	6-8-0	8-0-0	9-4-0	10-8-0	12-0-0	13-4-0	14-8-0	15-0-8
1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	0-4-8

LOADING (psf)		**SPACING-**	2-0-0	**CSI.**		**DEFL.**	in	(loc)	l/defl	L/d	**PLATES**	**GRIP**
TCLL	40.0	Plate Grip DOL	1.00	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.02	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	14	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-R							Weight: 68 lb	FT = 20%F, 11%E

LUMBER-

TOP CHORD	2x4 SP No.1(flat)
BOT CHORD	2x4 SP No.1(flat)
WEBS	2x4 SP No.3(flat)
OTHERS	2x4 SP No.3(flat)

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 15-0-8.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 25, 14, 24, 23, 22, 21, 20, 19, 18, 17, 16, 15

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) All plates are 1.5x3 MT20 unless otherwise indicated.
2) Plates checked for a plus or minus 1 degree rotation about its center.
3) Gable requires continuous bottom chord bearing.
4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
5) Gable studs spaced at 1-4-0 oc.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

September 13,2024

ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 8 Magnolia Hills	I68196597
J0724-4080	F1	FLOOR	8	1	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Jul 12 2024 MiTek Industries, Inc. Fri Sep 13 05:02:31 2024 Page 1
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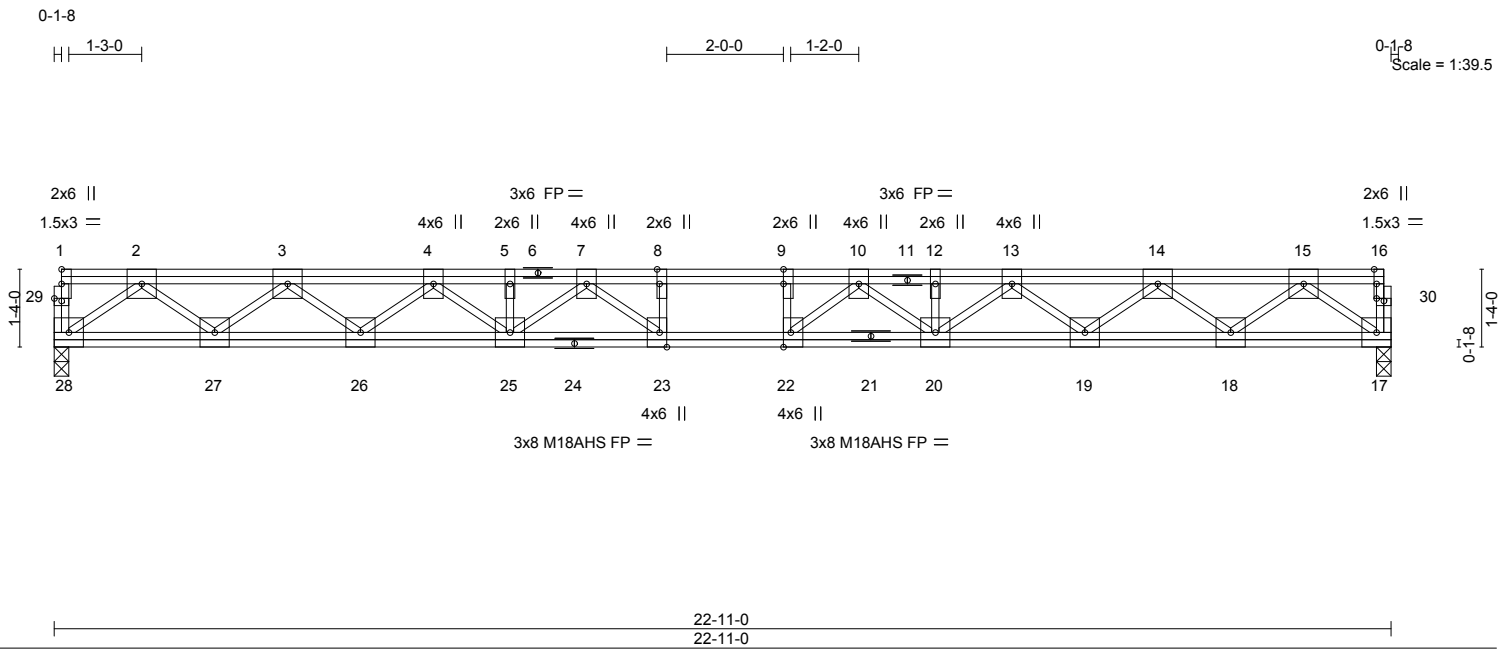

Plate Offsets (X,Y)-- [8:0-3-0,Edge], [9:0-3-0,0-0-0], [16:0-3-0,Edge], [22:0-3-0,Edge], [23:0-3-0,Edge], [29:0-1-8,0-0-8], [30:0-1-8,0-0-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.16	Vert(LL)	-0.32	22-23	>846	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.62	Vert(CT)	-0.44	22-23	>615	360	M18AHS	186/179
BCLL	0.0	Rep Stress Incr	YES	WB	0.65	Horz(CT)	0.05	17	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 181 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP 2400F 2.0E(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 28=0-3-0, 17=0-3-0
Max Grav 28=1240(LC 1), 17=1240(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2545/0, 3-4=-4416/0, 4-5=-5726/0, 5-7=-5726/0, 7-8=-6351/0, 8-9=-6351/0, 9-10=-6351/0, 10-12=-5726/0, 12-13=-5726/0, 13-14=-4416/0, 14-15=-2544/0
BOT CHORD 27-28=0/1512, 26-27=0/3635, 25-26=0/5170, 23-25=0/6105, 22-23=0/6351, 20-22=0/6104, 19-20=0/5170, 18-19=0/3635, 17-18=0/1512
WEBS 2-28=-1869/0, 2-27=0/1370, 3-27=-1442/0, 3-26=0/1034, 4-26=-999/0, 4-25=0/721, 15-17=-1869/0, 15-18=0/1370, 14-18=-1443/0, 14-19=0/1034, 13-19=-998/0, 13-20=0/720, 10-20=-555/0, 7-25=-546/0, 7-23=-197/767, 8-23=-367/45, 9-22=-385/48, 10-22=-192/772

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) All plates are 6x6 MT20 unless otherwise indicated.
4) Plates checked for a plus or minus 1 degree rotation about its center.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

September 13,2024

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 8 Magnolia Hills
J0724-4080	F1-A	FLOOR	1	1	I68196598
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Jul 12 2024 MiTek Industries, Inc. Fri Sep 13 05:02:32 2024 Page 1
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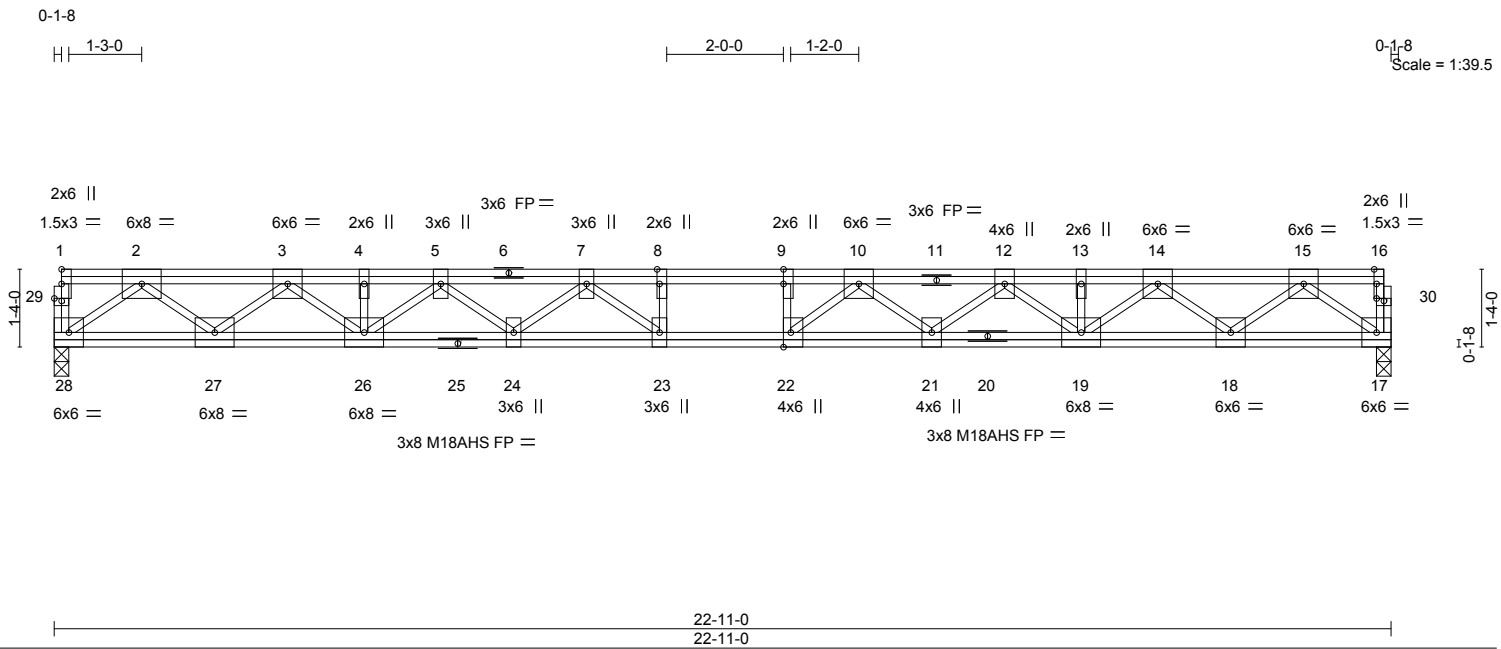

Plate Offsets (X,Y)-- [8:0-3-0,Edge], [9:0-3-0,0-0-0], [16:0-3-0,Edge], [22:0-3-0,Edge], [29:0-1-8,0-0-8], [30:0-1-8,0-0-8]

LOADING (psf)		SPACING-	1-4-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.36	Vert(LL)	-0.35	23-24	>783	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.56	Vert(CT)	-0.47	23-24	>570	360	M18AHS	186/179
BCLL	0.0	Rep Stress Incr	NO	WB	0.85	Horz(CT)	0.05	17	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 181 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP 2400F 2.0E(flat)
BOT CHORD 2x4 SP 2400F 2.0E(flat)
WEBS 2x4 SP No.3(flat)

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 28=0-3-0, 17=0-3-0
Max Grav 28=1777(LC 1), 17=1106(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3515/0, 3-4=-5984/0, 4-5=-5984/0, 5-7=-7227/0, 7-8=-7099/0, 8-9=-7099/0, 9-10=-7099/0, 10-12=-5730/0, 12-13=-4301/0, 13-14=-4301/0, 14-15=-2347/0
BOT CHORD 27-28=0/2165, 26-27=0/4967, 24-26=0/6854, 23-24=0/7495, 22-23=0/7099, 21-22=0/6396, 19-21=0/5135, 18-19=0/3392, 17-18=0/1366
WEBS 2-28=-2677/0, 2-27=0/1791, 3-27=-1921/0, 3-26=0/1319, 15-17=-1688/0, 15-18=0/1302, 14-18=-1382/0, 14-19=0/1179, 12-19=-1081/0, 12-21=0/788, 10-21=-898/0, 5-26=-1127/0, 5-24=0/493, 7-24=-367/0, 7-23=-845/0, 8-23=0/296, 10-22=0/1244, 9-22=-549/0

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 17-28=-7, 1-8=-187, 8-16=-67

