

Trenco

818 Soundside Rd
Edenton, NC 27932

Re: J0125-0519
89 LAKEFOREST TRAIL FLOOR & ROOF

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: I71269271 thru I71269323

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

North Carolina COA: C-0844



February 10, 2025

Gilbert, Eric

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

Job	Truss	Truss Type	Qty	Ply	89 LAKEFOREST TRAIL FLOOR & ROOF
J0125-0519	2E1	GABLE	1	1	171269271

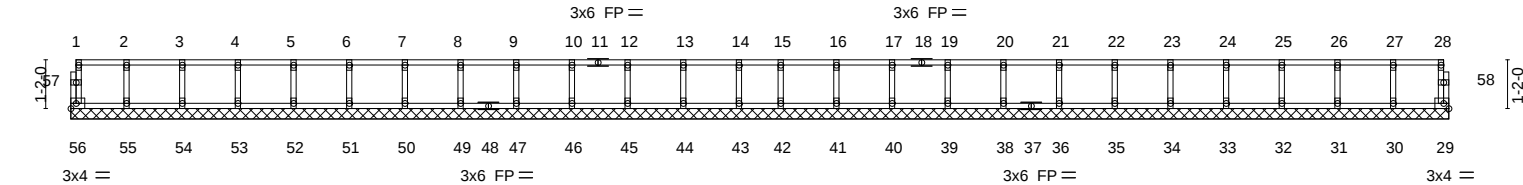
Comtech, Inc., Fayetteville, NC - 28314,

8.630 s Sep 26 2024 MiTek Industries, Inc. Thu Feb 6 13:14:32 2025 Page 1
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0-1-8

0-1-8

Scale = 1:55.2



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	17-0-0	18-4-0	19-8-0	21-0-0	22-4-0	23-8-0	25-0-0	26-4-0	27-8-0	29-0-0	30-4-0	31-8-0	33-0-0	
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	1-0-0	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	
LOADING (psf)		SPACING-		2-0-0		CSI.		DEFL.		in (loc)		l/defl		L/d		PLATES		GRIP							
TCLL		40.0		Plate Grip DOL		TC 0.06		Vert(LL)		n/a		-		n/a		999		MT20		244/190					
TCDL		10.0		Lumber DOL		BC 0.01		Vert(CT)		n/a		-		n/a		999									
BCLL		0.0		Rep Stress Incr		WB 0.03		Horz(CT)		0.00		29		n/a		n/a									
BCDL		5.0		Code IRC2021/TPI2014		Matrix-R												Weight: 135 lb		FT = 20%F, 11%E					

LUMBER-		BRACING-	
TOP CHORD		TOP CHORD	
BOT CHORD			
WEBS		BOT CHORD	
OTHERS			

REACTIONS. All bearings 33-0-0.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 56, 29, 30, 31, 32, 33, 34, 35, 36, 38, 39, 40, 41, 42, 55, 54, 53, 52, 51, 50, 49, 47, 46, 45, 44, 43

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.



February 10, 2025

Job	Truss	Truss Type	Qty	Ply	89 LAKEFOREST TRAIL FLOOR & ROOF
J0125-0519	2E2	GABLE	1	1	171269272
Job Reference (optional)					

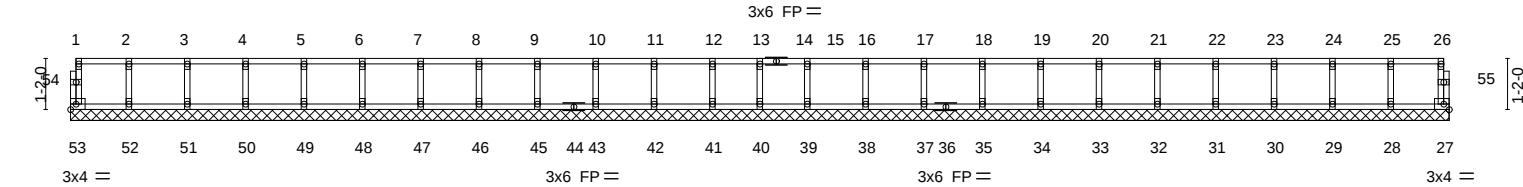
Comtech, Inc., Fayetteville, NC - 28314,

8.630 s Sep 26 2024 MiTek Industries, Inc. Thu Feb 6 13:14:33 2025 Page 1
ID:ep5_EG0sxmaxN75H5YdYhJzNaDM-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWwCDoi7J4zJC?f

0-1-8

0-1-8

Scale = 1:52.6



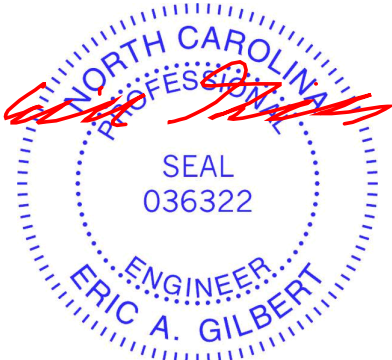
16-10-0																								
1-4-0	2-8-0	4-0-0	5-4-0	6-8-0	8-0-0	9-4-0	10-8-0	12-0-0	13-4-0	14-8-0	15-9-0	1-1-0	1-1-0	18-2-0	19-6-0	20-10-0	22-2-0	23-6-0	24-10-0	26-2-0	27-6-0	28-10-0	30-2-0	31-6-0
1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-1-0	1-1-0	1-1-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0
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 27 n/a n/a												
BCDL	5.0	Code IRC2021/TPI2014					Matrix-R												Weight: 130 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 31-6-0.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 53, 27, 40, 28, 29, 30, 31, 32, 33, 34, 35, 37, 38, 39, 52, 51, 50, 49, 48, 47, 46, 45, 43, 42, 41

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.



February 10,2025

Job	Truss	Truss Type	Qty	Ply	89 LAKEFOREST TRAIL FLOOR & ROOF
J0125-0519	2E3	GABLE	1	1	171269273

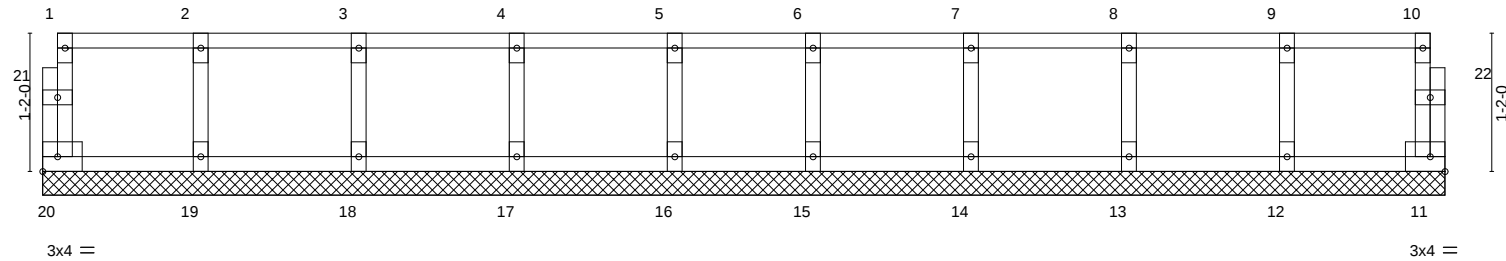
Comtech, Inc., Fayetteville, NC - 28314,

8.630 s Sep 26 2024 MiTek Industries, Inc. Thu Feb 6 13:14:33 2025 Page 1
ID:ep5_EG0sxmaxN75H5YdYhJzNaDM-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWwCDoi7J4zJC?f

0.18

0.18

Scale = 1:19.4



1-4-0		2-8-0		4-0-0		5-4-0		6-6-0		7-10-0		9-2-0		10-6-0		11-10-0	
1-4-0		1-4-0		1-4-0		1-4-0		1-2-0		1-4-0		1-4-0		1-4-0		1-4-0	
LOADING (psf)		SPACING-		2-0-0		CSI.		DEFL.		in (loc)		l/defl		L/d		PLATES	
TCLL 40.0		Plate Grip DOL		1.00		TC 0.06		Vert(LL)		n/a -		n/a		999		MT20	
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 11		n/a		n/a			
BCDL 5.0		Code IRC2021/TPI2014				Matrix-R										Weight: 51 lb FT = 20%F, 11%E	

LUMBER-

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

BRACING-

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

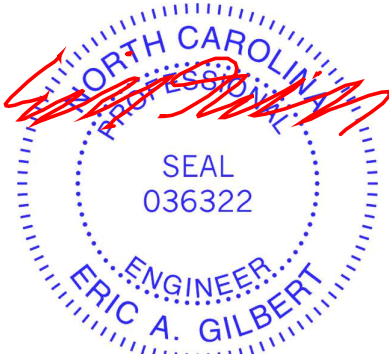
REACTIONS.

All bearings 11-10-0.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 20, 11, 12, 13, 14, 15, 19, 18, 17, 16

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.



February 10,2025

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)

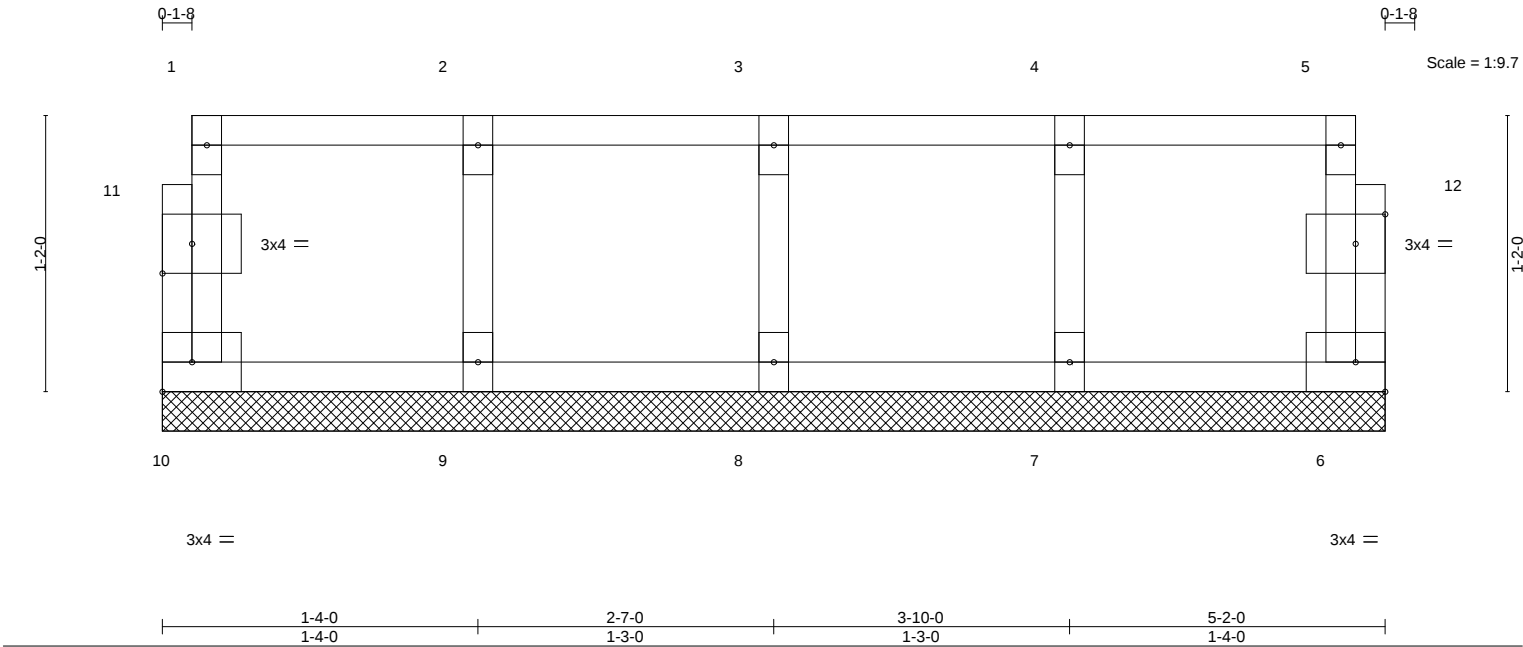
ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	89 LAKEFOREST TRAIL FLOOR & ROOF	I71269274
J0125-0519	2E4	GABLE	1	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.630 s Sep 26 2024 MiTek Industries, Inc. Thu Feb 6 13:14:34 2025 Page 1
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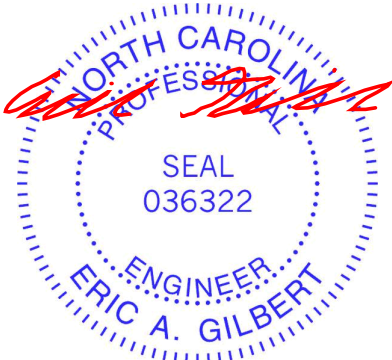
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.00	TC 0.06	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.01	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	6	n/a		
BCDL 5.0	Code IRC2021/TPI2014		Matrix-R					Weight: 24 lb	FT = 20%F, 11%E

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1(flat)	TOP CHORD Structural wood sheathing directly applied or 5-2-0 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 5-2-0.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 10, 6, 8, 7, 9

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.

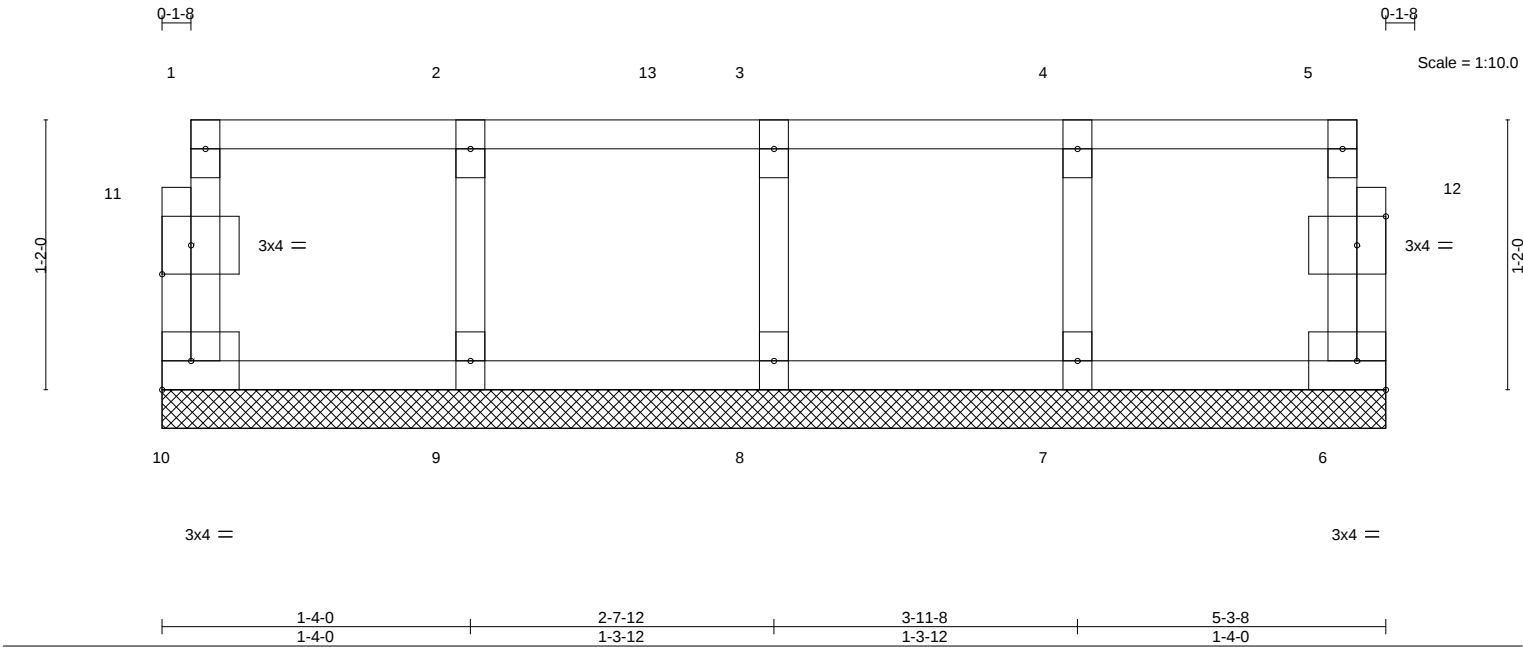


February 10, 2025

Job	Truss	Truss Type	Qty	Ply	89 LAKEFOREST TRAIL FLOOR & ROOF
J0125-0519	2E5	GABLE	1	1	I71269275

Comtech, Inc., Fayetteville, NC - 28314,

8.630 s Sep 26 2024 MiTek Industries, Inc. Thu Feb 6 13:14:34 2025 Page 1
ID:ep5_EG0sxmaxN75H5YdYhJzNaDM-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWCD0i7J4zJC?f



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL 1.00	TC 0.08	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 0.04	Horz(CT) 0.00	6	n/a	n/a		
BCDL 5.0	Code IRC2021/TPI2014	Matrix-R					Weight: 24 lb	FT = 20%F, 11%E

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1(flat)	TOP CHORD Structural wood sheathing directly applied or 5-3-8 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 5-3-8.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 10, 6, 8, 7, 9

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.
 - 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 52 lb down at 2-2-12, and 53 lb down at 4-2-12 on top chord. The design/selection of such connection device(s) is the responsibility of others.
 - 8) 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 + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00

Uniform Loads (plf)
Vert: 6-10=-10, 1-5=-100

Concentrated Loads (lb)
Vert: 4=-53(B) 13=-52(B)



February 10,2025

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
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	89 LAKEFOREST TRAIL FLOOR & ROOF
J0125-0519	2F1	Floor	10	1	171269276
					Job Reference (optional)

Comtech, Inc., Fayetteville, NC - 28314,

8.630 s Sep 26 2024 MiTek Industries, Inc. Thu Feb 6 13:14:34 2025 Page 1
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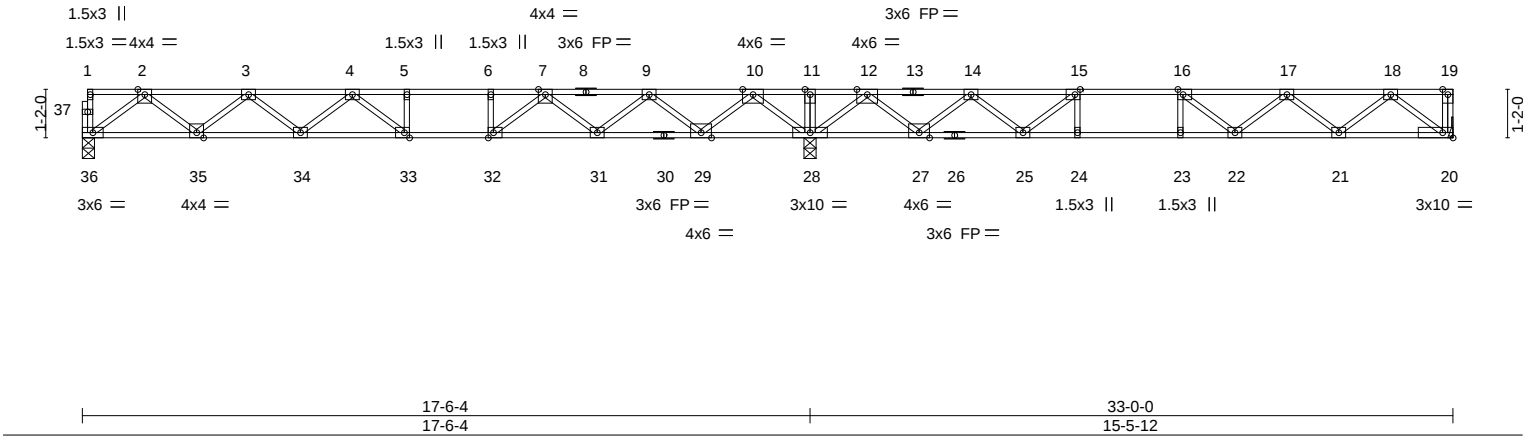


Plate Offsets (X,Y)--		[15:0-1-8,Edge], [16:0-1-8,Edge], [32:0-1-8,Edge], [33:0-1-8,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 40.0	Plate Grip DOL	1.00	TC 0.86
TCDL 10.0	Lumber DOL	1.00	BC 0.81
BCLL 0.0	Rep Stress Incr	NO	WB 0.63
BCDL 5.0	Code	IRC2021/TPI2014	Matrix-S
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) -0.22 33-34 >948 480
			Vert(CT) -0.30 33-34 >697 360
			Horz(CT) 0.05 20 n/a n/a
			PLATES
			MT20
			GRIP
			244/190
			Weight: 162 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 2400F 2.0E(flat)	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	

REACTIONS. (size) 36=0-3-8, 28=0-3-8, 20=Mechanical
Max Grav 36=842(LC 3), 28=2131(LC 1), 20=2731(LC 4)

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

TOP CHORD 19-20=-2033/0, 2-3=-1737/0, 3-4=-2763/0, 4-5=-3044/0, 5-6=-3044/0, 6-7=-3044/0, 7-9=-1989/142, 9-10=-481/683, 10-11=0/2587, 11-12=0/2587, 12-14=-519/1022, 14-15=-1760/452, 15-16=-2339/68, 16-17=-2241/0, 17-18=-1484/0

BOT CHORD 35-36=0/1045, 34-35=0/2406, 33-34=0/3052, 32-33=0/3044, 31-32=0/2584, 29-31=-376/1400, 28-29=-1220/0, 27-28=-1478/0, 25-27=-726/1280, 24-25=-68/2339, 23-24=-68/2339, 22-23=-68/2339, 21-22=0/2036, 20-21=0/908

WEBS 2-36=-1308/0, 2-35=0/902, 3-35=-871/0, 3-34=0/464, 4-34=-376/18, 10-28=-1714/0, 10-29=0/1319, 9-29=-1271/0, 9-31=0/834, 7-31=-863/0, 7-32=0/923, 6-32=-381/0, 4-33=-391/225, 12-28=-1571/0, 12-27=0/1150, 14-27=-1095/0, 14-25=0/761, 15-25=-1042/0, 18-20=-1139/0, 18-21=0/751, 17-21=-718/0, 17-22=-87/267, 16-22=-125/322, 16-23=-317/0, 15-24=0/355

- NOTES-**
- Unbalanced floor live loads have been considered for this design.
 - All plates are 3x4 MT20 unless otherwise indicated.
 - Plates checked for a plus or minus 1 degree rotation about its center.
 - Refer to girder(s) for truss to truss connections.
 - Load case(s) 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
 - 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.
 - CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard

1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00

Uniform Loads (plf)

Vert: 20-36=-10, 1-19=-100

Concentrated Loads (lb)

Vert: 19=-1986

2) Dead: Lumber Increase=1.00, Plate Increase=1.00



February 10,2025

Job	Truss	Truss Type	Qty	Ply	89 LAKEFOREST TRAIL FLOOR & ROOF
J0125-0519	2F1	Floor	10	1	I71269276
Job Reference (optional)					

Comtech, Inc., Fayetteville, NC - 28314,

8.630 s Sep 26 2024 MiTek Industries, Inc. Thu Feb 6 13:14:34 2025 Page 2
ID:ep5_EG0sxmaxN75H5YdYhJzNaDM-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWwCDoi7J4zJC?f

- LOAD CASE(S)** Standard
- Uniform Loads (plf)
Vert: 20-36=-10, 1-19=-100
- Concentrated Loads (lb)
Vert: 19=-1986
- 3) 1st Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)
Vert: 20-36=-10, 1-11=-100, 11-19=-20
- Concentrated Loads (lb)
Vert: 19=-1986
- 4) 2nd Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)
Vert: 20-36=-10, 1-11=-20, 11-19=-100
- Concentrated Loads (lb)
Vert: 19=-1986
- 5) 3rd unbalanced Dead: Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)
Vert: 20-36=-10, 1-11=-100, 11-19=-20
- Concentrated Loads (lb)
Vert: 19=-1986
- 6) 4th unbalanced Dead: Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)
Vert: 20-36=-10, 1-11=-20, 11-19=-100
- Concentrated Loads (lb)
Vert: 19=-1986
- 7) 1st chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)
Vert: 20-36=-10, 1-6=-100, 6-11=-20, 11-19=-100
- Concentrated Loads (lb)
Vert: 19=-1986
- 8) 2nd chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)
Vert: 20-36=-10, 1-5=-20, 5-19=-100
- Concentrated Loads (lb)
Vert: 19=-1986
- 9) 3rd chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)
Vert: 20-36=-10, 1-16=-100, 16-19=-20
- Concentrated Loads (lb)
Vert: 19=-1986
- 10) 4th chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)
Vert: 20-36=-10, 1-11=-100, 11-15=-20, 15-19=-100
- Concentrated Loads (lb)
Vert: 19=-1986
- 11) 5th chase Dead: Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)
Vert: 20-36=-10, 1-6=-100, 6-11=-20, 11-19=-100
- Concentrated Loads (lb)
Vert: 19=-1986
- 12) 6th chase Dead: Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)
Vert: 20-36=-10, 1-5=-20, 5-19=-100
- Concentrated Loads (lb)
Vert: 19=-1986
- 13) 7th chase Dead: Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)
Vert: 20-36=-10, 1-16=-100, 16-19=-20
- Concentrated Loads (lb)
Vert: 19=-1986
- 14) 8th chase Dead: Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)
Vert: 20-36=-10, 1-11=-100, 11-15=-20, 15-19=-100
- Concentrated Loads (lb)
Vert: 19=-1986

 **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
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	89 LAKEFOREST TRAIL FLOOR & ROOF
J0125-0519	2F2	Floor	3	1	171269277
Job Reference (optional)					

Comtech, Inc., Fayetteville, NC - 28314,

8.630 s Sep 26 2024 MiTek Industries, Inc. Thu Feb 6 13:14:35 2025 Page 1
ID:ep5_EG0sxmaxN75H5YdYhJzNaDM-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

