

Trenco

818 Soundside Rd
Edenton, NC 27932

Re: 251447-A
Lot 65 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: I76645091 thru I76645126

My license renewal date for the state of North Carolina is December 31, 2025.

North Carolina COA: C-0844



September 26, 2025

Galinski, John

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 65 Magnolia Hills
251447-A	A1	HIP GIRDER	1	2	176645091

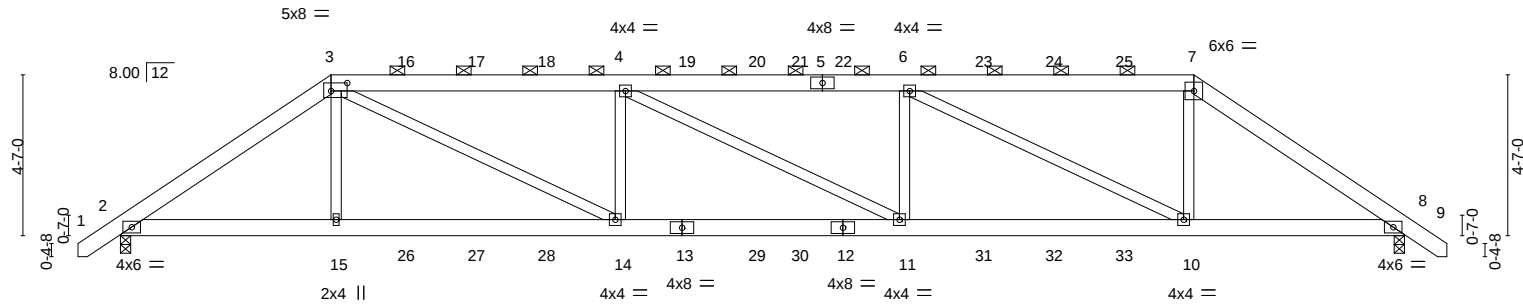
Comtech, Inc., Fayetteville, NC - 28314,

25.3.0 s Sep 17 2025 MiTek Industries, Inc. Thu Sep 25 23:33:10 2025 Page 1

ID:3YJEg_u8zX16RsP?VvW_V6zd0wB-wmA5hm6Nwz6snvz8G799FqasYE1Koj?XusnJSYyZxNt

1-2-8	6-0-0	14-2-15	22-4-1	30-7-0	36-7-0	37-9-8
1-2-8	6-0-0	8-2-15	8-1-3	8-2-15	6-0-0	1-2-8

Scale = 1:65.6



		6-0-0		14-2-15		22-4-1		30-7-0		36-7-0	
		6-0-0		8-2-15		8-1-3		8-2-15		6-0-0	
Plate Offsets (X,Y)--		[3:0-5-8,0-2-12]									
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 0.36		Vert(LL) -0.15 11-14 >999 360				MT20 244/190	
TCDL	10.0	Lumber DOL 1.15		BC 0.50		Vert(CT) -0.31 11-14 >999 240					
BCLL	0.0 *	Rep Stress Incr NO		WB 0.90		Horz(CT) 0.08 8 n/a n/a					
BCDL	10.0	Code IRC2021/TPI2014		Matrix-S		Wind(LL) 0.17 11-14 >999 240				Weight: 489 lb FT = 20%	

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except
BOT CHORD 2x6 SP No.1	2-0-0 oc purlins (6-0-0 max.): 3-7.
WEBS 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 8=0-3-8
Max Horz 2=-114(LC 27)
Max Uplift 2=-653(LC 8), 8=-653(LC 9)
Max Grav 2=2833(LC 1), 8=2833(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-4582/1149, 3-4=-6354/1682, 4-6=-6351/1682, 6-7=-3751/991, 7-8=-4580/1148
BOT CHORD 2-15=-975/3683, 14-15=-974/3704, 11-14=-1677/6353, 10-11=-1651/6351,
8-10=-875/3683
WEBS 3-15=0/728, 3-14=-868/3008, 4-14=-1007/593, 6-11=0/675, 6-10=-2968/858,
7-10=-358/1913

- NOTES-**
- 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: 2x6 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
 - 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.
 - Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 653 lb uplift at joint 2 and 653 lb uplift at joint 8.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacompnents.com)

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A MiTek Affiliate
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Job	Truss	Truss Type	Qty	Ply	Lot 65 Magnolia Hills
251447-A	A1	HIP GIRDER	1	2	176645091

NOTES-

10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 137 lb down and 121 lb up at 6-0-0, 142 lb down and 118 lb up at 8-0-12, 142 lb down and 118 lb up at 10-0-12, 142 lb down and 118 lb up at 12-0-12, 142 lb down and 118 lb up at 14-0-12, 142 lb down and 118 lb up at 16-0-12, 142 lb down and 118 lb up at 18-0-12, 142 lb down and 118 lb up at 18-6-4, 142 lb down and 118 lb up at 20-6-4, 142 lb down and 118 lb up at 22-6-4, 142 lb down and 118 lb up at 24-6-4, 142 lb down and 118 lb up at 26-6-4, and 142 lb down and 118 lb up at 28-6-4, and 137 lb down and 121 lb up at 30-7-0 on top chord, and 354 lb down and 123 lb up at 6-0-0, 76 lb down at 8-0-12, 76 lb down at 10-0-12, 76 lb down at 12-0-12, 76 lb down at 14-0-12, 76 lb down at 16-0-12, 76 lb down at 18-0-12, 76 lb down at 18-6-4, 76 lb down at 20-6-4, 76 lb down at 22-6-4, 76 lb down at 24-6-4, 76 lb down at 26-6-4, and 76 lb down at 28-6-4, and 354 lb down and 123 lb up at 30-6-4 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: 1-3=-60, 3-7=-60, 7-9=-60, 2-8=-20
- Concentrated Loads (lb)
- Vert: 3=-104(B) 7=-104(B) 13=-38(B) 15=-351(B) 14=-38(B) 4=-104(B) 11=-38(B) 6=-104(B) 10=-351(B) 12=-38(B) 16=-104(B) 17=-104(B) 18=-104(B) 19=-104(B) 20=-104(B) 21=-104(B) 22=-104(B) 23=-104(B) 24=-104(B) 25=-104(B) 26=-38(B) 27=-38(B) 28=-38(B) 29=-38(B) 30=-38(B) 31=-38(B) 32=-38(B) 33=-38(B)

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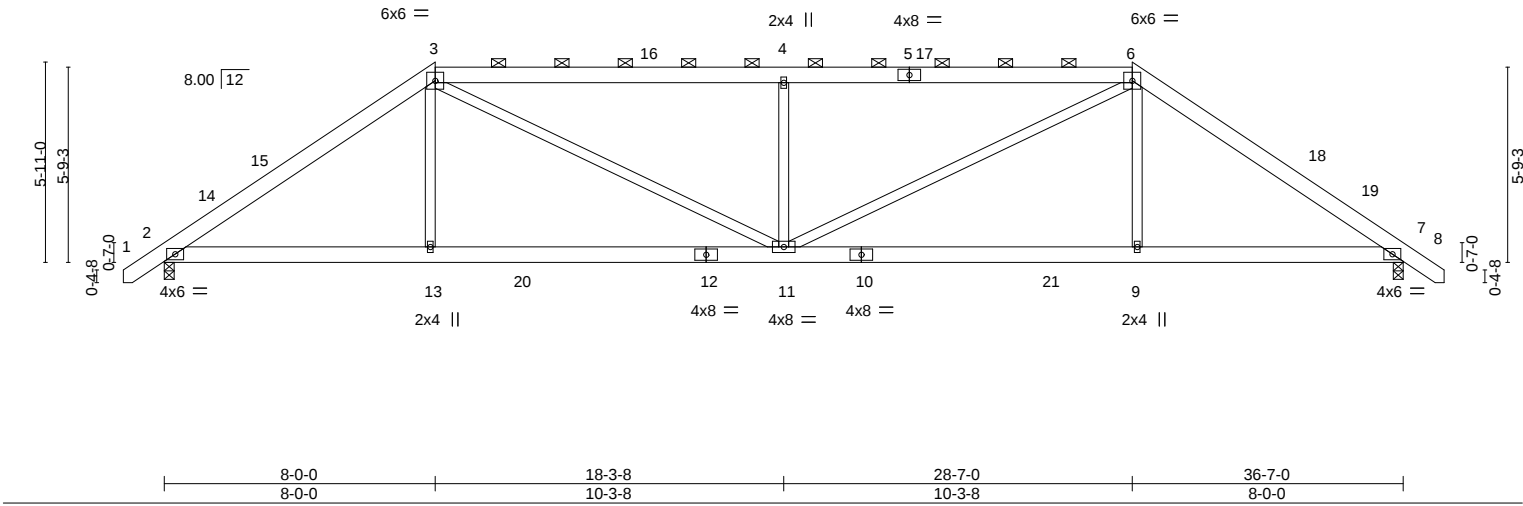
Job	Truss	Truss Type	Qty	Ply	Lot 65 Magnolia Hills
251447-A	A2	HIP	1	1	176645092

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25.3.0 s Sep 17 2025 MiTek Industries, Inc. Thu Sep 25 23:33:11 2025 Page 1
ID:3YJEG_u8zX16RsP?VvW_V6zd0wB-PykTv67?hHEJP2YLqrhOo26?4dNGXGlg6Wxt_?yZxNs

1-2-8 8-0-0 18-3-8 28-7-0 36-7-0 37-9-8
1-2-8 8-0-0 10-3-8 10-3-8 8-0-0 1-2-8

Scale = 1:68.0



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.50	Vert(LL)	-0.14	9-11	>999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.45	Vert(CT)	-0.27	9-11	>999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.48	Horz(CT)	0.07	7	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Wind(LL)	0.08	11	>999		
	Code IRC2021/TPI2014						Weight: 241 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 4-8-2 oc purlins, except
BOT CHORD 2x6 SP No.1	2-0-0 oc purlins (4-1-0 max.): 3-6.
WEBS 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 7=0-3-8
Max Horz 2=-144(LC 10)
Max Uplift 2=-55(LC 9), 7=-55(LC 8)
Max Grav 2=1682(LC 2), 7=1682(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2506/285, 3-4=-2923/369, 4-6=-2922/368, 6-7=-2508/285
BOT CHORD 2-13=-134/1985, 11-13=-137/1973, 9-11=-88/1975, 7-9=-86/1987
WEBS 3-13=0/500, 3-11=-202/1140, 4-11=-729/251, 6-11=-202/1137, 6-9=0/500

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-15 to 3-3-14, Interior(1) 3-3-14 to 8-0-0, Exterior(2R) 8-0-0 to 14-2-11, Interior(1) 14-2-11 to 28-7-0, Exterior(2R) 28-7-0 to 34-9-11, Interior(1) 34-9-11 to 37-7-15 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 55 lb uplift at joint 2 and 55 lb uplift at joint 7.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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Job	Truss	Truss Type	Qty	Ply	Lot 65 Magnolia Hills
251447-A	A3	HIP	1	1	176645093

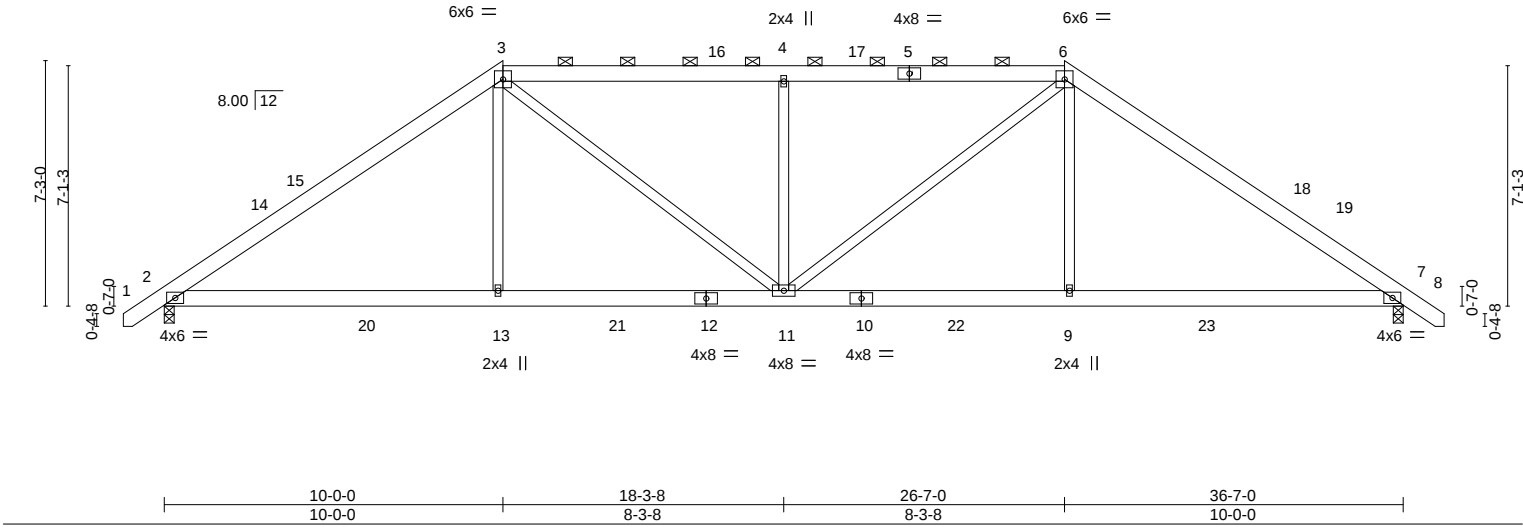
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ID:3YJEG_u8zX16RsP?VvW_V6zd0wB-PykTv67?hHEjP2YLqrhOo26z5dMPXHkg6WXt_?yZxNs

1-2-8 10-0-0 18-3-8 26-7-0 36-7-0 37-9-8
1-2-8 10-0-0 8-3-8 8-3-8 10-0-0 1-2-8

Scale = 1:68.0



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.63	Vert(LL)	-0.13	2-13	>999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.57	Vert(CT)	-0.23	2-13	>999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.42	Horz(CT)	0.07	7	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Wind(LL)	0.06	2-13	>999		
	Code IRC2021/TPI2014						Weight: 246 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 3-9-14 oc purlins, except
BOT CHORD 2x6 SP No.1	2-0-0 oc purlins (4-9-0 max.): 3-6.
WEBS 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 7=0-3-8
Max Horz 2=-176(LC 10)
Max Uplift 2=-50(LC 12), 7=-50(LC 13)
Max Grav 2=1826(LC 2), 7=1826(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2609/296, 3-4=-2484/360, 4-6=-2482/359, 6-7=-2610/296
BOT CHORD 2-13=-102/2050, 11-13=-104/2037, 9-11=-75/2038, 7-9=-74/2051
WEBS 3-13=0/683, 3-11=-176/666, 4-11=-564/202, 6-11=-176/664, 6-9=0/683

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-15 to 3-3-14, Interior(1) 3-3-14 to 10-0-0, Exterior(2R) 10-0-0 to 16-2-11, Interior(1) 16-2-11 to 26-7-0, Exterior(2R) 26-7-0 to 32-9-11, Interior(1) 32-9-11 to 37-7-15 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) Provide adequate drainage to prevent water ponding.
 - 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, with BCDL = 10.0psf.
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 50 lb uplift at joint 2 and 50 lb uplift at joint 7.
 - 7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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Comtech, Inc. Fayetteville, NC - 28314, 25.3.0 s Sep 17 2025 MiTek Industries, Inc. Thu Sep 25 23:33:12 2025 Page 1
 ID:3YJEq_u8zX16RsP?VvW_V6zd0wB-t9lr6S8dSbMa1C7XOYCdKf5?1heGlbqLAGQXrYzXNr
 1-2-8 6-3-13 12-0-0 17-3-8 22-7-0 24-4-8 26-4-8 36-7-0 37-9-8
 1-2-8 6-3-13 5-8-2 5-3-8 5-3-8 1-9-8 2-0-0 10-2-8 1-2-8

The diagram illustrates a complex roof truss system with various timber beams and their dimensions. The structure is supported by a base with a total width of 36'-7-0" and a height of 8'-7-0". The truss consists of several interconnected triangles and rectangles, with beams labeled with numbers and dimensions. Key dimensions include:

- Overall width: 36'-7-0"
- Overall height: 8'-7-0"
- Base segments: 12'-0-0", 22'-7-0", 26'-4-8", 26'-6-8", 36'-7-0"
- Roof segments: 8'-0-0", 7'-2-14", 8'-5-3", 0'-4-8", 0'-7-0", 0'-4-8"
- Internal dimensions: 12'-0-0", 22'-7-0", 26'-4-8", 26'-6-8", 36'-7-0"
- Beam labels: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24
- Beam types: 4x6, 4x8, 5x8, 2x4, 6x6, 6x8, 8x8, 10x8, 12x8, 14x8, 16x8, 18x8, 20x8, 22x8, 24x8, 26x8, 28x8, 30x8, 32x8, 34x8, 36x8, 38x8, 40x8, 42x8, 44x8, 46x8, 48x8, 50x8, 52x8, 54x8, 56x8, 58x8, 60x8, 62x8, 64x8, 66x8, 68x8, 70x8, 72x8, 74x8, 76x8, 78x8, 80x8, 82x8, 84x8, 86x8, 88x8, 90x8, 92x8, 94x8, 96x8, 98x8, 100x8

LUMBER-		BRACING-	
TOP CHORD	2x6 SP No.1	TOP CHORD	Structural wood sheathing directly applied or 3-11-0 oc purlins, except
BOT CHORD	2x6 SP No.1		2-0-0 oc purlins (3-10-5 max.): 5-7, 9-10.
WEBS	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
		WEBS	T-Brace: 2x4 SPF No.2 - 6-17, 6-14
			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.

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-15 to 3-3-14, Interior(1) 3-3-14 to 12-0-0, Exterior(2R) 12-0-0 to 16-4-13, Interior(1) 16-4-13 to 22-7-0, Exterior(2E) 22-7-0 to 24-4-8, Interior(1) 24-4-8 to 26-4-8, Exterior(2R) 26-4-8 to 30-9-5, Interior(1) 30-9-5 to 37-7-15 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 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, with BCDL = 10.0psf.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 64 lb uplift at joint 2 and 79 lb uplift at joint 11.
- 7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 8) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



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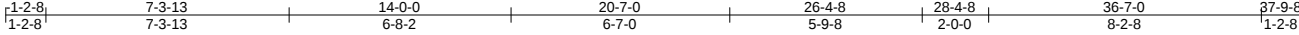
Job	Truss	Truss Type	Qty	Ply	Lot 65 Magnolia Hills
251447-A	A5	ROOF SPECIAL	1	1	176645095

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25.3.0 s Sep 17 2025 MiTek Industries, Inc. Thu Sep 25 23:33:12 2025 Page 1

ID:3YJEg_u8zX16RsP?VvW_V6zd0wB-t9lr6S8dSbMa1C7XOYCdKf7e1kQGfOqLAGQXRyZxNr

Job Reference (optional)



Scale = 1:69.3

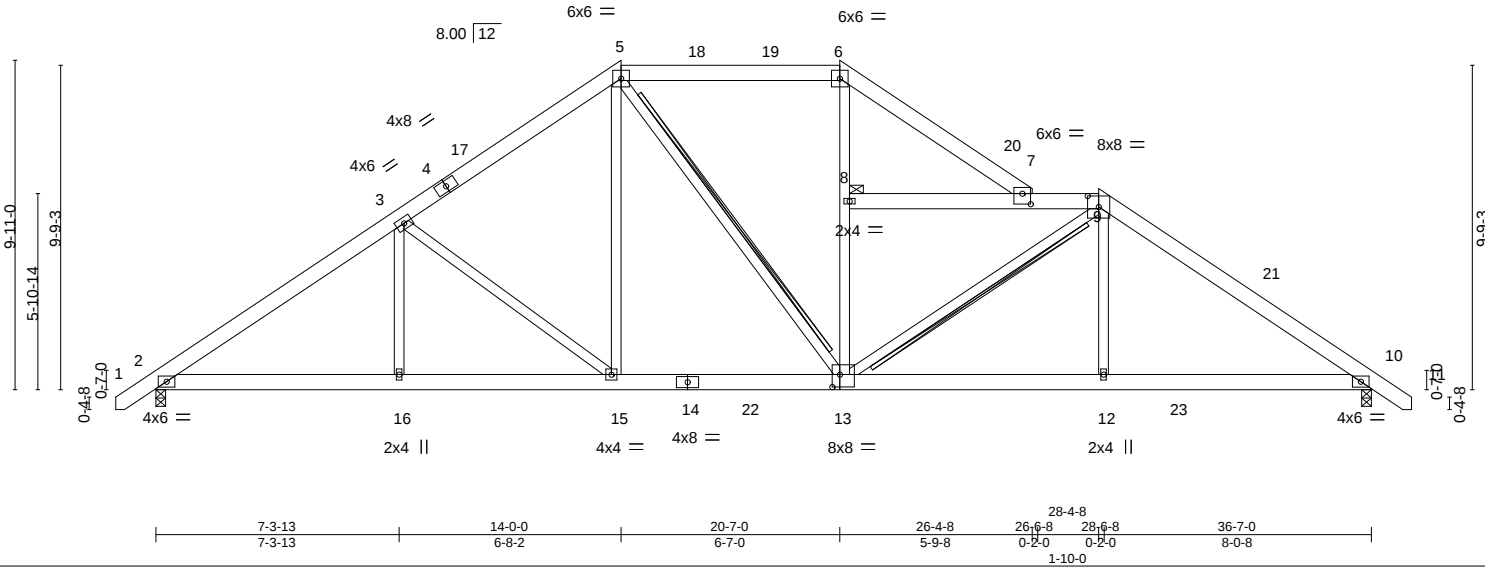


Plate Offsets (X,Y)-- [7:0-3-0,0-3-13], [9:0-4-0,0-3-15], [13:0-2-12,0-4-8]									
LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES	
TCLL	20.0	Plate Grip DOL	1.15	TC	0.64	Vert(LL)	-0.15 13-15 >999 360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.39	Vert(CT)	-0.26 13-15 >999 240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.71	Horz(CT)	0.06 10 n/a n/a		
BCDL	10.0	Code IRC2021/TPI2014		Matrix-S		Wind(LL)	0.08 13 >999 240	Weight: 287 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x6 SP No.1 *Except* 8-9: 2x6 SP 2400F 2.0E	TOP CHORD	Structural wood sheathing directly applied or 4-9-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 5-6, 8-9.
BOT CHORD	2x6 SP No.1	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SP No.2	WEBS	T-Brace: 2x4 SPF No.2 - 9-13, 5-13 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): 8

REACTIONS. (size) 2=0-3-8, 10=0-3-8
Max Horz 2=241(LC 11)
Max Uplift 2=-76(LC 12), 10=-90(LC 13)
Max Grav 2=1719(LC 19), 10=1728(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2475/445, 3-5=-1972/472, 5-6=-1619/472, 6-7=-1972/469, 7-9=-1592/306, 9-10=-2511/456
BOT CHORD 2-16=-243/2116, 15-16=-243/2116, 13-15=-70/1603, 12-13=-235/2018, 10-12=-233/2028
WEBS 3-16=0/296, 3-15=-629/217, 5-15=-59/711, 8-13=0/505, 6-8=-51/702, 9-13=-582/206, 9-12=0/421

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-15 to 3-3-14, Interior(1) 3-3-14 to 14-0-0, Exterior(2R) 14-0-0 to 18-4-13, Interior(1) 18-4-13 to 20-7-0, Exterior(2R) 20-7-0 to 24-11-13, Interior(1) 24-11-13 to 28-4-8, Exterior(2R) 28-4-8 to 32-9-5, Interior(1) 32-9-5 to 37-7-15 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 76 lb uplift at joint 2 and 90 lb uplift at joint 10.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



September 26, 2025

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 65 Magnolia Hills
251447-A	A6	ROOF SPECIAL	1	1	176645096

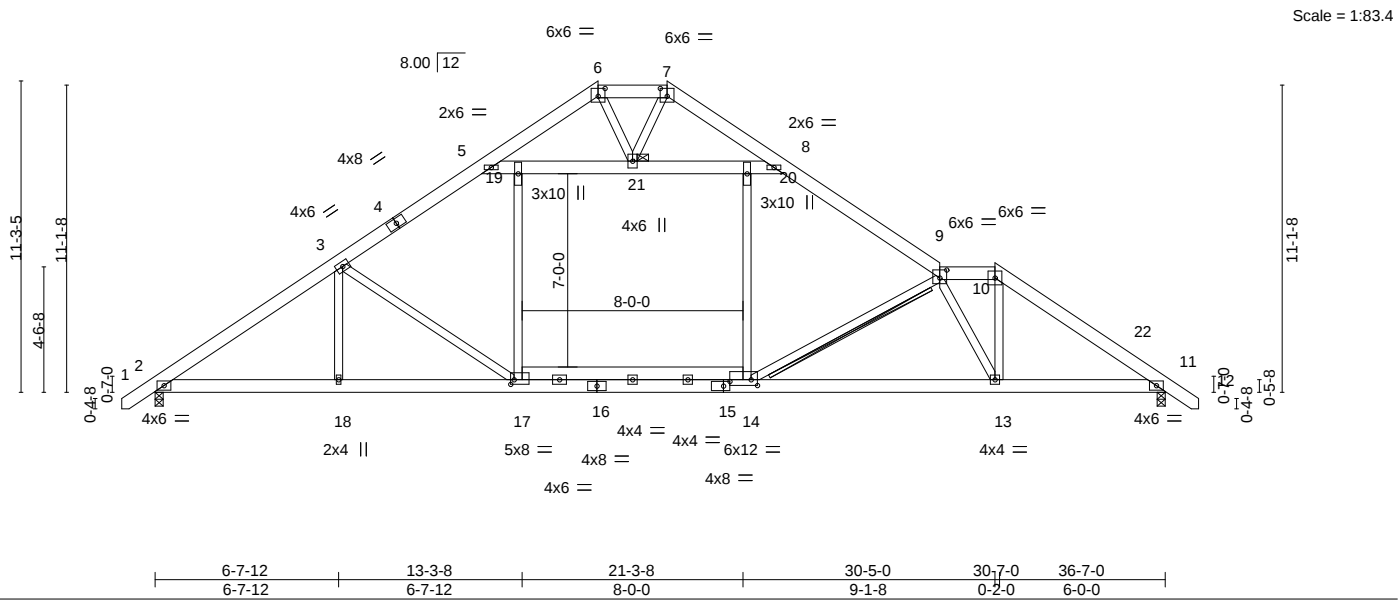
Comtech, Inc., Fayetteville, NC - 28314,

25.3.0 s Sep 17 2025 MiTek Industries, Inc. Thu Sep 25 23:33:13 2025 Page 1

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1-2-8 6-7-12 13-3-8 16-0-8 18-6-8 21-3-8 28-5-0 30-5-0 36-7-0 37-9-8

1-2-8 6-7-12 6-7-12 2-9-0 2-6-0 2-9-0 7-1-8 2-0-0 6-2-0 1-2-8



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.15	TC	0.40	Vert(LL)	-0.27 13-14 >999 360	MT20		244/190	
TCDL	10.0	Lumber DOL	1.15	BC	0.79	Vert(CT)	-0.42 13-14 >999 240				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.73	Horz(CT)	0.07 11 n/a n/a				
BCDL	10.0	Code IRC2021/TPI2014		Matrix-S		Wind(LL)	0.18 13-14 >999 240				
								Weight: 309 lb		FT = 20%	