September 13,2024

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 8 Magnolia Hills
J0724-4080	F2	Floor	4	1	I68196599
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Jul 12 2024 MiTek Industries, Inc. Fri Sep 13 05:02:32 2024 Page 1
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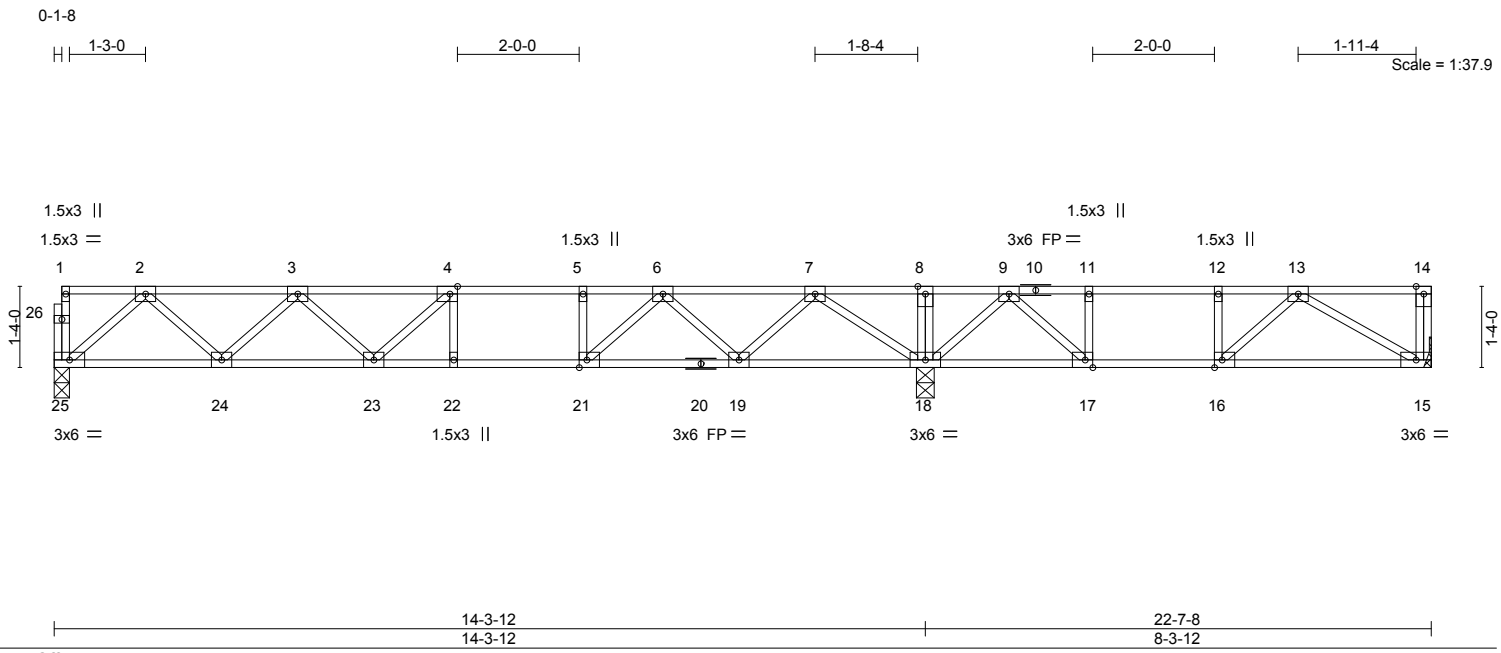

Plate Offsets (X,Y)-- [4:0-1-8,Edge], [16:0-1-8,Edge], [17:0-1-8,Edge], [21:0-1-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.49	Vert(LL)	-0.13	22-23	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.74	Vert(CT)	-0.18	22-23	>953	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.34	Horz(CT)	0.03	15	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 116 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 17-18,16-17.

REACTIONS. (size) 25=0-3-0, 18=0-3-8, 15=Mechanical
Max Grav 25=749(LC 10), 18=1330(LC 1), 15=434(LC 4)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1304/0, 3-4=-1975/0, 4-5=-2098/0, 5-6=-2098/0, 6-7=-1281/0, 7-8=0/541, 8-9=0/539, 9-11=-673/24, 11-12=-673/24, 12-13=-673/24
BOT CHORD 24-25=0/794, 23-24=0/1788, 22-23=0/2098, 21-22=0/2098, 19-21=0/1762, 18-19=0/789, 17-18=-237/339, 16-17=-24/673, 15-16=0/563
WEBS 7-18=-1305/0, 7-19=0/711, 6-19=-712/0, 6-21=0/611, 5-21=-276/0, 2-25=-1055/0, 2-24=0/708, 3-24=-674/0, 3-23=0/298, 4-23=-303/25, 9-18=-654/0, 9-17=0/615, 11-17=-337/0, 13-15=-652/0

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x4 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
4) Refer to girder(s) for truss to truss connections.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
6) CAUTION, Do not erect truss backwards.

September 13,2024

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 8 Magnolia Hills
J0724-4080	F3	Floor	8	1	I68196600
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Jul 12 2024 MiTek Industries, Inc. Fri Sep 13 05:02:33 2024 Page 1
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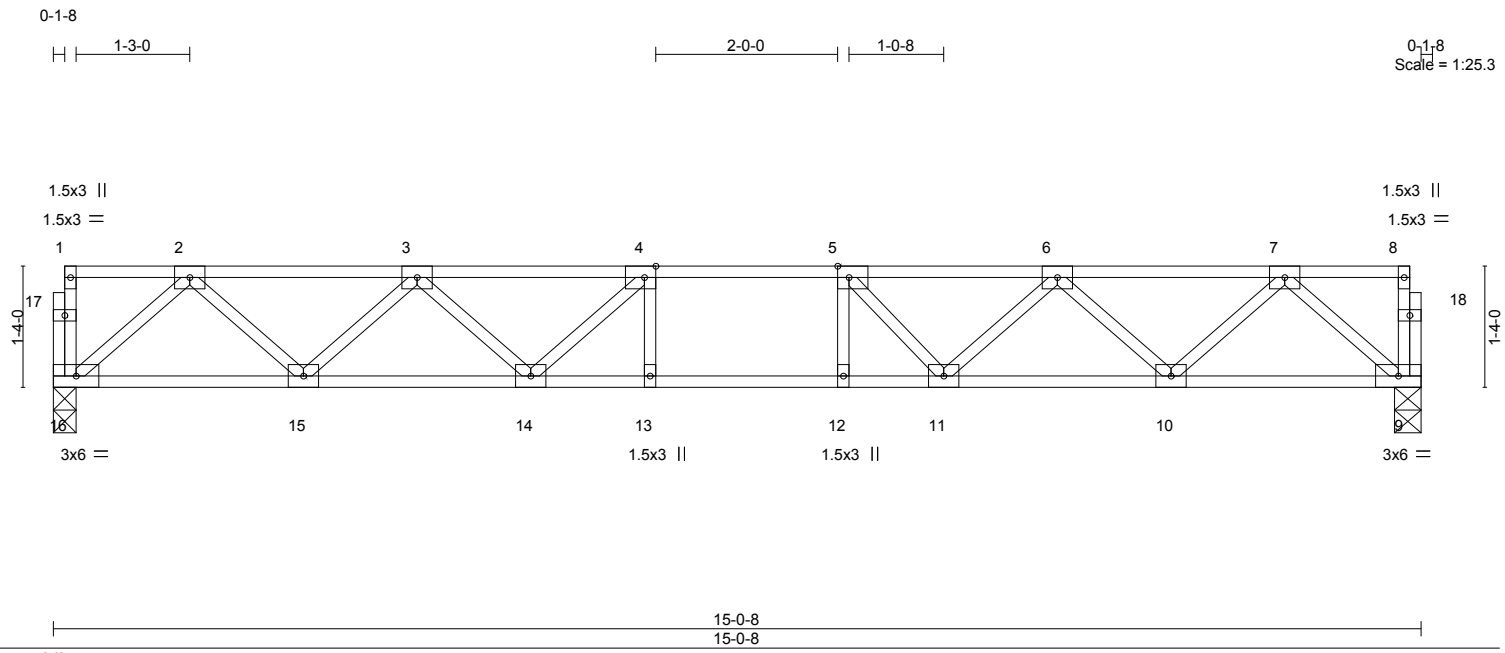

Plate Offsets (X,Y)-- [4:0-1-8,Edge], [5:0-1-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.37	Vert(LL)	-0.13	13-14	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.71	Vert(CT)	-0.17	13-14	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.37	Horz(CT)	0.04	9	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 78 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 16=0-3-0, 9=0-3-8
Max Grav 16=807(LC 1), 9=807(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1429/0, 3-4=-2224/0, 4-5=-2465/0, 5-6=-2230/0, 6-7=-1428/0
BOT CHORD 15-16=0/863, 14-15=0/1966, 13-14=0/2465, 12-13=0/2465, 11-12=0/2465, 10-11=0/1958, 9-10=0/866
WEBS 2-16=-1147/0, 2-15=0/787, 3-15=-747/0, 3-14=0/415, 4-14=-499/0, 7-9=-1150/0, 7-10=0/781, 6-10=-738/0, 6-11=0/441, 5-11=-521/0

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x4 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

September 13,2024

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 8 Magnolia Hills
J0724-4080	F4	FLOOR	4	1	I68196601
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Jul 12 2024 MiTek Industries, Inc. Fri Sep 13 05:02:33 2024 Page 1
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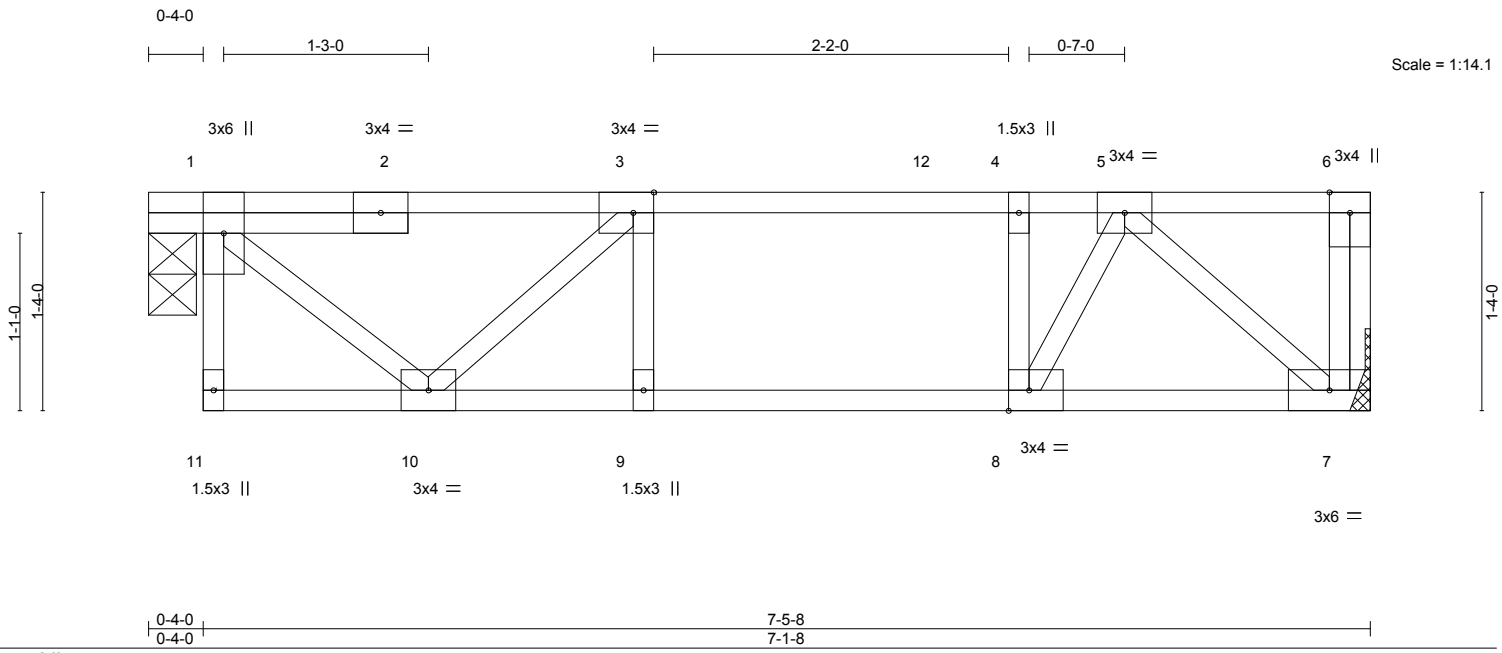