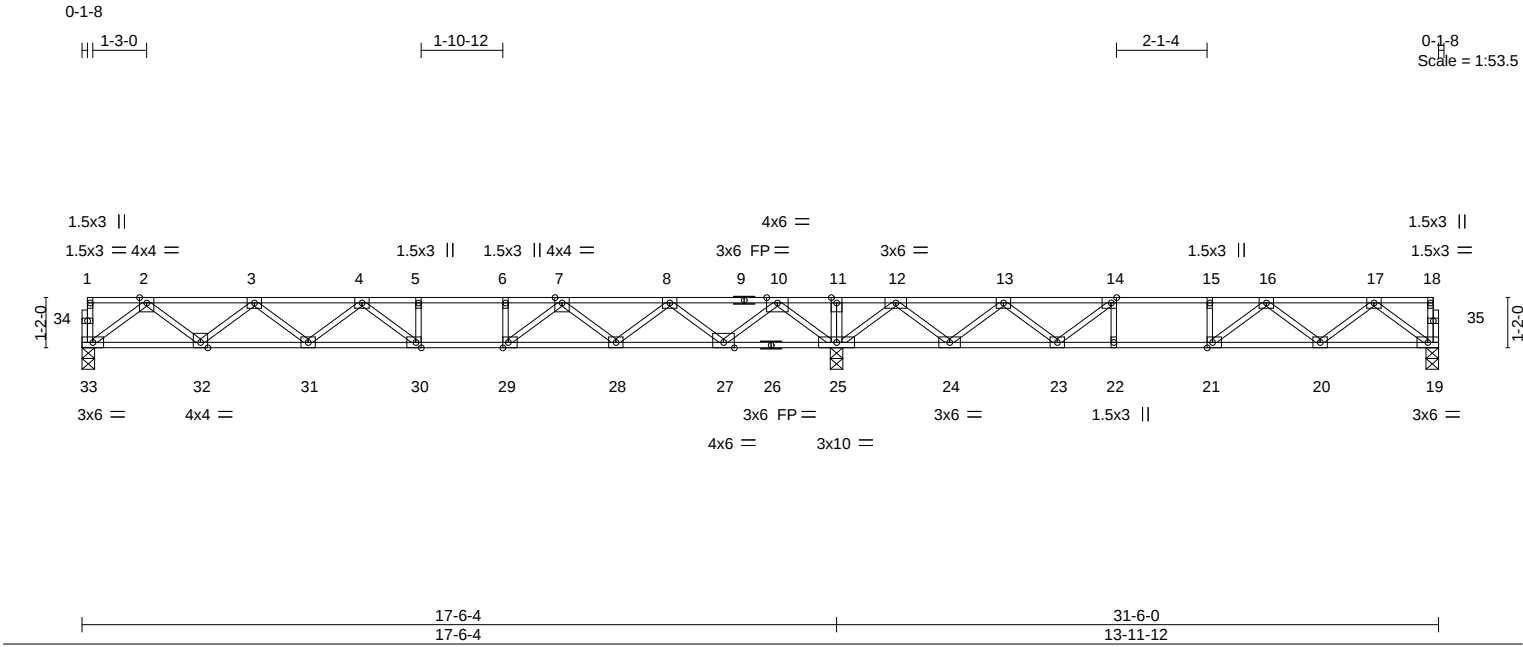


Plate Offsets (X,Y)--		[14:0-1-8,Edge], [21:0-1-8,Edge], [29:0-1-8,Edge], [30:0-1-8,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 40.0	Plate Grip DOL	1.00	TC 0.80
TCDL 10.0	Lumber DOL	1.00	BC 0.90
BCLL 0.0	Rep Stress Incr	YES	WB 0.63
BCDL 5.0	Code	IRC2021/TPI2014	Matrix-S
		DEFL.	in (loc) l/defl L/d
		Vert(LL)	-0.24 30-31 >864 480
		Vert(CT)	-0.33 30-31 >635 360
		Horz(CT)	0.05 19 n/a n/a
		PLATES	GRIP
		MT20	244/190
		Weight: 155 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 6-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	

REACTIONS. (size) 33=0-3-8, 25=0-3-8, 19=0-3-8
Max Grav 33=839(LC 3), 25=2068(LC 1), 19=648(LC 4)

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

TOP CHORD 2-3=-1731/0, 3-4=-2749/0, 4-5=-3023/0, 5-6=-3023/0, 6-7=-3023/0, 7-8=-1959/113, 8-10=-444/650, 10-11=0/2572, 11-12=0/2572, 12-13=-371/1082, 13-14=-1435/519, 14-15=-1828/167, 15-16=-1828/167, 16-17=-1255/0

BOT CHORD 32-33=0/1042, 31-32=0/2396, 30-31=0/3039, 29-30=0/3023, 28-29=0/2553, 27-28=-345/1367, 25-27=-1205/0, 24-25=-1507/0, 23-24=-791/1055, 22-23=-167/1828, 21-22=-167/1828, 20-21=0/1668, 19-20=0/799

WEBS 2-33=-1304/0, 2-32=0/898, 3-32=-866/0, 3-31=0/460, 4-31=-377/9, 4-30=-396/226, 10-25=-1715/0, 10-27=0/1318, 8-27=-1271/0, 8-28=0/832, 7-28=-853/0, 7-29=0/929, 6-29=-406/0, 12-25=-1466/0, 12-24=0/1056, 13-24=-1010/0, 13-23=0/656, 14-23=-836/0, 17-19=-999/0, 17-20=0/594, 16-20=-538/72, 16-21=-266/204

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.

5) CAUTION, Do not erect truss backwards.



February 10,2025

Job	Truss	Truss Type	Qty	Ply	89 LAKEFOREST TRAIL FLOOR & ROOF
J0125-0519	2F2A	Floor	1	1	171269278
Job Reference (optional)					

Comtech, Inc., Fayetteville, NC - 28314,

8.630 s Sep 26 2024 MiTek Industries, Inc. Thu Feb 6 13:14:35 2025 Page 1
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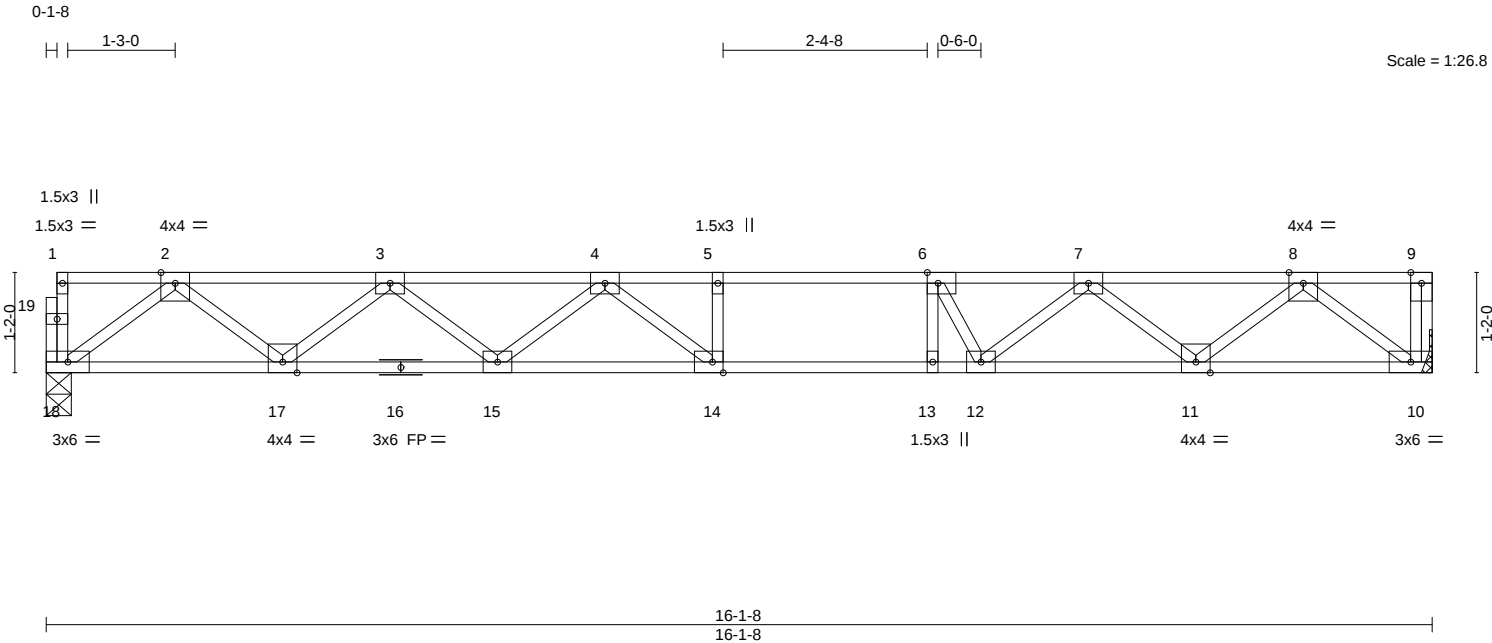


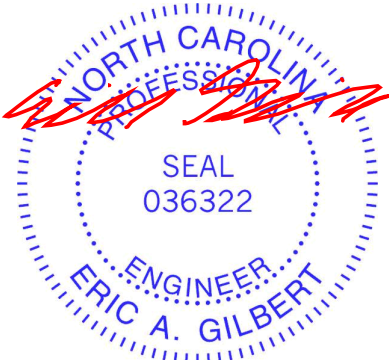
Plate Offsets (X,Y)-- [6:0-1-8,Edge], [14:0-1-8,Edge]		16-1-8		16-1-8	
LOADING (psf)		SPACING-		CSI.	
TCLL 40.0		2-0-0		TC 0.71	
TCDL 10.0		Plate Grip DOL 1.00		BC 0.71	
BCLL 0.0		Lumber DOL 1.00		WB 0.45	
BCDL 5.0		Rep Stress Incr YES		Matrix-S	
		Code IRC2021/TPI2014			
				DEFL.	
				in (loc) l/defl L/d	
				Vert(LL) -0.24 14-15 >781 480	
				Vert(CT) -0.33 14-15 >577 360	
				Horz(CT) 0.04 10 n/a n/a	
				PLATES	
				MT20	
				GRIP	
				244/190	
				Weight: 80 lb	
				FT = 20%F, 11%E	

LUMBER-		BRACING-	
TOP CHORD 2x4 SP No.1(flat)		TOP CHORD	
BOT CHORD 2x4 SP 2400F 2.0E(flat)		Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.	
WEBS 2x4 SP No.3(flat)		BOT CHORD	
		Rigid ceiling directly applied or 10-0-0 oc bracing.	

REACTIONS. (size) 18=0-3-8, 10=Mechanical
Max Grav 18=867(LC 1), 10=873(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1800/0, 3-4=-2888/0, 4-5=-3227/0, 5-6=-3227/0, 6-7=-2929/0, 7-8=-1797/0
BOT CHORD 17-18=0/1077, 15-17=0/2501, 14-15=0/3199, 13-14=0/3227, 12-13=0/3227, 11-12=0/2463, 10-11=0/1090
WEBS 2-18=-1349/0, 2-17=0/940, 3-17=-913/0, 3-15=0/504, 4-15=-404/0, 4-14=-199/419, 8-10=-1368/0, 8-11=0/920, 7-11=-868/0, 7-12=0/690, 6-12=-841/0, 6-13=-70/429

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

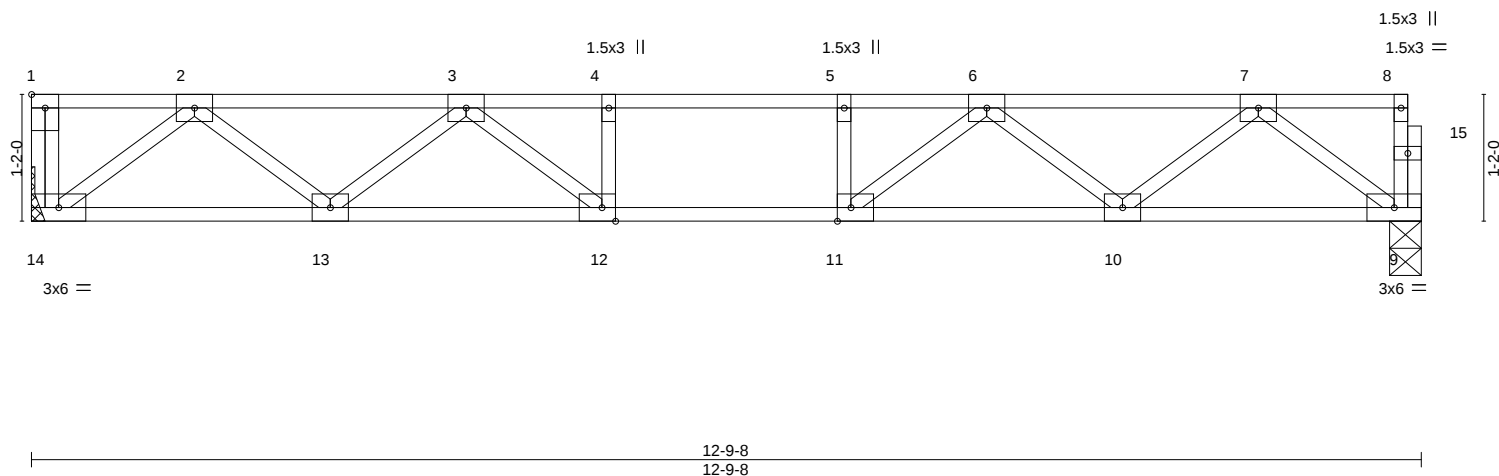


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ENGINEERING BY
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A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Comtech, Inc. Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Thu Feb 6 13:14:36 2025 Page 1
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1-3-0 2-0-8 0-1-8
Scale = 1:21.2



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)		

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-1339/0, 3-4=-2034/0, 4-5=-2034/0, 5-6=-2034/0, 6-7=-1339/0
 BOT CHORD 13-14=0/845, 12-13=0/1798, 11-12=0/2034, 10-11=0/1799, 9-10=0/844
 WEBS 2-14=-1060/0, 2-13=0/643, 3-13=-598/0, 3-12=0/506, 7-9=-1057/0, 7-10=0/644,
 6-10=-598/0, 6-11=0/506

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



February 10, 2025

WARNING – Verify design parameters and READ NOTES ON THIS AND INCLUDED MITER REFERENCE PAGE MIT-17-19 (Rev. 1/2/2025) BEFORE USE.

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	89 LAKEFOREST TRAIL FLOOR & ROOF
J0125-0519	2F3	Floor	3	1	I71269281

Comtech, Inc., Fayetteville, NC - 28314,

8.630 s Sep 26 2024 MiTek Industries, Inc. Thu Feb 6 13:14:37 2025 Page 1
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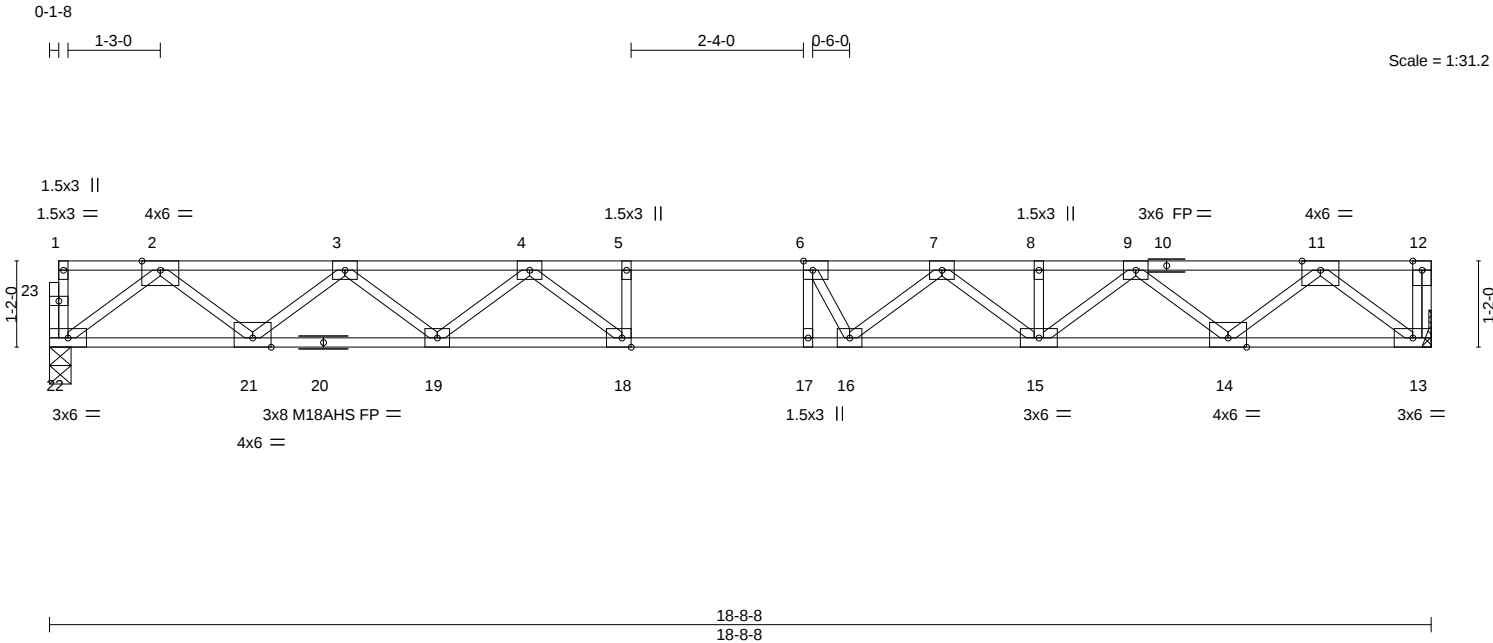


Plate Offsets (X,Y)--		[6:0-1-8,Edge], [18:0-1-8,Edge]	
LOADING (psf)		SPACING-	2-0-0
TCLL	40.0	Plate Grip DOL	1.00
TCDL	10.0	Lumber DOL	1.00
BCLL	0.0	Rep Stress Incr	YES
BCDL	5.0	Code	IRC2021/TPI2014
		CSI.	
		TC	0.80
		BC	0.73
		WB	0.56
		Matrix-S	
		DEFL.	
		in (loc)	l/defl L/d
		Vert(LL)	-0.32 17 >691 480
		Vert(CT)	-0.44 17-18 >503 360
		Horz(CT)	0.06 13 n/a n/a
		PLATES	GRIP
		MT20	244/190
		M18AHS	186/179
		Weight: 94 lb	FT = 20%F, 11%E

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 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=0-3-8, 13=Mechanical
Max Grav 22=1009(LC 1), 13=1015(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2162/0, 3-4=-3557/0, 4-5=-4429/0, 5-6=-4429/0, 6-7=-4357/0, 7-8=-3623/0, 8-9=-3623/0, 9-11=-2157/0
BOT CHORD 21-22=0/1265, 19-21=0/3022, 18-19=0/4080, 17-18=0/4429, 16-17=0/4429, 15-16=0/4105, 14-15=0/3008, 13-14=0/1271
WEBS 2-22=-1584/0, 2-21=0/1168, 3-21=-1119/0, 3-19=0/696, 4-19=-680/0, 4-18=0/766, 5-18=-309/0, 11-13=-1594/0, 11-14=0/1153, 9-14=-1109/0, 9-15=0/785, 7-15=-615/0, 7-16=0/541, 6-16=-584/270, 6-17=-337/258

- 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) Refer to girder(s) for truss to truss connections.
 - 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.
 - 7) CAUTION, Do not erect truss backwards.



February 10, 2025

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

Job	Truss	Truss Type	Qty	Ply	89 LAKEFOREST TRAIL FLOOR & ROOF
J0125-0519	2F3GR	Floor	1	1	171269282
Job Reference (optional)					

Comtech, Inc., Fayetteville, NC - 28314,

8.630 s Sep 26 2024 MiTek Industries, Inc. Thu Feb 6 13:14:37 2025 Page 1
ID:ep5_EG0sxmaxN75H5YdYhJzNaDM-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWwRCDoi7J4zJC?i

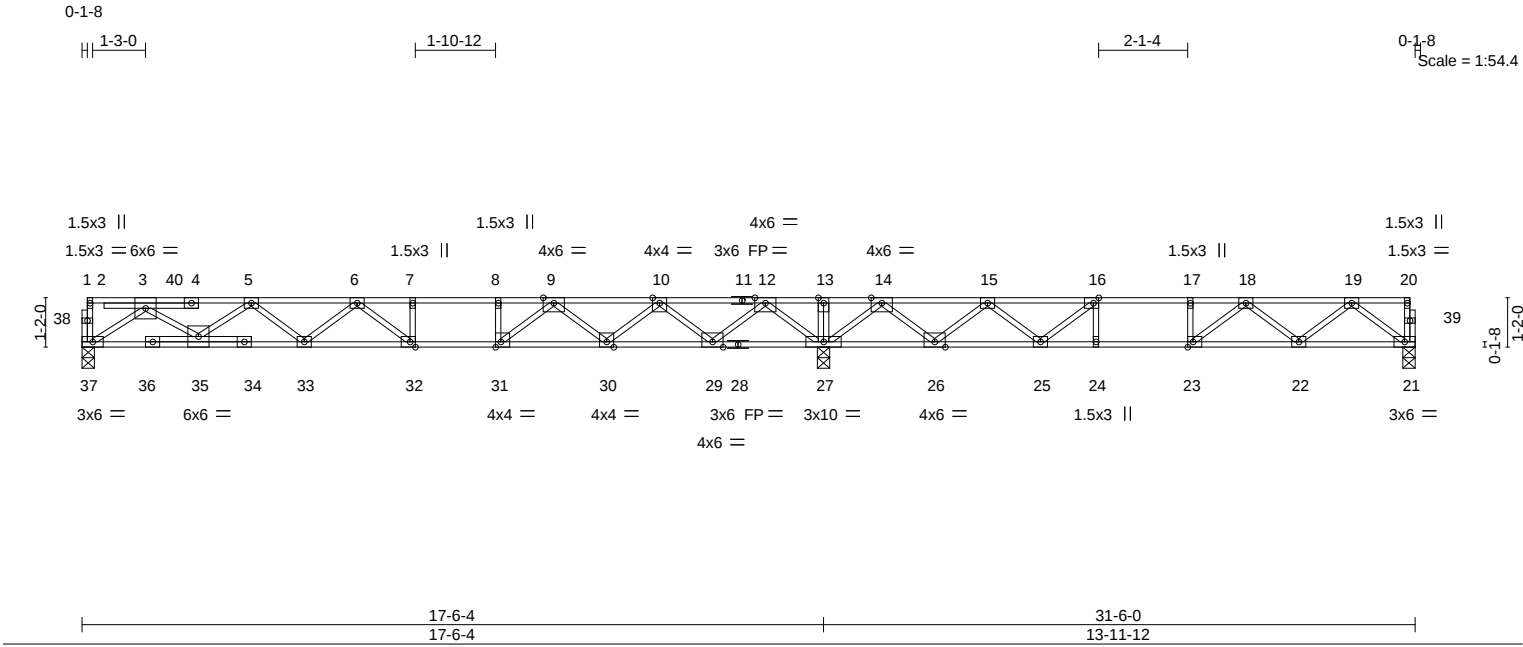


Plate Offsets (X,Y)--		[16:0-1-8,Edge], [23:0-1-8,Edge], [31:0-1-8,Edge], [32:0-1-8,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 40.0	Plate Grip DOL	1.00	TC 0.70
TCDL 10.0	Lumber DOL	1.00	BC 0.69
BCLL 0.0	Rep Stress Incr	NO	WB 0.67
BCDL 5.0	Code	IRC2021/TPI2014	Matrix-S
		DEFL.	in (loc) l/defl L/d
		Vert(LL)	-0.23 32-33 >900 480
		Vert(CT)	-0.32 32-33 >655 360
		Horz(CT)	0.04 21 n/a n/a
		PLATES	GRIP
		MT20	244/190
		Weight: 161 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 2400F 2.0E(flat)	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	

REACTIONS. (size) 37=0-0-3-8, 27=0-0-3-8, 21=0-0-3-8
Max Grav 37=1200(LC 3), 27=2122(LC 1), 21=642(LC 4)

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

TOP CHORD 3-5=-2450/0, 5-6=-3293/0, 6-7=-3397/0, 7-8=-3397/0, 8-9=-3397/0, 9-10=-2151/0, 10-12=-523/574, 12-13=0/2615, 13-14=0/2615, 14-15=-304/1122, 15-16=-1383/549, 16-17=-1790/190, 17-18=-1790/190, 18-19=-1240/0

BOT CHORD 35-37=0/1681, 33-35=0/3048, 32-33=0/3515, 31-32=0/3397, 30-31=0/2814, 29-30=-198/1505, 27-29=-1186/0, 26-27=-1551/0, 25-26=-827/995, 24-25=-190/1790, 23-24=-190/1790, 22-23=0/1645, 21-22=0/790

WEBS 3-37=-2065/0, 3-35=0/925, 5-35=-788/0, 5-33=-60/318, 6-33=-290/136, 6-32=-529/68, 12-27=-1792/0, 12-29=0/1399, 10-29=-1347/0, 10-30=0/903, 9-30=-944/0, 9-31=0/1072, 8-31=-464/0, 14-27=-1465/0, 14-26=0/1060, 15-26=-1016/0, 15-25=0/663, 16-25=-845/0, 19-21=-989/0, 19-22=0/586, 18-22=-526/79, 18-23=-277/186

- 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.
 - 5) CAUTION, Do not erect truss backwards.
 - 6) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 492 lb down at 2-1-12 on top chord. The design/selection of such connection device(s) is the responsibility of others.
 - 7) 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 + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00

Uniform Loads (plf)

Vert: 21-37=-10, 1-20=-100

Concentrated Loads (lb)

Vert: 40=-412(B)