LUMBER-		BRACING-	
TOP CHORD	2x6 SP No.1	TOP CHORD	Structural wood sheathing directly applied or 4-7-8 oc purlins, except 2-0-0 oc purlins (5-4-15 max.): 6-7, 9-10.
BOT CHORD	2x6 SP No.1	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SP No.2 *Except*	WEBS	T-Brace: 2x4 SPF No.2 - 9-14
	5-8: 2x6 SP No.1		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.
			1 Brace at Jt(s): 21

REACTIONS. (size) 2=0-3-8, 11=0-3-8
Max Horz 2=272(LC 11)
Max Uplift 2=-85(LC 12), 11=-98(LC 13)
Max Grav 2=1801(LC 19), 11=1766(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2625/415, 3-5=-2189/443, 5-6=-824/182, 6-7=-752/190, 7-8=-822/181,
8-9=-2230/448, 9-10=-2109/411, 10-11=-2668/417
BOT CHORD 2-18=-225/2261, 17-18=-225/2261, 14-17=-113/1863, 13-14=-308/2528, 11-13=-221/2106
WEBS 3-17=-492/195, 17-19=-16/688, 14-20=-6/838, 9-13=-1008/221, 10-13=-108/1225,
9-14=-998/273, 5-19=-1241/362, 19-21=-1241/362, 20-21=-1171/352, 8-20=-1171/352,
6-21=-56/448, 7-21=-79/337

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-15 to 3-3-14, Interior(1) 3-3-14 to 16-0-8, Exterior(2E) 16-0-8 to 18-6-8, Exterior(2R) 18-6-8 to 22-9-14, Interior(1) 22-9-14 to 30-5-0, Exterior(2R) 30-5-0 to 34-9-13, Interior(1) 34-9-13 to 37-7-15 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 85 lb uplift at joint 2 and 98 lb uplift at joint 11.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



September 26,2025

Job	Truss	Truss Type	Qty	Ply	Lot 65 Magnolia Hills
251447-A	A7	ROOF SPECIAL	1	1	176645097

Comtech, Inc., Fayetteville, NC - 28314,

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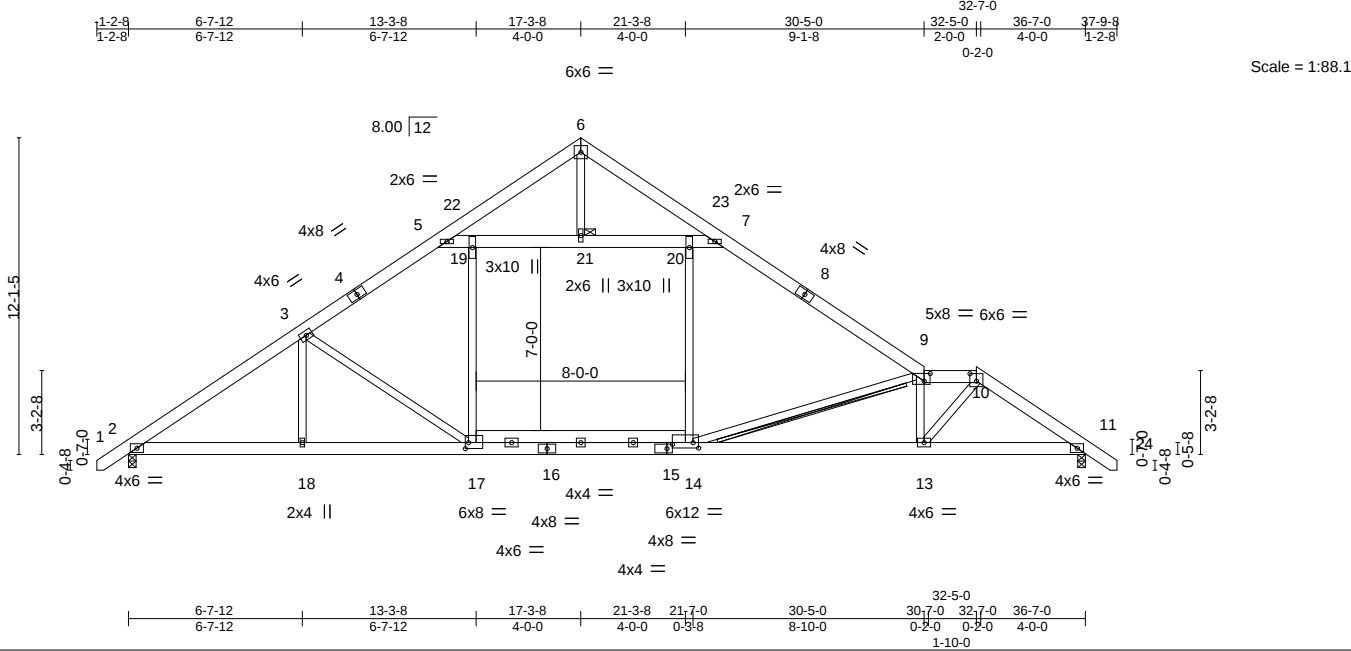


Plate Offsets (X,Y)--		[9:0-2-12,0-3-8], [10:0-3-0,0-3-6], [14:0-2-8,0-2-8], [15:0-2-8,0-2-0], [17:0-1-8,0-2-12]									
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.38	Vert(LL)	-0.32 13-14	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.49 13-14	>891	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.72	Horz(CT)	0.07 11	n/a	n/a		
BCDL	10.0	Code IRC2021/TPI2014		Matrix-S		Wind(LL)	0.22 13-14	>999	240	Weight: 306 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 4-7-6 oc purlins, except 2-0-0 oc purlins (4-4-4 max.): 9-10.
BOT CHORD 2x6 SP No.1	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2 *Except*	T-Brace: 2x4 SPF No.2 - 9-14
5-7: 2x6 SP No.1	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): 21

REACTIONS. (size) 2=0-3-8, 11=0-3-8
Max Horz 2=-294(LC 10)
Max Uplift 2=-90(LC 12), 11=-102(LC 13)
Max Grav 2=1818(LC 19), 11=1778(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2650/392, 3-5=-2260/447, 5-6=-794/134, 6-7=-815/135, 7-9=-2323/424,
9-10=-3250/535, 10-11=-2698/425
BOT CHORD 2-18=-203/2297, 17-18=-203/2297, 14-17=-113/1915, 13-14=-377/3160, 11-13=-250/2148
WEBS 3-17=-495/220, 9-13=-1071/290, 10-13=-247/1756, 9-14=-1515/315, 5-19=-1304/412,
19-21=-1304/412, 20-21=-1304/412, 7-20=-1304/412, 17-19=-15/685, 14-20=0/814,
6-21=0/549

- NOTES-
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-15 to 3-3-14, Interior(1) 3-3-14 to 17-3-8, Exterior(2R) 17-3-8 to 21-8-5, Interior(1) 21-8-5 to 32-5-0, Exterior(2R) 32-5-0 to 36-9-13, Interior(1) 36-9-13 to 37-7-15 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 90 lb uplift at joint 2 and 102 lb uplift at joint 11.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



September 26, 2025

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 65 Magnolia Hills
251447-A	A8	ROOF SPECIAL GIRDER	1	1	176645098
Job Reference (optional)					

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-6=-60, 6-7=-60, 7-11=-60, 11-12=-60, 12-14=-60, 2-13=-20

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 65 Magnolia Hills
251447-A	B1	HIP GIRDER	1	2	176645099

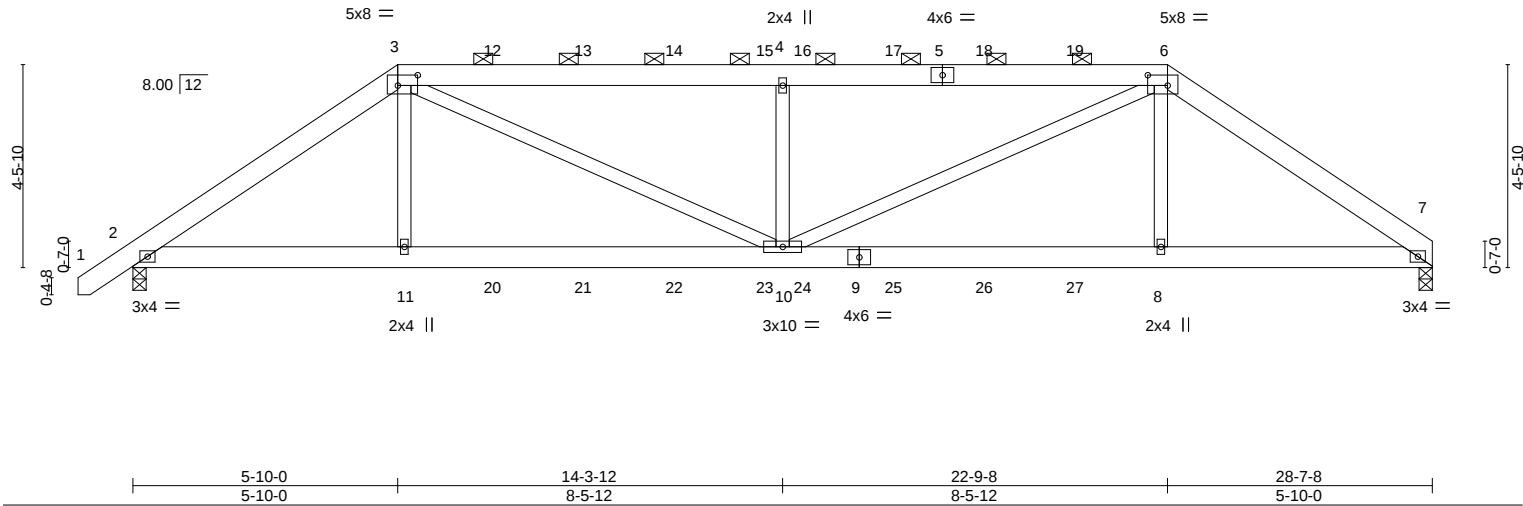
Comtech, Inc., Fayetteville, NC - 28314,

25.3.0 s Sep 17 2025 MiTek Industries, Inc. Thu Sep 25 23:33:15 2025 Page 1

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22-9-8 28-7-8 5-10-0

Scale = 1:50.8



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.15	TC	0.32	Vert(LL)	-0.07 10 >999 360	MT20		244/190	
TCDL	10.0	Lumber DOL	1.15	BC	0.28	Vert(CT)	-0.13 10-11 >999 240				
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.21	Horz(CT)	0.04 7 n/a n/a				
BCDL	10.0	Code IRC2021/TP12014		Matrix-S		Wind(LL)	0.07 10 >999 240				
								Weight: 372 lb		FT = 20%	

LUMBER-		BRACING-	
TOP CHORD	2x6 SP No.1	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except
BOT CHORD	2x6 SP No.1		2-0-0 oc purlins (6-0-0 max.): 3-6.
WEBS	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.		(size) 7=0-3-8, 2=0-3-8
		Max Horz 2=106(LC 28)
		Max Uplift 7=483(LC 9), 2=501(LC 8)
		Max Grav 7=2100(LC 1), 2=2177(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD	2-3=-3447/843, 3-4=-4284/1127, 4-6=-4285/1127, 6-7=-3431/844
BOT CHORD	2-11=-732/2755, 10-11=-731/2776, 8-10=-646/2782, 7-8=-647/2761
WEBS	3-11=0/714, 3-10=-536/1723, 4-10=-1085/640, 6-10=-536/1720, 6-8=0/716

- NOTES-**
- 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: 2x6 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
 - 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.
 - Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 483 lb uplift at joint 7 and 501 lb uplift at joint 2.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 134 lb down and 118 lb up at 5-10-0, 139 lb down and 115 lb up at 7-10-12, 139 lb down and 115 lb up at 9-10-12, 139 lb down and 115 lb up at 11-10-12, 139 lb down and 115 lb up at 13-10-12, 139 lb down and 115 lb up at 14-8-12, 139 lb down and 115 lb up at 14-8-12, 139 lb down and 115 lb up at 16-8-12, 139 lb down and 115 lb up at 18-8-12, and 139 lb down and 115 lb up at 20-8-12, and 134 lb down and 118 lb up at 22-9-8 on top chord, and 336 lb down and 119 lb up at 5-10-0, 73 lb down at 7-10-12, 73 lb down at 9-10-12, 73 lb down at 11-10-12, 73 lb down at 13-10-12, 73 lb down at 14-8-12, 73 lb down at 16-8-12, 73 lb down at 18-8-12, and 73 lb down at 20-8-12, and 336 lb down and 119 lb up at 22-8-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

Continued on page 2

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ENGINEERING BY

TRENCO

A MITEK AFFILIATE

818 Soundside Road
Edenton, NC 27932

September 26, 2025

Job	Truss	Truss Type	Qty	Ply	Lot 65 Magnolia Hills
251447-A	B1	HIP GIRDER	1	2	176645099

Comtech, Inc., Fayetteville, NC - 28314,

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LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-3=-60, 3-6=-60, 6-7=-60, 2-7=-20

Concentrated Loads (lb)

Vert: 3=-99(F) 6=-99(F) 11=-329(F) 8=-329(F) 12=-99(F) 13=-99(F) 14=-99(F) 15=-99(F) 16=-99(F) 17=-99(F) 18=-99(F) 19=-99(F) 20=-36(F) 21=-36(F) 22=-36(F) 23=-36(F) 24=-36(F) 25=-36(F) 26=-36(F) 27=-36(F)

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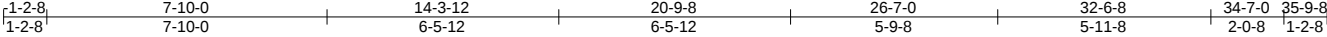
818 Soundside Road
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Job	Truss	Truss Type	Qty	Ply	Lot 65 Magnolia Hills
251447-A	B2	ROOF SPECIAL GIRDER	1	1	176645100

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Scale: 3/16"=1'

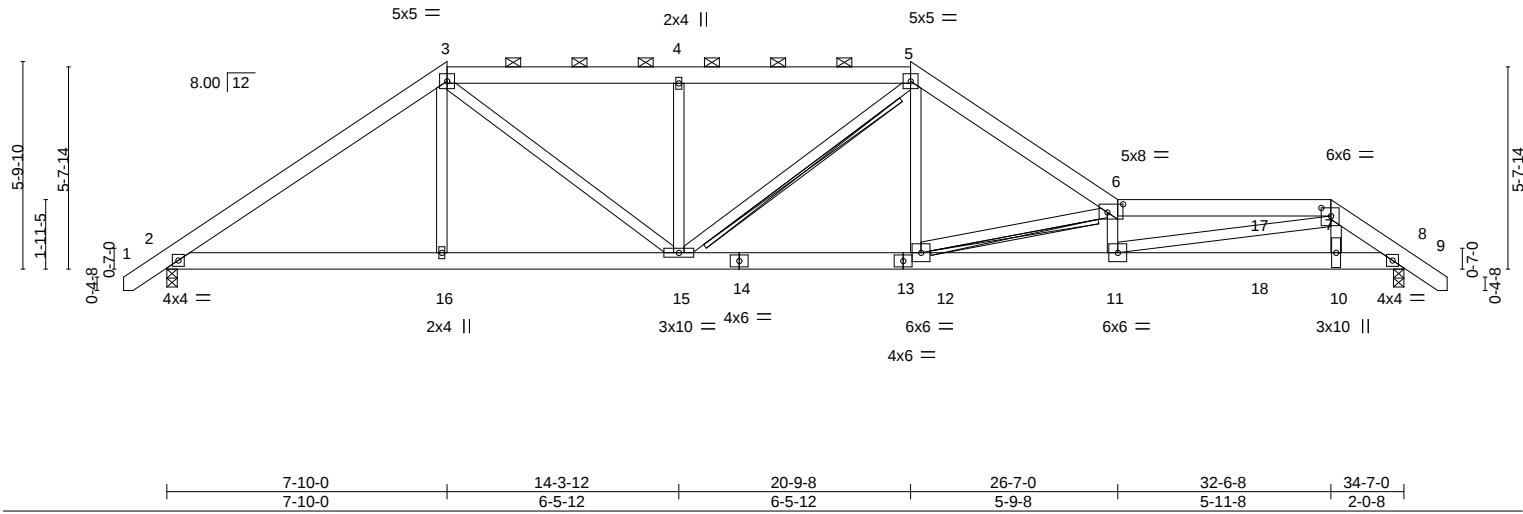


Plate Offsets (X,Y)--		[6:0-5-4,0-2-12], [7:0-3-4,0-2-12]									
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.51	Vert(LL)	-0.26 11-12	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.57	Vert(CT)	-0.53 11-12	>776	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.83	Horz(CT)	0.07 8	n/a	n/a		
BCDL	10.0	Code IRC2021/TPI2014		Matrix-S		Wind(LL)	0.18 11-12	>999	240	Weight: 242 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 4-5-1 oc purlins, except 2-0-0 oc purlins (3-1-1 max.): 3-5, 6-7.
BOT CHORD 2x6 SP No.1 *Except*	Rigid ceiling directly applied or 10-0-0 oc bracing.
8-13: 2x6 SP 2400F 2.0E	T-Brace: 2x4 SPF No.2 - 5-15, 6-12
WEBS 2x4 SP No.2	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) 2=0-3-8, 8=0-3-8
Max Horz 2=142(LC 28)
Max Uplift 2=-39(LC 8), 8=-93(LC 9)
Max Grav 2=1445(LC 1), 8=1445(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2078/53, 3-4=-2225/85, 4-5=-2225/85, 5-6=-2717/82, 6-7=-5290/211, 7-8=-2543/104
BOT CHORD 2-16=-78/1610, 15-16=-80/1605, 12-15=0/2203, 11-12=-136/5193, 10-11=-48/1988, 8-10=-42/2029
WEBS 3-16=0/325, 3-15=-138/880, 4-15=-451/161, 5-12=0/1051, 6-12=-3058/216, 6-11=-971/107, 7-11=-102/3398, 7-10=0/463

- NOTES-
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 39 lb uplift at joint 2 and 93 lb uplift at joint 8.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 64 lb down and 27 lb up at 30-5-12, and 132 lb down and 62 lb up at 32-6-8 on top chord, and 6 lb down at 30-5-12, and 15 lb down at 32-5-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
 - Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.
 - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard



September 26,2025

Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 65 Magnolia Hills
251447-A	B2	ROOF SPECIAL GIRDER	1	1	I76645100
Job Reference (optional)					

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-60, 3-5=-60, 5-6=-60, 6-7=-60, 7-9=-60, 2-8=-20

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 65 Magnolia Hills
251447-A	B3	ROOF SPECIAL	1	1	176645101

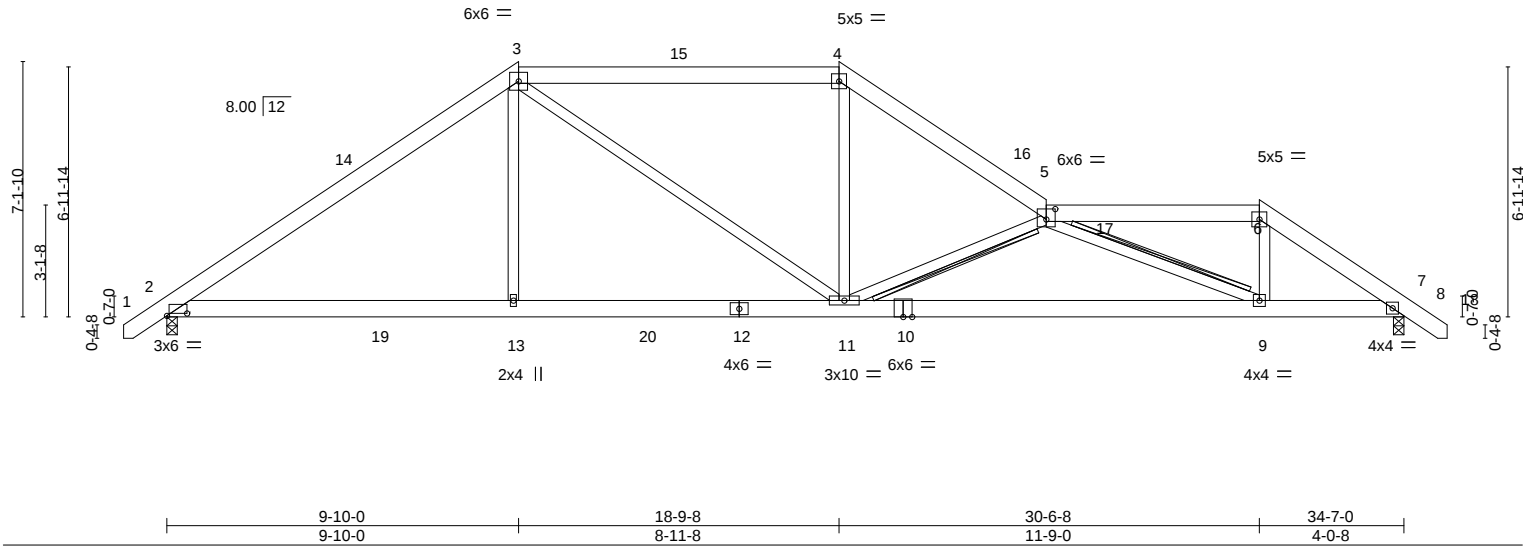
Comtech, Inc., Fayetteville, NC - 28314,

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ID:3YJEg_u8zX16RsP?VvW_V6zd0wB-D65kA9BmG7_s7z?UA6oo1JM0k2MdxzDZVS_BCfyZxNm



Scale: 3/16"=1'



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.15	TC	0.56	Vert(LL)	-0.19 9-11 >999 360	MT20		244/190	
TCDL	10.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.37 9-11 >999 240				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.54	Horz(CT)	0.08 7 n/a n/a				
BCDL	10.0	Code IRC2021/TPI2014		Matrix-S		Wind(LL)	0.08 9-11 >999 240				
								Weight: 235 lb		FT = 20%	

LUMBER-		BRACING-	
TOP CHORD	2x6 SP No.1	TOP CHORD	Structural wood sheathing directly applied or 4-0-15 oc purlins, except
BOT CHORD	2x6 SP No.1		2-0-0 oc purlins (4-10-14 max.): 3-4, 5-6.
WEBS	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 9-7-10 oc bracing.
		WEBS	T-Brace: 2x4 SPF No.2 - 5-11, 5-9
			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)	2=0-3-8, 7=0-3-8
Max Horz	2=-173(LC 10)
Max Uplift	2=-51(LC 12), 7=-96(LC 13)
Max Grav	2=1681(LC 2), 7=1581(LC 2)

FORCES.	
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD	2-3=-2364/403, 3-4=-2100/475, 4-5=-2598/500, 5-6=-2007/356, 6-7=-2575/388
BOT CHORD	2-13=-163/1850, 11-13=-165/1837, 9-11=-655/3858, 7-9=-221/2070
WEBS	3-13=0/672, 3-11=-100/504, 4-11=-64/1029, 5-11=-1927/512, 5-9=-2027/479, 6-9=-67/1175

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-15 to 3-3-14, Interior(1) 3-3-14 to 9-10-0, Exterior(2R) 9-10-0 to 14-2-13, Interior(1) 14-2-13 to 18-9-8, Exterior(2R) 18-9-8 to 23-2-5, Interior(1) 23-2-5 to 30-6-8, Exterior(2R) 30-6-8 to 34-11-5, Interior(1) 34-11-5 to 35-7-15 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 51 lb uplift at joint 2 and 96 lb uplift at joint 7.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



September 26,2025

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 65 Magnolia Hills
251447-A	B4	ROOF SPECIAL	1	1	176645102

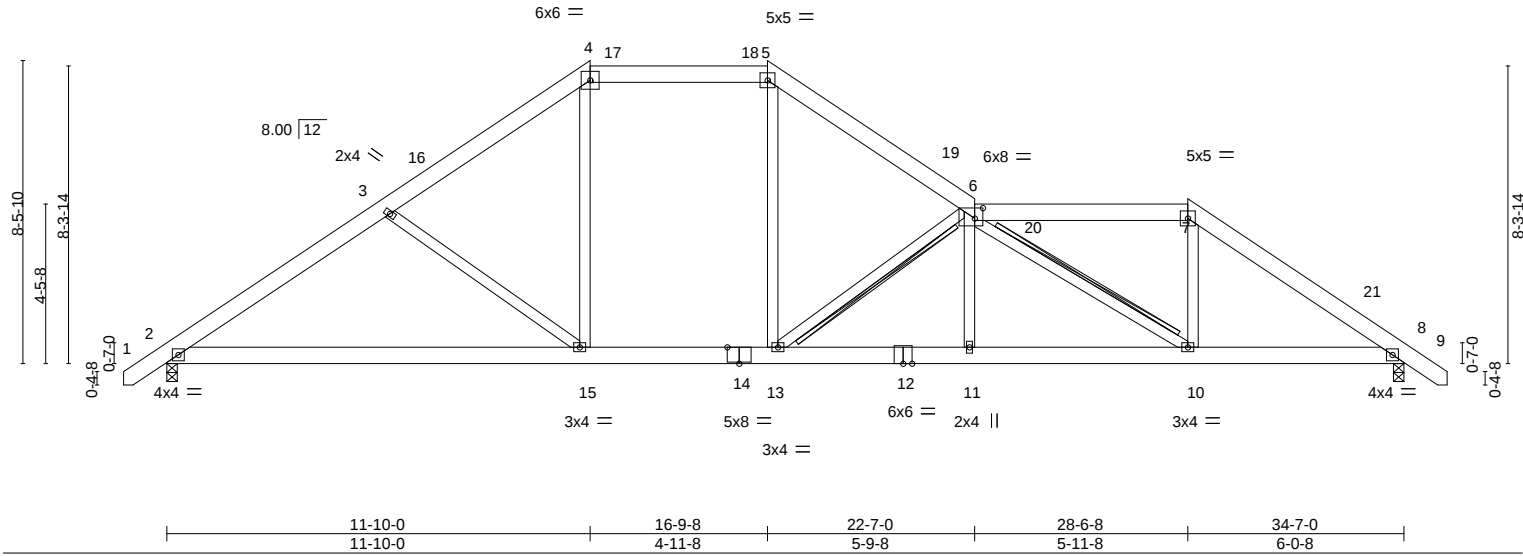
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1-2-8	6-2-14	11-10-0	16-9-8	22-7-0	28-6-8	34-7-0	35-9-8
1-2-8	6-2-14	5-7-3	4-11-8	5-9-8	5-11-8	6-0-8	1-2-8

Scale: 3/16"=1'



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	-0.25 11-13 >999 360	MT20		244/190	
TCDL	10.0	Lumber DOL	1.15	BC	0.72	Vert(CT)	-0.41 11-13 >998 240				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.45	Horz(CT)	0.07 8 n/a n/a				
BCDL	10.0	Code IRC2021/TPI2014		Matrix-S		Wind(LL)	0.17 11-13 >999 240				
								Weight: 244 lb		FT = 20%	

LUMBER-		BRACING-	
TOP CHORD	2x6 SP No.1	TOP CHORD	Structural wood sheathing directly applied or 4-11-11 oc purlins, except
BOT CHORD	2x6 SP No.1		2-0-0 oc purlins (5-7-5 max.): 4-5, 6-7.
WEBS	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
		WEBS	T-Brace: 2x4 SPF No.2 - 6-13, 6-10
			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.	
(size)	2=0-3-8, 8=0-3-8
Max Horz	2=205(LC 11)
Max Uplift	2=-64(LC 12), 8=-105(LC 13)
Max Grav	2=1637(LC 19), 8=1584(LC 2)