Plate Offsets (X,Y)-- [3:0-1-8,Edge], [8:0-1-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.30	Vert(LL)	-0.03	7-8	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.32	Vert(CT)	-0.03	7-8	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.23	Horz(CT)	0.01	7	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 41 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 7=Mechanical, 1=0-3-8
Max Grav 7=628(LC 1), 1=436(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-3=-364/0, 3-4=-685/0, 4-5=-685/0
BOT CHORD 9-10=0/685, 8-9=0/685, 7-8=0/557
WEBS 1-10=0/477, 3-10=-443/0, 5-7=-742/0, 5-8=0/333, 4-8=-256/0

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) Plates checked for a plus or minus 1 degree rotation about its center.
3) Refer to girder(s) for truss to truss connections.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
5) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
6) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 7-11=-10, 1-12=-100, 6-12=-220

September 13,2024

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 8 Magnolia Hills	I68196602
J0724-4080	FG1	FLOOR GIRDER	1	1	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314, 8.630 s Jul 12 2024 MiTek Industries, Inc. Fri Sep 13 05:02:33 2024 Page 1
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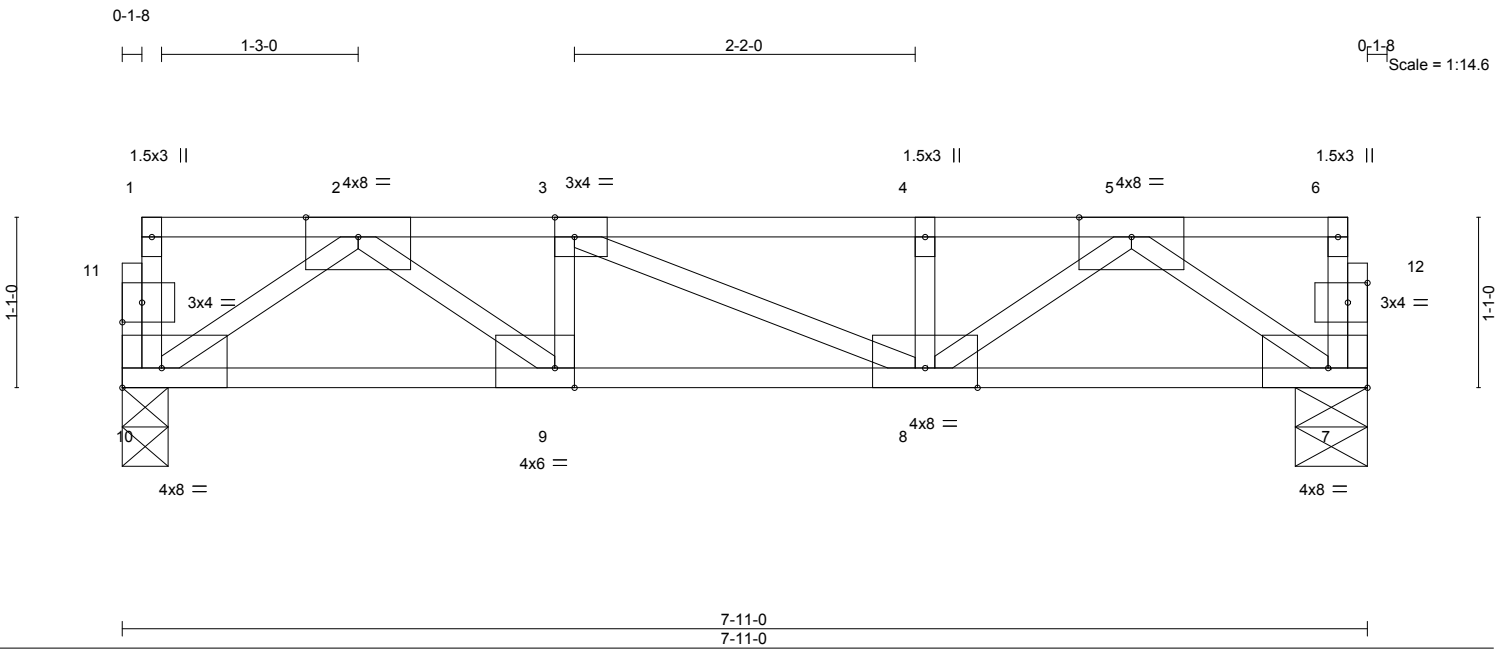


Plate Offsets (X,Y)-- [3:0-1-8,Edge], [7:Edge,0-1-8], [9:0-1-8,Edge], [10:Edge,0-1-8], [11:0-1-8,0-1-8], [12:0-1-8,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.68	Vert(LL)	-0.06	8-9	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.71	Vert(CT)	-0.08	8-9	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.74	Horz(CT)	0.03	7	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 42 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP 2400F 2.0E(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 10=0-3-8, 7=0-5-8
Max Grav 10=1735(LC 1), 7=1735(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-10=-261/0, 6-7=-261/0, 2-3=-3357/0, 3-4=-3359/0, 4-5=-3359/0
BOT CHORD 9-10=0/2110, 8-9=0/3357, 7-8=0/2110
WEBS 2-10=-2551/0, 2-9=0/1544, 3-9=-888/0, 5-7=-2551/0, 5-8=0/1546, 4-8=-890/0

NOTES-
1) Plates checked for a plus or minus 1 degree rotation about its center.
2) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

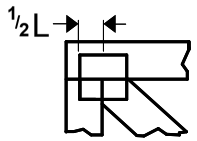
LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 7-10=-10, 1-6=-450

September 13,2024

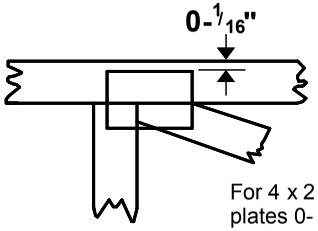
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Symbols

PLATE LOCATION AND ORIENTATION



Center plate on joint unless x, y offsets are indicated. Dimensions are in ft-in-sixteenths. Apply plates to both sides of truss and fully embed teeth.



For 4 x 2 orientation, locate plates 0- 1/16" from outside edge of truss.

This symbol indicates the required direction of slots in connector plates.

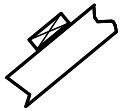
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

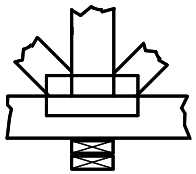
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



Indicated by symbol shown and/or by text in the bracing section of the output. Use T or I bracing if indicated.

BEARING

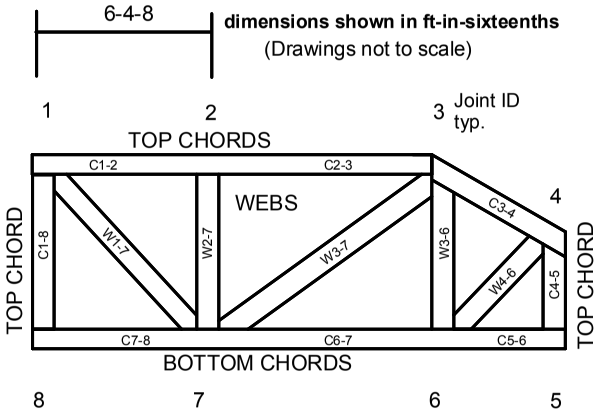


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-22: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.

Product Code Approvals

ICC-ES Reports:

ESR-1988, ESR-2362, ESR-2685, ESR-3282
ESR-4722, ESL-1388

Design General Notes

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.

Lumber design values are in accordance with ANSI/TPI 1 section 6.3 These truss designs rely on lumber values established by others.

MiTek®

ENGINEERING BY TRENCO
A MiTek Affiliate

MiTek Engineering Reference Sheet: MII-7473 rev. 1/2/2023

General Safety Notes

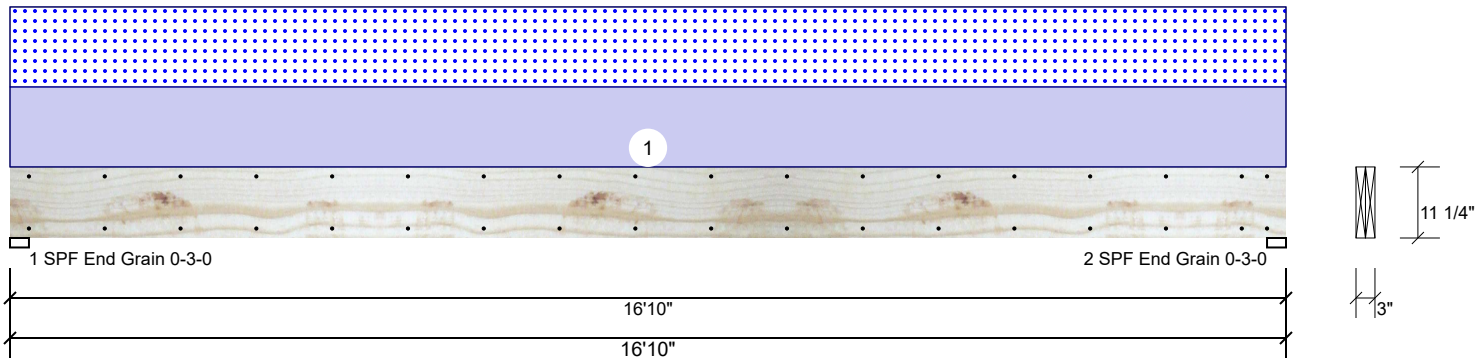
Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.

Client:		Date:	9/12/2024
Project:		Input by:	Neal Baggett
Address:		Job Name:	8 MAGNOLIA HILLS
		Project #:	

GDH 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	337	337	0	0
2	Vertical	0	337	337	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	Vert	13%	337 / 337	673	L	D+S
2 - SPF End Grain	3.000"	Vert	13%	337 / 337	673	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2709 ft-lb	8'5"	4548 ft-lb	0.596 (60%)	D+S	L
Unbraced	2709 ft-lb	8'5"	2710 ft-lb	1.000 (100%)	D+S	L
Shear	578 lb	1'2 1/4"	4528 lb	0.128 (13%)	D+S	L
LL Defl inch	0.133 (L/1490)	8'5 1/16"	0.411 (L/480)	0.322 (32%)	S	L
TL Defl inch	0.265 (L/745)	8'5 1/16"	0.549 (L/360)	0.483 (48%)	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 14' 3/16" o.c.
7. Bottom must be laterally braced at end bearings.
8. Lateral slenderness ratio based on single ply width.