February 10,2025

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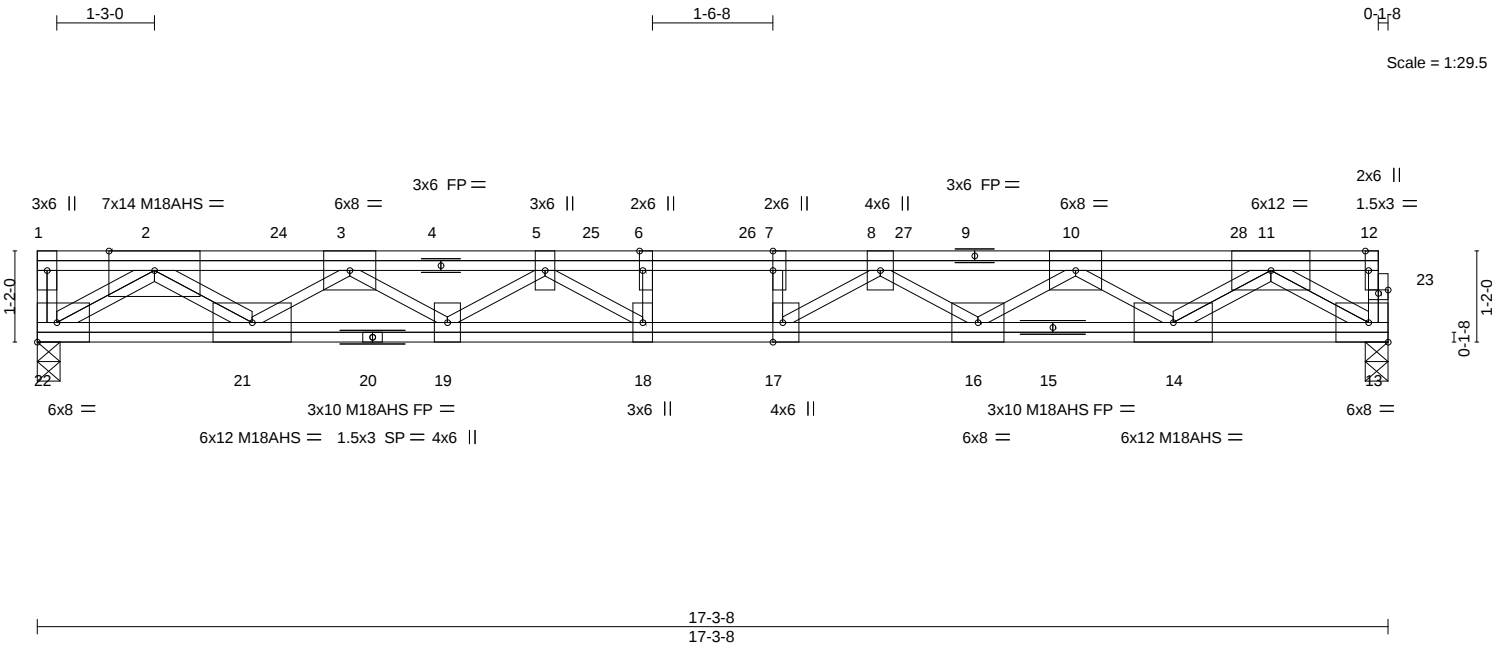
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	89 LAKEFOREST TRAIL FLOOR & ROOF
J0125-0519	2F4GR	Floor Girder	1	1	171269283
Job Reference (optional)					

Comtech, Inc., Fayetteville, NC - 28314,

8.630 s Sep 26 2024 MiTek Industries, Inc. Thu Feb 6 13:14:38 2025 Page 1
ID:ep5_EG0sxmaxN75H5YdYhJzNaDM-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



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	0.74	Vert(LL)	-0.32	18	>631	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.64	Vert(CT)	-0.46	18	>448	360	M18AHS	186/179
BCLL	0.0	Rep Stress Incr	NO	WB	0.75	Horz(CT)	0.07	13	n/a	n/a	Weight: 142 lb	FT = 20%F, 11%E
BCDL	5.0	Code IRC2021/TPI2014		Matrix-S								

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 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=0-3-8, 13=0-3-8
Max Grav 22=2598(LC 1), 13=2021(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-6414/0, 3-5=-9621/0, 5-6=-10360/0, 6-7=-10360/0, 7-8=-10360/0, 8-10=-8521/0, 10-11=-5025/0
BOT CHORD 21-22=0/4025, 19-21=0/9040, 18-19=0/10155, 17-18=0/10360, 16-17=0/9791, 14-16=0/7279, 13-14=0/2941
WEBS 2-22=-4838/0, 2-21=0/3021, 3-21=-3200/0, 3-19=0/720, 5-19=-663/0, 5-18=0/431, 6-18=-258/0, 11-13=-3532/0, 11-14=0/2636, 10-14=-2746/0, 10-16=0/1540, 8-16=-1575/0, 8-17=0/782, 7-17=-318/0

- NOTES-**
- Unbalanced floor live loads have been considered for this design.
 - All plates are MT20 plates unless otherwise indicated.
 - The Fabrication Tolerance at joint 20 = 11%
 - Plates checked for a plus or minus 1 degree rotation about its center.
 - 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.
 - CAUTION, Do not erect truss backwards.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1458 lb down at 3-1-12, 257 lb down at 5-1-12, 244 lb down at 7-1-12, 204 lb down at 9-1-12, 257 lb down at 11-1-12, 389 lb down at 11-11-12, and 257 lb down at 13-1-12, and 257 lb down at 15-5-4 on top 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 + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 13-22=-10, 1-12=-100
Concentrated Loads (lb)
Vert: 9=-309(F) 4=-177(B) 10=-177(B) 24=-1378(B) 25=-177(B) 26=-177(B) 27=-177(B) 28=-177(B)



February 10, 2025

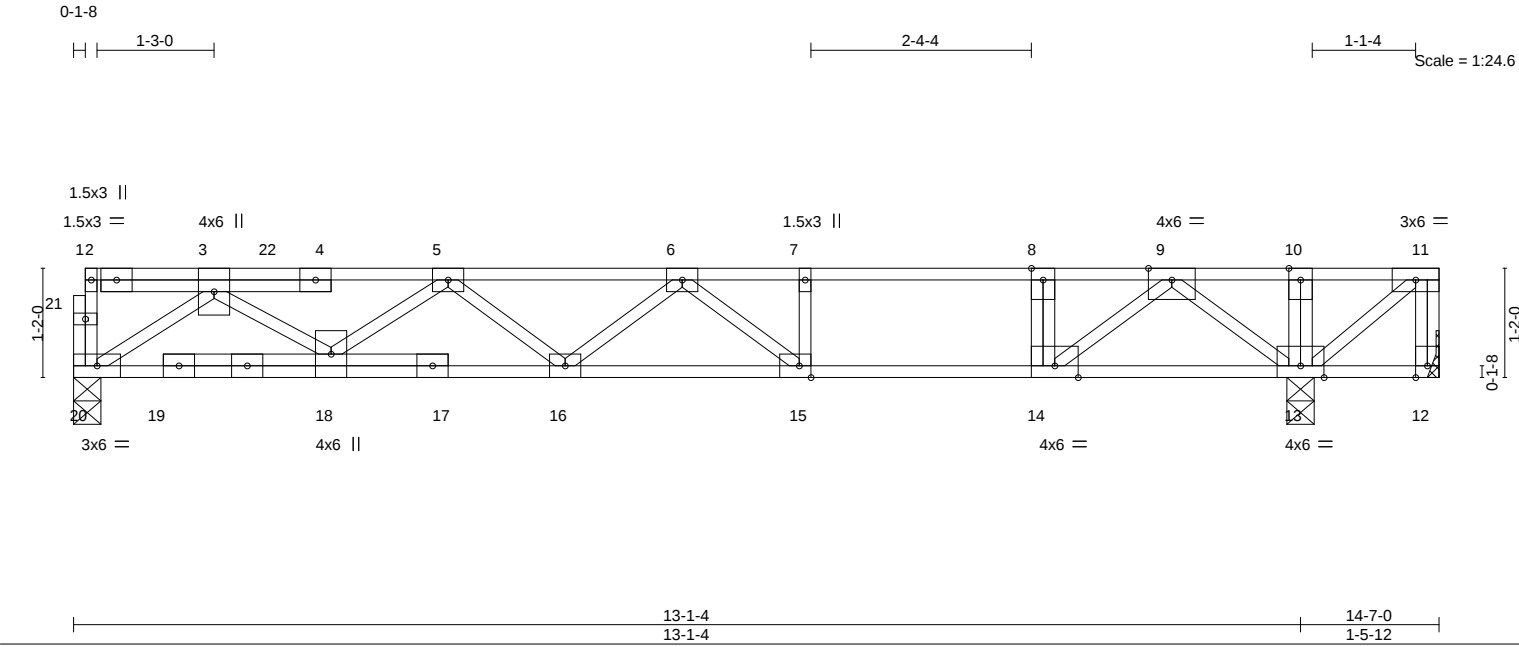
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, 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.sbcacomponents.com)

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

Job	Truss	Truss Type	Qty	Ply	89 LAKEFOREST TRAIL FLOOR & ROOF
J0125-0519	2F5GR	Floor Girder	1	1	171269284
Job Reference (optional)					

Comtech, Inc., Fayetteville, NC - 28314,

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LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.84	Vert(LL)	-0.25 15-16 >626 480	MT20		244/190	
TCDL	10.0	Lumber DOL	1.00	BC	0.72	Vert(CT)	-0.34 15-16 >455 360				
BCLL	0.0	Rep Stress Incr	NO	WB	0.58	Horz(CT)	0.03 12 n/a n/a				
BCDL	5.0	Code IRC2021/TPI2014		Matrix-S							
								Weight: 84 lb		FT = 20%F, 11%E	

LUMBER-		BRACING-	
TOP CHORD	2x4 SP 2400F 2.0E(flat) *Except* 2-4: 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 2400F 2.0E(flat) *Except* 17-19: 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=Mechanical, 20=0-3-8, 13=0-3-8
Max Grav 12=509(LC 7), 20=814(LC 3), 13=674(LC 8)

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

TOP CHORD 11-12=-472/0, 3-5=-1669/0, 5-6=-2374/0, 6-7=-2163/0, 7-8=-2163/0, 8-9=-2163/0, 9-10=-552/30, 10-11=-553/29

BOT CHORD 18-20=0/1066, 16-18=0/2166, 15-16=0/2497, 14-15=0/2163, 13-14=0/1189

WEBS 3-20=-1306/0, 3-18=0/735, 5-18=-643/0, 5-16=0/271, 6-15=-452/0, 9-13=-1036/0, 9-14=0/1225, 8-14=-548/0, 11-13=-37/697

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
 - 2) All plates are 3x4 MT20 unless otherwise indicated.
 - 3) Plates checked for a plus or minus 1 degree rotation about its center.
 - 4) Refer to girder(s) for truss to truss connections.
 - 5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
 - 6) CAUTION, Do not erect truss backwards.
 - 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 170 lb down at 2-1-12 on top chord. The design/selection of such connection device(s) is the responsibility of others.
 - 8) 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

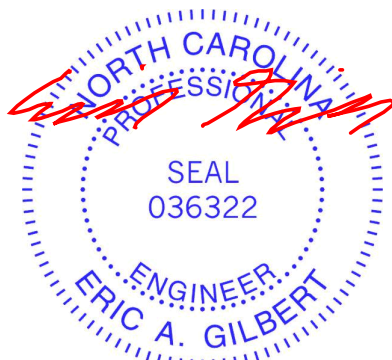
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00

Uniform Loads (plf)

Vert: 12-20=-10, 1-11=-100

Concentrated Loads (lb)

Vert: 22=-90(F)

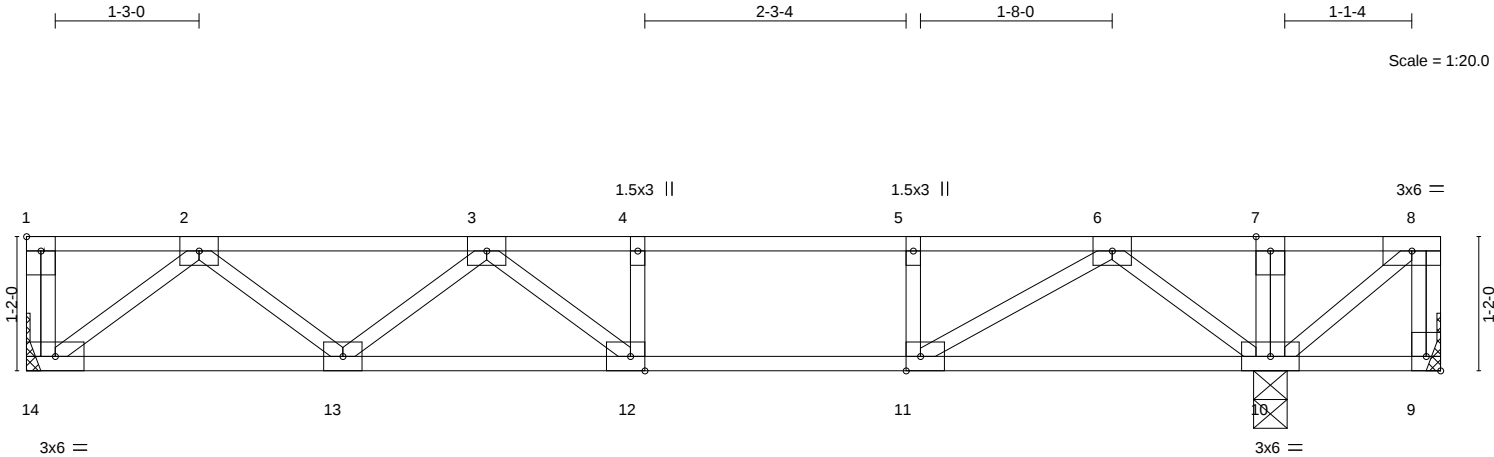


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Job	Truss	Truss Type	Qty	Ply	89 LAKEFOREST TRAIL FLOOR & ROOF
J0125-0519	2F6	Floor	1	1	171269285

Comtech, Inc., Fayetteville, NC - 28314,

8.630 s Sep 26 2024 MiTek Industries, Inc. Thu Feb 6 13:14:39 2025 Page 1
ID:ep5_EG0sxmaxN75H5YdYhJzNaDM-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



10-9-12										12-3-8		
10-9-12										1-5-12		
Plate Offsets (X,Y)-- [1:Edge,0-1-8], [9:Edge,0-1-8], [11:0-1-8,Edge], [12:0-1-8,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	0.52	Vert(LL)	-0.12	12-13	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.54	Vert(CT)	-0.16	12-13	>818	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.40	Horz(CT)	0.02	9	n/a	n/a		
BCDL	5.0	Code IRC2021/TPI2014		Matrix-S							Weight: 64 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) 9=Mechanical, 14=Mechanical, 10=0-3-8
Max Uplift 9=-142(LC 8)
Max Grav 9=322(LC 7), 14=593(LC 3), 10=805(LC 8)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 8-9=-306/145, 2-3=-1113/0, 3-4=-1437/0, 4-5=-1437/0, 5-6=-1437/0, 6-7=-330/253, 7-8=-330/253
BOT CHORD 13-14=0/721, 12-13=0/1435, 11-12=0/1437, 10-11=0/726
WEBS 2-14=-904/0, 2-13=0/511, 3-13=-418/0, 6-10=-828/0, 6-11=0/836, 5-11=-340/0, 8-10=-318/416

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
 - 2) All plates are 3x4 MT20 unless otherwise indicated.
 - 3) Plates checked for a plus or minus 1 degree rotation about its center.
 - 4) Refer to girder(s) for truss to truss connections.
 - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 142 lb uplift at joint 9.
 - 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.
 - 7) CAUTION, Do not erect truss backwards.



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Job	Truss	Truss Type	Qty	Ply	89 LAKEFOREST TRAIL FLOOR & ROOF	171269286
J0125-0519	2F7	Floor	2	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Thu Feb 6 13:14:39 2025 Page 1
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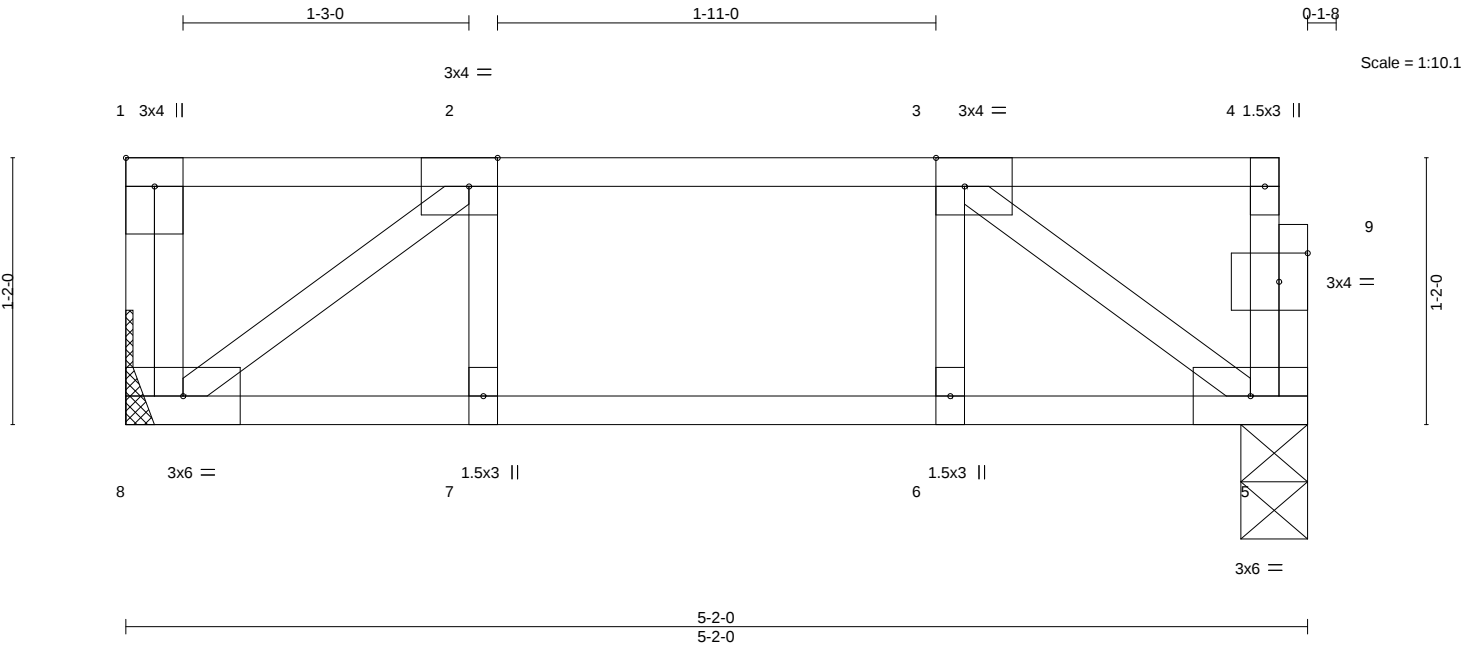


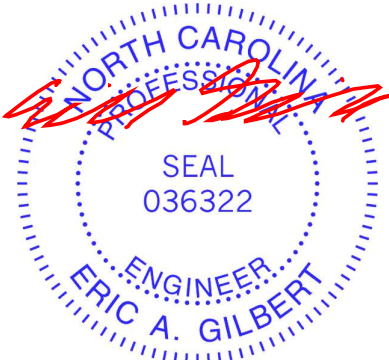
Plate Offsets (X,Y)--		[1:Edge,0-1-8], [2:0-1-8,Edge], [3:0-1-8,Edge], [9:0-1-8,0-1-8]										
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES		GRIP		
TCLL	40.0	Plate Grip DOL	1.00	TC	0.14	Vert(LL)	-0.01	7	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.11	Vert(CT)	-0.01	7	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00	5	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 28 lb	FT = 20%F, 11%E

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1(flat)	TOP CHORD Structural wood sheathing directly applied or 5-2-0 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) 8=Mechanical, 5=0-3-8
Max Grav 8=270(LC 1), 5=264(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-294/0
BOT CHORD 7-8=0/294, 6-7=0/294, 5-6=0/294
WEBS 2-8=-363/0, 3-5=-360/0

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



February 10,2025

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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	89 LAKEFOREST TRAIL FLOOR & ROOF
J0125-0519	2F7GR	Floor Girder	1	1	I71269287

Comtech, Inc., Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Thu Feb 6 13:14:39 2025 Page 1

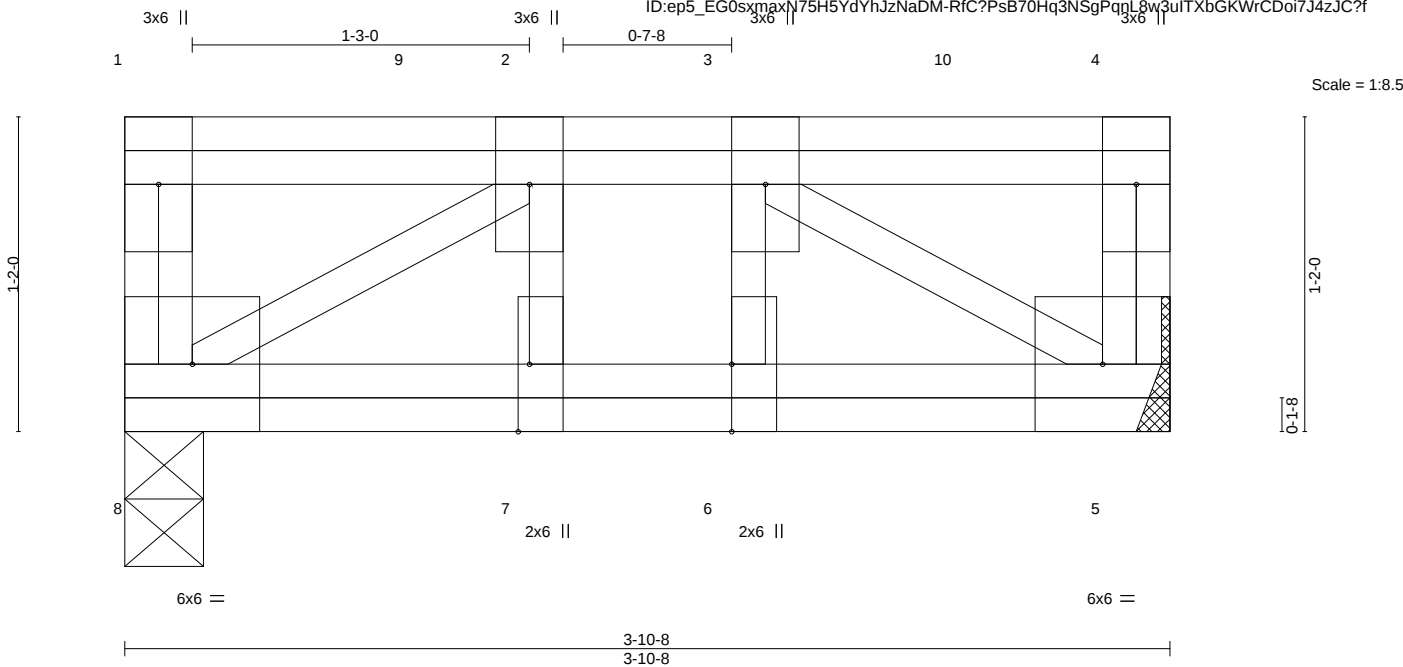


Plate Offsets (X,Y)-- [6:0-3-0,0-0-0], [7:0-3-0,Edge]									
LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.12	in (loc)	I/defl	L/d	GRIP
TCDL	10.0	Lumber DOL	1.00	BC	0.06	Vert(LL)	-0.00	7	>999
BCLL	0.0	Rep Stress Incr	NO	WB	0.10	Vert(CT)	-0.00	7	>999
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S		Horz(CT)	0.00	5	n/a
								Weight: 33 lb	FT = 20%F, 11%E

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.1(flat)	TOP CHORD	Structural wood sheathing directly applied or 3-10-8 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)		

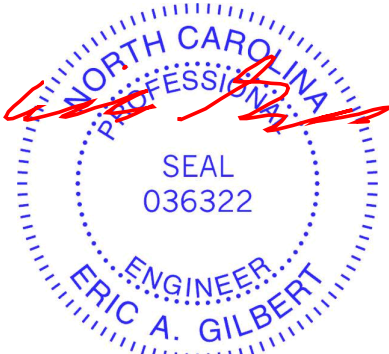
REACTIONS. (size) 8=0-3-8, 5=Mechanical
Max Grav 8=352(LC 1), 5=409(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-368/0
BOT CHORD 7-8=0/368, 6-7=0/368, 5-6=0/368
WEBS 3-5=-436/0, 2-8=-436/0

- NOTES-**
- Unbalanced floor live loads have been considered for this design.
 - Plates checked for a plus or minus 1 degree rotation about its center.
 - Refer to girder(s) for truss to truss connections.
 - 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.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 226 lb down at 1-2-0, and 249 lb down at 3-2-0 on top 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 + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 5-8=-10, 1-4=-100
Concentrated Loads (lb)
Vert: 9=-170(F) 10=-191(F)



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A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	89 LAKEFOREST TRAIL FLOOR & ROOF	I71269288
J0125-0519	2F8	Floor	6	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

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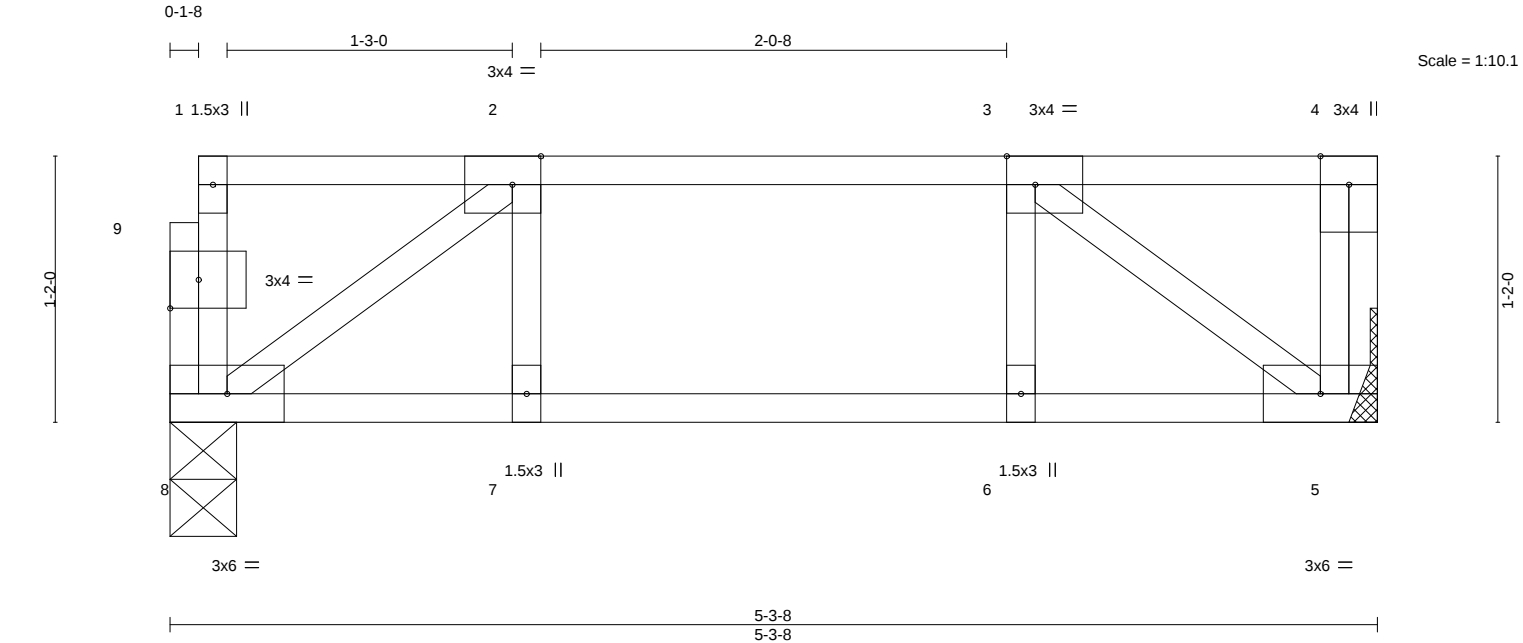