FORCES.	
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD	2-3=-2288/485, 3-4=-2071/453, 4-5=-1663/441, 5-6=-2116/469, 6-7=-1861/413, 7-8=-2380/428
BOT CHORD	2-15=-289/1950, 13-15=-112/1682, 11-13=-426/3019, 10-11=-428/3009, 8-10=-225/1897
WEBS	3-15=-315/218, 4-15=-51/744, 5-13=-130/956, 6-13=-1648/411, 6-11=0/322, 6-10=-1378/251, 7-10=-68/993

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-15 to 3-3-14, Interior(1) 3-3-14 to 11-10-0, Exterior(2R) 11-10-0 to 16-2-13, Interior(1) 16-2-13 to 16-9-8, Exterior(2R) 16-9-8 to 21-2-5, Interior(1) 21-2-5 to 28-6-8, Exterior(2R) 28-6-8 to 32-11-5, Interior(1) 32-11-5 to 35-7-15 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 64 lb uplift at joint 2 and 105 lb uplift at joint 8.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



September 26,2025

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ENGINEERING BY
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 65 Magnolia Hills
251447-A	B5	ROOF SPECIAL	1	1	176645103

Comtech, Inc., Fayetteville, NC - 28314,

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1-2-8 7-2-14 13-10-0 14-9-8 20-7-0 26-6-8 34-7-0 35-9-8

1-2-8 7-2-14 6-7-3 0-11-8 5-9-8 5-11-8 8-0-8 1-2-8

Scale = 1:68.4

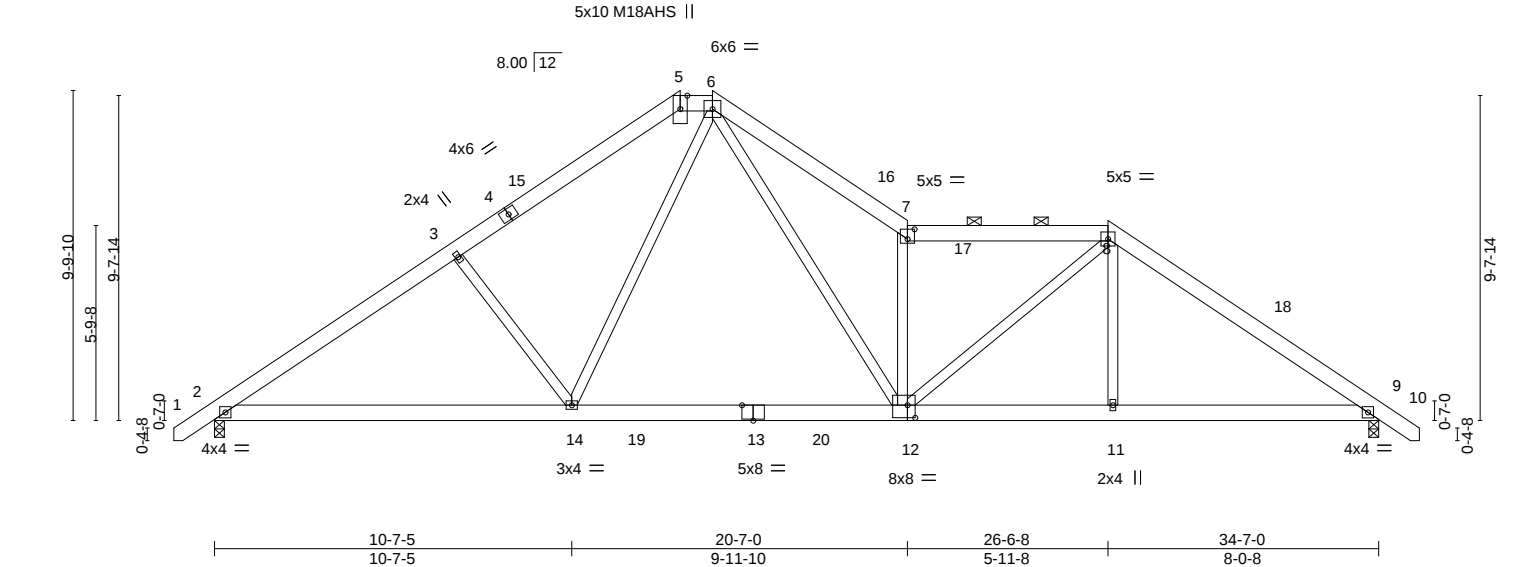


Plate Offsets (X,Y)--		[7:0-2-8,0-3-8], [12:0-2-12,0-4-8], [13:0-4-0,Edge]	
LOADING (psf)		SPACING-	
TCLL	20.0	2-0-0	CSL
TCDL	10.0	Plate Grip DOL 1.15	TC 0.38
BCLL	0.0 *	Lumber DOL 1.15	BC 0.55
BCDL	10.0	Rep Stress Incr YES	WB 0.99
		Code IRC2021/TPI2014	Matrix-S
		DEFL.	
		in (loc)	l/defl L/d
		Vert(LL) -0.24 12-14 >999 360	
		Vert(CT) -0.38 12-14 >999 240	
		Horz(CT) 0.05 9 n/a n/a	
		Wind(LL) 0.09 12-14 >999 240	
		PLATES GRIP	
		MT20 244/190	
		M18AHS 186/179	
		Weight: 248 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x6 SP No.1	TOP CHORD	Structural wood sheathing directly applied or 4-0-10 oc purlins, except
BOT CHORD	2x6 SP No.1		2-0-0 oc purlins (4-11-1 max.); 5-6, 7-8.
WEBS	2x4 SP No.2	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=237(LC 11)
Max Uplift 2=-75(LC 12), 9=-112(LC 13)
Max Grav 2=1672(LC 19), 9=1602(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2302/427, 3-5=-2115/462, 5-6=-1760/464, 6-7=-3079/713, 7-8=-2469/505, 8-9=-2292/412
BOT CHORD 2-14=-232/1981, 12-14=-50/1474, 11-12=-179/1799, 9-11=-178/1806
WEBS 3-14=-311/251, 6-14=-82/822, 6-12=-427/2031, 7-12=-1979/535, 8-12=-121/947, 8-11=0/301

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-15 to 3-3-14, Interior(1) 3-3-14 to 13-10-0, Exterior(2E) 13-10-0 to 14-9-8, Exterior(2R) 14-9-8 to 19-2-5, Interior(1) 19-2-5 to 26-6-8, Exterior(2R) 26-6-8 to 30-11-5, Interior(1) 30-11-5 to 35-7-15 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - All plates are MT20 plates unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 75 lb uplift at joint 2 and 112 lb uplift at joint 9.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



September 26,2025

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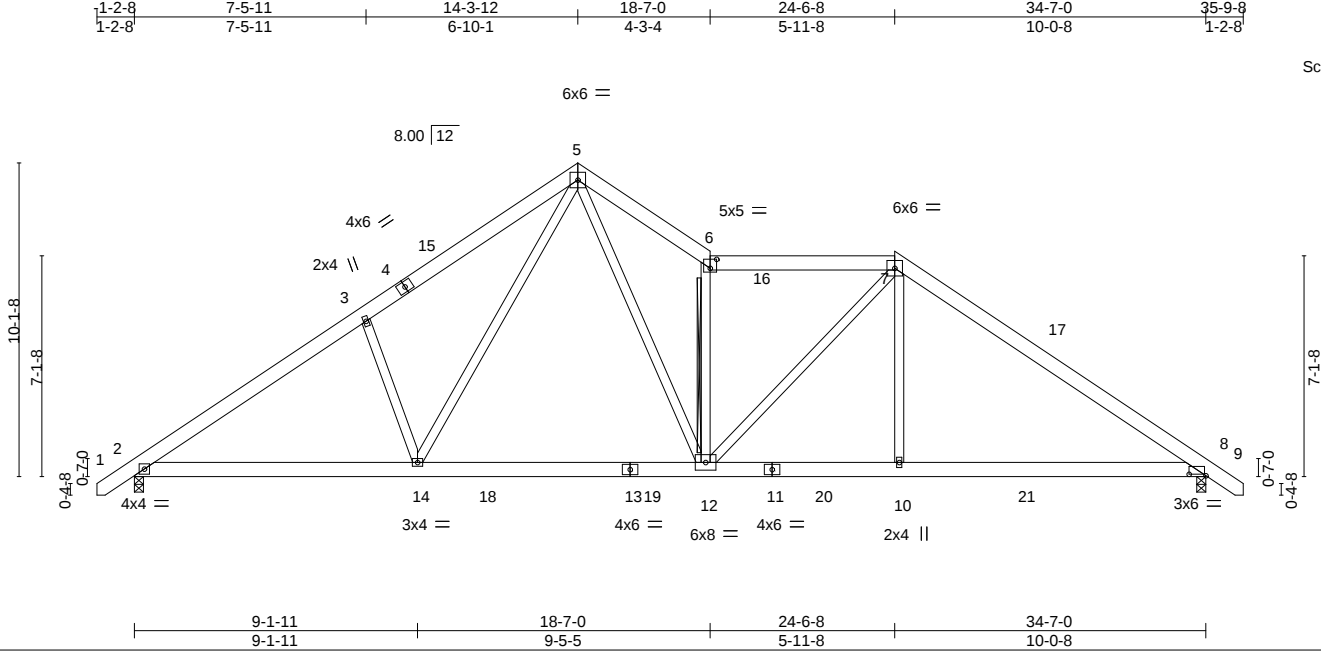
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ENGINEERING BY
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 65 Magnolia Hills
251447-A	B6	ROOF SPECIAL	1	1	176645104

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ID:3YJEg_u8zX16RsP?VvW_V6zd0wB-hlf6NVCO1R6jl7ahkpJ1aWvAhSIaGpcij6jkk5yZxNI



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 0.61	Vert(LL)	-0.19 12-14	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.56	Vert(CT)	-0.29 12-14	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.60	Horz(CT)	0.06 8	n/a	n/a		
BCDL 10.0	Code IRC2021/TPI2014		Matrix-S	Wind(LL)	0.06 8-10	>999	240	Weight: 253 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 3-10-7 oc purlins, except
BOT CHORD 2x6 SP No.1	2-0-0 oc purlins (5-2-9 max.): 6-7.
WEBS 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
	WEBS T-Brace: 2x4 SPF No.2 - 6-12
	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) 2=0-3-8, 8=0-3-8
Max Horz 2=246(LC 11)
Max Uplift 2=-78(LC 12), 8=-113(LC 13)
Max Grav 2=1734(LC 19), 8=1752(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2492/411, 3-5=-2392/532, 5-6=-2609/610, 6-7=-2185/458, 7-8=-2418/397
BOT CHORD 2-14=-217/2134, 12-14=-37/1543, 10-12=-138/1902, 8-10=-136/1913
WEBS 3-14=-408/289, 5-14=-181/966, 5-12=-322/1766, 6-12=-1616/433, 7-12=-56/502, 7-10=0/581

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-15 to 3-3-14, Interior(1) 3-3-14 to 14-3-12, Exterior(2E) 14-3-12 to 18-7-0, Interior(1) 18-7-0 to 24-6-8, Exterior(2R) 24-6-8 to 28-11-5, Interior(1) 28-11-5 to 35-7-15 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 78 lb uplift at joint 2 and 113 lb uplift at joint 8.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



September 26, 2025

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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ENGINEERING BY
TRENCO
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 65 Magnolia Hills
251447-A	B7	ROOF SPECIAL	1	1	176645105

Comtech, Inc., Fayetteville, NC - 28314,

25.3.0 s Sep 17 2025 MiTek Industries, Inc. Thu Sep 25 23:33:19 2025 Page 1

ID:3YJEq_u8zX16RsP?VvW_V6zd0wB-AVDVarD0okEaMH9tiWqG6kRJys1mPvNsytIHxYzXnk

Job Reference (optional)

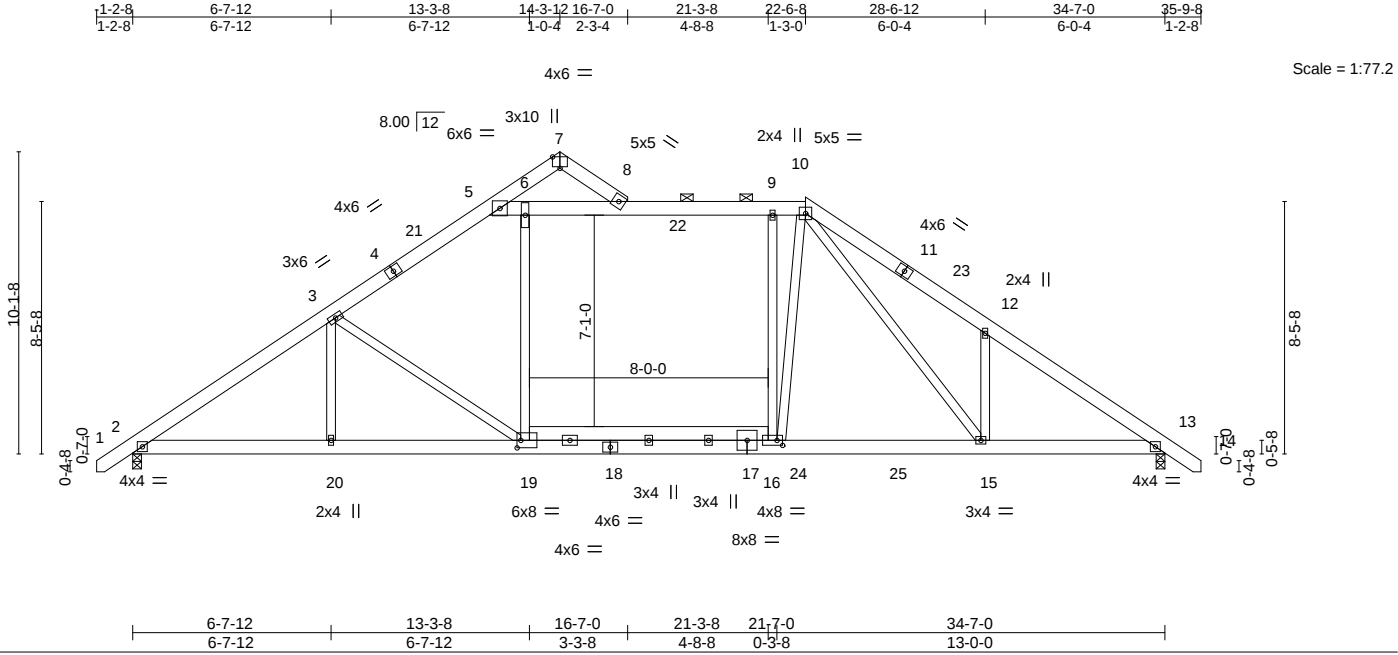


Plate Offsets (X,Y)--		[7:0-3-0,Edge], [16:0-2-4,0-2-0], [19:0-1-8,0-3-0]									
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.77	Vert(LL)	-0.30 15-16	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.80	Vert(CT)	-0.43 15-16	>965	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.44	Horz(CT)	0.07 13	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.14 15-16	>999	240	Weight: 283 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x6 SP No.1	TOP CHORD	Structural wood sheathing directly applied or 3-9-3 oc purlins, except
BOT CHORD	2x6 SP No.1		2-0-0 oc purlins (5-1-3 max.): 5-10.
WEBS	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 13=0-3-8
Max Horz 2=-246(LC 10)
Max Uplift 2=-78(LC 12), 13=-113(LC 13)
Max Grav 2=1742(LC 19), 13=1743(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2484/394, 3-5=-2097/422, 5-6=-1723/418, 6-8=-1723/418, 8-9=-1809/430,
9-10=-1813/433, 10-12=-2615/579, 12-13=-2614/404
BOT CHORD 2-20=-207/2109, 19-20=-207/2109, 16-19=-101/1873, 15-16=-84/1766, 13-15=-212/2070
WEBS 6-19=0/592, 9-16=-313/274, 3-19=-414/186, 12-15=-301/267, 10-15=-249/774,
10-16=-235/738

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-15 to 3-3-14, Interior(1) 3-3-14 to 14-3-12, Exterior(2E) 14-3-12 to 16-7-0, Interior(1) 16-7-0 to 22-6-8, Exterior(2R) 22-6-8 to 26-11-5, Interior(1) 26-11-5 to 35-7-15 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 78 lb uplift at joint 2 and 113 lb uplift at joint 13.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



September 26,2025

Job	Truss	Truss Type	Qty	Ply	Lot 65 Magnolia Hills
251447-A	B8	ROOF SPECIAL	1	1	176645106

Comtech, Inc., Fayetteville, NC - 28314, 25.3.0 s Sep 17 2025 MiTek Industries, Inc. Thu Sep 25 23:33:19 2025 Page 1
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1-2-8 6-7-12 6-9-8 14-3-12 14-7-0 20-6-8 27-11-4 34-7-0
1-2-8 6-7-12 0-1-12 7-6-4 0-3-4 5-11-8 7-4-12 6-7-12

Scale = 1:71.6

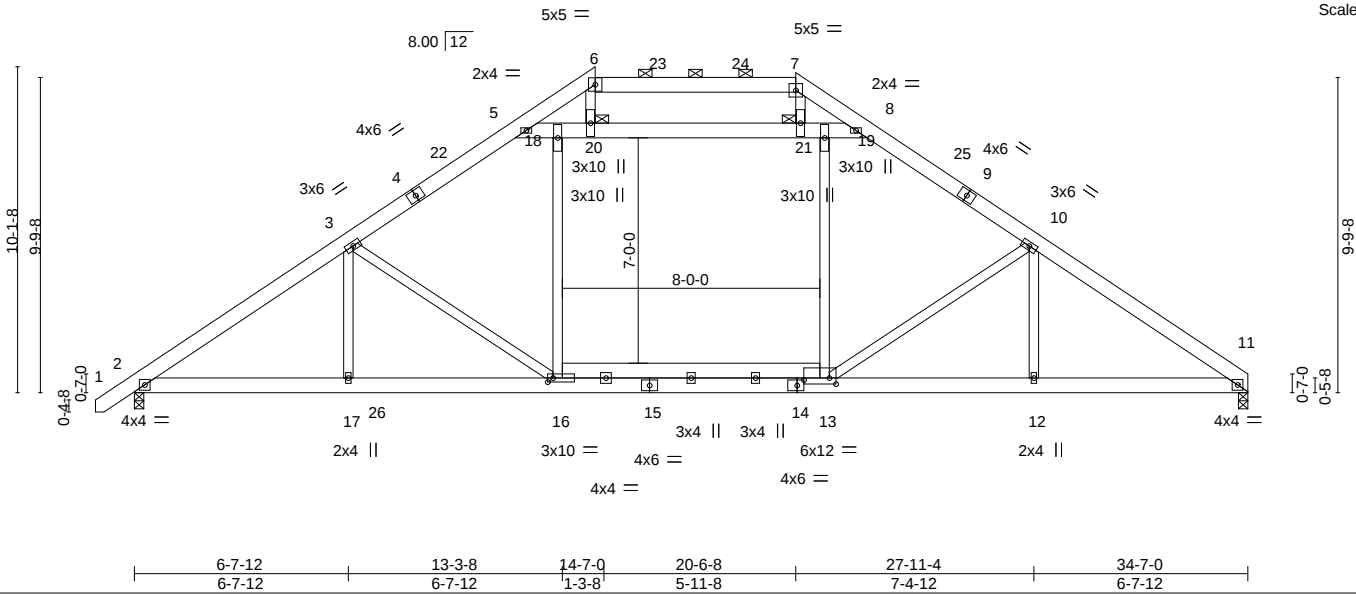


Plate Offsets (X,Y)--		[13:0-2-8,0-2-4], [14:0-2-8,0-2-0], [16:0-2-0,0-1-8]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 20.0	Plate Grip DOL	1.15	TC 0.23
TCDL 10.0	Lumber DOL	1.15	BC 0.62
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.73
BCDL 10.0	Code	IRC2021/TPI2014	Matrix-S
DEFL.	in (loc)	l/defl	L/d
Vert(LL)	-0.21 16-17	>999	360
Vert(CT)	-0.26 16-17	>999	240
Horz(CT)	0.06 11	n/a	n/a
Wind(LL)	0.12 12-13	>999	240
PLATES	GRIP		
MT20	244/190		
Weight: 284 lb		FT = 20%	

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 4-7-8 oc purlins, except
BOT CHORD 2x6 SP No.1	2-0-0 oc purlins (6-0-0 max.): 6-7.
WEBS 2x4 SP No.2 *Except*	Rigid ceiling directly applied or 10-0-0 oc bracing.
5-8: 2x6 SP No.1	JOINTS 1 Brace at Jt(s): 20, 21

REACTIONS. (size) 2=0-3-8, 11=0-3-8
Max Horz 2=234(LC 9)
Max Uplift 2=-78(LC 12), 11=-59(LC 13)
Max Grav 2=1807(LC 19), 11=1665(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2691/410, 3-5=-2106/429, 5-6=-1271/263, 6-7=-1033/242, 7-8=-1332/267,
8-10=-2084/432, 10-11=-2512/411
BOT CHORD 2-17=-261/2293, 16-17=-261/2293, 13-16=-118/1717, 12-13=-245/1992, 11-12=-245/1992
WEBS 3-17=0/381, 16-18=-9/814, 13-19=-15/696, 3-16=-702/190, 10-12=0/261,
10-13=-547/195, 5-18=-653/217, 18-20=-653/217, 20-21=-690/218, 19-21=-642/219,
8-19=-642/219, 6-20=-14/493, 7-21=-17/560

- NOTES-
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-15 to 3-3-14, Interior(1) 3-3-14 to 14-3-12, Exterior(2R) 14-3-12 to 18-8-9, Interior(1) 18-8-9 to 20-6-8, Exterior(2R) 20-6-8 to 24-11-5, Interior(1) 24-11-5 to 34-5-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 78 lb uplift at joint 2 and 59 lb uplift at joint 11.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



September 26,2025

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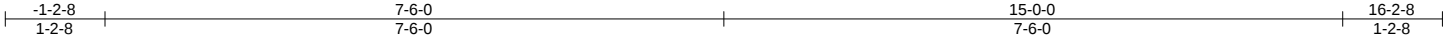
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 65 Magnolia Hills
251447-A	C1SG	GABLE	1	1	176645107

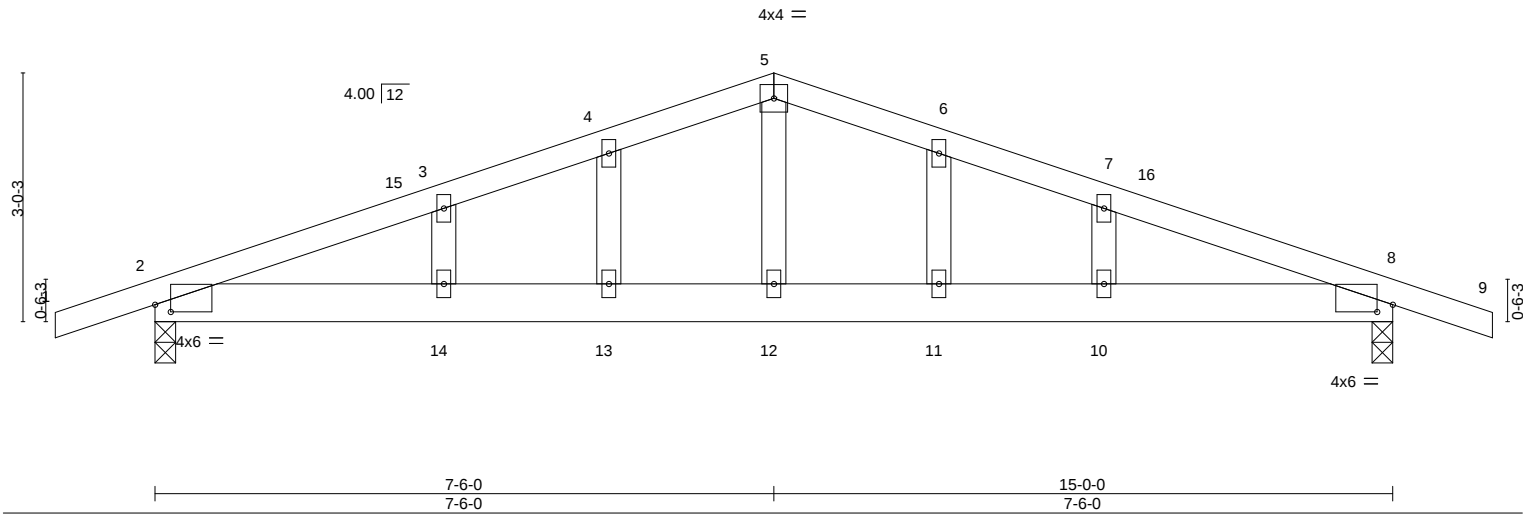
Comtech, Inc., Fayetteville, NC - 28314,

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Job Reference (optional)



Scale = 1:27.9



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	-0.05 14 >999 360	MT20		244/190	
TCDL	10.0	Lumber DOL	1.15	BC	0.33	Vert(CT)	-0.09 13-14 >999 240				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.01 8 n/a n/a				
BCDL	10.0	Code IRC2021/TPI2014		Matrix-S		Wind(LL)	0.08 13-14 >999 240	Weight: 74 lb		FT = 20%	

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.1	TOP CHORD	Structural wood sheathing directly applied or 5-11-0 oc purlins.
BOT CHORD	2x6 SP No.1	BOT CHORD	Rigid ceiling directly applied or 7-8-15 oc bracing.
WEBS	2x4 SP No.2		
OTHERS	2x4 SP No.2		

REACTIONS. (size) 2=0-3-0, 8=0-3-0
Max Horz 2=59(LC 16)
Max Uplift 2=-371(LC 8), 8=-371(LC 9)
Max Grav 2=670(LC 1), 8=670(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1063/1063, 3-4=-1016/1107, 4-5=-1007/1149, 5-6=-1007/1149, 6-7=-1016/1107, 7-8=-1063/1063
BOT CHORD 2-14=-907/951, 13-14=-907/951, 12-13=-907/951, 11-12=-907/951, 10-11=-907/951, 8-10=-907/951
WEBS 5-12=-523/448

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Corner(3E) -1-2-8 to 3-2-5, Exterior(2N) 3-2-5 to 7-6-0, Corner(3R) 7-6-0 to 11-10-13, Exterior(2N) 11-10-13 to 16-2-8 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
 - 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.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable studs spaced at 2-0-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 371 lb uplift at joint 2 and 371 lb uplift at joint 8.