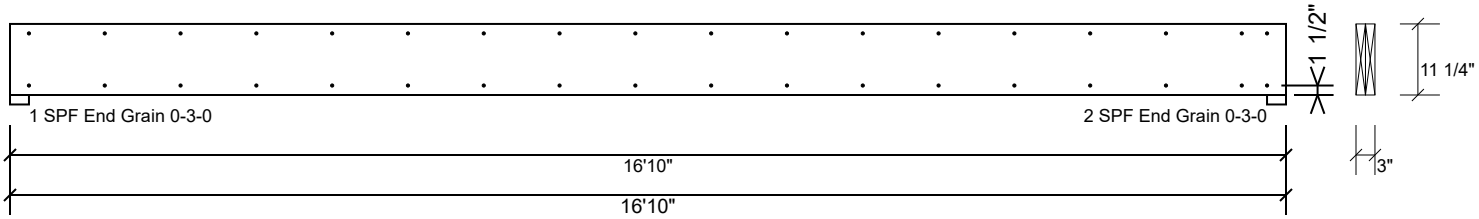
ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	40 PLF	0 PLF	40 PLF	0 PLF	0 PLF	P3

Manufacturer Info

This design is valid until 6/28/2026

GDH 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.
C_M	1
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

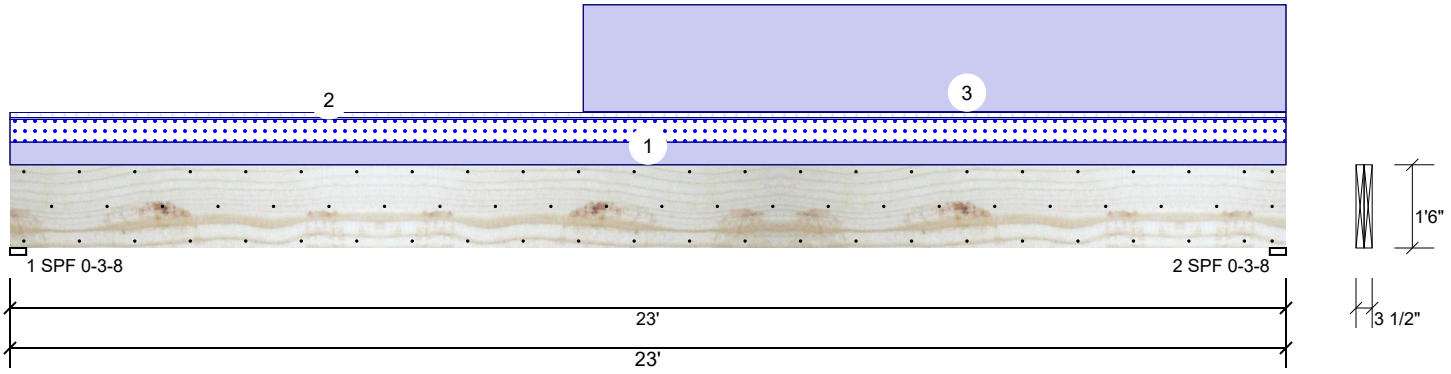
Manufacturer Info

This design is valid until 6/28/2026

Client:		Date:	9/12/2024
Project:		Input by:	Neal Baggett
Address:		Job Name:	8 MAGNOLIA HILLS
		Project #:	

DB1 Kerto-S LVL 1.750" X 18.000" 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	278	1762	621	0	0
2	Vertical	278	3241	621	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	Vert	47%	1762 / 674	2436	L	D+0.75(L+S)
2 - SPF	3.500"	Vert	75%	3241 / 674	3915	L	D+0.75(L+S)

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	15112 ft-lb	13'2 7/8"	38683 ft-lb	0.391 (39%)	D	Uniform
Unbraced	18767 ft-lb	12'11 3/4"	18779 ft-lb	0.999 (100%)	D+0.75(L+S)	L
Shear	2761 lb	21'2 1/2"	12096 lb	0.228 (23%)	D	Uniform
LL Defl inch	0.107 (L/2523)	11'6 1/16"	0.564 (L/480)	0.190 (19%)	0.75(L+S)	L
TL Defl inch	0.522 (L/519)	11'11 11/16"	0.752 (L/360)	0.694 (69%)	D+0.75(L+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 a maximum of 7'1 3/8" o.c.
7. Bottom must be laterally braced at end bearings.
8. Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Near Face	54 PLF	0 PLF	54 PLF	0 PLF	0 PLF	P TRUSSES
2	Tie-In Far	0-0-0 to 23-0-0	0-7-4	Far Face	15 PSF	40 PSF	0 PSF	0 PSF	0 PSF	FLOOR LOADING
2	Tie-In Near	0-0-0 to 23-0-0	0-0-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	0 PSF	FLOOR LOADING
3	Part. Uniform	10-4-0 to 23-0-0		Top	255 PLF	0 PLF	0 PLF	0 PLF	0 PLF	WALL & C1GE
	Self Weight				14 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 6/28/2026

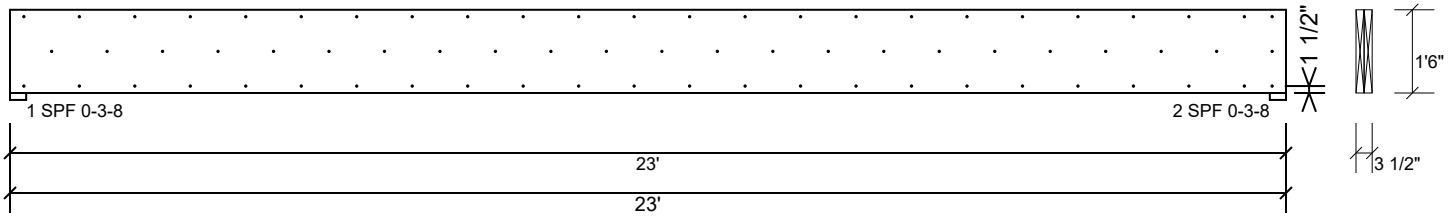
Manufacturer Info

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

Client:		Date:	9/12/2024
Project:		Input by:	Neal Baggett
Address:		Job Name:	8 MAGNOLIA HILLS
		Project #:	

DB1 Kerto-S LVL 1.750" X 18.000" 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	19.1 %
Load	54.0 PLF
Yield Limit per Foot	282.4 PLF
Yield Limit per Fastener	94.1 lb.
C_M	1
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

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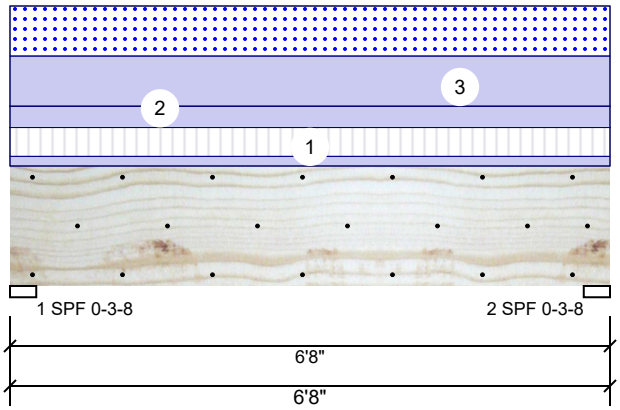
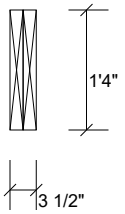
Client:		Date:	9/12/2024
Project:		Input by:	Neal Baggett
Address:		Job Name:	8 MAGNOLIA HILLS
		Project #:	

FB2 Kerto-S LVL 1.750" X 16.000" 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	540	1558	937	0	0
2	Vertical	540	1558	937	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	Vert	51%	1558 / 1108	2666	L	D+0.75(L+S)
2 - SPF	3.500"	Vert	51%	1558 / 1108	2666	L	D+0.75(L+S)

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3879 ft-lb	3'4"	39750 ft-lb	0.098 (10%)	D+0.75(L+S)	L
Unbraced	3879 ft-lb	3'4"	18821 ft-lb	0.206 (21%)	D+0.75(L+S)	L
Shear	1617 lb	5' 1/2"	13739 lb	0.118 (12%)	D+0.75(L+S)	L
LL Defl inch	0.008 (L/9314)	3'4"	0.156 (L/480)	0.052 (5%)	0.75(L+S)	L
TL Defl inch	0.019 (L/3870)	3'4"	0.208 (L/360)	0.093 (9%)	D+0.75(L+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			Near Face	54 PLF	162 PLF	0 PLF	0 PLF	0 PLF	F2
2	Uniform			Top	120 PLF	0 PLF	0 PLF	0 PLF	0 PLF	WALL
3	Uniform			Top	281 PLF	0 PLF	281 PLF	0 PLF	0 PLF	B2-A
	Self Weight				12 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
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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Manufacturer Info

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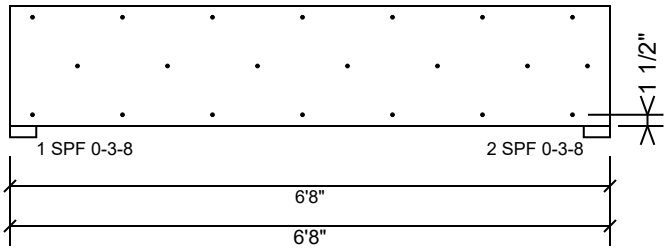
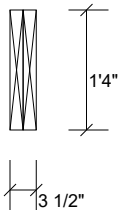
FB2 Kerto-S LVL 1.750" X 16.000" 2-Ply - PASSED

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	44.0 %
Load	108.0 PLF
Yield Limit per Foot	245.6 PLF
Yield Limit per Fastener	81.9 lb.
C_M	1
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	D+L
Duration Factor	1.00

Notes

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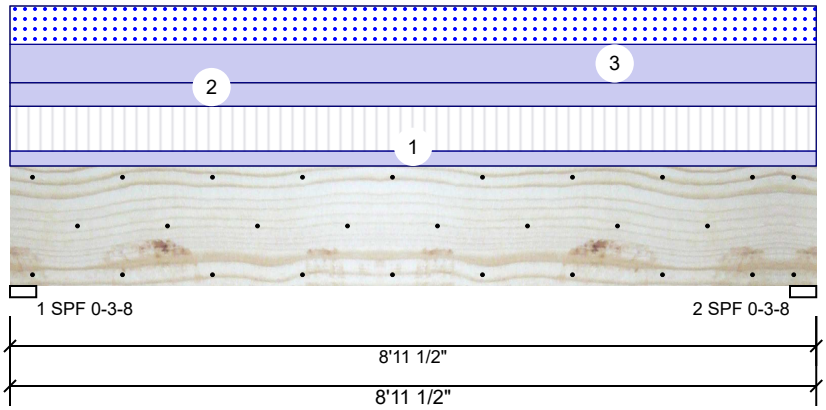
Manufacturer Info

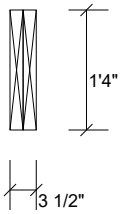
Metsä Wood
301 Merritt 7 Building, 2nd Floor
Norwalk, CT 06851
(800) 622-5850
www.metsawood.com/us

Client:		Date:	9/12/2024
Project:		Input by:	Neal Baggett
Address:		Job Name:	8 MAGNOLIA HILLS
		Project #:	

FB1 Kerto-S LVL 1.750" X 16.000" 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	1021	1807	873	0	0
2	Vertical	1021	1807	873	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	Vert	62%	1807 / 1421	3228	L	D+0.75(L+S)
2 - SPF	3.500"	Vert	62%	1807 / 1421	3228	L	D+0.75(L+S)

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	5731 ft-lb	4'5 3/4"	34565 ft-lb	0.166 (17%)	D+L	L
Unbraced	6541 ft-lb	4'5 3/4"	13975 ft-lb	0.468 (47%)	D+0.75(L+S)	L
Shear	2224 lb	1'7 1/2"	11947 lb	0.186 (19%)	D+L	L
LL Defl inch	0.022 (L/4718)	4'5 13/16"	0.213 (L/480)	0.102 (10%)	0.75(L+S)	L
TL Defl inch	0.049 (L/2077)	4'5 13/16"	0.284 (L/360)	0.173 (17%)	D+0.75(L+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			Near Face	76 PLF	228 PLF	0 PLF	0 PLF	0 PLF	F4
2	Uniform			Top	120 PLF	0 PLF	0 PLF	0 PLF	0 PLF	WALL
3	Uniform			Top	195 PLF	0 PLF	195 PLF	0 PLF	0 PLF	B4
	Self Weight				12 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 6/28/2026

Manufacturer Info

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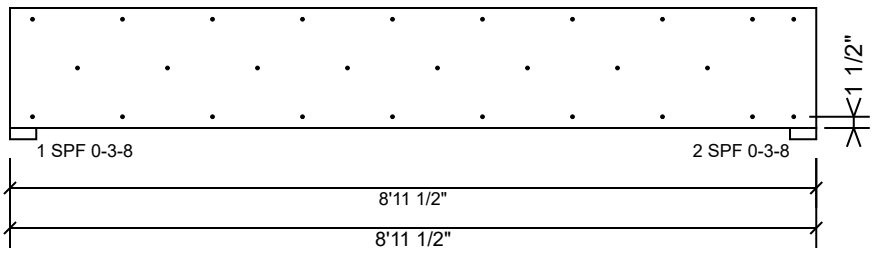
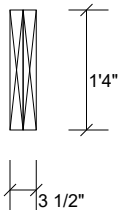
FB1 Kerto-S LVL 1.750" X 16.000" 2-Ply - PASSED