Plate Offsets (X,Y)-- [2:0-1-8,Edge], [3:0-1-8,Edge], [9:0-1-8,0-1-8]						
LOADING (psf)		SPACING-	2-0-0	CSI.	DEFL.	PLATES
TCLL	40.0	Plate Grip DOL	1.00	TC 0.16	in (loc) l/defl L/d	GRIP
TCDL	10.0	Lumber DOL	1.00	BC 0.11	Vert(LL) -0.01 6 >999 480	MT20 244/190
BCLL	0.0	Rep Stress Incr	YES	WB 0.09	Vert(CT) -0.01 6 >999 360	
BCDL	5.0	Code IRC2021/TPI2014		Matrix-S	Horz(CT) 0.00 5 n/a n/a	Weight: 28 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 5-3-8 oc purlins, except end verticals.
WEBS	2x4 SP No.3(flat)	BOT CHORD
		Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 8=0-3-8, 5=Mechanical
Max Grav 8=271(LC 1), 5=277(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-307/0
BOT CHORD 7-8=0/307, 6-7=0/307, 5-6=0/307
WEBS 2-8=-376/0, 3-5=-379/0

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



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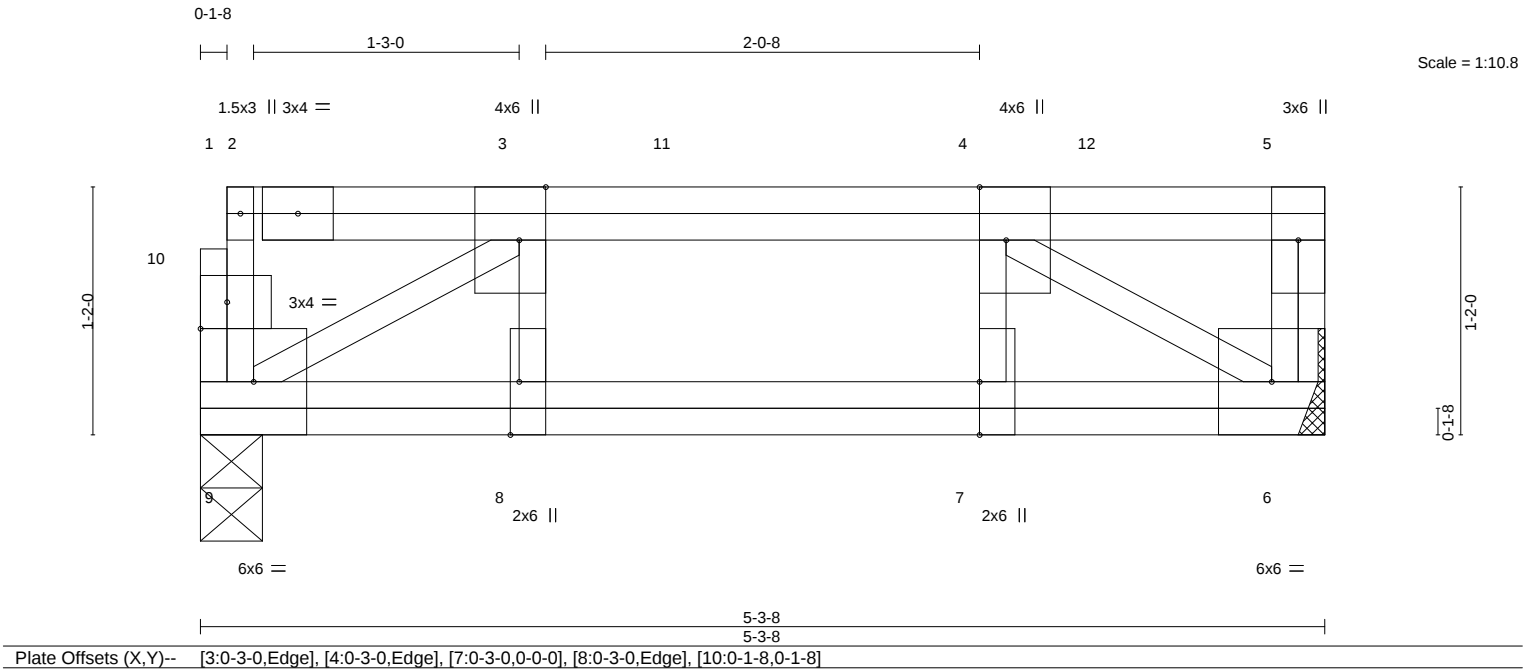
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
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A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	89 LAKEFOREST TRAIL FLOOR & ROOF
J0125-0519	2F8GR	Floor Girder	1	1	171269289
Job Reference (optional)					

Comtech, Inc., Fayetteville, NC - 28314,

8.630 s Sep 26 2024 MiTek Industries, Inc. Thu Feb 6 13:14:40 2025 Page 1
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LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL 1.00	2-0-0	TC 0.51	Vert(LL)	-0.02	7	>999	480	MT20	244/190
TCDL 10.0	Lumber DOL 1.00		BC 0.33	Vert(CT)	-0.03	7	>999	360		
BCLL 0.0	Rep Stress Incr NO		WB 0.45	Horz(CT)	0.01	6	n/a	n/a		
BCDL 5.0	Code IRC2021/TPI2014		Matrix-S						Weight: 41 lb	FT = 20%F, 11%E

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1(flat)	TOP CHORD Structural wood sheathing directly applied or 5-3-8 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) 9=0-3-8, 6=Mechanical
Max Grav 9=1924(LC 1), 6=1420(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-9=-868/0, 5-6=-319/0, 3-4=-1619/0
BOT CHORD 8-9=0/1624, 7-8=0/1619, 6-7=0/1619
WEBS 3-9=-1869/0, 4-6=-1921/0

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
 - 2) Plates checked for a plus or minus 1 degree rotation about its center.
 - 3) Refer to girder(s) for truss to truss connections.
 - 4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
 - 5) CAUTION, Do not erect truss backwards.
 - 6) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1004 lb down at 0-2-4, and 926 lb down at 2-3-8, and 979 lb down at 4-3-8 on top chord. The design/selection of such connection device(s) is the responsibility of others.
 - 7) 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 + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 6-9=-10, 1-5=-100
Concentrated Loads (lb)
Vert: 1=-960(F) 11=-915(F) 12=-921(F)



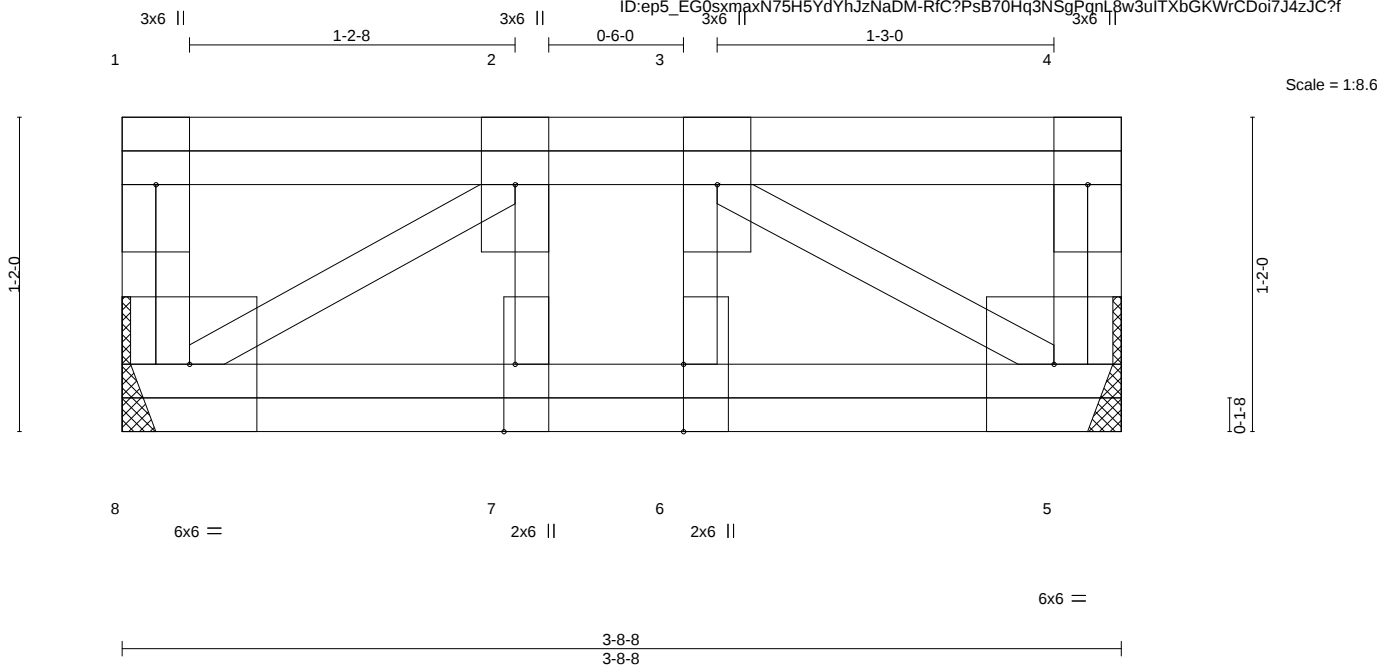
February 10,2025

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.sbcacomponents.com)

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

Job	Truss	Truss Type	Qty	Ply	89 LAKEFOREST TRAIL FLOOR & ROOF
J0125-0519	2F9GR	Floor Girder	3	1	171269290
Job Reference (optional)					

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LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.04	Vert(LL)	-0.00 7 >999 480	MT20		244/190	
TCDL	10.0	Lumber DOL	1.00	BC	0.03	Vert(CT)	-0.00 7 >999 360				
BCLL	0.0	Rep Stress Incr	NO	WB	0.05	Horz(CT)	0.00 5 n/a n/a				
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S				Weight: 32 lb		FT = 20%F, 11%E	

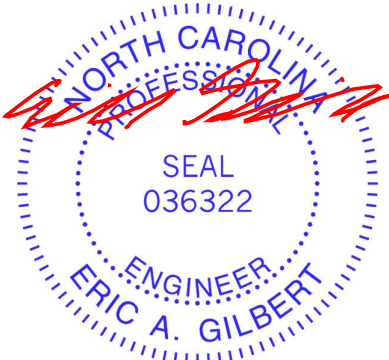
LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.1(flat)	TOP CHORD	Structural wood sheathing directly applied or 3-8-8 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.1(flat)	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SP No.3(flat)		

REACTIONS. (size) 8=Mechanical, 5=Mechanical
Max Grav 8=190(LC 1), 5=190(LC 1)

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

NOTES-

- Unbalanced floor live loads have been considered for this design.
- Plates checked for a plus or minus 1 degree rotation about its center.
- Refer to girder(s) for truss to truss connections.
- 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.



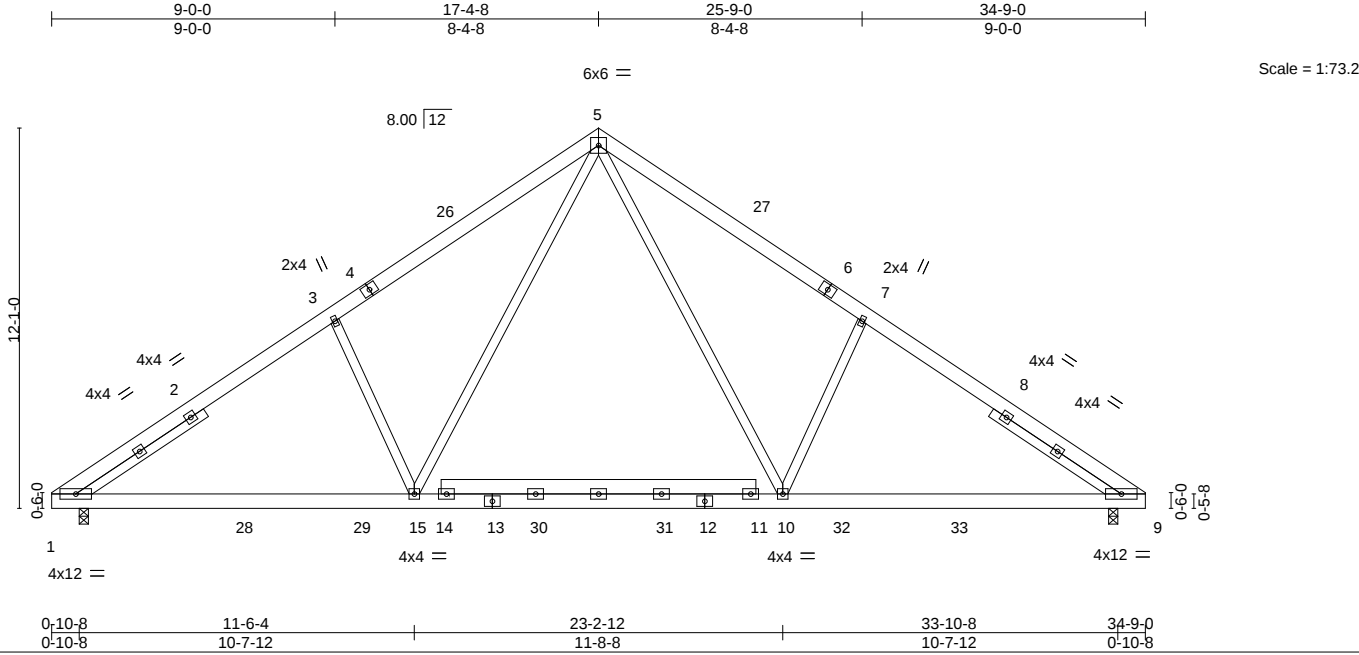
February 10,2025

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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	89 LAKEFOREST TRAIL FLOOR & ROOF
J0125-0519	A1	Common	8	1	171269291

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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 0.25	Vert(LL)	-0.14 10-15	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.62	Vert(CT)	-0.27 10-15	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.28	Horz(CT)	0.06 9	n/a	n/a		
BCDL 10.0	Code IRC2021/TPI2014	Matrix-AS	Wind(LL)	0.04 10-15	>999	240		
							Weight: 272 lb	FT = 25%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.2	
SLIDER Left 2x4 SP No.2 4-10-8, Right 2x4 SP No.2 4-10-8	

REACTIONS. (size) 1=0-3-8, 9=0-3-8
Max Horz 1=261(LC 9)
Max Grav 1=1776(LC 19), 9=1776(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-3=-2201/260, 3-5=-2187/367, 5-7=-2186/367, 7-9=-2201/260
BOT CHORD 1-15=-115/1991, 10-15=0/1327, 9-10=-102/1800
WEBS 5-10=-91/1118, 7-10=-396/313, 5-15=-90/1118, 3-15=-395/312

- 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) 1-0-4 to 5-5-1, Interior(1) 5-5-1 to 17-4-8, Exterior(2R) 17-4-8 to 21-9-5, Interior(1) 21-9-5 to 33-8-12 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 135.0lb AC unit load placed on the bottom chord, 17-4-8 from left end, supported at two points, 4-0-0 apart.
 - All plates are 4x6 MT20 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.
 - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	89 LAKEFOREST TRAIL FLOOR & ROOF	171269292
J0125-0519	A1SGE	Common	1	1	Job Reference (optional)	

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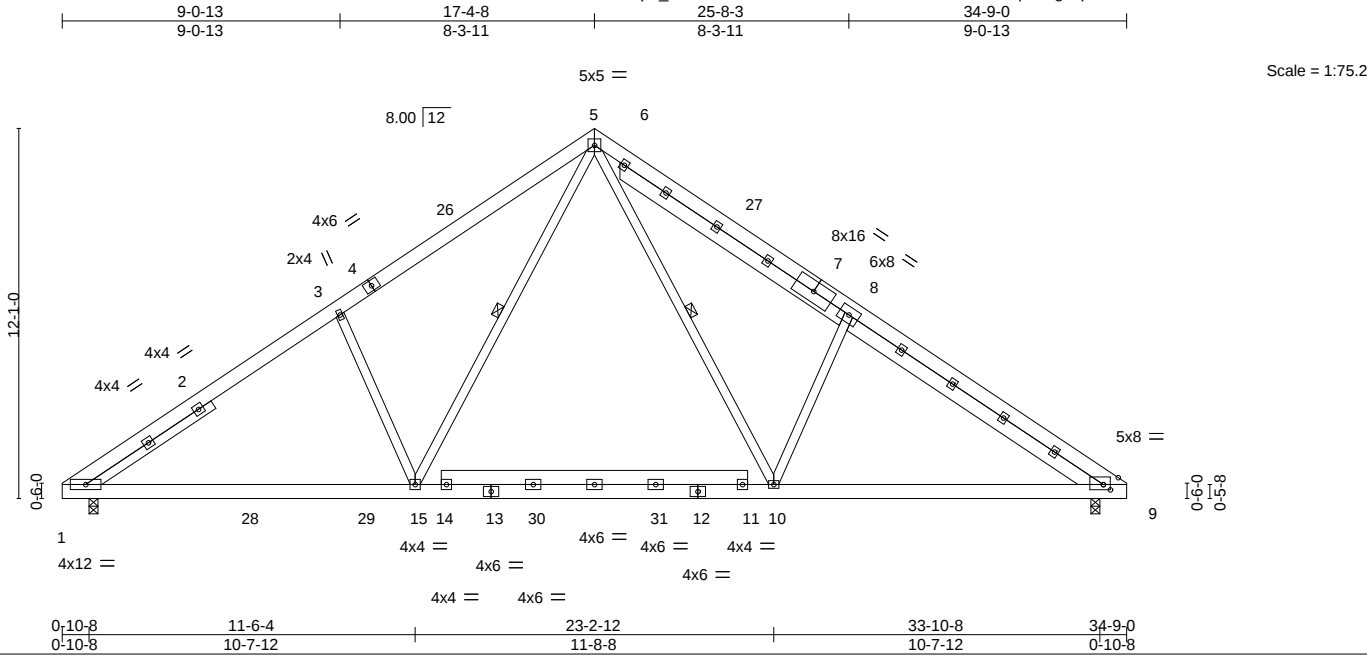


Plate Offsets (X,Y)--		[9:0-2-12,0-2-1]													
LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP					
TCLL	20.0	Plate Grip DOL		TC	0.45	Vert(LL)	-0.14 10-15 >999 360	MT20		244/190					
TCDL	10.0	Lumber DOL		BC	0.63	Vert(CT)	-0.27 10-15 >999 240								
BCLL	0.0 *	Rep Stress Incr		WB	0.31	Horz(CT)	0.06 9 n/a n/a								
BCDL	10.0	Code IRC2021/TPI2014		Matrix-AS		Wind(LL)	0.05 10-15 >999 240								
								Weight: 309 lb		FT = 25%					

LUMBER-		BRACING-	
TOP CHORD	2x6 SP No.1	TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	2x6 SP No.1	BOT CHORD	Rigid ceiling directly applied.
WEBS	2x4 SP No.2 *Except*	WEBS	1 Row at midpt 5-10, 5-15
SLIDER	Left 2x4 SP No.2 4-11-0		

REACTIONS. (size) 1=0-3-8, 9=0-3-8
Max Horz 1=-327(LC 8)
Max Uplift 1=-170(LC 12), 9=-170(LC 13)
Max Grav 1=1753(LC 19), 9=1688(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-3=-2149/261, 3-5=-2153/383, 5-8=-2110/383, 8-9=-2220/257
BOT CHORD 1-15=-292/2002, 10-15=-45/1308, 9-10=-104/1720
WEBS 5-10=-221/1071, 8-10=-439/439, 5-15=-217/1167, 3-15=-426/426

- 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) gable end zone and C-C Exterior(2E) 1-0-4 to 5-5-1, Interior(1) 5-5-1 to 17-4-8, Exterior(2R) 17-4-8 to 21-9-5, Interior(1) 21-9-5 to 33-8-12 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 135.0lb AC unit load placed on the bottom chord, 17-4-8 from left end, supported at two points, 4-0-0 apart.
 - All plates are 3x4 MT20 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 170 lb uplift at joint 1 and 170 lb uplift at joint 9.
 - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



February 10,2025

Job	Truss	Truss Type	Qty	Ply	89 LAKEFOREST TRAIL FLOOR & ROOF
J0125-0519	A2	Roof Special	4	1	171269293
Job Reference (optional)					

Comtech, Inc., Fayetteville, NC - 28314,

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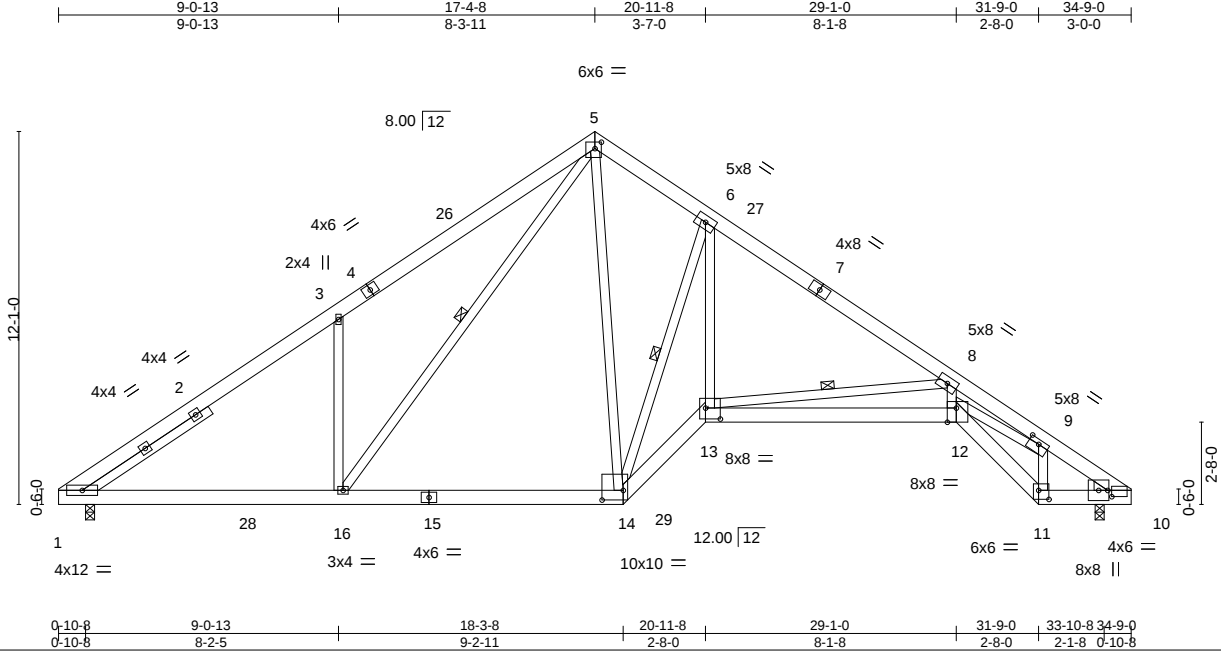


Plate Offsets (X,Y)--		[5:0-2-8,0-2-8], [9:0-4-0,0-1-12], [10:0-1-9,0-2-7], [11:0-4-0,0-3-8], [12:0-3-8,Edge], [13:0-5-12,0-4-4], [14:0-8-4,0-3-12]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 20.0	Plate Grip DOL	1.15	TC 0.40
TCDL 10.0	Lumber DOL	1.15	BC 0.84
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.99
BCDL 10.0	Code	IRC2021/TPI2014	Matrix-AS
		DEFL.	in (loc) l/defl L/d
		Vert(LL)	-0.36 12-13 >999 360
		Vert(CT)	-0.64 12-13 >648 240
		Horz(CT)	0.46 10 n/a n/a
		Wind(LL)	0.17 12-13 >999 240
		PLATES	MT20
		GRIP	244/190
		Weight:	281 lb
		FT =	25%

LUMBER-		BRACING-	
TOP CHORD	2x6 SP No.1	TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	2x6 SP No.1	BOT CHORD	Rigid ceiling directly applied.
WEBS	2x4 SP No.2	WEBS	1 Row at midpt 5-16, 6-14, 8-13
WEDGE			
Right: 2x4 SP No.1			
SLIDER	Left 2x4 SP No.2 4-10-13		

REACTIONS.	(size) 1=0-3-8, 10=0-3-8
	Max Horz 1=-261(LC 8)
	Max Uplift 1=-55(LC 12), 10=-55(LC 13)
	Max Grav 1=1668(LC 19), 10=1586(LC 20)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-3=-2085/354, 3-5=-2249/607, 5-6=-1548/456, 6-8=-2388/408, 8-9=-6151/883, 9-10=-1851/295
BOT CHORD	1-16=-188/1885, 14-16=-1/1253, 13-14=-167/2826, 12-13=-642/4756, 11-12=-210/1591, 10-11=-190/1354
WEBS	3-16=-459/373, 5-16=-320/1084, 5-14=-174/1000, 6-14=-2547/346, 6-13=-134/2541, 8-13=-2962/541, 8-12=-195/2363, 9-12=-524/4050, 9-11=-1185/163

- 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) 1-0-4 to 5-5-1, Interior(1) 5-5-1 to 17-4-8, Exterior(2R) 17-4-8 to 21-9-5, Interior(1) 21-9-5 to 33-8-12 zone; cantilever 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, with BCDL = 10.0psf.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 55 lb uplift at joint 1 and 55 lb uplift at joint 10.
 - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



February 10,2025

Job	Truss	Truss Type	Qty	Ply	89 LAKEFOREST TRAIL FLOOR & ROOF
J0125-0519	A2A	Roof Special	1	1	171269294

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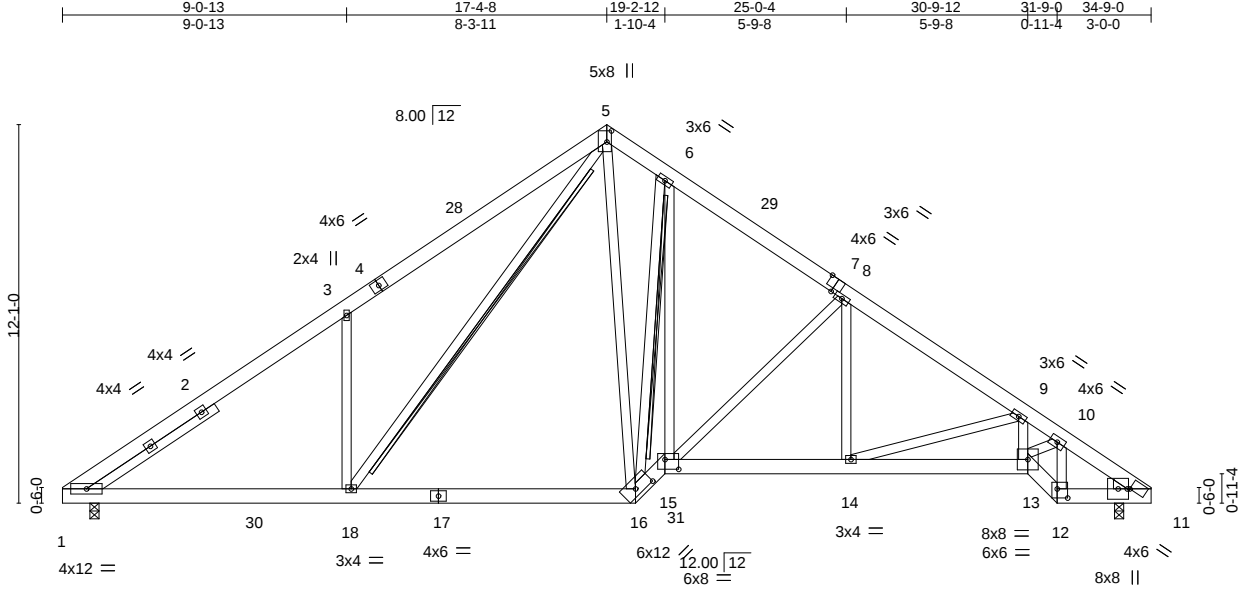


Plate Offsets (X,Y)--	[5:0-4-4,0-1-12], [7:0-3-0,Edge], [11:0-0-13,Edge], [12:0-4-0,0-3-8], [15:0-5-4,0-3-12], [16:0-6-12,0-2-8]
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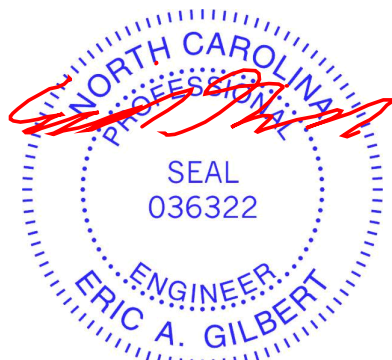
LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.25	Vert(LL) -0.14	16-18	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.48	Vert(CT) -0.23	16-18	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.85	Horz(CT) 0.11	11	n/a	n/a		
BCDL 10.0	Code IRC2021/TPI2014	Matrix-AS	Wind(LL) 0.06	14-15	>999	240	Weight: 296 lb	FT = 25%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.2	WEBS T-Brace: 2x4 SPF No.2 - 5-18, 6-16
WEDGE	Fasten (2X) T and I braces to narrow edge of web with 10d
Right: 2x4 SP No.1	(0.131"x3") nails, 6in o.c., with 3in minimum end distance.
SLIDER Left 2x4 SP No.2 4-10-13	Brace must cover 90% of web length.