September 26,2025

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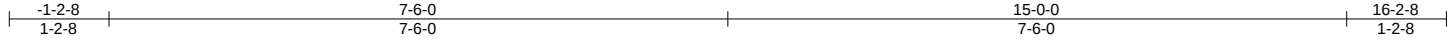
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 65 Magnolia Hills
251447-A	C2	COMMON	4	1	176645108

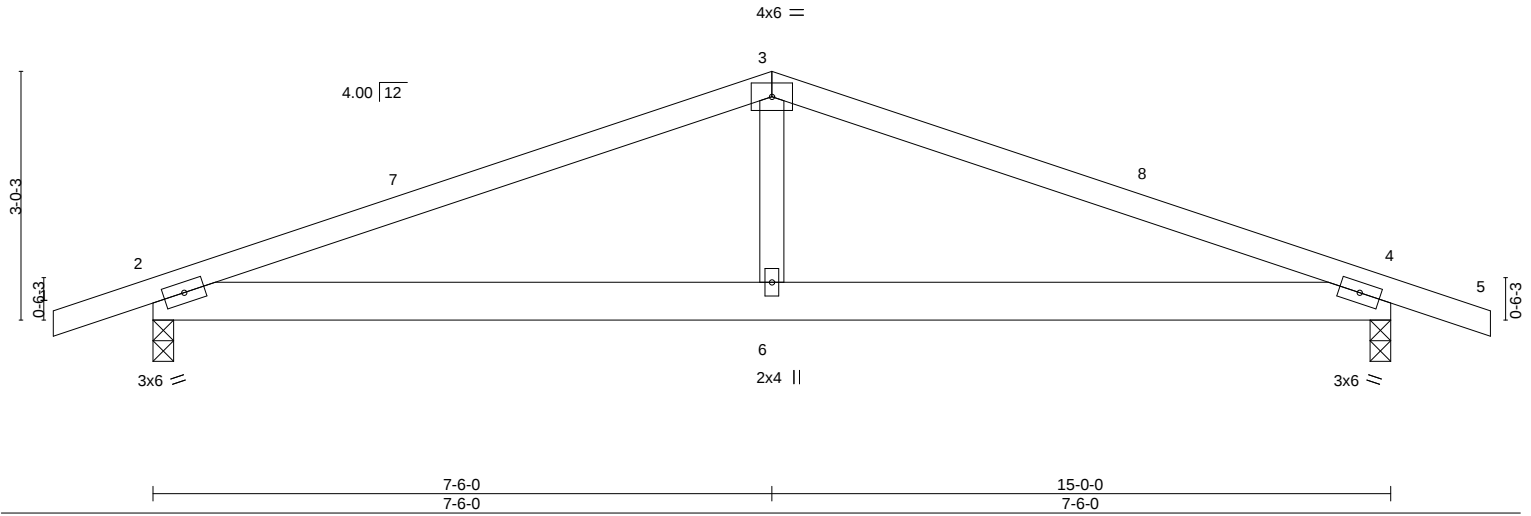
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Job Reference (optional)



Scale = 1:27.9



LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	2-0-0	TC 0.49	Vert(LL)	0.06	4-6	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.28	Vert(CT)	-0.07	2-6	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.08	Horz(CT)	0.01	4	n/a	n/a		
BCDL 10.0	Code IRC2021/TPI2014		Matrix-S						Weight: 66 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 5-1-12 oc purlins.
BOT CHORD Rigid ceiling directly applied or 8-10-14 oc bracing.

REACTIONS.

(size) 2=0-3-0, 4=0-3-0
Max Horz 2=35(LC 12)
Max Uplift 2=-261(LC 8), 4=-261(LC 9)
Max Grav 2=670(LC 1), 4=670(LC 1)

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

TOP CHORD 2-3=-1068/858, 3-4=-1068/855
BOT CHORD 2-6=-698/932, 4-6=-698/932
WEBS 3-6=-233/372

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-2-8 to 3-2-5, Interior(1) 3-2-5 to 7-6-0, Exterior(2R) 7-6-0 to 11-10-13, Interior(1) 11-10-13 to 16-2-8 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
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 261 lb uplift at joint 2 and 261 lb uplift at joint 4.



September 26, 2025

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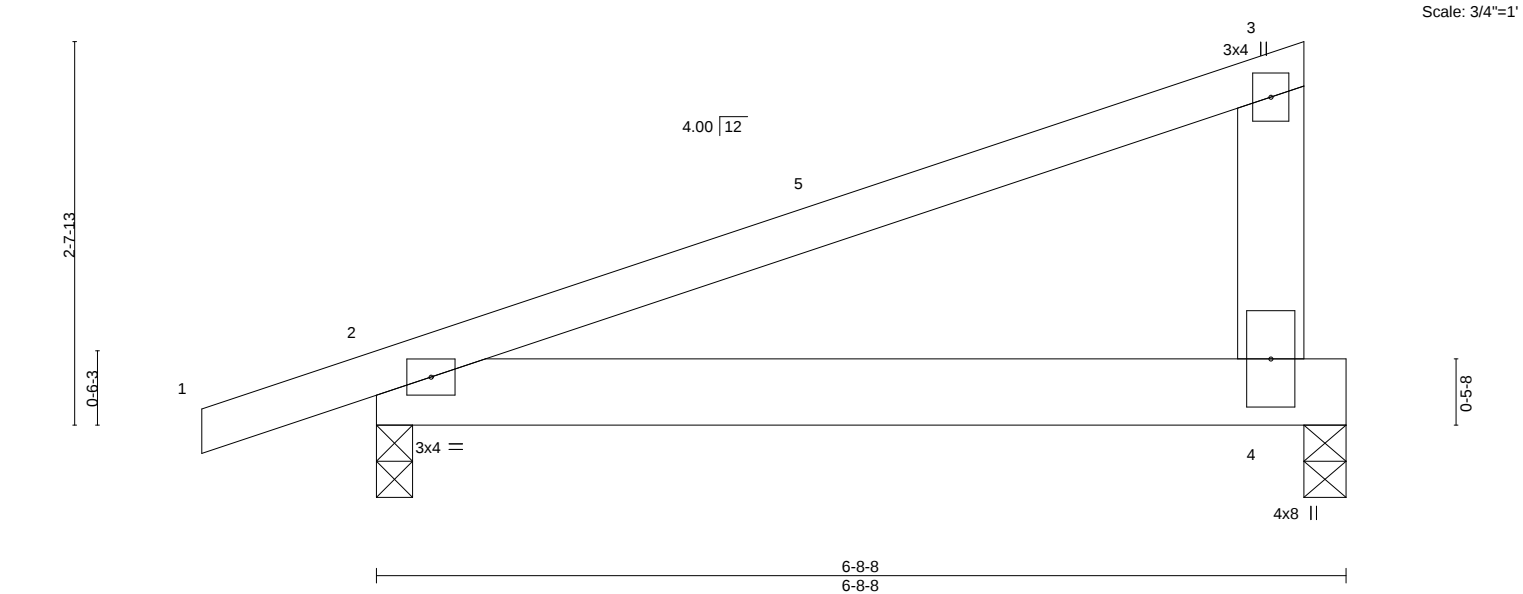
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 65 Magnolia Hills
251447-A	P1	ROOF SPECIAL	7	1	176645109

Comtech, Inc.,
Fayetteville, NC - 28314,

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MiTek Industries, Inc.
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6-5-0
6-5-0



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 0.68	Vert(LL)	-0.02 2-4	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.16	Vert(CT)	-0.04 2-4	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.00	Horz(CT)	0.00	n/a	n/a		
BCDL 10.0	Code IRC2021/TPI2014		Matrix-P	Wind(LL)	0.02 2-4	>999	240	Weight: 32 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x6 SP No.1	

REACTIONS. (size) 4=0-3-8, 2=0-3-0
Max Horz 2=85(LC 8)
Max Uplift 4=-294(LC 8), 2=-134(LC 8)
Max Grav 4=734(LC 1), 2=331(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-4=-173/274

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-2-8 to 3-2-5, Interior(1) 3-2-5 to 6-2-4 zone; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 294 lb uplift at joint 4 and 134 lb uplift at joint 2.
 - Load case(s) 18, 23, 24 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 500 lb down and 1091 lb up at 6-2-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
 - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

- LOAD CASE(S)** Standard
- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-60, 2-4=-20
Concentrated Loads (lb)
Vert: 4=-500(F)
 - Dead: Lumber Increase=0.90, Plate Increase=0.90 Plt. metal=0.90
Uniform Loads (plf)
Vert: 1-3=-20, 2-4=-20
Concentrated Loads (lb)
Vert: 4=-250(F)



September 26,2025

Job	Truss	Truss Type	Qty	Ply	Lot 65 Magnolia Hills
251447-A	P1	ROOF SPECIAL	7	1	I76645109
Job Reference (optional)					

- LOAD CASE(S)** Standard
- 23) Dead + 0.6 C-C Wind Min. Down: Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)
- Vert: 1-2=4, 2-3=-28, 2-4=4
- Horz: 1-2=-16, 2-3=16
- Concentrated Loads (lb)
- Vert: 4=-150(F)
- 24) Dead + 0.6 C-C Wind Min. Upward: Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)
- Vert: 1-3=4, 2-4=4
- Horz: 1-3=-16
- Concentrated Loads (lb)
- Vert: 4=-150(F)

 **WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

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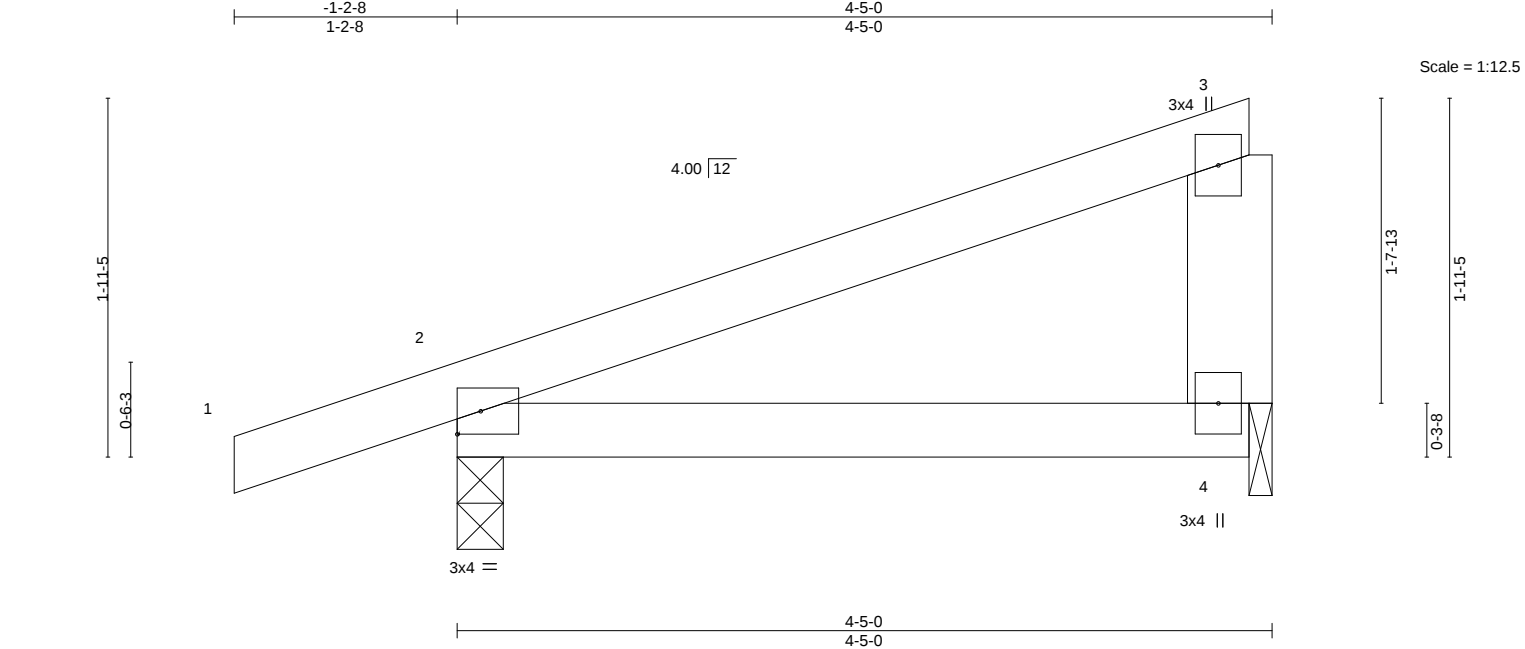


818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 65 Magnolia Hills
251447-A	P2	MONOPITCH	10	1	176645110

Comtech, Inc., Fayetteville, NC - 28314,

25.3.0 s Sep 17 2025 MiTek Industries, Inc. Thu Sep 25 23:33:21 2025 Page 1
ID:F7e3nXrh6oAXz?Vjil5mfhz3PFB-6tLF?XEGKMUIcbJGPxskB9XoRfsQvti9P4yPLQyZxNi



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 0.19	Vert(LL)	-0.01	2-4	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.15	Vert(CT)	-0.03	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 IRC2021/TPI2014		Matrix-P	Wind(LL)	0.00	2	****	240	Weight: 18 lb	FT = 20%

LUMBER-		BRACING-
TOP CHORD 2x4 SP No.1		TOP CHORD
BOT CHORD 2x4 SP No.1		Structural wood sheathing directly applied or 4-5-0 oc purlins, except end verticals.
WEBS 2x6 SP No.1		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=62(LC 8)
 Max Uplift 2=-63(LC 8), 4=-25(LC 12)
 Max Grav 2=256(LC 1), 4=149(LC 1)

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-2-8 to 3-2-5, Interior(1) 3-2-5 to 4-2-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * 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.
 - 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.
 - Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 63 lb uplift at joint 2 and 25 lb uplift at joint 4.

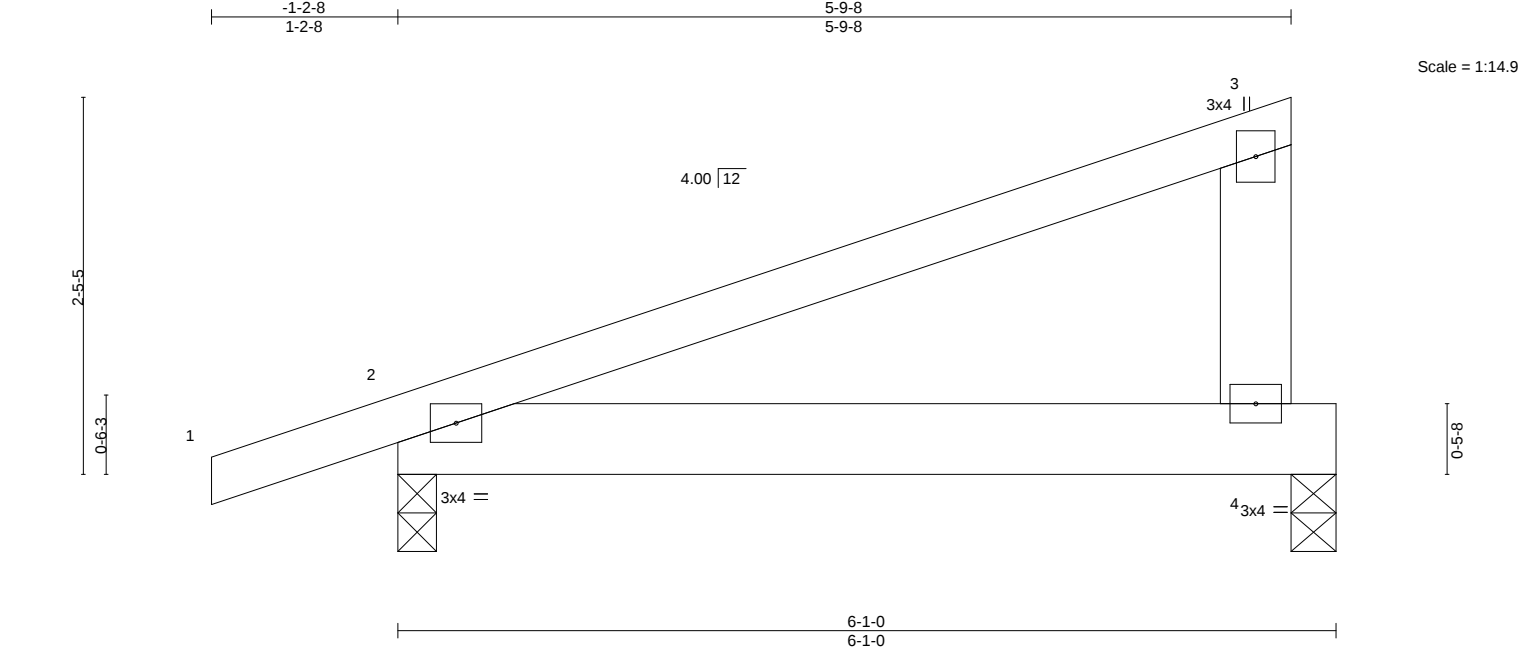


September 26,2025

Job	Truss	Truss Type	Qty	Ply	Lot 65 Magnolia Hills
251447-A	P3	MONOPITCH	3	1	176645111

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25.3.0 s Sep 17 2025 MiTek Industries, Inc. Thu Sep 25 23:33:21 2025 Page 1
ID:F7e3nXrh6oAXz?Vjil5mfhz3PFB-6tLF?XEGKMUIcbJGPxskB9XITftvtvi9P4yPLQyZxNi



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)	-0.01	2-4	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.11	Vert(CT)	-0.02	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 IRC2021/TPI2014		Matrix-P	Wind(LL)	0.02	2-4	>999	240	Weight: 29 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 5-9-8 oc purlins, except end verticals.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x6 SP No.1	

REACTIONS. (size) 4=0-3-8, 2=0-3-0
Max Horz 2=78(LC 8)
Max Uplift 4=90(LC 8), 2=-127(LC 8)
Max Grav 4=208(LC 1), 2=307(LC 1)

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-2-8 to 3-2-5, Interior(1) 3-2-5 to 5-6-12 zone; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 90 lb uplift at joint 4 and 127 lb uplift at joint 2.



September 26,2025

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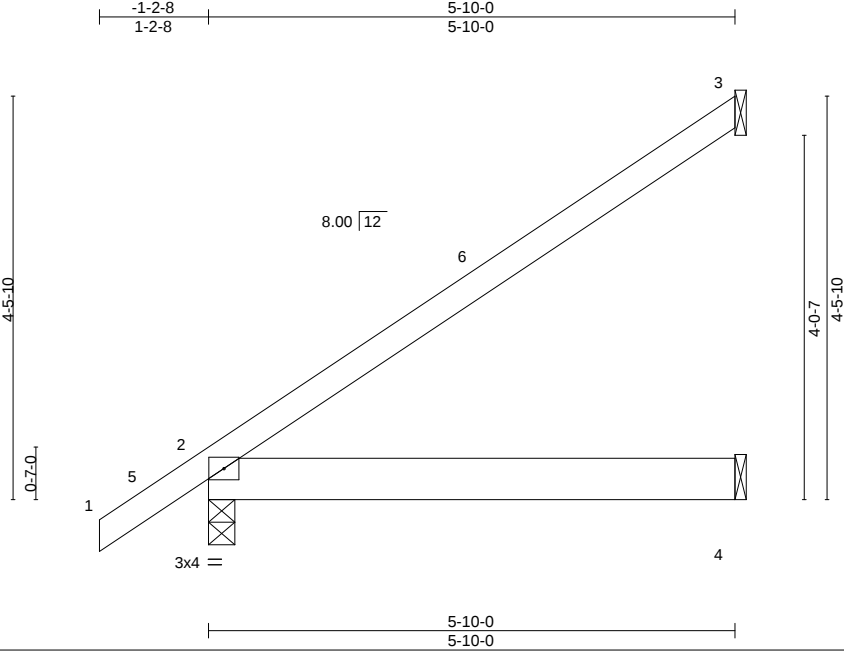
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 65 Magnolia Hills
251447-A	XB1	JACK-OPEN	10	1	176645113

Comtech, Inc., Fayetteville, NC - 28314,

25.3.0 s Sep 17 2025 MiTek Industries, Inc. Thu Sep 25 23:33:22 2025 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 0.47	Vert(LL)	-0.01	2-4	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.12	Vert(CT)	-0.03	2-4	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2021/TPI2014		Matrix-P	Wind(LL)	0.00	2	****	240	Weight: 27 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 5-10-0 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.	(size) 3=Mechanical, 2=0-3-8, 4=Mechanical
	Max Horz 2=147(LC 12)
	Max Uplift 3=-102(LC 12)
	Max Grav 3=178(LC 19), 2=316(LC 1), 4=113(LC 3)

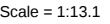
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

- NOTES-
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-2-8 to 3-2-5, Interior(1) 3-2-5 to 5-9-4 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) Refer to girder(s) for truss to truss connections.
 - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 102 lb uplift at joint 3.



September 26,2025

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 ID:3YJEG_u8zX16RsP?VvW_V6zd0wB-a4udDtFu5fc9EluSzfNzkM3_R3ElcMylekhytsyZxNh
 -1-2-8 2-0-8
 1-2-8 2-0-8



LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.1	TOP CHORD	Structural wood sheathing directly applied or 2-0-8 oc purlins.
BOT CHORD	2x6 SP No.1	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

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

NOTES-

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September 26, 2025



WARNING – Verify design parameters and READ NOTES ON THIS AND INCLUDED MITER REFERENCE PAGE MIT-17-19 (Rev. 1/2/2023) BEFORE USE.

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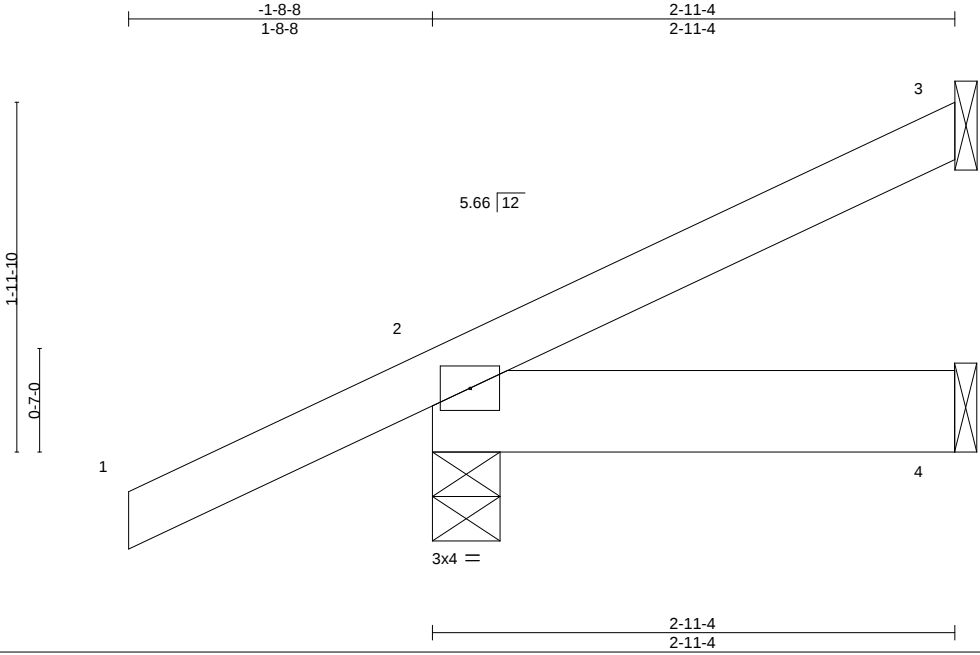


818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 65 Magnolia Hills
251447-A	YA3	HALF HIP GIRDER	1	1	176645117

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25.3.0 s Sep 17 2025 MiTek Industries, Inc. Thu Sep 25 23:33:23 2025 Page 1
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LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.19	Vert(LL)	-0.00	2	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.02	Vert(CT)	-0.00	2-4	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2021/TPI2014	Matrix-P	Wind(LL)	0.00	2	****	240	Weight: 15 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 2-11-4 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-4-9, 4=Mechanical
Max Horz 2=66(LC 12)
Max Uplift 3=-31(LC 12), 2=-34(LC 12)
Max Grav 3=40(LC 1), 2=262(LC 1), 4=54(LC 3)

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

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 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) Refer to girder(s) for truss to truss connections.
 - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 31 lb uplift at joint 3 and 34 lb uplift at joint 2.



September 26,2025

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TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 65 Magnolia Hills
251447-A	YB1	JACK-OPEN	4	1	176645118

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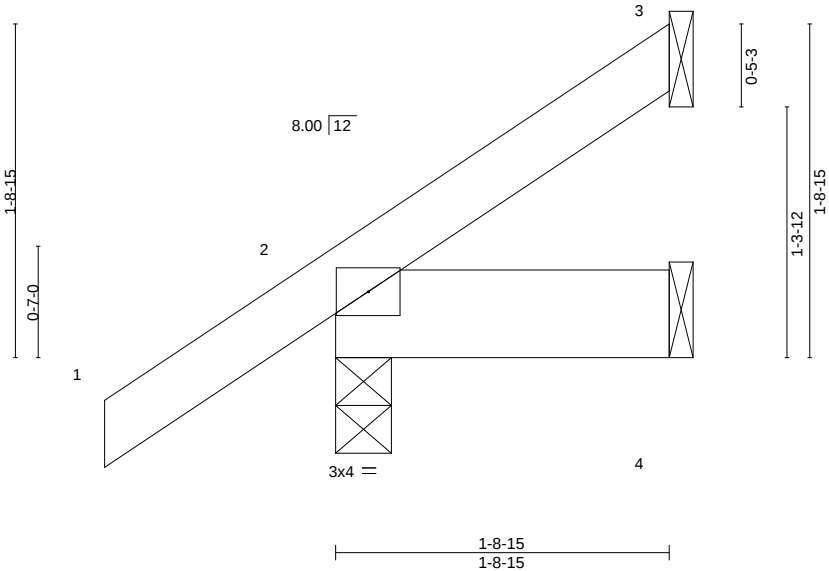
25.3.0 s Sep 17 2025 MiTek Industries, Inc. Thu Sep 25 23:33:24 2025 Page 1

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Job Reference (optional)



Scale: 1"=1'



LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	2-0-0	TC 0.10	Vert(LL)	-0.00	2	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.01	Vert(CT)	-0.00	2	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2021/TPI2014		Matrix-P	Wind(LL)	0.00	2	****	240	Weight: 10 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.1	TOP CHORD	Structural wood sheathing directly applied or 1-8-15 oc purlins.
BOT CHORD	2x6 SP No.1	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=60(LC 12)
Max Uplift 3=-25(LC 12), 2=-17(LC 12)
Max Grav 3=32(LC 19), 2=169(LC 1), 4=34(LC 3)

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

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 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) Refer to girder(s) for truss to truss connections.
 - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 3 and 17 lb uplift at joint 2.



September 26,2025

Job	Truss	Truss Type	Qty	Ply	Lot 65 Magnolia Hills
251447-A	YB2	JACK-OPEN	4	1	176645119

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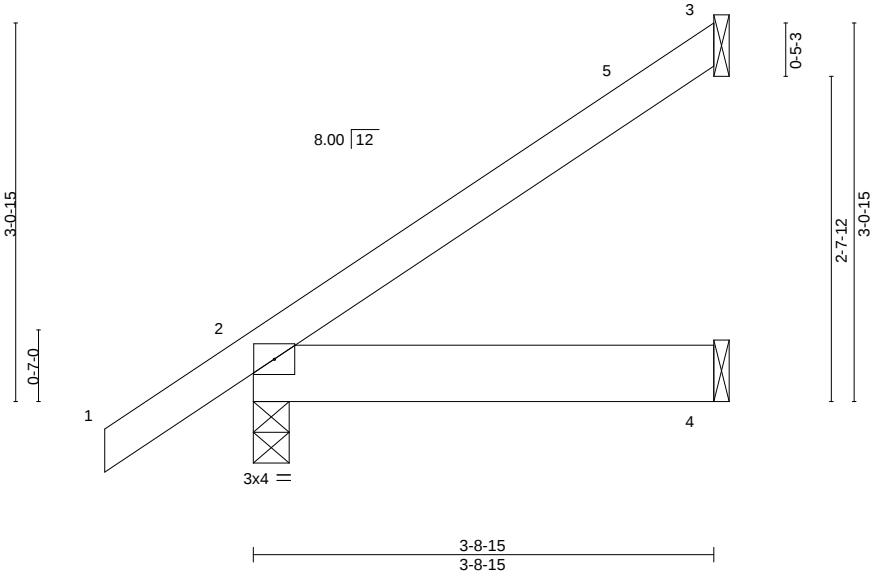
25.3.0 s Sep 17 2025 MiTek Industries, Inc. Thu Sep 25 23:33:24 2025 Page 1

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Job Reference (optional)



Scale = 1:18.7



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 0.16	Vert(LL)	-0.00	2-4	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	-0.00	2-4	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2021/TPI2014		Matrix-P	Wind(LL)	0.00	2	****	240	Weight: 18 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 3-8-15 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical

Max Horz 2=102(LC 12)

Max Uplift 3=-63(LC 12), 2=-7(LC 12)

Max Grav 3=104(LC 19), 2=238(LC 1), 4=71(LC 3)

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

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-2-8 to 3-2-5, Interior(1) 3-2-5 to 3-8-3 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) Refer to girder(s) for truss to truss connections.
 - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 63 lb uplift at joint 3 and 7 lb uplift at joint 2.