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	61.9 %
Load	152.0 PLF
Yield Limit per Foot	245.6 PLF
Yield Limit per Fastener	81.9 lb.
C_M	1
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	D+L
Duration Factor	1.00

Notes

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Lumber

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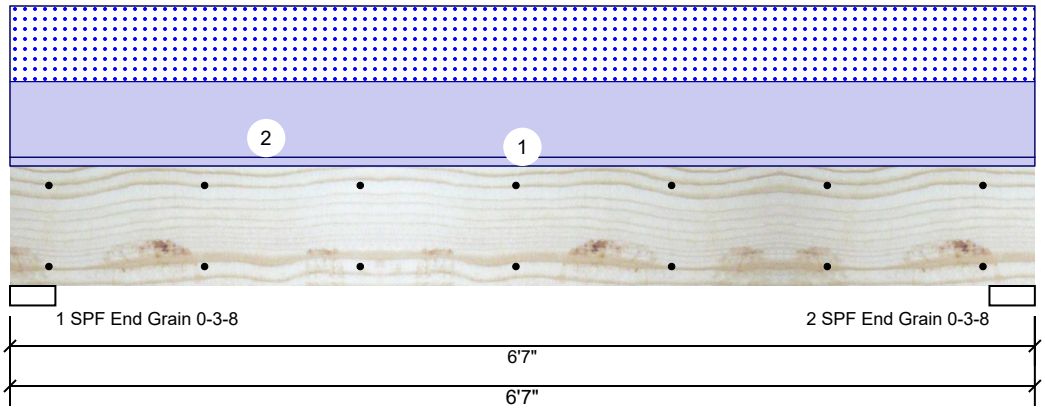
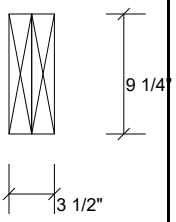
www.metsawood.com/us

Client:		Date:	9/12/2024
Project:		Input by:	Neal Baggett
Address:		Job Name:	8 MAGNOLIA HILLS
		Project #:	

HDR1 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	1449	1277	0	0
2	Vertical	0	1449	1277	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	26%	1449 / 1277	2726	L	D+S
2 - SPF End Grain	3.500"	Vert	26%	1449 / 1277	2726	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3884 ft-lb	3'3 1/2"	14423 ft-lb	0.269 (27%)	D+S	L
Unbraced	3884 ft-lb	3'3 1/2"	10451 ft-lb	0.372 (37%)	D+S	L
Shear	1852 lb	1' 3/4"	7943 lb	0.233 (23%)	D+S	L
LL Defl inch	0.033 (L/2221)	3'3 1/2"	0.153 (L/480)	0.216 (22%)	S	L
TL Defl inch	0.071 (L/1041)	3'3 1/2"	0.204 (L/360)	0.346 (35%)	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	45 PLF	0 PLF	0 PLF	0 PLF	0 PLF	WALL
2	Uniform			Top	388 PLF	0 PLF	388 PLF	0 PLF	0 PLF	
	Self Weight				7 PLF					

Notes

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Lumber

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Handling & Installation

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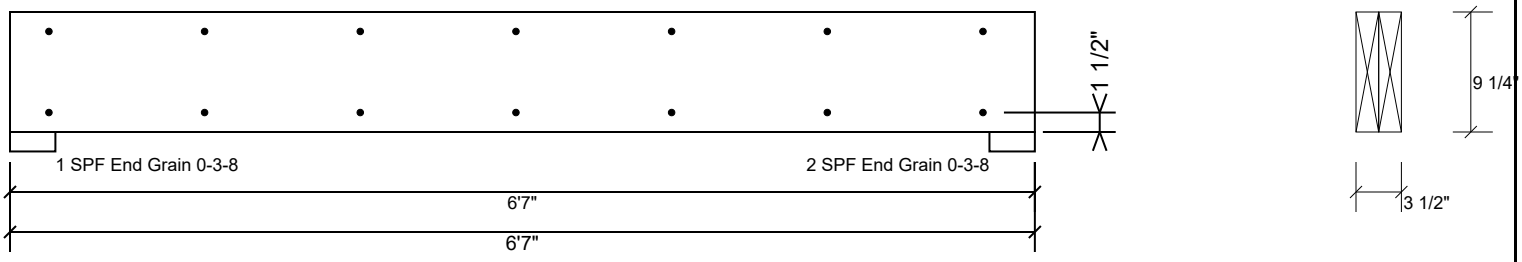
		Project #:	

HDR1 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.
C_M	1
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

Notes

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www.metsawood.com/us

Reaction Summary of Order

ComTech ROOF & FLOOR TRUSSES & BEAMS
Reilly Road Industrial Park P.O. Box 40408
Fayetteville, N.C. 28309 (910) 864-TRUS

REQ. QUOTE DATE	/ /	**ORDER #**	J0724-4080
ORDER DATE	07/17/24	**QUOTE #**	
DELIVERY DATE	/ /	**CUSTOMER ACCT #**	0000007216
DATE OF INVOICE	/ /	**CUSTOMER PO #**	
ORDERED BY	Shaun Garderner	**INVOICE #**	
COUNTY	Harnett	**TERMS**	
SUPERINTENDANT	Shaun Garderner	**SALES REP**	Neil Baggett
JOBSITE PHONE #	(910) 988-8172	**SALES AREA**	Neil Baggett

SOLD TO
Precision Custom Homes
206 Shoreline Drive
Raeford, NC 28376
(910) 988-8172

SHIP TO
Precision Custom Homes and
Lot 8 Magnolia Hills
Cameron, NC

JOB NAME: Lot 8 Magnolia Hills **LOT #** 8 **SUBDIV:** Magnolia Hills
MODEL: Floor **TAG:** Hazlitt w/CP **JOB CATEGORY:** WCall - Will Call

DELIVERY INSTRUCTIONS:
60 miles round trip

SPECIAL INSTRUCTIONS:
Like 64 Liberty Meadows

PLAN SEAL DATE: 9/10/24

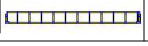
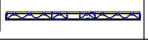
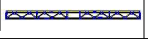
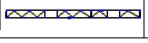
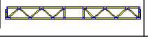
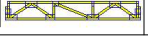
BUILDING DEPARTMENT	OVERHANG INFO		HEEL HEIGHT	00-04-05	REQ. LAYOUTS		REQ. ENGINEERING		QUOTE	BY	DATE
Floor Order	END CUT	RETURN									/ /
	PLUMB		GABLE STUDS	24 IN. OC	JOBSITE 1		JOBSITE 1		LAYOUT	NB	09/12/24
									CUTTING	NB	09/12/24

FLOOR TRUSSES

LOADING INFORMATION

TCLL-TCDL-BCLL-BCDL	STRESS INCR.
40.0,10.0,0.0,5.0	1.00

FLOOR TRUSS SPACING: 24.0 IN. O.C. (TYP.)

FLOOR PROFILE	QTY / PLY	DEPTH ID	BASE SPAN	O/A SPAN	END TYPE LEFT	END TYPE RIGHT	INT BEARING SIZE	INT BEARING LOCATION	REACTIONS
	1	01-04-00 ET1	15-00-08	15-00-08					Joint 14 82.7 lbs. Joint 15 160.8 lbs. Joint 16 142.7 lbs. Joint 17 147.7 lbs. Joint 18 146.4 lbs.
	8	01-04-00 F1	22-11-00	22-11-00					Joint 17 1239.8 lbs. 609.9 lbs. Joint 28 1239.8 lbs. 606.2 lbs.
	1	01-04-00 F1-A	22-11-00	22-11-00					Joint 17 1106.2 lbs. 686.2 lbs. Joint 28 1776.9 lbs. 1354.5 lbs.
	4	01-04-00 F2	22-07-08	22-07-08					Joint 15 433.8 lbs. 60.5 lbs. Joint 18 1330.1 lbs. 689.6 lbs. Joint 25 748.9 lbs. 201.6 lbs.
	8	01-04-00 F3	15-00-08	15-00-08					Joint 9 807.3 lbs. 418.9 lbs. Joint 16 807.3 lbs. 409.3 lbs.
	4	01-04-00 F4	07-05-08	07-05-08					Joint 1 435.6 lbs. 265.4 lbs. Joint 7 627.5 lbs. 489.4 lbs.
	1	01-01-00 FG1	07-11-00	07-11-00					Joint 7 1735.2 lbs. Joint 10 1735.2 lbs.

ITEMS

QTY	ITEM TYPE	SIZE	LENGTH FT-IN-16	PART NUMBER	NOTES
8	Hangers, USP	HUS 410			SIMPSON (HUS410)
2	BlueLinx (F)	LVL, Metsa(F) 2.0,	07-00-00		HDR1

Reaction Summary of Order

ComTech ROOF & FLOOR TRUSSES & BEAMS
Reilly Road Industrial Park P.O. Box 40408
Fayetteville, N.C. 28309 (910) 864-TRUS

REQ. QUOTE DATE	/ /	**ORDER #**	J0724-4080
ORDER DATE	07/17/24	**QUOTE #**	
DELIVERY DATE	/ /	**CUSTOMER ACCT #**	0000007216
DATE OF INVOICE	/ /	**CUSTOMER PO #**	
ORDERED BY	Shaun Garderner	**INVOICE #**	
COUNTY	Harnett	**TERMS**	
SUPERINTENDANT	Shaun Garderner	**SALES REP**	Neil Baggett
JOBSITE PHONE #	(910) 988-8172	**SALES AREA**	Neil Baggett

SOLD TO
Precision Custom Homes
206 Shoreline Drive
Raeford, NC 28376
(910) 988-8172

SHIP TO
Precision Custom Homes and
Lot 8 Magnolia Hills
Cameron, NC

JOB NAME: Lot 8 Magnolia Hills **LOT #** 8 **SUBDIV:** Magnolia Hills
MODEL: Floor **TAG:** Hazlitt w/CP **JOB CATEGORY:** WCall - Will Call

DELIVERY INSTRUCTIONS:
60 miles round trip

SPECIAL INSTRUCTIONS:
Like 64 Liberty Meadows

PLAN SEAL DATE: 9/10/24

BUILDING DEPARTMENT
Floor Order

OVERHANG INFO		**HEEL HEIGHT**	00-04-05	**REQ. LAYOUTS**				**REQ. ENGINEERING**					**BY**	**DATE**
END CUT	**RETURN**											**QUOTE**		/ /
PLUMB		**GABLE STUDS**	24 IN. OC			JOBSITE	1			JOBSITE	1	**LAYOUT**	NB	09/12/24
												CUTTING	NB	09/12/24

ITEMS

QTY	ITEM TYPE	SIZE	LENGTH FT-IN-16	PART NUMBER	NOTES
2	BlueLinx (F)	LVL, Metsa(F) 2.0, 16"	09-00-00		FB1
2	BlueLinx (F)	LVL, Metsa(F) 2.0, 16"	07-00-00		FB2
2	BlueLinx (F)	LVL, Metsa(F) 2.0, 18"	23-00-00		DB1

Reaction Summary of Order

ComTech ROOF & FLOOR TRUSSES & BEAMS
Reilly Road Industrial Park P.O. Box 40408
Fayetteville, N.C. 28309 (910) 864-TRUS

REQ. QUOTE DATE	/ /	**ORDER #**	J0724-4079
ORDER DATE	07/17/24	**QUOTE #**	
DELIVERY DATE	/ /	**CUSTOMER ACCT #**	0000007216
DATE OF INVOICE	/ /	**CUSTOMER PO #**	
ORDERED BY	Shaun Garderner	**INVOICE #**	
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MODEL: Roof **TAG:** Hazlitt w/CP **JOB CATEGORY:** WCall - Will Call

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Like 64 Liberty Meadows

PLAN SEAL DATE: 9/10/24

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Roof Order	**END CUT**	**RETURN**											**QUOTE**		/ /
	PLUMB		**GABLE STUDS**	24 IN. OC			JOBSITE	1			JOBSITE	1	**LAYOUT**	NB	09/12/24
													CUTTING	NB	09/12/24

ROOF TRUSSES

LOADING INFORMATION

TCLL-TCDL-BCLL-BCDL	STRESS INCR.
20.0,10.0,0.0,10.0	1.15

ROOF TRUSS SPACING: 24.0 IN. O.C. (TYP.)