REACTIONS.	(size)
1=0-3-8, 11=0-3-8	
Max Horz 1=261(LC 9)	
Max Uplift 1=-55(LC 12), 11=-55(LC 13)	
Max Grav 1=1668(LC 19), 11=1586(LC 20)	

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-3=-2074/353, 3-5=-2233/603, 5-6=-1436/440, 6-8=-1722/402, 8-9=-2281/401, 9-10=-2719/425, 10-11=-1713/277
BOT CHORD	1-18=-187/1876, 16-18=-4/1270, 15-16=-28/1447, 14-15=-180/1866, 13-14=-335/2351, 12-13=-206/1572, 11-12=-173/1207
WEBS	3-18=-449/367, 5-18=-313/1040, 5-16=-154/892, 6-16=-1021/196, 6-15=-107/1097, 8-15=-817/215, 8-14=0/498, 9-14=-557/163, 10-13=-227/1667, 10-12=-1284/169

- 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) 1-0-4 to 5-5-1, Interior(1) 5-5-1 to 17-4-8, Exterior(2R) 17-4-8 to 21-9-5, Interior(1) 21-9-5 to 33-8-12 zone; cantilever 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, with BCDL = 10.0psf.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 55 lb uplift at joint 1 and 55 lb uplift at joint 11.
 - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
 - Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



February 10,2025

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	89 LAKEFOREST TRAIL FLOOR & ROOF
J0125-0519	A3	Hip	1	1	171269296

Comtech, Inc., Fayetteville, NC - 28314,

8.630 s Sep 26 2024 MiTek Industries, Inc. Thu Feb 6 13:14:44 2025 Page 1

ID:ep5_EG0sxmaxN75H5YdYhJzNaDM-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWwRCDoi7J4zJC?f

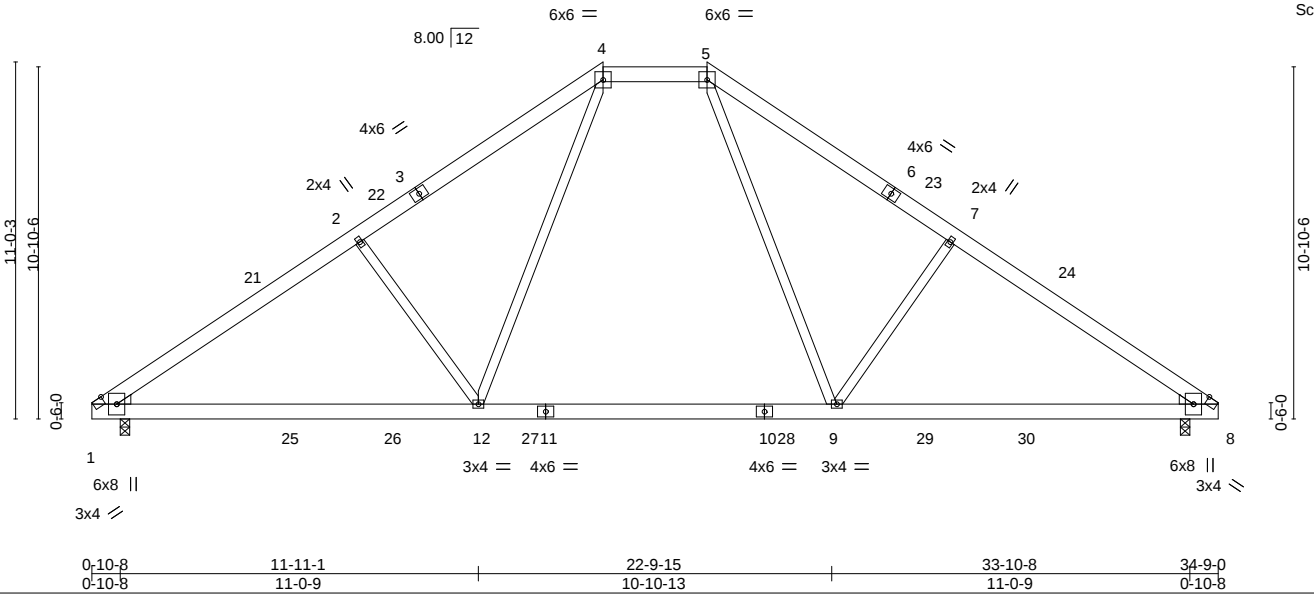


Plate Offsets (X,Y)--		[1:0-3-6,Edge], [8:0-3-6,Edge]							
LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES	
TCLL	20.0	Plate Grip DOL	1.15	TC	0.32	Vert(LL)	-0.24 9-12 >999 360	MT20	GRIP 244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.57	Vert(CT)	-0.35 9-12 >999 240	Weight: 229 lb FT = 25%	
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.28	Horz(CT)	0.05 8 n/a n/a		
BCDL	10.0	Code IRC2021/TPI2014		Matrix-AS		Wind(LL)	0.07 12 >999 240		

LUMBER-		BRACING-	
TOP CHORD	2x6 SP No.1	TOP CHORD	Structural wood sheathing directly applied, except
BOT CHORD	2x6 SP No.1		2-0-0 oc purlins (6-0-0 max.): 4-5.
WEBS	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied.
WEDGE			
Left: 2x4 SP No.1 , Right: 2x4 SP No.2			

REACTIONS. (size) 1=0-3-8, 8=0-3-8
Max Horz 1=234(LC 9)
Max Uplift 1=-49(LC 12), 8=-49(LC 13)
Max Grav 1=1688(LC 19), 8=1687(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-2189/280, 2-4=-1989/319, 4-5=-1277/329, 5-7=-1994/340, 7-8=-2191/291
BOT CHORD 1-12=-194/1872, 9-12=-35/1344, 8-9=-138/1697
WEBS 2-12=-375/252, 4-12=-70/904, 5-9=-73/901, 7-9=-374/253

- 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) 1-0-4 to 5-5-1, Interior(1) 5-5-1 to 15-9-4, Exterior(2E) 15-9-4 to 18-11-12, Exterior(2R) 18-11-12 to 25-2-7, Interior(1) 25-2-7 to 33-8-12 zone; cantilever left and right exposed ;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 49 lb uplift at joint 1 and 49 lb uplift at joint 8.
 - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

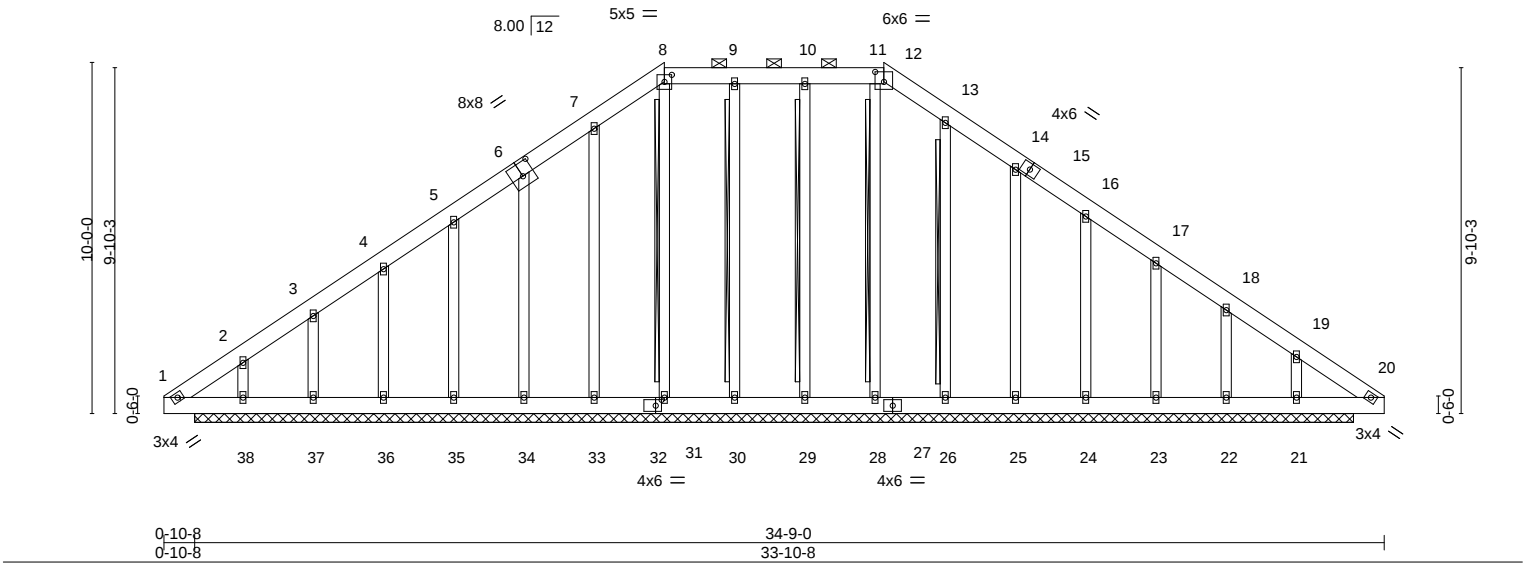


February 10,2025

Job	Truss	Truss Type	Qty	Ply	89 LAKEFOREST TRAIL FLOOR & ROOF
J0125-0519	A4GE	Hip Supported Gable	1	1	171269297
Job Reference (optional)					

Comtech, Inc., Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Thu Feb 6 13:14:45 2025 Page 1
ID:ep5_EG0sxmaxN75H5YdYhJzNaDM-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f
14-3-0 14-3-0 20-6-0 6-3-0 34-9-0 14-3-0

Scale = 1:65.6



LOADING (psf)		SPACING-		CSL		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	MT20		244/190	
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	n/a				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.17	Horz(CT)	0.00				
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S							
								Weight: 309 lb		FT = 25%	

LUMBER-		BRACING-	
TOP CHORD	2x6 SP No.1	TOP CHORD	Structural wood sheathing directly applied or 10-0-0 oc purlins, except
BOT CHORD	2x6 SP No.1		2-0-0 oc purlins (10-0-0 max.): 8-12.
OTHERS	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
		WEBS	T-Brace: 2x4 SPF No.2 - 8-31, 9-30, 10-29, 11-28, 13-26
			Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c., with 3in minimum end distance.
			Brace must cover 90% of web length.

REACTIONS.	
All bearings 33-0-0.	
(lb) - Max Horz 38=-283(LC 8)	
Max Uplift All uplift 100 lb or less at joint(s) 33, 34, 35, 36, 30, 29, 26, 25, 24, 23, 21 except 37=-220(LC 12), 38=-129(LC 13), 22=-188(LC 13)	
Max Grav All reactions 250 lb or less at joint(s) 31, 33, 34, 35, 36, 30, 29, 28, 26, 25, 24, 23, 22 except 37=257(LC 10), 38=344(LC 20), 21=325(LC 19)	
FORCES.	
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD 6-7=-119/297, 7-8=-153/352, 8-9=-138/325, 9-10=-137/324, 10-11=-137/324, 11-12=-134/309, 12-13=-151/345, 13-14=-125/309	

- 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) gable end zone and C-C Corner(3E) 0-0-1 to 4-3-0, Exterior(2N) 4-3-0 to 14-3-0, Corner(3R) 14-3-0 to 18-7-13, Exterior(2N) 18-7-13 to 20-6-0, Corner(3R) 20-6-0 to 24-10-13, Exterior(2N) 24-10-13 to 34-8-15 zone; cantilever 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.
 - Provide adequate drainage to prevent water ponding.
 - 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 100 lb uplift at joint(s) 33, 34, 35, 36, 30, 29, 26, 25, 24, 23, 21 except (jt=lb) 37=220, 38=129, 22=188.
 - Non Standard bearing condition. Review required.
 - 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.



February 10,2025

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	89 LAKEFOREST TRAIL FLOOR & ROOF
J0125-0519	B1	Common	1	1	171269298

Comtech, Inc., Fayetteville, NC - 28314,

8.630 s Sep 26 2024 MiTek Industries, Inc. Thu Feb 6 13:14:45 2025 Page 1

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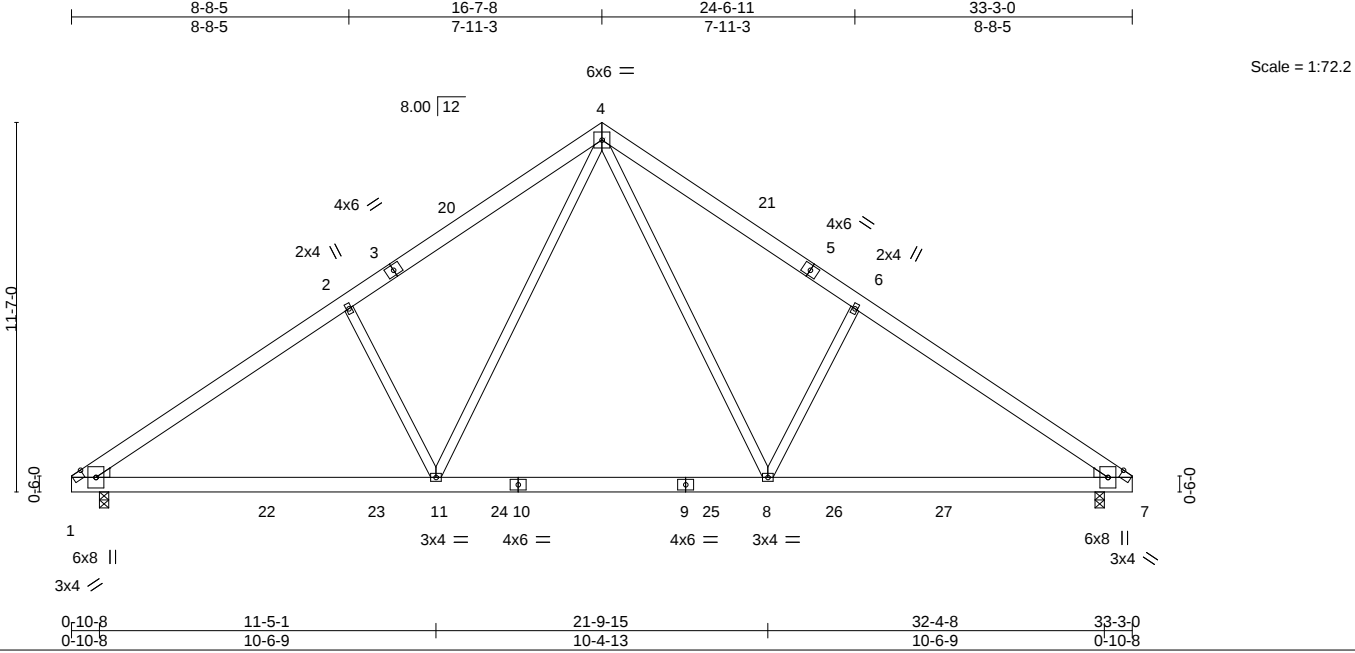


Plate Offsets (X,Y)-- [1:0-3-6,Edge], [7:0-3-6,Edge]									
LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES	
TCLL	20.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	-0.19 8-11 >999 360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.29 8-11 >999 240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.37	Horz(CT)	0.04 7 n/a n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.05 8-11 >999 240	Weight: 225 lb	FT = 25%

LUMBER-		BRACING-	
TOP CHORD	2x6 SP No.1	TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	2x6 SP No.1	BOT CHORD	Rigid ceiling directly applied.
WEBS	2x4 SP No.2		
WEDGE			
Left: 2x4 SP No.1 , Right: 2x4 SP No.2			

REACTIONS. (size) 1=0-3-8, 7=0-3-8

Max Horz 1=249(LC 9)

Max Uplift 1=-52(LC 12), 7=-52(LC 13)

Max Grav 1=1630(LC 19), 7=1630(LC 20)

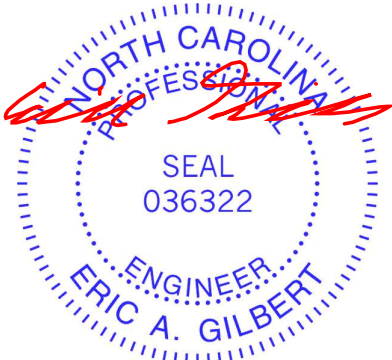
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 1-2=-2094/359, 2-4=-1939/447, 4-6=-1940/447, 6-7=-2095/359

BOT CHORD 1-11=-200/1799, 8-11=-11/1216, 7-8=-186/1618

WEBS 4-8=-143/964, 6-8=-392/289, 4-11=-143/964, 2-11=-392/289

- 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) 1-0-4 to 5-5-1, Interior(1) 5-5-1 to 16-7-8, Exterior(2R) 16-7-8 to 21-0-5, Interior(1) 21-0-5 to 32-2-12 zone; cantilever 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, with BCDL = 10.0psf.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7.
 - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



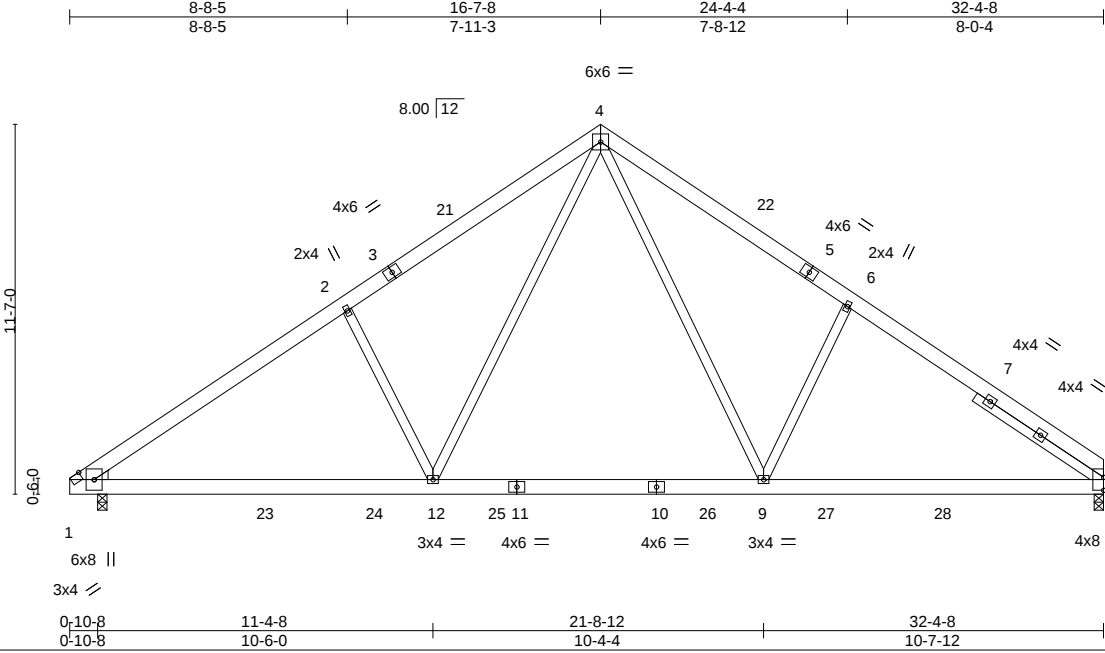
February 10,2025

Job	Truss	Truss Type	Qty	Ply	89 LAKEFOREST TRAIL FLOOR & ROOF	171269299
J0125-0519	B2	Common	5	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.630 s Sep 26 2024 MiTek Industries, Inc. Thu Feb 6 13:14:46 2025 Page 1

ID:ep5_EG0sxmaxN75H5YdYhJzNaDM-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCCL	20.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	-0.17 9-12 >999 360	MT20		244/190	
TCDL	10.0	Lumber DOL	1.15	BC	0.54	Vert(CT)	-0.25 9-12 >999 240				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.40	Horz(CT)	0.04 8 n/a n/a				
BCDL	10.0	Code IRC2021/TPI2014		Matrix-AS		Wind(LL)	0.04 9-12 >999 240				
								Weight: 228 lb		FT = 25%	

LUMBER-		BRACING-	
TOP CHORD	2x6 SP No.1	TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	2x6 SP No.1	BOT CHORD	Rigid ceiling directly applied.
WEBS	2x4 SP No.2		
WEDGE			
Left: 2x4 SP No.1			
SLIDER	Right 2x4 SP No.2 4-9-7		

REACTIONS.	
(size)	1=0-3-8, 8=0-3-8
Max Horz	1=-252(LC 8)
Max Uplift	1=-51(LC 12), 8=-65(LC 13)
Max Grav	1=1639(LC 19), 8=1604(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD	1-2=-2107/360, 2-4=-1955/450, 4-6=-1983/456, 6-8=-1959/363
BOT CHORD	1-12=-197/1811, 9-12=-8/1230, 8-9=-181/1655
WEBS	2-12=-394/290, 4-12=-144/953, 4-9=-154/1027, 6-9=-411/288

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 1-0-4 to 5-5-1, Interior(1) 5-5-1 to 16-7-8, Exterior(2R) 16-7-8 to 21-0-5, Interior(1) 21-0-5 to 32-4-8 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 4) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 8.
 - 6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



February 10,2025

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.sbcacompoments.com)

ENGINEERING BY
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	89 LAKEFOREST TRAIL FLOOR & ROOF
J0125-0519	B3	Hip	1	1	171269300

Comtech, Inc., Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Thu Feb 6 13:14:46 2025 Page 1

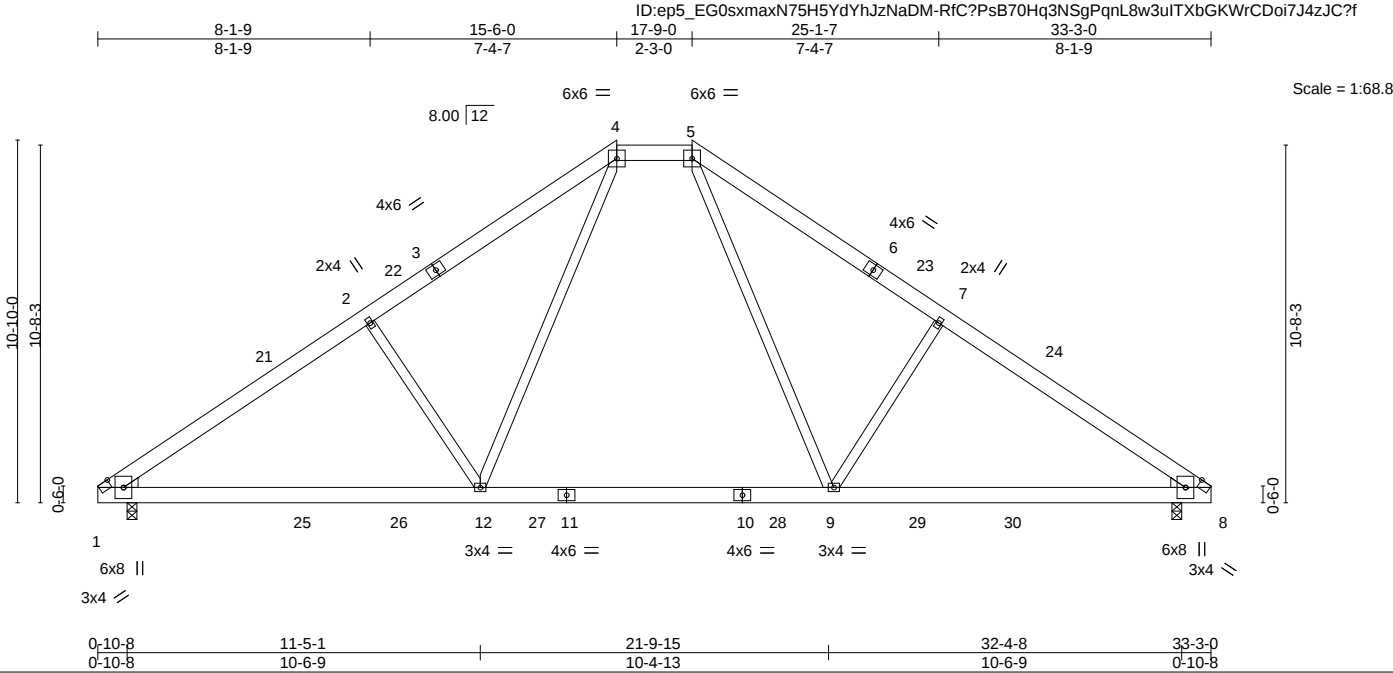


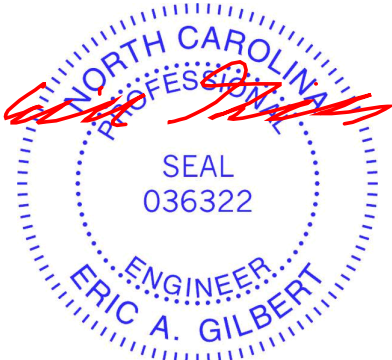
Plate Offsets (X,Y)--		[1:0-3-6,Edge], [8:0-3-6,Edge]									
LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL 20.0		Plate Grip DOL 1.15		TC 0.31		Vert(LL) -0.21 9-12 >999 360		MT20		244/190	
TCDL 10.0		Lumber DOL 1.15		BC 0.53		Vert(CT) -0.30 9-12 >999 240					
BCLL 0.0 *		Rep Stress Incr YES		WB 0.24		Horz(CT) 0.04 8 n/a n/a					
BCDL 10.0		Code IRC2021/TPI2014		Matrix-AS		Wind(LL) 0.05 9-12 >999 240		Weight: 221 lb		FT = 25%	

LUMBER-		BRACING-	
TOP CHORD 2x6 SP No.1		TOP CHORD Structural wood sheathing directly applied, except	
BOT CHORD 2x6 SP No.1		2-0-0 oc purlins (6-0-0 max.): 4-5.	
WEBS 2x4 SP No.2		BOT CHORD Rigid ceiling directly applied.	
WEDGE			
Left: 2x4 SP No.1 , Right: 2x4 SP No.1			

REACTIONS.		(size) 1=0-3-8, 8=0-3-8
		Max Horz 1=-230(LC 8)
		Max Uplift 1=-48(LC 12), 8=-48(LC 13)
		Max Grav 1=1608(LC 19), 8=1607(LC 20)

FORCES.		(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD		1-2=-2073/260, 2-4=-1891/312, 4-5=-1188/313, 5-7=-1897/327, 7-8=-2074/273
BOT CHORD		1-12=-178/1773, 9-12=-24/1255, 8-9=-126/1601
WEBS		2-12=-360/243, 4-12=-79/877, 5-9=-83/875, 7-9=-360/244

- 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) 1-0-4 to 5-5-1, Interior(1) 5-5-1 to 15-6-0, Exterior(2E) 15-6-0 to 17-9-0, Exterior(2R) 17-9-0 to 23-11-11, Interior(1) 23-11-11 to 32-2-12 zone; cantilever left and right exposed ;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 100 lb uplift at joint(s) 1, 8.
 - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 10,2025

Comtech, Inc. Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Thu Feb 6 13:14:47 2025 Page 1
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13-6-0 19-9-0 33-3-0
13-6-0 6-3-0 13-6-0



LUMBER-	TOP CHORD	2x6 SP No.1	BOT CHORD	2x6 SP No.1	OTHERS	2x4 SP No.2																																																																																																																																																											
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FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 6-8=-150/261, 8-9=-173/299, 9-10=-153/270, 10-11=-157/284, 11-12=-157/284,
12-13=-158/285, 13-14=-177/305

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

WARNING – Verify design parameters and READ NOTES ON THIS AND INCLUDED MITER REFERENCE PAGE MIT-17-19 (Rev. 1/2/2025) BEFORE USE.