September 26,2025

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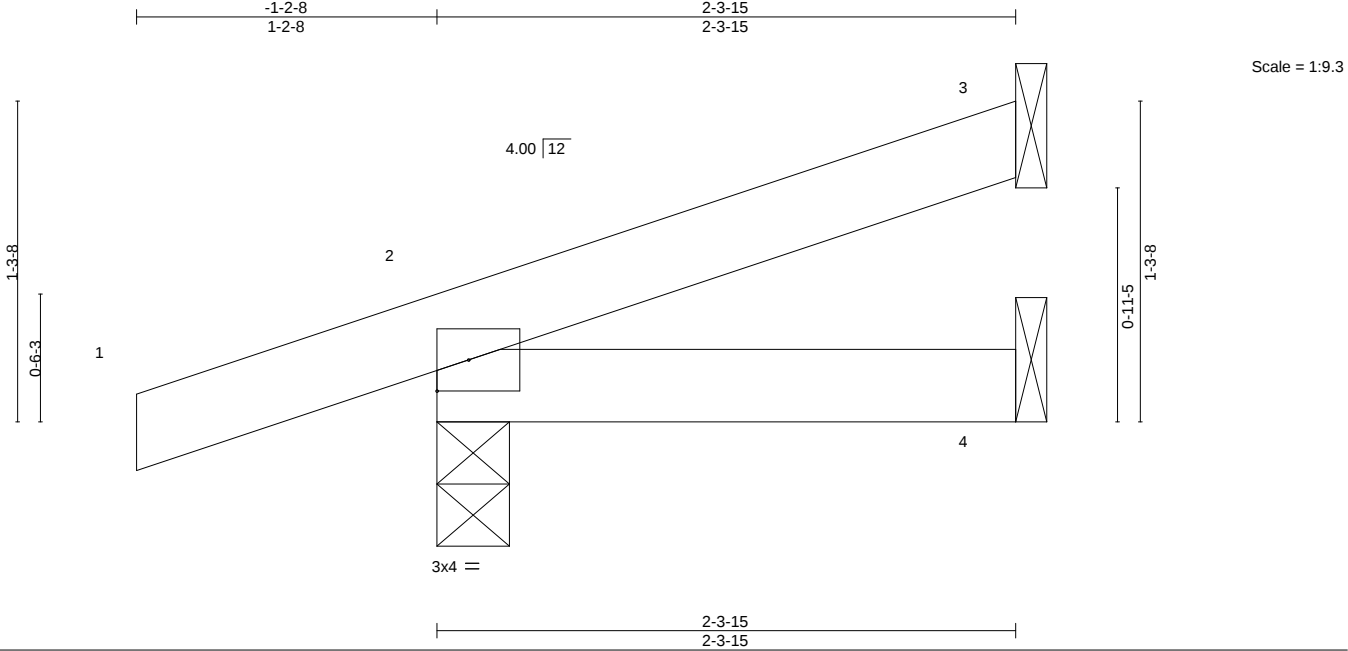
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 65 Magnolia Hills
251447-A	YP1	JACK-OPEN	4	1	176645120

Comtech, Inc., Fayetteville, NC - 28314,

25.3.0 s Sep 17 2025 MiTek Industries, Inc. Thu Sep 25 23:33:24 2025 Page 1
ID:F7e3nXrh6oAXz?Vjil5mfhz3PFB-WS0OeYH9dHtT22r54QRpn9JLtwr4GRb62A3ylyZxNf

Job Reference (optional)



LOADING (psf)	SPACING-		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	2-0-0	TC 0.09		Vert(LL)	-0.00	2-4	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.04		Vert(CT)	-0.00	2-4	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00		Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2021/TPI2014		Matrix-P		Wind(LL)	0.00	2-4	>999	240	Weight: 9 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.1	TOP CHORD	Structural wood sheathing directly applied or 2-3-15 oc purlins.
BOT CHORD	2x4 SP No.1	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=41(LC 8)
Max Uplift 3=-23(LC 12), 2=-90(LC 8), 4=-11(LC 8)
Max Grav 3=38(LC 1), 2=192(LC 1), 4=42(LC 3)

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

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) zone; porch left 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) Refer to girder(s) for truss to truss connections.
 - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 23 lb uplift at joint 3, 90 lb uplift at joint 2 and 11 lb uplift at joint 4.



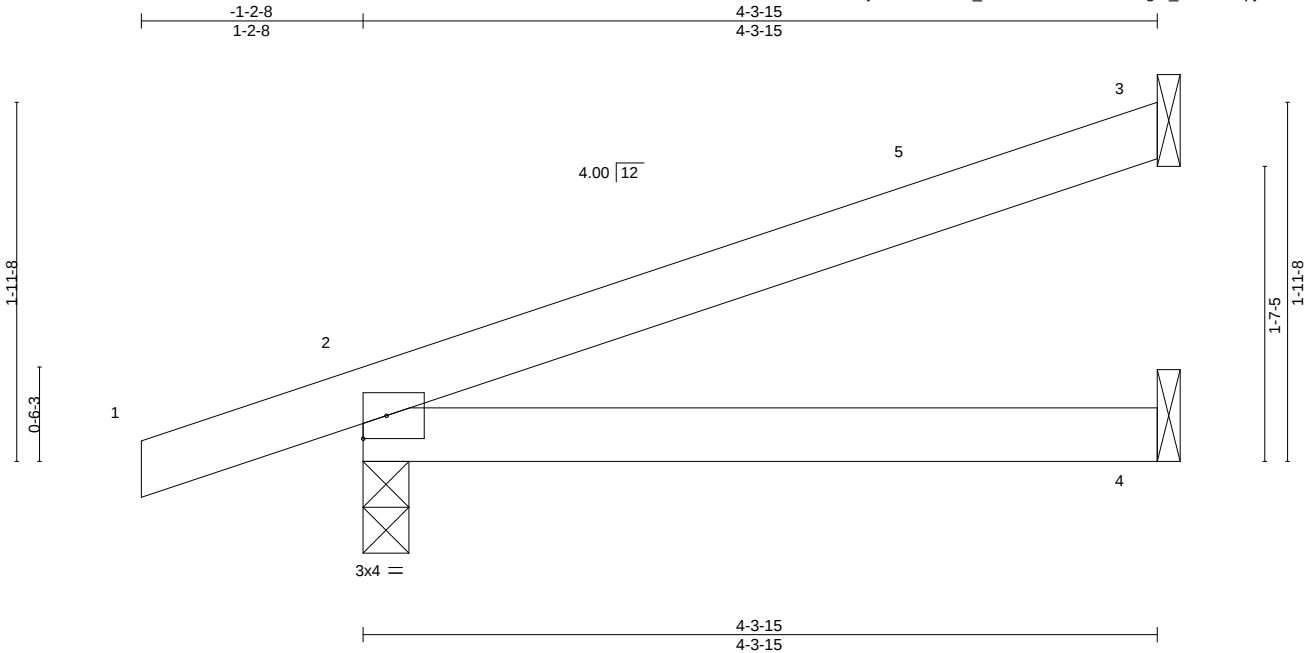
September 26,2025

Job	Truss	Truss Type	Qty	Ply	Lot 65 Magnolia Hills
251447-A	YP2	JACK-OPEN	2	1	176645121

Comtech, Inc., Fayetteville, NC - 28314,

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ID:F7e3nXrh6oAXz?Vjil5mfhz3PFB-_famrulnOa?k5Cd1enxgM_hSeHEGpjhkKiwcUByZxNe

Job Reference (optional)



LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	2-0-0	TC 0.24	Vert(LL)	-0.02	2-4	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.15	Vert(CT)	-0.03	2-4	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2021/TPI2014		Matrix-P	Wind(LL)	0.02	2-4	>999	240	Weight: 15 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 4-3-15 oc purlins.
BOT CHORD 2x4 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-3-0, 4=Mechanical
Max Horz 2=62(LC 8)
Max Uplift 3=-50(LC 12), 2=-110(LC 8), 4=-21(LC 8)
Max Grav 3=111(LC 1), 2=259(LC 1), 4=83(LC 3)

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

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-2-8 to 3-2-5, Interior(1) 3-2-5 to 4-3-3 zone; porch left 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) Refer to girder(s) for truss to truss connections.
 - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 50 lb uplift at joint 3, 110 lb uplift at joint 2 and 21 lb uplift at joint 4.



September 26, 2025

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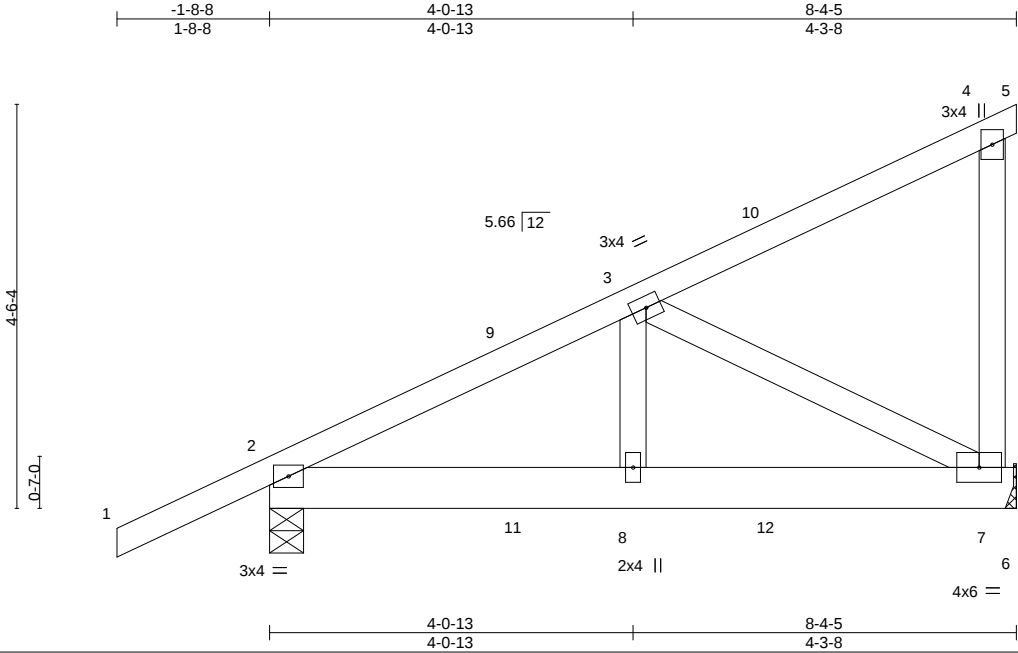
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 65 Magnolia Hills
251447-A	ZA1	DIAGONAL HIP GIRDER	2	1	176645122

Comtech, Inc., Fayetteville, NC - 28314,

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ID:3YJeg_u8zX16RsP?VvW_V6zd0wB-_famruInOa?k5Cd1enxgM_hShHFCphQkKiwcUByZxNe



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.24	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.09	Vert(LL) -0.00 7-8 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.15	Vert(CT) -0.01 7-8 >999 240		
BCDL 10.0	Rep Stress Incr NO	Matrix-P	Horz(CT) 0.00 7 n/a n/a		
	Code IRC2021/TPI2014		Wind(LL) 0.00 8 >999 240		
				Weight: 51 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	

REACTIONS. (size) 7=Mechanical, 2=0-4-9
Max Horz 2=150(LC 8)
Max Uplift 7=-110(LC 8), 2=-50(LC 8)
Max Grav 7=353(LC 35), 2=456(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-523/31
BOT CHORD 2-8=-118/381, 7-8=-118/381
WEBS 3-7=-430/133

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * 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.
 - Refer to girder(s) for truss to truss connections.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 110 lb uplift at joint 7 and 50 lb uplift at joint 2.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 75 lb down and 33 lb up at 2-9-8, 75 lb down and 33 lb up at 2-9-8, and 107 lb down and 84 lb up at 5-7-7, and 107 lb down and 84 lb up at 5-7-7 on top chord, and 2 lb down at 2-9-8, 2 lb down at 2-9-8, and 20 lb down at 5-7-7, and 20 lb down at 5-7-7 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
 - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

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=-20, 2-6=-20
Concentrated Loads (lb)
Vert: 10=-23(F=-11, B=-11) 12=-17(F=-9, B=-9)



September 26,2025

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Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacompoments.com)

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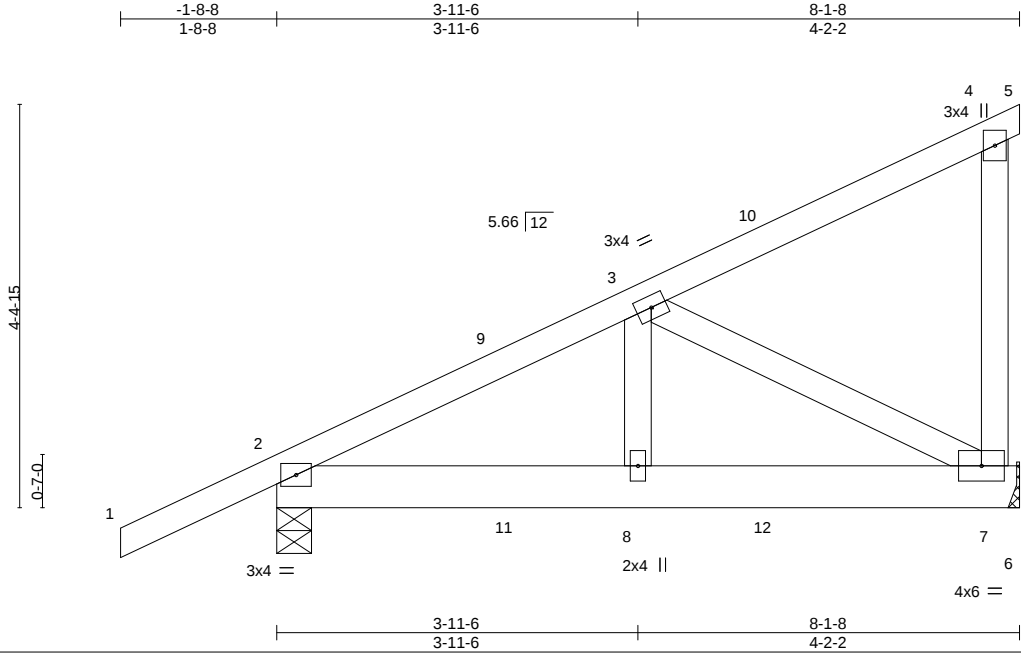
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 65 Magnolia Hills
251447-A	ZB1	DIAGONAL HIP GIRDER	2	1	176645123

Comtech, Inc., Fayetteville, NC - 28314,

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ID:3YJEG_u8zX16RsP?VvW_V6zd0wB-Sr882EIP9u7biMBDCVSvuCEdvgbZY8vuZMfA0dyZxNd



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.21	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.08	Vert(LL) -0.00 7-8 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.13	Vert(CT) -0.01 7-8 >999 240		
BCDL 10.0	Rep Stress Incr NO	Matrix-P	Horz(CT) 0.00 7 n/a n/a		
	Code IRC2021/TPI2014		Wind(LL) 0.00 8 >999 240		
				Weight: 49 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	

REACTIONS. (size) 7=Mechanical, 2=0-4-9
Max Horz 2=146(LC 8)
Max Uplift 7=-104(LC 8), 2=-48(LC 8)
Max Grav 7=336(LC 35), 2=443(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-502/26
BOT CHORD 2-8=-112/361, 7-8=-112/361
WEBS 3-7=-408/127

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * 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.
 - Refer to girder(s) for truss to truss connections.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 104 lb uplift at joint 7 and 48 lb uplift at joint 2.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 74 lb down and 28 lb up at 2-6-11, 74 lb down and 28 lb up at 2-6-11, and 104 lb down and 79 lb up at 5-4-10, and 104 lb down and 79 lb up at 5-4-10 on top chord, and 0 lb down at 2-6-11, 0 lb down at 2-6-11, and 18 lb down at 5-4-10, and 18 lb down at 5-4-10 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
 - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

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=-20, 2-6=-20
Concentrated Loads (lb)
Vert: 10=-11(F=-6, B=-6) 12=-14(F=-7, B=-7)

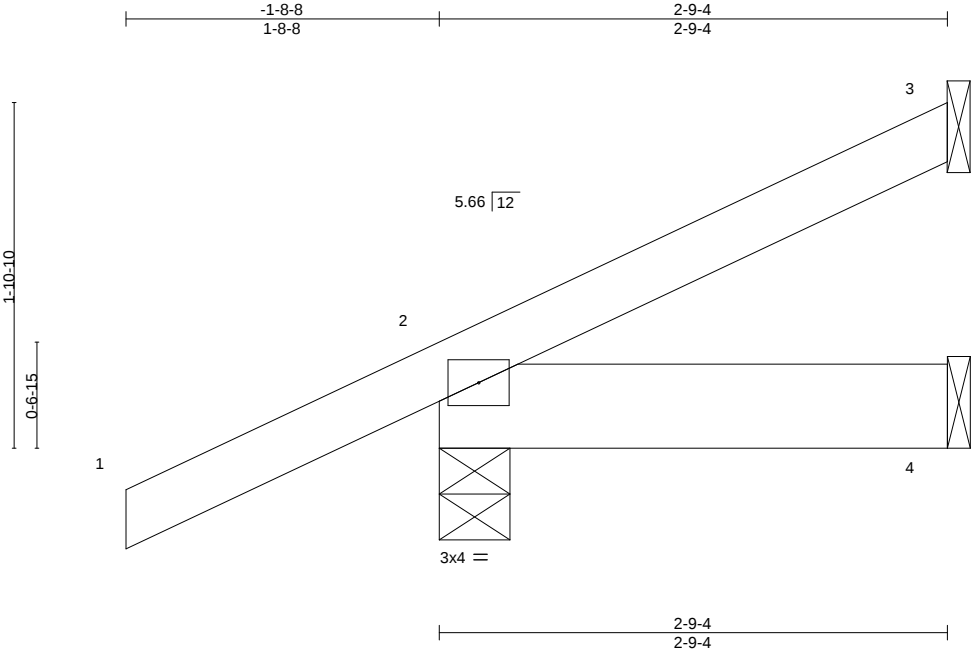


September 26,2025

Job	Truss	Truss Type	Qty	Ply	Lot 65 Magnolia Hills
251447-A	ZB2	JACK-OPEN	1	1	176645124

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25.3.0 s Sep 17 2025 MiTek Industries, Inc. Thu Sep 25 23:33:26 2025 Page 1
ID:3YJEG_u8zX16RsP?VvW_V6zd0wB-Sr882EIP9u7biMBDCVSvuCEdlgcXYAxuZMfA0dyZxNd



LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	2-0-0	TC 0.25	Vert(LL)	-0.00	2	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	-0.00	2-4	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2021/TPI2014		Matrix-P	Wind(LL)	0.00	2	****	240	Weight: 14 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 2-9-4 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-4-10, 4=Mechanical
Max Horz 2=64(LC 12)
Max Uplift 3=-28(LC 12), 2=-35(LC 12)
Max Grav 3=32(LC 1), 2=258(LC 1), 4=50(LC 3)

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

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Corner(3) 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) Refer to girder(s) for truss to truss connections.
 - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 28 lb uplift at joint 3 and 35 lb uplift at joint 2.



September 26, 2025

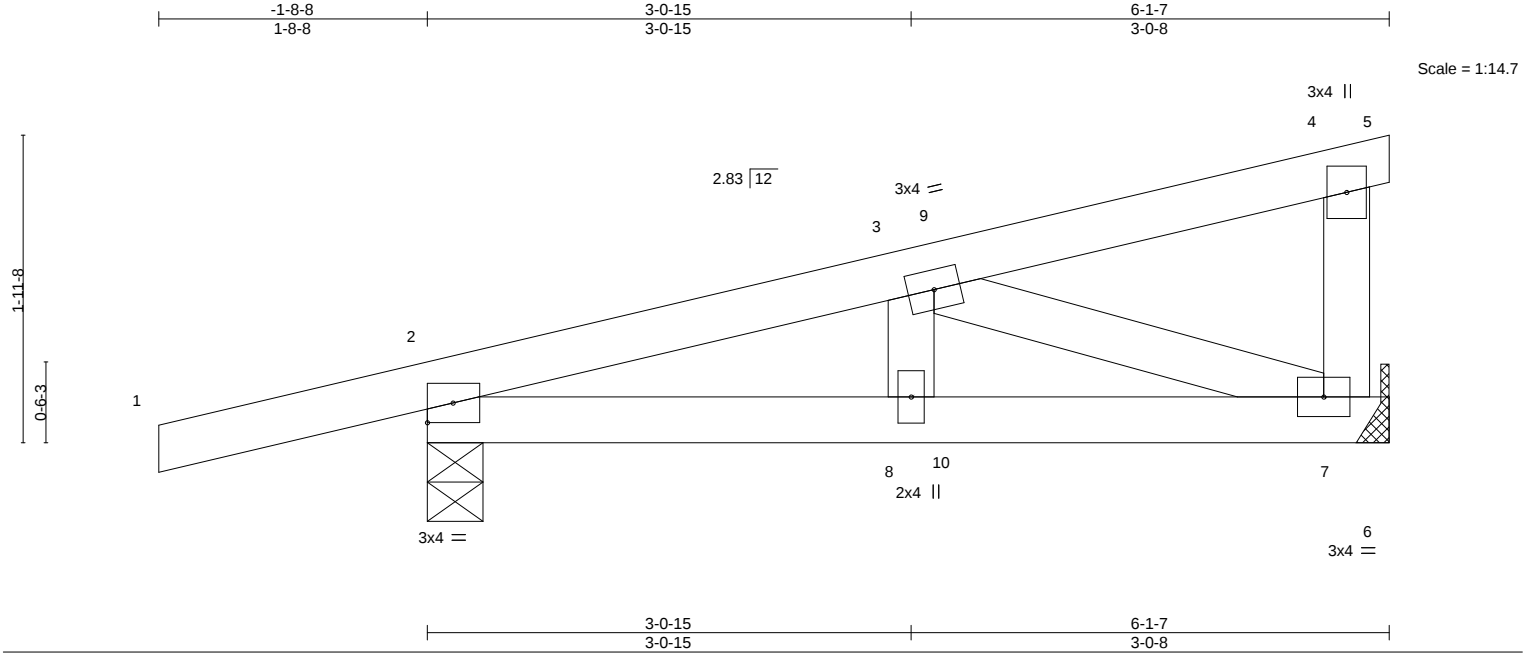
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 65 Magnolia Hills
251447-A	ZP1	DIAGONAL HIP GIRDER	1	1	176645125

Comtech, Inc., Fayetteville, NC - 28314,

25.3.0 s Sep 17 2025 MiTek Industries, Inc. Thu Sep 25 23:33:27 2025 Page 1
ID:F7e3nXrh6oAXz?Vjil5mfhz3PFB-x1iWGaJ1wCFSKWmQmCz8RPnob4umHdK1o?PjZ3yZxNc



LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.21	Vert(LL) -0.00	8	>999	360		MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.21	Vert(CT) -0.01	8	>999	240			
BCLL 0.0 *	Rep Stress Incr NO	WB 0.06	Horz(CT) 0.00	7	n/a	n/a			
BCDL 10.0	Code IRC2021/TPI2014	Matrix-P	Wind(LL) 0.01	8	>999	240		Weight: 28 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	

REACTIONS. (size) 7=Mechanical, 2=0-4-4
Max Horz 2=63(LC 4)
Max Uplift 7=-55(LC 8), 2=-117(LC 4)
Max Grav 7=219(LC 1), 2=359(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-360/75
BOT CHORD 2-8=-103/308, 7-8=-103/308
WEBS 3-7=-325/109

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * 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.
 - Refer to girder(s) for truss to truss connections.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 55 lb uplift at joint 7 and 117 lb uplift at joint 2.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 25 lb down and 24 lb up at 3-4-9, and 25 lb down and 24 lb up at 3-4-9 on top chord, and 4 lb down and 24 lb up at 3-4-9, and 4 lb down and 24 lb up at 3-4-9 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
 - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

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=-20, 2-6=-20



September 26,2025

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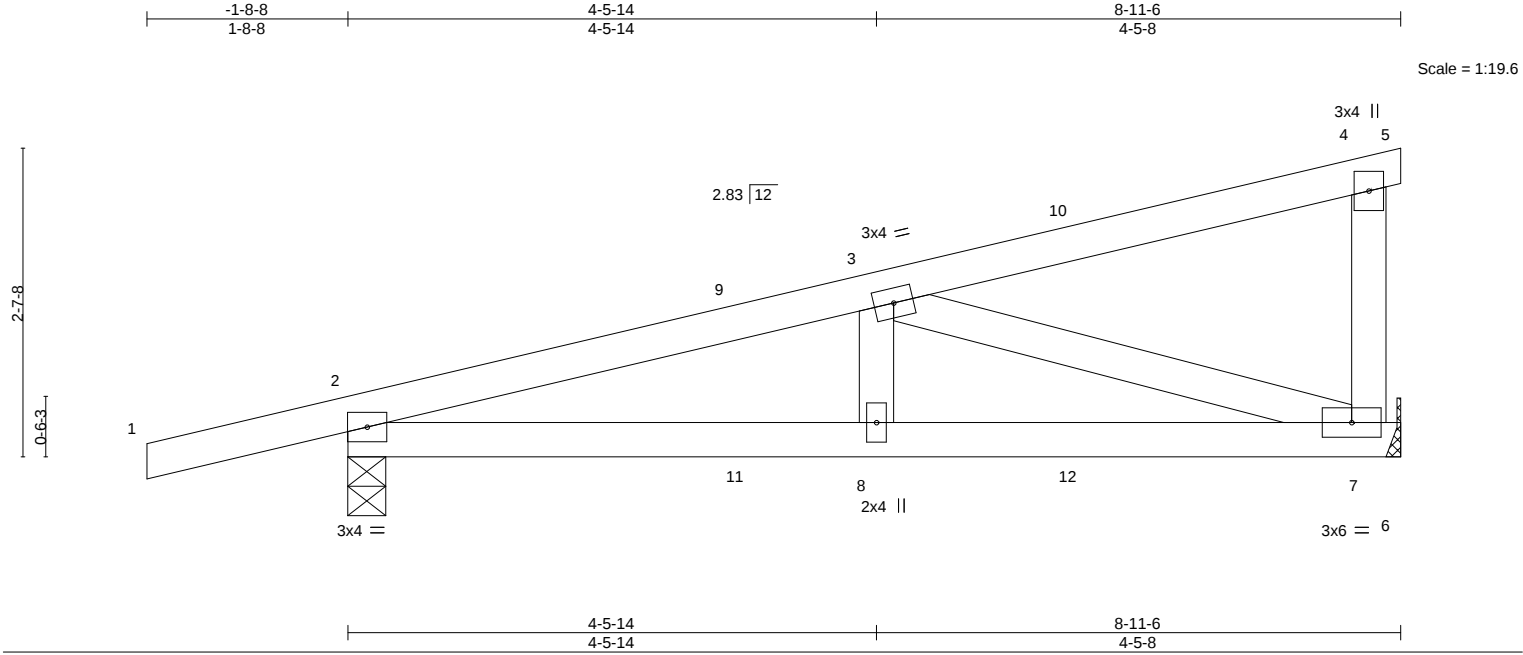
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 65 Magnolia Hills
251447-A	ZP2	DIAGONAL HIP GIRDER	1	1	176645126

Comtech, Inc., Fayetteville, NC - 28314,

25.3.0 s Sep 17 2025 MiTek Industries, Inc. Thu Sep 25 23:33:27 2025 Page 1
ID:F7e3nXrh6oAXz?Vjil5mfhz3PFB-x1iWGaj1wCFSKWmQmCz8RPnmp4tfHaL1o?PjZ3yZxNc



LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.33	Vert(LL) 0.03	7-8	>999	240		MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.28	Vert(CT) -0.04	7-8	>999	240			
BCLL 0.0 *	Rep Stress Incr NO	WB 0.25	Horz(CT) 0.01	7	n/a	n/a			
BCDL 10.0	Code IRC2021/TPI2014	Matrix-P							

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	

REACTIONS. (size) 7=Mechanical, 2=0-3-14
Max Horz 2=84(LC 4)
Max Uplift 7=-174(LC 4), 2=-212(LC 4)
Max Grav 7=396(LC 1), 2=488(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-777/280
BOT CHORD 2-8=-315/710, 7-8=-315/710
WEBS 3-7=-742/329

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); porch left exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * 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.
 - Refer to girder(s) for truss to truss connections.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 174 lb uplift at joint 7 and 212 lb uplift at joint 2.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 25 lb down and 24 lb up at 3-4-9, 25 lb down and 24 lb up at 3-4-9, and 83 lb down and 62 lb up at 6-2-8, and 83 lb down and 62 lb up at 6-2-8 on top chord, and 4 lb down and 24 lb up at 3-4-9, 4 lb down and 24 lb up at 3-4-9, and 26 lb down and 46 lb up at 6-2-8, and 26 lb down and 46 lb up at 6-2-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
 - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

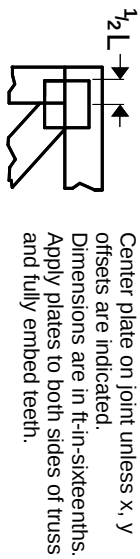
LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-60, 4-5=-20, 2-6=-20
Concentrated Loads (lb)
Vert: 10=-53(F=-26, B=-26) 12=-26(F=-13, B=-13)



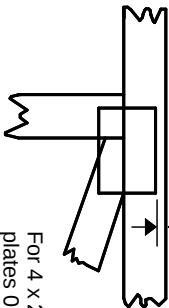
September 26,2025

Symbols

PLATE LOCATION AND ORIENTATION



0-¹/₁₆"



For 4 x 2 orientation, locate plates 0-³/₁₆" 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

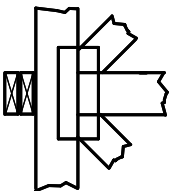
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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.