PROFILE	QTY	PITCH		TYPE	BASE	LUMBER		OVERHANG		REACTIONS				
	PLY	TOP	BOT	ID	O/A	TOP	BOT	LEFT	RIGHT					
	1	4.00	0.00	GABLE A1GE	37-04-08 37-04-08	2 X 6	2 X 6	01-02-08		Joint 2 197.5 lbs. -95.6 lbs.	Joint 22 184.4 lbs. -64.6 lbs.	Joint 23 200.4 lbs. -151.8 lbs.	Joint 24 176.6 lbs. -87.9 lbs.	Joint 25 176.6 lbs. -87.0 lbs.
	5	4.00	0.00	ROOF A2	37-04-08 37-04-08	2 X 6	2 X 6	01-02-08		Joint 2 1555.5 lbs. -117.0 lbs.	Joint 9 1639.6 lbs. -65.6 lbs.			
	2	4.00	0.00	ROOF A2A	37-04-08 37-04-08	2 X 6	2 X 6			Joint 1 1486.7 lbs. -101.1 lbs.	Joint 8 1652.2 lbs. -65.6 lbs.			
	2	4.00	0.00	ROOF A3	37-04-08 37-04-08	2 X 6	2 X 6		01-02-08	Joint 1 8402.4 lbs. -884.1 lbs.	Joint 8 1718.7 lbs. -82.3 lbs.			
	2	4.00	0.00	ROOF A4	35-05-00 35-04-08	2 X 6	2 X 6	01-02-08		Joint 2 1463.8 lbs. -114.6 lbs.	Joint 11 1528.6 lbs. -47.7 lbs.			
	1	4.00	0.00	ROOF A4A	35-05-00 35-04-08	2 X 6	2 X 6			Joint 1 1395.0 lbs. -98.6 lbs.	Joint 10 1529.2 lbs. -47.7 lbs.			
	2	4.00	0.00	ROOF A5	35-07-00 24-01-08	2 X 6	2 X 6	01-02-08		Joint 2 1794.7 lbs. -105.7 lbs.	Joint 8 1050.3 lbs. -142.3 lbs.	Joint 10 1794.7 lbs. -105.7 lbs.		
	1	4.00	0.00	ROOF A6	35-07-00 24-01-08	2 X 6	2 X 6	01-02-08		Joint 2 550.6 lbs. -90.7 lbs.	Joint 8 194.6 lbs. -53.4 lbs.	Joint 10 1343.3 lbs. -139.4 lbs.		
	1	4.00	0.00	ROOF A7	16-10-00 16-07-00	2 X 6	2 X 6	01-02-08		Joint 2 672.7 lbs. -73.5 lbs.	Joint 9 710.1 lbs. -133.1 lbs.			
	1	4.00	0.00	GABLE B1SG	23-00-00 23-00-00	2 X 6	2 X 6	01-02-08	01-02-08	Joint 2 971.7 lbs. -280.2 lbs.	Joint 14 992.3 lbs. -336.6 lbs.			
	5	4.00	0.00	MONOPITCH B2	23-00-00 23-00-00	2 X 6	2 X 6	01-02-08	01-02-08	Joint 2 966.2 lbs. -117.8 lbs.	Joint 9 1002.4 lbs. -138.2 lbs.			

Reaction Summary of Order

ComTech
ROOF & FLOOR TRUSSES & BEAMS
Reilly Road Industrial Park P.O. Box 40408
Fayetteville, N.C. 28309 (910) 864-TRUS

REQ. QUOTE DATE	/ /	**ORDER #**	J0724-4079
ORDER DATE	07/17/24	**QUOTE #**	
DELIVERY DATE	/ /	**CUSTOMER ACCT #**	0000007216
DATE OF INVOICE	/ /	**CUSTOMER PO #**	
ORDERED BY	Shaun Garderner	**INVOICE #**	
COUNTY	Harnett	**TERMS**	
SUPERINTENDANT	Shaun Garderner	**SALES REP**	Neil Baggett
JOBSITE PHONE #	(910) 988-8172	**SALES AREA**	Neil Baggett

SOLD TO
Precision Custom Homes
206 Shoreline Drive
Raeford, NC 28376
(910) 988-8172

SHIP TO
Precision Custom Homes and
Lot 8 Magnolia Hills
Cameron, NC

JOB NAME: Lot 8 Magnolia Hills **LOT #** 8 **SUBDIV:** Magnolia Hills
MODEL: Roof **TAG:** Hazlitt w/CP **JOB CATEGORY:** WCall - Will Call

DELIVERY INSTRUCTIONS:
60 miles round trip

SPECIAL INSTRUCTIONS:
Like 64 Liberty Meadows

PLAN SEAL DATE: 9/10/24

BUILDING DEPARTMENT
Roof Order

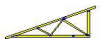
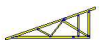
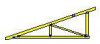
OVERHANG INFO		**HEEL HEIGHT**	00-04-05	**REQ. LAYOUTS**				**REQ. ENGINEERING**					**BY**	**DATE**
END CUT	**RETURN**											**QUOTE**		/ /
PLUMB		**GABLE STUDS**	24 IN. OC			JOBSITE	1			JOBSITE	1	**LAYOUT**	NB	09/12/24
												CUTTING	NB	09/12/24

ROOF TRUSSES

LOADING INFORMATION

TCLL-TCDL-BCLL-BCDL	STRESS INCR.
20.0,10.0,0.0,10.0	1.15

ROOF TRUSS SPACING: 24.0 IN. O.C. (TYP.)

PROFILE	QTY / PLY	PITCH TOP	PITCH BOT	TYPE ID	BASE O/A	LUMBER TOP	LUMBER BOT	OVERHANG LEFT	OVERHANG RIGHT	REACTIONS
	6	4.00	0.00	MONOPITCH B2-A	23-00-00 23-00-00	2 X 6	2 X 6	01-02-08	01-02-08	Joint 2 966.2 lbs. -117.8 lbs. Joint 11 1121.6 lbs. -138.2 lbs.
	1	4.00	0.00	GABLE B3SG	23-00-00 23-00-00	2 X 6	2 X 6	01-02-08	01-02-08	Joint 2 971.7 lbs. -280.2 lbs. Joint 11 992.3 lbs. -336.6 lbs.
	3	4.00	0.00	MONOPITCH B4	17-08-08 17-08-08	2 X 6	2 X 6	01-02-08	01-02-08	Joint 2 754.0 lbs. -98.7 lbs. Joint 9 791.3 lbs. -111.2 lbs.
	1	4.00	0.00	GABLE B5SG	17-08-08 17-08-08	2 X 6	2 X 6	01-02-08	01-02-08	Joint 2 759.7 lbs. -226.3 lbs. Joint 9 781.0 lbs. -269.3 lbs.
	8	4.00	0.00	MONOPITCH B6	15-01-00 15-01-00	2 X 6	2 X 6	01-02-08	01-02-08	Joint 2 648.6 lbs. -89.2 lbs. Joint 8 686.7 lbs. -97.9 lbs.
	1	4.00	0.00	GABLE B7GE	15-01-00 15-01-00	2 X 6	2 X 6	01-02-08	01-02-08	Joint 2 167.8 lbs. -29.6 lbs. Joint 12 190.1 lbs. -115.5 lbs. Joint 13 121.8 lbs. -30.2 lbs. Joint 14 164.2 lbs. -56.7 lbs. Joint 15 159.5 lbs. -57.7 lbs.
	1	4.00	0.00	MONOPITCH C1GE	12-08-00 12-08-00	2 X 6	2 X 6	01-02-08	01-02-08	Joint 10 141.8 lbs. -232.2 lbs. Joint 11 235.4 lbs. -22.9 lbs. Joint 12 162.6 lbs. -48.6 lbs. Joint 13 161.5 lbs. -60.7 lbs. Joint 14 162.2 lbs. -60.0 lbs.
	1	4.00	0.00	GABLE D1GE	14-05-00 14-05-00	2 X 6	2 X 6	01-02-08	01-02-08	Joint 2 208.0 lbs. -45.2 lbs. Joint 10 189.9 lbs. -114.7 lbs. Joint 11 122.2 lbs. -29.7 lbs. Joint 12 163.1 lbs. -58.0 lbs. Joint 13 174.9 lbs. -60.6 lbs.
	1 / 2 Ply	4.00	0.00	MONOPITCH D2	14-05-00 14-05-00	2 X 6	2 X 10		01-02-08	Joint 1 6580.8 lbs. -342.1 lbs. Joint 7 5422.8 lbs. -335.3 lbs.
	1	4.00	0.00	GABLE G1SG	06-05-08 06-05-08	2 X 4	2 X 6	01-02-08		Joint 2 332.9 lbs. -193.9 lbs. Joint 6 235.4 lbs. -148.7 lbs.
	3	4.00	0.00	MONOPITCH G2	06-05-08 06-05-08	2 X 4	2 X 6	01-02-08		Joint 2 332.9 lbs. -135.0 lbs. Joint 4 235.4 lbs. -101.7 lbs.

Reaction Summary of Order

ComTech ROOF & FLOOR TRUSSES & BEAMS
Reilly Road Industrial Park P.O. Box 40408
Fayetteville, N.C. 28309 (910) 864-TRUS

REQ. QUOTE DATE	/ /	**ORDER #**	J0724-4079
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COUNTY	Harnett	**TERMS**	
SUPERINTENDANT	Shaun Garderner	**SALES REP**	Neil Baggett
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Raeford, NC 28376
(910) 988-8172

SHIP TO
Precision Custom Homes and
Lot 8 Magnolia Hills
Cameron, NC

JOB NAME: Lot 8 Magnolia Hills **LOT #** 8 **SUBDIV:** Magnolia Hills
MODEL: Roof **TAG:** Hazlitt w/CP **JOB CATEGORY:** WCall - Will Call

DELIVERY INSTRUCTIONS:
60 miles round trip

SPECIAL INSTRUCTIONS:
Like 64 Liberty Meadows

PLAN SEAL DATE: 9/10/24

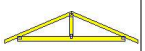
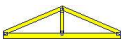
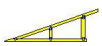
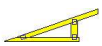
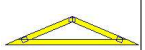
BUILDING DEPARTMENT	**OVERHANG INFO**		**HEEL HEIGHT**	00-04-05	**REQ. LAYOUTS**				**REQ. ENGINEERING**					**BY**	**DATE**
Roof Order	**END CUT**	**RETURN**											**QUOTE**		/ /
	PLUMB		**GABLE STUDS**	24 IN. OC			JOBSITE	1			JOBSITE	1	**LAYOUT**	NB	09/12/24
													CUTTING	NB	09/12/24

ROOF TRUSSES

LOADING INFORMATION

TCLL-TCDL-BCLL-BCDL	STRESS INCR.
20.0,10.0,0.0,10.0	1.15

ROOF TRUSS SPACING: 24.0 IN. O.C. (TYP.)