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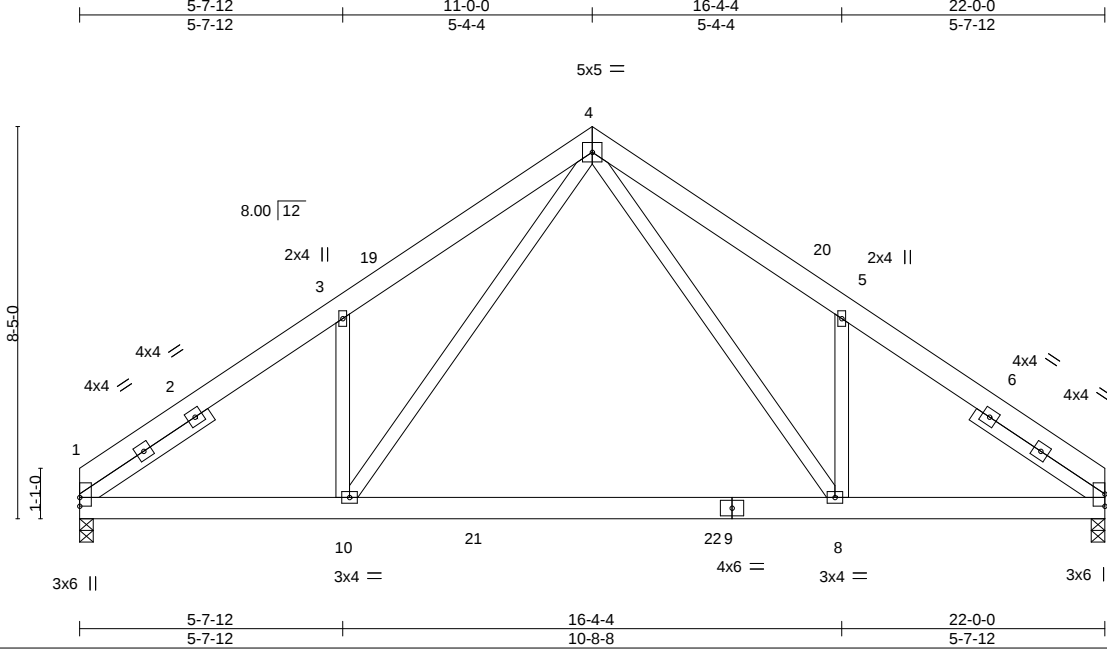
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	89 LAKEFOREST TRAIL FLOOR & ROOF
J0125-0519	C1	Common	2	1	171269302

Comtech, Inc., Fayetteville, NC - 28314,

8.630 s Sep 26 2024 MiTek Industries, Inc. Thu Feb 6 13:14:48 2025 Page 1

ID:ep5_EG0sxmaxN75H5YdYhJzNaDM-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



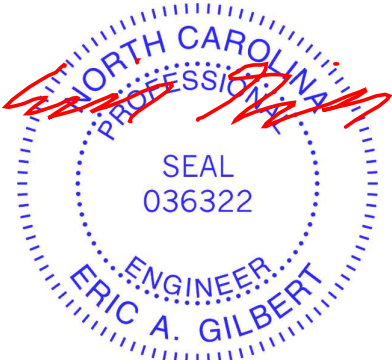
LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.11	Vert(LL)	-0.19	8-10	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.49	Vert(CT)	-0.29	8-10	>925	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.27	Horz(CT)	0.02	7	n/a	n/a		
BCDL 10.0	Code IRC2021/TPI2014	Matrix-AS	Wind(LL)	0.02	8-10	>999	240		
								Weight: 163 lb	FT = 25%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.2	
SLIDER Left 2x4 SP No.2 3-4-2, Right 2x4 SP No.2 3-4-2	

REACTIONS. (size) 1=0-3-8, 7=0-3-8
Max Horz 1=176(LC 9)
Max Uplift 1=-45(LC 12), 7=-45(LC 13)
Max Grav 1=1058(LC 19), 7=1058(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-3=-1411/225, 3-4=-1436/392, 4-5=-1437/392, 5-7=-1411/225
BOT CHORD 1-10=-119/1230, 8-10=-21/787, 7-8=-102/1112
WEBS 4-8=-174/791, 5-8=-268/253, 4-10=-174/791, 3-10=-268/253

- 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) 0-0-0 to 4-4-13, Interior(1) 4-4-13 to 11-0-0, Exterior(2R) 11-0-0 to 15-4-13, Interior(1) 15-4-13 to 22-0-0 zone; cantilever 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, with BCDL = 10.0psf.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7.
 - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



February 10, 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
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	89 LAKEFOREST TRAIL FLOOR & ROOF	I71269303
J0125-0519	C1GE	GABLE	1	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Thu Feb 6 13:14:48 2025 Page 1
ID:ep5_EG0sxmaxN75H5YdYhJzNaDM-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

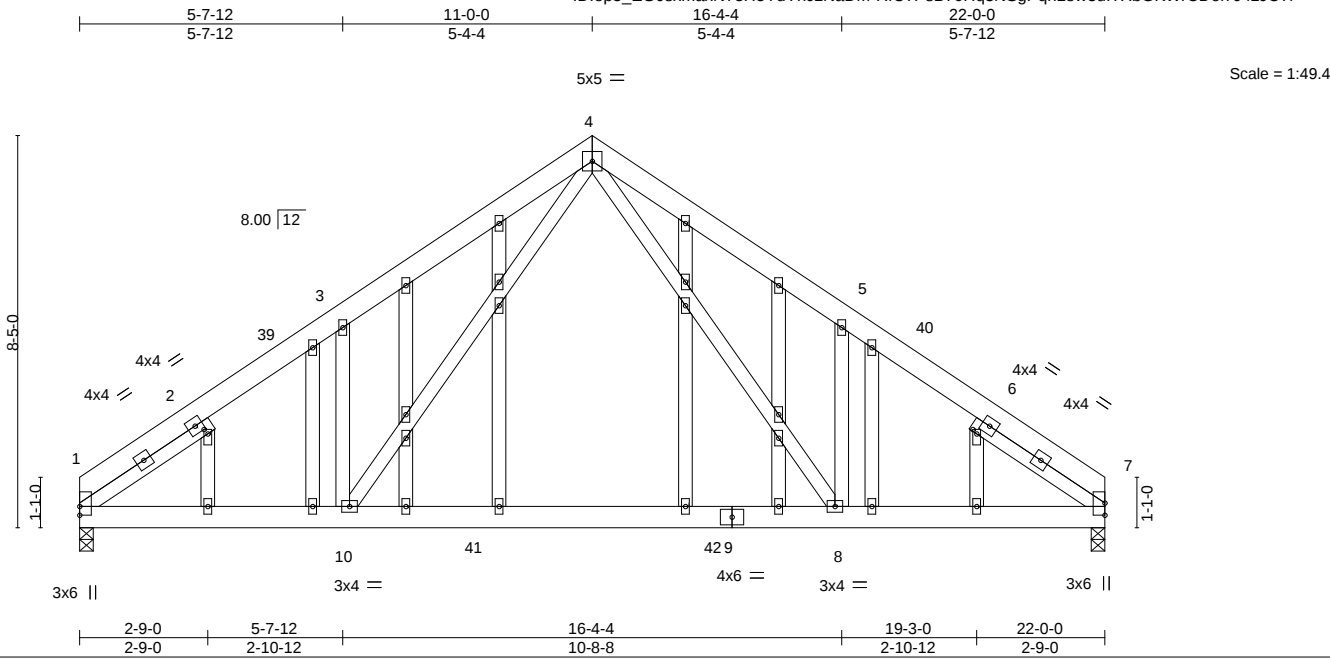


Plate Offsets (X,Y)--		[28:0-1-2,0-1-0], [29:0-1-2,0-1-0]									
LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	-0.19 8-10 >999 360	MT20		244/190	
TCDL	10.0	Lumber DOL	1.15	BC	0.49	Vert(CT)	-0.29 8-10 >925 240				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.42	Horz(CT)	0.02 7 n/a n/a				
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.02 8-10 >999 240				
								Weight: 211 lb		FT = 25%	

LUMBER-		BRACING-	
TOP CHORD	2x6 SP No.1	TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	2x6 SP No.1	BOT CHORD	Rigid ceiling directly applied.
WEBS	2x4 SP No.2		
OTHERS	2x4 SP No.2		
SLIDER	Left 2x4 SP No.2 3-4-2, Right 2x4 SP No.2 3-4-2		

REACTIONS.		(size) 1=0-3-8, 7=0-3-8
		Max Horz 1=176(LC 9)
		Max Uplift 1=-45(LC 12), 7=-45(LC 13)
		Max Grav 1=1058(LC 19), 7=1058(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD	1-3=-1411/356, 3-4=-1436/573, 4-5=-1436/573, 5-7=-1411/356
BOT CHORD	1-10=-199/1230, 8-10=-47/787, 7-8=-181/1112
WEBS	4-8=-271/791, 5-8=-267/326, 4-10=-271/791, 3-10=-267/326

- 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 Corner(3E) 0-0-0 to 4-4-13, Exterior(2N) 4-4-13 to 11-0-0, Corner(3R) 11-0-0 to 15-4-13, Exterior(2N) 15-4-13 to 22-0-0 zone; cantilever 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, with BCDL = 10.0psf.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7.
 - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



February 10,2025

Job	Truss	Truss Type	Qty	Ply	89 LAKEFOREST TRAIL FLOOR & ROOF	171269304
J0125-0519	C1GR	COMMON GIRDER	1	3	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.630 s Aug 30 2023 MiTek Industries, Inc. Mon Feb 10 17:25:14 2025 Page 1
ID:ep5_EG0sxmaxN75H5YdYhJzNaDM-LOQr5fiY5q3_1i1ODirbeK4uOQzI4t3i0usp84zm3p

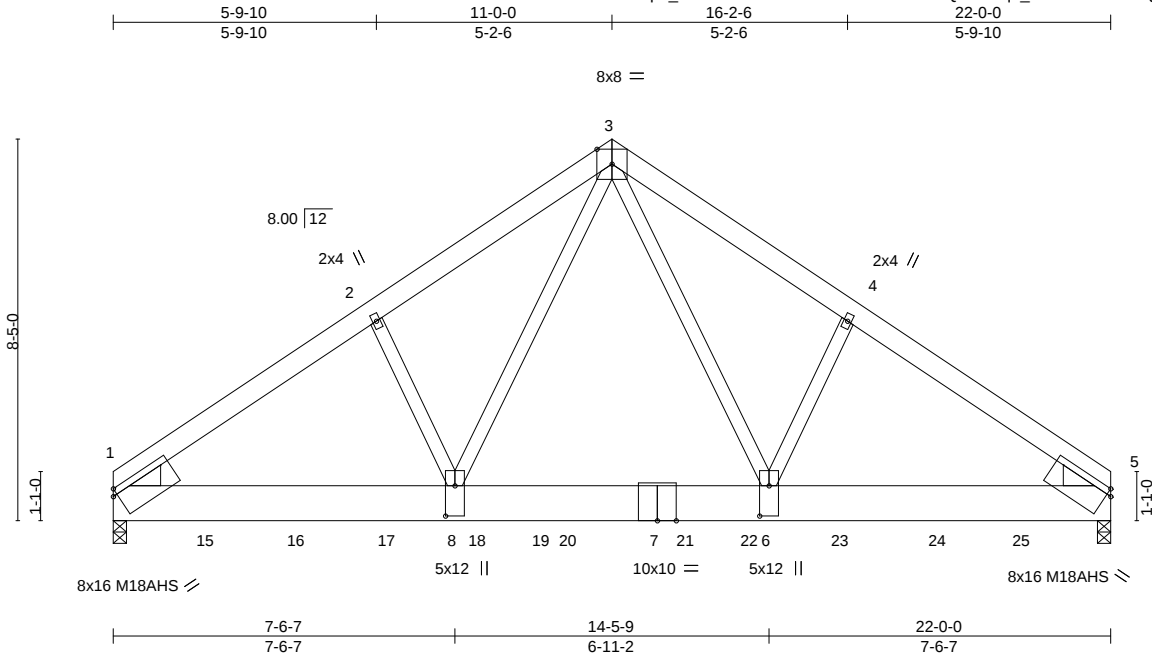


Plate Offsets (X,Y)-- [1:Edge,0-1-12], [5:Edge,0-1-12], [6:0-8-0,0-2-8], [8:0-8-0,0-2-8]											
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d			PLATES GRIP		
TCLL	20.0	Plate Grip DOL	1.15	TC	0.36	Vert(LL)	-0.10	6-8	>999	360	MT20 244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	-0.21	6-8	>999	240	M18AHS 186/179
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.74	Horz(CT)	0.04	5	n/a	n/a	
BCDL	10.0	Code IRC2021/TPI2014		Matrix-MS		Wind(LL)	0.02	6-8	>999	240	Weight: 565 lb FT = 25%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x10 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	
WEDGE	
Left: 2x6 SP No.1 , Right: 2x6 SP No.1	

REACTIONS.	(size) 1=0-3-8 (req. 0-3-10), 5=0-3-8 (req. 0-3-11)
	Max Horz 1=176(LC 5)
	Max Uplift 1=-119(LC 8), 5=-107(LC 9)
	Max Grav 1=13125(LC 14), 5=13351(LC 14)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-2=-15924/218, 2-3=-15823/284, 3-4=-16124/263, 4-5=-16228/197
BOT CHORD	1-15=-191/13126, 15-16=-191/13126, 16-17=-191/13126, 8-17=-191/13126, 8-17=-191/13126, 8-18=-50/9474, 18-19=-50/9474, 19-20=-50/9474, 7-20=-50/9474, 7-21=-50/9474, 21-22=-50/9474, 6-22=-50/9474, 6-23=-97/13373, 23-24=-97/13373, 24-25=-97/13373, 5-25=-97/13373
WEBS	3-6=-134/9806, 4-6=-247/250, 3-8=-178/9186

NOTES-
1) 3-ply truss to be connected together with 10d (0.131"x3") nails as follows: Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc. Bottom chords connected as follows: 2x10 - 3 rows staggered at 0-4-0 oc. Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) 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); cantilever left and right exposed ; Lumber DOL=1.60 plate grip DOL=1.60
5) All plates are MT20 plates unless otherwise indicated.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) WARNING: Required bearing size at joint(s) 1, 5 greater than input bearing size.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 119 lb uplift at joint 1 and 107 lb uplift at joint 5.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 2711 lb down at 2-0-0, 2711 lb down at 4-0-0, 2711 lb down at 6-0-0, 2711 lb down at 8-0-0, 2711 lb down at 12-0-0, 2711 lb down at 14-0-0, 2711 lb down at 16-0-0, 2711 lb down at 18-1-12, and 2711 lb down at 20-0-0, and 1275 lb down and 135 lb up at 10-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.



February 10,2025

LOAD CASE(S) Standard	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
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Job	Truss	Truss Type	Qty	Ply	89 LAKEFOREST TRAIL FLOOR & ROOF	I71269304
J0125-0519	C1GR	COMMON GIRDER	1	3	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC 28309

8.630 s Aug 30 2023 MiTek Industries, Inc. Mon Feb 10 17:25:14 2025 Page 2
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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, 3-5=-60, 9-12=-20

Concentrated Loads (lb)

Vert: 7=-1260(F) 15=-1260(F) 16=-1260(F) 17=-1260(F) 18=-1260(F) 20=-1260(F) 22=-1260(F) 23=-1260(F) 24=-1260(F) 25=-1260(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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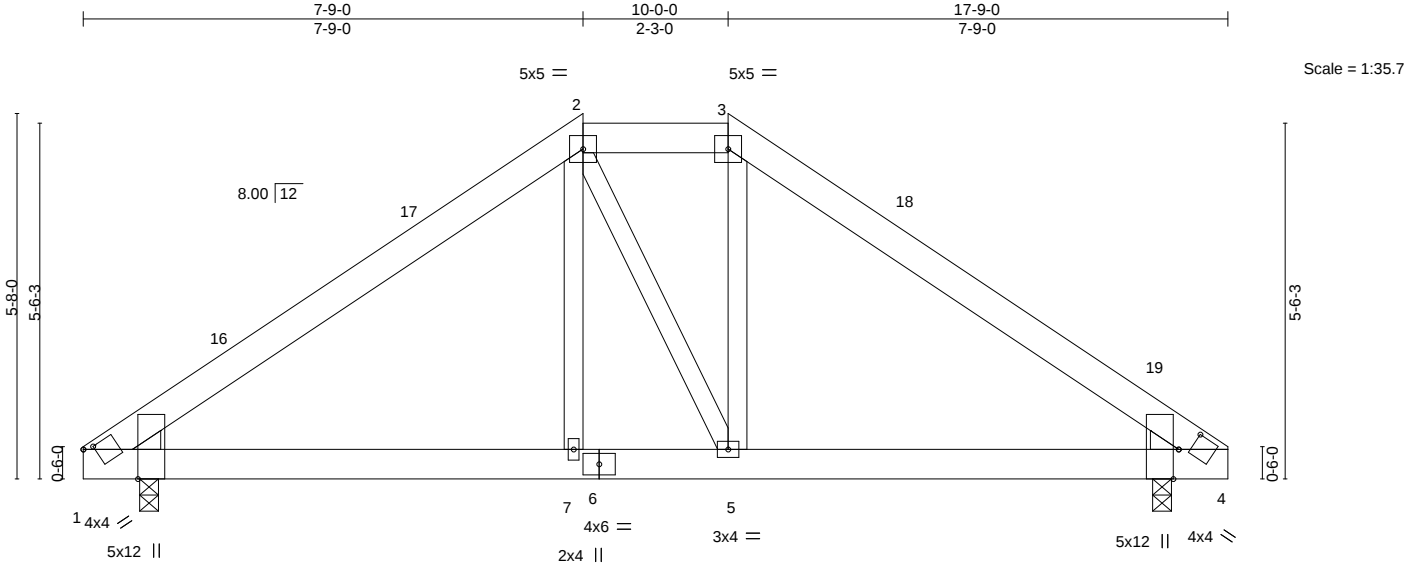


818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	89 LAKEFOREST TRAIL FLOOR & ROOF
J0125-0519	D1	Hip	1	1	171269305

Comtech, Inc., Fayetteville, NC - 28314, 8.630 s Sep 26 2024 MiTek Industries, Inc. Thu Feb 6 13:14:49 2025 Page 1

ID:ep5_EG0sxmaxN75H5YdYhJzNaDM-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



		0-10-8		7-9-0		10-0-0		16-10-8		17-9-0			
		0-10-8		6-10-8		2-3-0		6-10-8		0-10-8			
Plate Offsets (X,Y)--		[1:0-1-13,0-0-9], [1:0-5-8,Edge], [4:0-1-13,0-4-9], [4:0-5-8,Edge]											
LOADING	(psf)	SPACING-		2-0-0		CSI.		DEFL.		in (loc) I/defl L/d		PLATES	GRIP
TCLL	20.0	Plate Grip DOL		1.15		TC 0.13		Vert(LL)		-0.01 7-9 >999 360		MT20	244/190
TCDL	10.0	Lumber DOL		1.15		BC 0.13		Vert(CT)		-0.02 7-9 >999 240			
BCLL	0.0 *	Rep Stress Incr		YES		WB 0.06		Horz(CT)		0.01 4 n/a			
BCDL	10.0	Code IRC2021/TPI2014				Matrix-AS		Wind(LL)		0.01 7-9 >999 240		Weight: 113 lb	FT = 25%

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

REACTIONS. (size) 1=0-3-8, 4=0-3-8
Max Horz 1=106(LC 11)
Max Uplift 1=-15(LC 12), 4=-15(LC 13)
Max Grav 1=649(LC 1), 4=649(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-716/179, 2-3=-500/219, 3-4=-718/182
BOT CHORD 1-7=-68/501, 5-7=-69/499, 4-5=-50/502

- 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) 1-0-4 to 5-5-1, Interior(1) 5-5-1 to 7-9-0, Exterior(2E) 7-9-0 to 10-0-0, Exterior(2R) 10-0-0 to 16-2-11, Interior(1) 16-2-11 to 16-8-12 zone; cantilever left and right exposed ;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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 4.
 - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 10,2025

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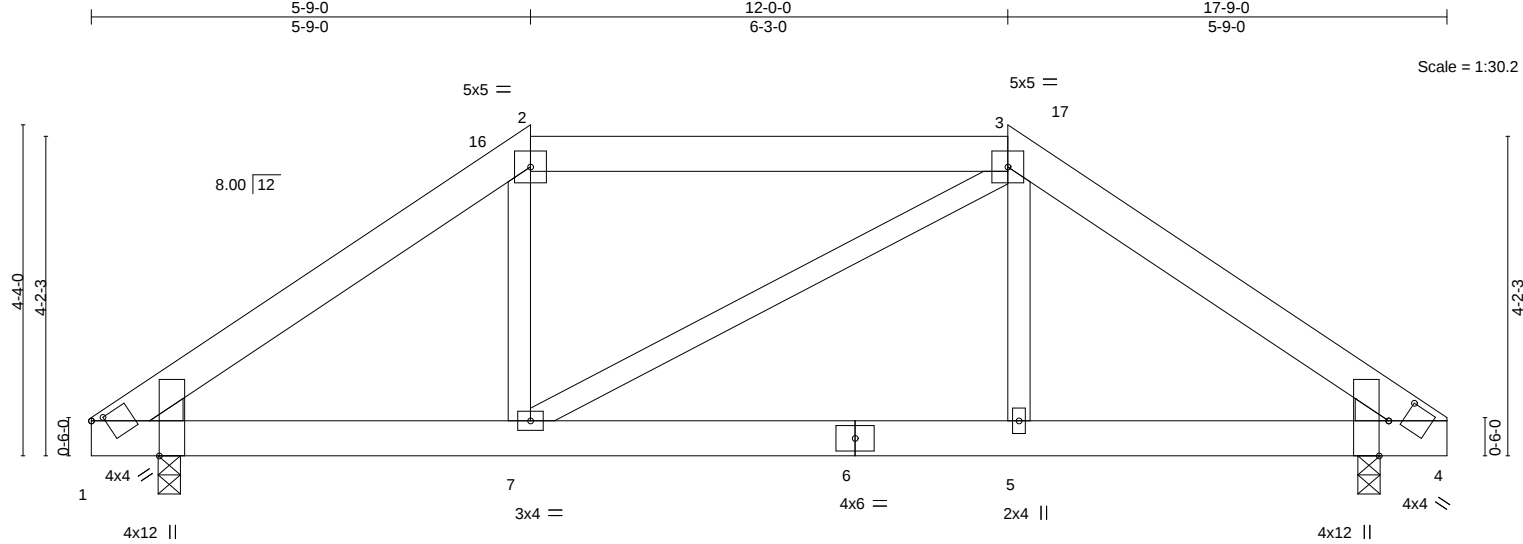
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	89 LAKEFOREST TRAIL FLOOR & ROOF
J0125-0519	D2	Hip	1	1	171269306

Comtech, Inc., Fayetteville, NC - 28314,

8.630 s Sep 26 2024 MiTek Industries, Inc. Thu Feb 6 13:14:50 2025 Page 1

ID:ep5_EG0sxmaxN75H5YdYhJzNaDM-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWCDoi7J4zJC?f