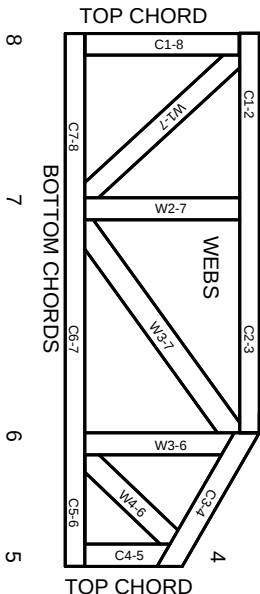
Industry Standards:

ANSI/TP1.1: 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

6-4-8 | dimensions shown in ft-in-sixteenths
(Drawings not to scale)

1 | 2 | 3 Joint ID
TOP CHORDS | BOTTOM CHORDS | typ.



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/TP1 1 section 6.3. These truss designs rely on lumber values established by others.

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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/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 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/TP1 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.

MITek®

ENGINEERING BY
TRENCO
A MITek Affiliate

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

RE: 251447-B
Lot 65 Magnolia Hills

Trenco
818 Soundside Rd
Edenton, NC 27932

Site Information:

Customer: Precision Custom Homes and Renovations Project Name: 251447-B
Lot/Block: Model:
Address: 314 Persimmon Tree Dr. Subdivision:
City: Cameron State: NC

General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):

Design Code: IRC2021/TPI2014 Design Program: MiTek 20/20 25.2
Wind Code: N/A Wind Speed: N/A mph
Roof Load: N/A psf Floor Load: 55.0 psf

This package includes 9 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date
1	I75971131	ET1	8/28/2025
2	I75971132	ET2	8/28/2025
3	I75971133	F01	8/28/2025
4	I75971134	F02	8/28/2025
5	I75971135	F03	8/28/2025
6	I75971136	F04	8/28/2025
7	I75971137	F05	8/28/2025
8	I75971138	F07	8/28/2025
9	I75971139	F08	8/28/2025

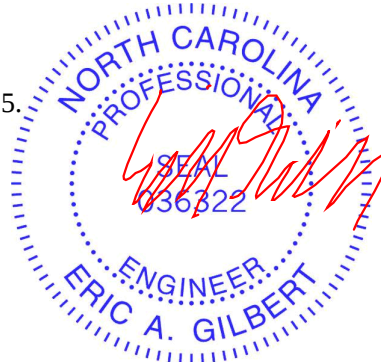
The truss drawing(s) referenced above have been prepared by
Truss Engineering Co. under my direct supervision
based on the parameters provided by Comtech, Inc - Fayetteville.

Truss Design Engineer's Name: Gilbert, Eric

My license renewal date for the state of North Carolina is December 31, 2025.

North Carolina COA: C-0844

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 TRENCO. Any project specific information included is for TRENCO customers file reference purpose only, and was not taken into account in the preparation of these designs. 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.

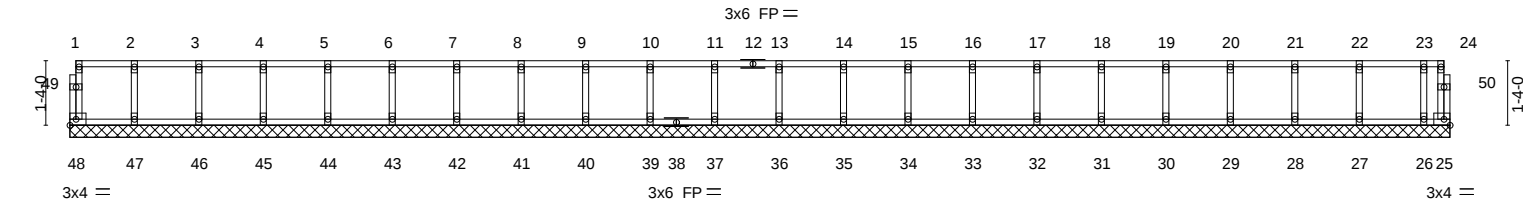


Job	Truss	Truss Type	Qty	Ply	Lot 65 Magnolia Hills
251447-B	ET1	GABLE	1	1	175971131
Job Reference (optional)					

Comtech, Inc., Fayetteville, NC - 28314,

25.3.0 s Aug 20 2025 MiTek Industries, Inc. Thu Aug 28 07:05:29 2025 Page 1
ID:3YJEG_u8zX16RsP?VvW_V6zd0wB-6ZF8wLf0zi0XYUxTjAWJPVja3YyUibimfkWYGQyjOTq

0-1-8
H
0-1-8
H
Scale: 1/4"=1'



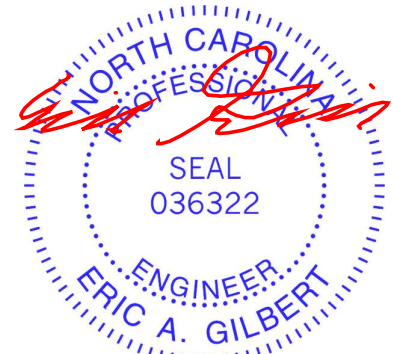
1-4-0	2-8-0	4-0-0	5-4-0	6-8-0	8-0-0	9-4-0	10-8-0	12-0-0	13-4-0	14-8-0	16-0-0	17-4-0	18-8-0	20-0-0	21-4-0	22-8-0	24-0-0	25-4-0	26-8-0	28-0-0	28-6-8
1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	0-6-8
LOADING (psf)		SPACING-		2-0-0		CSI.		DEFL.		in (loc)		l/defl		L/d		PLATES		GRIP			
TCLL 40.0		Plate Grip DOL		1.00		TC 0.06		Vert(LL)		n/a -		n/a		999		MT20		244/190			
TCDL 10.0		Lumber DOL		1.00		BC 0.01		Vert(CT)		n/a -		n/a		999							
BCLL 0.0		Rep Stress Incr		YES		WB 0.03		Horz(CT)		0.00 25		n/a		n/a							
BCDL 5.0		Code IRC2021/TPI2014				Matrix-R										Weight: 124 lb		FT = 20%F, 11%E			

LUMBER-		BRACING-	
TOP CHORD 2x4 SP No.1(flat)		TOP CHORD	
BOT CHORD 2x4 SP No.1(flat)		Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.	
WEBS 2x4 SP No.3(flat)		BOT CHORD	
OTHERS 2x4 SP No.3(flat)		Rigid ceiling directly applied or 10-0-0 oc bracing.	

REACTIONS. All bearings 28-6-8.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 48, 25, 47, 46, 45, 44, 43, 42, 41, 40, 39, 37, 36, 35, 34, 33, 32, 31, 30, 29, 28, 27, 26

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.



August 28,2025

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacompnents.com)

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

Job	Truss	Truss Type	Qty	Ply	Lot 65 Magnolia Hills
251447-B	ET2	GABLE	1	1	175971132

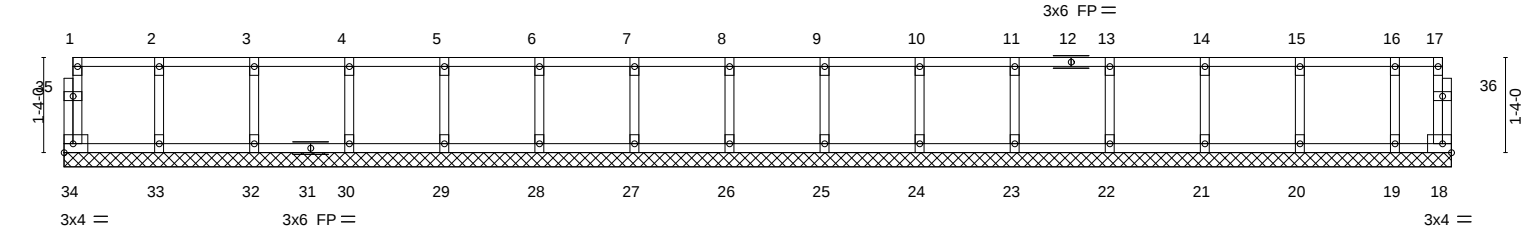
Comtech, Inc., Fayetteville, NC - 28314,

25.3.0 s Aug 20 2025 MiTek Industries, Inc. Thu Aug 28 07:05:30 2025 Page 1
ID:3YJEg_u8zX16RsP?VvW_V6zd0wB-alpW8hgek?8OAeWgGu1YyjGlpXlIR2yvtOg6osyjOTp

0-1-8

0-1-8

Scale: 3/8"=1'



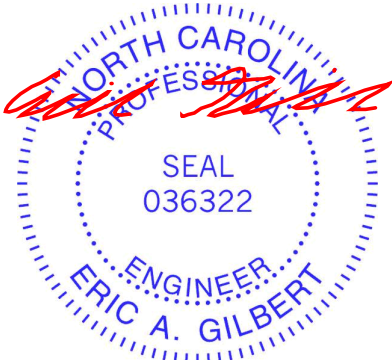
	1-4-0	2-8-0	4-0-0	5-4-0	6-8-0	8-0-0	9-4-0	10-8-0	12-0-0	13-4-0	14-8-0	16-0-0	17-4-0	18-8-0	19-5-8
	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	0-9-8
LOADING (psf)	SPACING- 2-0-0					CSI.		DEFL. in (loc) l/defl L/d				PLATES		GRIP	
TCLL 40.0	Plate Grip DOL 1.00					TC 0.06		Vert(LL) n/a - n/a 999				MT20		244/190	
TCDL 10.0	Lumber DOL 1.00					BC 0.01		Vert(CT) n/a - n/a 999							
BCLL 0.0	Rep Stress Incr YES					WB 0.03		Horz(CT) 0.00 18 n/a n/a							
BCDL 5.0	Code IRC2021/TPI2014					Matrix-R						Weight: 86 lb		FT = 20%F, 11%E	

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1(flat)	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.1(flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	
OTHERS 2x4 SP No.3(flat)	

REACTIONS. All bearings 19-5-8.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 34, 18, 33, 32, 30, 29, 28, 27, 26, 25, 24, 23, 22, 21, 20, 19

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.



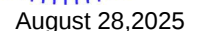
August 28, 2025

Comtech, Inc. Fayetteville, NC - 28314, 25.3.0 s Aug 20 2025 MiTek Industries, Inc. Thu Aug 28 07:05:30 2025 Page 1
ID:3YJEG_u8zX16RSp?VvW_V6zd0wB-alpW8hgek?8OAEWgGu1YyjGYlx5jRwWvtOg6osyjiOTp

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.1(flat)	TOP CHORD	Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.1(flat) *Except*		
	21-28: 2x4 SP 2400F 2.0E(flat)	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
WEBS	2x4 SP No.3(flat)		6-0-0 oc bracing: 30-32,29-30,27-29,26-27.

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" o.c. 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) CAUTION, Do not erect truss backwards.



Comtech, Inc. Fayetteville, NC - 28314, 25.3.0 s Aug 20 2025 MiTek Industries, Inc. Thu Aug 28 07:05:31 2025 Page 1
ID:3YJEG u8zX16RsP?VwW V6zd0wB-2xNvL1hGVJGFno5sgbYnUwomXLTOANB262PflIjyOTo

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.1(flat)	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.1(flat)	BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	2x4 SP No.3(flat)		

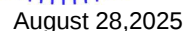
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 2-3=-1528/0, 3-4=-2433/0, 4-5=-2723/0, 5-6=-2723/0, 6-7=-2723/0, 7-8=-1895/0, 8-10=-640/19, 10-11=0/1619, 11-12=0/1619, 12-13=-534/758, 13-14=-1022/387, 14-15=-1022/387, 15-16=-850/32

BOT CHORD 30-31=0/916, 29-30=0/2115, 28-29=0/2703, 27-28=0/2723, 26-27=0/2373, 25-26=0/1410, 23-25=-494/0, 22-23=-1043/109, 21-22=-387/1022, 20-21=-387/1022, 19-20=-137/1078, 18-19=0/563

WEBS 2-31=-1217/0, 2-30=0/850, 3-30=-818/0, 3-29=0/442, 4-29=-375/0, 4-28=-244/309, 10-23=-1497/0, 10-25=0/1144, 8-25=-1106/0, 8-26=0/708, 7-26=-708/0, 7-27=0/705, 6-27=-338/0, 16-18=-747/0, 16-19=-46/399, 15-19=-318/146, 12-23=-1013/0, 12-22=0/766, 13-22=-925/0, 15-20=-411/0, 13-21=0/267

- 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.
- 5) CAUTION. Do not erect truss backwards.



Job	Truss	Truss Type	Qty	Ply	Lot 65 Magnolia Hills
251447-B	F03	FLOOR	9	1	175971135
Job Reference (optional)					

Comtech, Inc., Fayetteville, NC - 28314,

25.3.0 s Aug 20 2025 MiTek Industries, Inc. Thu Aug 28 07:05:32 2025 Page 1
ID:3YJEg_u8zX16RsP?VvW_V6zd0wB-W8xHZNhuGdO6Pyf2OJ3018L1tfrvp8CLi9CtkyjOTn

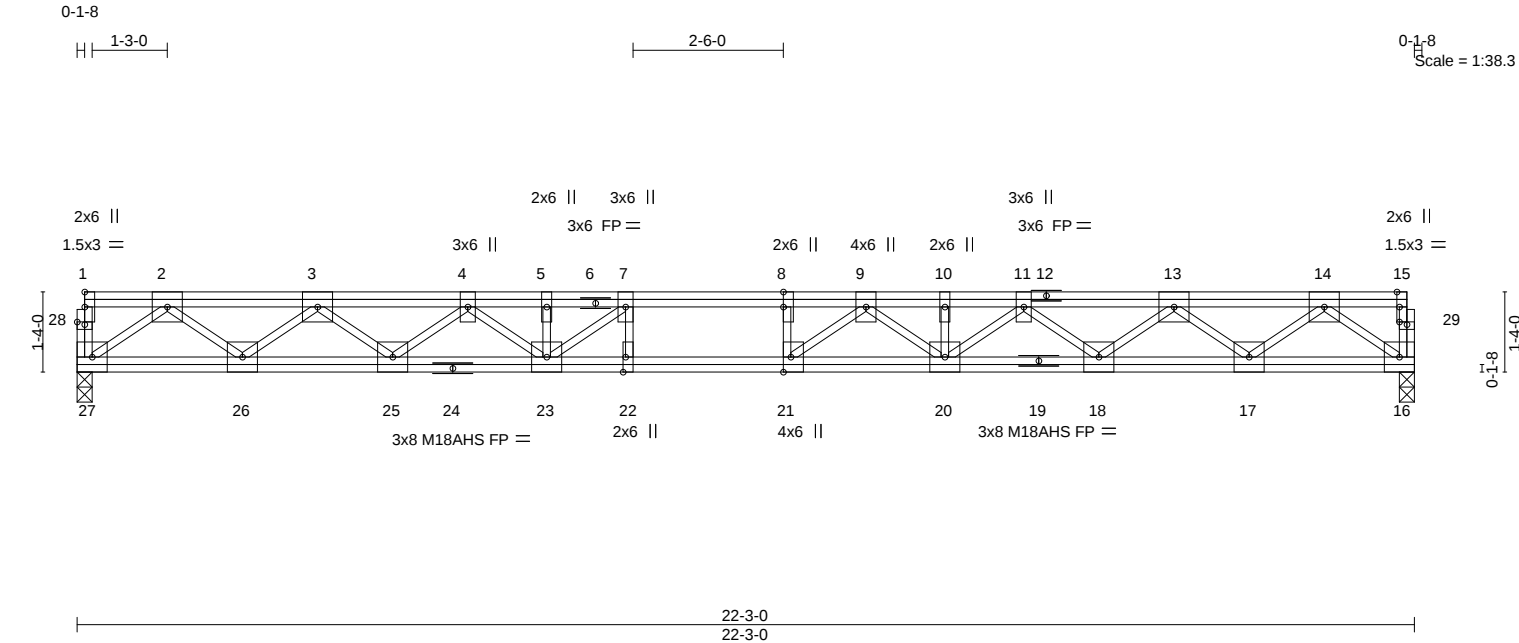


Plate Offsets (X,Y)-- [8:0-3-0,0-0-0], [15:0-3-0,Edge], [21:0-3-0,Edge], [22:0-3-0,Edge], [28:0-1-8,0-0-8], [29:0-1-8,0-0-8]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.28	Vert(LL)	-0.32 21 >816 480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.62	Vert(CT)	-0.44 21 >594 360	M18AHS	186/179
BCLL	0.0	Rep Stress Incr	YES	WB	0.63	Horz(CT)	0.05 16 n/a n/a	Weight: 175 lb FT = 20%F, 11%E	
BCDL	5.0	Code IRC2021/TPI2014		Matrix-S					

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.1(flat)	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.1(flat)	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SP No.3(flat)		

REACTIONS. (size) 27=0-3-0, 16=0-3-0
Max Grav 27=1203(LC 1), 16=1203(LC 1)

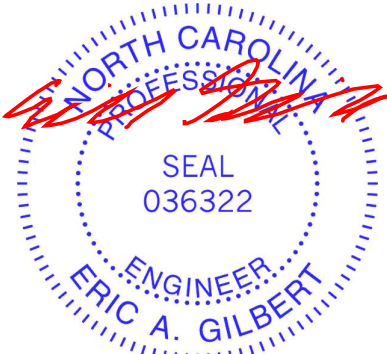
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 2-3=-2459/0, 3-4=-4251/0, 4-5=-5445/0, 5-7=-5445/0, 7-8=-5947/0, 8-9=-5947/0, 9-10=-5471/0, 10-11=-5471/0, 11-13=-4246/0, 13-14=-2460/0

BOT CHORD 26-27=0/1467, 25-26=0/3507, 23-25=0/4963, 22-23=0/5947, 21-22=0/5947, 20-21=0/5809, 18-20=0/4966, 17-18=0/3506, 16-17=0/1467

WEBS 2-27=-1813/0, 2-26=0/1316, 3-26=-1387/0, 3-25=0/984, 4-25=-942/0, 4-23=0/625, 14-16=-1814/0, 14-17=0/1317, 13-17=-1385/0, 13-18=0/979, 11-18=-953/0, 11-20=0/654, 9-20=-512/0, 7-23=-1064/20, 9-21=-267/688, 8-21=-322/41

- 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.

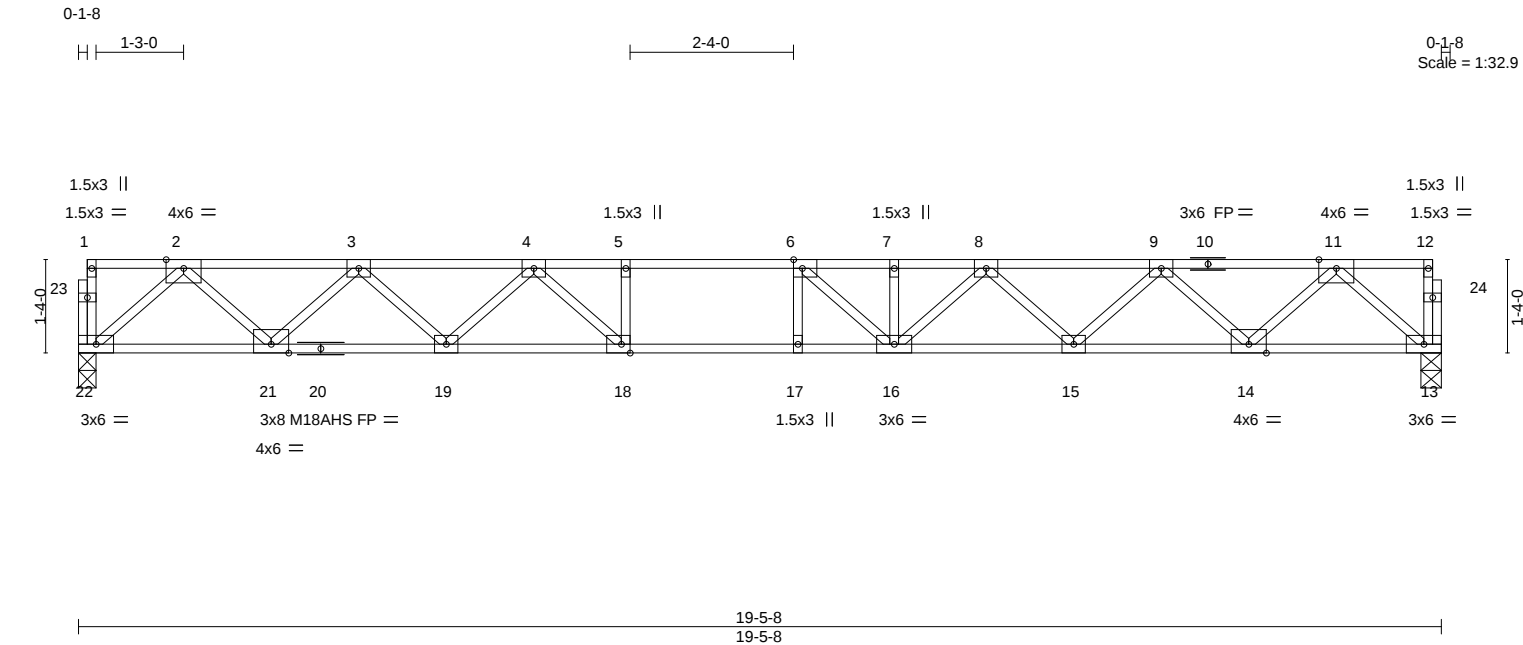


August 28,2025

Job	Truss	Truss Type	Qty	Ply	Lot 65 Magnolia Hills
251447-B	F04	Floor	6	1	175971136
Job Reference (optional)					

Comtech, Inc., Fayetteville, NC - 28314,

25.3.0 s Aug 20 2025 MiTek Industries, Inc. Thu Aug 28 07:05:32 2025 Page 1
ID:3YJEg_u8zX16RsP?VvW_V6zd0wB-W8xHZNhuGdO6Pyf2OJ3018Lt8lpBvqUCLi9CtkyjOTn



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.90	Vert(LL)	-0.31 17 >753 480	MT20		244/190	
TCDL	10.0	Lumber DOL	1.00	BC	0.72	Vert(CT)	-0.42 17 >549 360	M18AHS		186/179	
BCLL	0.0	Rep Stress Incr	YES	WB	0.54	Horz(CT)	0.06 13 n/a n/a				
BCDL	5.0	Code	IRC2021/TP12014	Matrix-S							
								Weight: 100 lb		FT = 20%F, 11%E	

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.1(flat)	TOP CHORD	Structural wood sheathing directly applied, except end verticals.
BOT CHORD	2x4 SP 2400F 2.0E(flat)	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SP No.3(flat)		

REACTIONS. (size) 22=0-3-0, 13=0-3-8
Max Grav 22=1050(LC 1), 13=1050(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1958/0, 3-4=-3238/0, 4-5=-4126/0, 5-6=-4126/0, 6-7=-4036/0, 7-8=-4036/0, 8-9=-3250/0, 9-11=-1955/0
BOT CHORD 21-22=0/1139, 19-21=0/2740, 18-19=0/3741, 17-18=0/4126, 16-17=0/4126, 15-16=0/3740, 14-15=0/2740, 13-14=0/1139
WEBS 2-22=-1514/0, 2-21=0/1138, 3-21=-1088/0, 3-19=0/693, 4-19=-699/0, 4-18=0/811, 5-18=-364/0, 11-13=-1514/0, 11-14=0/1134, 9-14=-1092/0, 9-15=0/710, 8-15=-682/0, 8-16=0/402, 6-16=-593/276

- 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 3x4 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.