PROFILE	QTY / PLY	PITCH TOP	PITCH BOT	TYPE ID	BASE O/A	LUMBER TOP	LUMBER BOT	OVERHANG LEFT	OVERHANG RIGHT	REACTIONS
	1	5.00	0.00	GABLE H1	10-00-00 10-00-00	2 X 4	2 X 6	01-02-08	01-02-08	Joint 2: 470.0 lbs. -204.1 lbs. Joint 6: 470.0 lbs. -204.1 lbs.
	4	5.00	0.00	COMMON H2	10-00-00 10-00-00	2 X 4	2 X 6	01-02-08	01-02-08	Joint 2: 470.0 lbs. -146.8 lbs. Joint 4: 470.0 lbs. -146.8 lbs.
	1	5.00	0.00	COMMON H3	10-00-00 10-00-00	2 X 4	2 X 6			Joint 1: 390.0 lbs. -109.1 lbs. Joint 3: 390.0 lbs. -109.1 lbs.
	1	8.00	0.00	MONOPITCH P1GE	02-00-00 02-00-00	2 X 6	2 X 6	01-02-08	01-06-00	Joint 1: 121.4 lbs. -20.9 lbs. Joint 2: 112.5 lbs. -12.0 lbs. Joint 5: 222.8 lbs. -175.5 lbs. Joint 23: 145.2 lbs. 1.5 lbs. Joint 25: 210.9 lbs. -109.6 lbs.
	5	8.00	0.00	MONOPITCH P2	02-00-00 02-00-00	2 X 6	2 X 6	01-02-08	01-06-00	Joint 2: 105.6 lbs. -11.2 lbs. Joint 5: 212.7 lbs. -139.1 lbs.
	6	8.00	0.00	MONOPITCH P3	02-00-00 02-00-00	2 X 6	2 X 6	01-02-08	01-06-00	Joint 2: 156.8 lbs. -3.1 lbs. Joint 4: 59.5 lbs. -27.1 lbs.
	1	8.00	0.00	MONOPITCH P4GE	02-00-00 02-00-00	2 X 6	2 X 6	01-02-08	01-06-00	Joint 2: 155.1 lbs. -25.1 lbs. Joint 4: 63.7 lbs. -45.6 lbs.
	1	4.00	0.00	GABLE VD1	09-02-13 09-02-13	2 X 4	2 X 4		01-04-00	Joint 1: 136.9 lbs. 13.5 lbs. Joint 5: 226.0 lbs. -67.5 lbs. Joint 6: 378.4 lbs. -55.3 lbs.
	1	4.00	0.00	VALLEY VD2	05-02-13 05-02-13	2 X 4	2 X 4		01-04-00	Joint 1: 138.2 lbs. 1.1 lbs. Joint 5: 290.1 lbs. -67.9 lbs.
	1	5.00	0.00	VALLEY VH1	07-06-09 07-06-09	2 X 4	2 X 4			Joint 1: 243.5 lbs. -15.5 lbs. Joint 3: 243.5 lbs. -15.4 lbs.

ITEMS

QTY	ITEM TYPE	SIZE	LENGTH FT-IN-16	PART NUMBER	NOTES

Reaction Summary of Order

ComTech ROOF & FLOOR TRUSSES & BEAMS
Reilly Road Industrial Park P.O. Box 40408
Fayetteville, N.C. 28309 (910) 864-TRUS

REQ. QUOTE DATE	/ /	**ORDER #**	J0724-4079
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MODEL: Roof **TAG:** Hazlitt w/CP **JOB CATEGORY:** WCall - Will Call

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60 miles round trip

SPECIAL INSTRUCTIONS:
Like 64 Liberty Meadows

PLAN SEAL DATE: 9/10/24

BUILDING DEPARTMENT
Roof Order

OVERHANG INFO		**HEEL HEIGHT**	00-04-05	**REQ. LAYOUTS**				**REQ. ENGINEERING**					**BY**	**DATE**
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PLUMB		**GABLE STUDS**	24 IN. OC			JOBSITE	1			JOBSITE	1	**LAYOUT**	NB	09/12/24
												CUTTING	NB	09/12/24

ITEMS

QTY	ITEM TYPE	SIZE	LENGTH FT-IN-16	PART NUMBER	NOTES
7	Hangers, USP	HUS 26			SIMPSON (HUS26)

North Carolina 2018 - R402.1.5 Total UA

Property
Cameron, NC 28326
Model: Hazlitt
Community: Liberty Meadows

Template - SMG Precision - Liberty Meadows lot 11 - CZ 3 slab - Liberty Meadows lot 11

Organization
Southern Energy Manager
Justin Smith

Builder
SMG Precision Properties

Inspection Status
Results are projected

This report is based on a proposed design and does not confirm field enforcement of design elements.

Building UA

Elements	NC Reference	As Designed
Ceilings	61.8	58.6
Above-Grade Walls	190.0	141.1
Windows, Doors and Skylights	87.7	77.5
Slab Floor:	85.0	111.1
Framed Floors	23.3	25.3
Foundation Walls	0.0	0.0
Rim Joists	9.9	8.0
Overall UA (Design must be equal or lower):	**457.7**	**421.6**

Requirements

✓	402.1.5	Total UA alternative compliance passes by 7.9%.	
✓	402.3.2	Average SHGC: 0.28 Max SHGC: 0.30	
✓	R402.4.2.2	Air Leakage Testing	Air sealing is 0.25 CFM50 / ft² Shell Area. It must not exceed 0.30 CFM50 / ft² Shell Area.
✓	R402.5	Area-weighted average fenestration SHGC	
✓	R402.5	Area-weighted average fenestration U-Factor	
✓	R404.1	Lighting Equipment Efficiency	
✓	Mandatory Checklist	Mandatory code requirements that are not checked by Ekotrope must be met.	
✓	R403.3.1	Duct Insulation	
✓	403.3.3	Duct Testing	

Design exceeds requirements for North Carolina 2018 Prescriptive compliance by 7.9%.

Name: Justin Smith
Signature: Justin Smith
Organization: Southern Energy Management
Digitally signed: 8/9/22 at 11:13 AM

Building Summary

Property
Cameron, NC 28326
Model: Hazlitt
Community: Liberty Meadows

Template - SMG Precision - Liberty Meadows lot 11 - CZ 3 slab - ecoSelect
Liberty Meadows lot 11

Organization
Southern Energy Management
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Builder
SMG Precision Properties

Inspection Status
Results are projected

General Building Information

Number Of Bedrooms	4
Number Of Floors	2
Conditioned Floor Area [sq. ft.]	2,430
Has Electric Vehicle Ready Space	No
Unconditioned, attached garage?	Yes
Conditioned Volume [cu. ft.]	21,870
Total Units in Building	1
Residence Type	Single family detached
Number of Floors in Building	-
Floor Number	-
Model	Hazlitt
Community	Liberty Meadows
RESNET/IECC 2006 Climate Zone	4A
IECC 2021 Climate Zone	3A

Foundation Wall

None Present

Foundation Wall Library List

None Present

Slab

Name	Library Type	Perimeter	Floor Grade	Carpet R	Exposed Masonry Area	Surface Area	Location	Enclosing
slab	Uninsulated	174	On Grade	1	0	1,564.0 ft²	Exposed Exterior	Conditioned Space

Slab Library List

Name	Wall Construction Type	Slab Completely Insulated?	Underslab Insulation Width [ft]	Perimeter Insulation Depth [ft]	Perimeter Insulation R Value	Thermal Break	Effective R-value
Uninsulated	Wood Frame / Other	No	0	0	0	No	0.00

Building Summary

Property
Cameron, NC 28326
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Template - SMG Precision - Liberty Meadows lot 11 - CZ 3 slab - ecoSelect
Liberty Meadows lot 11

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Justin Smith

Builder
SMG Precision Properties

Inspection Status
Results are projected

Framed Floor

Name	Library Type	Carpet R	Floor Grade	Surface Area	Location
over garage	R 19, 16"OC G1 Carpet	0	Above Grade	495.0 ft²	Unconditioned, attached garage

Framed Floor Library List

Name	Effective R-value
R 19, 16"OC G1 Carpet	19.566

Rim Joist

Name	Library Type	Surface Area	Location
1st floor ambient	R 19 G1, 16"OC	144.0 ft²	Exposed Exterior
1st floor garage	R 19 G1, 16"OC	34.0 ft²	Unconditioned, attached garage

Rim Joist Library List

Name	Effective Insulation R-value
R 19 G1, 16"OC	17.30

Wall

Name	Library Type	Surface Color	Surface Area	Location
1st floor ambient	R 19 Adv. Framing G1 16" O.C	Medium	1,260.0 ft²	Exposed Exterior
1st floor garage	R 19 Adv. Framing G1 16" O.C	Medium	306.0 ft²	Unconditioned, attached garage
2nd floor ambient	R 19 Adv. Framing G1 16" O.C	Medium	1,152.0 ft²	Exposed Exterior

Building Summary

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Cameron, NC 28326
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Liberty Meadows lot 11

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SMG Precision Properties

Inspection Status
Results are projected

Wall Library List

Name	Effective R-value
R 19 Adv. Framing G1 16" O.C	17.492

Glazing

Name	Library Type	Wall Assignment	Foundation Wall Assignment	Is Operable	Overhang Depth	Overhang Ft To Top	Overhang Ft To Bottom	Orientation	Surface Area
front 2nd unshaded	33/28	2nd floor ambient		Yes	0	0	0	North	40.1 ft²
front unshaded	33/28	1st floor ambient		Yes	0	0	0	North	13.4 ft²
rear 2nd unshaded	33/28	2nd floor ambient		Yes	0	0	0	South	26.7 ft²
rear unshaded	33/28	1st floor ambient		Yes	0	0	0	South	77.1 ft²
right unshaded	33/28	1st floor ambient		Yes	0	0	0	West	53.4 ft²

Glazing Library List

Name	Shgc	U-factor
33/28	0.28	0.330

Skylight

None Present

Skylight Library List

None Present

Building Summary

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Cameron, NC 28326
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Template - SMG Precision - Liberty Meadows lot 11 - CZ 3 slab - ecoSelect
Liberty Meadows lot 11

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Southern Energy Management
Justin Smith

Builder
SMG Precision Properties

Inspection Status
Results are projected

Opaque Door

Name	Library Type	Wall Assignment	Foundation Wall Assignment	Emittance	Solar Absorptance	Surface Color	Surface Area	Location
front entry	Fiberglass R-5	1st floor ambient		0.9	0.75	Medium	20.0 ft²	Exposed Exterior
garage entry	Fiberglass R-5	1st floor garage		0.9	0.75	Medium	20.0 ft²	Unconditioned, attached garage

Opaque Door Library List

Name	Effective U-factor
Fiberglass R-5	0.200

Roof Insulation

Name	Library Type	Attic Exterior Area [ft²]	Clay or Concrete Roof Tiles	Surface Color	Surface Area	Location
attic	R 38 Attic BLOWN FG G1 2x10 24"OC NO Radiant Barrier	3,026.73	No	Dark	2,059.0 ft²	Attic

Roof Insulation Library List

Name	Has Radiant Barrier	Effective R-value
R 38 Attic BLOWN FG G1 2x10 24"OC NO Radiant Barrier	No	35.115

Whole House Infiltration

Infiltration	Measurement Type	Shelter Class
1750 CFM at 50 Pa	Blower-door tested	4

Mechanical Ventilation

None Present

Building Summary

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Cameron, NC 28326
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Liberty Meadows lot 11

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Builder
SMG Precision Properties

Inspection Status
Results are projected

Lighting

% Interior Fluorescent Lighting	% Interior LED Lighting	% Exterior Fluorescent Lighting	% Exterior LED Lighting	% Garage Fluorescent Lighting	% Garage LED Lighting
0	90	0	0	0	0

Onsite Generation

None Present

Onsite Generation Library List

None Present

Solar Generation

None Present

Dehumidifier

None Present

Dehumidifier Library List

None Present

Whole House Fan

None Present

Building Summary

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Template - SMG Precision - Liberty Meadows lot 11 - CZ 3 slab - ecoSelect
Liberty Meadows lot 11

Organization
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Builder
SMG Precision Properties

Inspection Status
Results are projected

Whole House Fan Library List

None Present

Conditioning Equipment

Name	Library Type	Serial Number	Heating Percent Load	Cooling Percent Load	Hot Water Percent Load	Location
1st floor heat pump	z 24k 14 SEER 8.2hspf		64%	64%	0%	Attic
2nd floor heat pump	z 24k 14 SEER 8.2hspf		36%	36%	0%	Attic
Water Heating	z 50 gal. 0.95 EF Elec		0%	0%	100%	Unconditioned Garage

Equipment Type: z 24k 14 SEER 8.2hspf

Equipment Type	Air Source Heat Pump
Fuel Type	Electric
Distribution Type	Forced Air
Motor Type	PSC (Single Speed)
Heating Efficiency	8.2 HSPF
Heating Capacity [kBtu/h]	24
Backup Fuel Type	Electric
Switchover Temperature [°F]	0
Backup Heating Efficiency	1 COP
Use default Supplemental Heat	Yes
Cooling Efficiency	14 SEER
Cooling Capacity [kBtu/h]	24