0-10-8	5-9-0	12-0-0	16-10-8	17-9-0
0-10-8	4-10-8	6-3-0	4-10-8	0-10-8
Plate Offsets (X,Y)-- [1:0-1-13,0-0-9], [1:0-5-8,Edge], [4:0-1-13,0-4-9], [4:0-5-8,Edge]				

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.18	Vert(LL)	-0.02	5-7	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.18	Vert(CT)	-0.05	5-7	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.01	4	n/a	n/a		
BCDL 10.0	Code IRC2021/TPI2014		Matrix-AS	Wind(LL)	0.01	5-7	>999	240	Weight: 110 lb	FT = 25%

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

REACTIONS. (size) 1=0-3-8, 4=0-3-8
Max Horz 1=74(LC 9)
Max Uplift 1=-4(LC 12), 4=-4(LC 13)
Max Grav 1=649(LC 1), 4=649(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-780/198, 2-3=-579/225, 3-4=-779/192
BOT CHORD 1-7=-108/582, 5-7=-94/579, 4-5=-91/582

- 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) 1-0-4 to 5-5-1, Interior(1) 5-5-1 to 5-9-0, Exterior(2E) 5-9-0 to 16-8-12 zone; cantilever left and right exposed ;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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 4.
 - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 10,2025

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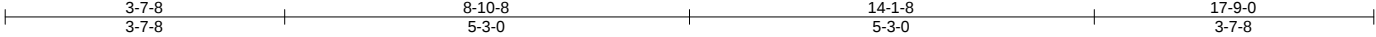
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	89 LAKEFOREST TRAIL FLOOR & ROOF
J0125-0519	D3GR	Hip Girder	1	2	171269307

Comtech, Inc., Fayetteville, NC - 28314,

8.630 s Sep 26 2024 MiTek Industries, Inc. Thu Feb 6 13:14:51 2025 Page 1

ID:ep5_EG0sxmaxN75H5YdYhJzNaDM-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWCrCDoi7J4zJC?f



Scale = 1:29.9

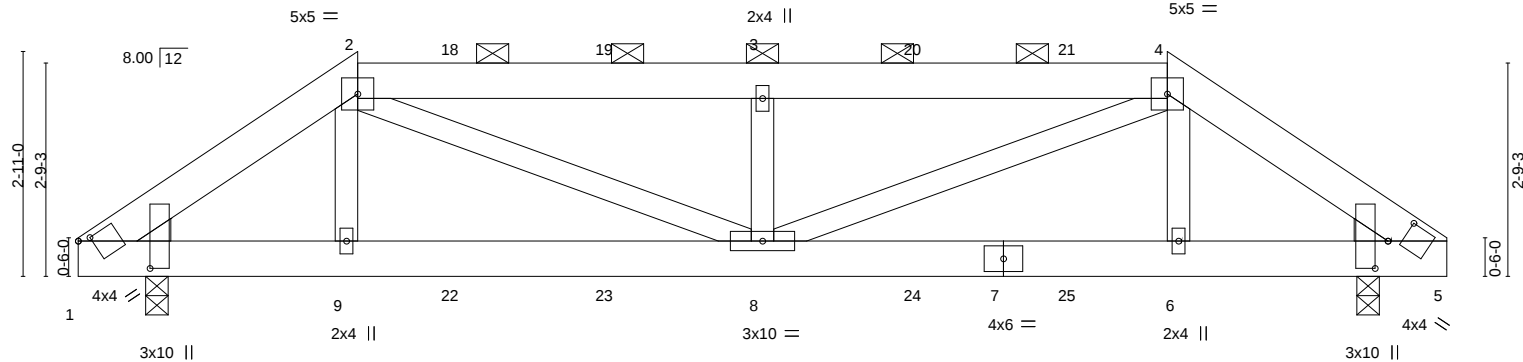


Plate Offsets (X,Y)--	[1:0-1-13,0-0-9], [1:0-4-4,0-11-3], [5:0-1-13,0-4-9], [5:0-4-4,0-2-0]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.08	Vert(LL) -0.02 8 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.14	Vert(CT) -0.03 8 >999 240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.09	Horz(CT) 0.01 5 n/a n/a		
BCDL 10.0	Code IRC2021/TP12014	Matrix-MS	Wind(LL) 0.02 8 >999 240	Weight: 225 lb	FT = 25%

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.): 2-4.
WEBS 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEDGE	
Left: 2x4 SP No.1 , Right: 2x4 SP No.1	

REACTIONS. (size) 1=0-3-8, 5=0-3-8
Max Horz 1=40(LC 28)
Max Uplift 1=-232(LC 5), 5=-232(LC 4)
Max Grav 1=787(LC 1), 5=787(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-930/336, 2-3=-1351/476, 3-4=-1351/476, 4-5=-930/337
BOT CHORD 1-9=-287/720, 8-9=-287/718, 6-8=-253/718, 5-6=-252/720
WEBS 2-8=-246/706, 3-8=-399/207, 4-8=-246/706

- 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); cantilever left and right exposed ; 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 100 lb uplift at joint(s) except (it=lb) 1=232, 5=232.
 - 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) 66 lb down and 56 lb up at 3-7-8, 71 lb down and 52 lb up at 4-10-8, 71 lb down and 52 lb up at 6-10-8, 71 lb down and 52 lb up at 8-10-8, 71 lb down and 52 lb up at 10-10-8, and 71 lb down and 52 lb up at 12-10-8, and 66 lb down and 56 lb up at 14-1-8 on top chord, and 86 lb down and 98 lb up at 3-7-8, 18 lb down and 15 lb up at 4-10-8, 18 lb down and 15 lb up at 6-10-8, 18 lb down and 15 lb up at 8-10-8, 18 lb down and 15 lb up at 10-10-8, and 18 lb down and 15 lb up at 12-10-8, and 86 lb down and 98 lb up at 14-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.



February 10,2025

LOAD CASE(S) Standard	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.sbcacomponents.com)	ENGINEERING BY TRENCO A MiTek Affiliate 818 Soundside Road Edenton, NC 27932
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Job	Truss	Truss Type	Qty	Ply	89 LAKEFOREST TRAIL FLOOR & ROOF
J0125-0519	D3GR	Hip Girder	1	2	I71269307

Comtech, Inc., Fayetteville, NC - 28314,

8.630 s Sep 26 2024 MiTek Industries, Inc. Thu Feb 6 13:14:51 2025 Page 2
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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: 2-12=-60, 2-4=-60, 4-16=-60, 1-5=-20
- Concentrated Loads (lb)
- Vert: 2=-8(B) 4=-8(B) 9=-86(B) 8=-9(B) 3=-8(B) 6=-86(B) 18=-8(B) 19=-8(B) 20=-8(B) 21=-8(B) 22=-9(B) 23=-9(B) 24=-9(B) 25=-9(B)

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	89 LAKEFOREST TRAIL FLOOR & ROOF
J0125-0519	QH1	GABLE	1	1	171269308

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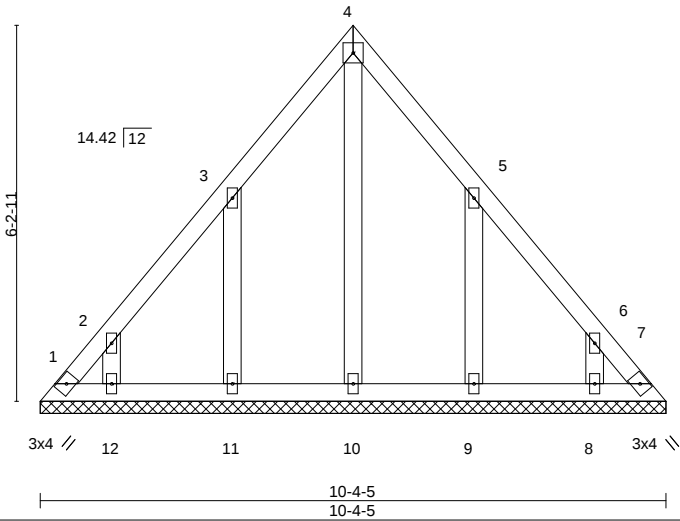
8.630 s Sep 26 2024 MiTek Industries, Inc. Thu Feb 6 13:14:51 2025 Page 1

ID:ep5_EG0sxmaxN75H5YdYhJzNaDM-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWwRCDoi7J4zJC?f



4x4 =

Scale = 1:38.2



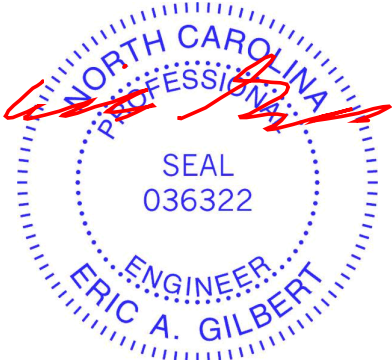
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.05	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.00	7	n/a	n/a		
BCDL 10.0	Code IRC2021/TPI2014		Matrix-S						Weight: 59 lb	FT = 25%

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

REACTIONS. All bearings 10-4-5.
(lb) - Max Horz 1=-148(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 7, 12, 8 except 11=-120(LC 12), 9=-119(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 7, 10, 11, 12, 9, 8

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-11=-252/202, 5-9=-252/202

- 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) 0-3-12 to 4-8-9, Interior(1) 4-8-9 to 5-2-3, Exterior(2R) 5-2-3 to 9-6-15, Interior(1) 9-6-15 to 10-0-10 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - 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 100 lb uplift at joint(s) 1, 7, 12, 8 except (jt=lb) 11=120, 9=119.



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

Job	Truss	Truss Type	Qty	Ply	89 LAKEFOREST TRAIL FLOOR & ROOF
J0125-0519	QH2	GABLE	2	1	171269309

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8.630 s Sep 26 2024 MiTek Industries, Inc. Thu Feb 6 13:14:52 2025 Page 1

ID:ep5_EG0sxmaxN75H5YdYhJzNaDM-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWwRCDoi7J4zJC?f



4x4 =

Scale = 1:32.5

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.07	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.02	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.04	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P						Weight: 42 lb	FT = 25%
	Code IRC2021/TPI2014								

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

REACTIONS. All bearings 8-1-5.
(lb) - Max Horz 1=114(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=131(LC 12), 6=131(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7, 8, 6

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-284/230, 4-6=-284/230

- 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) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Gable requires continuous bottom chord bearing.
 - 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 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=131, 6=131.



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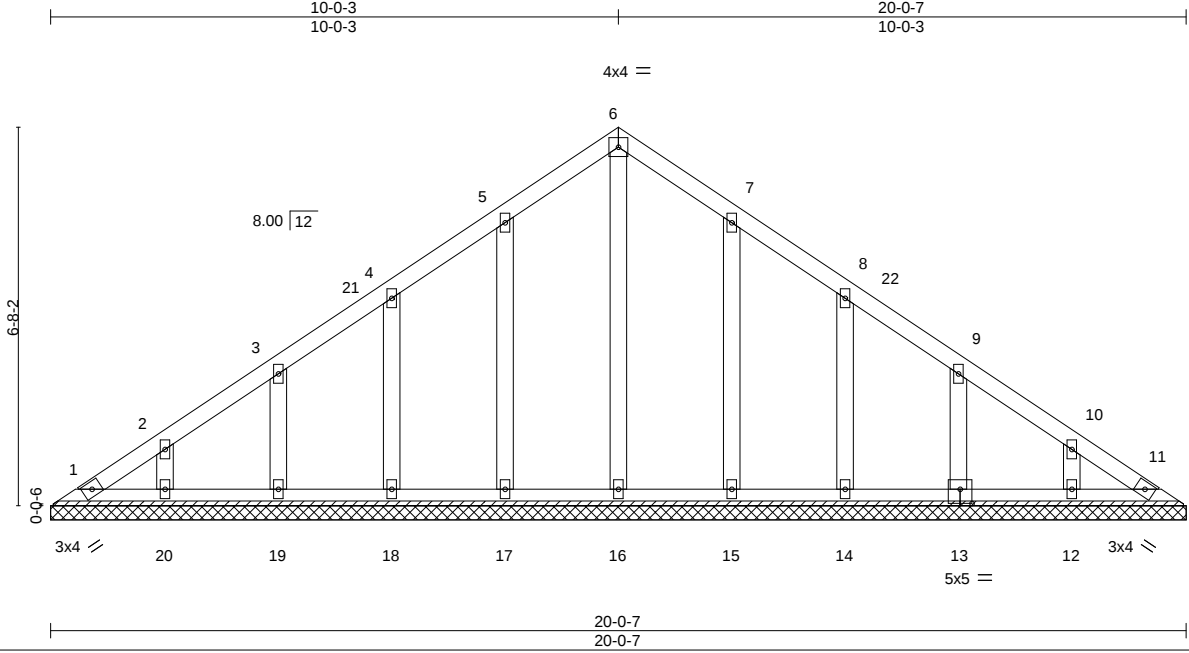
Job	Truss	Truss Type	Qty	Ply	89 LAKEFOREST TRAIL FLOOR & ROOF
J0125-0519	V1GE	GABLE	1	1	171269310

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8.630 s Sep 26 2024 MiTek Industries, Inc. Thu Feb 6 13:14:52 2025 Page 1

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Job Reference (optional)



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.15	TC	0.03	Vert(LL)	n/a	MT20		244/190	
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	n/a				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00				
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S							
								Weight: 106 lb		FT = 25%	

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.1	TOP CHORD	Structural wood sheathing directly applied or 6'-0'-0" oc purlins.
BOT CHORD	2x4 SP No.1	BOT CHORD	Rigid ceiling directly applied or 10'-0'-0" oc bracing.
OTHERS	2x4 SP No.2		

REACTIONS. All bearings 20'-0'-7".
(lb) - Max Horz 1=-152(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 11, 17, 18, 19, 20, 15, 14, 13, 12
Max Grav All reactions 250 lb or less at joint(s) 1, 11, 16, 17, 18, 19, 20, 15, 14, 13, 12

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; TCCL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-5-15 to 4-10-12, Interior(1) 4-10-12 to 10-0-3, Exterior(2R) 10-0-3 to 14-5-0, Interior(1) 14-5-0 to 19-6-8 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - 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" tall by 2'-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 100 lb uplift at joint(s) 1, 11, 17, 18, 19, 20, 15, 14, 13, 12.



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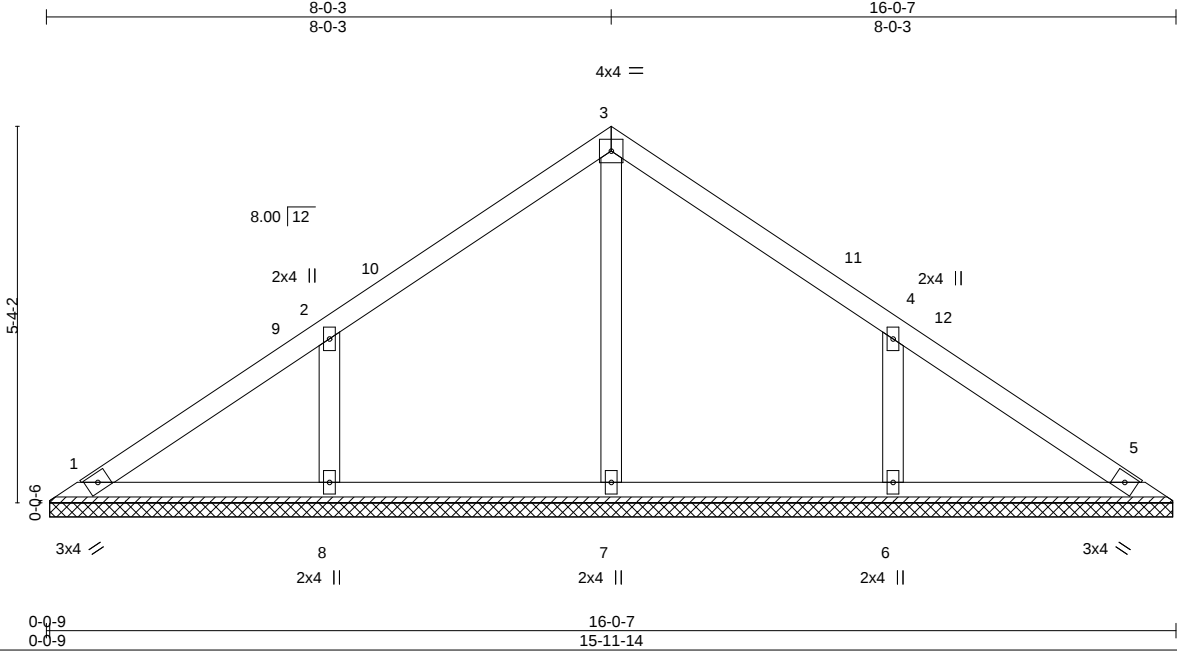
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	89 LAKEFOREST TRAIL FLOOR & ROOF
J0125-0519	V2	Valley	1	1	171269311

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8.630 s Sep 26 2024 MiTek Industries, Inc. Thu Feb 6 13:14:53 2025 Page 1

ID:ep5_EG0sxmaxN75H5YdYhJzNaDM-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.15	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.07	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2021/TPI2014		Matrix-S						Weight: 64 lb	FT = 25%

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

REACTIONS. All bearings 15-11-5.
(lb) - Max Horz 1=120(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=-108(LC 12), 6=-108(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=381(LC 19), 6=381(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-291/220, 4-6=-291/220

- 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) 0-5-15 to 4-10-12, Interior(1) 4-10-12 to 8-0-3, Exterior(2R) 8-0-3 to 12-5-0, Interior(1) 12-5-0 to 15-6-8 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Gable requires continuous bottom chord bearing.
 - 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 100 lb uplift at joint(s) 1 except (jt=lb) 8=108, 6=108.



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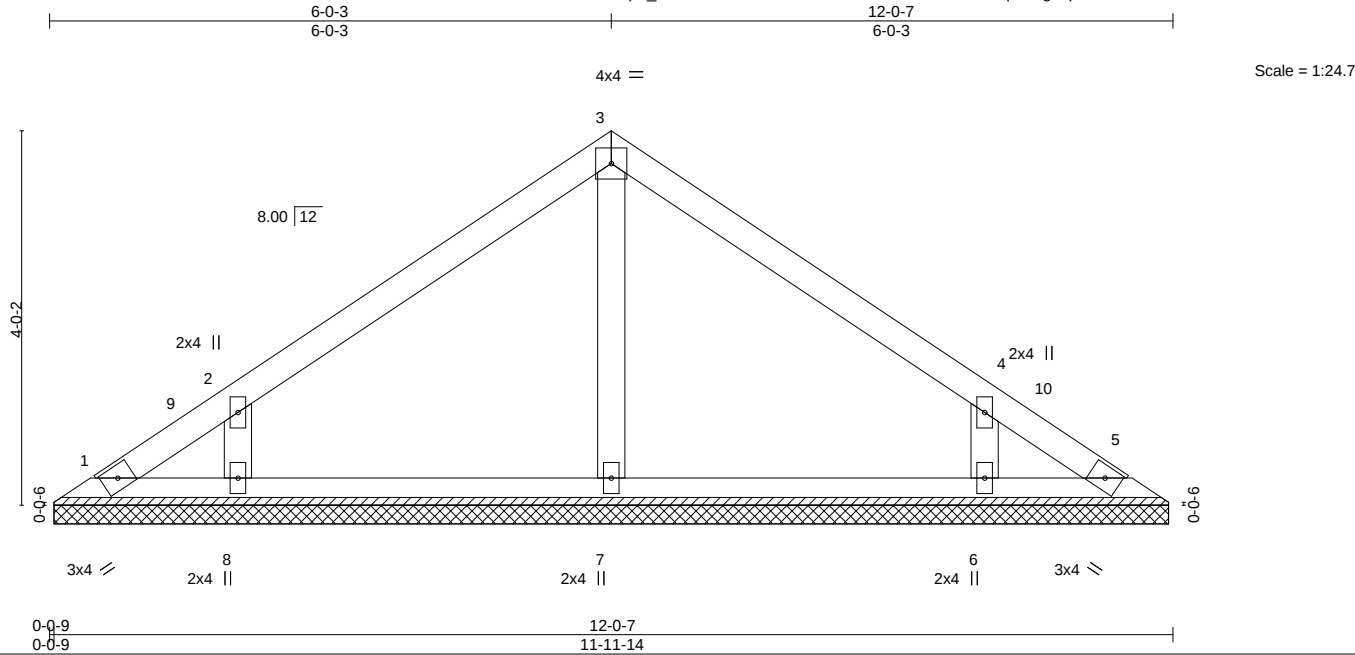
ENGINEERING BY
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A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	89 LAKEFOREST TRAIL FLOOR & ROOF	I71269312
J0125-0519	V3	Valley	1	1	Job Reference (optional)	

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8.630 s Sep 26 2024 MiTek Industries, Inc. Thu Feb 6 13:14:53 2025 Page 1
ID:ep5_EG0sxmaxN75H5YdYhJzNaDM-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWwCDoi7J4zJC?f



LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	2-0-0	TC 0.13	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2021/TPI2014		Matrix-S						Weight: 45 lb	FT = 25%

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

REACTIONS. All bearings 11-11-5.
(lb) - Max Horz 1=-88(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 8, 6
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=264(LC 1), 8=314(LC 19), 6=314(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-253/233, 4-6=-253/233

- 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) 0-5-15 to 4-10-12, Interior(1) 4-10-12 to 6-0-3, Exterior(2R) 6-0-3 to 10-5-0, Interior(1) 10-5-0 to 11-6-8 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Gable requires continuous bottom chord bearing.
 - 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 100 lb uplift at joint(s) 1, 5, 8, 6.



February 10,2025

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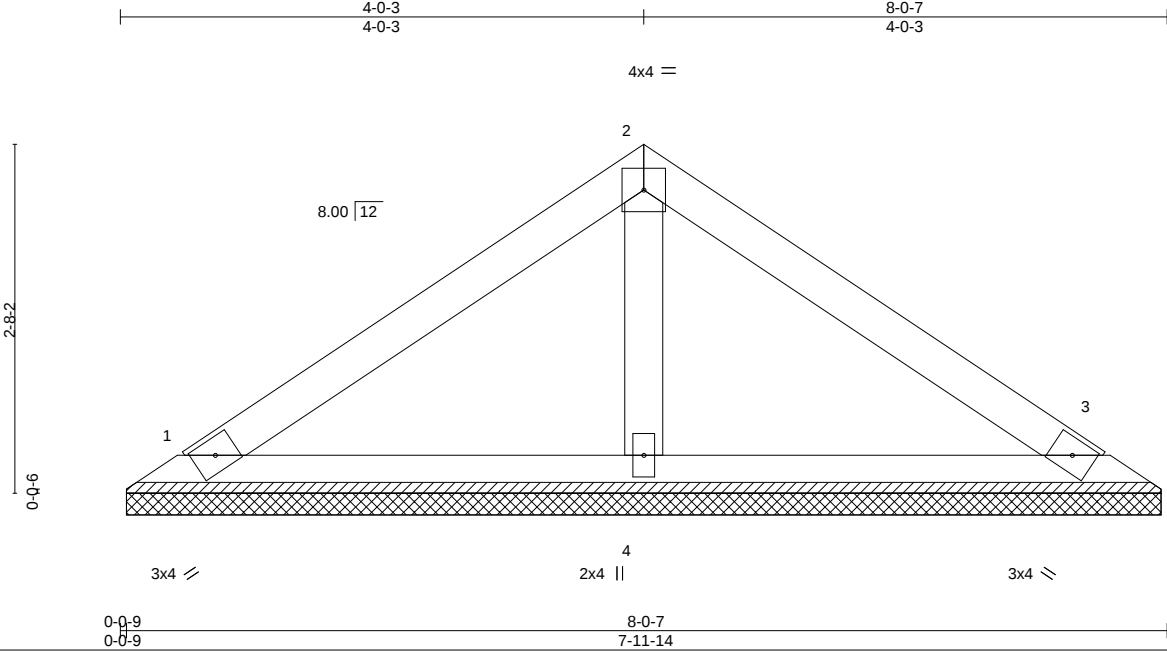
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TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	89 LAKEFOREST TRAIL FLOOR & ROOF
J0125-0519	V4	Valley	1	1	I71269313

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8.630 s Sep 26 2024 MiTek Industries, Inc. Thu Feb 6 13:14:54 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 0.17	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.02	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2021/TPI2014		Matrix-P						Weight: 27 lb	FT = 25%

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

REACTIONS. (size) 1=7-11-5, 3=7-11-5, 4=7-11-5
Max Horz 1=-57(LC 10)
Max Uplift 1=-24(LC 12), 3=-30(LC 13)
Max Grav 1=153(LC 1), 3=153(LC 1), 4=257(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) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Gable requires continuous bottom chord bearing.
 - 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 100 lb uplift at joint(s) 1, 3.



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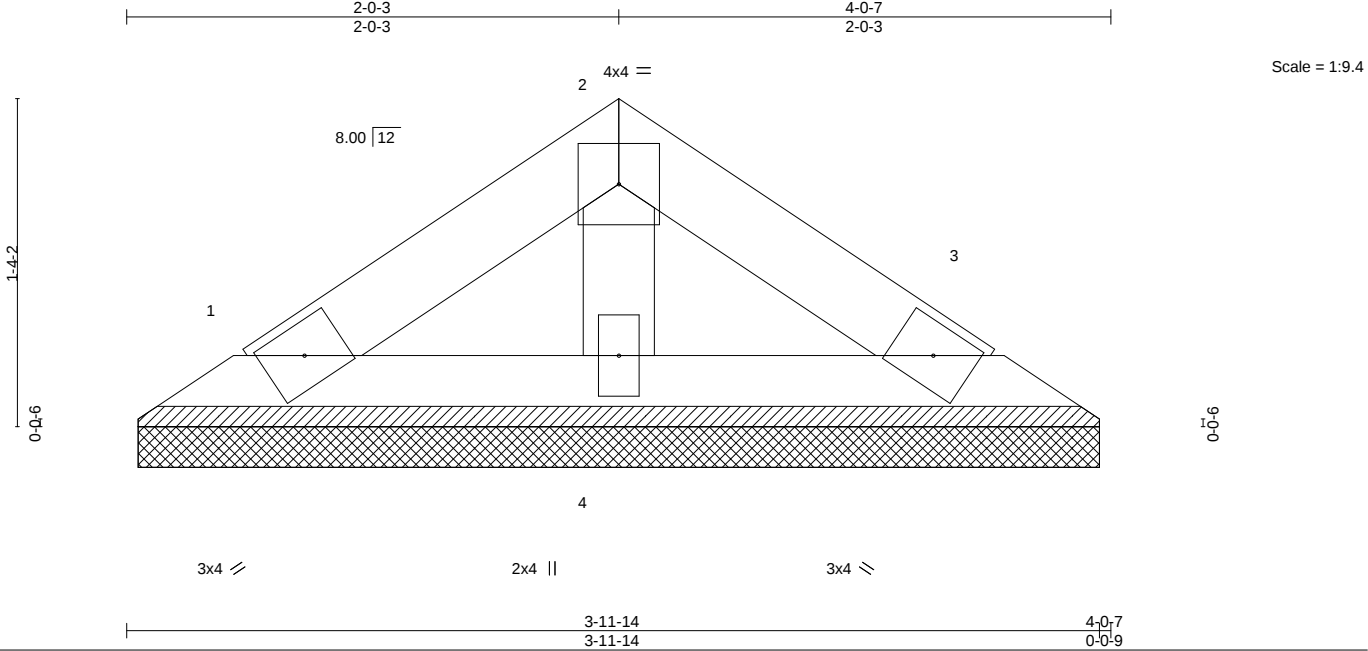
Job	Truss	Truss Type	Qty	Ply	89 LAKEFOREST TRAIL FLOOR & ROOF
J0125-0519	V6	Valley	1	1	I71269314

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8.630 s Sep 26 2024 MiTek Industries, Inc. Thu Feb 6 13:14:54 2025 Page 1

ID:ep5_EG0sxmaxN75H5YdYhJzNaDM-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

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 0.04	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.01	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2021/TPI2014		Matrix-P						Weight: 12 lb	FT = 25%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 4-0-7 oc purlins.
BOT CHORD 2x4 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.2	

REACTIONS. (size) 1=3-11-5, 3=3-11-5, 4=3-11-5
Max Horz 1=-25(LC 8)
Max Uplift 1=-10(LC 12), 3=-13(LC 13)
Max Grav 1=66(LC 1), 3=66(LC 1), 4=111(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) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Gable requires continuous bottom chord bearing.
 - 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 100 lb uplift at joint(s) 1, 3.