August 28,2025

Job	Truss	Truss Type	Qty	Ply	Lot 65 Magnolia Hills
251447-B	F05	FLOOR	2	1	175971137
Job Reference (optional)					

Comtech, Inc., Fayetteville, NC - 28314,

25.3.0 s Aug 20 2025 MiTek Industries, Inc. Thu Aug 28 07:05:32 2025 Page 1
ID:3YJEG_u8zX16RsP?VvW_V6zd0wB-W8xHZNhuGdO6Pyf2OJ3018L_vllGvsyCLi9CtkyjOTn

0-1-8

1-3-0

2-6-0

0-1-8
Scale 1:28.3

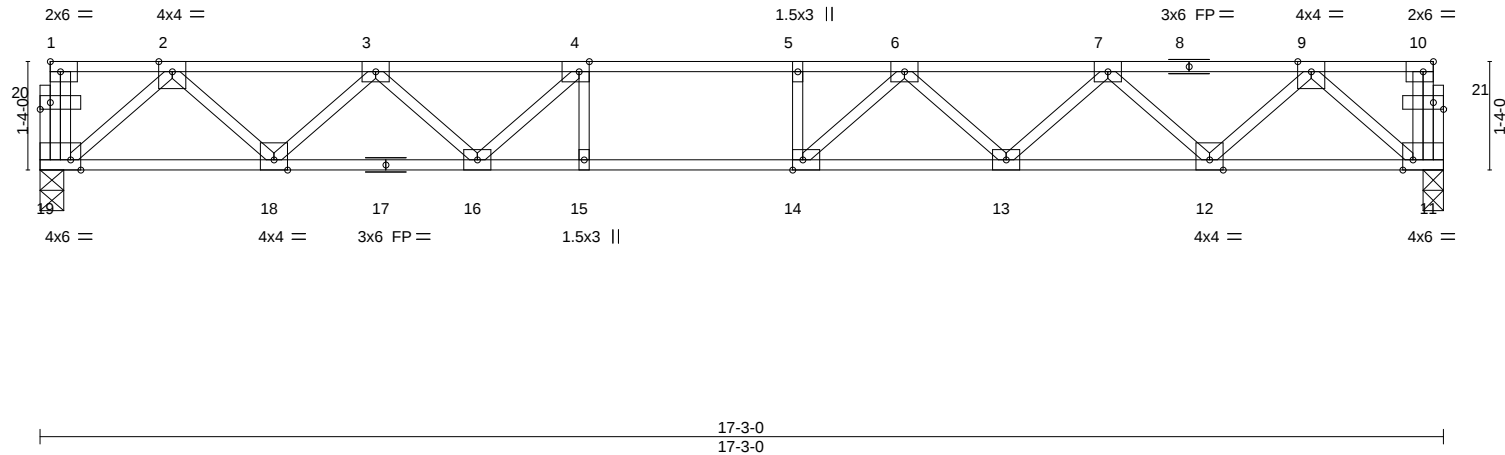
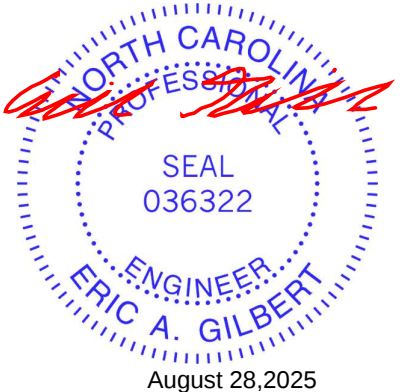


Plate Offsets (X,Y)-- [4:0-1-8,Edge], [10:0-1-8,Edge], [11:0-1-8,Edge], [14:0-1-8,Edge], [19:0-1-8,Edge], [20:0-1-8,0-1-0], [21:0-1-8,0-1-0]									
LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.47	in (loc)	l/defl	L/d	GRIP
TCDL	10.0	Lumber DOL	1.00	BC	0.97	Vert(LL)	-0.25 13-14	>813	480
BCLL	0.0	Rep Stress Incr	YES	WB	0.45	Vert(CT)	-0.33 13-14	>619	360
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S		Horz(CT)	0.06 11	n/a	n/a
								Weight: 90 lb	FT = 20%F, 11%E

LUMBER-		BRACING-	
TOP CHORD	2x4 SP 2400F 2.0E(flat)	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.1(flat)	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 2-2-0 oc bracing: 14-15.
WEBS	2x4 SP No.3(flat)		
REACTIONS.			
(size)	11=0-3-0, 19=0-3-8		
Max Grav	11=923(LC 1), 19=923(LC 1)		

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1755/0, 3-4=-2785/0, 4-5=-3224/0, 5-6=-3224/0, 6-7=-2783/0, 7-9=-1755/0
BOT CHORD 18-19=0/1085, 16-18=0/2389, 15-16=0/3224, 14-15=0/3224, 13-14=0/3116, 12-13=0/2406, 11-12=0/1080
WEBS 9-11=-1381/0, 9-12=0/940, 7-12=-905/0, 7-13=0/525, 6-13=-462/0, 2-19=-1388/0, 2-18=0/931, 3-18=-882/0, 3-16=0/609, 4-16=-760/0, 6-14=-154/521, 5-14=-267/9

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.



August 28, 2025

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacompnents.com)

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

Job	Truss	Truss Type	Qty	Ply	Lot 65 Magnolia Hills
251447-B	F07	Floor	6	1	175971138
Job Reference (optional)					

Comtech, Inc., Fayetteville, NC - 28314,

25.3.0 s Aug 20 2025 MiTek Industries, Inc. Thu Aug 28 07:05:33 2025 Page 1
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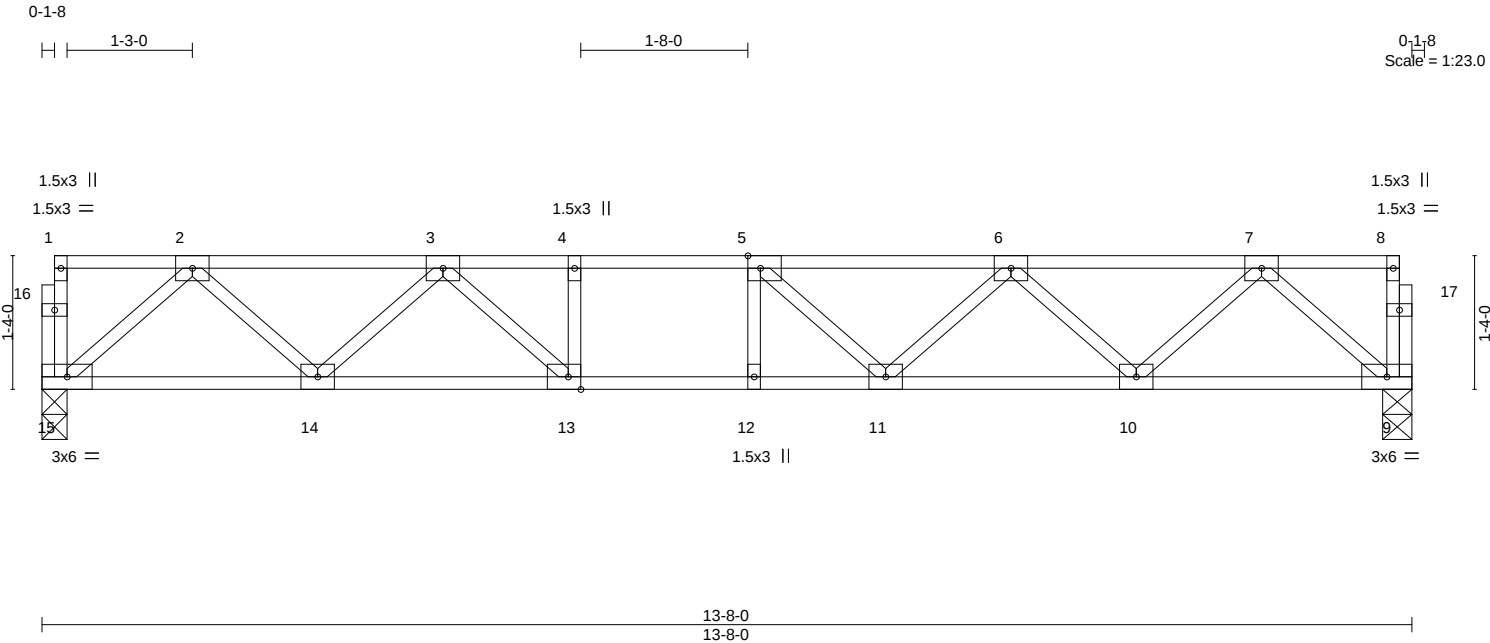


Plate Offsets (X,Y)--		[5:0-1-8,Edge], [13:0-1-8,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSL.
TCLL 40.0	Plate Grip DOL	1.00	TC 0.41
TCDL 10.0	Lumber DOL	1.00	BC 0.67
BCLL 0.0	Rep Stress Incr	YES	WB 0.33
BCDL 5.0	Code	IRC2021/TPI2014	Matrix-S
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) -0.11 11-12 >999 480
			Vert(CT) -0.14 11-12 >999 360
			Horz(CT) 0.03 9 n/a n/a
			PLATES GRIP
			MT20 244/190
			Weight: 72 lb FT = 20%F, 11%E

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1(flat)	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.1(flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	

REACTIONS. (size) 15=0-3-0, 9=0-3-8
Max Grav 15=732(LC 1), 9=732(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1252/0, 3-4=-2011/0, 4-5=-2011/0, 5-6=-1901/0, 6-7=-1266/0
BOT CHORD 14-15=0/781, 13-14=0/1713, 12-13=0/2011, 11-12=0/2011, 10-11=0/1733, 9-10=0/775
WEBS 2-15=-1038/0, 2-14=0/654, 3-14=-641/0, 3-13=0/561, 7-9=-1029/0, 7-10=0/684, 6-10=-649/0, 6-11=0/309, 5-11=-328/45

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.



August 28,2025

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacompnents.com)

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

Job	Truss	Truss Type	Qty	Ply	Lot 65 Magnolia Hills
251447-B	F08	Floor	1	1	175971139
Job Reference (optional)					

Comtech, Inc., Fayetteville, NC - 28314,

25.3.0 s Aug 20 2025 MiTek Industries, Inc. Thu Aug 28 07:05:33 2025 Page 1
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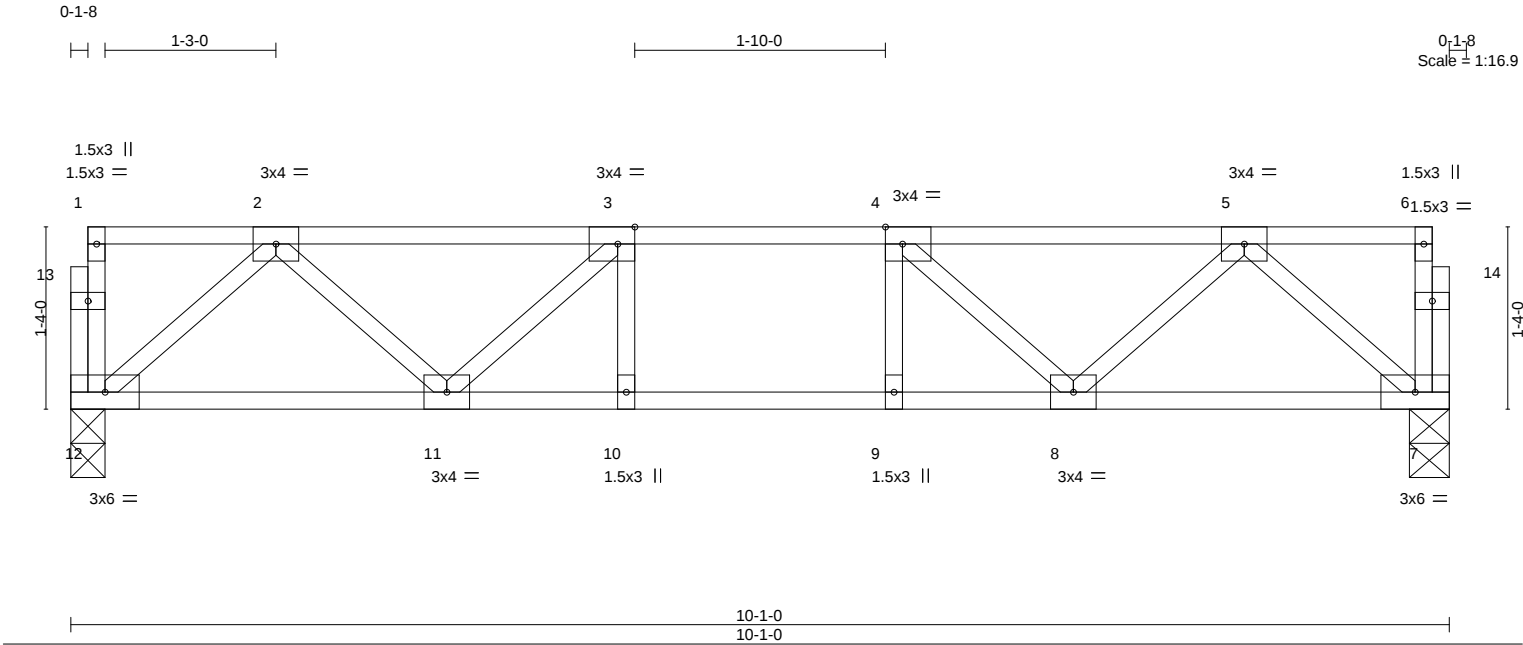


Plate Offsets (X,Y)-- [3:0-1-8,Edge], [4:0-1-8,Edge]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.24	Vert(LL)	-0.05 10-11 >999 480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.37	Vert(CT)	-0.05 10 >999 360	Weight: 54 lb	FT = 20%F, 11%E
BCLL	0.0	Rep Stress Incr	YES	WB	0.18	Horz(CT)	0.01 7 n/a n/a		
BCDL	5.0	Code IRC2021/TPI2014		Matrix-S					

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.1(flat)	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.1(flat)	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SP No.3(flat)		

REACTIONS. (size) 12=0-3-0, 7=0-3-8
Max Grav 12=535(LC 1), 7=535(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-832/0, 3-4=-1090/0, 4-5=-832/0
BOT CHORD 11-12=0/561, 10-11=0/1090, 9-10=0/1090, 8-9=0/1090, 7-8=0/561
WEBS 2-12=-744/0, 2-11=0/377, 3-11=-384/0, 5-7=-744/0, 5-8=0/377, 4-8=-384/0

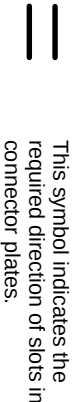
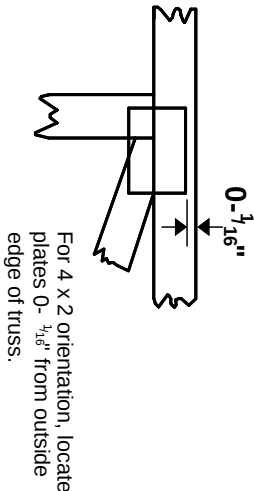
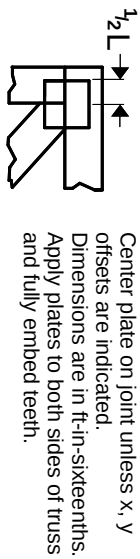
NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) Plates checked for a plus or minus 1 degree rotation about its center.
3) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails.
Strongbacks to be attached to walls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



August 28,2025

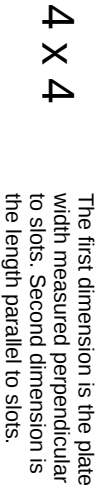
Symbols

PLATE LOCATION AND ORIENTATION

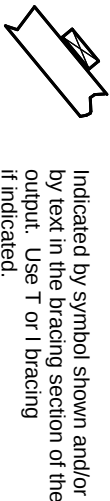


* Plate location details available in MITek software or upon request.

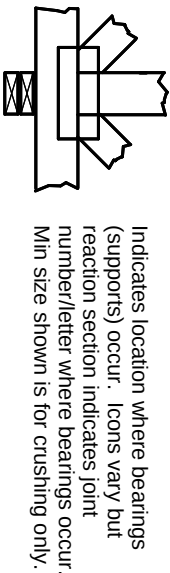
PLATE SIZE



LATERAL BRACING LOCATION

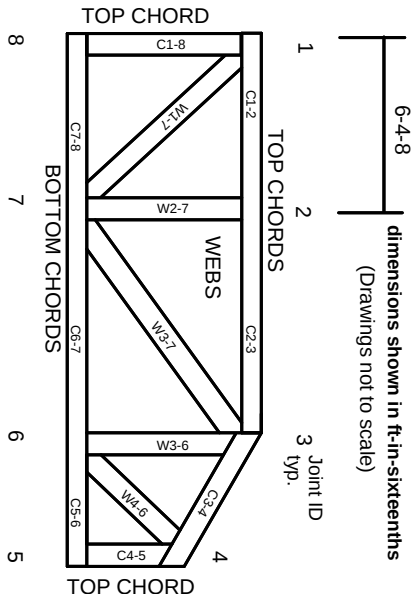


BEARING



Industry Standards:
ANSI/TPI 1: 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.

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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.

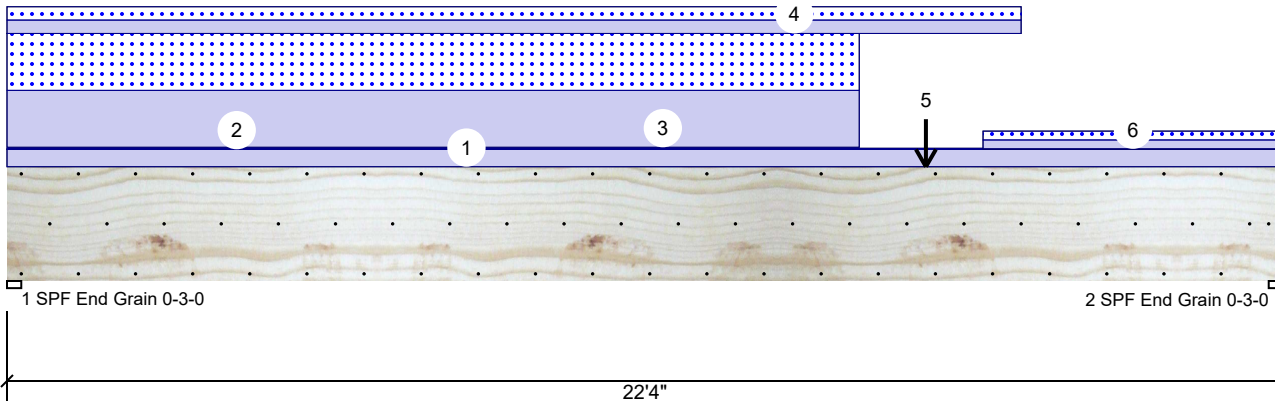
MITek®

ENGINEERING BY
TRENCO
A MITek Affiliate

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

FB1 Kerto-S LVL 1.750" X 24.000" 3-Ply - PASSED

Level: Level



Member Information

Type: Girder
Plies: 3
Moisture Condition: Dry
Deflection LL: 480
Deflection TL: 360
Importance: Normal - II
Temperature: Temp <= 100°F

Application: Floor
Design Method: ASD
Building Code: IBC/IRC 2015
Load Sharing: Yes
Deck: Not Checked

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	112	7018	5324	0	0
2	Vertical	112	5588	3893	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	Vert	93%	7018 / 5324	12342	L	D+S
2 - SPF End Grain	3.000"	Vert	72%	5588 / 3893	9480	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	65847 ft-lb	11' 1/4"	131295 ft-lb	50%	D+S	L
Unbraced	65847 ft-lb	11' 1/4"	66073 ft-lb	100%	D+S	L
Shear	9830 lb	2'3"	30912 lb	32%	D+S	L
LL Defl inch	0.228 (L/1158)	11'1"	0.549 (L/480)	41%	S	L
TL Defl inch	0.530 (L/498)	11'1 1/4"	0.733 (L/360)	72%	D+S	L

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings.
- 2 Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6". Nail from both sides.
- 3 Refer to last page of calculations for fasteners required for specified loads.
- 4 Girders are designed to be supported on bottom edge only and across their full width.
- 5 Top loads must be supported equally by all plies.
- 6 Top must be laterally braced at a maximum of 3'11 15/16" 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	120 PLF	0 PLF	0 PLF	0 PLF	0 PLF	WALL
2	Tie-In Far	0-0-0 to 22-4-0	0-3-0	Far Face	15 PSF	40 PSF	0 PSF	0 PSF	0 PSF	FLOOR LOADING
2	Tie-In Near	0-0-0 to 22-4-0	0-0-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	0 PSF	FLOOR LOADING
3	Part. Uniform	0-0-0 to 14-11-0		Top	392 PLF	0 PLF	392 PLF	0 PLF	0 PLF	A TRUSSES
4	Part. Uniform	0-0-0 to 17-9-0		Near Face	92 PLF	0 PLF	92 PLF	0 PLF	0 PLF	P TRUSSES

Continued on page 2...

Notes

Calculated Structural Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

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

chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 2/28/2028

Manufacturer Info

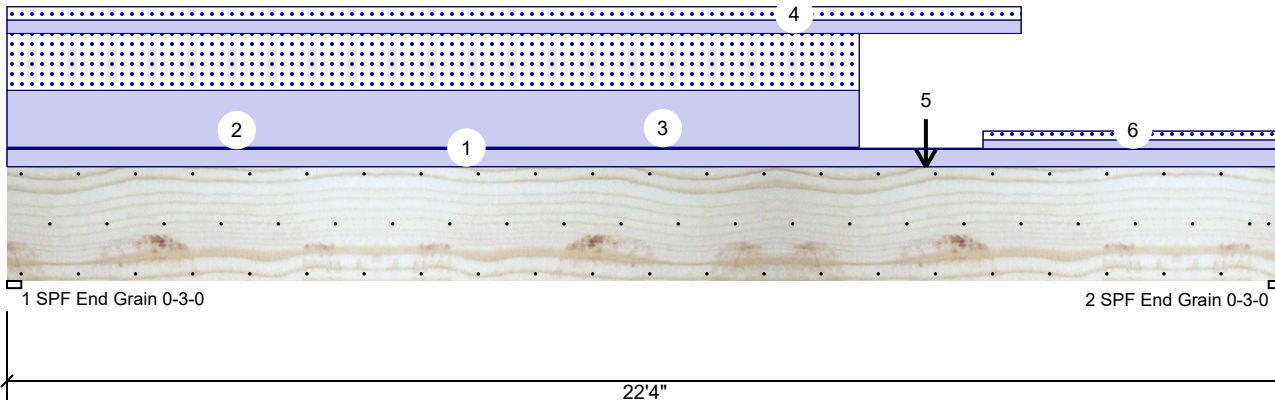
Metsä Wood
301 Merritt 7 Building, 2nd Floor
Norwalk, CT 06851
(800) 622-5850
www.metsawood.com/us

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



FB1 Kerto-S LVL 1.750" X 24.000" 3-Ply - PASSED

Level: Level



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
5	Point	16-1-0		Top	1416 lb	0 lb	1416 lb	0 lb	0 lb	A1
	Bearing Length	0-3-8								
6	Part. Uniform	17-1-0 to 22-4-0		Top	61 PLF	0 PLF	61 PLF	0 PLF	0 PLF	Y TRUSSES
	Self Weight				28 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

Manufacturer Info

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

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



This design is valid until 2/28/2028



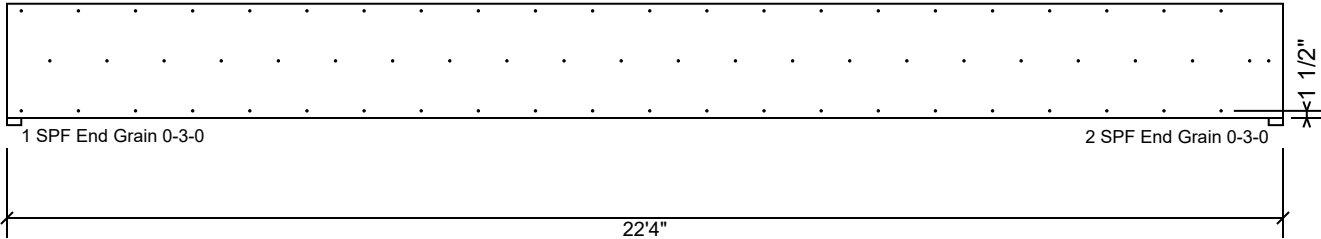
Client:
Project:
Address:

Date: 9/26/2025
Input by: Neal Baggett
Job Name: 65 MAGNOLIA HILLS
Project #:

Page 3 of 17

FB1 Kerto-S LVL 1.750" X 24.000" 3-Ply - PASSED

Level: Level



Multi-Ply Analysis

Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c.. Nail from both sides. Maximum end distance not to exceed 6".