Equipment Type: z 50 gal. 0.95 EF Elec

Equipment Type	Residential Water Heater
Fuel Type	Electric
Distribution Type	Hydronic Delivery (Radiant)
Hot Water Efficiency	0.95 Energy Factor
Tank Capacity (gal.)	50
Hot Water Capacity [kBtu/h]	40
Recovery Efficiency	0.98

Building Summary

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Cameron, NC 28326
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Template - SMG Precision - Liberty Meadows lot 11 - CZ 3 slab - ecoSelect
Liberty Meadows lot 11

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Southern Energy Management
Justin Smith

Builder
SMG Precision Properties

Inspection Status
Results are projected

Distribution System

Distribution Type	Forced Air
Heating Equipment	1st floor heat pump
Cooling Equipment	1st floor heat pump
Sq. Feet Served	1,564
# Return Grilles	2
Supply Duct R Value	8
Return Duct R Value	8
Supply Duct Area [ft²]	422.28
Return Duct Area [ft²]	156.4
Leakage to Outdoors	62 CFM @ 25Pa (3.96 / 100 ft²)
Total Leakage	62 CFM25
Total Leakage Duct Test Conditions	Post-Construction
Use Default Flow Rate	Yes
Duct 1	
Duct Location	Attic (well vented)
Percent Supply Area	70
Percent Return Area	70
Duct 2	
Duct Location	Conditioned Space
Percent Supply Area	30
Percent Return Area	30
Duct 3	
Duct Location	Conditioned Space
Percent Supply Area	0
Percent Return Area	0
Duct 4	
Duct Location	Conditioned Space
Percent Supply Area	0
Percent Return Area	0
Duct 5	
Duct Location	Conditioned Space
Percent Supply Area	0
Percent Return Area	0
Duct 6	
Duct Location	Conditioned Space
Percent Supply Area	0
Percent Return Area	0

Building Summary

Property
Cameron, NC 28326
Model: Hazlitt
Community: Liberty Meadows

Template - SMG Precision - Liberty Meadows lot 11 - CZ 3 slab - ecoSelect
Liberty Meadows lot 11

Organization
Southern Energy Management
Justin Smith

Builder
SMG Precision Properties

Inspection Status
Results are projected

Distribution System

Distribution Type	Forced Air
Heating Equipment	2nd floor heat pump
Cooling Equipment	2nd floor heat pump
Sq. Feet Served	866
# Return Grilles	2
Supply Duct R Value	8
Return Duct R Value	8
Supply Duct Area [ft²]	233.82
Return Duct Area [ft²]	86.6
Leakage to Outdoors	34 CFM @ 25Pa (3.93 / 100 ft²)
Total Leakage	34 CFM25
Total Leakage Duct Test Conditions	Post-Construction
Use Default Flow Rate	Yes
Duct 1	
Duct Location	Attic (well vented)
Percent Supply Area	100
Percent Return Area	100
Duct 2	
Duct Location	Conditioned Space
Percent Supply Area	0
Percent Return Area	0
Duct 3	
Duct Location	Conditioned Space
Percent Supply Area	0
Percent Return Area	0
Duct 4	
Duct Location	Conditioned Space
Percent Supply Area	0
Percent Return Area	0
Duct 5	
Duct Location	Conditioned Space
Percent Supply Area	0
Percent Return Area	0
Duct 6	
Duct Location	Conditioned Space
Percent Supply Area	0
Percent Return Area	0

HVAC Grading

HVAC Grading Not Conducted

Ceiling Fan

Has Ceiling Fan	No
Cfm Per Watt	100

Building Summary

Property
Cameron, NC 28326
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Template - SMG Precision - Liberty Meadows lot 11 - CZ 3 slab - ecoSelect
Liberty Meadows lot 11

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Water Distribution

Water Fixture Type	Low-flow
Use Default Hot Water Pipe Length	No
Hot Water Pipe Length [ft]	87
At Least R3 Pipe Insulation?	No
Hot Water Recirculation System?	No
Recirculation System Pipe Loop Length [ft]	20
Drain Water Heat Recovery?	No

Clothes Dryer

Cef	3.01
Fuel Type	Electric
Field Utilization	Timer Controls
Is Outside Conditioned Space	No
Clothes Dryer Available	Yes
Defaults Type	HERS Reference

Clothes Washer

Label Energy Rating	153 kWh/Year
Annual Gas Cost	$12.00
Electric Rate	$0.11/kWh
Gas Rate	$1.22/Therm
Capacity	3.31
Imef	2.1547
Defaults Type	Custom
Load Type	Front-load
Loads Per Week	6
Is Outside Conditioned Space	No
Clothes Washer Available	Yes

Dishwasher

Dishwasher Efficiency	270 kWh
Dishwasher Size	Standard
Annual Gas Cost	$22.23
Electric Rate	$0.12/kWh
Gas Rate	$1.09/Therm
Is Outside Conditioned Space	No

Building Summary

Property
Cameron, NC 28326
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Template - SMG Precision - Liberty Meadows lot 11 - CZ 3 slab - ecoSelect
Liberty Meadows lot 11

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SMG Precision Properties

Inspection Status
Results are projected

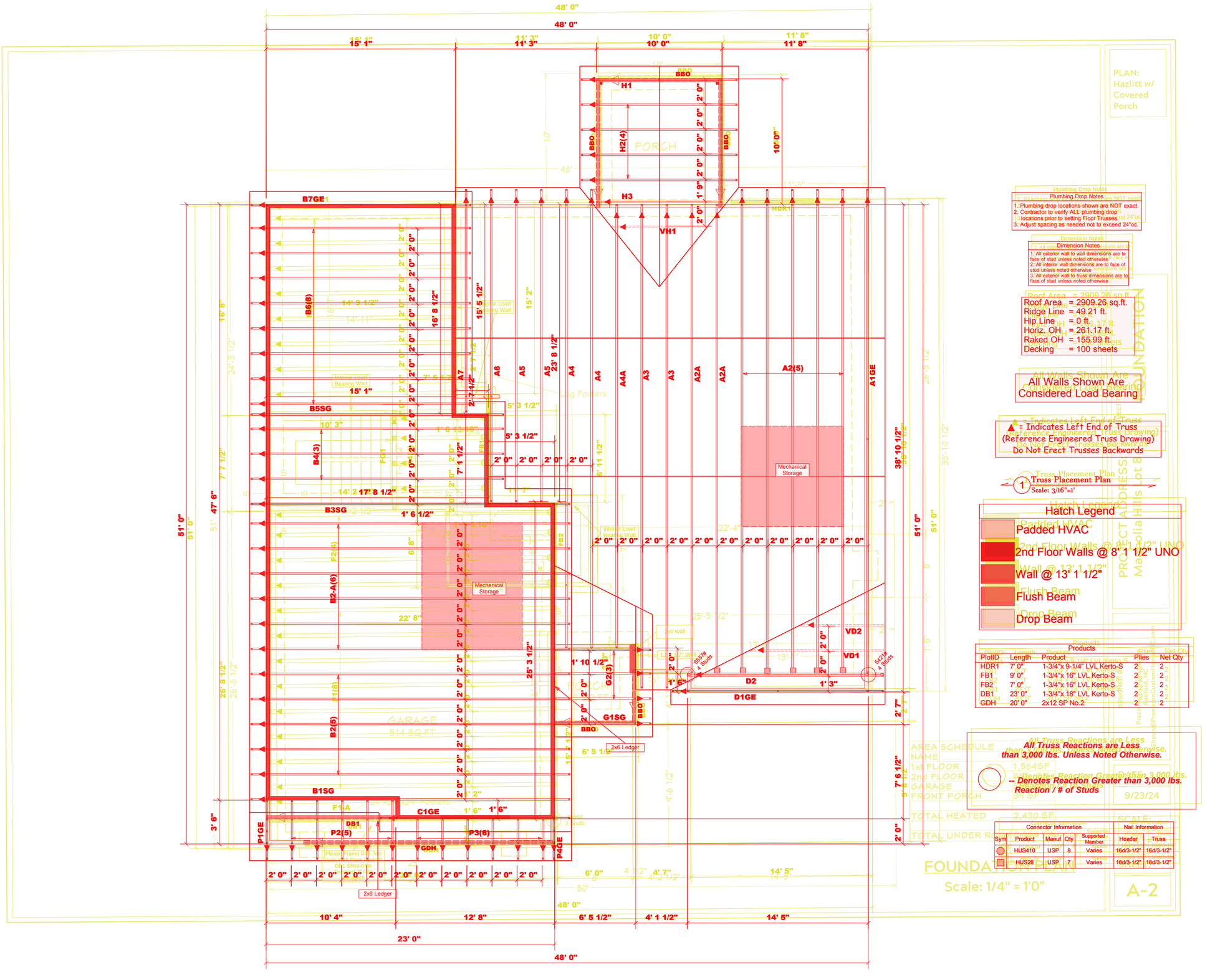
Appliances and Controls

Thermostat Cooling Setpoint	* * * * 75.0
Thermostat Heating Setpoint	* * * * 70.0
Range/Oven Fuel	Electric
Convection Oven?	No
Induction Range?	No
Range/Oven Outside Conditioned Space?	No
Refrigerator Consumption	538 kWh/Year
Refrigerator Outside Conditioned Space?	No

Notes

Initial Inputs _____MS 06/30/22_____

-confirm HVAC specs
-confirm water heater specs
-confirm ventilation entry, modeled as air cycler
-modeled to worst case orientation
-confirm cfl lighting %



PLAN: Hazlitt w/ Covered Porch

Plumbing Drop Notes

1. Plumbing drop locations shown are NOT exact.
2. Contractor to verify ALL plumbing drop locations prior to setting Floor Trusses.
3. Adjust spacing as needed not to exceed 24"oc.

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 = 2909.26 sq.ft.
Ridge Line = 49.21 ft.
Hip Line = 0 ft.
Horiz. OH = 261.17 ft.
Raked OH = 155.99 ft.
Decking = 100 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'

Hatch Legend

- Padded HVAC
- 2nd Floor Walls @ 8' 1 1/2" UNO
- Wall @ 13' 1 1/2"
- Flush Beam
- Drop Beam

Products

PlotID	Length	Product	Plies	Net Qty
HDR1	7' 0"	1-3/4"x 9-1/4" LVL Kerto-S	2	2
FB1	9' 0"	1-3/4"x 16" LVL Kerto-S	2	2
FB2	7' 0"	1-3/4"x 16" LVL Kerto-S	2	2
DB1	23' 0"	1-3/4"x 18" LVL Kerto-S	2	2
GDH	20' 0"	2x12 SP No.2	2	2

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

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

AREA SCHEDULE

NAME	
1st FLOOR	1,564SF
2nd FLOOR	866 SF
GARAGE	514 SF
FRONT PORCH	54 SF
TOTAL HEATED	2,430 SF
TOTAL UNDER R	

Connector Information

Sym	Product	Manuf	Qty	Supported Member	Nail Information: Header	Nail Information: Truss
	HUS410	USP	8	Varies	16d/3-1/2"	16d/3-1/2"
	HUS26	USP	7	Varies	16d/3-1/2"	16d/3-1/2"

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

A-2

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

END REACTION (lbs TO)	REQ'D STUDS FOR (2) PLY HEADER	END REACTION (lbs TO)	REQ'D STUDS FOR (3) PLY HEADER	END REACTION (lbs 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				

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

COUNTY	Harnett
ADDRESS	Lot 8 Magnolia Hills
MODEL	Roof Floor
DATE REV	9/12/2024
DRAWN BY	Neil Baggett
SALESMAN	Neil Baggett
BUILDER	Precision Custom Homes
JOB NAME	Lot 8 Magnolia Hills
PLAN	Hazlitt w/CP
SEAL DATE	9/11/2024
QUOTE #	N/A
JOB #	J0724-4079