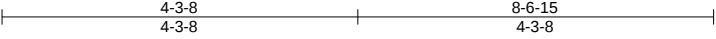
February 10,2025

Job	Truss	Truss Type	Qty	Ply	89 LAKEFOREST TRAIL FLOOR & ROOF
J0125-0519	VA1	Valley	1	1	171269315

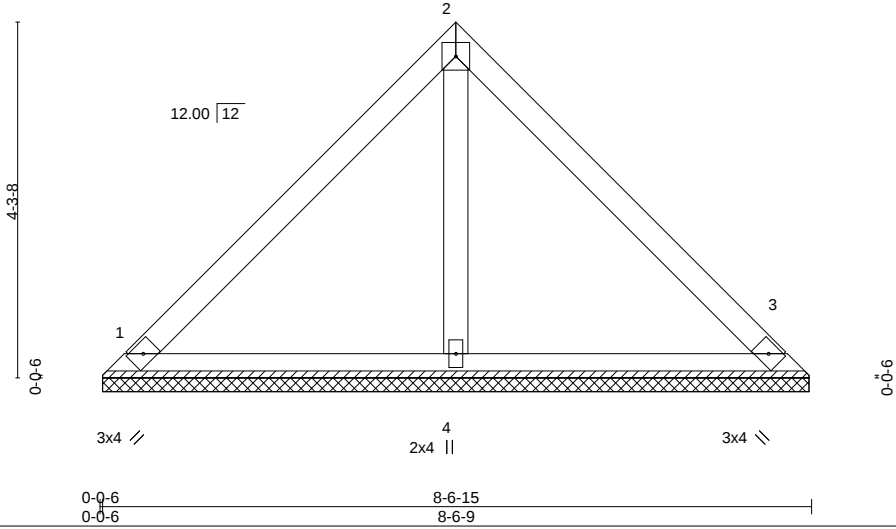
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8.630 s Sep 26 2024 MiTek Industries, Inc. Thu Feb 6 13:14:54 2025 Page 1

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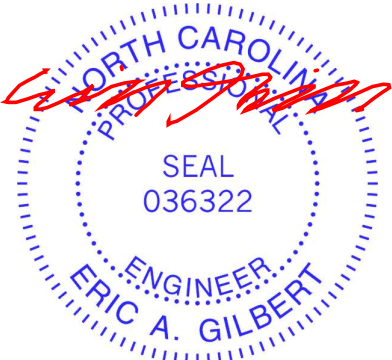
LOADING (psf)	SPACING-		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	2-0-0	TC 0.37		Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.12		Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04		Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2021/TPI2014		Matrix-P							Weight: 35 lb	FT = 25%

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

REACTIONS. (size) 1=8-6-3, 3=8-6-3, 4=8-6-3
Max Horz 1=-94(LC 8)
Max Uplift 1=-34(LC 13), 3=-34(LC 13)
Max Grav 1=192(LC 1), 3=192(LC 1), 4=246(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) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Gable requires continuous bottom chord bearing.
 - 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 100 lb uplift at joint(s) 1, 3.



February 10,2025

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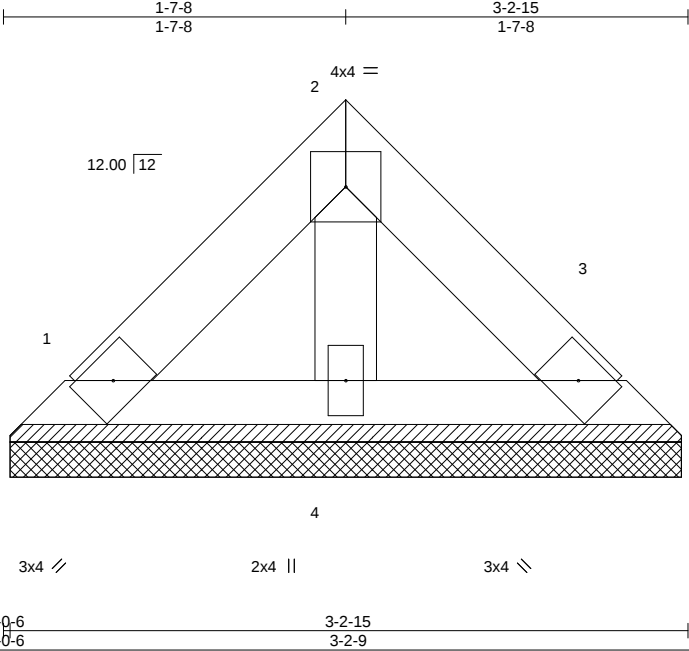
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Job	Truss	Truss Type	Qty	Ply	89 LAKEFOREST TRAIL FLOOR & ROOF
J0125-0519	VA3	Valley	1	1	Job Reference (optional)

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ID:ep5_EG0sxmaxN75H5YdYhJzNaDM-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWwCDoi7J4zJC?f



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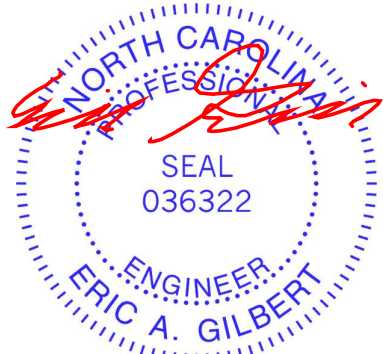
LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.03	Vert(LL) n/a	-	n/a	999		MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.01	Vert(CT) n/a	-	n/a	999			
BCLL 0.0 *	Rep Stress Incr YES	WB 0.01	Horz(CT) 0.00	3	n/a	n/a			
BCDL 10.0	Code IRC2021/TPI2014	Matrix-P						Weight: 12 lb	FT = 25%

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

REACTIONS. (size) 1=3-2-3, 3=3-2-3, 4=3-2-3
Max Horz 1=-30(LC 8)
Max Uplift 1=-11(LC 13), 3=-11(LC 13)
Max Grav 1=62(LC 1), 3=62(LC 1), 4=80(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) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Gable requires continuous bottom chord bearing.
 - 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 100 lb uplift at joint(s) 1, 3.



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Job	Truss	Truss Type	Qty	Ply	89 LAKEFOREST TRAIL FLOOR & ROOF	171269318
J0125-0519	X1	Monopitch	7	1	Job Reference (optional)	

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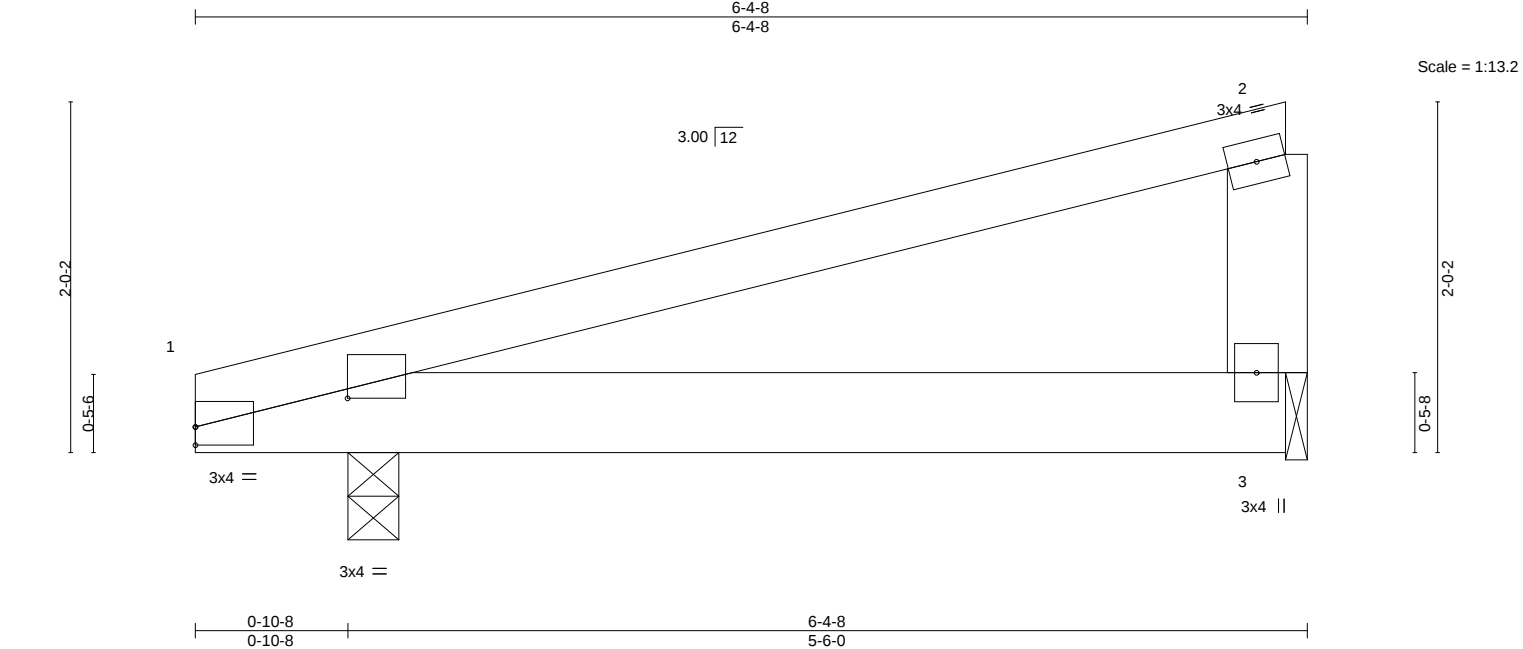


Plate Offsets (X,Y)--		[1:0-10-7,0-2-0], [1:0-0-0,0-1-4]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 20.0	Plate Grip DOL	1.15	TC 0.21
TCDL 10.0	Lumber DOL	1.15	BC 0.13
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	IRC2021/TPI2014	Matrix-AS
			DEFL. in (loc) l/defl L/d
			Vert(LL) 0.02 3-8 >999 240
			Vert(CT) -0.01 3-8 >999 240
			Horz(CT) -0.00 3 n/a n/a
			PLATES GRIP
			MT20 244/190
			Weight: 27 lb FT = 25%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied.
OTHERS 2x6 SP No.1	

REACTIONS. (size) 1=0-3-8, 3=0-1-8
Max Horz 1=50(LC 8)
Max Uplift 1=-103(LC 8), 3=-87(LC 8)
Max Grav 1=287(LC 1), 3=205(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
BOT CHORD 1-3=-281/143

- 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) 0-0-0 to 4-4-13, Interior(1) 4-4-13 to 6-1-12 zone; cantilever left exposed ; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 3) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 4) Bearing at joint(s) 3 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - 5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 3.
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3 except (jt=lb) 1=103.
 - 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



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6-4-8
6-4-8



LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.1	TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	2x6 SP No.1	BOT CHORD	Rigid ceiling directly applied.
OTHERS	2x4 SP No.2 *Except*		
	2-3: 2x6 SP No.1		

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

TOP CHORD	1-2=-180/366
BOT CHORD	1-3=-426/143

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Job	Truss	Truss Type	Qty	Ply	89 LAKEFOREST TRAIL FLOOR & ROOF
J0125-0519	X2	Monopitch	4	1	171269320

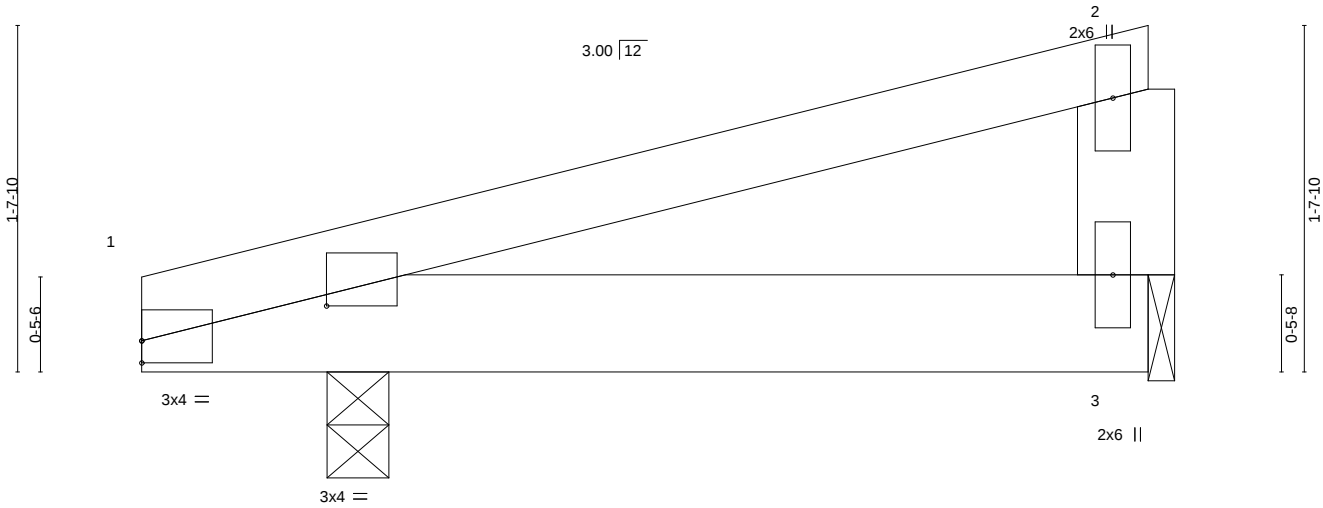
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8.630 s Sep 26 2024 MiTek Industries, Inc. Thu Feb 6 13:14:56 2025 Page 1

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4-10-8
4-10-8

Scale = 1:10.9



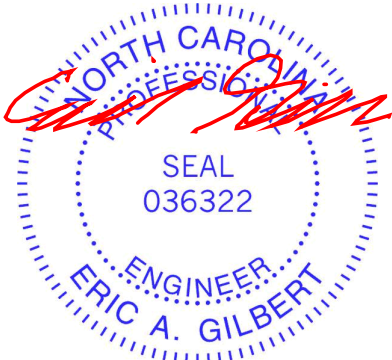
		0-10-8				4-10-8					
		0-10-8				4-0-0					
Plate Offsets (X,Y)-- [1:0-10-7,0-2-0], [1:0-0-0,0-1-4]											
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP			
TCLL	20.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	0.00 8	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	-0.00 3-8	>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-AS						Weight: 21 lb	FT = 25%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied.
OTHERS 2x6 SP No.1	

REACTIONS. (size) 1=0-3-8, 3=0-1-8
Max Horz 1=38(LC 8)
Max Uplift 1=-82(LC 8), 3=-62(LC 8)
Max Grav 1=229(LC 1), 3=143(LC 1)

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; cantilever left exposed ; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 3) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 4) Bearing at joint(s) 3 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - 5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 3.
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
 - 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



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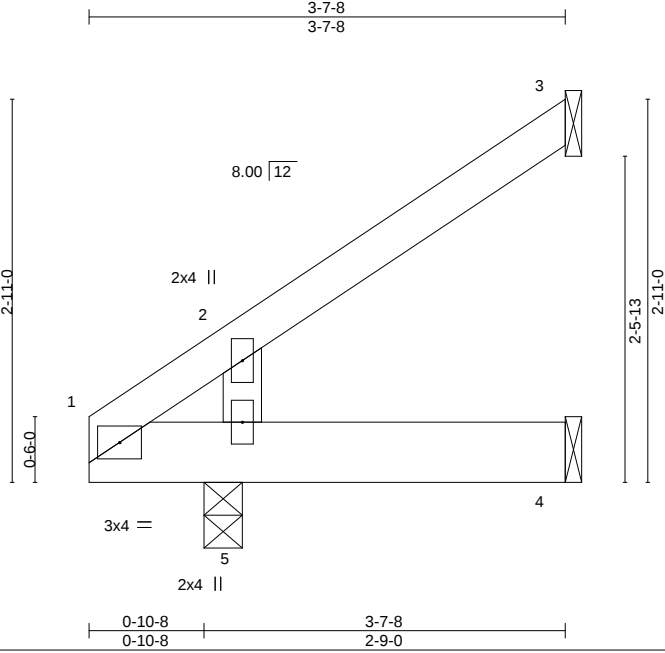
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818 Soundside Road
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Job	Truss	Truss Type	Qty	Ply	89 LAKEFOREST TRAIL FLOOR & ROOF
J0125-0519	X3	Jack-Open	7	1	I71269321

Comtech, Inc., Fayetteville, NC - 28314,

8.630 s Sep 26 2024 MiTek Industries, Inc. Thu Feb 6 13:14:57 2025 Page 1

ID:ep5_EG0sxmaxN75H5YdYhJzNaDM-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWwCDoi7J4zJC?f



Scale = 1:17.5

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.06	Vert(LL)	-0.00	5	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	-0.00	5	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2021/TPI2014		Matrix-MP						Weight: 16 lb	FT = 25%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 3-7-8 oc purlins.
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) 3=Mechanical, 4=Mechanical, 5=0-3-8
Max Horz 5=77(LC 12)
Max Uplift 3=-39(LC 12), 4=-11(LC 12)
Max Grav 3=66(LC 19), 4=36(LC 3), 5=212(LC 1)

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; cantilever 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 100 lb uplift at joint(s) 3, 4.



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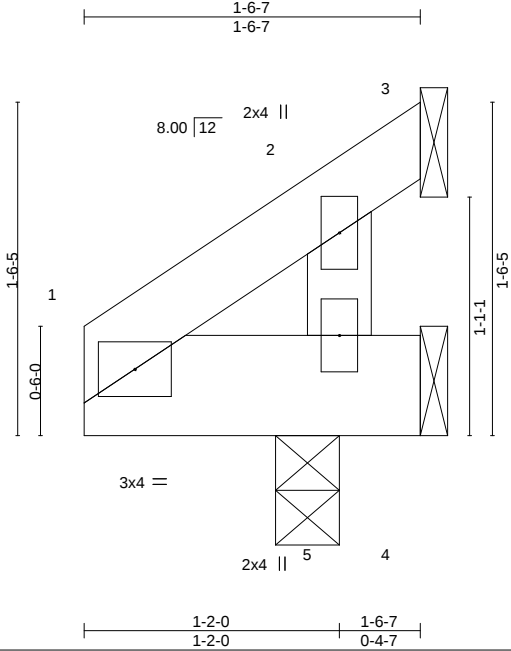
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Job	Truss	Truss Type	Qty	Ply	89 LAKEFOREST TRAIL FLOOR & ROOF
J0125-0519	Y1	Jack-Open	4	1	I71269322

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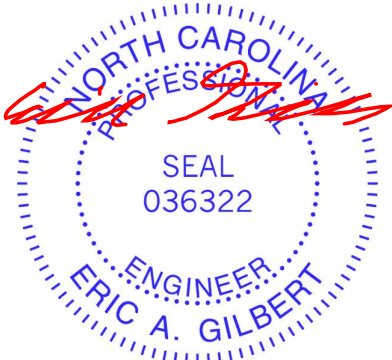
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.01	Vert(LL)	0.00	5	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	0.00	5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.01	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2021/TPI2014		Matrix-MP	Wind(LL)	-0.00	5	>999	240	Weight: 7 lb	FT = 25%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 1-6-7 oc purlins.
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) 3=Mechanical, 4=Mechanical, 5=0-3-8
Max Horz 5=33(LC 12)
Max Uplift 3=-13(LC 21), 4=-128(LC 1)
Max Grav 3=2(LC 10), 5=260(LC 1)

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; cantilever 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 100 lb uplift at joint(s) 3 except (jt=lb) 4=128.



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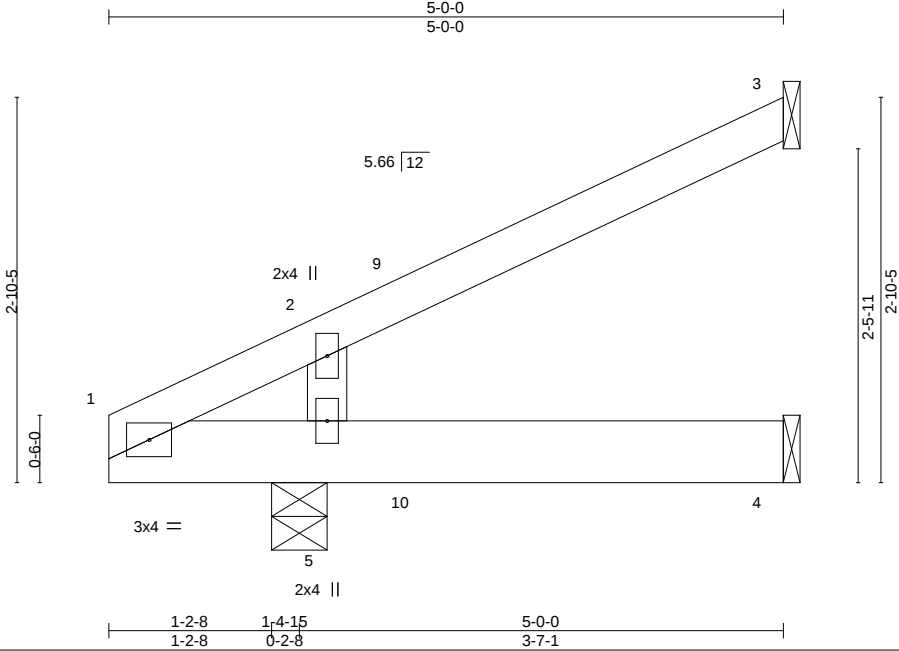
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Job	Truss	Truss Type	Qty	Ply	89 LAKEFOREST TRAIL FLOOR & ROOF
J0125-0519	Z1	Diagonal Hip Girder	2	1	171269323
Job Reference (optional)					

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Scale = 1:17.1

LOADING (psf)	SPACING-	CS.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.16	Vert(LL) 0.00	4-5	>999	360		MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.17	Vert(CT) 0.01	4-5	>999	240			
BCLL 0.0 *	Rep Stress Incr NO	WB 0.02	Horz(CT) -0.01	3	n/a	n/a			
BCDL 10.0	Code IRC2021/TPI2014	Matrix-MP	Wind(LL) 0.00	4-5	>999	240		Weight: 21 lb	FT = 25%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 5-0-0 oc purlins.
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) 3=Mechanical, 4=Mechanical, 5=0-4-15
Max Horz 5=76(LC 8)
Max Uplift 3=-49(LC 8), 4=-48(LC 21), 5=-167(LC 8)
Max Grav 3=68(LC 1), 4=13(LC 3), 5=117(LC 38)

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); cantilever left and right exposed ; 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 100 lb uplift at joint(s) 3, 4 except (jt=lb) 5=167.
 - 6) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 34 lb down and 95 lb up at 2-3-2, and 34 lb down and 95 lb up at 2-3-2 on top chord, and 156 lb up at 2-3-2, and 156 lb up at 2-3-2 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
 - 7) 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: 1-3=-60, 4-6=-20
Concentrated Loads (lb)
Vert: 9=70(F=35, B=35) 10=181(F=91, B=91)



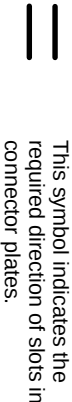
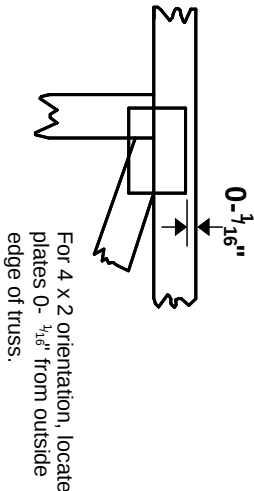
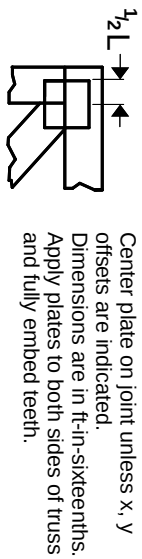
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Symbols

PLATE LOCATION AND ORIENTATION



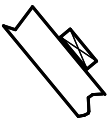
* Plate location details available in MITek software or upon request.

PLATE SIZE

4 X 4

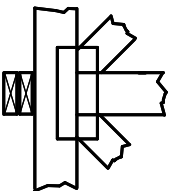
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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.

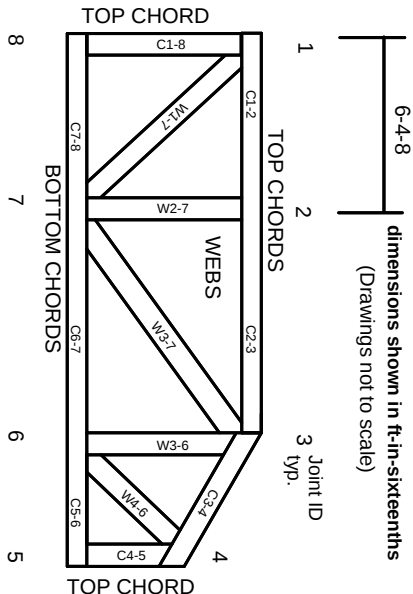
BEARING



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/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.

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