Capacity	43.4 %
Load	122.7 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

Calculated Structural Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

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

chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 2/28/2028

Manufacturer Info

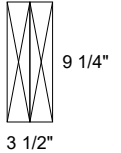
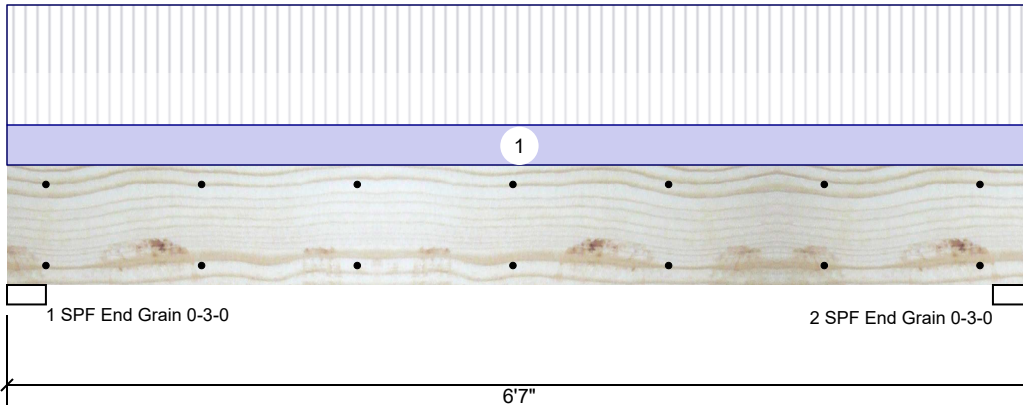
Metsä Wood
301 Merritt 7 Building, 2nd Floor
Norwalk, CT 06851
(800) 622-5850
www.metsawood.com/us

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



DB2 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED

Level: Level



Member Information

Type: Girder
Plies: 2
Moisture Condition: Dry
Deflection LL: 480
Deflection TL: 360
Importance: Normal - II
Temperature: Temp <= 100°F

Application: Floor
Design Method: ASD
Building Code: IBC/IRC 2015
Load Sharing: No
Deck: Not Checked

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	2696	922	0	0	0
2	Vertical	2696	922	0	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	Vert	41%	922 / 2696	3618	L	D+L
2 - SPF End Grain	3.000"	Vert	41%	922 / 2696	3618	L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	5296 ft-lb	3'3 1/2"	12542 ft-lb	42%	D+L	L
Unbraced	5296 ft-lb	3'3 1/2"	9872 ft-lb	54%	D+L	L
Shear	2496 lb	1' 1/4"	6907 lb	36%	D+L	L
LL Defl inch	0.073 (L/1016)	3'3 1/2"	0.155 (L/480)	47%	L	L
TL Defl inch	0.098 (L/757)	3'3 1/2"	0.207 (L/360)	48%	D+L	L

Design Notes

- Provide support to prevent lateral movement and rotation at the end bearings.
- Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
- Refer to last page of calculations for fasteners required for specified loads.
- Girders are designed to be supported on bottom edge only and across their full width.
- Top loads must be supported equally by all plies.
- Top must be laterally braced at end bearings.
- Bottom must be laterally braced at end bearings.
- Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	273 PLF	819 PLF	0 PLF	0 PLF	0 PLF	F01
	Self Weight				7 PLF					

Notes

Calculated Structural Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

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

Handling & Installation

- LVL beams must not be cut or drilled
- Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
- Damaged Beams must not be used
- Design assumes top edge is laterally restrained
- Provide lateral support at bearing points to avoid lateral displacement and rotation

- For flat roofs provide proper drainage to prevent ponding

This design is valid until 2/28/2028

Manufacturer Info

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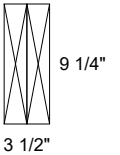
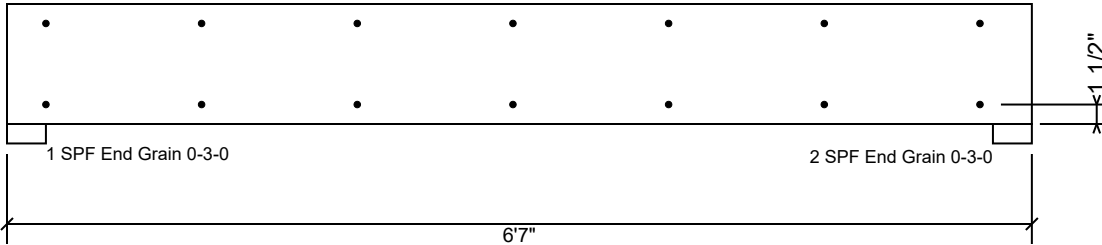
Client:
Project:
Address:

Date: 9/26/2025
Input by: Neal Baggett
Job Name: 65 MAGNOLIA HILLS
Project #:

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DB2 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

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

Manufacturer Info

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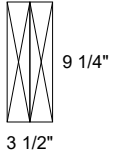
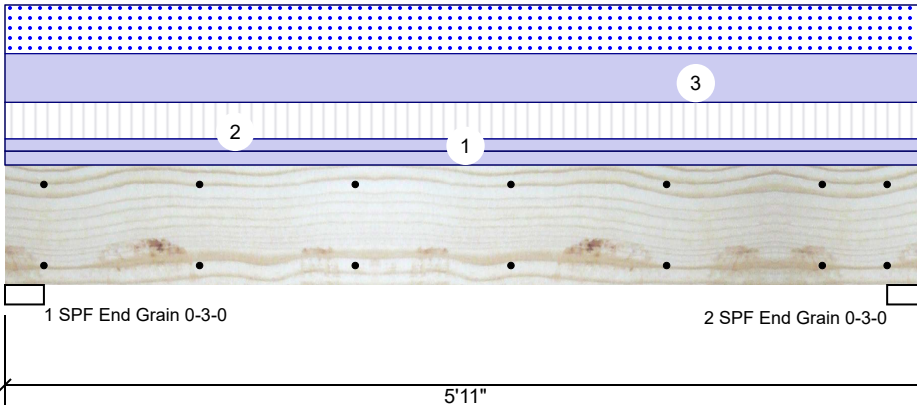
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This design is valid until 2/28/2028

HDR1 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED

Level: Level



Member Information

Type: Girder
Plies: 2
Moisture Condition: Dry
Deflection LL: 480
Deflection TL: 360
Importance: Normal - II
Temperature: Temp <= 100°F

Application: Floor
Design Method: ASD
Building Code: IBC/IRC 2015
Load Sharing: No
Deck: Not Checked

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	932	1926	1240	0	0
2	Vertical	932	1926	1240	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	Vert	40%	1926 / 1629	3555	L	D+0.75(L+S)
2 - SPF End Grain	3.000"	Vert	40%	1926 / 1629	3555	L	D+0.75(L+S)

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	4613 ft-lb	2'11 1/2"	14423 ft-lb	32%	D+0.75(L+S)	L
Unbraced	4613 ft-lb	2'11 1/2"	11027 ft-lb	42%	D+0.75(L+S)	L
Shear	2328 lb	4'10 3/4"	7943 lb	29%	D+0.75(L+S)	L
LL Defl inch	0.033 (L/2026)	2'11 1/2"	0.139 (L/480)	24%	0.75(L+S)	L
TL Defl inch	0.072 (L/928)	2'11 1/2"	0.185 (L/360)	39%	D+0.75(L+S)	L

Design Notes

- Provide support to prevent lateral movement and rotation at the end bearings.
- Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
- Refer to last page of calculations for fasteners required for specified loads.
- Girders are designed to be supported on bottom edge only and across their full width.
- Top loads must be supported equally by all plies.
- Top must be laterally braced at end bearings.
- Bottom must be laterally braced at end bearings.
- Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	120 PLF	0 PLF	0 PLF	0 PLF	0 PLF	WALL
2	Uniform			Top	105 PLF	315 PLF	0 PLF	0 PLF	0 PLF	FLOOR TRUSSES
3	Uniform			Top	419 PLF	0 PLF	419 PLF	0 PLF	0 PLF	ROOF TRUSSES
	Self Weight				7 PLF					

Notes

Calculated Structural Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

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

chemicals

Handling & Installation

- LVL beams must not be cut or drilled
- Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
- Damaged Beams must not be used
- Design assumes top edge is laterally restrained
- Provide lateral support at bearing points to avoid lateral displacement and rotation

- For flat roofs provide proper drainage to prevent ponding

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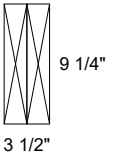
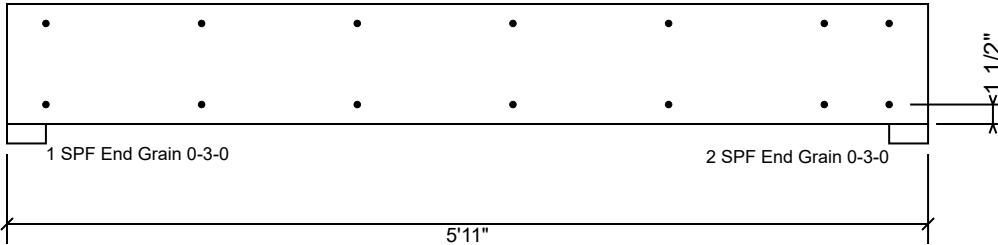
Client:
Project:
Address:

Date: 9/26/2025
Input by: Neal Baggett
Job Name: 65 MAGNOLIA HILLS
Project #:

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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

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

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

chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

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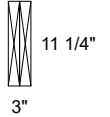
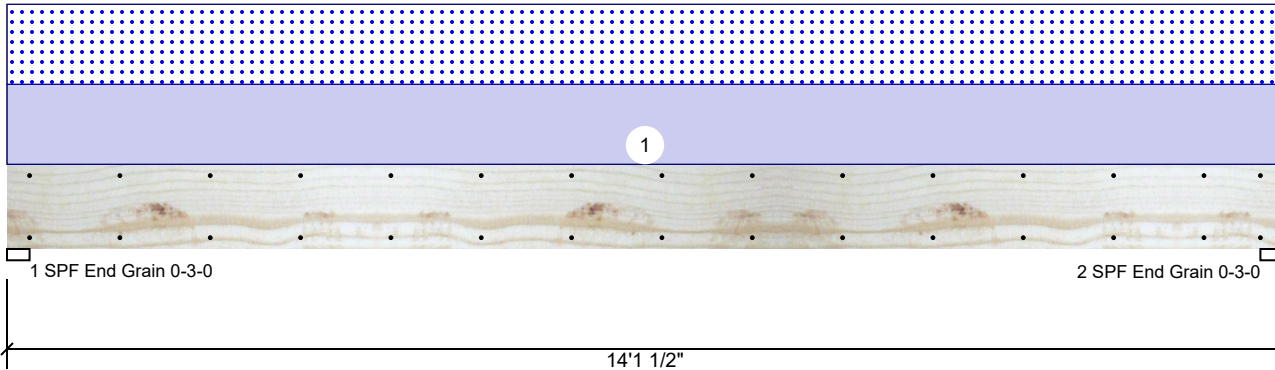
Client:
Project:
Address:

Date: 9/26/2025
Input by: Neal Baggett
Job Name: 65 MAGNOLIA HILLS
Project #:

Page 8 of 17

DB3 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	677	586	0	0
2	Vertical	0	677	586	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	Vert	25%	677 / 586	1263	L	D+S
2 - SPF End Grain	3.000"	Vert	25%	677 / 586	1263	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	4228 ft-lb	7' 3/4"	4548 ft-lb	93%	D+S	L
Unbraced	4228 ft-lb	7' 3/4"	4229 ft-lb	100%	D+S	L
Shear	1051 lb	1'2 1/4"	4528 lb	23%	D+S	L
LL Defl inch	0.134 (L/1232)	7' 13/16"	0.344 (L/480)	39%	S	L
TL Defl inch	0.289 (L/572)	7' 13/16"	0.458 (L/360)	63%	D+S	L

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings.
- 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 bottom edge only and across their full width.
- 5 Top loads must be supported equally by all plies.
- 6 Top must be laterally braced at a maximum of 5'2 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	83 PLF	0 PLF	83 PLF	0 PLF	0 PLF	P TRUSSES
	Self Weight				13 PLF					

Manufacturer Info

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This design is valid until 2/28/2028



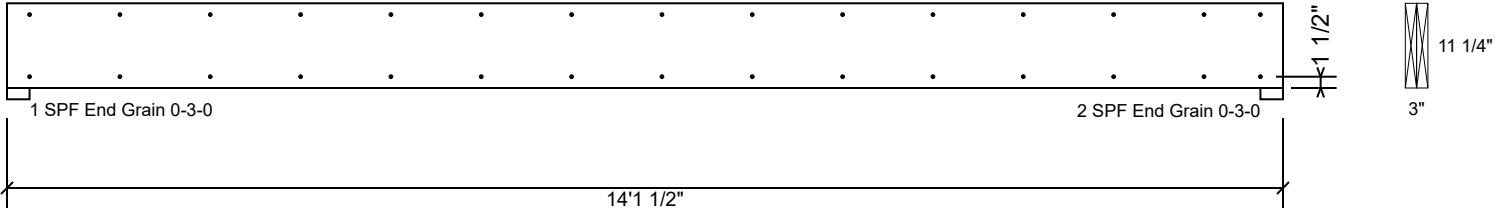
Client:
Project:
Address:

Date: 9/26/2025
Input by: Neal Baggett
Job Name: 65 MAGNOLIA HILLS
Project #:

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DB3 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

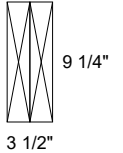
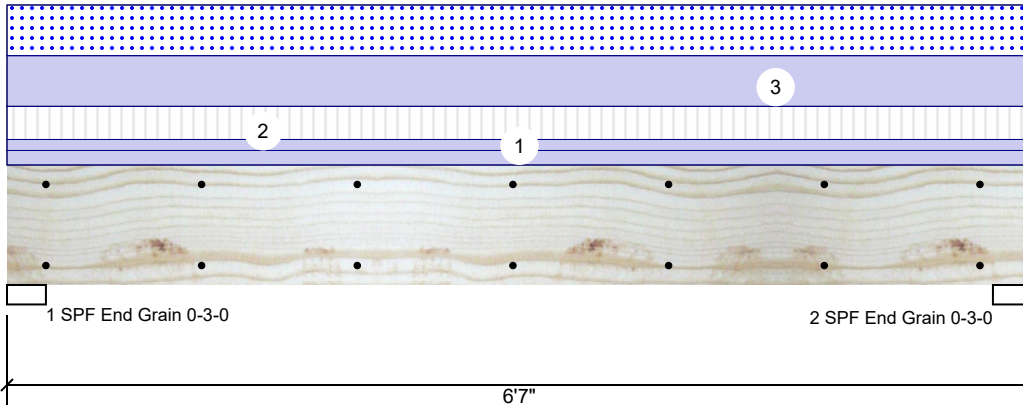
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This design is valid until 2/28/2028

HDR2 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED

Level: Level



Member Information

Type: Girder
Plies: 2
Moisture Condition: Dry
Deflection LL: 480
Deflection TL: 360
Importance: Normal - II
Temperature: Temp <= 100°F

Application: Floor
Design Method: ASD
Building Code: IBC/IRC 2015
Load Sharing: No
Deck: Not Checked

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	902	2097	1379	0	0
2	Vertical	902	2097	1379	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	Vert	43%	2097 / 1711	3808	L	D+0.75(L+S)
2 - SPF End Grain	3.000"	Vert	43%	2097 / 1711	3808	L	D+0.75(L+S)

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	5574 ft-lb	3'3 1/2"	14423 ft-lb	39%	D+0.75(L+S)	L
Unbraced	5574 ft-lb	3'3 1/2"	10370 ft-lb	54%	D+0.75(L+S)	L
Shear	2627 lb	1' 1/4"	7943 lb	33%	D+0.75(L+S)	L
LL Defl inch	0.047 (L/1601)	3'3 1/2"	0.155 (L/480)	30%	0.75(L+S)	L
TL Defl inch	0.104 (L/719)	3'3 1/2"	0.207 (L/360)	50%	D+0.75(L+S)	L

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings.
- 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 bottom edge only and across their full width.
- 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	120 PLF	0 PLF	0 PLF	0 PLF	0 PLF	WALL
2	Uniform			Top	91 PLF	274 PLF	0 PLF	0 PLF	0 PLF	FLOOR TRUSSES
3	Uniform			Top	419 PLF	0 PLF	419 PLF	0 PLF	0 PLF	ROOF TRUSSES
	Self Weight				7 PLF					

Notes

Calculated Structural Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

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

chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 2/28/2028

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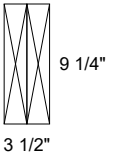
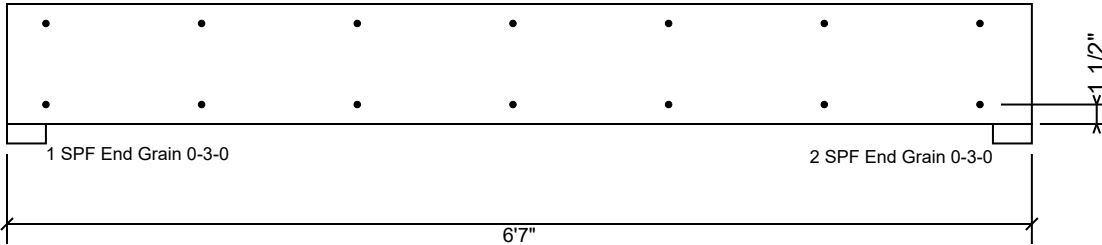
Client:
Project:
Address:

Date: 9/26/2025
Input by: Neal Baggett
Job Name: 65 MAGNOLIA HILLS
Project #:

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HDR2 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

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

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

chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

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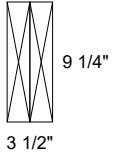
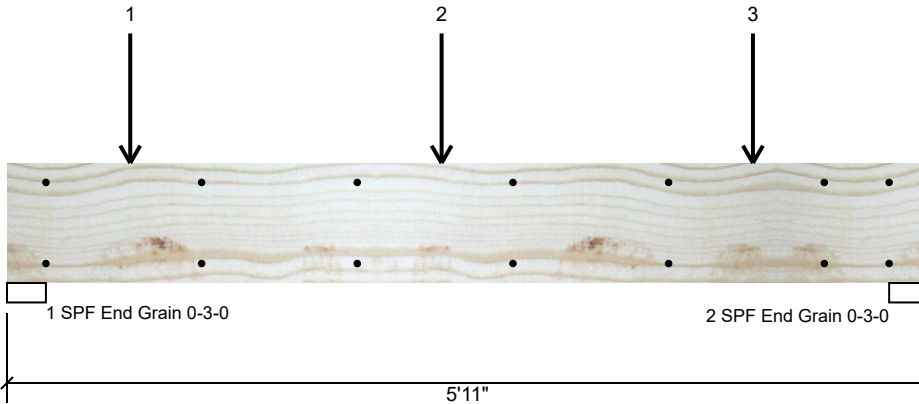
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This design is valid until 2/28/2028

HDR3 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED

Level: Level



Member Information

Type: Girder
Plies: 2
Moisture Condition: Dry
Deflection LL: 480
Deflection TL: 360
Importance: Normal - II
Temperature: Temp <= 100°F

Application: Floor
Design Method: ASD
Building Code: IBC/IRC 2015
Load Sharing: No
Deck: Not Checked

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	1472	1451	0	0
2	Vertical	0	871	850	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	Vert	33%	1472 / 1451	2923	L	D+S
2 - SPF End Grain	3.000"	Vert	20%	871 / 850	1721	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	4533 ft-lb	2'9 1/2"	14423 ft-lb	31%	D+S	L
Unbraced	4533 ft-lb	2'9 1/2"	11027 ft-lb	41%	D+S	L
Shear	2462 lb	1' 1/4"	7943 lb	31%	D+S	L
LL Defl inch	0.031 (L/2162)	2'9 1/2"	0.139 (L/480)	22%	S	L
TL Defl inch	0.062 (L/1074)	2'9 1/2"	0.185 (L/360)	34%	D+S	L

Design Notes

- Provide support to prevent lateral movement and rotation at the end bearings.
- Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
- Refer to last page of calculations for fasteners required for specified loads.
- Girders are designed to be supported on bottom edge only and across their full width.
- Top loads must be supported equally by all plies.
- Top must be laterally braced at end bearings.
- Bottom must be laterally braced at end bearings.
- Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Point	0-9-8		Top	763 lb	0 lb	763 lb	0 lb	0 lb	A2
	Bearing Length	0-3-8								
2	Point	2-9-8		Top	1416 lb	0 lb	1416 lb	0 lb	0 lb	A1
	Bearing Length	0-3-8								
3	Point	4-9-8		Top	122 lb	0 lb	122 lb	0 lb	0 lb	YA2
	Bearing Length	0-3-8								
	Self Weight				7 PLF					

Notes

Calculated Structural Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

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

chemicals

Handling & Installation

- LVL beams must not be cut or drilled
- Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
- Damaged Beams must not be used
- Design assumes top edge is laterally restrained
- Provide lateral support at bearing points to avoid lateral displacement and rotation

- For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

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

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



This design is valid until 2/28/2028



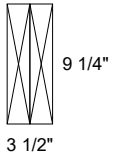
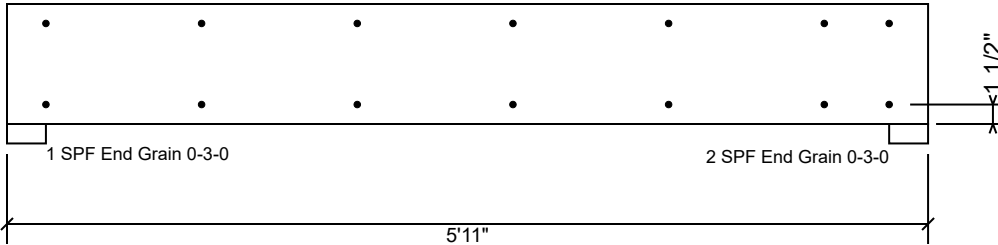
Client:
Project:
Address:

Date: 9/26/2025
Input by: Neal Baggett
Job Name: 65 MAGNOLIA HILLS
Project #:

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HDR3 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

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

Manufacturer Info

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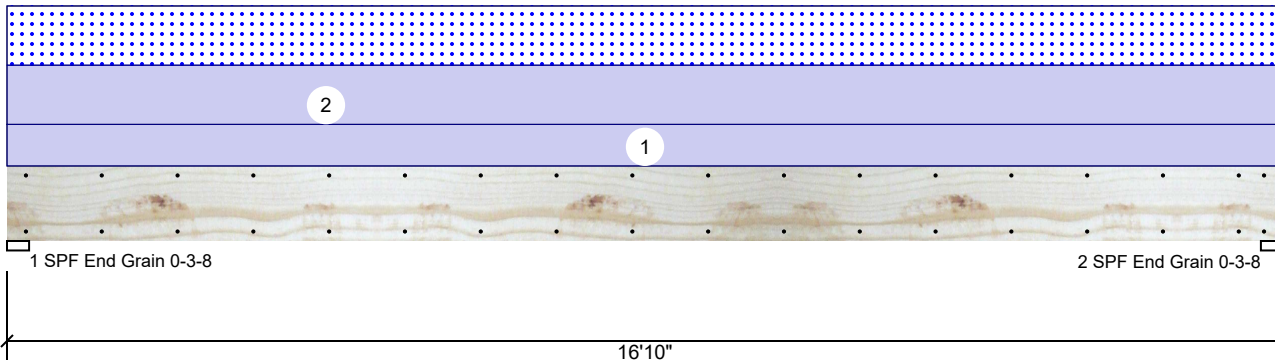
Client:
Project:
Address:

Date: 9/26/2025
Input by: Neal Baggett
Job Name: 65 MAGNOLIA HILLS
Project #:

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

Level: Level



11 7/8"
3 1/2"

Member Information

Type: Girder
Plies: 2
Moisture Condition: Dry
Deflection LL: 480
Deflection TL: 360
Importance: Normal - II
Temperature: Temp <= 100°F

Application: Floor
Design Method: ASD
Building Code: IBC/IRC 2015
Load Sharing: No
Deck: Not Checked

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	995	539	0	0
2	Vertical	0	995	539	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	15%	995 / 539	1534	L	D+S
2 - SPF End Grain	3.500"	Vert	15%	995 / 539	1534	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	6108 ft-lb	8'5"	22897 ft-lb	27%	D+S	L
Unbraced	6108 ft-lb	8'5"	6109 ft-lb	100%	D+S	L
Shear	1300 lb	1'3 3/8"	10197 lb	13%	D+S	L
LL Defl inch	0.112 (L/1755)	8'5 1/16"	0.409 (L/480)	27%	S	L
TL Defl inch	0.319 (L/617)	8'5 1/16"	0.546 (L/360)	58%	D+S	L

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings.
- 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 bottom edge only and across their full width.
- 5 Top loads must be supported equally by all plies.
- 6 Top must be laterally braced at a maximum of 16'3 3/4" 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	45 PLF	0 PLF	0 PLF	0 PLF	0 PLF	WALL
2	Uniform			Top	64 PLF	0 PLF	64 PLF	0 PLF	0 PLF	P2
	Self Weight				9 PLF					

Notes

Calculated Structural Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

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

chemicals

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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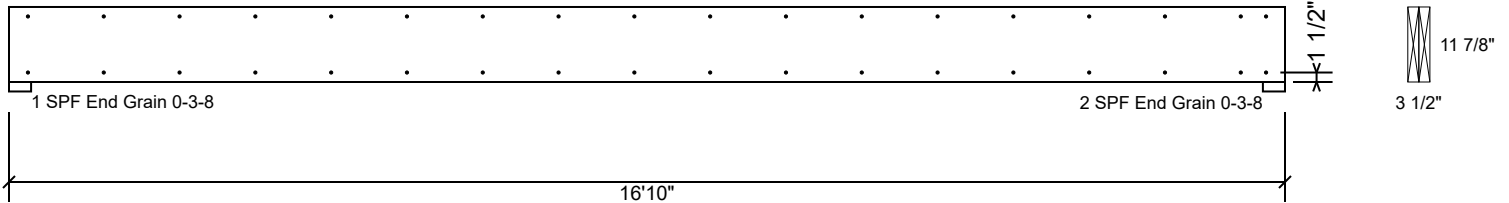
Client:
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Input by: Neal Baggett
Job Name: 65 MAGNOLIA HILLS
Project #:

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

Level: Level



Multi-Ply Analysis

Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6".

Capacity	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

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
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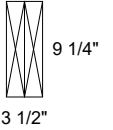
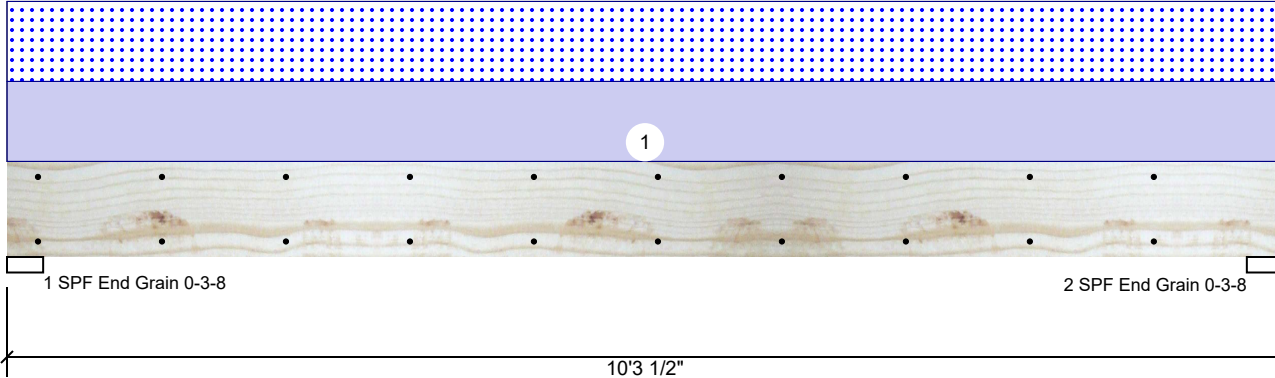
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DB1 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED

Level: Level



Member Information

Type: Girder
Plies: 2
Moisture Condition: Dry
Deflection LL: 480
Deflection TL: 360
Importance: Normal - II
Temperature: Temp <= 100°F

Application: Floor
Design Method: ASD
Building Code: IBC/IRC 2015
Load Sharing: No
Deck: Not Checked

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	902	865	0	0
2	Vertical	0	902	865	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	17%	902 / 865	1766	L	D+S
2 - SPF End Grain	3.500"	Vert	17%	902 / 865	1766	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	4148 ft-lb	5'1 3/4"	14423 ft-lb	29%	D+S	L
Unbraced	4148 ft-lb	5'1 3/4"	7519 ft-lb	55%	D+S	L
Shear	1401 lb	1' 3/4"	7943 lb	18%	D+S	L
LL Defl inch	0.084 (L/1409)	5'1 3/4"	0.246 (L/480)	34%	S	L
TL Defl inch	0.171 (L/689)	5'1 3/4"	0.328 (L/360)	52%	D+S	L

Design Notes

- Provide support to prevent lateral movement and rotation at the end bearings.
- Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
- Refer to last page of calculations for fasteners required for specified loads.
- Girders are designed to be supported on bottom edge only and across their full width.
- Top loads must be supported equally by all plies.
- Top must be laterally braced at end bearings.
- Bottom must be laterally braced at end bearings.
- Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	168 PLF	0 PLF	168 PLF	0 PLF	0 PLF	C2
	Self Weight				7 PLF					

Notes

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Lumber

- Dry service conditions, unless noted otherwise
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chemicals

Handling & Installation

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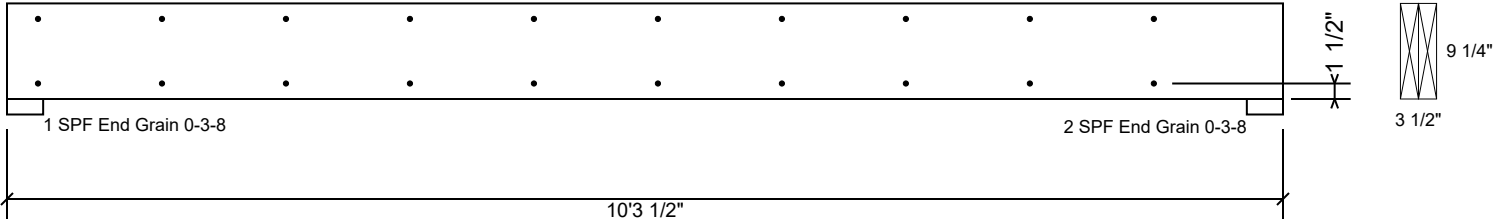
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Input by: Neal Baggett
Job Name: 65 MAGNOLIA HILLS
Project #:

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DB1 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

Calculated Structural Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

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